

PLANNING AND
DEVELOPMENT

The Capital North Corridor Plan: A Future of Choice

FINAL REPORT
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1 Executive Summary

About the Corridor

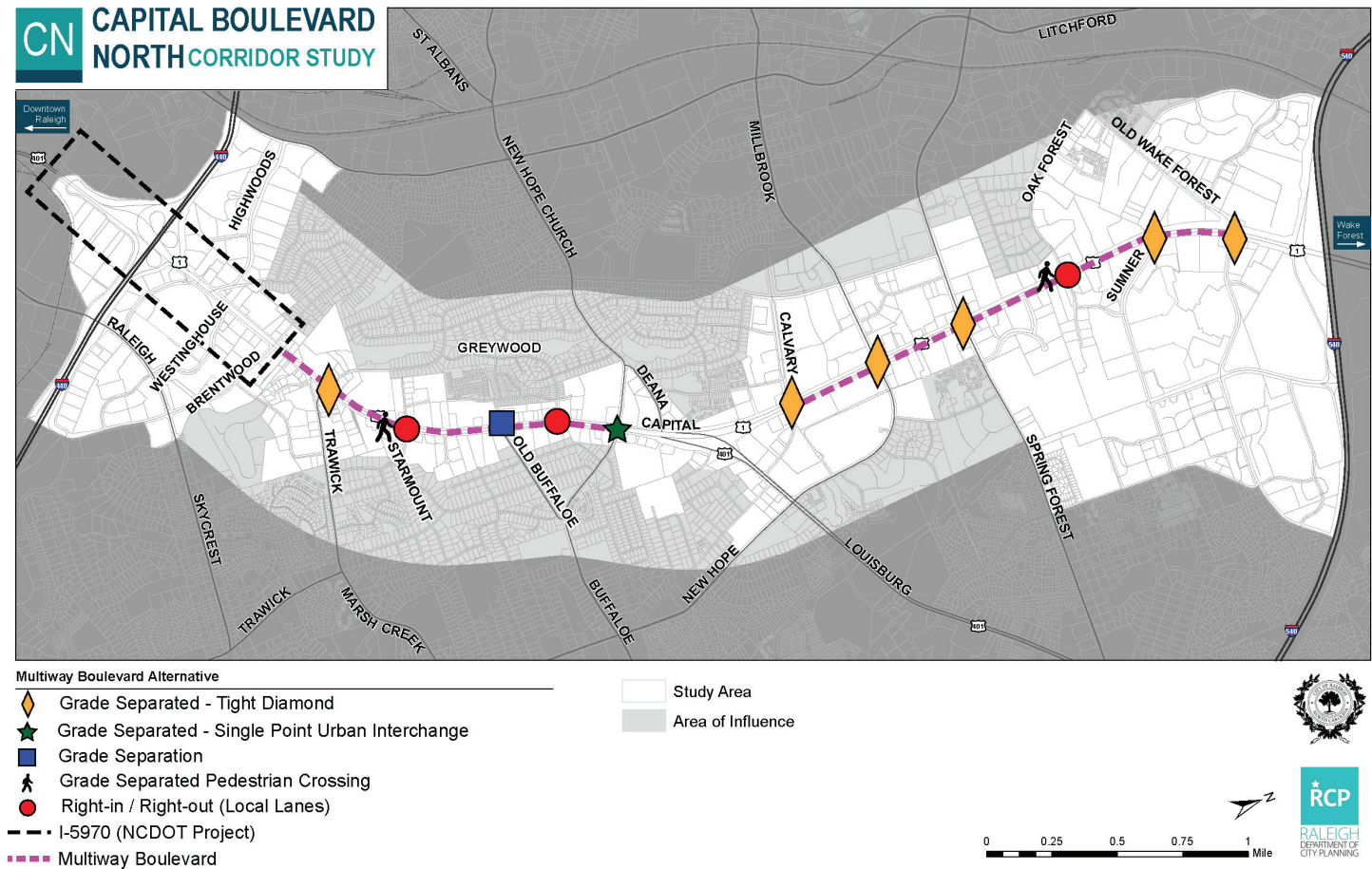
The Capital North Corridor Study began in response to the continued growth in North Raleigh and beyond. The study is focused on the segment of Capital Boulevard that goes from I-440 north to I-540. This area has seen consistent yearly increases in traffic. Capital Boulevard is also a major transit route with many pedestrians. Census data show a large percentage of residents in this area do not own a car. Like many other parts of the city, managing vehicle traffic is a major priority. This study looks to balance traffic management with the needs of pedestrians and transit riders.

The Capital North corridor has a mixture of residential, retail, and office development. Some of the most densely populated neighborhoods in Raleigh are near this corridor. Shopping centers and other employers have been added consistently since the 1960s. These factors make the corridor a major destination for the region.

Meanwhile, new neighborhoods in other areas to the north have brought more commuters to the corridor in the last several years. This study found there is a balanced mix of vehicle trips through this area and trips that start or end within the corridor. Capital North is as much a place to live, work, and shop as it is a transportation route.

Engagement and Analysis

The project team engaged with hundreds of residents over the course of two years during this project. Communities throughout the corridor support the goal of balanced local and regional traffic. Participants created a vision for a safer and more attractive Capital North. They want to see a vibrant blend of mixed-use development, high quality employers, and diverse housing options.

FIGURE 1. **MULTIWAY BOULEVARD ALTERNATIVE**

Along with public engagement, the project team analyzed traffic and safety conditions across all modes of transportation. The team assessed the local real estate market to estimate demand for different development types. Using this research and community input, the team evaluated three future scenarios for the area. These scenarios balanced the growth in traffic with possible development options. They also showed various options for separating local and regional traffic while managing access to local destinations.

This plan describes the type of transportation improvements and private development that are desired for Capital

North. It also sets goals for assisting local communities to prepare for those changes before they happen. The following pages explain the community development needs for Capital North. That will be followed by proposals for a new roadway design and guidelines for future development. It is imperative that existing residents and businesses have the greatest ability possible to benefit from growth and investment in this area.

This report explains the policy development process and recommendations to achieve these improvements over the next 25 years.

Growing Inclusive Communities

The changes to the transportation system and development patterns shown in the following sections will impact local businesses and existing residents in Capital North. This plan proposes measures to preserve and promote economic activity. It strives to keep money in our communities and embrace the culture of our city. There are also policies to keep and expand a diverse supply of housing.

Specific recommendations include proposed grants for small businesses. There is a policy that calls for adding subsidized affordable housing in large new developments. The plan

seeks to improve safety through design and installation of parklets around the corridor. Some of these ideas need further study separate from this plan.

The future of Capital North is an inclusive future where people have choices that fit their life. It will be a corridor that provides housing, transportation, and economic opportunity. Investments need to be made to strengthen the area's economic and cultural foundations before major transportation projects begin. This report explains the policy development process and recommendations to achieve these improvements over the next 25 years.

FIGURE 2. A SHOPPING CENTER AT BRENTWOOD ROAD WITH LOCAL BUSINESSES



FIGURE 3. AN EXAMPLE OF A SMALL PARK INSTALLATION DESIGNED FOR PLAY



The Multiway Boulevard

The project team presented alternatives for a new roadway design during the engagement process. The preferred alternative was a multiway boulevard. The core recommendation of this study is to convert this stretch of Capital Boulevard from a traditional thoroughfare into a multiway boulevard called the Capital Boulevard Multiway.

Applying a multiway solution will provide significant relief of traffic congestion over the next 25 years. It will improve safety and convenience for people not travelling by private vehicle. It also prepares the corridor for a high-quality transit service like Bus Rapid Transit (BRT).

A multiway design allows regional traffic to travel the entire corridor and bypass traffic signals. How does this work?

Interchanges built at major intersections allow the inner lanes of Capital Boulevard to pass over or under cross streets. Pedestrians can avoid the inner lanes by using the interchanges to cross Capital Boulevard. Drivers use the outer section of lanes to reach retail, employers, and neighborhoods. Between interchanges, special ramps let cars enter and exit the regional lanes.

The Capital Boulevard Multiway can also integrate BRT by including transit stops in the interchange design. This provides a safer path for passengers to bus stops. It also means passengers will be less likely to cross Capital Boulevard in between intersections. The BRT buses will avoid traffic by using the regional lanes to bypass stoplights. This saves time for bus riders. Drivers no longer have to worry about being behind a bus that is making stops.

FIGURE 4. **PROPOSED MULTIWAY BOULEVARD**



FIGURE 5. A CONCEPT DRAWING SHOWING HOW A BRT STOP CAN BE BUILT INTO AN INTERCHANGE



The multiway scenario will provide balance in the corridor. between regional transportation needs and the continuing vitality of neighborhoods and businesses in the corridor. The introduction of higher quality bus service can also reduce travel by private vehicles, which will reduce carbon emissions for the corridor and the region.

The Multimodal Districts

This plan identifies three nodes along the corridor as good locations for BRT stops. They have the capacity for new housing and commercial development. Policy proposals in the study describe how these areas, along with a fourth portion of the corridor, should evolve to provide housing and employment options for current and future residents.

The envisioned nodes are as follows:

- Highwoods/Westinghouse
- Buffaloe/New Hope Church
- Mini City
- Triangle Town Center

The study report uses the name "Multimodal Districts" for these four parts of Capital North. This name communicates the desired future of defined places where a range of choices exist for travelling to and within each district.

Each of these areas will become the location of new interchanges, sidewalk improvements, and potentially a BRT stop through the multiway project. New streets, better urban design, and bicycle and pedestrian connections are proposed for surrounding areas. These features will help residents and workers make full use of the multiway investments.

New development should create districts that are desirable destinations to live, work, and play. Policies in this plan encourage new public streets along the corridor. Buildings and sidewalk design should create an urban environment with buildings near the street and parking in the rear.

The study makes recommendations for public investments in the districts that go beyond the Capital Boulevard Multiway. Comfortable walking and cycling are essential to a successful transit system. They also support business activity in mixed-use neighborhoods. A network of high priority

sidewalks and bike lanes is identified in this report. They will allow people to reach commercial development, green spaces, parks, and neighborhoods without a private vehicle. The ability to travel without fossil fuels will also decrease the climate impacts of travel in Capital North.

FIGURE 6. HIGHWOODS/WESTINGHOUSE LAND USE VISION AREA



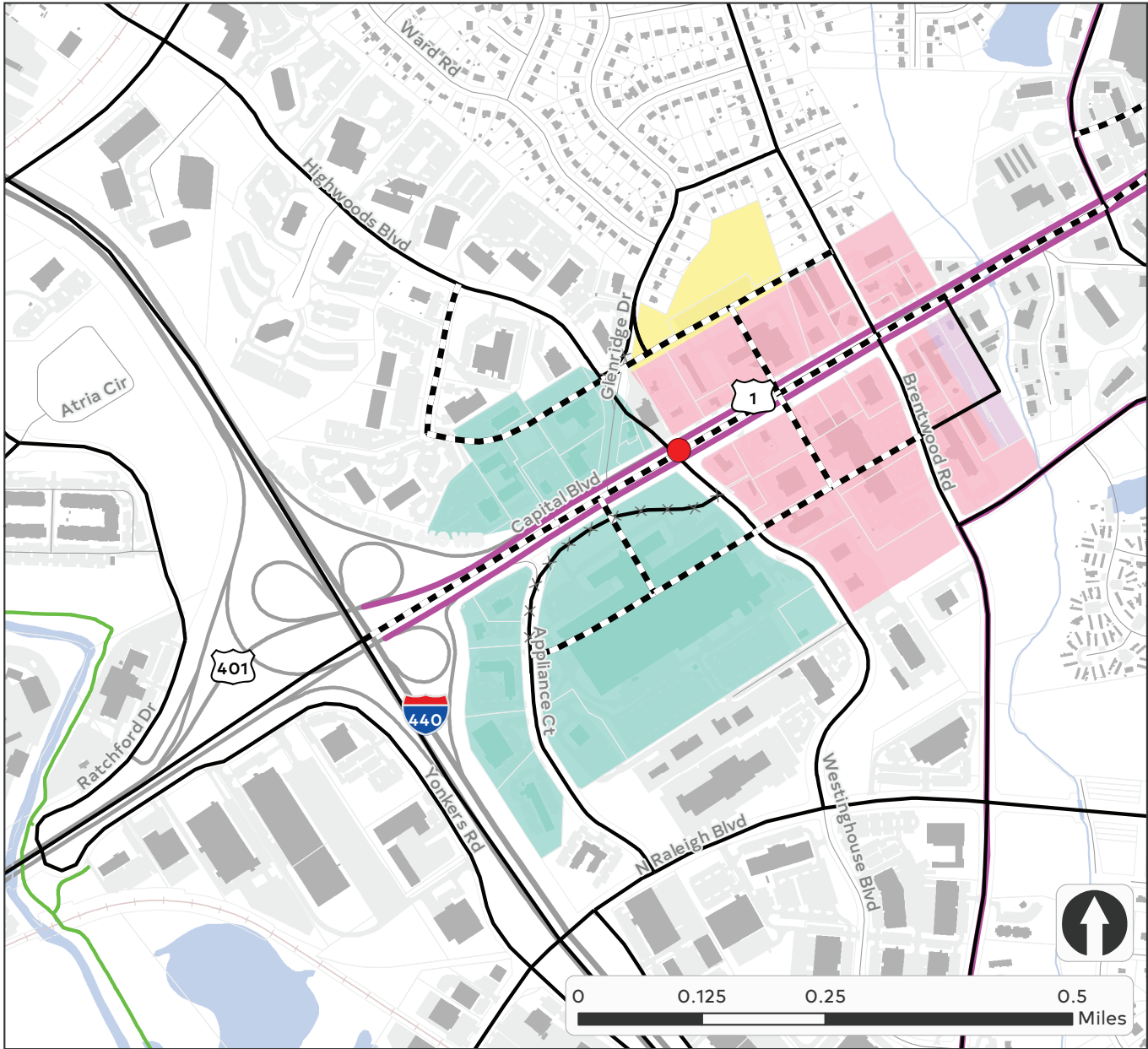
Highwoods/Westinghouse

An NCDOT project to improve the I-440/Capital Boulevard interchange has heavy influence over this area. Even so, this study envisions a walkable district with smaller blocks. High-rise offices and apartments with ground-level retail

will create an urban center. This urban center will focus around a BRT stop at the realigned Highwoods/Westinghouse intersection. New bicycle connections will improve access to the future Marsh Creek Greenway Trail, Brentwood Park, and N. Raleigh Boulevard.

FIGURE 7. A SHOPPING CENTER AT HUNTLEIGH DRIVE





- Proposed BRT Station
- Bikeway/Pedestrian Project
- Existing Greenway
- Water Feature
- Existing Street
- Parcel Boundary
- Building
- Parking

- Street Plan**
- Proposed New Street / Modification
 - × × Proposed Removal
 - Existing Street Plan

- Proposed Future Land Use**
- Business & Commercial Services
 - Community Mixed Use
 - Moderate Density Residential
 - Neighborhood Mixed Use
 - Office & Residential Mixed Use
 - Regional Mixed Use

Project Area Summary Maps
Multimodal District 1 | Map 1 of 4

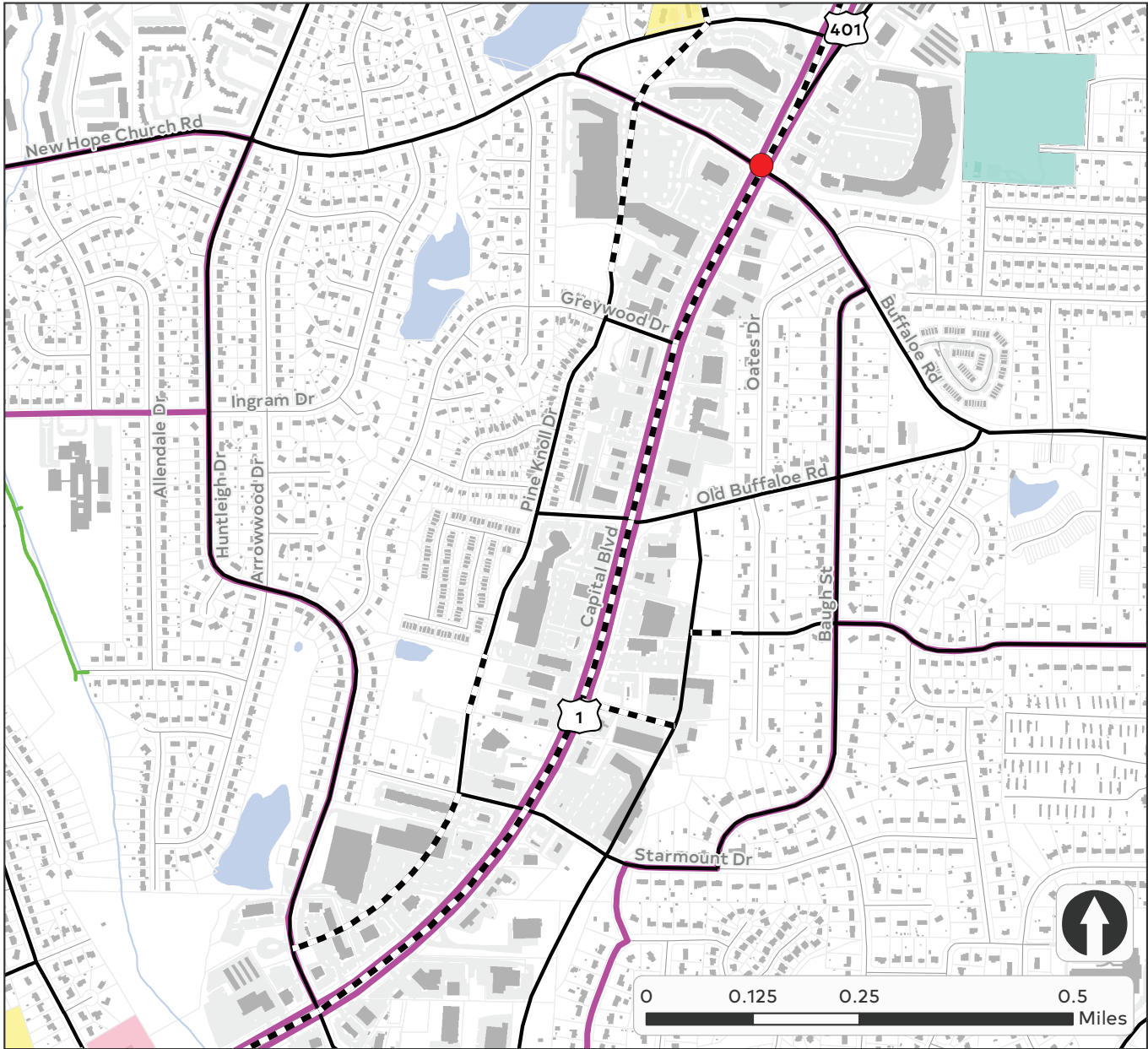
Buffaloe/New Hope Church

The Buffaloe Road and New Hope Church Road intersection is an opportunity for major improvement for cyclists. Improved bicycle connectivity could link the area to Midtown on the west and Marsh Creek Park on the east. New development should respect the scale of

existing neighborhoods. They should offer new, professional services and low rise, mixed-use shopping areas. Adding streets parallel to Capital Boulevard will ease traffic. It will also help residents walk and cycle to nearby shops and restaurants.

FIGURE 8. THE STARMOUNT NEIGHBORHOOD





- Proposed BRT Station
- Bikeway/Pedestrian Project
- Existing Greenway
- Water Feature
- Existing Street
- Parcel Boundary
- Building
- Parking

- Street Plan**
- Proposed New Street / Modification
 - × × Proposed Removal
 - Existing Street Plan

- Proposed Future Land Use**
- Business & Commercial Services
 - Community Mixed Use
 - Moderate Density Residential
 - Neighborhood Mixed Use
 - Office & Residential Mixed Use
 - Regional Mixed Use

Project Area Summary Maps
Multimodal District 2 | Map 2 of 4

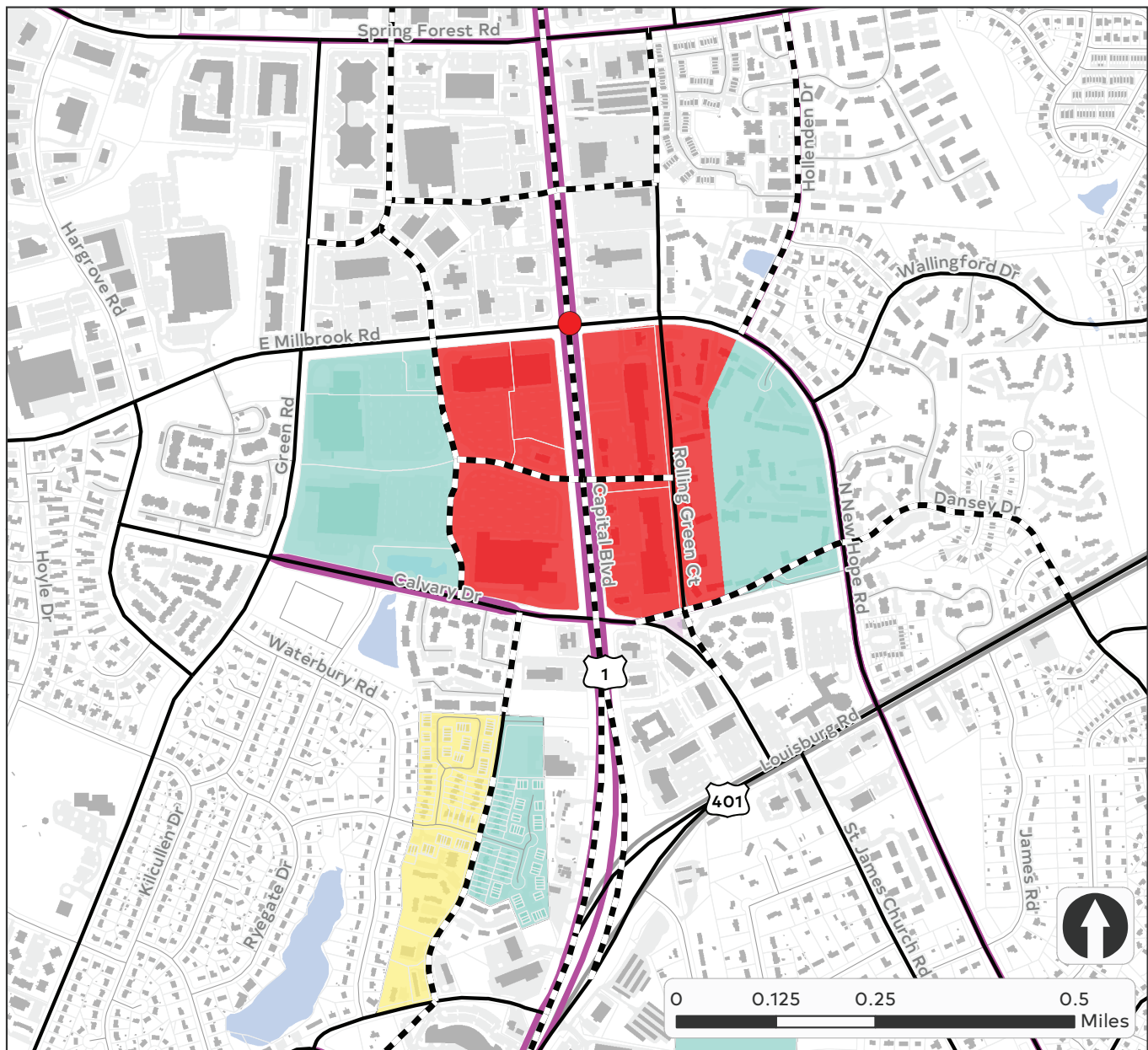
Mini City

Mini City refers to the area centered around the Mini City shopping center. Transit is essential for residents here. A BRT stop at E. Millbrook Road/N. New Hope Road will link residents to jobs in Triangle Town Center and downtown Raleigh. Future development should be mid-rise

with emphasis on high quality jobs and housing that is affordable for a range of incomes. Existing private streets should be put into public service to create smaller blocks and provide consistent sidewalks. Pedestrian and bicycle facilities will make it easier to move east and west across Capital Boulevard.

FIGURE 9. MULTI-FAMILY HOUSING NEAR GREEN ROAD





- | | |
|--|--|
| <ul style="list-style-type: none">● Proposed BRT Station— Bikeway/Pedestrian Project— Existing Greenway— Water Feature— Existing Street— Parcel Boundary— Building— Parking | Proposed Future Land Use <ul style="list-style-type: none">— Business & Commercial Services— Community Mixed Use— Moderate Density Residential— Neighborhood Mixed Use— Office & Residential Mixed Use— Regional Mixed Use |
|--|--|
- Street Plan**
- Proposed New Street / Modification
 - × × Proposed Removal
 - Existing Street Plan

Project Area Summary Maps
Multimodal District 3 | Map 3 of 4

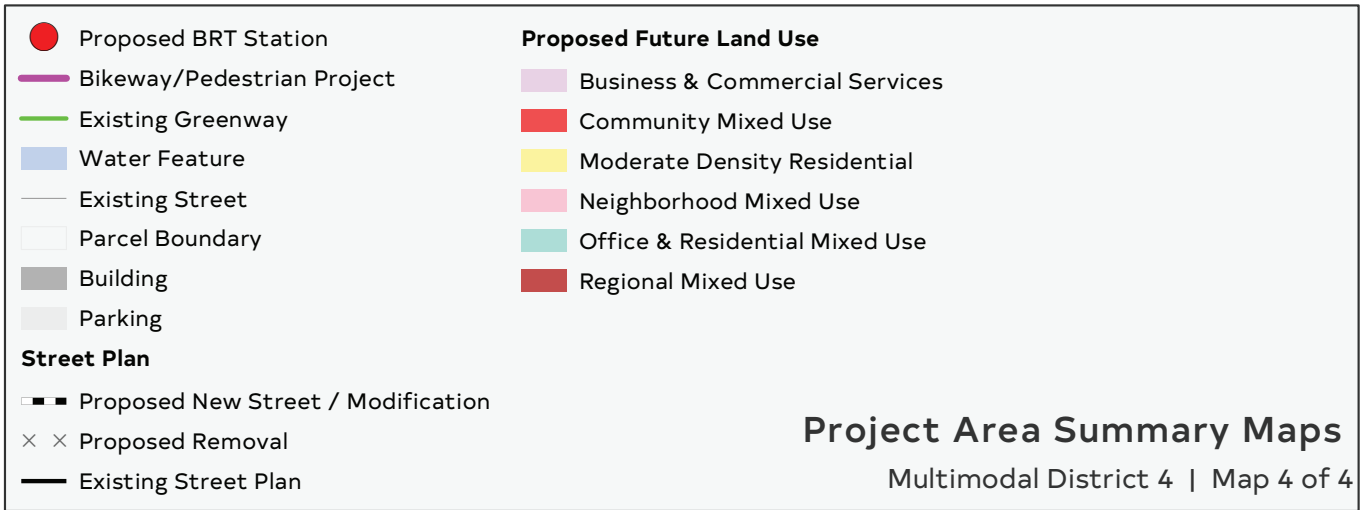
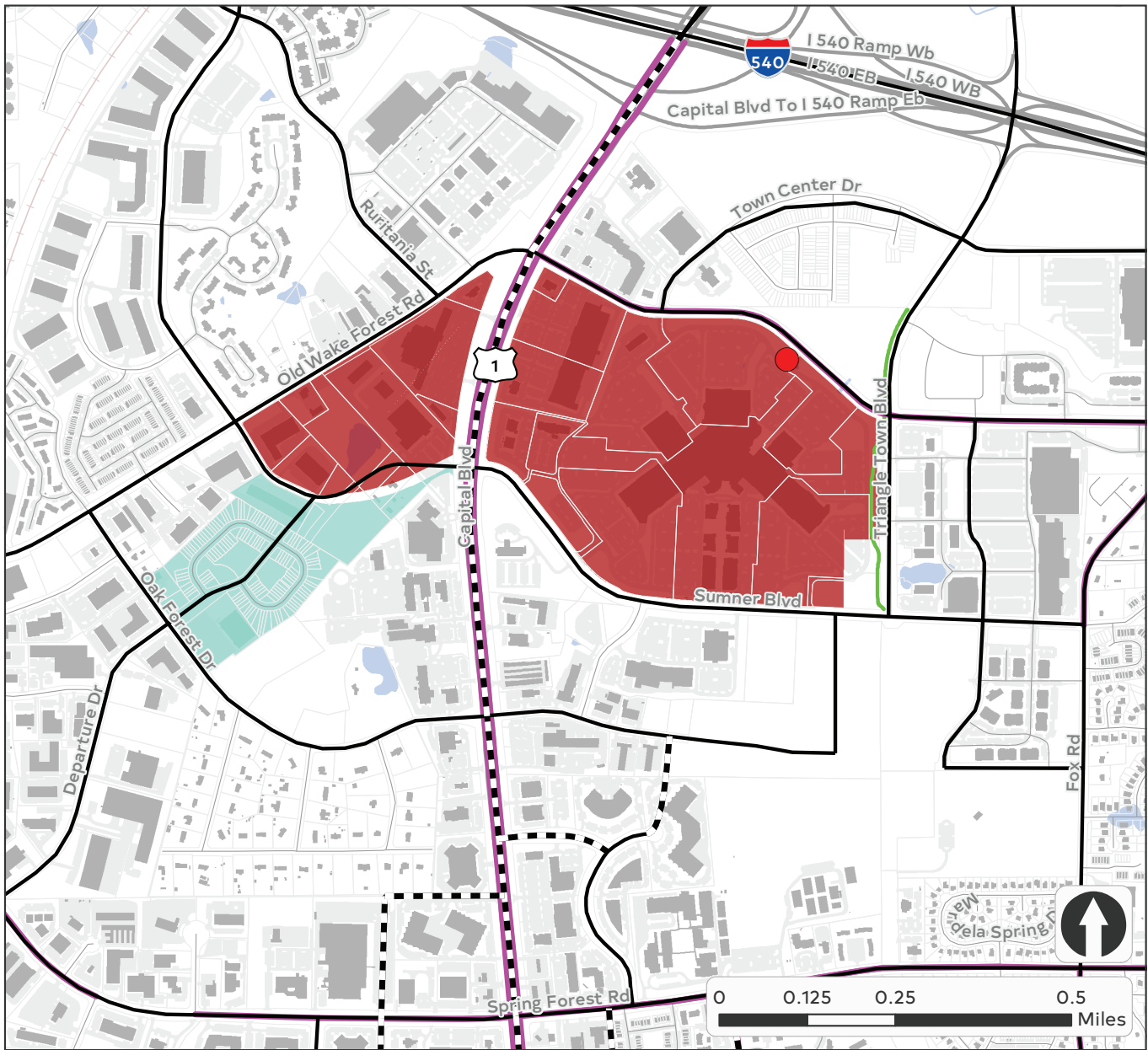
Triangle Town Center

Triangle Town Center is an excellent site for a regional transportation hub. It is a great location for commuters to transfer from private vehicles to transit. Capacity for new development is large due to the access to I-540

and large commercial properties. New streets will ensure smooth flow of traffic around the proposed interchanges. They will also create urban streetscapes for new, mixed-use development. Bicycle connections will link the larger region to this focal point of jobs and transit.

FIGURE 10. A SHOPPING CENTER AT OAK FOREST DRIVE





2 The Capital North Corridor: Where We Are Today

The Capital North study corridor covers almost five miles of the US 1/Capital Boulevard corridor, from just south of the I-440 interchange, at Crabtree Creek, to the US 1/Capital Boulevard and I-540 interchange. South of US 401/Louisburg Road, the width of the study area is typically from one property to one block deep on each side of Capital Boulevard. North of Louisburg Road, the study area is larger and encompasses Mini City, Triangle Town Center, and other commercial and multi-family developments on both sides of Capital Boulevard. The area of influence includes residential neighborhoods that are just behind the development, along Capital Boulevard. This area was defined to include neighborhoods that might not see changes to infrastructure from this project but would likely experience effects from changes along Capital Boulevard.

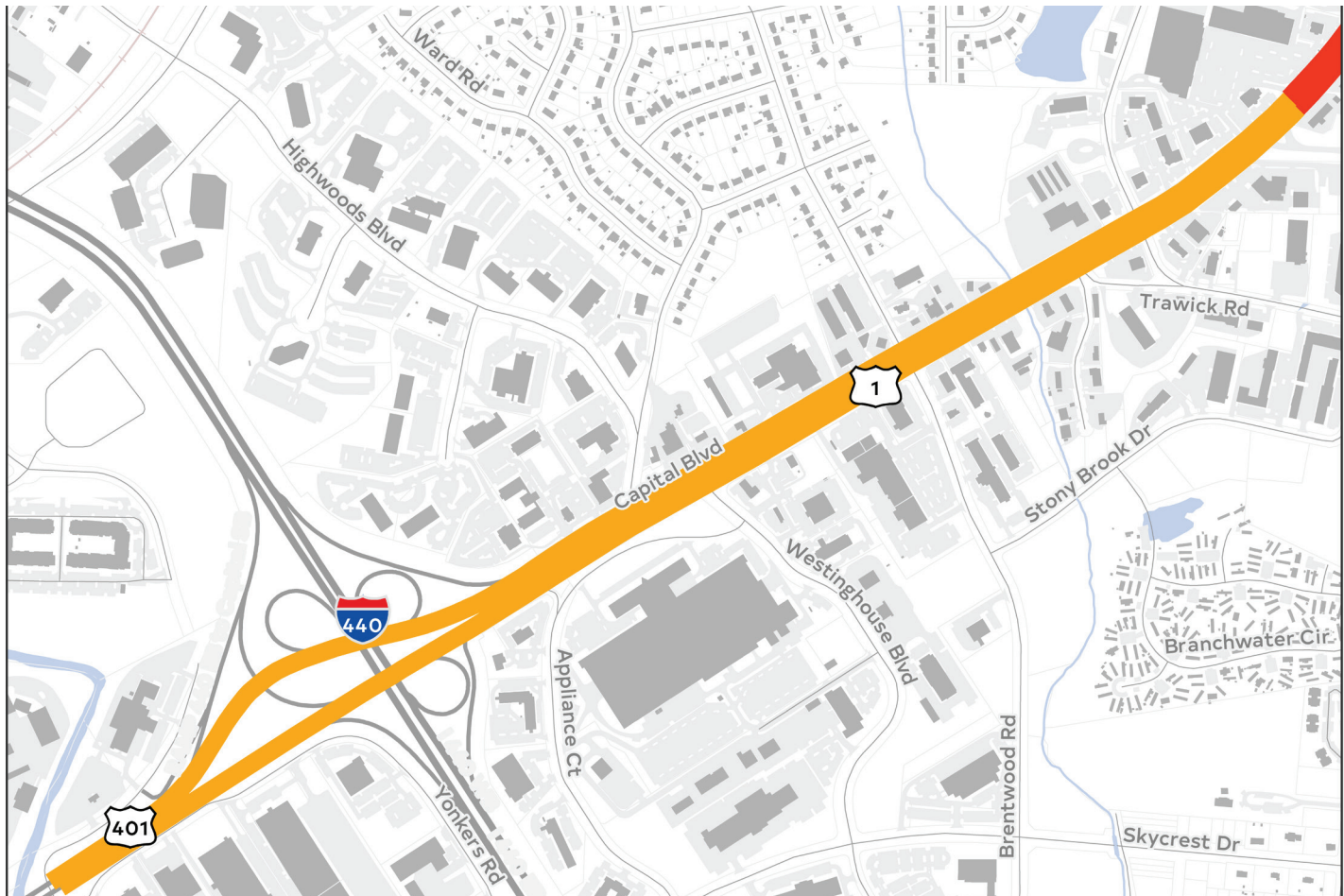
For the purposes of this study, the corridor is divided into four segments along Capital Boulevard:

1. Segment 1: Crabtree Creek to Trawick Road
2. Segment 2: Trawick Road to New Hope Church Road/Buffaloe Road
3. Segment 3: Buffaloe Road to Spring Forest Road
4. Segment 4: Spring Forest Road to I-540

These segments were used to assist with discussions about transportation improvements as the study moved forward. This report uses the four segments to organize the design concepts that are discussed in more detail in later sections. A brief description of the segments is presented below. More information can be found in the Travel Profile, located in the Appendix.

FIGURE 11. CAPITAL BOULEVARD



FIGURE 12. **SEGMENT 1 FROM CRABTREE CREEK TO TRAWICK ROAD**FIGURE 13. **EXISTING CAPITAL BOULEVARD
AT BRENTWOOD ROAD**

Segment 1: Crabtree Creek to Trawick Road

Segment 1 is the southernmost segment within the study area between Crabtree Creek, just southeast of I-440 and Trawick Road. This segment is notable for the I-440/Capital Blvd interchange. Land use is generally categorized as commercial, including a portion of the Highwoods office park. The Brentwood neighborhood forms the northwestern part of Segment 1. The only constructed greenway trail in the southern part of the corridor is a portion of the Marsh Creek Trail which crosses Brentwood Park. Marsh Creek passes under Capital Boulevard north of Brentwood Road.

FIGURE 14. SEGMENT 2 FROM TRAWICK ROAD TO NEW HOPE CHURCH ROAD/BUFFALOE ROAD



FIGURE 15. THE STARMOUNT NEIGHBORHOOD



Segment 2: Trawick Road to Bufaloe Road

Segment 2 is defined as the portion of Capital Boulevard between Trawick Road and New Hope Church Road/Bufaloe Road. This segment is characterized by shopping centers and small car dealerships that front Capital Boulevard. Shopping centers here tend to be strip malls constructed in the 1980s and 1990s. Land use is generally categorized as commercial along Capital Boulevard, with residential directly behind the commercial uses. The Starmount neighborhood is on the east side of this segment. Sidewalks are more consistent in neighborhoods on the west side than on the east. New Hope Church Road provides a connection to the Midtown Area.

FIGURE 16. SEGMENT 3 FROM NEW HOPE CHURCH ROAD/BUFFALOE ROAD TO SPRING FOREST ROAD

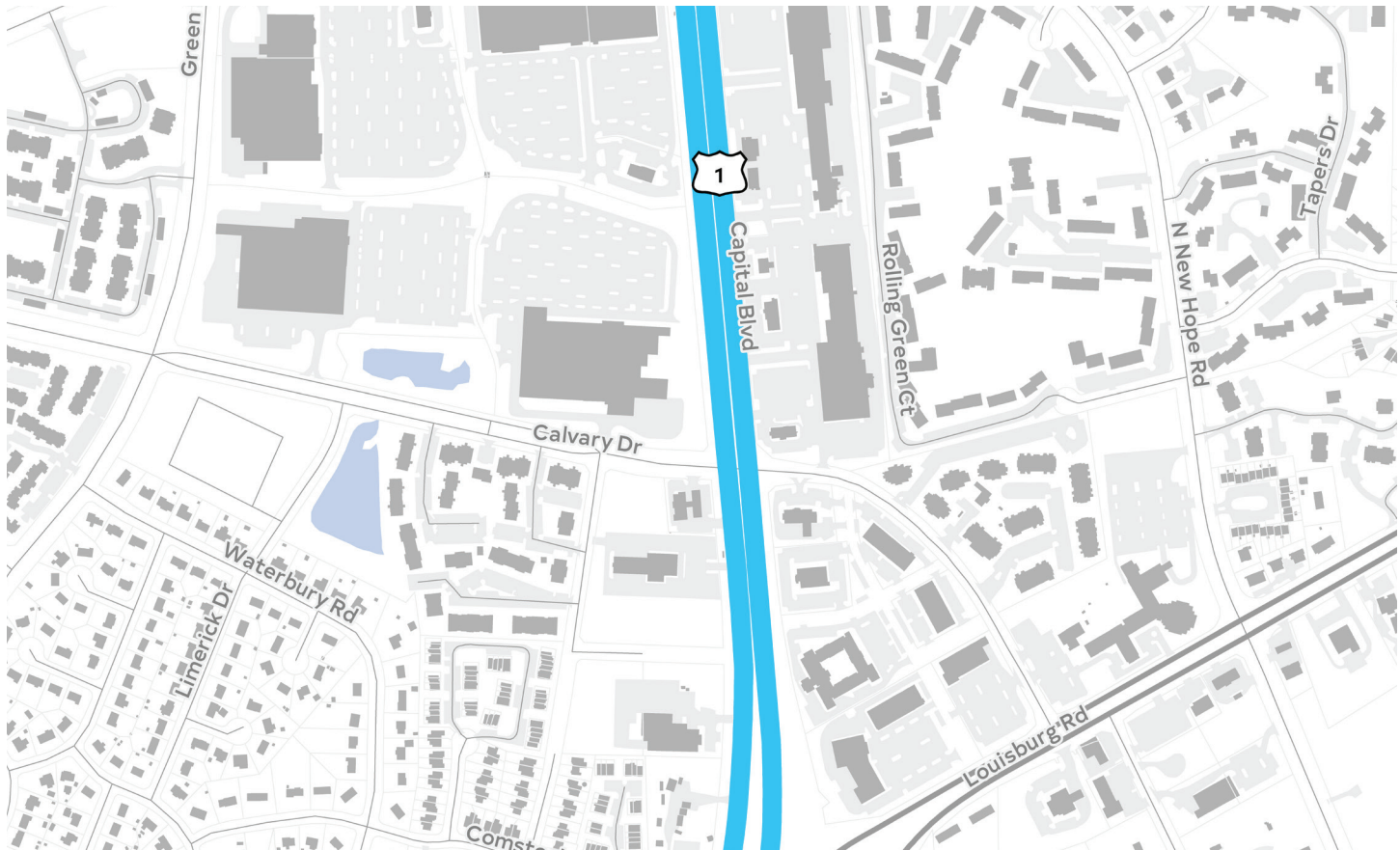


FIGURE 17. THE MINI CITY SHOPPING CENTER



Segment 3: Buffalo Road to Spring Forest Road

Segment 3 extends from New Hope Church Road/Buffaloe Road and Spring Forest Road. Shopping centers are common but tend to be larger than in Segment 2. Mini City and Capital Crossing are local and regional destinations for shopping. Warehouses, larger car dealerships, and big box stores form the commercial mix along Capital Boulevard. Residential development is prevalent in this segment and consists mostly of garden apartments and small apartments of two to four units. Residents of this area are less likely to own a car than the average Raleigh resident. Transit service is accessible with two crosstown connectors serving this area in addition to Route 1 on Capital Boulevard. Green Road Park is located on the west side.

FIGURE 18. SEGMENT 4 FROM SPRING FOREST ROAD TO I-540

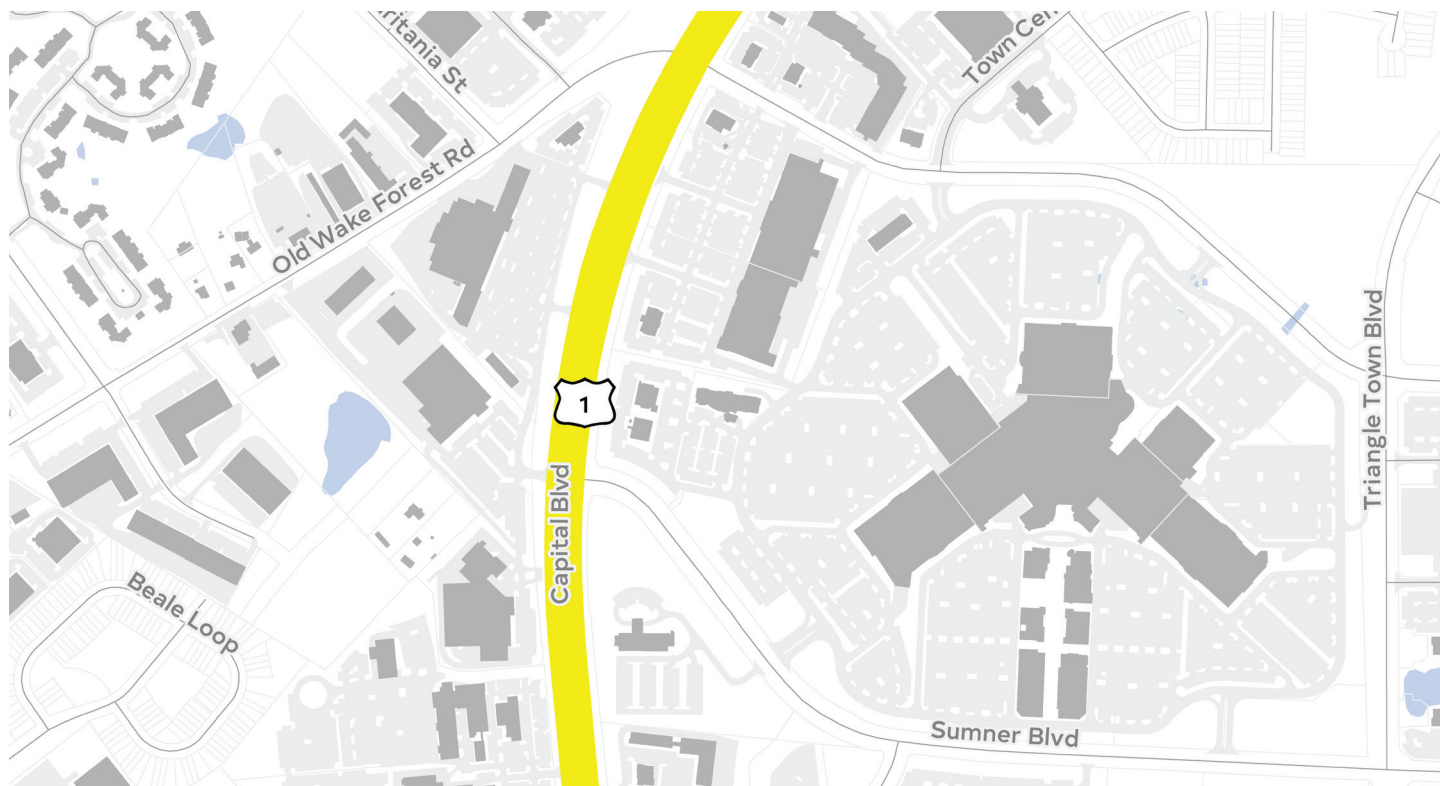


FIGURE 19. AERIAL VIEW OF TRIANGLE TOWN CENTER



Segment 4: Spring Forest Road to I-540

Segment 4 is the northernmost segment of the study area, between Spring Forest Road and I-540. This segment is notable for the commercial uses that front Capital Boulevard, including numerous car dealerships and larger retail centers like Plantation Point Shopping Center and a regional mall, Triangle Town Center. Land use is generally categorized as commercial along Capital Boulevard, with some clusters of multi-family residential further from Capital Boulevard. Spring Forest Road Park and East Millbrook Magnet Middle School are on the east side. A greenway trail is constructed along the eastern edge of Triangle Town Center. The right-of-way of Capital Boulevard becomes considerably wider near I-540. Transit service connects Triangle Town Center to the Northern Wake Campus of Wake Technical Community College as well as to Falls of Neuse Road.

Public Engagement: What We Heard from The Community

Community Meeting #1 - Visioning (Summer 2018)

In the initial phase of the Capital Boulevard North project, staff worked to identify the community's vision, goals, needs, and concerns for the area. The City conducted various outreach activities to gather community feedback and understand the overall vision of those that live, work, and travel in the study area.

The workshop included a voting exercise, an open-ended exercise, and a mapping exercise. These meetings helped staff understand community members' thoughts on issues, opportunities, and overall visions for the area.

Input received during this round of public engagement included:

- When asked what they like about the area, participants mentioned the connectivity,

availability of shopping destinations, community resources, diversity, and housing affordability in the area.

- When discussing areas that need improvements, participants largely focused on traffic, pedestrian safety, and other infrastructure concerns, such as transit and bicycle facilities. Participants discussed public transit and the need for improved transportation infrastructure in the area.
- Others mentioned the appearance of the corridor as an area for improvement, including landscape and streetscape improvements to make the area more appealing. Several participants also noted the need for more trees in the area.
- Multiple participants also noted the need for mixed-use development in the area. Others mentioned the need to support existing businesses over new development.
- In the mapping exercise, participants generally shared positive comments around shopping centers, parks, schools, and churches. They shared more negative feedback around infrastructure, private developments, or areas with higher rates of crime.

FIGURE 20. **VISIONING MEETING (SUMMER 2018)**



Community Meeting #2 - Kickoff Meeting (October 2018)

In this round of engagement, project staff shared findings from the visioning round with community members and worked with them to define goals and success measures for the project.

This meeting included a presentation of visioning results by project staff, a polling exercise, and a group question and answer session. Attendees then visited display boards that detailed the Capital Boulevard North study and information on zoning, housing, development, and other analyses of the study area.

The survey asked participants to identify success measures for each of the six topics prioritized during the visioning process: traffic, land uses, appearance, pedestrians, bicycles, and transit.

- The top two goals under traffic were increasing safety by separating cars from people and bicycles and reducing congestion by separating local and regional traffic.

- The top two goals under land use were discouraging or limiting high impact uses (like pawn shops, car dealerships, hotels, etc.) and encouraging mixed-use development.
- The top two goals under appearance were making the street more uniform and attractive and encouraging more uniform urban design.
- The top two goals for pedestrians were for making the sidewalk network more complete and making it easier to cross Capital Boulevard.
- The top two goals for bicycles were making the bicycle network more complete and improving connections between greenways and on-road bicycle facilities.
- The top two goals for transit were focusing on regional or rapid transit service and making transit stops easier to get to or better connected to destinations.

FIGURE 21. **KICKOFF MEETING (OCTOBER 2018)**



Community Meeting #3 - Big Ideas (April 2019)

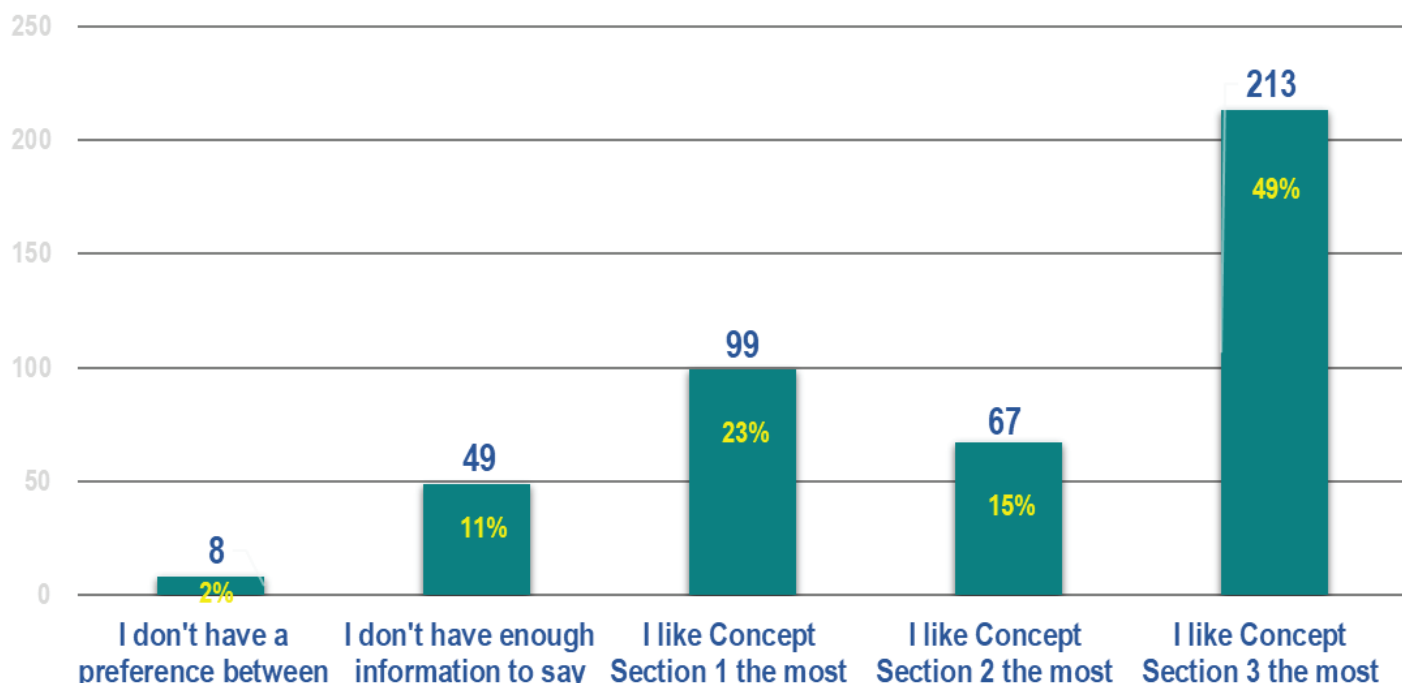
Following the visioning and kickoff rounds of engagement, the City conducted this round to share strategies to address previously identified community goals. During the Big Ideas round of engagement, the City asked for public feedback on preferences for area improvements for transportation and land use.

In these workshops, project staff worked with the public to determine options for improvements that could affect traffic, safety, transit, and access in the Capital Boulevard North corridor. In this meeting, they discussed preferences for interchanges, cross-sections, and land use in the area.

Input received during this round of public engagement included:

- When asked about preference for the three cross-section concepts, a majority of participants indicated that they liked Concept 3 the most. This concept included a dedicated bus lane, widened sidewalks, a median separating inner and outer lane of traffic, and more. This was the widest roadway design of the three concepts.
- Participants were asked if they would give up business and parking entrances in exchange for increased ease of movement through seven different intersections in the corridor. Participants chose better traffic flow over access to nearby locations for each of the seven intersections.
- Many comments on these questions brought forth concerns about pedestrian and cyclist safety and traffic. Participants called for options that would increase pedestrian and cyclist safety in these intersections, as well as improve traffic congestion and deter cars from cutting through neighborhoods.

FIGURE 22. PUBLIC FEEDBACK ON THREE PROPOSED CONCEPTS



Community Meeting #4 - Design Directions (November 2019)

Following the Big Ideas round of engagement, the project team conducted the Design Directions round to discuss proposed concept ideas for the area and to gather public feedback. Project staff wanted to ensure these concepts would work for the area and hear any lingering concerns from the community.

Both of these workshops featured a formal presentation and five stations with display boards. These boards had information on interchange types, cross-sections, land use, and multimodal transportation. These boards also showed street design concepts and transportation directions for four different areas of Capital Boulevard. Participants were given the opportunity to provide feedback on and ask questions about the concepts.

Input received during this round of public engagement included:

- When asked about 12-foot sidewalks with an area for trees to be planted, participants commented:
 - Concern that the wider sidewalks would not increase safety
 - Request for barriers between traffic and pedestrians on the sidewalks
- When asked about pedestrian islands, participants commented:
 - Concern that free flow turns would reduce the safety of pedestrian islands
 - Concern for the amount of time it would take to cross the boulevard

- When presented with the idea of a landscaped median in the corridor, participants commented:
 - Concern with maintenance of the landscaping
 - Concern for storm water management for the corridor
- When asked about changing street view and including parking behind storefronts, participants commented:
 - Concern for how this will impact existing businesses and how much it will cost
 - Concern that the two sides of the corridor will feel disconnected because of the number of lanes

FIGURE 23. PUBLIC RESPONSES TO DESIGN DIRECTIONS SURVEY



Community Meeting #5 - Bikes and Businesses (October 2020)

The final round of engagement for this study took place in the fall of 2020, after being pushed back due to the ongoing COVID-19 pandemic. Meetings during this phase were held virtually, considering public health concerns. In this round of engagement, the project team presented drafted plan recommendations to the public and asked for feedback to ensure that the recommendations met the previously defined goals and visions.

After the presentation, participants had the opportunity to ask questions about the improvements, recommendations, and the entire project. This could be done verbally or through comments in the chat box on Zoom. A survey was also available for community members to provide feedback on bike lanes, pedestrian crossings, and drafted recommendations.

Input received during this round of public engagement included:

- Participants were asked about locations for bike lanes and pedestrian crossings in the study area. Common street names mentioned for bicycle lanes were:
 - Atlantic Avenue
 - Brentwood Road
 - Highwoods Boulevard
 - Wake Forest Road
 - Durant Road
 - Brooks Avenue
 - New Bern Avenue
 - New Hope Road
 - Capital Boulevard and more.
- On the discussion of pedestrian crossing locations, several respondents mentioned the intersection of Capital Boulevard and Brentwood Road as an intersection they would like to see dedicated pedestrian crossing. Other intersections mentioned for pedestrian crossings included:
 - Capital Boulevard and Highwoods Boulevard
 - Capital Boulevard and Durant Road
 - Capital Boulevard and Trawick Road
 - Atlantic Avenue and Highwoods Boulevard, and more.
- Participants were also asked to share feedback on the drafted recommendations strategies. Largely, comments focused on the need for improved bicyclist/pedestrian facilities in the corridor and quicker policies to address traffic concerns, especially those regarding safety of those traveling in the area.

Vision and Goals The Future We Choose

The impacts of this corridor plan will affect the residents, businesses, and natural environment of Capital Boulevard for years to come. With that in mind, the proposals in this plan have been guided by rigorous examination of financial, environmental, and technical factors. These considerations can give an understanding of what is possible in the future. To choose what future is right for Capital North, the people who spend their lives in the corridor need to share their experiences and aspirations.

The Capital Boulevard North Corridor Study is intended to provide a blueprint for the future of the corridor. This blueprint expresses the values and aspirations of corridor stakeholders through its recommendations for physical change. Ideas from the public engagement process helped to make decisions about the desired use of public resources and the development of private property over the next 25 years.

The Vision and Goals statements listed below, is the set of values that were expressed by the communities of Capital North. The statements are based on a large quantity of input that was gathered from Capital North stakeholders through numerous meetings and surveys. A range of views and values were displayed in the comments and survey responses received. However, some major themes emerged that had significant support across many of the voices we heard.

The vision themes and associated goal statements provide a practical tool that was used to evaluate alternatives during the study process. Alternative scenarios for the future were compared to these goals. The proposals described later in this report were selected according to their ability to serve the stated needs of the community in a feasible and effective way.

Flow

Capital Boulevard will be a safe, direct, reliable, and high-capacity connection for travel. It will provide travel for all modes of transportation to centers of employment and economic activity in Raleigh and the surrounding region.

Goals for the Flow Vision Theme

- Recognize distinct infrastructure needs for regional and local trips.
- Coordinate vehicle lanes, signals, and intersection alignments for improved flow and safety; incorporate considerations for pedestrian travel and transit access in intersection design.
- Enable high-capacity, reliable, and high-frequency transit connections to regional activity centers; ensure safe access to transit stops that provide comfortable waiting areas.
- Improve accessibility, consistency, and connectivity of bicycle facilities; prioritize access to regional employment centers, transit stops, and parks when making improvements.

Go

Capital Boulevard will provide for safe and accessible local travel for all modes of transportation. Pedestrian and bicycle facilities will connect transit, parks, neighborhoods, shopping, and employment while reducing conflicts with vehicle traffic. Local streets should be designed with all users in mind and help to activate nearby land uses.

Goals for the Flow Vision Theme

- Encourage a complete and consistent network of sidewalks; support safety of pedestrians and bicycles crossing Capital Boulevard.
- Explore special streetscape improvements for retail areas and employment centers; encourage pedestrian oriented spaces outside of the street right-of-way.
- Improve the connectivity of the local street network; coordinate on-road bicycle facilities with greenway trails.
- Enhance safety, accessibility, and appearance of connections between neighborhoods and commercial areas while ensuring appropriate transitions in scale and land uses.

Grow

Capital Boulevard will be a mixed-use corridor that provides residential choices, economic opportunity, and a variety of goods and services for Raleigh's citizens.

Goals for the Flow Vision Theme

- Focus areas of intense land uses at defined nodes rather than in a "strip" fashion.
- Seek to maintain affordability for small and local businesses that currently operate in the corridor; investigate ways

to encourage small business creation and retention.

- Encourage new housing located in suitable areas and sufficient in quantity to keep up with projected growth rates; foster housing diversity, including housing in vertically and horizontally mixed-use neighborhoods that integrate housing with commercial uses.
- Preserve the character of existing low-density neighborhoods; consider impacts to existing market-rate affordable housing when developing policy recommendations.
- Coordinate localized stormwater and floodplain management goals with transportation investments.

Show

Capital Boulevard North will be an inviting gateway, corridor, and destination that expresses Raleigh's best qualities, as well as highlight the local character of the people and geography in the corridor.

Goals for the Flow Vision Theme

- Cultivate a high-quality and well-maintained public realm both in the right-of-way and as part of private development; increase the amount of vegetation along the corridor and consider stormwater management in streetscape design.
- Promote consistency of urban design between adjacent developments, particularly building fronts and parking areas that face the street.
- Identify opportunities for signage, entryways, and public spaces that create a sense of place and local identity; support collaboration among civic organizations, residents, and businesses to define local character.

3 Choosing Our Path: Steps in the Capital North Plan

The Capital North corridor plan proposes major changes to the transportation systems on and around Capital Boulevard. The plan also recommends changes to policies that direct growth and development. These two sets of proposals will help the vision for the future of Capital North become a reality. That vision is not limited to transportation options and land development.

Part of the vision is that the future Capital North corridor is accessible and functional for all users regardless of ability, income, or other factors. The focus on people is especially important for communities that already live, work, and shop in the corridor. In order to ensure that growth is equitable and that existing communities experience benefits of growth and public investment, this plan proposes a series of actions to preserve and enhance economic opportunity for existing residents, workers, and businesses. This section describes the order that the plan's recommendations should be enacted to support the community vision.

There are three goal areas that will be used to set the overall sequence of actions from the plan. These are:

1. Building and Growing Community Assets
2. Transportation by Choice
3. Development that Works

The plan recommendations should generally be started and/or completed in this order, though there will be overlap between them. The later sections of the report will provide more detail about some of the recommendations.

Goal 1: Building and Growing Community Assets

Multiple action steps have been identified to assist local businesses, worker, and residents remain in place and pursue economic opportunity as new transportation investments occur. Investing in the economic vitality of the community will increase access to opportunity for people most impacted by historic and current infrastructure impacts. A selection of the specific actions should be taken to support these goals as stated below. Additional actions and policies are found in Appendix A.

Provide Resources for Small Business Retention and Development

Small Business Grant Program: Develop a small business assistance program to respond to specific needs related to construction, new street configuration, and redevelopment. Consider making permanent to respond to other transportation projects. Explore various forms of assistance such as in-kind technical support and loans.

- Timing goal: Medium Term (3-5 years)
- Projected funding needs: \$200,000 per year
- Projected staffing needs: 0.5 FTE

Business Alliance Startup Support: Offer organizational support and resources with potential for additional funding based on attainment of pre-determined outcomes. Provide initial staff support for organizing and administrative tasks. Allow for funding

of two alliances as indicated by business needs and relationships.

- Timing goal: Medium Term (3-5 years)
- Projected funding needs: \$40,000 one-time grant
- Projected staffing needs: 0.25 FTE

Small Business Incubator: Seek an existing commercial space for conversion to a small business incubator. Use flexible and shared spaces as well as training and coaching to foster emerging small businesses. Coordinate with employment matching and small business loan program to assist growing businesses enter permanent locations.

- Timing goal: Long Term (5-10 years)
- Projected funding needs: \$150,000 start-up funding; \$25,000 annual operating funds
- Projected staffing needs: 0.3 FTE

Monitor Success: Gather current economic and demographic data prior to implementation of community development action items. Monitor these indicators as programs are implemented and transportation projects are constructed. Proactively respond to community needs as indicated by data through modifications to community development programs.

- Timing goal: Medium/Ongoing (10 years or more)
- Projected funding needs: N/A
- Projected staffing needs: 0.2 FTE

Build Community Relationships and Social Capital

Community Leadership Workshops: Organize as many as two special Community Leadership Academy cohorts of stakeholders

from the corridor over a period of two years. Tailor programming to the challenges and opportunities in the corridor. Consider contracting a speaker/consultant to help with focused content. Explore using the academy or a subsequent event with the participants as a workshop for a specific community project.

- Timing goal: Medium Term (3-5 years)
- Projected funding needs: \$20,000 in operating funds
- Projected staffing needs: 0.2 FTE

Workforce Assistance

Job Skills Training: Partner with Capital Area Workforce Development to develop a construction training course or support expansion of existing similar programming to help local residents build skills and receive certifications, particularly for construction jobs. Seek collaboration with small business incubator for training space and job placement assistance.

- Timing goal: Medium Term (5-10 years)
Projected funding needs: N/A
- Projected staffing needs: 0.1 FTE

[Color-coded timeline for these actions only.]

Goal 2: Transportation by Choice

Transportation projects proposed in this plan will extend over many years and require funding from local, state, and federal transportation agencies outside of the City of Raleigh. These projects will cause temporary disruptions as well as permanent changes to local travel patterns. They will also have direct impacts on private property. To alleviate those disruptions, the investments in community assets described

in the previous section should be initiated before major transportation projects get underway.

Bicycle and Pedestrian Projects:

A comprehensive set of recommendations for safer and more comfortable walking and cycling is provided in "The Future Corridor" section of this report. Those recommendations are focused on sidewalk projects and installation of bicycle lanes. Additional facilities for pedestrians and cyclists are proposed to be incorporated in the street projects found in that section. Individual bike/ped projects are listed in Appendix A. Many of these projects can and should be implemented concurrently with community investments. This overlap will support travel between neighborhoods and businesses that can help maintain business activity during the larger corridor construction project.

- Timing goal: Short, Medium, and Long Term (0-3 years, 3-5 years, and 5-10 years)
- Projected funding needs: \$17 million - \$45 million
- Projected staffing needs: N/A

Multi-way Boulevard: The Capital North plan proposes that Capital Boulevard be converted to a Multi-way Boulevard style of street. This street type requires separation of local and regional lanes. The regional lanes will have some control of access and very few signalized intersections to allow for additional regional travel capacity. Grade-separated interchanges are proposed to enable access from cross-streets to the boulevard. The interchanges should be designed to accommodate bus rapid transit (BRT). BRT infrastructure should be included

in the construction of the multi-way if funding and planning make that practical. More information about the multi-way design is provided in "The Future Corridor" section.

- Timing goal: Short, Medium, and Long Term (0-3 years, 3-5 years, and 5-10 years)
- Projected funding needs: \$17 million - \$45 million
- Projected staffing needs: N/A

[Color-coded timeline for these actions only.]

Goal 3: Development that Works

This plan makes recommendations for changes to the Raleigh's adopted policy maps for the area around Capital Boulevard. Those policy maps are used to make decisions about the types of development that occur in different parts of the city. They also can be used to required new street connections in specific places. The proposals in this plan will shift the policy recommendations around Capital North to encourage new development and redevelopment that will make the best use of the transportation investments that are proposed.

These changes will also increase options for housing, employment, and businesses. Before the policies are put in place to support this new development pattern, the community investments described earlier should be allowed to take effect. This sequence of policy implementation will provide small businesses, workers, and residents with time and resources to be prepared for changes that come with new development. More importantly, investing in existing communities gives them the best opportunity to benefit from new development patterns. The proposed

amendments are explained in greater detail in “The Future Corridor” section.

Street Plan Amendments: The Street Plan shows where new streets should be constructed and how existing streets should be improved. New street connections in the Capital North area will make walking and cycling easier by making blocks smaller. Sidewalks and bicycle lanes required for new public streets will ensure that people have a consistent and safe way to travel without a motor vehicle. Streets on the Street Plan Map are mostly constructed through development of private property. They should be identified early in the implementation of the plan so that opportunities for making these connections are not lost.

- Timing goal: Short (0-3 years)
- Projected funding needs: N/A
- Projected staffing needs: N/A

Future Land Use Map Amendments: The Future Land Use Map describes the types of residential and commercial development that should occur in each area. That means how dense and tall should development be. It also indicates what types of businesses should be allowed. The height and density recommendations for Capital North should not be increased until the community investment actions are in progress and having an impact. The policy map should not create strong incentives for large-scale development along the corridor until there are resources in place for existing stakeholders to have a chance to perceive benefits from those changes.

- Timing goal: Long/Ongoing (10 years or more)
- Projected funding needs: N/A
- Projected staffing needs: N/A

Urban Form Map Amendments: Similar to the Future Land Use Map, the Urban Form map suggests specific types of development in different areas. The goal of the Urban Form map is to promote development that focuses more on people instead of cars. That means buildings placed near the sidewalk with plenty of windows and entrances. Parking is encouraged to be in the rear of buildings to reduce conflicts with pedestrians and transit riders travelling along the front of the buildings. The Urban Form map is also coordinated with the Future Land Use Map to say what height should be allowed in each area. With that in mind, these recommended amendments should be delayed until existing community assets are developed. This means that the Community Assets action items should be initiated for enough time to enable local communities and businesses to make full use of them. The results of the Monitor Success action item should be carefully reviewed with this sequence in mind as part of the decision to proceed with policy map amendments.

- Timing goal: Long/Ongoing (10 years or more)
- Projected funding needs: N/A
- Projected staffing needs: N/A

[Color-coded timeline for these actions only.]

TABLE 1. **OVERALL TIMELINE**

GOAL/ACTION	2022	2024	2026	2028	2030	2032	2034	2036	2038	2040	2042	2044
Community Assets												
Business Alliance/Small Business Grant												
Community Leader Workshop												
Workforce Assistance/Incubator												
Monitoring												
Transportation by Choice												
Bike/Ped												
Multi-way/Interchanges												
Development that Works												
Street Plan												
FLUM												
Urban Form												

4 Investing In Communities

How We Grow Better Together

The later sections of this report discuss physical changes to the Capital North corridor. Those improvements are an important step toward a safer, more functional, and more attractive future. Those benefits should be enjoyed by existing residents, workers, and businesses. There should also be equitable opportunities for people to come to this area to live, work, or operate a business.

These goals cannot be accomplished by street improvements and development visions alone. This section provides more information about how the City and other organizations should ensure that any negative impacts from rebuilding Capital Boulevard are managed proactively and shared equitably. The contents of this section will also consider how new investments and development can create opportunities for people who stand to gain the most.

The community development and economic development ideas in this section are grouped into three categories:

- Preserving and growing small businesses
- Maintaining and increasing housing options
- Healthy and safe lifestyles

These concepts are described in greater detail in the Policies and Actions section of Appendix A.

Preserving and Growing Small Businesses

Capital North is home to at least 200 small and local businesses. While e-commerce has taken a significant share of business from retail outlets in recent years, the types of businesses in the Capital North corridor include many that are hard to replace with online sales. Vietnamese and Spanish groceries, barbershops, hair-braiding salons, and tattoo parlors are among the many businesses that have staying power here because they provide personal services or specialty goods. These businesses are also an important contributor to the cultural and social richness of Raleigh.

However, these businesses rely somewhat on the low cost of commercial space to be successful. Capital North is one of the most accessible places for new retail and personal service businesses to grow in Raleigh. If existing shopping centers redevelop, lease rates are likely to increase. In addition, the current development market typically focuses on offices and apartments. New multistory buildings often have little or no retail spaces.

Capital North is also an asset to businesses because of the high level of vehicular access and visibility that the street provides. Some of those benefits may be lost when the Capital Boulevard Multiway is completed. Capital Boulevard has many features that make it a vibrant place for business. This plan recommends multiple approaches to maintaining the health of this robust small business environment.

FIGURE 24. ASHTON SQUARE SHOPPING CENTER



Access and Visibility

Capital Boulevard has a multitude of driveways that provide access directly from the street into parking lots. One of the issues we heard from the public engagement process was that the number of driveways impedes the flow of traffic. The introduction of interchanges by the Capital Boulevard Multiway will reduce the amount of access in some places, even to the local lanes in the multiway. Interchanges can have engineering requirements that lead to closure of existing access points. As Capital Boulevard is converted to a multiway, road construction projects should be designed to maintain as much access as possible to private property adjacent to Capital Boulevard and cross streets.

The design of new interchanges and intersections should also place the local lanes of the multiway at the same level or grade as they are today. While Capital Boulevard has some hills, many commercial developments are easy to see from the roadway. It is important to ensure that drivers and pedestrians using the future multiway have a similar ability to see signs and entrances of businesses from the outer, local lanes. Drivers on the regional lanes will likely be travelling all the way to I-440 or I-540. Even so, some of those drivers may also want to exit the regional lanes to visit a shopping or service destination.

Direct Assistance

Maintaining access and visibility for local businesses is important, but it will likely not be enough to make up for the impacts of road construction and redevelopment. That

is why this plan calls for programs to assist businesses endure the challenges raised by construction projects and changing development patterns.

The City has multiple grant programs to assist small businesses improve the exterior and the interior of their storefronts. More should be done to make sure businesses in Capital North know these programs exist. This plan also recommends creating a new grant specifically for the Capital North corridor. The City's grant programs have scoring processes to decide which businesses should receive the limited funding allocated to them. The scoring systems may need to be revised to ensure that they give priority to those businesses in Capital North that represent local communities, particularly ethnic and racial minority communities.

A targeted grant program still might not be sufficient to give small businesses in this

corridor the equitable chance they need to remain part of this vibrant community. If BRT is implemented in Capital North, a dedicated fund should be explored to reserve some of the new tax revenue from private development near the BRT stops. This fund can be used to assist small businesses as well as fund housing and pedestrian improvements. A similar fund is proposed by the Equitable Transit Oriented Development (ETOD) guidebook. That document should be used to guide ETOD programs in Capital North if BRT is constructed.

A complete list of the small business action items and timing goals is shown in the table at the end of this section.

Maintaining and Increasing Housing Options

On top of being a very accessible place for small business creation, Capital North is probably the part of Raleigh with the highest

FIGURE 25. OLD WAKE FOREST ROAD AT CAPITAL BOULEVARD



FIGURE 26. NEIGHBORHOOD ON PINE KNOLL DRIVE



concentration of naturally occurring affordable housing (NOAH). NOAH is a term that means housing that is affordable without assistance from a nonprofit organization or government agency. NOAH units are usually duplexes, triplexes, townhouses, or small apartment buildings and are usually older construction. In Capital North, there are many garden apartments, four-unit apartments, and duplexes built in the 1980s and 1990s.

With BRT service potentially coming to this area, housing that is affordable for households with low and middle incomes will be a critical need. High quality transit service should be available to those who do not own a car or who are unable to drive a car due to disability or age. The Capital North community made it clear that affordability of

housing is a very high priority for current and future residents. There needs to be an adequate supply of NOAH and subsidized affordable units here, and this plan has multiple policies to support that goal.

Due to the age of NOAH and other housing in Capital North, property owners may be interested in building new developments in their place in the near future. This interest is likely to be increased if BRT is planned for Capital North. The policies proposed by this plan suggest several ways of either preserving these units or making sure that new development includes units that have similar rental costs. For example, grants or other assistance should be available for owners of shopping centers who want to renovate them to accommodate low cost housing or retail spaces. Another policy

recommends that information be provided to homeowners about ways to improve their financial stability while remaining in place.

Even with programs to preserve existing housing, redevelopment and new development will occur. This plan puts forth a policy saying that rezoning to allow buildings of seven stories or taller should include subsidized affordable units. The number of subsidized units should be 5% of the total units in the project or at least half of the number of existing units that were removed from the site. Between these two options, the larger number of units should be chosen. This idea was analyzed as part of this plan and the analysis shows that a project with

this amount of affordable housing can be profitable for a developer.

A complete list of the small business action items and timing goals is shown in the table at the end of this section.

Healthy and Safe Lifestyles

The previous section of this report described needed investments in sidewalks and bicycle lanes. Those investments will go a long way toward making walking and cycling a practical option for residents and workers in Capital North. To be comfortable walking sometimes requires more than sidewalks. Participants in the public engagement process told us that some areas of Capital North do not feel safe.

FIGURE 27. **WARNING SIGNS AT A LOCAL SHOPPING CENTER**



FIGURE 28. A PLAY AREA BUILT ALONG A TRAIL



Crime was a noted concern for many residents. In addition, portions of this area have never had adequate or consistent pedestrian infrastructure despite being urbanized for more than 50 years. For longtime residents, elders, and families with small children, there may be hesitation to walk even with consistent sidewalks.

This plan proposes that the Capital Boulevard Multiway be designed with a focus on personal safety as well as traffic safety. One way of doing that is with a process call

Crime Prevention Through Environmental Design (CPTED). CPTED is a way of designing public spaces to reduce the opportunity for, and severity of, criminal activity. This plan recommends that the construction of the Capital Boulevard Multiway incorporate CPTED principles.

This plan places a focus on the impact of walkability on healthy lifestyles. Encouraging residents and workers to travel by walking and spend time outdoors can improve their health and wellness. If sidewalks are not enough to invite people to walk and cycle,

there needs to be greater investment in amenities that create interest in outdoor spaces. The Capital North plan proposes that a future study be conducted on a system of urban walking trails to connect neighborhoods with shopping centers and transit stops.

Urban trails add extra features to the sidewalk network to help people find their way and make the experience more fun and interesting. An urban trail can have signs with maps and directions to nearby destinations. Small parklets can be added with durable workout machines, play equipment for children, or seating and shelters to take a break. When a person knows that they can walk from their house to the store or the bus stop and have safe, comfortable, and active places to visit or rest along the way, they may be more interested in walking. These spaces can also be combined with free wi-fi, cameras, and emergency phones to provide even more assurance about walking safely.

Actions and Timing

A complete list of the healthy lifestyle action items and timing goals is shown in the table below. Actions with Time Frame listed as Medium term should be initiated and making an impact before the implementation of transportation and land use policies described in later sections of this plan. Long term actions should be initiated at the time transportation and land use changes begin and should be carefully coordinated to address the effects of those changes.

TABLE 2. **ACTIONS AND TIMING**

Action Name and Description	Time Frame Short: 1-2 years, Medium: 3-5 years, Long: 6-10 years, Ongoing	Projected Cost
Preserving and Growing Small Business		
Action AP-CN 3.6 Business Alliance Startup Grant and Support: Offer organizational support and resources with potential for additional funding based on attainment of pre-determined outcomes. Provide initial staff support for organizing and administrative tasks. Allow for funding of two alliances as indicated by business needs and relationships.	Medium	\$40,000
Action AP-CN 3.7 Small Business Grant Program: Develop a small business assistance program to respond to specific needs related to construction, new street configuration, and redevelopment. Consider making permanent to respond to other transportation projects. Explore various forms of assistance such as in-kind technical support and loans.	Medium/Ongoing	\$100,000 annually
Action AP-CN 3.8 Small Business Incubator: Seek an existing commercial space for conversion to a small business incubator. Use flexible and shared spaces as well as training and coaching to foster emerging small businesses. Coordinate with employment matching and small business loan program to assist growing businesses enter permanent locations.	Long/Ongoing	Initial: \$150,000: Ongoing: \$25,000 annually
Action AP-CN 3.10 First Source Agreements: Seek to establish a standard agreement for inclusion in city-funded construction projects for this corridor that give preference to local companies and companies that primarily employ local workers.	Medium	N/A
Action AP-CN 3.11 Job Skills Training: Partner with Capital Area Workforce Development to develop a construction training course or support expansion of existing similar programming to help local residents build skills and receive certifications, particularly for construction jobs. Seek collaboration with small business incubator for training space and job placement assistance.	Long/Ongoing	N/A

Action Name and Description	Time Frame Short: 1-2 years, Medium: 3-5 years, Long: 6-10 years, Ongoing	Projected Cost
Action AP-CN 4.6 Activating Existing Spaces: Encourage activation of under-utilized surface parking lots through events such as cultural festivals, food truck rodeos, or temporary markets. Identify regulatory barriers to such activities and investigate revisions that would allow them while avoiding or minimizing impacts to other properties.	Long/Ongoing	N/A
Action AP-CN 3.14 Monitor Success: Gather current economic and demographic data prior to implementation of community development action items. Monitor these indicators as programs are implemented and transportation projects are constructed. Proactively respond to community needs as indicated by data through modifications to community development programs.	Medium/Ongoing	N/A
Maintaining and Increasing Housing Options		
Policy AP-CN 3.4 Affordable Units in Dense Development: Through the rezoning process, encourage all new development 7-stories or greater and containing a residential component to reserve as affordable units (as defined by Raleigh Housing & Neighborhoods or adopted City policy) EITHER 5% of the total number of residential units OR one-half of the number of units lost through demolition of existing housing, whichever is greater.	N/A	N/A
Action AP-CN 3.3 Retrofitting Shopping Centers: Investigate the potential for modifying zoning requirements or awarding grants to encourage existing commercial buildings to be retrofit or internally subdivided to allow for low cost residential units or small-scale retail spaces.	Medium	N/A

Action Name and Description	Time Frame Short: 1-2 years, Medium: 3-5 years, Long: 6-10 years, Ongoing	Projected Cost
Action AP-CN 3.4 Homeowner Education: Organize a workshop, led by City staff, to educate existing residents of Brentwood, Starmount, and other neighborhoods with high rates of home ownership about homeowner repair programs, down payment assistance programs, the Accessory Dwelling Unit development option, National Historic Register listing, and other resources that can help homeowners maintain their homes.	Medium	N/A
Healthy and Safe Lifestyles		
Action AP-CN 1.2 Quick-Build Bicycle Projects: Pursue quick-build bicycle projects for some locations near the corridor. Consider temporary, low cost, and low maintenance options that can be constructed quickly and serve as interim facilities until more permanent facilities are constructed.	Medium/Ongoing	N/A
Action AP-CN 2.3 New Civic Life in Existing Spaces: Seek novel ways to utilize underused spaces, such as vacant retail outlets and existing public right-of-way, in the corridor for public benefit. Consider the installation of small-scale park facilities and amenities that attract positive, healthy activity and raise visibility of out-of-the-way areas. Explore this concept in a future Parks, Recreation and Cultural Resources System Plan Update.	Long/Ongoing	N/A
Action AP-CN 2.4 Safety by Design: Explore the feasibility of installing lighting, "blue light" emergency phones, cameras, and public Wi-Fi networks along the proposed bicycle and pedestrian network, including in the form of "safety refuges" that combine all four elements listed. If pursued, integrate these items with the "loops" described in Action 4.9 "Neighborhood Loops".	Long/Ongoing	N/A
Action AP-CN 3.5 Funding Healthy Lifestyles: Evaluate the feasibility of using tax increments as funding to pay for bicycle and pedestrian improvements, safety stations, and micro-parks in the corridor area with any surplus proceeds dedicated to increasing the supply of affordable housing.	Medium	N/A

Action Name and Description	Time Frame Short: 1-2 years, Medium: 3-5 years, Long: 6-10 years, Ongoing	Projected Cost
Action AP-CN 4.3 CPTED in New Projects: Support the inclusion of Crime Prevention Through Environmental Design (CPTED) elements in capital projects where possible.	N/A	N/A
Action AP-CN 4.7 Run/Bike to Celebrate Success: When construction of the Capital Boulevard Multi-way is complete, organize a run or bike ride within the corridor area that crosses at least two interchanges. Use this event to promote the use of bicycle and pedestrian facilities.	Long	N/A
Action AP-CN 4.8 Neighborhood Loops: Support the development of neighborhood- or district-branded "loops" within the proposed bicycle and pedestrian network. Loops should use wayfinding markers and maps to encourage the use of these dedicated facilities for walking and cycling between neighborhoods, commercial areas, and transit stops.	Long	N/A

Many of these ideas are described in more detail in the next section. There are also other recommendations for community and economic development that are not included here.

5 The Future Corridor: The Capital North Multiway and Multimodal Districts

This section details the physical improvements and geographically specific policies that will recreate Capital North as a highly functional transportation system for regional and local trips. It will also encourage shopping districts to transition to walkable, welcoming urban neighborhoods. The first part of this section explains the changes that will be needed throughout the corridor for sustainable relief of traffic congestion, excellent transit service, and substantial benefits to pedestrian safety. The second part illustrates detailed recommendations for public and private investments in four Multimodal Districts based on the segments identified in Section Two Districts.

The Multiway Boulevard

The most highly demanded change to the Capital North area was relief of traffic congestion. To respond to that need, the Capital North plan proposes the rebuilding of Capital Boulevard with a high-capacity design that minimizes traffic lights for people driving through the corridor. Local access to places along the corridor is also prioritized in the new design. This design is called a multiway boulevard.

A multiway boulevard is a type of street where there are two sets of lanes in each direction. This gives drivers multiple ways to travel in the same direction, leading to the name "multiway".

The multiway design provides a balance between traffic traveling through the corridor and traffic traveling to and from destinations along the corridor. It will also greatly expand the capacity of Capital Boulevard to handle growth in traffic volume that is projected over the next 20 years.

For Capital Boulevard, the multiway design has an inner set of vehicle lanes near the median that allow higher speeds and have very few traffic signals. Another set of lanes along the outer part of the road will have lower speeds and access to other streets managed by traffic signals. The inner lanes are also called "regional lanes", and the outer lanes are called the "local lanes". The remainder of this report will refer to the proposed multiway boulevard and associated interchanges as the "Capital Boulevard Multiway".

"[There are] too many driveways and too much traffic that has to stop at too many lights."

The figure below shows what the multiway boulevard would look like in an area between interchanges. The recommended cross-section would have three, 11-foot regional lanes for through traffic in each direction and two 10-foot local lanes in each direction. Local lanes will also have turn lanes, as necessary, at intersections along the corridor. Between intersections, the local lanes will act as ramps for cars to enter or exit the regional lanes.

Participants in the Capital North process noted that shopping destinations in the area are very convenient and an asset to be retained. The multiway will also need to preserve the high level of access that makes it so easy to visit local businesses. To accomplish that, the

local lanes in the Capital Boulevard Multiway act as exits off the regional lanes and provide access to surrounding properties.

Another thing we heard from the community was that Capital Boulevard should have more green space and feel safer for walking. The local lanes on the outer part of the multiway are proposed to be built with a lower design speed than the regional lanes to increase pedestrian comfort and safety. The regional and local lanes are then separated by a 13-foot median that will be planted with grass and/or bushes. Guardrails will be installed on both sides of this outer median to discourage pedestrians from crossing Capital Boulevard in areas between cross streets.

FIGURE 29. PROPOSED MULTIWAY BOULEVARD CROSS SECTION



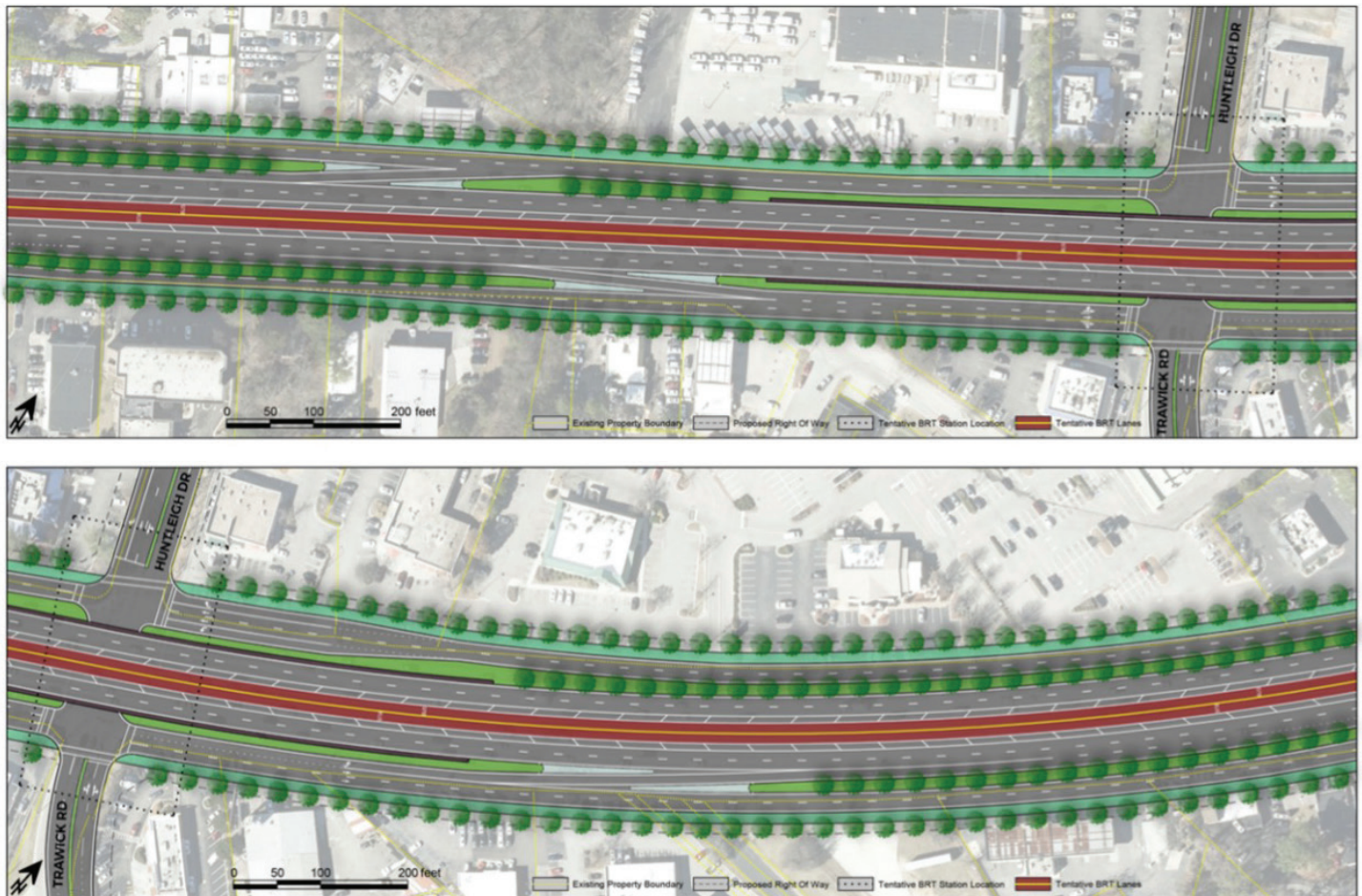
The inner lanes of the multiway have to be separated from cross streets in order to avoid traffic signals. This separation will be accomplished by constructing interchanges in almost every location where there is now a traffic signal. Raising or lowering one street to bypass another is also called "grade

separation", "grade separated intersection", or "interchange". Like interchange ramps in many urban areas, interchanges on the Capital Boulevard Multiway will have traffic signals to manage traffic between cross streets and the local lanes.

Different types of interchanges are proposed for the Capital Boulevard Multiway. Each type was selected based on size and traffic capacity to be a good fit for the intersection it will replace. The figure below is a conceptual drawing of the multiway boulevard at Huntleigh

Drive and Trawick Road. This rendering shows the how local lanes will serve as ramps for travel between local lanes and regional lanes. Conceptual designs of each interchange type and the multiway boulevard for the length of the corridor are found in the Appendix.

FIGURE 30. MULTIWAY BOULEVARD AT STARMOUNT DRIVE AND OLD BUFFALOE ROAD



Interchange Types

The figure below shows the proposed multiway boulevard intersection, pedestrian crossing, grade separation, and interchange recommendations. The intersections would only include right-in and right-out

movements from and to Capital Boulevard, respectively. The dashed box highlights an area with a separate, active North Carolina Department of Transportation (NCDOT) project; this study does not include recommendations for that area.

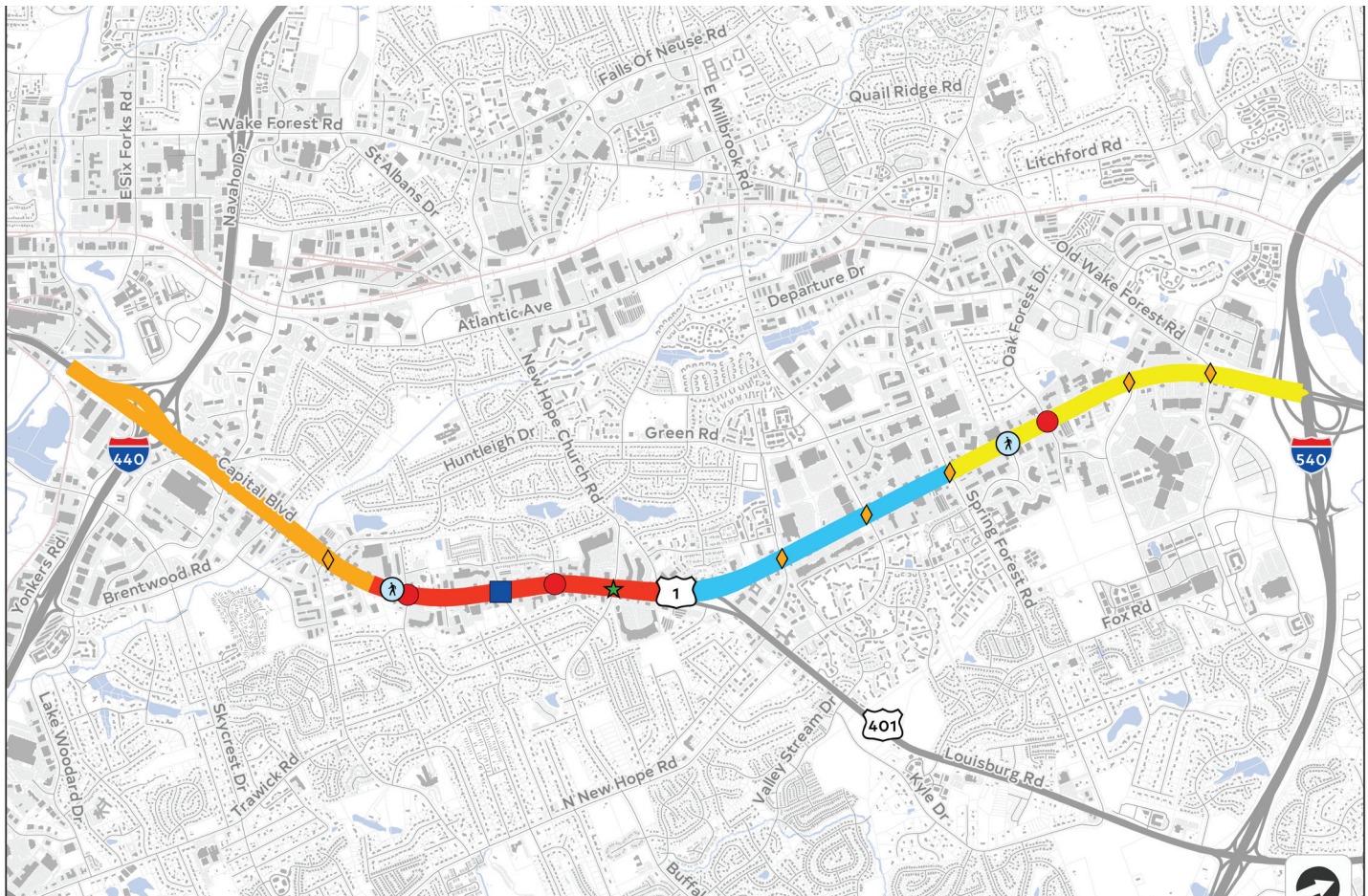
Study Segments

- Segment 1
- Segment 2
- Segment 3
- Segment 4

Proposed Interchanges

- Grade Separated - Single Point Urban Interchange
- Grade Separated - Tight Diamond
- Grade Separated Pedestrian Crossing
- Grade Separation
- Right-in / Right-out (Local Lanes)

FIGURE 31. PROPOSED INTERSECTION/INTERCHANGE CONFIGURATIONS ALONG CAPITAL BOULEVARD



For most intersections in Capital North, the best type of interchange is a "Tight Diamond". A tight diamond interchange is a compact interchange that allows cars to turn left or right from all directions. This interchange type can also be constructed to have low impacts for existing development nearby. Reducing these impacts is a major priority for the Capital Boulevard Multiway.

The other type of interchange proposed in this plan is a Single Point Urban Interchange (SPUI). A SPUI is nearly identical to a tight diamond except that it has a special design for the inner lanes that adds capacity for the cross street. This type is proposed at the intersection of New Hope Church Road/Bufaloe Road to manage traffic moving east and west. The SPUI will also be specially designed to help vehicles travelling south on Louisburg Road to reach New Hope Church Road without conflicting with southbound traffic on Capital Boulevard.

In some locations, traffic volume from side streets is limited. In those areas, no grade separation is proposed, and some left turns will not be allowed onto or off of the multiway. The name for this type of intersection is right-in/right-out (RIRO). If a driver wishes to turn left

from a street with a RIRO intersection, they will travel on the outer lanes of the multiway to the next interchange and turn around. RIROs will replace the intersections of Starmount Drive/Mayflower Drive and Oak Forest Drive.

"[Traffic] needs to flow better not only along Capital Blvd, but also with the cross streets."

The final intersection design for the Capital Boulevard Multiway is simply called a grade separation. A grade separation allows right turns to the outer lanes like a RIRO. It will also allow vehicles, pedestrians, and cyclists to cross Capital Boulevard. It will not allow left turns. The grade separation ensures that both sides of Capital Boulevard remain connected. It can also reduce construction cost and impacts on adjacent property where traffic volume does not justify a full interchange. A grade separation is proposed at Old Bufaloe Road. The proposed intersection/interchange recommendations are shown in the table below.

TABLE 3. PROPOSED INTERSECTION/INTERCHANGE CONFIGURATIONS ALONG CAPITAL BOULEVARD

Intersection with Capital Boulevard	Intersection/Interchange Configuration
Trawick Road	Tight Diamond Interchange
Starmount Drive	Grade Separated Pedestrian Crossing and Right In/Right Out
Old Bufaloe Road	Grade Separation
New Hope Church/Bufaloe Road	Single Point Urban Interchange (SPUI)
Calvary Drive	Tight Diamond Interchange
Millbrook Road/New Hope Road	Tight Diamond Interchange
Spring Forest Road	Tight Diamond Interchange
Oak Forest Drive	Grade Separated Pedestrian Crossing and Right In/Right Out
Sumner Boulevard	Tight Diamond Interchange
Old Wake Forest Road	Tight Diamond Interchange
10-year total	8,860
Percent of Total	25%
10-year average	886

Walking and Transit in the Multiway

The street corners at the interchanges, intersections, and grade separations along the multiway design can be designed similarly to the corners that exist today. This means pedestrians can reach crossing areas easily and directly from nearby shopping centers or neighborhoods. The interchanges and grade separation will allow pedestrian crossing areas to be separated from traffic on the higher-speed inner lanes of the multiway. Pedestrians will also be able to use the interchanges to access transit more safely and conveniently.

A 40-foot vegetative median will initially be installed in the multiway boulevard. The median can accommodate two, 12-foot vehicle lanes. If bus rapid transit (BRT) is introduced to this corridor, the median should be converted to dedicated transit lanes as part of a separate project. The transit lanes are shown in the graphic to demonstrate the feasibility of this concept.

The sidewalks on the Capital Boulevard multiway will be 12 feet wide and will include consistent planting areas for trees. In areas where a proposed RIRO does not allow travel across Capital Boulevard, pedestrian bridges are proposed. The Capital Boulevard Multiway is also designed to accommodate public transportation options by including space for transit lanes. These lanes will only be used by buses and will take the place of the very wide median in the multiway. Bicycle facilities will be provided primarily on parallel streets. The bicycle network is described in later sections of this report.

As noted previously, dedicated transit lanes are proposed to be located within the roadway median between the regional lanes. Future transit stops for the envisioned BRT service would be located within interchanges along the corridor. Integrating transit stops with the interchanges allows for passengers to access transit service with ease from either side of Capital Boulevard.

"Crossing Capital on foot is almost impossible."

Transit passengers will not need to interact with the express lanes in order to reach the stops. There will also be very little incentive for transit riders to attempt to cross Capital Boulevard to reach a transit stop. Riders will find the most easy and direct route is through an interchange because the transit stop will be built into the interchange. This is one of the biggest pedestrian safety priorities that we heard from the public engagement process.

To facilitate this style of stop and comply with Americans with Disabilities Act (ADA) requirements, stairs and elevators are required at each stop to get passengers from the cross streets to the boarding platforms. Boarding platforms will be on the same level, or "grade", as the regional lanes because the BRT lanes will be located between the northbound and southbound regional lanes.

"We need more and faster public transit."

Like the regional lanes, the bus lanes will avoid traffic signals between I-440 and I-540. The dedicated transit lanes also mean that the buses do not interfere with vehicle traffic on regional or local lanes. The figure below shows an example from Minneapolis where passengers access the station from a cross street passing over the street with the BRT route. The stairs and elevator are located in the buildings on either side of the cross street. The access provided to a street at a different grade is called "vertical circulation". The levels will be reversed in some locations on Capital Boulevard, with the regional lanes and transit stops located above the cross street.

FIGURE 32. **EXAMPLE OF VERTICAL CIRCULATION IN MINNEAPOLIS (SOURCE: METRO TRANSIT)**



Similar to the example above from Minneapolis, the figures below show how sidewalks along Capital Boulevard and along the cross streets will meet the interchanges. Currently pedestrians have to cross all lanes of Capital Boulevard at the same grade as vehicles traveling along Capital Boulevard. The interchanges would allow for pedestrians to be separated from the cars traveling along Capital Boulevard in the regional lanes. Pedestrians will only need to cross the local lanes, which are a lower speed than the regional lanes.

The interchanges will also have traffic signals and pedestrian signals to allow pedestrians to cross. With the recommended design, pedestrians would only cross two or three lanes at a time, as opposed to the nine or ten lanes that pedestrians currently have to cross. Due to the small medians at many

existing intersections, it is not comfortable for pedestrians to wait in the median for a second signal cycle today. The new interchanges will provide a large waiting area for pedestrians who would like or need a second cycle to finish crossing.

The elements of the multiway that support walking and transit use will be beneficial to those in the corridor who don't own private vehicles. It will provide a balanced roadway that considers private vehicles, transit service, and pedestrian access in a much more balanced way than the current corridor. By giving residents and workers an equally convenient and safe choice between walking to transit or driving, carbon emissions from transportation can be reduced.

[Additional details about the multiway boulevard can be found in the Appendices.]

FIGURE 33. PEDESTRIAN ACCESS THROUGH AN INTERCHANGE

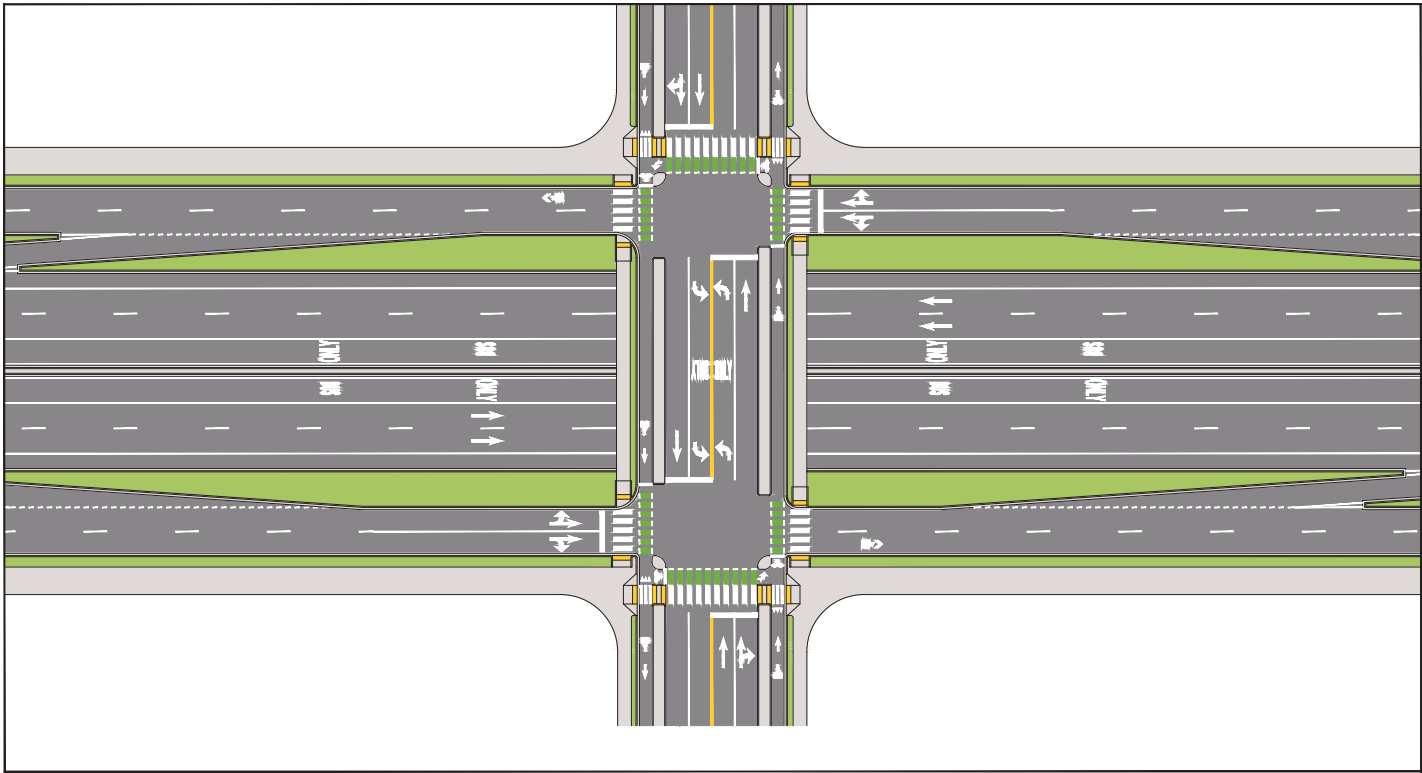


FIGURE 34. AN EXAMPLE OF A PEDESTRIAN CROSSING AT LOCAL LANES WHILE ALSO CROSSING OVER GRADE SEPARATED EXPRESS LANES IN CHARLOTTESVILLE, VA.
(SOURCE: GOOGLE)



The Multimodal Districts

The multiway boulevard described above creates a uniform streetscape for Capital Boulevard between I-440 and I-540. Along the reconstructed corridor, a series of four nodes have been identified. These nodes are envisioned by this plan to become active and vibrant places where people live, work, and shop. They are named "Multimodal Districts" for the purpose of this report.

As the community shared through surveys and meetings, life on Capital Boulevard should not be confined to a linear strip of parking lots and shopping centers. Multimodal Districts offer a different way of using the proposed transportation investments to create inviting and functional communities where there is a variety of opportunities for travel, housing, and commerce. The multiway boulevard will enable safe and convenient travel between the districts.

The proposals described in this section will show how each district should grow through public investments and private development. The recommendations for each district are organized into three categories that relate to the type of improvements that are recommended. The categories are as follows:

- **Drivers and Transit Riders:**
These recommendations address the public street network as well as the specific interchange types for the Capital Boulevard Multiway.
- **Homes and Workplaces:**
Recommendations in this category describe the desired future of buildings, their use, and their integration with the public amenities in the area.
- **Walking and Cycling:**
The final set of proposals for each district shows how sidewalks, bicycle lanes, and the greenway system will combine to make it easier and safer to travel without a private vehicle.

The proposed streets in Multimodal District 1 will create parallel routes along Capital Boulevard. In addition, the new streets create a more grid-like street network in this district. The proposed Street Plan amendments are shown in the figure below.

Smaller blocks created by the proposed streets will make walking more convenient. They also make more street frontage for retail outlets and building entrances. This adds to the visual appeal and diversity of the street life, which encourages walking. Finally, the new streets will create an alternative focal point for civic activity other than Capital Boulevard itself. Narrower streets with slower vehicle speeds and wide sidewalks will allow residents and workers to comfortably spend time along the street and in outdoor areas of businesses and residential buildings.

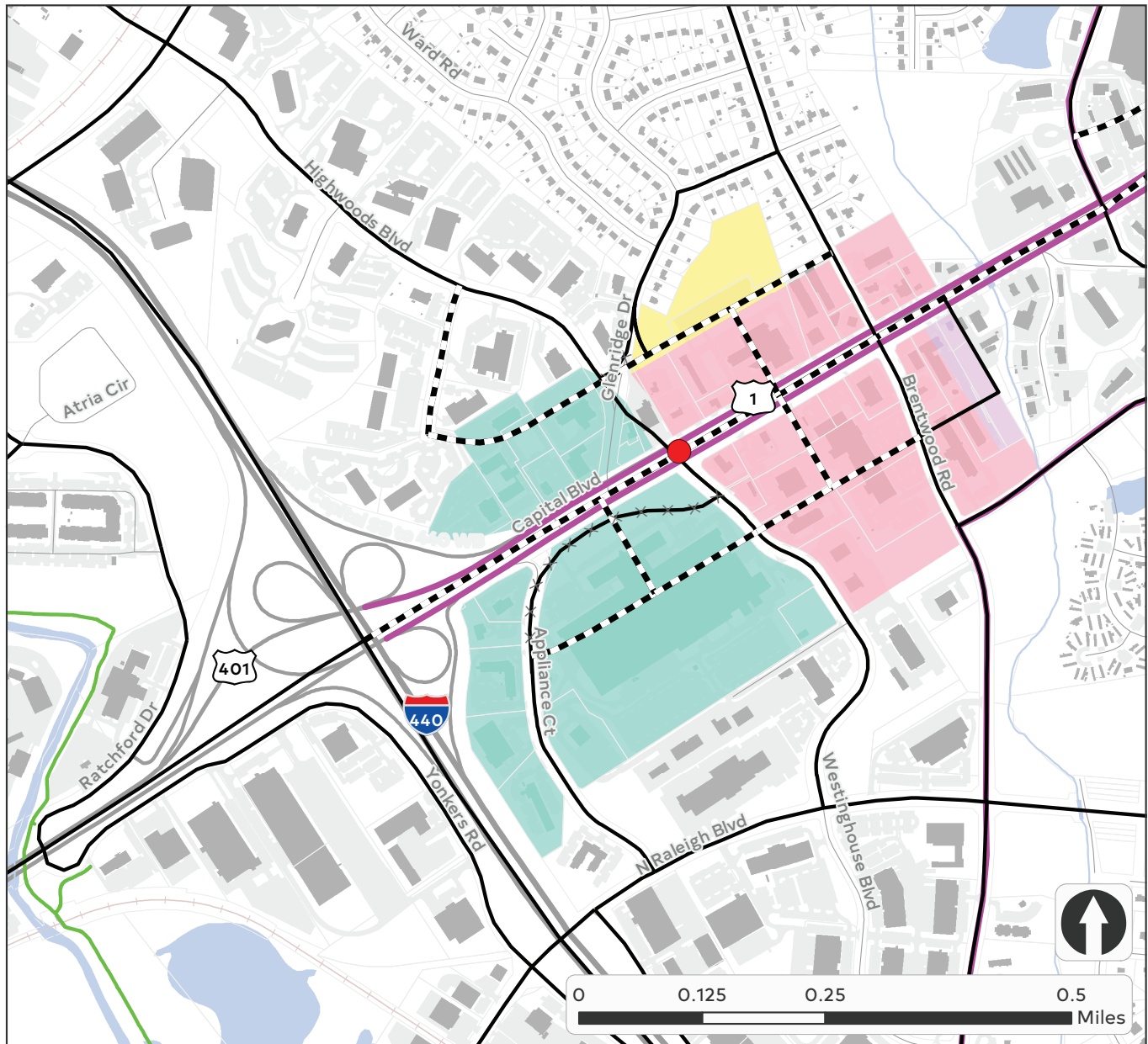
Today, there are separate intersections for Highwoods Boulevard and Westinghouse Boulevard. Prior to the initiation of this planning process, the Street Plan proposed a realignment of Highwoods Boulevard to meet Westinghouse Boulevard. This alignment is retained in the Capital North corridor plan and will support a single interchange with Capital Boulevard that serves both cross streets. While the Capital North plan does not propose such an interchange, the NCDOT project may do so. Aligning these two streets will improve pedestrian access and traffic flow along the corridor. The proposed new streets within the district will support the effectiveness of this potential interchange by creating alternative routes around the area.

FIGURE 35. EXAMPLE OF A TRANSIT-SUPPORTIVE STYLE OF DEVELOPMENT



Considering the concentration of jobs in the Highwoods office park and the area's proximity to I-440, a potential BRT (Bus Rapid Transit) station may be situated in Multimodal District 1. The site of a stop should be selected for its high level of accessibility, visibility, and high

level of daily activity. The realigned intersection of Capital Boulevard, Highwoods Boulevard, and Westinghouse Boulevard is the most suitable location for a BRT stop in this district, although other points may be explored during a future BRT planning process.



- Proposed BRT Station
- Bikeway/Pedestrian Project
- Existing Greenway
- Water Feature
- Existing Street
- Parcel Boundary
- Building
- Parking

Street Plan

- - - Proposed New Street / Modification
- x x Proposed Removal
- Existing Street Plan

Proposed Future Land Use

- Business & Commercial Services
- Community Mixed Use
- Moderate Density Residential
- Neighborhood Mixed Use
- Office & Residential Mixed Use
- Regional Mixed Use

Project Area Summary Maps

Multimodal District 1 | Map 1 of 4

Multimodal District 1: Highwoods/Westinghouse

Multimodal District 1 surrounds the southernmost segment of the Capital North corridor. The district covers the area between Crabtree Creek, just southeast of I-440, and Trawick Road. This area is notable for the I-440/Capital Blvd interchange, the eastern end of the Highwoods office park, and a grouping of office and light industrial buildings around Westinghouse Boulevard. Marsh Creek forms a low area of Capital Boulevard between Brentwood Road and Trawick Road.

Drivers and Transit Riders

A large portion of Multimodal District 1 is the subject of a separate NCDOT project. This project was still in the planning phase at the conclusion of the Capital North planning process. It has Strategic Transportation Investment (STI) number I-5970 and focuses on

improvements to the I-440 interchange with Capital Boulevard. I-5970 may also propose improvements to Highwoods Boulevard/Westinghouse Boulevard and Brentwood Road. Because of this ongoing project, this study does not include recommendations within the NCDOT study area.

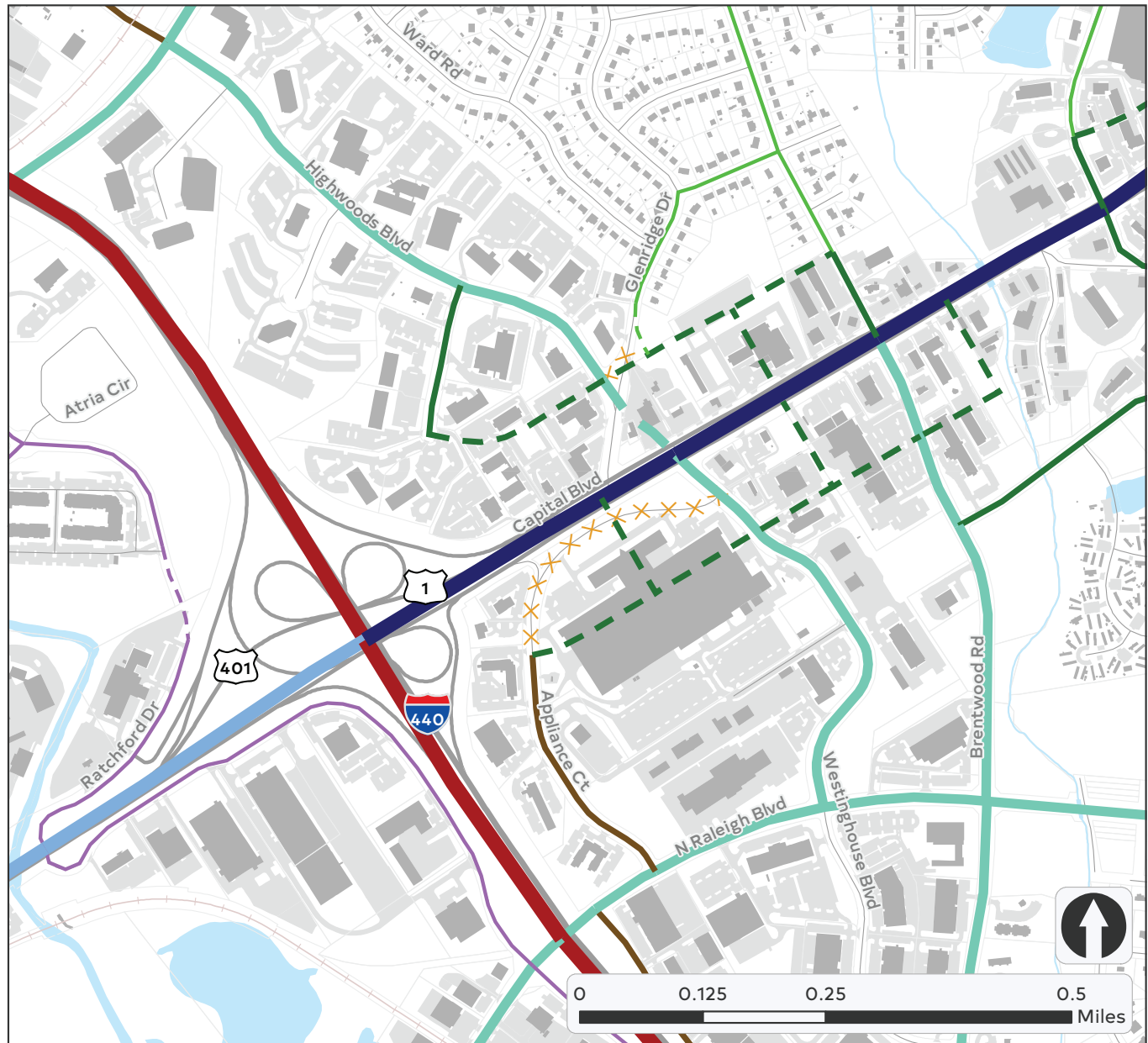
The interchange improvements that are recommended for this district are limited to a single intersection:

- Tight Diamond Interchange at Trawick Road/Huntleigh Drive

In addition to the Trawick Road interchange project that is part of the larger multiway boulevard improvements, there are several proposed amendments to Raleigh's Street Plan in Multimodal District 1. The Street Plan is Raleigh's plan for where new streets should be placed in the future and how existing streets should be improved over time.

FIGURE 36. CAPITAL BOULEVARD AT WESTINGHOUSE BOULEVARD





Street Plan

— Neighborhood Street	— Multi-Way Boulevard, Parallel Parking
- - Neighborhood Street Proposed	— Industrial Street
— Avenue 2-Lane, Undivided	— Industrial Street Proposed
- - Avenue 2-Lane, Undivided Proposed	— Limited Access Highway
— Avenue 2-Lane, Divided	× × Proposed Removal
- - Avenue 2-Lane, Divided Proposed	— Existing Street
— Main Street, Parallel Parking	— Railroad
- - Main Street, Parallel Parking Proposed	— Water Feature
— Avenue 4-Lane, Parallel Parking Proposed	— Building
— Avenue 4-Lane, Divided	— Parking
- - Avenue 4-Lane, Divided Proposed	— Parcel Boundary
— Avenue 6-Lane, Divided	

Street Plan Amendments

Multimodal District 1 | Map 1 of 4

Homes and Workplaces

Within Multimodal District 1, there is an area of existing commercial and light-industrial buildings around Highwoods Boulevard and Westinghouse Boulevard. Some of these buildings are vacant. All of them have surface parking lots, and few are taller than three stories. With the introduction of the multiway boulevard and high-quality transit service, there is great potential for more density and multifamily residential development in this area.

To foster that evolution to a more cohesive district, the Capital North plan calls for changes to City policies for development in this area. These policies are captured in the Future Land Use Map from the City's 2030 Comprehensive Plan. The Future Land Use Map helps to determine what zoning should

be applied. The zoning is what regulates the buildings, businesses, and housing types that may be developed on a piece of property. The following paragraphs describe the categories of desired development that are proposed.

The proposed policy changes encourage an expansion of the existing Highwoods office uses to the south across Capital Boulevard. This will establish the corridor's southern gateway as an employment hub with compatible commercial and multifamily residential uses. This is one of the goals of the corridor Vision Themes and is achieved by identifying the desired future land uses in the area between Highwoods Boulevard, Westinghouse Boulevard, and I-440 as **Office & Residential Mixed-Use** with recommended building heights of up to 20 stories.

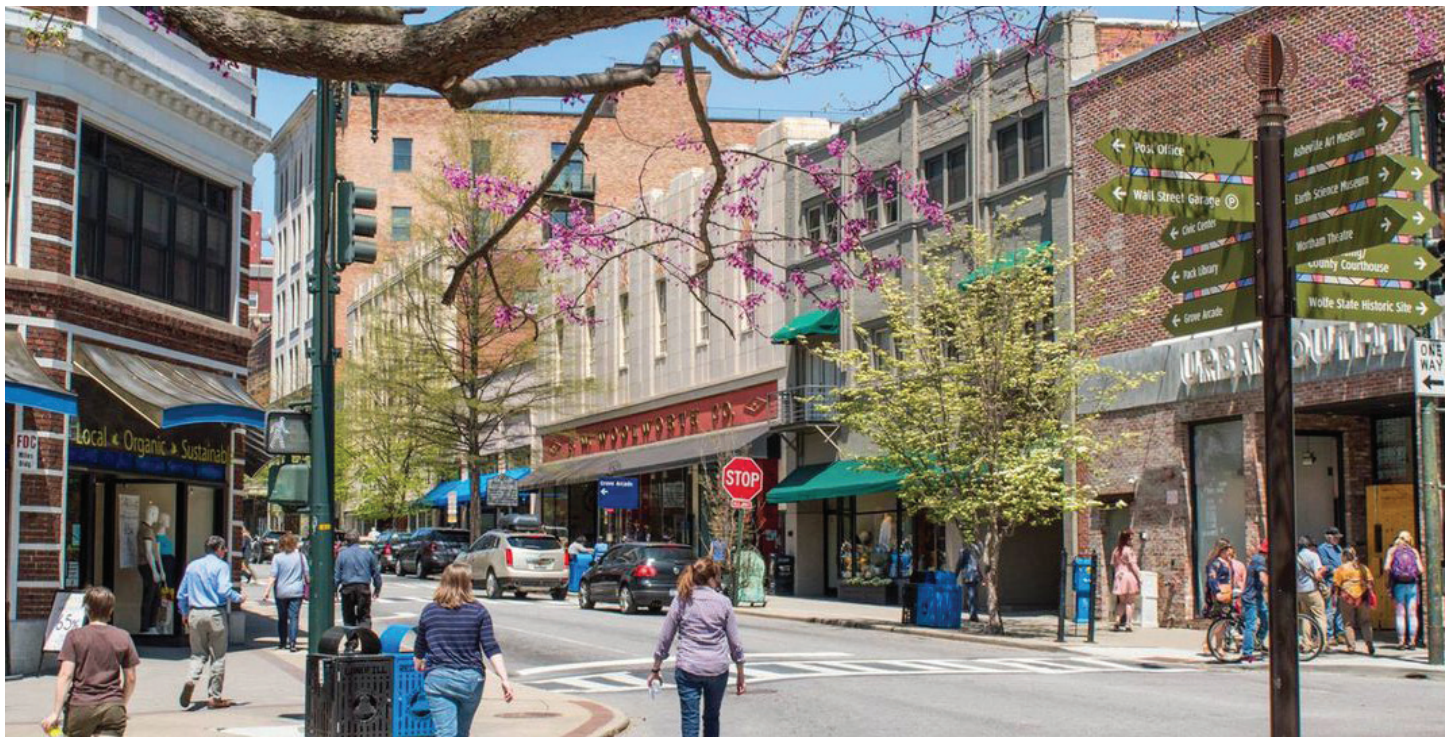
FIGURE 37. **EXAMPLE OF MID-RISE OFFICE DEVELOPMENT**



East of Highwoods Boulevard the proposed land uses transition to an area of smaller-scale developments around Brentwood Road. The Capital North plan encourages these properties to have a mix of retail, offices, and multi-family developments that complement nearby neighborhoods. The Brentwood intersection is therefore proposed to receive the Neighborhood Mixed-Use land use category. This lower scale area will serve both as a shopping destination adjacent to the beltline and as a compact walkable district for residents and visitors.

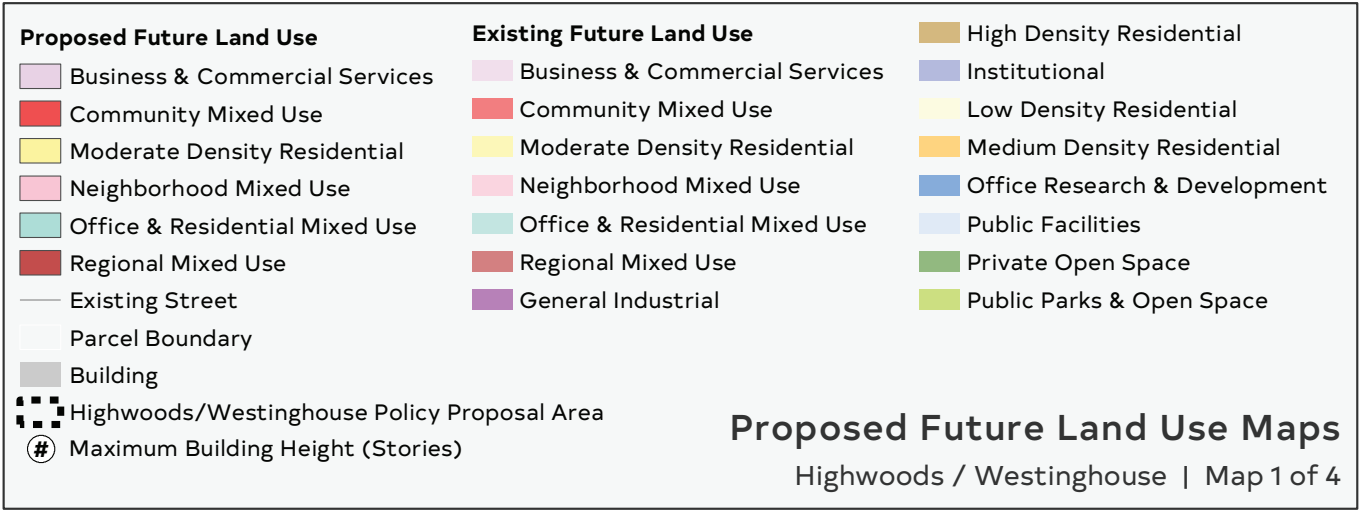
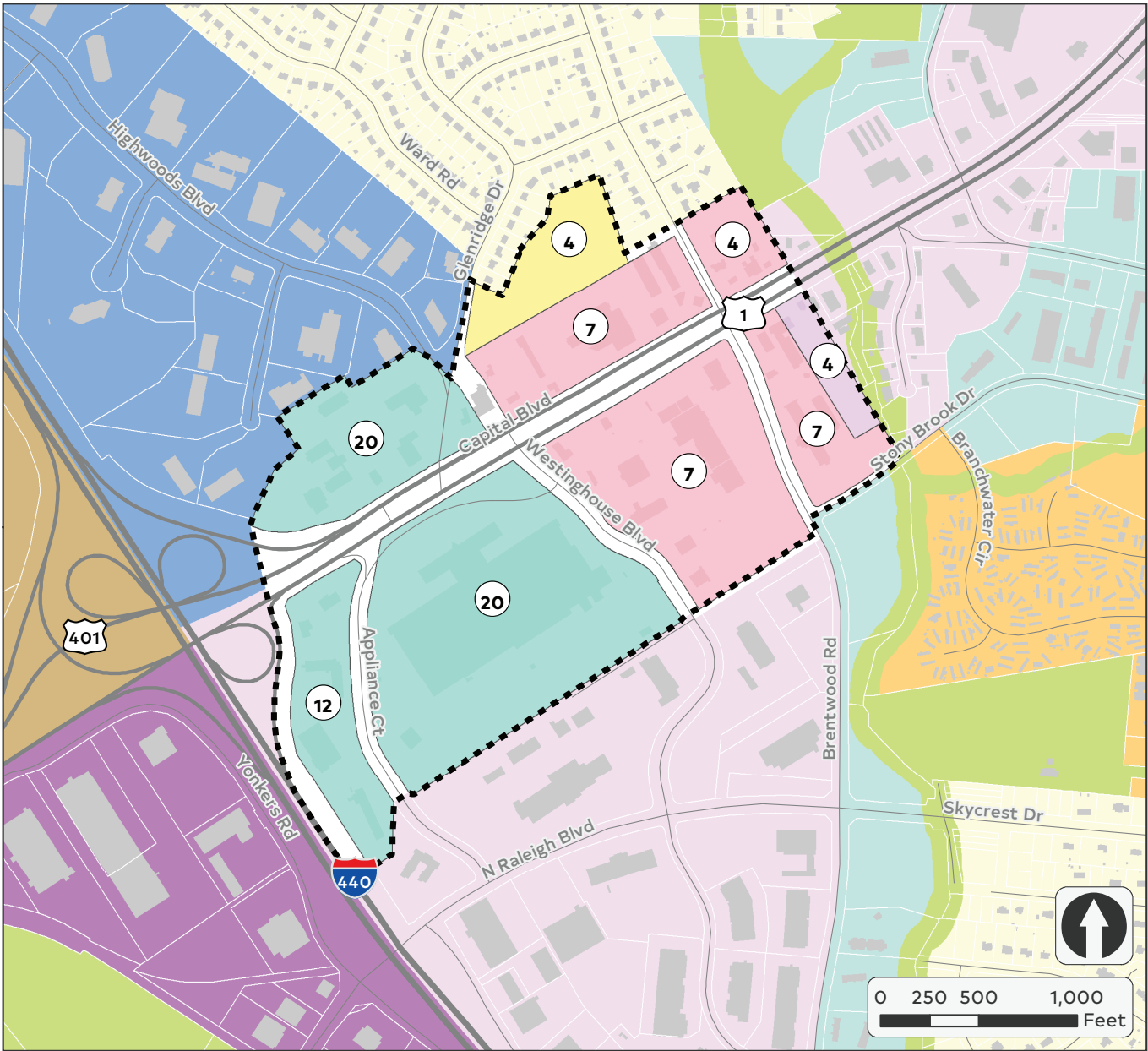
Residents of Brentwood and Starmount communicated clearly that height of new development should be sensitive to the existing neighborhoods. Height around the Brentwood intersection could be up to seven stories, though the zoning height should not be greater than four stories near existing, low-density neighborhoods. Directly adjacent to the Brentwood neighborhood, the proposed use of land should be purely residential, according to the ***Moderate Density Residential*** category applied there. This guidance ensures that new development does not disturb the quality of life for residents.

FIGURE 38. A LOW-RISE SHOPPING DISTRICT



To the southeast of the intersection of Capital Boulevard and Brentwood Road, the ***Business and Commercial Services*** style of development is proposed. This category supports retail and light industrial

development, such as vehicle repair shops and warehouses. This area serves as a transition to the existing industrial uses to the east. These recommendations are shown in the figure on the next page.



In addition to the Future Land Use Map, the 2030 Comprehensive Plan gives direction for how new development can be constructed in a more urban style. This policy is contained in the Urban Form Map. The Urban Form Map shows where new buildings, new streets, and

street improvements should be combined to make pedestrians feel more comfortable and to take emphasis away from private automobiles. The Urban Form policies are applied to both streets and land in a particular area.

FIGURE 39. EXAMPLE OF OFFICE DEVELOPMENT ENVISIONED FOR HIGHWOODS WESTINGHOUSE



FIGURE 40. A PEDESTRIAN-FRIENDLY STREETScape



In Multimodal District 1, there is already an Urban Form area, called a City Growth Center, extending from south of I-440 to Highwoods Boulevard and Westinghouse Boulevard. The City Growth Center will be expanded to the northeast along Capital Boulevard. It is proposed to reach almost to Marsh Creek and cover commercially zoned parcels on both sides of Capital Boulevard. Existing and proposed streets within the City Growth Center should be designated as Urban Thoroughfares. Highwoods Boulevard and Westinghouse Boulevard are already identified by the Urban Form Map as Transit Emphasis Corridors, and this category will remain in place.

"So many parking lots [are] not aesthetically pleasing. Storefronts don't align."

The community expressed a desire for aesthetically pleasing streets with consistent patterns of development. The proposed Urban Form policies will ensure that the envisioned mixed-use developments around Highwoods Boulevard, Westinghouse Boulevard, and Brentwood Road will create a pleasant

environment for walking that makes the most use of the new streets proposed for the Street Plan. When combined, the proposals for this district will lead to smaller blocks where storefronts and building entrances can be oriented away from Capital Boulevard with more alignment of the facades.

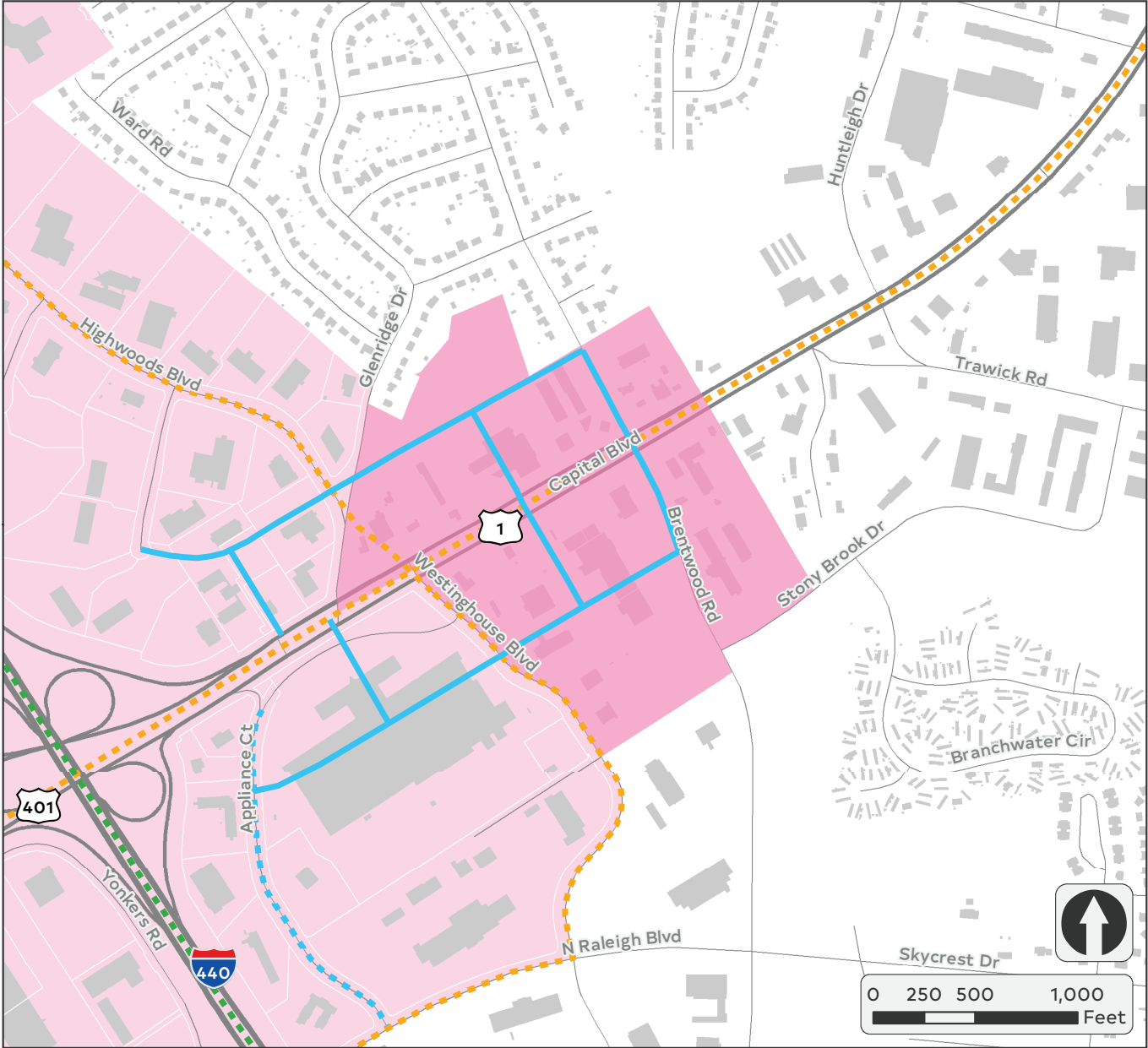
With the Urban Form policies recommended, residents and workers will have inviting places to shop, dine, and spend time near the proposed BRT stop. The pedestrian-friendly interchanges will connect both sides of

Capital Boulevard so that the district can be experienced as a unified place for healthy lifestyles and economic vitality. The future users of this area will find it practical and desirable to reduce their travel in private vehicles. Many people will be able to live and work without owning a vehicle, even if they commute from downtown or other parts of the corridor. This freedom of choice will lower the area's contribution to climate change by limiting the growth in carbon emissions from vehicles.

The urban form recommendations are shown in the figure on the next page.

FIGURE 41. TRANSIT SERVICE IN A WALKABLE DISTRICT





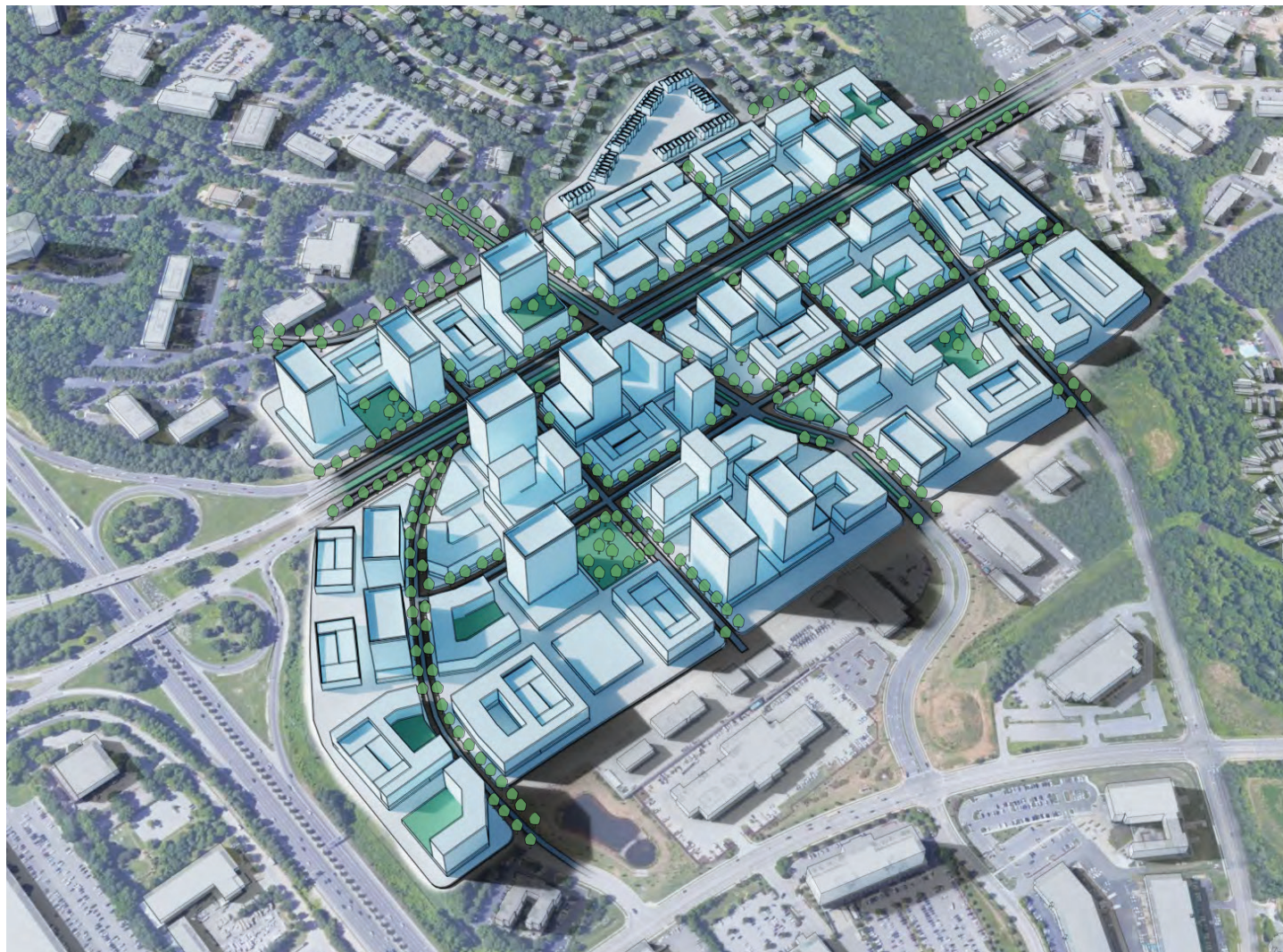
Urban Form Corridor: Proposed	Recommended Urban Form: City Growth Center
Transit Emphasis Corridor	Recommended Urban Form: Mixed Use Center
Parkway Corridor	Existing Raleigh Urban Form: City Growth Center
Urban Thoroughfare	Existing Street
Main Street	Parcel Boundary
Urban Form Corridor: Existing	Building
Transit Emphasis Corridor	
Parkway Corridor	
Urban Thoroughfare	
Main Street	

Policy Proposal Area Maps
Highwoods/Westinghouse | Map 1 of 3

The figure below provides an example of how the Highwoods and Westinghouse Vision Area could look, built out with the guidance

of the proposed Future Land Use Map (FLUM) and Urban Form policies.

FIGURE 42. URBAN FORM MAP HIGHWOODS/WESTINGHOUSE



Walking and Cycling

There are several pedestrian and bikeway recommendations within Multimodal District 1. The recommended improvements are divided into three different phases (near, medium, and long term) to indicate the desired timeframe for implementation. In the near term, sidewalks and bicycle lanes will be added to existing streets and connect with other bicycle routes. A widening project for Trawick Road is underway separate from the Capital North plan. It will add a multi-use path on the north side of Trawick Road and consistent sidewalks on the south side. This plan prioritizes new links with that facility, to be placed on Huntleigh Drive and Stony Brook Drive.

With the construction of the multiway boulevard, bicycle lanes will be introduced in the new interchanges. This will provide important bicycle connections across Capital Boulevard in the medium term. Finally, the redevelopment of private property will be required to install the proposed streets from the Street Plan. Those streets will have sidewalks on both sides, and some will have bicycle lanes. As these other changes are occurring, the City will continue to build out the Marsh Creek Greenway trail, linking these sidewalks and bicycle lanes with the larger greenway network, Brentwood Park, and N. Raleigh Boulevard. The location of these improvements in Multimodal District 1 are described in the table below and show in the figure below.

TABLE 4. BICYCLE AND PEDESTRIAN IMPROVEMENTS IN DISTRICT 1

Description/ Street Name(s)	Location	
	From	To
Near Term		
Stony Brook Drive	Brentwood Road	Trawick Road
Huntleigh Drive	Capital Boulevard	Ingram Drive
	Ingram Drive	New Hope Church Road
Ingram Drive	Huntleigh Drive	Brinkley Drive
Long Term		
Marsh Creek Greenway	Glenraven Drive	Crabtree Creek Greenway
Lake Woodard Drive/ Brentwood Road	Brentwood Road	Marsh Creek Greenway (future)
	Stony Brook Drive	Lake Woodard Drive



- | | | |
|--|-----------------|-----------------|
| Pending/Existing Bikeway/Pedestrian Project | Existing Street | Building |
| Bikeway/Pedestrian Project: Near Term | Railroad | Parking |
| Bikeway/Pedestrian Project: Mid Term | Water Feature | Parcel Boundary |
| Bikeway/Pedestrian Project: Long Term | | |
| Existing Greenway | | |
| Proposed Greenway | | |
| Non-Interchange Priority Pedestrian Crossing | | |

0 0.125 0.25 0.5
Miles



Priority Bicycle and Pedestrian Recommendations

Multimodal District 1 | Map 1 of 4

Multimodal District 2: Starmount Drive to Louisburg Road

Multimodal District 2 is a segment within the middle of the study area between Trawick Road and Louisburg Road. This area is home to the northern part of the Brentwood neighborhood, much of the Starmount neighborhood, and several shopping centers.

Brentwood and Starmount are beautifully preserved mid-century neighborhoods that are both eligible for listing on the National Register of Historic Places. Prominent shopping centers include Tarrymore Square, Ashton Square, the Emporium Plaza, and the Starmount Shopping Center. This area is the narrowest existing right-of-way of Capital Boulevard and will experience some of the most significant impacts of the conversion to a multiway boulevard.

FIGURE 43. HOMES IN MULTI-MODAL DISTRICT 2



Drivers and Transit Riders

Within District 2 there are several proposed interchanges that are part of the multiway boulevard recommendation. The interchange projects recommended for this district are:

- Grade Separated Pedestrian Crossing and Right In/Right Out at Starmount Drive
- Grade Separation at Old Buffaloe Road
- Single Point Urban Interchange (SPUI) at New Hope Church Road/Buffaloe Road

Multiple new connections are also proposed for the Street Plan in this area. The narrow depth of commercial properties in this area make street connections more difficult than in other parts of Capital North. Still, additional streets are possible and can provide alternatives to travelling on Capital

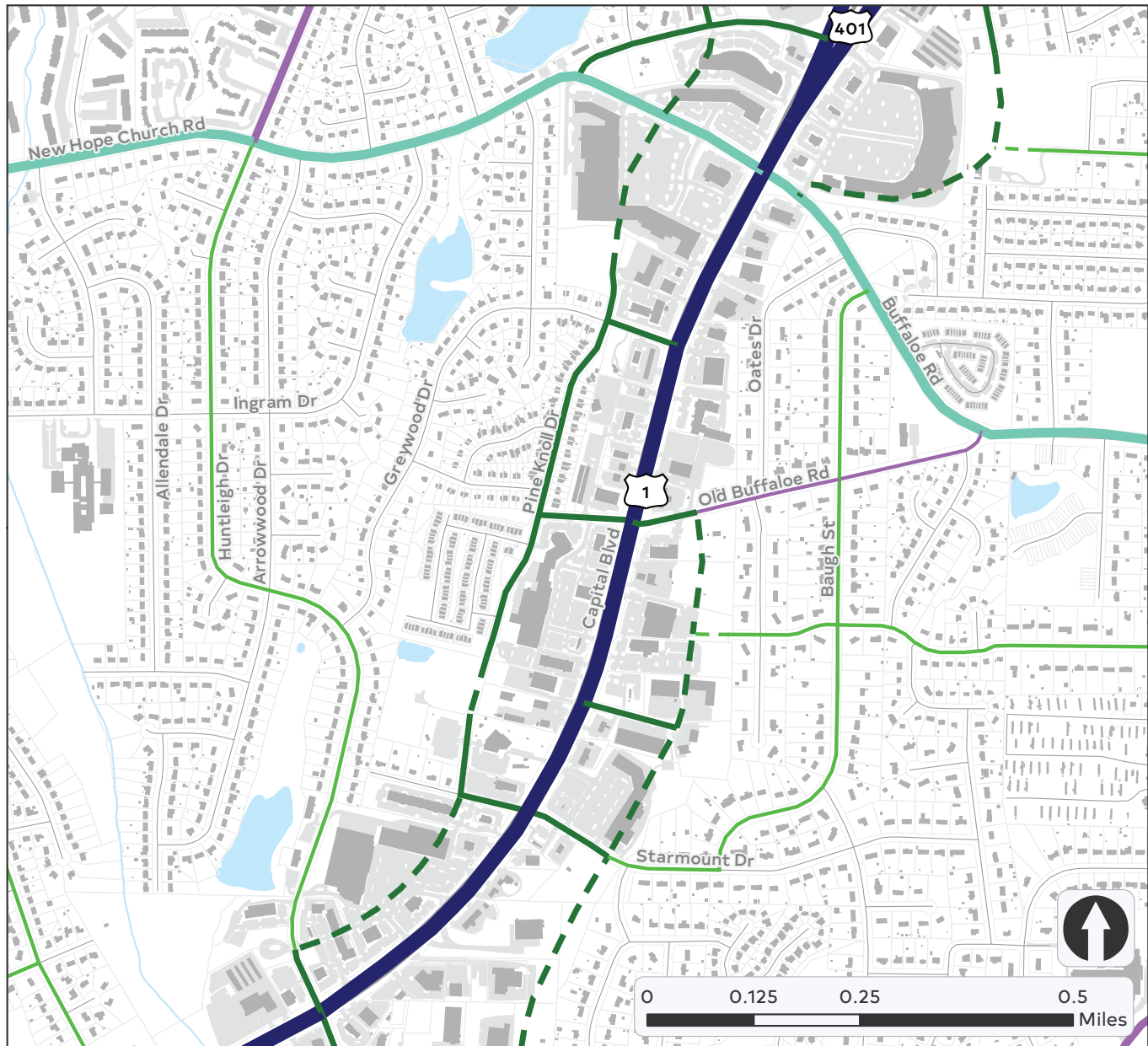
Boulevard or through neighborhoods for short trips.

On the west side of the corridor, the extension of Pine Knoll Drive presents a major opportunity for a walkable shopping district that residents can access directly from their neighborhoods without driving. Extending Batts Drive to Buffaloe Road will help people access shopping and transit more easily from the St. James neighborhood.

Greater street connectivity and activation may also have benefits for actual and perceived safety through the introduction of new streetlights and consistent sidewalks. These street recommendations are supplemented by strong bicycle corridors on both sides of Capital Boulevard that make use of neighborhood streets. The proposed Street Plan amendments are shown on the next page.

FIGURE 44. CAPITAL BOULEVARD AT BUFFALOE ROAD/NEW HOPE CHURCH ROAD





Street Plan

- | | |
|---|---|
| — Neighborhood Street | — Multi-Way Boulevard, Parallel Parking |
| - - Neighborhood Street Proposed | — Industrial Street |
| — Avenue 2-Lane, Undivided | - - Industrial Street Proposed |
| - - Avenue 2-Lane, Undivided Proposed | — Limited Access Highway |
| — Avenue 2-Lane, Divided | X X Proposed Removal |
| - - Avenue 2-Lane, Divided Proposed | — Existing Street |
| — Main Street, Parallel Parking | — Railroad |
| - - Main Street, Parallel Parking Proposed | — Water Feature |
| — Avenue 4-Lane, Parallel Parking Proposed | ■ Building |
| — Avenue 4-Lane, Divided | ■ Parking |
| - - Avenue 4-Lane, Divided Proposed | — Parcel Boundary |
| — Avenue 6-Lane, Divided | |

Street Plan Amendments

Multimodal District 2 | Map 2 of 4

Homes and Workplaces

The Capital North plan does not propose significant changes to the future land use vision for Multimodal District 2. This area is characterized by neighborhoods located close behind commercial developments. Taller heights would not be appropriate here. The challenges in creating a well-connected street grid makes high density development difficult to access effectively. The interchange of Capital Boulevard with Louisburg Road (US Highway 401) also prevents new access points at the north end of this district.

Recommendations for future development here are more about refining the transitions between areas rather than imagining a substantially different district. Even so, the Tarrymore Square and Ashton Square shopping centers provide opportunities for more offices or mixed-use developments.

The northern end of Pine Knoll Drive, south of New Hope Church Road, is well-suited to mixed-use buildings where apartments or offices are located above storefronts. The existing land use policies for this area already support these uses, and they will not be changed in these areas. The existing policies also support light manufacturing or artisanal businesses, which can allow for continuing emergence of new businesses in the corridor.

On the north side of New Hope Church Road, the extension of Pine Knoll Drive will meet Lake Ridge Drive. Lake Ridge Drive is currently envisioned to be developed with **Low Density Residential**. However, the existing development there is of greater density than the policies suggest. The Capital North plan proposes updating the Future Land Use Map to match the existing development and create potential for a very slight increase in density in the future.

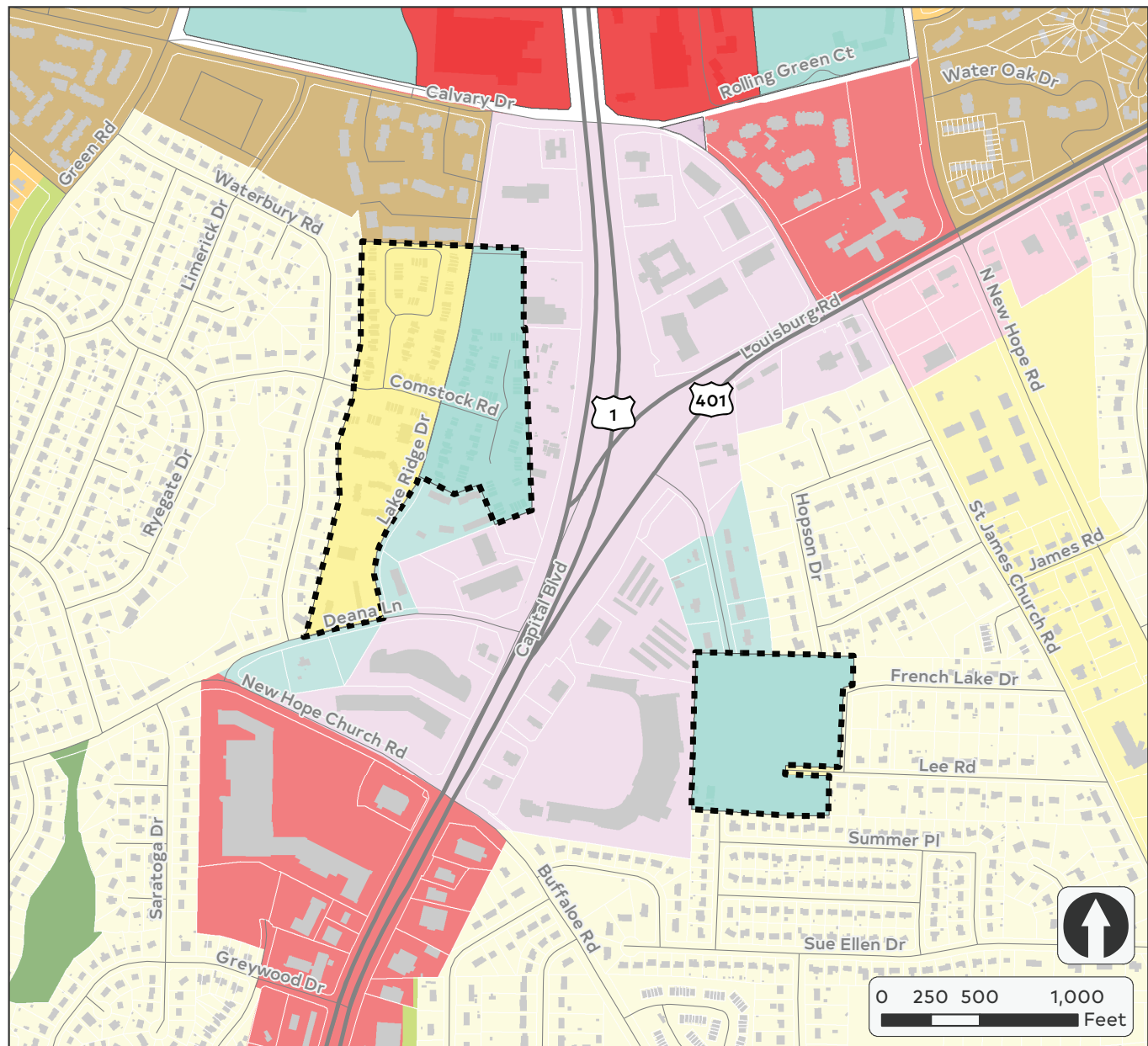
FIGURE 45. **A LOW-RISE OFFICE DEVELOPMENT**



This future is represented by the proposed **Moderate Density Residential** land use category on the west side of Lake Ridge Drive. On the east side, **the Office and Residential Mixed-Use** category is recommended. This creates the opportunity for office developments to be introduced behind the commercial and industrial uses that front on Capital Boulevard in this area. If this occurs, future residents and office workers will have good access to transit service, bicycle routes, and shopping areas. With the extension of Lake Ridge Drive to Calvary Drive, this area will also have the appropriate level of road capacity for future development.

"[The] beauty of the neighborhoods should be preserved."

On the other side of Capital Boulevard, the St. James neighborhood is located between Capital Boulevard, Louisburg Road, and N. New Hope Road. Directly behind the Ashton Square shopping center lies American Legion Post #1. The American Legion property has the potential to connect several streets in this neighborhood. The future of development here is currently recommended to be **Moderate Density Residential**. Considering the potential for significant street construction requirements that come with development, this corridor plan proposes the **Office and Residential Mixed-Use** category of future land use. Both of these categories provide an appropriate transition of density and intensity between Ashton Square and St. James, but the **Office and Residential Mixed-Use** designation provides additional options for employment and services. These development opportunities increase the potential for successful development that can open important street connections for travel with or without a private vehicle. Retail or personal service uses on the American Legion property should be limited and properly regulated by zoning conditions.



Proposed Future Land Use

- Business & Commercial Services
- Community Mixed Use
- Moderate Density Residential
- Neighborhood Mixed Use
- Office & Residential Mixed Use
- Regional Mixed Use
- Existing Street
- Parcel Boundary
- Building
- Lee Road and Lake Ridge Road
- Policy Proposal Area

Existing Future Land Use

- Business & Commercial Services
- Community Mixed Use
- Moderate Density Residential
- Neighborhood Mixed Use
- Office & Residential Mixed Use
- Regional Mixed Use
- General Industrial

- High Density Residential
- Institutional
- Low Density Residential
- Medium Density Residential
- Office Research & Development
- Public Facilities
- Private Open Space
- Public Parks & Open Space

Proposed Future Land Use Maps

Lee Road and Lake Ridge Road | Map 2 of 4

Walking and Cycling

During the public engagement process, residents express a desire for safe and comfortable travel by bicycle along Capital Boulevard. Multimodal District 2 is a critical area for bicycle and pedestrian connections because of the presence of Buffaloe Road, New Hope Church Road, and Louisburg Road. All three of these streets present challenges to walking and cycling due to the traffic volumes and posted speed limits. New Hope Church Road is an important bicycle connection to the west and it links with Green Road.

Green Road is a priority bicycle corridor to the north and south because of its connection with Green Road Park and Brentwood Park as well as a number of multifamily neighborhoods. In addition, multiple neighborhood streets to the east allow cyclists to reach Marsh Creek Park. Marsh Creek Park will eventually connect with the planned Kyle Drive Park and the Spring Forest Road Park using the planned Beaverdam Creek Greenway Trail.

As with Multimodal District 1, the three phases of improvements are street improvements,

followed by the multiway boulevard conversion, and culminating with new streets in private developments. Improvements to existing streets will be a major component of the pedestrian and bicycle network here. New Hope Church Road and Green Road are already receiving important upgrades for walking and cycling.

To augment that, the corridor plan proposes a set of bicycle lanes running north and south through the Starmount neighborhood. These will follow Edgetone Drive, Monterey Street, and Baugh Street. These streets were chosen because they are wide, straight, fairly level, and provide quick access to destinations on Capital Boulevard. To connect to N. New Hope Road and Marsh Creek Park, Donna Drive has been selected as a priority bicycle corridor parallel to Buffaloe Road.

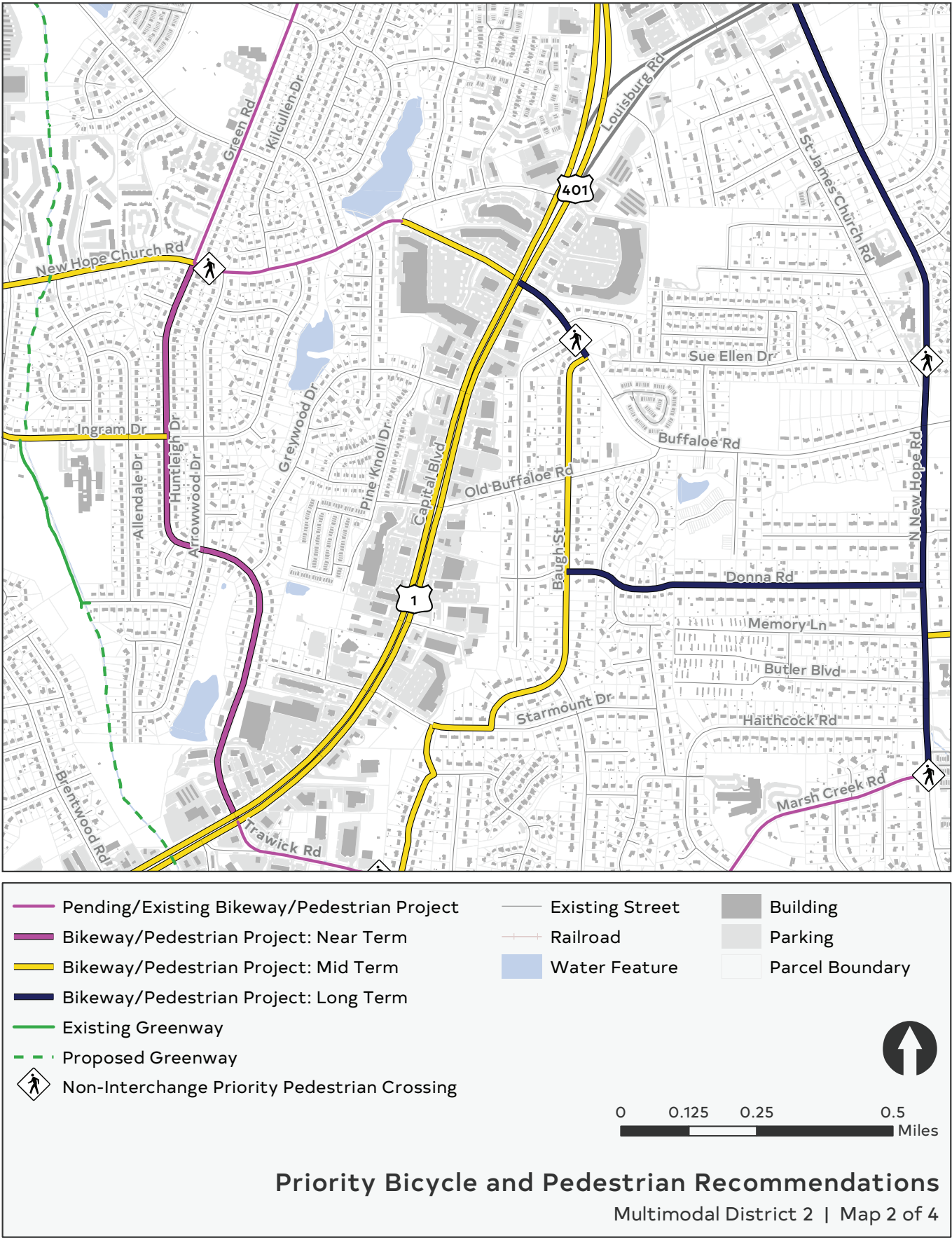
"Pedestrian connections to shopping plazas are bad."

The multiway boulevard project will add bicycle lanes as part of the interchange at New Hope Church Road/Bufaloe Road. A pedestrian bridge is recommended for Starmount Drive/Mayflower Drive. The extensions of Pine Knoll Drive and Lake Ridge

Drive will provide new sidewalk connections, and bicycle lanes can be installed on these streets in place of parallel parking. The location of these improvements in Multimodal District 2 are described in the table below and shown in the figure below.

TABLE 5. BICYCLE AND PEDESTRIAN IMPROVEMENTS IN DISTRICT 2

Description/ Street Name(s)	Location	
	From	To
Medium Term		
Wedgewood Drive/Charleston Park Drive/ Stillmeadow Road	Hinton Grove Place	North New Hope Road
	Charleston Park Drive	Hinton Grove Place
	Stillmeadow Road	Wedgewood Drive
	Southall Road	Charleston Park Drive
Edgetone Drive/Monterey Street/ Starmount Drive/ Baugh Road	Monterey Road	Trawick Road
	Starmount Drive	Edgetone Drive
	Baugh Street	Monterey Street
	Bufaloe Road	Starmount Drive
Ingram Drive	Brinkley Drive	Atlantic Avenue
New Hope Church Road	Green Rd	Atlantic Avenue
	Capital Boulevard	Deana Lane
Long Term		
Southhall Road/Castlebrook Drive/ Allenby Drive/ Abington Lane	Castlebrook Drive	Stillmeadow Road
	Allenby Drive	Southhall Road
	Abington Lane	Castlebrook Drive
Bufaloe Road	Baugh Street	Capital Boulevard
Scott Drive/Donna Road	North New Hope Road	Baugh Street



Multimodal District 3: Louisburg Road to Spring Forest Road

The segment of Capital North between Louisburg Road and Spring Forest Road is Multimodal District 3. The Mini City shopping center on the east side is historically and presently the social center of this area. Excellent transit service is already available, and residential neighborhoods display a wide variety of housing styles.

This district is densely populated, racially and ethnically diverse, and many households do not possess a private vehicle. This area offers one of the largest supplies of naturally occurring affordable housing in Raleigh. Green Road Park lies just west of this district. Several major employment centers occupy this district. The power center Capital Crossing power center, several large office buildings, wholesale distributors, and

light manufacturing employers are a source of hundreds of jobs and provide a vital economic base with regional impacts. A power center is a shopping center with multiple big box stores that could each serve as an anchor at a typical shopping center. The historic New Hope Baptist Church is located in the southeast of the district.

Drivers and Transit Riders

Within Multimodal District 3 there are three proposed interchanges that are part of the multiway boulevard recommendation. The improvements that are recommended for this district are:

- Tight Diamond Interchange at Calvary Drive
- Tight Diamond Interchange at Millbrook Road/New Hope Road
- Tight Diamond Interchange at Spring Forest Road

FIGURE 46. MULTIMODAL DISTRICT 3: LOUISBURG ROAD TO SPRING FOREST ROAD



The existing street network in this area forms some well-defined blocks. However, the blocks are very large from a pedestrian perspective. The means of crossing these blocks is mainly through vehicle lanes within parking lots. Sidewalks and pedestrian paths through parking lots are inconsistent, poorly maintained, or non-existent.

The proposals for the Street Plan in Multimodal District 3 seek to make smaller blocks by introducing public streets, mostly in places where private streets already exist. While the construction of these streets will likely only come from redevelopment of private property, the travel patterns will be familiar to residents and workers. Making private driveways into public streets will ensure that sidewalks and crossing areas provide a comfortable and consistent path around the area.

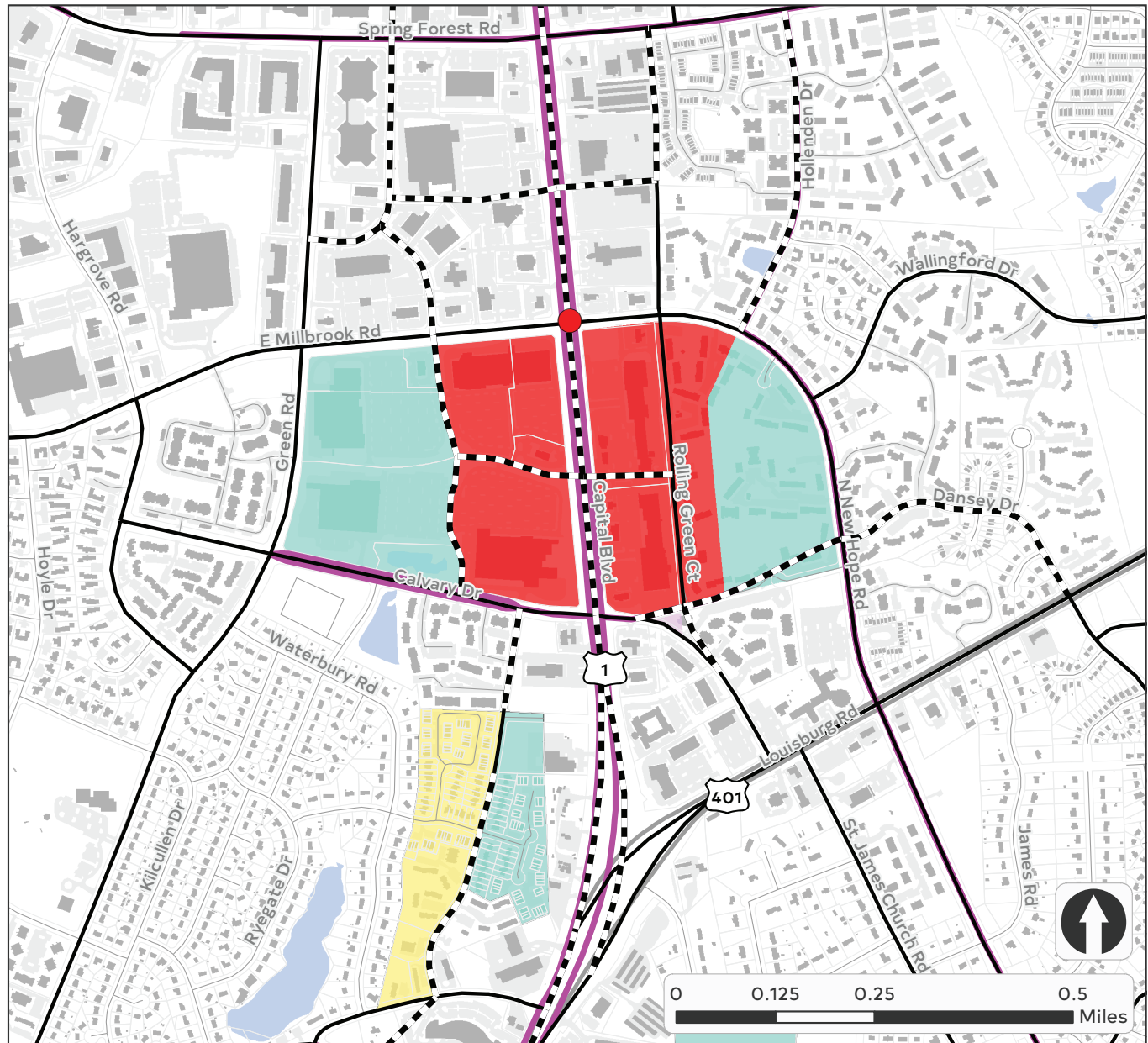
On the west side of Capital Boulevard, the Capital Crossing power center and the logistics hub to its north will be divided into smaller blocks by proposed public streets. By using existing parking lot lanes or placing proposed streets along property boundaries, the area can redevelop in an incremental way and produce the desired transportation benefits over time. The Mini City shopping center is treated similarly. In particular, Rolling Green Court will once again be a public street after many years of private use in the Lexington on the Green apartment complex.

"We are. . . in need of looking at our older roads for sidewalks and resurfacing."

A new connection will be made from Dansey Drive to Calvary Drive, facilitating travel for southbound drivers on Louisburg Road looking to reach points further west in Raleigh. Multiple small segments are also proposed to link north-south streets with Capital Boulevard. These segments will not allow left turns onto Capital Boulevard but will take pressure off the proposed interchanges by enabling an alternate route for right turns.

As an area with one of the lowest vehicle ownership rates in the City and an approximate "mid-point" of the corridor, a potential BRT station would produce substantial value for riders and businesses. The intersection of US-1, East Millbrook Road, and North New Hope Road may be an advantageous location within this context of dense housing, employment, and shopping. Other points within the district could also be explored for a BRT stop site, including Calvary Drive.





- Proposed BRT Station
- Bikeway/Pedestrian Project
- Existing Greenway
- Water Feature
- Existing Street
- Parcel Boundary
- Building
- Parking

Street Plan

- Proposed New Street / Modification
- x x Proposed Removal
- Existing Street Plan

Proposed Future Land Use

- Business & Commercial Services
- Community Mixed Use
- Moderate Density Residential
- Neighborhood Mixed Use
- Office & Residential Mixed Use
- Regional Mixed Use

Project Area Summary Maps

Multimodal District 3 | Map 3 of 4

Homes and Workplaces

The future development recommendations in Multimodal District 3 are focused on Mini City, Lexington on the Green, and Capital Crossing. With a potential BRT stop envisioned at N. New Hope Road/E. Millbrook Road as well as two crosstown connector routes, transit service at Mini City will be exceptional. New development here should maximize the benefits of transit and roadway investments while creating and preserving local business and housing options.

"Attracting new business as well as affordable housing in a mixed-use situation."

The recommended land use policies here decrease the envisioned height slightly from 12 stories to seven stories near the intersection of Capital Boulevard and Calvary Drive. Otherwise, the existing approach to height and density remains as it was before this planning process. More importantly, the recommended policies aim to increase the diversity and integration of uses. The goal is to encourage a truly urban district that mixes retail, residential, and office uses.

Real estate market research conducted for Capital North shows that this area of the corridor will experience redevelopment pressure as the existing buildings age. Area residents told us there is a need for doctor's offices and professional services that require office buildings. By increasing residential development and placing greater focus on

office buildings, these policies can ensure that new development serves existing residents and anticipated growth.

Additional policy recommendations found in the Policies and Actions section of this report will be critical to protecting housing affordability and small businesses as new development occurs. These policies call for grants to assist local businesses manage disruptions caused by street construction and redevelopment. Additional policies recommend that large new developments include affordable housing, especially if they are built on land that already contains low-cost units.

Proposed land uses in closer proximity to Capital Boulevard include large- and small-scale retail. The land use policies seek to integrate residential and office space into retail sites. This may occur through adaptive reuse of existing big box stores or by new buildings constructed to accommodate a mix of uses. This vision is captured by applying the **Community Mixed-Use** land use category directly adjacent to Capital Boulevard. The eastern extent of the category covers the western portion of Lexington on the Green, which is currently identified for **High Density Residential**. **High Density Residential** does not support development of significant office space, making this category a poor generator of high-wage employment.

As mentioned above, height near Calvary Drive intersection should not be more than seven stories. Near N. New Hope Road/E. Millbrook Road, up to 12 stories is appropriate. Lower density and height are called for in areas farther to the east and west. These areas are encouraged to have an introduction of office and residential development and fewer single-story retail uses.

The lower height and reduction of retail uses in this area provides an appropriate transition to the adjacent lower-density apartments on Green Road, Calvary Drive, and on the east side of N. New Hope Road. The land use category that promotes these development options is called **Office and Residential Mixed-Use**, and the recommended height for these areas is up to five stories.

There is currently no Urban Form Center designation for the identified portion of Multimodal District 3. It is proposed for this area to have a **Mixed-Use Center** Urban Form designation applied. A **Mixed-Use Center** provides guidance for future development that is similar to the **Urban Growth Center** applied in Multimodal District 1 but intended for a slightly smaller scale of development. For the new streets proposed on the Street Plan as well as for the streets surrounding this focus area, the **Urban Thoroughfare** category will be mapped.

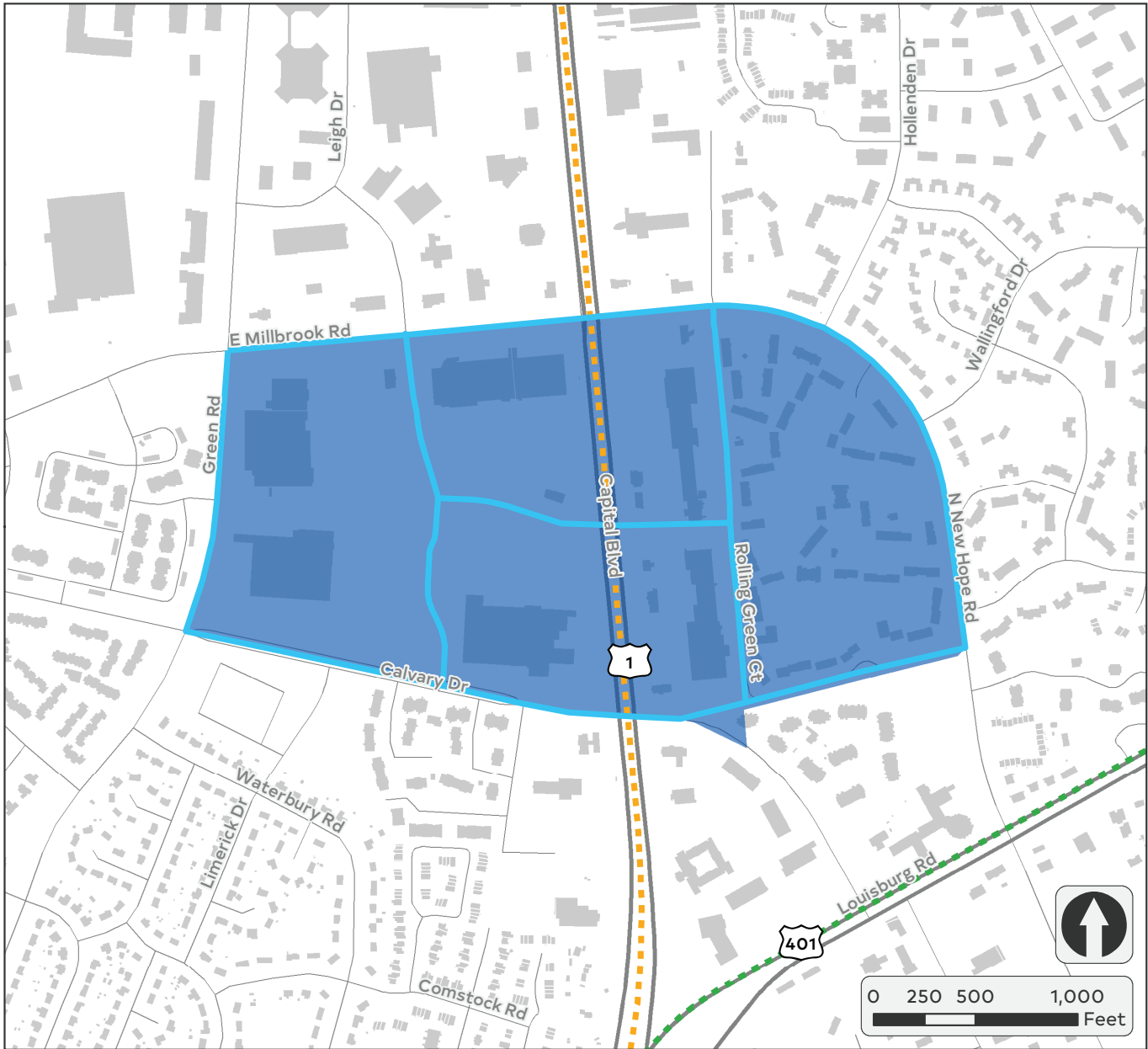
The application of these Urban Form policies to Multimodal District 3 will add important information about how they should look and function in the future. Large parking areas along the street will be discouraged. Wide sidewalks with buildings in easy walking distance will make new developments comfortable for people and reduce the

prioritization of cars. The new streets parallel to Capital Boulevard make a focal point for shopping and give residents and workers true civic spaces for a multimodal, urban lifestyle.

The figure below provides an example of how the Mini City Vision Area could look if new development occurs according to the proposed Future Land Use Map (FLUM) and Urban Form changes.

Walking and Cycling

Green Road is the primary bicycle route for travel north and south along Multimodal District 3. The first phase of bicycle improvements for existing streets will focus here. A sidewalk project on Green Road is in progress separate from the Capital North process. Calvary Drive is a new opportunity for east-west bicycle travel and will provide an important link to N. New Hope Road. Spring Forest Road has some existing bicycle lanes, and new lanes will help cyclists reach E. Millbrook Magnet Middle School, Spring Forest Road Park, and eventually Millbrook Exchange Park to the west. The existing right-of-way of Hollenden Drive is likely sufficient to facilitate new bike lanes. New bike lanes will be installed with interchanges at Calvary Drive, N. New Hope Road/E. Millbrook Road, and Spring Forest Road.



Urban Form Corridor: Proposed

- Transit Emphasis Corridor
- Parkway Corridor
- Urban Thoroughfare
- Main Street

Urban Form Corridor: Existing

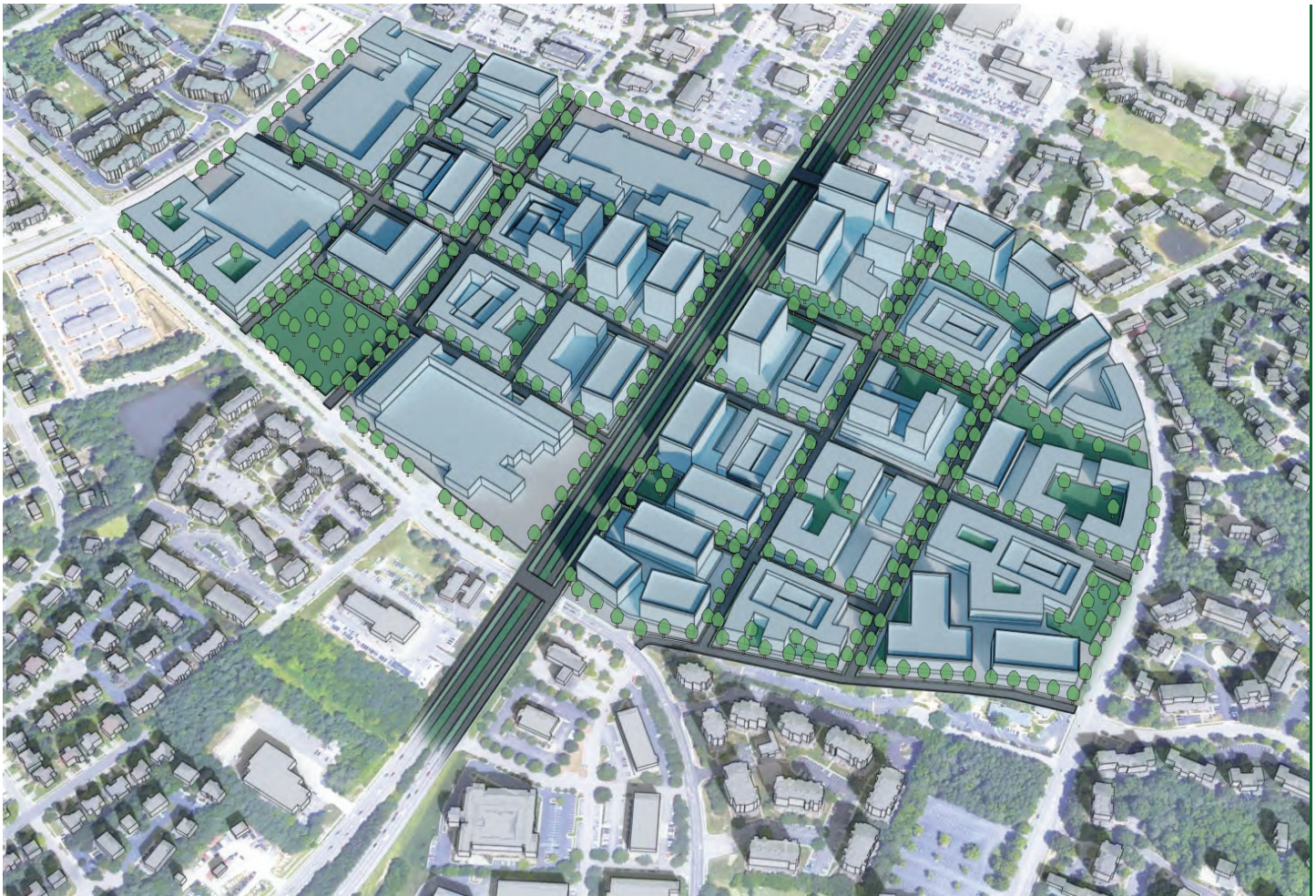
- Transit Emphasis Corridor
- Parkway Corridor
- Urban Thoroughfare
- Main Street

- Recommended Urban Form: City Growth Center
- Recommended Urban Form: Mixed Use Center
- Existing Raleigh Urban Form: City Growth Center
- Existing Street
- Parcel Boundary
- Building

Policy Proposal Area Maps

Mini City | Map 2 of 3

FIGURE 47. **EXAMPLE BUILD OUT OF THE MINI CITY VISION AREA**



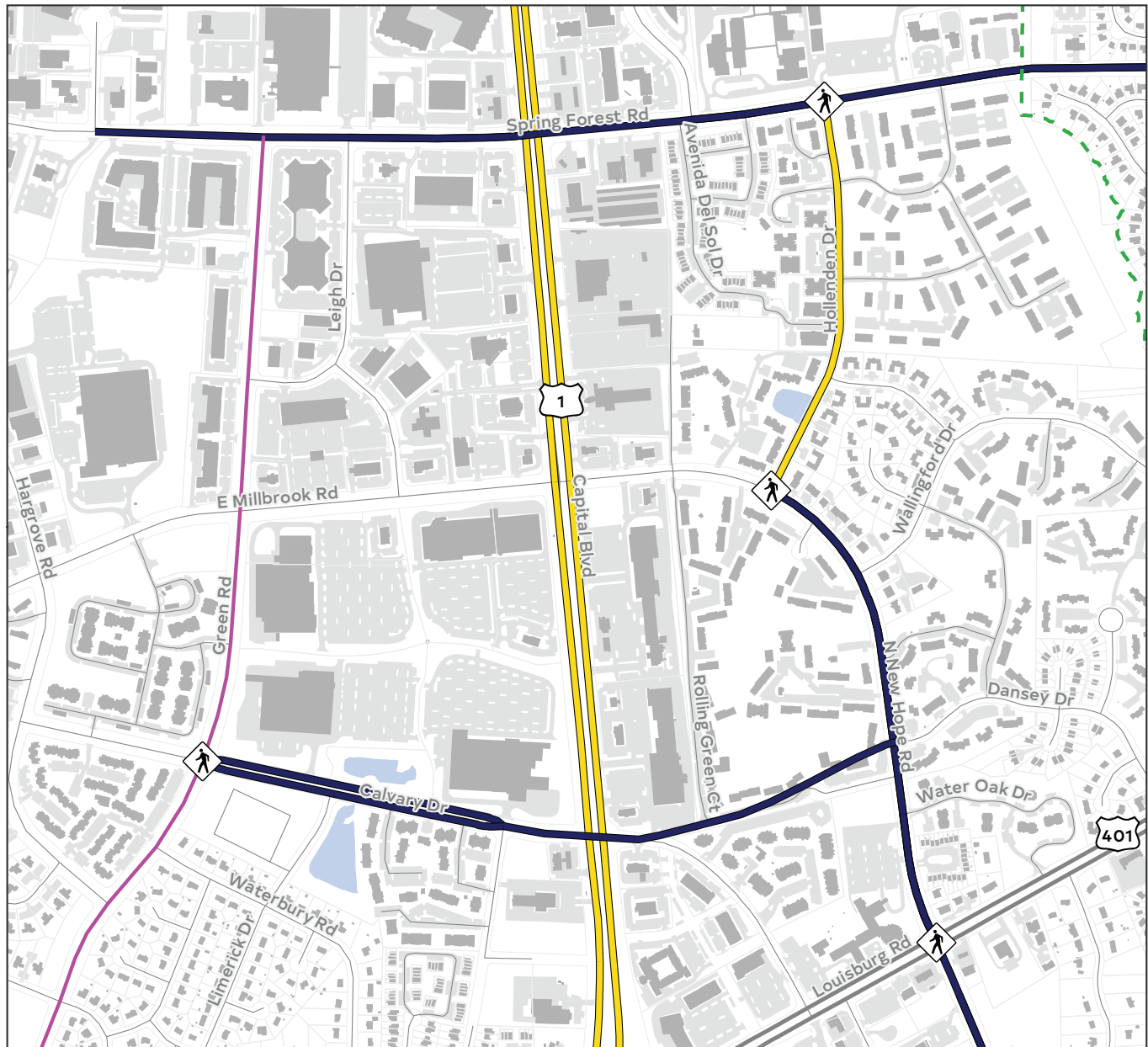
Along with 12-foot sidewalks on Capital Boulevard, these improvements will create good access to transit service and destinations on Capital Boulevard. The bicycle and pedestrian network will rely heavily on private development in this district. The Street Plan streets will be required to provide sidewalks on both sides. Bicycle lanes will be encouraged for the proposed north-south streets. N. New Hope Road will be an essential element of the network, and any project to add bicycle lanes should connect Buffalo Road with Hollenden Drive as a single project.

"There needs to be usable sidewalks and crosswalks at all of the intersections."

The location of these improvements in District 3 are described in the table below and show in the figure on the next page.

TABLE 6. BICYCLE AND PEDESTRIAN IMPROVEMENTS IN DISTRICT 3

Description/ Street Name(s)	Location	
	From	To
Medium Term		
Spring Forest Road	Primavera Court	Departure Drive
Hollenden Drive	Spring Forest Road	North New Hope Road
Long Term		
Calvary Drive	North New Hope Road	Capital Boulevard
	Capital Boulevard	Green Road
North New Hope Road	Hollenden Drive	Marsh Creek Road
Spring Forest Road	Louisburg Road	Spring Court



- | | | |
|--|-----------------|-----------------|
| Pending/Existing Bikeway/Pedestrian Project | Existing Street | Building |
| Bikeway/Pedestrian Project: Near Term | Railroad | Parking |
| Bikeway/Pedestrian Project: Mid Term | Water Feature | Parcel Boundary |
| Bikeway/Pedestrian Project: Long Term | | |
| Existing Greenway | | |
| Proposed Greenway | | |
| Non-Interchange Priority Pedestrian Crossing | | |

0 0.125 0.25 0.5 Miles



Priority Bicycle and Pedestrian Recommendations

Multimodal District 3 | Map 3 of 4

Multimodal District 4: Spring Forest Road to I-540

At the northern end of Capital North is Multimodal District 4. This district sits between Spring Forest Road and I-540. The Triangle Town Center shopping mall is located in the northeast portion of this district. Other shopping centers in the area include Plantation Square and Plantation Point. Some of the largest car dealerships in Capital North occupy the southern part of Multimodal District 4.

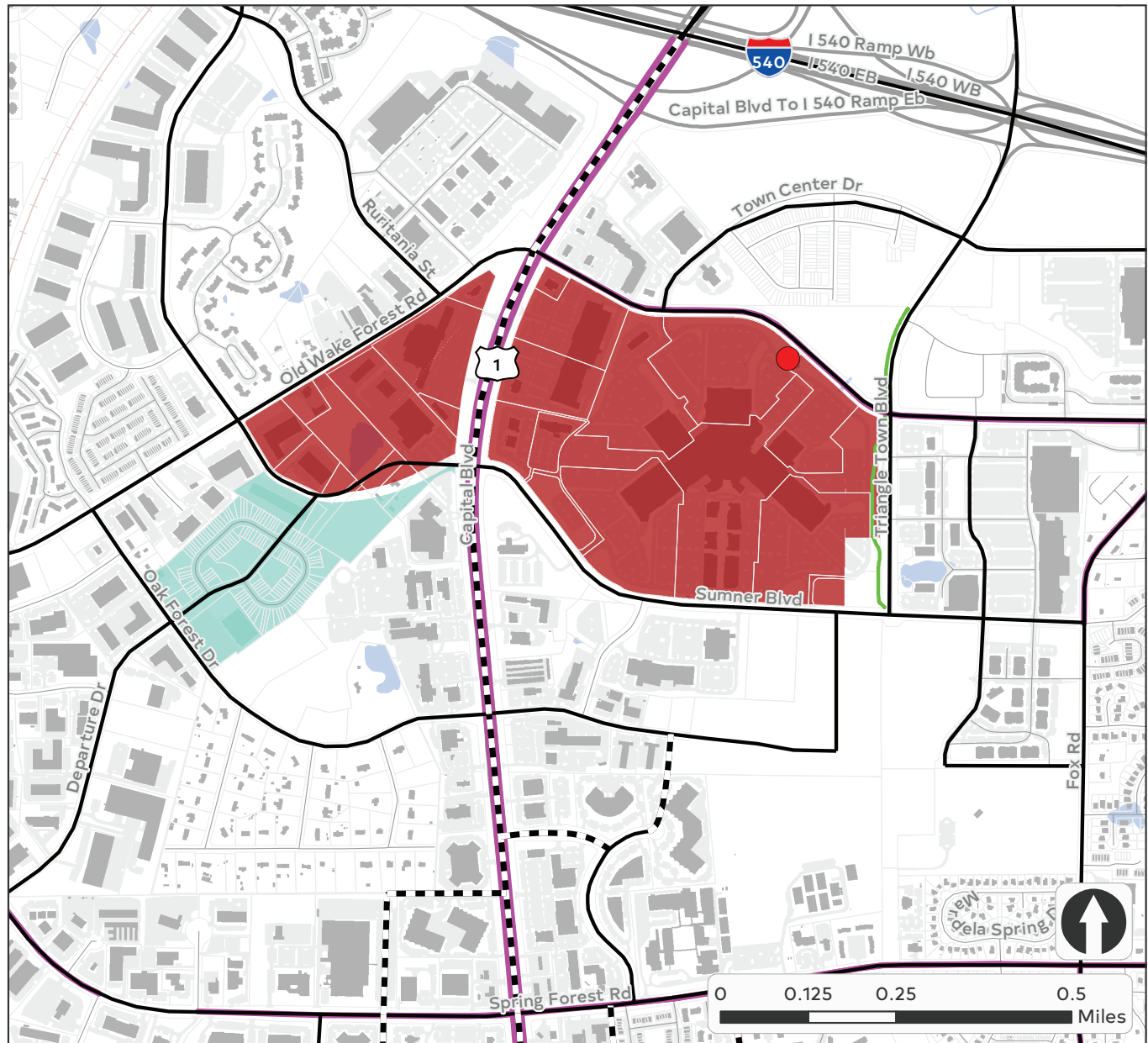
Significant logistics and light manufacturing businesses are located on the west side. Residential uses are mostly multifamily developments built in the last 15 years. This portion of Capital North has households with the highest incomes in the corridor. The existing right-of-way here is the widest on the corridor, and little new right-of-way will be

required for the multiway boulevard conversion. Streets are not well connected, and the scale of development is strongly oriented toward travelling by car.

Drivers and Transit Riders

The proposed interchanges for the multiway boulevard recommendation are both located at Triangle Town Center. There is a relatively small number of public streets that connect with Capital Boulevard between Spring Forest Road and Oak Forest Road. The improvements recommended for this district are:

- Grade Separated Pedestrian Crossing and Right In/Right Out at Oak Forest Drive
- Tight Diamond Interchange at Sumner Boulevard
- Tight Diamond Interchange at Old Wake Forest Road



- Proposed BRT Station
- Bikeway/Pedestrian Project
- Existing Greenway
- Water Feature
- Existing Street
- Parcel Boundary
- Building
- Parking

Street Plan

- Proposed New Street / Modification
- x x Proposed Removal
- Existing Street Plan

Proposed Future Land Use

- Business & Commercial Services
- Community Mixed Use
- Moderate Density Residential
- Neighborhood Mixed Use
- Office & Residential Mixed Use
- Regional Mixed Use

Project Area Summary Maps

Multimodal District 4 | Map 4 of 4

FIGURE 48. CAPITAL BOULEVARD LOOKING NORTH OF OAK FOREST DRIVE

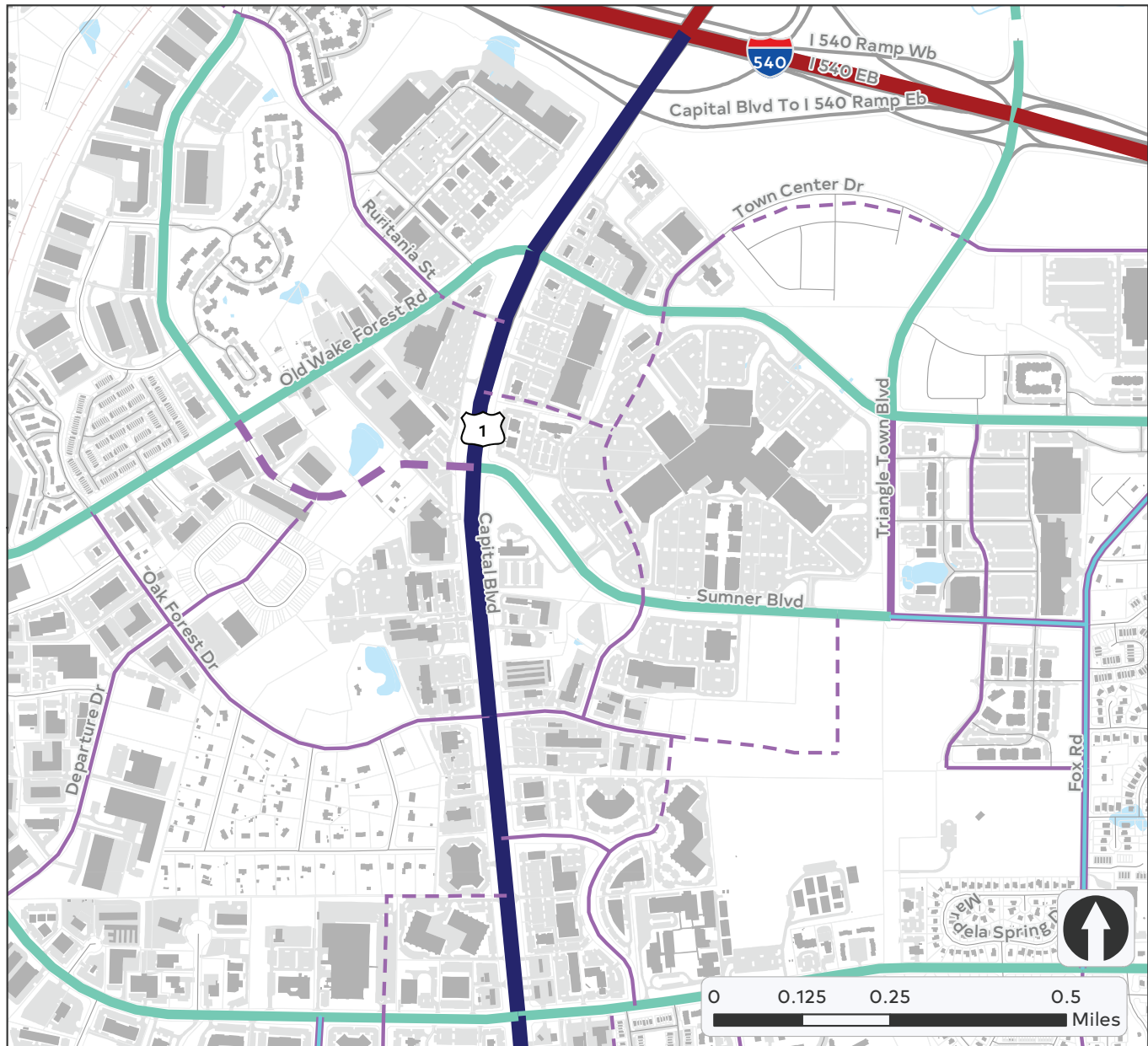


The construction of the multiway boulevard in Multimodal District 4 will provide benefits primarily for regional travel due to the wide spacing of intersections between Spring Forest Road and Sumner Boulevard. Street extensions to the east and west are limited by the Oak Forest Estates neighborhood on the west and an electric power utility easement on the east.

The Street Plan is a less useful tool here because, aside from the connection challenges noted above, there are a variety of options for new street connections that have similar value. The Street Plan is not intended to identify every possible street connection. This is especially true at Triangle Town Center. The Street Plan is reserved for street improvements that enhance the larger street network. In the southern part of Capital North, there is a need to describe the specific street connections that will ensure a logical and efficient route across development sites. In Multimodal District 4, the City will rely more on zoning requirements to produce the denser grid that is needed.

With the above information in mind, the Street Plan proposals for this district are focused on creating practical regional connections and supporting the multiway boulevard interchanges. Between Spring Forest Road and Oak Forest Road, that means a similar approach to Multimodal District 3. Greens Dairy Road will connect through to Oak Forest Road, and Trust Drive will add capacity to the interchange at Spring Forest Road. A similar treatment will be applied to the extension of Leigh Drive on the west side.

A new street is recommended through the Triangle Town Center property to link Sumner Boulevard with Old Wake Forest Road. The location of this streets was selected to align with other streets and navigate the topography of Triangle Town Center. As with Multimodal District 3, a segment connects this new street with Capital Boulevard to enable greater traffic flow from the interchanges at Sumner Boulevard and Old Wake Forest Road. The proposed Street Plan amendments are shown in the figure below.



Street Plan

- | | |
|---|---|
| — Neighborhood Street | — Multi-Way Boulevard, Parallel Parking |
| - - Neighborhood Street Proposed | — Industrial Street |
| — Avenue 2-Lane, Undivided | - - Industrial Street Proposed |
| - - Avenue 2-Lane, Undivided Proposed | — Limited Access Highway |
| — Avenue 2-Lane, Divided | X X Proposed Removal |
| - - Avenue 2-Lane, Divided Proposed | — Existing Street |
| — Main Street, Parallel Parking | — Railroad |
| - - Main Street, Parallel Parking Proposed | — Water Feature |
| — Avenue 4-Lane, Parallel Parking Proposed | ■ Building |
| — Avenue 4-Lane, Divided | ■ Parking |
| - - Avenue 4-Lane, Divided Proposed | □ Parcel Boundary |
| — Avenue 6-Lane, Divided | |

Street Plan Amendments

Multimodal District 4 | Map 4 of 4

Homes and Workplaces

Triangle Town Center is the center of the land use policy direction for Multimodal District 4. The policy proposal area is approximately 204 acres in size and includes a large shopping center on the west side of Capital Boulevard. This north portion of the corridor contains more recently developed and larger-scale retail in comparison to other areas of the corridor. Nevertheless, national trends indicate that the conventional shopping mall model of Triangle Town Center will need to adapt due to evolving market demand from the growth of e-commerce and greater preferences for more urban shopping districts.

This evolution may include strategies for land use diversification, adaptive reuse, more walkable environments, and the integration of community outdoor green spaces. Recent multifamily apartment development at the periphery of the policy proposal area demonstrates that access to I-540, and Research Triangle Park by extension, should continue to drive demand for housing.

Within and around the Triangle Town Center area, the proposed vision for future development encourages increased diversity of land uses beyond the pure retail model in place. The **Regional Mixed-Use** category has previously been applied to Triangle Town Center to support these goals, including a height recommendation of up to 20 stories. This designation will remain in place.

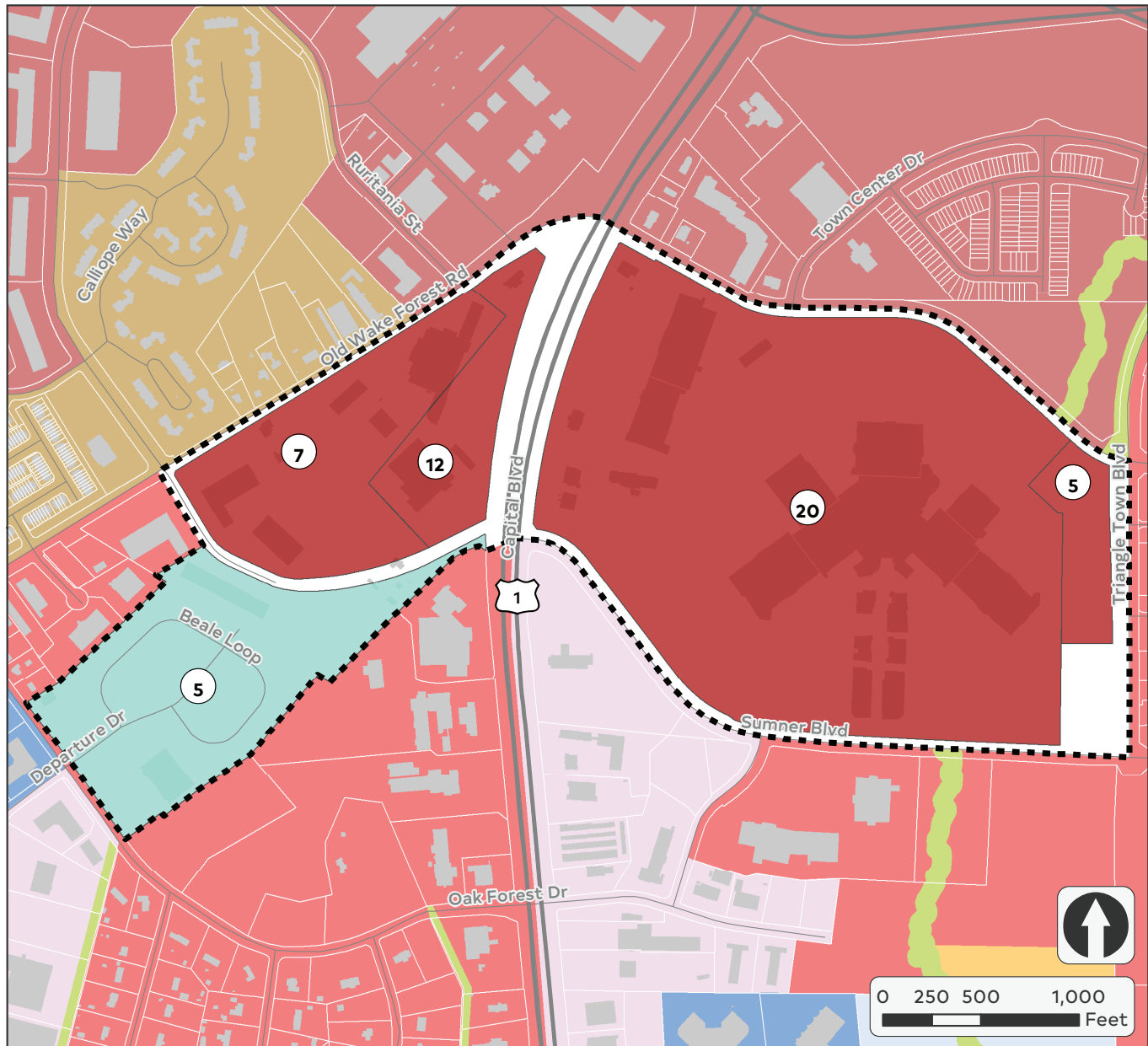
The Capital North corridor plan refines that policy by calling for a transition area on the east side where height should not be greater than five stories. This lower height is suggested with the knowledge that the east side of the

mall has a very steep slope that makes it difficult to have multiple access points. The presence of a buried stream through this area also provides an opportunity for this side to be a lower intensity portion of the district. The stream should be restored to its natural state, also known as “daylighting”, to serve as a natural amenity, green space, and focal point for outdoor activity. Daylighting the stream can also provide stormwater management benefits for the surrounding area.

On the west side of the corridor, a diversity of uses should similarly be encouraged, with greater heights/densities and a larger proportion of retail uses near the corridor. The **Community Mixed-Use** land use type is recommended with height of up to 12 stories considered near Capital Boulevard. Towards Old Wake Forest Road, seven stories should be the maximum height for zoning.

“Beautification of the Capital Blvd area, allowing for more grass/landscaped areas between businesses, making larger sidewalks.”

The incorporation of office and residential development with fewer standalone commercial uses is the development goal south of the proposed extension of Sumner Boulevard. The selected land use designation here is **Office and Residential Mixed-Use**. This area should be limited to five stories to form a compatible transition between potentially taller development to the north and a townhouse community to the south.



Proposed Future Land Use

- Business & Commercial Services
- Community Mixed Use
- Moderate Density Residential
- Neighborhood Mixed Use
- Office & Residential Mixed Use
- Regional Mixed Use
- Existing Street
- Parcel Boundary
- Building
- Triangle Town Center Policy Proposal Area
- # Maximum Building Height (Stories)

Existing Future Land Use

- Business & Commercial Services
- Community Mixed Use
- Moderate Density Residential
- Neighborhood Mixed Use
- Office & Residential Mixed Use
- Regional Mixed Use
- General Industrial

- High Density Residential
- Institutional
- Low Density Residential
- Medium Density Residential
- Office Research & Development
- Public Facilities
- Private Open Space
- Public Parks & Open Space

Proposed Future Land Use Maps

Triangle Town Center | Map 4 of 4

As a highly active center adjacent to I-540 and at the terminus of the Capital Boulevard North Corridor, the Triangle Town Center site presents a unique opportunity to provide a larger-scale transit hub, as opposed to the district-serving stations along the corridor. This hub may be fully integrated with the high-density, mixed-use development that is envisioned and may provide transportation opportunities beyond BRT.

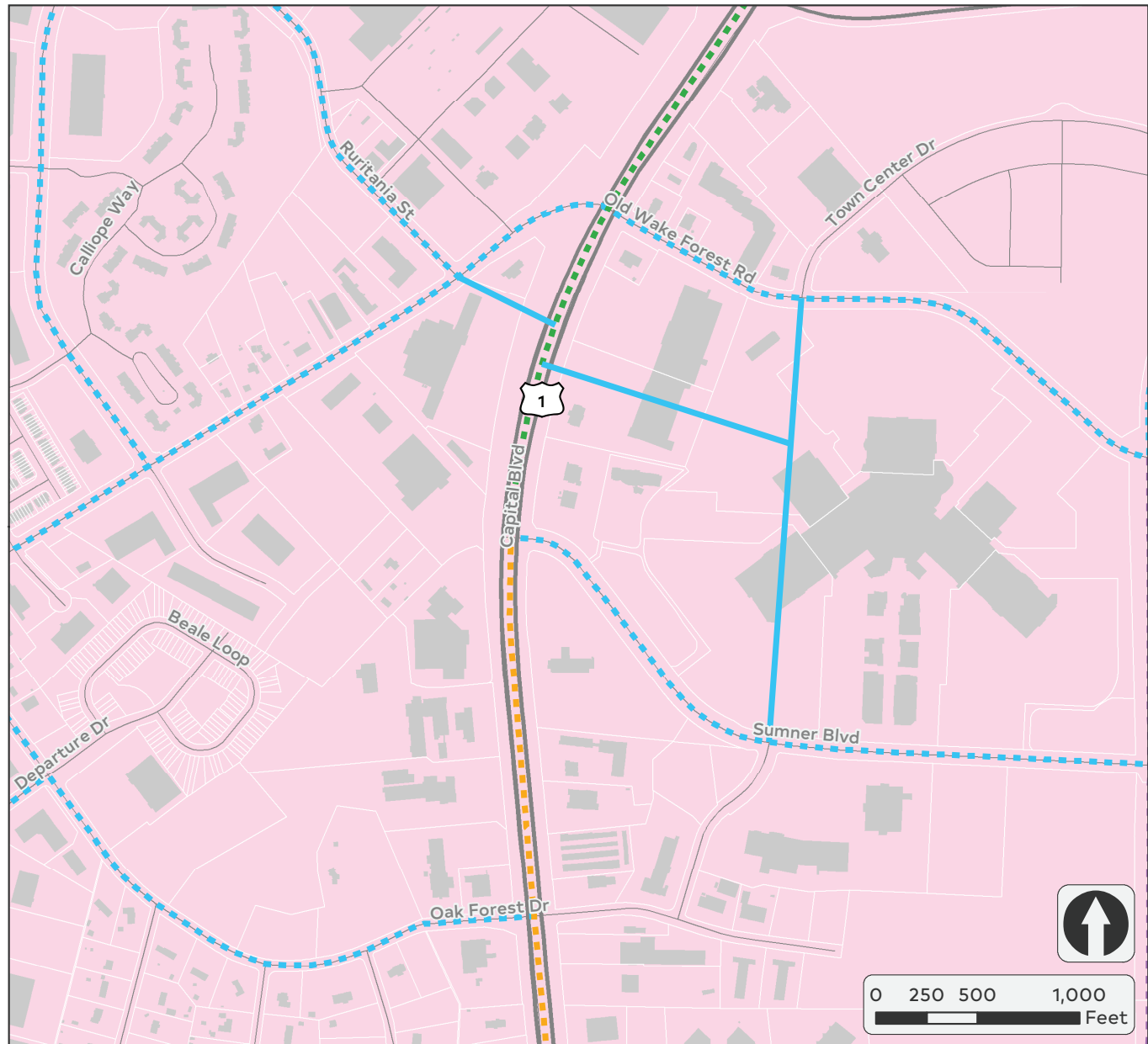
Additional transportation infrastructure could include a regional transfer station serving multiple bus routes, a bikeshare station, and drop-off and pick-up areas for ridesharing. While a location adjacent to Capital Boulevard may provide high visibility, placement at Old Wake Forest Road or Triangle Town Boulevard would provide a better opportunity for the transit hub to be more fully integrated and accessible for new apartments and offices where riders will be concentrated.

Shifting a transit hub away from Capital Boulevard will also enable greater park-and-ride options, provide adequate space for bus transfers, and ease turning movements for buses arriving and departing from the hub in different directions. All of these elements contribute to a future travel pattern where commuters from cities and towns to the north can leave their private vehicles upon reaching this area and transfer to transportation options with lower carbon emissions.

The existing Urban Form policy for Triangle Town Center and a large area to the west is **City Growth Center**. No change is recommended for this designation. This type of center discourages large parking lots between buildings and the sidewalk. The intent is to make the street visually interesting and inviting for walking. Within the **City Growth Center**, Old Wake Forest Road and Sumner Boulevard are already mapped with the **Urban Thoroughfare**. New **Urban Thoroughfares** should be applied to the newly proposed streets.

To increase the quality of the pedestrian experience between the Capital Boulevard Multiway and nearby development, it is recommended that the new street connecting Sumner Boulevard and Old Wake Forest Road be designated an **Urban Thoroughfare**. **Urban Thoroughfare** is also recommended for the proposed street leading from the north-south street to Capital Boulevard. A small street connecting Old Wake Forest Road with Capital Boulevard just south of the Old Wake Forest Road intersection should also be an **Urban Thoroughfare**.

These thoroughfare policies will create the core of walkable, urban streets that will define the style of new development in this area. In combination with the Street Plan, they ensure that the future pattern of buildings and streets around Triangle Town Center will reflect a balance of transportation options and a more efficient mix of shopping, housing, and jobs.



Urban Form Corridor: Proposed

- Transit Emphasis Corridor
- Parkway Corridor
- Urban Thoroughfare
- Main Street

Urban Form Corridor: Existing

- - - Transit Emphasis Corridor
- - - Parkway Corridor
- - - Urban Thoroughfare
- - - Main Street

 Recommended Urban Form: City Growth Center

 Recommended Urban Form: Mixed Use Center

 Existing Raleigh Urban Form: City Growth Center

 Existing Street

 Parcel Boundary

 Building

Policy Proposal Area Maps

Triangle Town Center | Map 3 of 3

The figure below provides an example of how the Triangle Town Center Vision Area could look built out to the proposed FLUM and Urban Form changes.

FIGURE 49. EXAMPLE BUILD OUT OF THE TRIANGLE TOWN CENTER VISION AREA



Walking and Cycling

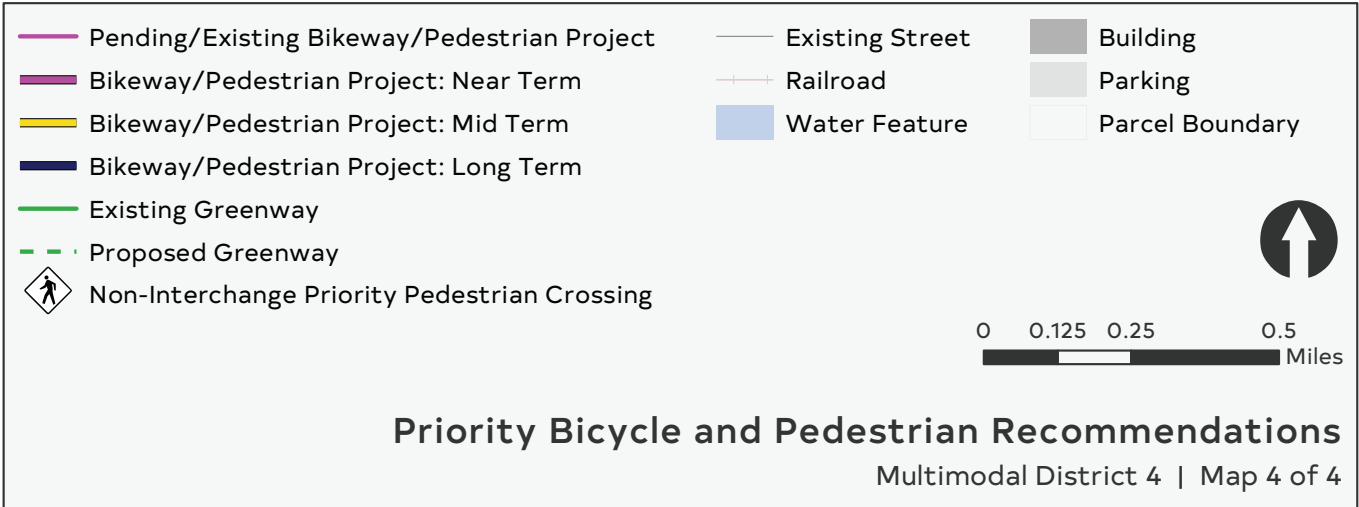
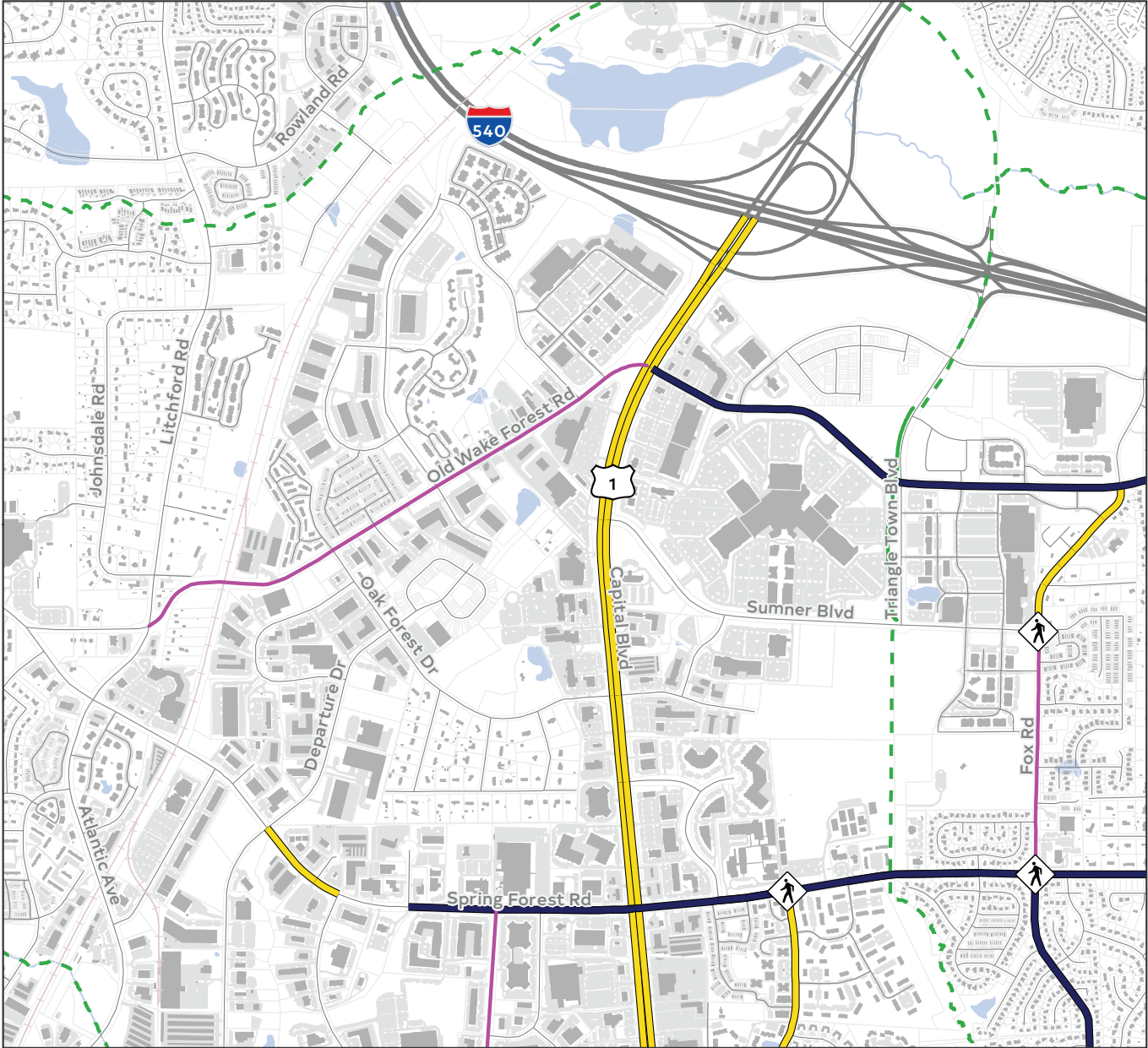
Pedestrian and bikeway recommendations in Multimodal District 4 are coordinated closely with the street and development proposals. Old Wake Forest Road will be an important bicycle connection between this area and Spring Forest Road. A street improvement project for Old Wake Forest Road on the west side of Capital Boulevard was planned prior to the Capital North process. That project will install a multi-use path. This plan prioritizes bike lanes for the west end of Old

Wake Forest Road. These will connect with the greenway trail on the east side of Triangle Town Center. Fox Road also had a previously planned project to provide consistent sidewalks and a bicycle lane. Those improvements will link the proposed bike route on Spring Forest Road with Old Wake Forest Road.

The location of these improvements in District 4 are described in the table below and show in the figure below.

TABLE 7. BICYCLE AND PEDESTRIAN IMPROVEMENTS IN DISTRICT 4

Description/ Street Name(s)	Location	
	From	To
Medium Term		
Fox Road	Old Wake Forest Road	Sumner Boulevard
Long Term		
Kyle Drive/Fox Road	Beaverdam Creek Greenway	Fox Road
	Kyle Drive	Spring Forest Road
Old Wake Forest Road/Fox Road/ Perry Creek Road	Segal Drive	Capital Boulevard
	Louisburg Road	Segal Drive
	Perry Creek Road	Louisburg Road
	Neuse River Trail	Fox Road



Priority Bicycle and Pedestrian Recommendations

Multimodal District 4 | Map 4 of 4



Appendices

Appendix A: Implementation Steps

1 The Path to Capital North: From Here to The Future

Policy Recommendations

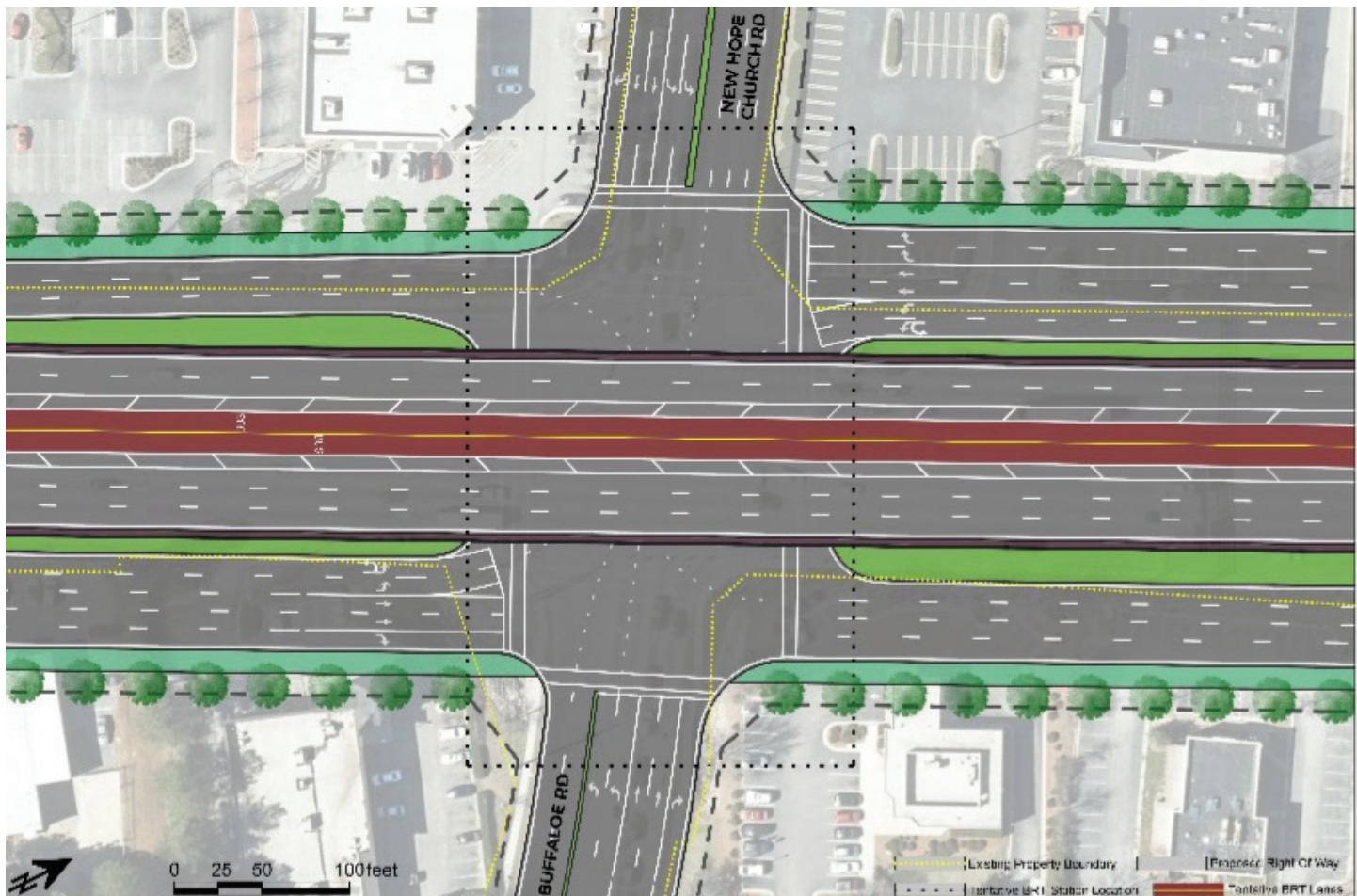
The improvements described in the previous sections are ambitious and will take several years to come to fruition. There are many inter-related factors in the proposed changes to the corridor that require careful thought. In order to ensure that the future corridor truly reflects the ideals set forth by the participants in this study, this report provides the following written directions. These are policies and actions that fill in some of the details about how the changes to the corridor should carry out the vision of the people here.

The policies listed in this section are intended to become part of Raleigh's 2030 Comprehensive Plan. That means they will become official city policies for guiding public investments, new development, and community amenities. These actions give City departments, other agencies, and community organizations specific goals for putting these policies into effect. This list is organized according to the four Vision

Themes created at the beginning of the study process. Each Vision Theme and its description is shown above the policies that reflect it.

These themes have also been incorporated into the design concepts and spatial policies that are shown in detail in the previous section. For example, Policy AP-CN 1.3 states Design new and reconstructed interchanges to accommodate future bus rapid transit stations and the map on page 64 highlights an area where a location was identified for a future incorporation of a Bus Rapid Transit (BRT) station. The previous sections also highlighted how these policies were incorporated in the land use policies for the corridor, such as incorporating Policy AP-CN 3.1: "As existing commercial areas redevelop, encourage urban form and land uses that support transit ridership and create a comfortable and accessible public realm on secondary streets near Capital Boulevard."

FIGURE 50. **MULTIWAY BOULEVARD**



Vision Theme: Flow

Capital Boulevard will be a safe, direct, reliable, and high-capacity connection for travel by all modes of transportation to centers of employment and economic activity in Raleigh and the surrounding region.

Policy AP-CN 1.1 Traffic Management:

Accommodate the traffic volume projected in 2045 by the Triangle Regional Model while also maintaining access to land uses along the corridor.

Policy AP-CN 1.2 Low-Impact Interchange Design:

Interchange design should minimize

and mitigate impacts on nearby development. Impacts to be considered should include access, visibility, and future development potential.

Policy AP-CN 1.3 BRT Preparedness: Design new and reconstructed interchanges to accommodate future bus rapid transit stations.

Policy AP-CN 1.4 Bicycle Concurrency: Prioritize implementation of bicycle facilities on adjacent and/or parallel streets to be constructed in a similar time frame as interchange and street projects for Capital Boulevard, as called for in the Bike Raleigh plan.

Policy AP-CN 1.5 Mature Tree Preservation:

To the maximum extent possible, preserve existing mature trees along Capital Boulevard during road construction, particularly in the area between Spring Forest Road and Oak Forest Drive.

Action AP-CN 1.1 Bicycle Transitions to

Interchanges: Bicycle facilities approaching and within interchanges should be constructed as shown in the Bicycle Design figures in Appendix F of the plan report.

Action AP-CN 1.2 Quick-Build Bicycle Projects:

Pursue quick-build bicycle projects for some locations near the corridor. Consider temporary, low cost, and low maintenance options that can be constructed quickly and serve as interim facilities until more permanent facilities are constructed.

Action AP-CN 1.3 Pedestrian Circulation in the

I-440 Interchange: Ensure that the I-440/Capital Boulevard interchange improvement project provides a safe, direct, and convenient pedestrian connection through the interchange.

Vision Theme: Go

Capital Boulevard will provide for safe and accessible local travel for all modes of transportation. Pedestrian and bicycle facilities will connect transit, parks, neighborhoods, shopping, and employment while reducing conflicts with vehicle traffic. Local streets should be designed with all users in mind and help to activate nearby land uses.

Policy AP-CN 2.1 Pedestrian Safety:

Increase pedestrian/overall safety through grade separation, parallel street network development, or other capital projects as described in this plan.

Policy AP-CN 2.2 Pedestrian Bridge at Triangle

Town Center: Encourage reservation of land on both sides of Capital Boulevard between Sumner Boulevard and Old Wake Forest Road for the construction of a pedestrian bridge in this location.

Policy AP-CN 2.3 Retaining Pedestrian Access:

Where an existing through street is converted to right-in/right-out or grade separation without access to Capital Boulevard, identify appropriate locations for facilities to ensure a high level of pedestrian access across Capital Boulevard, including pedestrian bridges. Any reduction in pedestrian level of service for crossing Capital Boulevard should be minimized in magnitude and duration.

Policy AP-CN 2.4 Accommodating New Streets:

Consider allowing greater height and density than what is recommended by Table LU-2 for sites that contain streets on the Street Plan Map. Carefully balance additional density with appropriate neighborhood transitions.

Policy AP-CN 2.5 Innovative Bike/Ped Facilities:

Evaluate the operational feasibility and potential benefits of creating new types of bicycle and pedestrian facilities that fill small gaps in the existing network, can be constructed quickly, or have been difficult to implement in the past due to divergence from adopted facility types. Consider incorporating this work into the Greenway Master Plan update process.

Policy AP-CN 2.6 Interchange Corners at

Grade: New interchanges should be designed such that local vehicle lanes are constructed as close as possible to the existing grade of adjacent developments where they meet the street. Where this policy conflicts with the desire for site access as described in Policy 1.1 "Traffic Management", this policy should be given

FIGURE 51. **EXAMPLE OF PEDESTRIAN BRIDGE (IEW CONSTRUCTION GROUP)**



priority.

Policy AP-CN 2.7 Neighborhood Edges:

Improve the safety, appearance, and connectivity of transition areas between commercial and residential uses.

Action AP-CN 2.1 Streetscape Plan: Create a streetscape design to be applied on cross streets where new interchanges are proposed. Allow for design of some elements, particularly vertical items such as light poles and benches, to be customized according to the character of the nearby area. Include residents, businesses, and civic

organizations from the adjacent neighborhoods in the design and/or selection of these items.

Action AP-CN 2.2 Pedestrian Crossings:

Construct improved pedestrian crossings as shown in the Priority Bicycle and Pedestrian Recommendations maps in this report. Explore the possibility of a pedestrian crossing at Baugh Street and Buffaloe Road to connect with the Raleigh Housing Authority (RHA) development on the north

side. If a crossing is installed, improve the sidewalk through the RHA development to a multi-use path.

Action AP-CN 2.3 Marsh Creek Greenway Land Acquisition: Identify and pursue opportunities to acquire land, including as part of capital projects, for the implementation of the Marsh Creek Greenway between Brentwood Park and N. Raleigh Boulevard. Identify and seek to implement connections between the Marsh Creek greenway and Hill Street Park as well as with civic spaces in the Highwoods/Westinghouse Multi-modal District.

Action AP-CN 2.4 New Civic Life in Existing Spaces: Seek novel ways to utilize underused spaces, such as vacant retail outlets and existing public right-of-way, in the corridor for public benefit. Consider the installation of small-scale park facilities and amenities that attract positive, healthy activity and raise visibility of out-of-the-way areas. Explore this concept in a future Parks, Recreation and Cultural Resources System Plan Update.

Action AP-CN 2.5 Safety by Design: Explore the feasibility of installing lighting, "blue light" emergency phones, cameras, and public Wi-Fi networks along the proposed bicycle and pedestrian network, including in the form of "safety refuges" that combine all four elements listed. If pursued, integrate these items with the "loops" described in Action 4.9 "Neighborhood Loops".

Vision Theme: Grow

A mixed-use corridor that provides

residential choices, economic opportunity, and a variety of goods and services for Raleigh's residents and workers.

Policy AP-CN 3.1 Transit-Supportive Urban Design: As existing commercial areas redevelop, encourage urban form and land uses that support transit ridership and create a comfortable and accessible public realm on secondary streets near Capital Boulevard. The recommended land uses and building heights from this plan should be used for the review of rezoning cases. Zoning heights greater than 7 stories should be discouraged until bus rapid transit is planned for the corridor and economic assistance resources are available for small businesses

Policy AP-CN 3.2 Promoting Vertical Mixed-Use Development: When large commercial sites are rezoned, encourage zoning conditions that promote office and employment uses, such as limiting the square footage of single-story retail.

Policy AP-CN 3.3 Large Site Design Quality: Facilitate a high level of design quality for large commercial sites such as Triangle Town Center through staff assistance in planning of infrastructure, building orientation, landscaping, and open space.

Policy AP-CN 3.4 Affordable Units in Dense Development: Through the rezoning process, encourage all new development 7-stories or greater and containing a residential component to reserve as affordable units (as defined by Raleigh Housing & Neighborhoods or adopted City policy) EITHER 5% of the total number of residential units OR one-half of the number of units lost through demolition of existing housing, whichever is greater.

Policy AP-CN 3.5 Equitable Investment and Redevelopment: Alleviate the detrimental or inequitable impacts to residents, businesses, and non-profit organizations related to new infrastructure and redevelopment using existing and expanded tools and programs. If BRT is implemented, apply the tools identified in the Equitable Transit Oriented Development guidebook.

Action AP-CN 3.1 Applying TOD Urban Form: If BRT stations are planned for Capital Boulevard North, initiate zoning map amendments to apply the TOD Urban Form designation to Capital Boulevard and the TOD overlay zoning to areas surrounding stations. Where the TOD Urban Form designation would overlap with a City Growth Center or Mixed Use Center, retain the existing designation.

Action AP-CN 3.2 De-Emphasizing Capital Boulevard Frontage: Consider adding provisions to the UDO to prevent Capital Boulevard from being designated as a primary street within the TOD overlay district.

Action AP-CN 3.3 Retrofitting Shopping Centers: Investigate the potential for modifying zoning requirements or awarding grants to encourage existing commercial buildings to be retrofit or internally subdivided to allow for low cost residential units or small-scale retail spaces.

Action AP-CN 3.4 Homeowner Education: Organize a workshop, led by City staff, to educate existing residents of Brentwood, Starmount, and other neighborhoods with high rates of home ownership about homeowner repair programs, down payment assistance programs, the Accessory Dwelling

Unit development option, National Historic Register listing, and other resources that can help homeowners maintain their homes.

Action AP-CN 3.5 Funding Healthy Lifestyles: Evaluate the feasibility of using tax increments as funding to pay for bicycle and pedestrian improvements, safety stations, and micro-parks in the corridor area with any surplus proceeds dedicated to increasing the supply of affordable housing. Use the Equity Fund from the Equitable Transit Oriented Development guidebook as a model where suitable.

Action AP-CN 3.6 Business Alliance Startup Grant and Support: Offer organizational support and resources with potential for additional funding based on attainment of pre-determined outcomes. Provide initial staff support for organizing and administrative tasks. Allow for funding of two alliances as indicated by business needs and relationships.

Action AP-CN 3.7 Small Business Grant Program: Develop a small business assistance program to respond to specific needs related to construction, new street configuration, and redevelopment. Consider making permanent to respond to other transportation projects. Explore various forms of assistance such as in-kind technical support and loans.

Action AP-CN 3.8 Small Business Incubator: Seek an existing commercial space for conversion to a small business incubator. Use flexible and shared spaces as well as training and coaching to foster emerging small businesses. Coordinate with employment matching and small business loan program to assist growing businesses enter permanent locations.

Action AP-CN 3.9 Northwest Technology

Corridor: Conduct an economic development study of the area on the west side of Capital Boulevard between Oak Forest Drive and Durant Road and east of the railroad corridor. The study should investigate the potential for this area to be marketed as an industrial technology corridor, including identification of sites where there are constraints on development or redevelopment for industrial, manufacturing, or research users.

Action AP-CN 3.10 First Source

Agreements: Seek to establish a standard agreement for inclusion in city-funded construction projects for this corridor that give preference to local companies and companies that primarily employ local workers.

Action AP-CN 3.11 Job Skills Training:

Partner with Capital Area Workforce Development to develop a construction training course or support expansion of existing similar programming to help local residents build skills and receive certifications, particularly for construction jobs. Seek collaboration with small business incubator for training space and job placement assistance.

Action AP-CN 3.12 Density Bonus for Retail

Space: Investigate a text change to allow a height bonus for projects that include a minimum percentage of retail space in new development. If BRT is implemented, consider making this a part of the TOD overlay that is specific to Capital Boulevard.

Action AP-CN 3.13 Public Improvement

Reimbursement Schedule: Explore the creation of a rate schedule of reimbursement for public street improvements for subdivisions and site plans in the corridor. Limit eligibility for reimbursement to those developments that provide a minimum percentage of affordable housing units in new development.

Action AP-CN 3.14 Monitor Success:

Gather current economic and demographic data prior to implementation of community development action items. Monitor these indicators as programs are implemented and transportation projects are constructed. Proactively respond to community needs as indicated by data through modifications to community development programs.

Vision Theme: Show

Capital Boulevard North will be an inviting gateway, corridor, and destination that expresses Raleigh's best qualities as well as the local character of the people and geography in the corridor.

Policy AP-CN 4.1 Community-Led

Investments: Invest in community facilities, infrastructure, and amenities that improve the appearance and quality of life of the Capital North area. Seek partnerships with property owners, businesses, and non-profit organizations to identify solutions that leverage existing community assets.

Policy AP-CN 4.2 Public Art: Identify appropriate sites for murals or other public art to be incorporated into new transportation facilities including bridges,

retaining walls, medians, and bus stops. Work with businesses, neighborhoods, and civic groups to identify artists who can be contracted to produce artworks.

Policy AP-CN 4.3 Incentives for Civic Amenities:

Seek opportunities for improving outdoor amenity areas, opening public streets, or adding multi-modal facilities in return for exemptions or reductions to site review requirements. Consider the use of an overlay zoning district for this purpose.

Action AP-CN 4.1 Community Leadership Workshops:

Organize as many as two special Community Leadership Academy cohorts of stakeholders from the corridor over a period of two years. Tailor programming to the challenges and opportunities in the corridor. Consider contracting a speaker/consultant to help with focused content. Explore using the academy or a subsequent event with the participants as a workshop for a specific community project.

Action AP-CN 4.2 Creating a Gateway to Raleigh:

Place public art and/or signage on new interchanges in the corridor so that it is visible to vehicles travelling south on Capital Boulevard to create an attractive and welcoming gateway into Raleigh.

Action AP-CN 4.3 CPTED in New Projects:

Support the inclusion of Crime Prevention Through Environmental Design (CPTED) elements in capital projects where possible.

Action AP-CN 4.4 Grants for Visible Beautification:

Explore modifications to the neighborhood grant program to allow registered neighborhoods to sponsor public art in commercial areas.

Action AP-CN 4.5 Capital North Custom Streetscapes:

Create a streetscape design to be applied on cross streets where new interchanges are proposed. A preliminary approach to this streetscape plan is shown in Appendices F and G of the report. Allow for design of some elements, particularly vertical items such as light poles and benches, to be customized according to the character of the nearby area. Include residents, businesses, and civic organizations from the adjacent neighborhoods in the design and/or selection of these items.

Action AP-CN 4.6 Activating Existing Spaces:

Encourage activation of under-utilized surface parking lots through events such as cultural festivals, food truck rodeos, or temporary markets. Identify regulatory barriers to such activities and investigate revisions that would allow them while avoiding or minimizing impacts to other properties.

Action AP-CN 4.7 Run/Bike to Celebrate Success:

When construction of the Capital Boulevard Multi-way is complete, organize a run or bike ride within the corridor area that crosses at least two interchanges. Use this event to promote the use of bicycle and pedestrian facilities.

Action AP-CN 4.8 Neighborhood Loops:

Support the development of neighborhood- or district-branded "loops" within the proposed bicycle and pedestrian network. Loops should use wayfinding markers and maps to encourage the use of these dedicated facilities for walking and cycling between neighborhoods, commercial areas, and transit stops.

FIGURE 52. **EXAMPLE OF NEIGHBORHOOD LOOP (CITY OF CUYAHOGA FALLS)**



Bringing the Recommendations to Life

Drivers and Transit Riders

The implementation of the recommended multiway boulevard alternative along the Capital Boulevard North Corridor was divided into three time periods, along with corresponding timeframes:

- Near Term – within 10 years
- Mid-Term – between 10 and 20 years
- Long Term – beyond 20 years

An implementation table was developed for the recommend multiway boulevard alternative, describing the timeframe for implementation, the agency likely responsible for implementation, and a preliminary cost estimate. The cost estimate is shown at the segment level, but the proposed intersection/interchange configurations within that segment are described in the table below. It is important to note that the various projects below will likely not be constructed all at once and the order in which they are built will

likely be based on how they score in the NCDOT Strategic Transportation Prioritization (SPOT) process, which is used to determine project funding. Five projects were submitted in the most recent round of SPOT (SPOT 6) and include:

- I-440 to US 401 – Full corridor project (multiway boulevard with interchanges)
- US 401 to I-540 – Full corridor project (multiway boulevard with interchanges)
- New Hope Church Road (Buffaloe Road)/US 401 – interchange
- Millbrook Road/Spring Forest Road – interchange
- Old Wake Forest Road/Sumner Blvd. – interchange

Projects that score well in SPOT 6 could then be included in the Draft 2023-2032 State Transportation Improvement Program (STIP) scheduled to be released in May 2022. The STIP identifies the construction funding and schedule for projects over a 10-year period and is updated approximately every two years.

TABLE 8. IMPLEMENTATION OF ROADWAY PROJECTS

Segment	Description	Location	Phase	Agencies	Cost
1	Multiway Boulevard	North of Brentwood Road to South of Starmount Drive	Long/Mid Term*	NCDOT	\$50,025,000
	Tight Diamond Interchange	Trawick Road	Long/Mid Term*	NCDOT	
2	Multiway Boulevard	South of Starmount Drive to South of Calvary Drive	Long/Mid Term*	NCDOT	\$192,395,000
	Grade Separated Pedestrian Crossing and Right In/Right Out	Starmount Drive	Long/Mid Term*	NCDOT	
	Grade Separation	Old Buffalo Road	Long/Mid Term*	NCDOT	
	Single Point Urban Interchange (SPUI)	New Hope Church Road/ Buffalo Road	Long/Mid Term*	NCDOT	
3	Multiway Boulevard	South of Calvary Drive to North of Spring Forest Road	Long/Mid Term*	NCDOT	\$133,170,000
	Tight Diamond Interchange	Calvary Drive	Long/Mid Term*	NCDOT	
	Tight Diamond Interchange	Millbrook Road/New Hope Road	Long/Mid Term*	NCDOT	
	Tight Diamond Interchange	Spring Forest Road	Long/Mid Term*	NCDOT	
4	Multiway Boulevard	North of Spring Forest Road to I-540	Long/Mid Term*	NCDOT	\$135,240,000
	Grade Separated Pedestrian Crossing and Right In/Right Out	Oak Forest Drive	Long/Mid Term*	NCDOT	
	Tight Diamond Interchange	Sumner Boulevard	Long/Mid Term*	NCDOT	
	Tight Diamond Interchange	Old Wake Forest Road	Long/Mid Term*	NCDOT	

*Potentially Mid Term if funded within SPOT 6.0. SPOT.

Grade Separated Pedestrian Crossings

While grade separated pedestrian bridges are included as a part of the NCDOT roadway projects, the City of Raleigh could explore the possibility of funding and building the pedestrian bridges as standalone pedestrian projects. In order to further explore this option, it is recommended that the City of Raleigh perform a feasibility analysis in to determine the funding and design requirements for one or both of the pedestrian bridges.

Street Plan Amendments

There are several recommended changes to the City of Raleigh Street Plan, including adding

new streets, modifying designations of streets, and removing streets. Amendments to the street plan were recommended based on the ability to:

- Provide a parallel facility (both vehicular and bicycle and pedestrian) to Capital Boulevard,
- Provide a connection (or fill in a gap) to bicycle and pedestrian infrastructure,
- Provide additional and potential major access to businesses that currently front Capital Boulevard, or in order to limit potential interruption of a proposed facility.

The table below describes the location and change recommended:

TABLE 9. IMPLEMENTATION OF ROADWAY PROJECTS, PART 1

Street	Location	Recommended Street Plan Change	Proposed Street Type
Capital Boulevard	Modify Capital Boulevard between I-440 and I-540 to multiway boulevard.	Modify	Multiway Boulevard, Parallel Parking
Poplarwood Court extension	Highwoods Blvd to New Roadway.	New	Main Street, Parallel Parking
Glenridge Drive	Highwoods Blvd to 2900 Highwoods Blvd entrance.	Remove	
New Roadway	Between Brentwood Road and Poplarwood Court, south of Bardwell Road and Glenridge Drive.	New	Main Street, Parallel Parking
New Roadway	New roadway over Capital Boulevard between Westinghouse Boulevard and Brentwood Drive; connecting to new roadways to the north and south.	New	Main Street, Parallel Parking
Appliance Court	Appliance Court between Operations Way and Westinghouse Boulevard.	Remove	
New Roadway	New roadway parallel to Capital Boulevard, between Capital Boulevard and Stony Brook Drive, from Appliance Court to just north of Brentwood Road.	New	Main Street, Parallel Parking
New Roadway	New roadway just south of Westinghouse Boulevard that connects Capital Boulevard to new roadway east of Capital Boulevard.	New	Main Street, Parallel Parking

TABLE 10. IMPLEMENTATION OF ROADWAY PROJECTS, PART 1

Stony Brook Drive	Stony Brook Drive between Brentwood Road and Starmount Drive will be reclassified from Neighborhood Street to Main Street, Parallel Parking.	Modify	Main Street, Parallel Parking
Stony Brook Drive extension	Extend Stony Brook Drive from Starmount Drive to Old Buffalo Road.	New	Main Street, Parallel Parking
New Roadway	New roadway between Huntleigh Drive and Mayflower Drive just west of Capital Boulevard	New	Main Street, Parallel Parking
Hobby Court extension	Extend Hobby Court to connect with new Stony Brook extension.	New	Main Street, Parallel Parking
Scott Drive extension	Extend Scott Drive to connect with new Stony Brook extension.	New	Neighborhood Street
Pine Knoll Drive extension	Extend Pine Knoll Drive to connect with Pine Knoll Drive, just north of Mayflower Drive	New	Main Street, Parallel Parking
Pine Knoll Drive extension	Extend Pine Knoll Drive to connect to Lake Ridge Drive	New	Main Street, Parallel Parking
Lake Ridge Drive	Modify Lake Ridge Drive	Modify	Main Street, Parallel Parking
Calvary Drive	Remove curve on Calvary Drive between Louisburg Road and Capital Boulevard; realign Calvary drive to create a four-way intersection with Rolling Green Court	Remove; New	Avenue 2-Lane, Divided
Rolling Green Court	Realign Rolling Green Court to create an intersection with Dansey Drive	New	Avenue 2-Lane, Undivided
Dansey Drive	Add Dansey Drive to Street Plan as Avenue 2-Lane, Undivided	New	Avenue 2-Lane, Undivided
Green Acres Lane Extension	Extend Green Acres Lane to Spring Forest Road	New	Avenue 2-Lane, Undivided
Hollenden Drive	Modify Hollenden Drive	Modify	Avenue 2-Lane, Undivided
Greens Dairy Road Extension	Extend Greens Dairy Road to Oak Forest Drive	New	Avenue 2-Lane, Undivided
Trust Drive	Add Trust Drive to Street Plan as Avenue 2-Lane, Undivided	New	Avenue 2-Lane, Undivided
Signett Drive extension	Extend Signett Road between Millbrook Road and Calvary Drive; add Signett Drive to Street Plan	New	Avenue 2-Lane, Undivided
New Roadway	New roadway connecting Signett Drive extension and Rolling Green Court, crossing over Capital Boulevard	New	Avenue 2-Lane, Undivided
New Roadway	New roadway connecting Green Acres Lane extension to Leigh Drive, crossing over Capital Boulevard	New	Avenue 2-Lane, Undivided
Leigh Drive extension	Add Leigh Drive to Street Plan as Avenue 2-Lane, Undivided; extend Leigh Drive from Spring Forest Road to Capital Boulevard	New	Avenue 2-Lane, Undivided

Transit Recommendations

A key component for the proposed roadway projects along the corridor is the incorporation of dedicated transit lanes within the design to allow for enhanced transit, possibly BRT, in the future along Capital Boulevard. The current Wake Transit Plan, which has a horizon year of 2027, calls for BRT service along Capital Boulevard from Downtown Raleigh to Crabtree Boulevard. This planned route ends to the south of the Capital Boulevard North study area. The Capital Area Metropolitan Planning

Organization (CAMPO)'s 2045 Metropolitan Transportation Plan (MTP) includes BRT service along the corridor to Triangle Town Center. In addition to providing space for transit within the design of the of the multiway boulevard, there are other short-term recommendations that could improve and expand transit service along the corridor and are described in the table below. The timeframe for implementation is the same as the bicycle and pedestrian recommendations:

- Near Term: 1-5 years
- Mid Term: 6-10 years

The Metropolitan Transportation Plan (MTP) is the long-range plan for transportation improvements across the region. It includes roadway, transit, rail, bicycle, pedestrian and other transportation projects to be implemented through the year 2045.

TABLE 11. IMPLEMENTATION OF ROADWAY PROJECTS, PART 1

Description	Phase	Agencies
Coordinate with Wake Transit Plan to fund increase frequency of local transit routes along Capital Boulevard.	Near	GoRaleigh
Coordinate with the CAMPO to identify Wake Transit Plan BRT funding and implementation timeline for the Capital Boulevard North Corridor to extend the currently planned Capital Boulevard BRT from Crabtree Boulevard to Triangle Town Center.	Near	GoRaleigh, CAMPO
Consider implementing a Transit Signal Priority (TSP) pilot project along Capital Boulevard for existing local transit service.	Near	City of Raleigh (COR) Engineering Services, GoRaleigh
Continue to support land use policies that are transit supportive.	Near/Mid	COR Planning
Consider providing more city and social services along the corridor.	Near/Mid	Various COR Departments
Consider expanding the Citrix bikeshare and scooter programs along Capital Boulevard to increase first/last mile connectivity to existing transit services.	Near/Mid	COR Transportation Planning
Ensure all stops have shelters.	Near	GoRaleigh
Provide enhanced NextBus service information at stops to provide real time arrival information for waiting customers.	Near	GoRaleigh
Increase wayfinding at bus stops. This could include wayfinding that describes where the nearest crosswalk is located to promote safe pedestrian crossings.	Near	GoRaleigh, COR Transportation Planning
Consider installing a physical barrier in median (vegetation, etc.) to discourage pedestrians from crossing Capital Boulevard mid-block. This application could be applied only along certain blocks and/or in front of high trafficked bus stops.	Near/Mid	COR Engineering Services
Promote the free rides offered by GoRaleigh. This includes free rides for seniors age 65 and older, teenagers and children.	Near	GoRaleigh, Various COR Departments
Provide pedestrian safety education at schools and community facilities along the corridor.	Near	Various COR Departments
Conduct an additional study to consider limited stop service along Capital Boulevard. This study should include the origin and destination data that will be collected during GoRaleigh's onboard surveys during Fall 2020.	Near	GoRaleigh
Conduct an additional study to investigate different signal coordination schemes.	Near	COR Transportation/Engineering Services

Implementation of Enhanced Transit Service

When enhanced transit services, such as BRT, are funded for the Capital Boulevard North Corridor, it is important to consider how the implementation of those projects interact with the implementation of the roadway projects. CAMPO's 2045 MTP states that "An extension of dedicated fixed guideway for the initial BRT corridors in Wake County as well as the addition of BRT service to Midtown in Raleigh is scheduled for the latter part of the 2026-2035 time period of this plan." Depending on the outcome of SPOT 6.0, there will likely be recommended roadway projects along Capital Boulevard with schedules overlapping with the implementation schedule of BRT. It will be critical for GoRaleigh and NCDOT to coordinate early in the planning process for all projects. Due to the estimated costs, it is unlikely that the two full corridor projects (one from I-440 to US 401 and the other from US 401 to I-540) would both be funded at the same time. Because of this is, it can be assumed that BRT

would potentially be implemented before some or all of the proposed projects along the corridor. It will be critical to BRT operations, that as roadway construction along Capital Boulevard occurs, the maintenance of traffic should prioritize BRT service during construction.

Homes and Workplaces

The land use recommendations along the corridor will come from a series of FLUM and Urban Form amendments, that will help shape future development as the corridor continues to grow and redevelop.

In the land use Vision Areas, many of the amendments were made to incorporate the whole vision area and create a more grid-like street network within the Vision Areas. The highest intensity development tends to be oriented toward Capital Boulevard and nearby interchanges, where a BRT transit stop could be located in the future. The proposed changes outside of the Vision Areas were to have the FLUM better align with the current development and ideas for future development.

TABLE 12. PROPOSED FLUM AND URBAN FORM AMENDMENTS

Amendment Type	Proposed Amendment/Proposed Designation	Location
Urban Form	Expand City Growth Center	Highwoods/Westinghouse Vision Area
Urban Form	Add Mixed Use Center	Mini City Vision Area
Urban Form	Add Urban Thoroughfares	Highwoods/Westinghouse Vision Area; Mini City Vision Area; Triangle Town Center Vision Area
FLUM	Office and Residential Mixed Use, Neighborhood Mixed Use, Moderate Density Residential	Highwoods/Westinghouse Vision Area
FLUM	Moderate Density Residential, Office and Residential Mixed Use	Lake Ridge Drive
FLUM	Office and Residential Mixed Use	Lee Road
FLUM	Community Mixed Use, Office and Residential Mixed Use	Mini City Vision Area
FLUM	Community Mixed Use, Office and Residential Mixed Use	Triangle Town Center Vision Area

Walking and Cycling

Bicycle and Pedestrian Recommendations

Unlike the roadway projects described above which will mostly be implemented by NCDOT, many of the bicycle and pedestrian recommendations are likely to be implemented at the local level by the City of Raleigh. Because of this, along with varying project scale and complexity, the timeframe for implementation is different for bicycle and pedestrian projects and includes three phases:

- Near Term: 1-5 years
- Mid Term: 6-10 years
- Long Term: 10 years or more

While these projects are listed under the City of Raleigh for implementation, bicycle and pedestrian improvement are also a part of NCDOT projects. There is a possibility that some of these improvements closer to Capital Boulevard could be included in a potential NCDOT project, but those details would be worked out during further design phases of the roadway projects.

Table 10 highlights the projects in each of the three phase and Figure 2 shows the location of these projects.

TABLE 13. IMPLEMENTATION OF BICYCLE AND PEDESTRIAN RECOMMENDATIONS, PART 1

Description/ Street Name(s)	Location		Cost				Agencies
	From	To	Segment Cost (Low)	Segment Cost (High)	Corridor Cost (Low)	Corridor Cost (High)	
Near Term							
Stony Brook Drive	Brentwood Road	Trawick Road	\$144,142	\$170,835	\$144,142	\$170,835	City of Raleigh
Huntleigh Drive	Capital Boulevard	Ingram Drive	\$522,536	\$849,991	\$653,018	\$1,062,242	City of Raleigh
	Ingram Drive	New Hope Church Road	\$130,482	\$212,251			
Ingram Drive	Huntleigh Drive	Brinkley Drive	\$54,352	\$88,412	\$54,352	\$88,412	City of Raleigh
Medium Term							
Wedgewood Drive/ Charleston Park Drive/ Stillmeadow Road	Hinton Grove Place	North New Hope Road	\$103,369	\$122,511	\$255,377	\$340,502	City of Raleigh
	Charleston Park Drive	Hinton Grove Place	\$74,936	\$121,896			
	Stillmeadow Road	Wedgewood Drive	\$10,760	\$17,502			
	Southall Road	Charleston Park Drive	\$66,313	\$78,593			

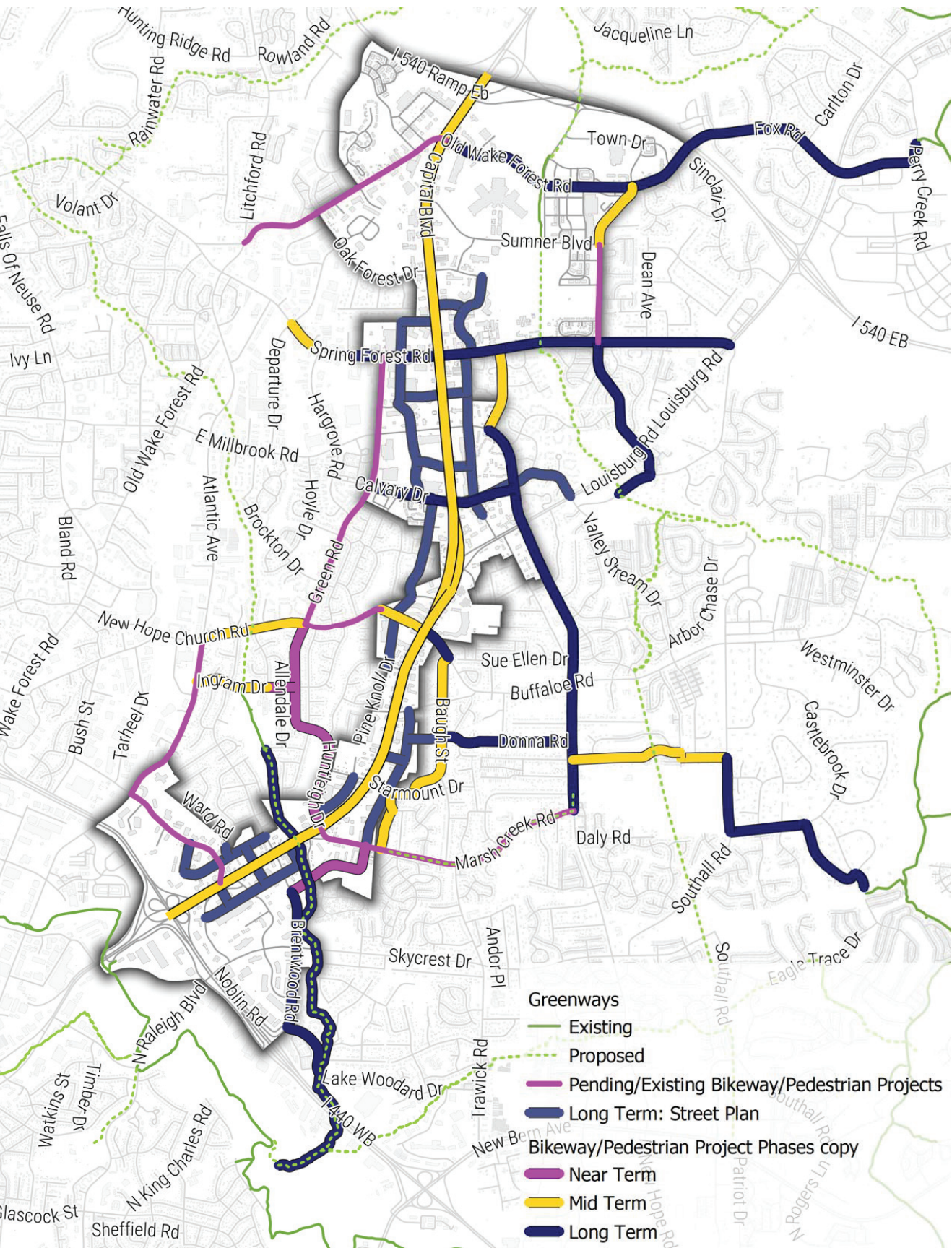
TABLE 14. IMPLEMENTATION OF BICYCLE AND PEDESTRIAN RECOMMENDATIONS, PART 2

Description/ Street Name(s)	Location		Cost				Agencies
	From	To	Segment Cost (Low)	Segment Cost (High)	Corridor Cost (Low)	Corridor Cost (High)	
Medium Term							
Edgetone Drive/ Monterey Street/ Starmount Drive/Baugh Road	Monterey Road	Trawick Road	\$82,741	\$134,592	\$469,262	\$763,332	City of Raleigh
	Starmount Drive	Edgetone Drive	\$37,535	\$61,057			
	Baugh Street	Monterey Street	\$42,478	\$69,097			
	Buffaloe Road	Starmount Drive	\$306,508	\$498,586			
Ingram Drive	Brinkley Drive	Atlantic Avenue	\$145,784	\$237,142	\$145,784	\$237,142	City of Raleigh
New Hope Church Road	Green Road	Atlantic Avenue	\$928,226	\$3,253,479	\$1,349,873	\$4,731,373	City of Raleigh
	Capital Boulevard	Deana Lane	\$421,647	\$1,477,894			
Spring Forest Road	Primavera Court	Departure Drive	\$150,219	\$526,527	\$150,219	\$526,527	City of Raleigh
Hollenden Drive	Spring Forest Road	North New Hope Road	\$120,269	\$142,541	\$120,269	\$142,541	City of Raleigh
Fox Road	Old Wake Forest Road	Sumner Blvd	\$368,036	\$1,289,986	\$368,036	\$1,289,986	City of Raleigh
Long Term							
Marsh Creek Greenway	Glenraven Drive	Crabtree Creek Greenway	\$3,014,867	\$3,859,030	\$3,014,867	\$3,859,030	City of Raleigh
Southhall Road/ Castlebrook Drive/ Allenby Drive/ Abington Lane	Castlebrook Drive	Stillmeadow Road	\$761,033	\$2,667,458	\$1,306,106	\$4,242,110	City of Raleigh
	Allenby Drive	Southhall Road	\$400,299	\$1,403,067			
	Abington Lane	Castlebrook Drive	\$119,572	\$141,715			
	Neuse River Trail	Allenby Drive	\$25,203	\$29,870			
Lake Woodard Drive/ Brentwood Road	Brentwood Road	Marsh Creek Greenway (future)	\$287,585	\$467,805	\$484,618	\$701,326	City of Raleigh
	Stony Brook Drive	Lake Woodard Drive	\$197,033	\$233,521			

TABLE 15. IMPLEMENTATION OF BICYCLE AND PEDESTRIAN RECOMMENDATIONS, PART 3

Description/ Street Name(s)	Location		Cost				Agencies
	From	To	Segment Cost (Low)	Segment Cost (High)	Corridor Cost (Low)	Corridor Cost (High)	
Long Term							
North New Hope Road	Hollenden Drive	Marsh Creek Road	\$2,839,676	\$9,953,209	\$2,839,676	\$9,953,209	City of Raleigh
Calvary Drive	North New Hope Road	Capital Boulevard	\$126,063	\$205,062	\$247,820	\$349,367	City of Raleigh
	Capital Boulevard	Green Road	\$121,757	\$144,305			
Buffaloe Road	Baugh Street	Capital Boulevard	\$52,125	\$61,778	\$52,125	\$61,778	City of Raleigh
Scott Drive/ Donna Road	North New Hope Road	Baugh Street	\$263,155	\$428,065	\$263,155	\$428,065	City of Raleigh
Spring Forest Road	Louisburg Road	Spring Court	\$2,014,492	\$7,060,895	\$2,014,492	\$7,060,895	City of Raleigh
Kyle Drive/Fox Road	Beaverdam Creek Greenway	Fox Road	\$195,794	\$686,269	\$411,740	\$942,205	City of Raleigh
	Kyle Drive	Spring Forest Road	\$215,946	\$255,936			
Old Wake Forest Road/ Fox Road/ Perry Creek Road	Segal Drive	Capital Boulevard	\$1,055,130	\$3,698,284	\$2,459,670	\$8,293,365	City of Raleigh
	Louisburg Road	Segal Drive	\$1,263,194	\$4,427,560			
	Perry Creek Road	Louisburg Road	\$113,643	\$134,688			
	Neuse River Trail	Fox Road	\$27,702	\$32,832			

FIGURE 53. **COMPREHENSIVE PEDESTRIAN AND BIKEWAY RECOMMENDATIONS**



Policy Related to Greenway Trail Recommendations

The City of Raleigh is in the process of developing a Capital Area Greenway System Master Plan Update, also called the Greenway Master Plan. This plan is in the early stages of the planning process and will most likely not be completed until after the Capital Boulevard North Corridor Study is approved by City Council. However, the recommendations of the Greenway Master Plan may provide strategies and/or design guidance that could benefit the Capital Boulevard North study area as well as

neighborhoods and areas of the City that have limited connectivity or gaps in the bikeway network. If guidance for urban trails or a trail classification that is focused on linking people along or parallel to the existing street network is developed in the final Greenway Master Plan, it is recommended that the Capital Boulevard North Corridor Study and similar plans revisit recommendations to determine if such guidance can be applied to increase connectivity and mobility for people of all ages and abilities. Although guidance may be developed through the Greenway Master Plan, implementation may be carried out by a variety of City departments or even private development.

A key consideration during this study for greenways was the idea that they should connect to parks throughout the corridor and create a network of greenways linking parks and green spaces. An example of this is the current and future Marsh Creek Greenway and its ability to connect Hill Street Park and Brentwood Park, along with future greenspace within the Highwoods/Westinghouse Vision Area.

Quick-Build Policy Recommendation

Addressing gaps in a mobility network is critical to ensure that people have safe and connected access to destinations within a community. Often, funding is not available to complete a variety of capital projects with competing interests. Bicyclists and pedestrians may experience gaps in the network in a more substantial manner due to increased time for detouring or the lack of safe alternatives. Quick-build street projects can provide connectivity or safety benefits that are experienced in the short-term and offer an interim solution until a larger capital project

can be planned and designed through the appropriate public process.

Quick-build street projects are characterized by:

- Leadership from city government or other public agencies.
- Shortened timeline from planning to installation (within one year).
- Flexibility in design to change/adjust after installation occurs.
- Installed with materials that allow changes and adjustments as necessary.
- Potentially lower cost to implement

Policy Recommendation

The Capital Boulevard North Corridor Study is an example of a planning project that will shape the future of the corridor and the surrounding community. While changes to Capital Boulevard and the surrounding land uses may take time, there are and will be a variety of opportunities to connect people to places along to corridor incrementally.

The City of Raleigh should consider establishing a policy for quick-build projects to be used along Capital Boulevard and throughout the City of Raleigh to increase connectivity and safety for all users, with specific attention to bicycle and pedestrian facilities. The policy should establish:

- Purpose of quick-build projects. Purpose may include:
- Increasing safety for users immediately;
- Filling micro-gaps in the bicycle and/or pedestrian network;
- Collecting additional data on a location or facility treatment; and/or,
- Providing short term connectivity prior to permanent infrastructure that would be created with new development.

- A budgetary threshold for quick-build projects to qualify.
- A funding mechanism for quick-build planning, design, and installation.
- A recommendation for the City of Raleigh to develop quick-build design guidance that addresses both design for a variety of potential projects and materials to be used during installation.
- Methodology for collecting data before and during quick-build project installation.
- Procedures for changing and adjusting design after installation.
- Communication strategies to inform the public of the project and receive feedback after installation.

A quick-build streets project policy should be comprehensive in nature to address a variety of scenarios. However, much like quick-build projects, the policy should note the need for updates and changes as new opportunities are identified.

Appendix B:

Public Engagement

Appendix C:

Travel Profile

Appendix D:

Traffic Model Results

Appendix E:

Market Analysis

Appendix F:

Multiway Renderings/Bike Crossings

Appendix G:

Streetscape Concepts

PLANNING AND DEVELOPMENT

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