



THE BOULEVARDS OF CONCORD

CONCORD MILLS BLVD &
BRUTON SMITH BLVD
CORRIDOR STUDY

Implementation Strategy

Adopted August 8, 2024

AN ORDINANCE ADOPTING THE BOULEVARDS OF CONCORD – CONCORD
MILLS BLVD & BRUTON SMITH BLVD CORRIDOR STUDY OF THE CITY OF
CONCORD, NORTH CAROLINA

WHEREAS, the City of Concord, North Carolina pursuant to the authority conferred by the North Carolina General Statute §160A-364 enacted an Official Zoning Ordinance for the City of Concord, North Carolina and the Area of Extraterritorial Jurisdiction on July 28, 1977; and

WHEREAS, the City of Concord, North Carolina pursuant to the authority conferred by North Carolina General Statute §§160D-501 shall adopt and maintain a comprehensive plan that sets forth goals, policies, and programs intended to guide the present and future physical, social, and economic development of the jurisdiction; and

WHEREAS, the City may prepare and adopt other such plans as deemed appropriate, which may include small area plans and neighborhood plans; and

WHEREAS, the adopted 2030 Land Use Plan recommends the preparation of a plan for the general area of the Concord Mills Blvd and Bruton Smith Blvd corridor, and the City has obtained property owner, stakeholders and public input in the development of the plan; and

WHEREAS, the Planning and Zoning Commission has unanimously recommended approval of the plan on July 16, 2024.

NOW, THEREFORE, BE IT ORDAINED by the City Council of the City of Concord, North Carolina:

SECTION 1: That the City Council adopted the following statement of reasonableness and consistency in support of adoption of the plan:

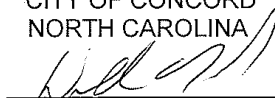
- The proposal is consistent with the 2030 Land Use Plan as the development of the corridor study is an identified implementation action within the 2030 Land Use Plan. This item states that “the corridor plan should address land use changes necessary for retail and other uses to remain viable; multi-modal connectivity along the corridor and other challenges identified within the Land Use Element of this Plan.” Furthermore, the 2030 Land Use Plan states that the development of this corridor plan is consistent with numerous goals and objectives within the Land Use Plan.
- The proposal is reasonable in that the development of the Plan has included substantial outreach to property owners, stakeholders and the general public.

SECTION 2: That The Boulevards of Concord – Concord Mills Blvd & Bruton Smith Blvd Corridor Study as indicated on Attachment A – Inventory and Attachment B – Implementation Plan is adopted.

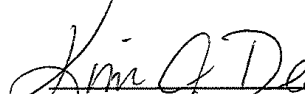
SECTION 3: That this Ordinance be effective immediately upon adoption.

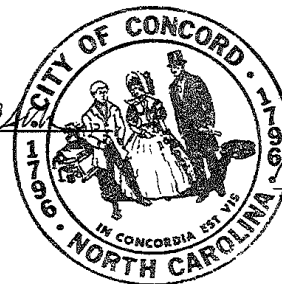
Adopted on this day August 8, 2024.

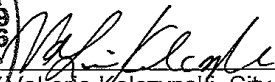
CITY COUNCIL
CITY OF CONCORD
NORTH CAROLINA


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ATTEST:


Kim Deason, City Clerk




Valerie Kolczynski, City Attorney

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- » City of Concord
- » City of Charlotte
- » Town of Harrisburg
- » Cabarrus County
- » Cabarrus-Rowan MPO

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introduction

THE BLVDS
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CONCORD MILLS & BRUTON SMITH
BOULEVARD CORRIDOR STUDY

implementation overview

The Boulevards of Concord Corridor Study was created over 2023 and 2024 and represents the synthesis of extensive research; public, business, and other stakeholder engagement; and creative planning efforts undertaken by the City.

This plan includes two documents. The Inventory document provides extensive details of the existing conditions of the study area, including market dynamics, transportation infrastructure, and community and stakeholder engagement.

This Implementation document contains the results of the second phase of the planning process, and lays out recommendations across the Boulevards area to realize the vision established by stakeholders and the community. This document includes suggested timelines for implementation and details about the value of each suggested strategy and how it ties into the community-based vision for the area.

Implementation Strategies:

- » Establish a Municipal Service District (MSD) for the Boulevards area
- » Adopt a Form-Based Overlay Code
- » Create Area Identity and Branding to Create a Sense of Place
- » Beautify Key Intersection and Create Gateways
- » Reconfigure Transit Alignment
- » Enhance Streetscapes and Expand Sidewalk and Greenway Connectivity
- » Connect Quay and Old Holland Roads to create a parallel route to the south



Project Schedule



engagement activities + guiding principles

The cornerstone of this plan is the input and feedback received from the business community, public, and implementation partners throughout the study. This input was collected through a number of different meetings and other engagement opportunities. More detailed information about each of these activities can be found in the accompanying Inventory document.

Community open houses were held in late September and late March to obtain feedback from the community about their vision for the corridor and on potential strategies to implement their vision. These meetings were held at spaces in the study area and were advertised on multiple platforms. Accompanying each meeting, a virtual survey was also released for those who were unable to attend in-person. Various activities were completed in-person and online including a mapping exercise, ranking activities, and opened ended questions.

Business Committee Meetings were held in August 2023, January 2024, and June 2024. These meetings involved representatives from major business owners

within the area including the Cabarrus County Convention and Visitor's Bureau, Charlotte Motor Speedway, Concord Mills/Simon Malls, Great Wolf Lodge, Griffin Stafford Hospitality, and Hendrick Automotive Group. Conversations included creating short- and long-term goals, improving the mobility for all users of the corridor, and planning for solution creation.

The planning team also engaged with Concord City Council, including a series of small-group meetings in October 2023 and a council briefing in March 2024.

In March and June 2024, the project team met with a group of Implementation Partners. This partner group included City of Concord departments, nearby jurisdictions, and transportation agencies (NCDOT and CRMPO). Implementation strategies were discussed with these groups to ensure strategies were consistent with the vision and goals of each partner organization.

The results and conversations from Phase 1 and Phase 2 of the project were used to develop the three guiding principles to the right. These principles informed the planning process and the following implementation strategies.

Guiding Principles



Improve the look and feel of the corridor and create a unique sense of place



Create inviting and safe spaces to gather



Provide safe and efficient walk and bike routes while preserving vehicular mobility



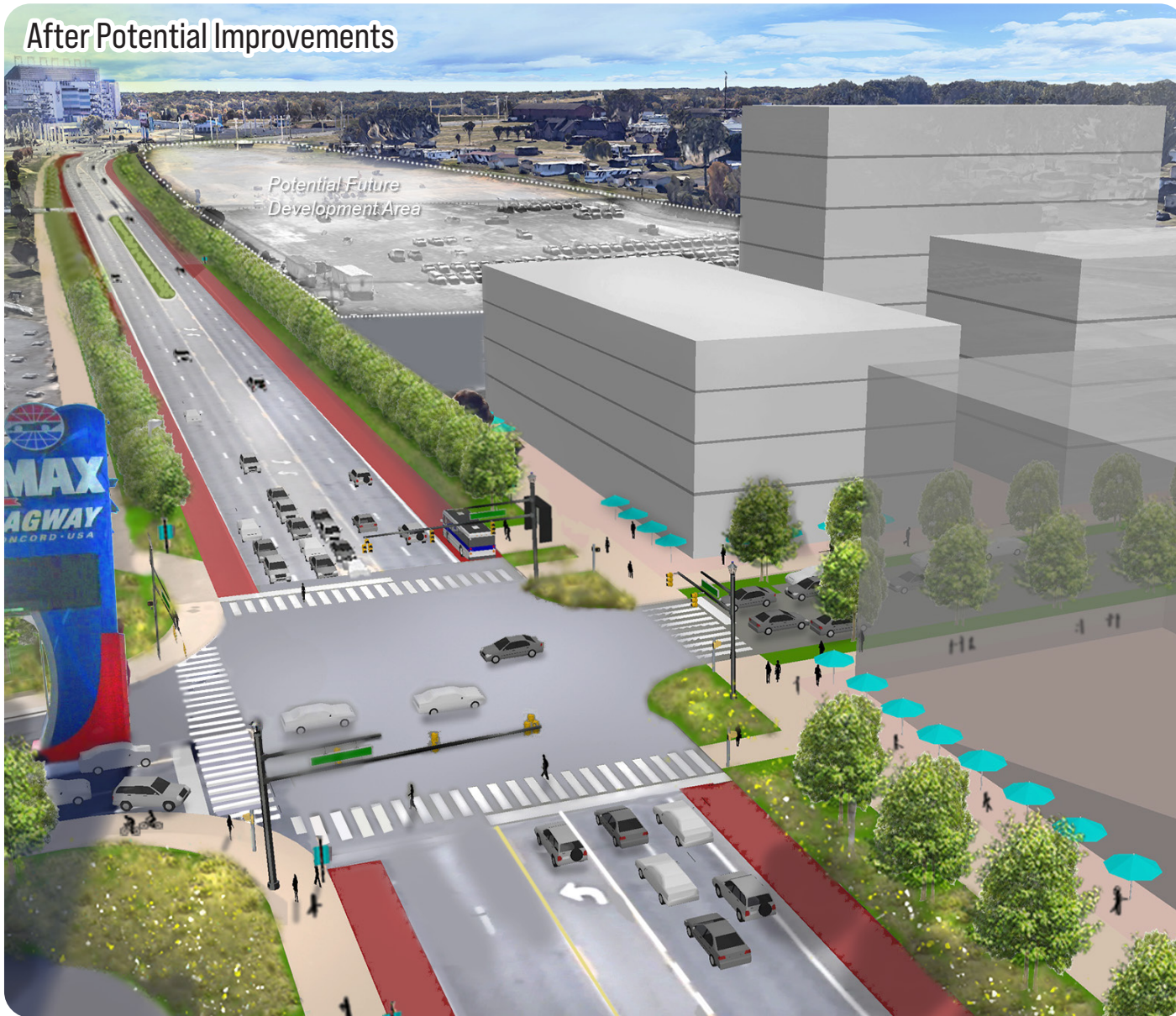
With the improvements included in this plan, the Boulevards area will see tremendous change in the way it operates and how attractive it is for visitors, businesses, and potential residents.

The images to the right illustrate the intersection of **Thunder Road and Pit Stop Court**.

The area has an improved **streetscape** including seating areas, pedestrian-scale lighting, and landscaping that makes the area more comfortable to walk in. Thanks to new **crosswalks** at this intersection and at the intersection with Concord Mills Boulevard to the south that connect to a robust **network of sidewalks and trails**, nearby residents are able to walk to shops and to the mall without adding to traffic congestion or to parking demands.

For those with a destination east of I-85, a new **local circulator bus service** whisks them to their destination, or they can bike along the **extended Hector H. Henry II Greenway**, which now connects across I-85. For those who still drive, traffic demands have eased thanks to investment in **signal upgrades and other Intelligent Transportation System tools**, not to mention the **Quay-Old Holland Connector**,





Developments shown in this image are for illustration purposes only and do not represent any specific planned or proposed development.

which provides an alternative to the interchange for those traveling between the east and west.











New developments and redevelopments have a more pedestrian-friendly design thanks to a new **zoning overlay code**, bringing incremental change into the look, feel, and operation of the area and yielding benefits for residents and visitors alike.

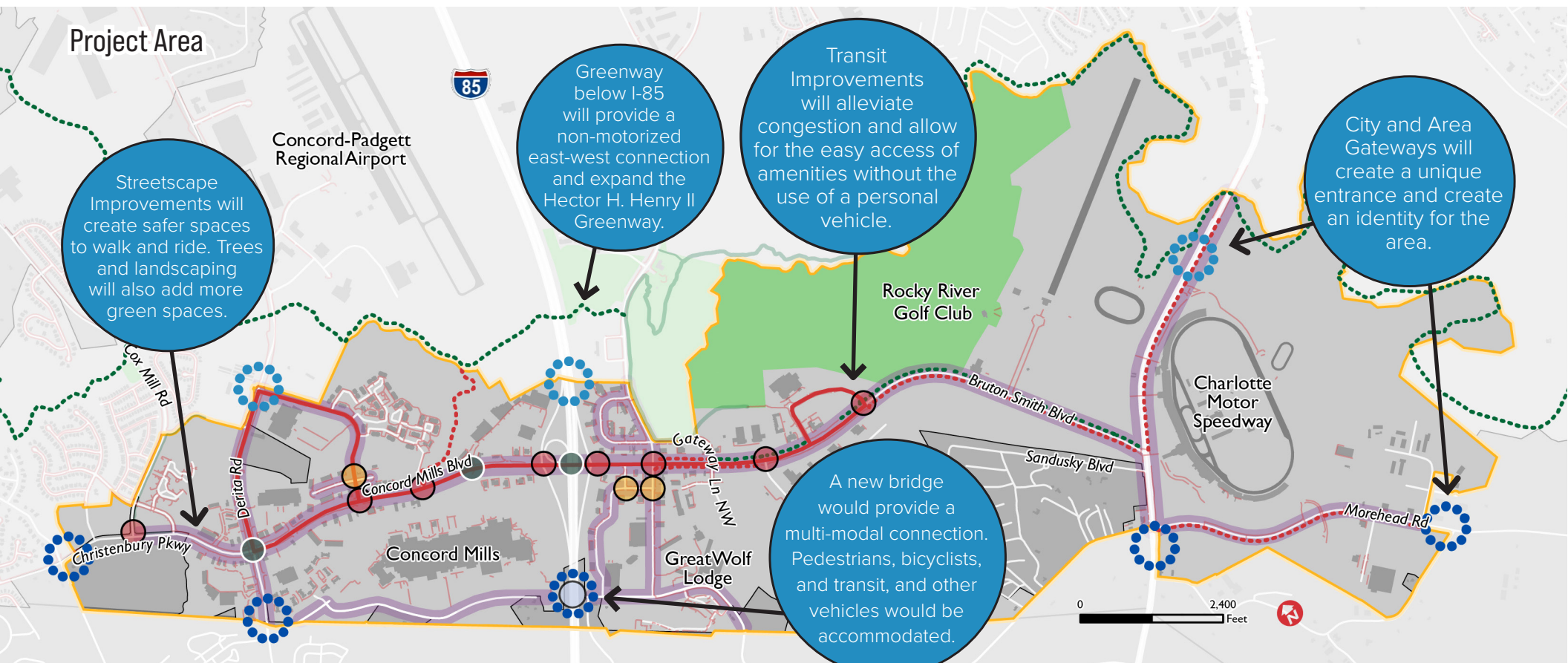
When residents are asked where they live, they can proudly and simply say “the Boulevards of Concord” thanks to new **gateways and intersection enhancements** that communicate the branding of the area and give it a district and well-known sense of place. These improvements are made possible by the area’s **municipal service district**, which funnels money into much appreciated safety, transportation, and beautification infrastructure.



project locations

Based on the Guiding Principles, a series of improvements and other recommendations have been developed to help the area realize its vision for the area. Below is a map of the Boulevards area with all proposed physical improvements. Further details about each improvement can be found in the following pages.

-  Crosswalk Additions at Existing or Proposed Signalized Intersections
-  Crossing Improvements at Other Intersections
-  Beautification Improvements at Intersections
-  Quay-Old Holland Connector Bridge
-  Combined City / Boulevards Gateway
-  Boulevards Gateway
-  Proposed Red Line Transit Route
-  Proposed Streetscape Enhancements
-  Proposed Shared-Use Path / Greenway
-  Proposed Sidewalks



implementation approach

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Realizing the vision that the residential and business communities have for the Boulevards will take substantial coordinated investment and policy decisions. The information in this section breaks down the biggest steps needed into discrete chunks, sorted roughly by timeline. This timeline considers both a key step's priority (how important it is) and that step's implementation timeline.

Cornerstones (Years 1-5)

The activities on this page will form the basis on which many future actions can be taken. These actions include the foundational funding, identity, and development guidelines for the future of the Boulevards. These should be prioritized and implemented first to best position the area for future success.

Establish a Municipal Service District for The Boulevards

Funding is likely to be the biggest single constraint for the Boulevards in the future. Many funding structures were considered, and a Municipal Service District provides the best combination of revenue generation, local control, and political feasibility of those considered.

Lead Agency: City of Concord Council

Supporting Agencies: Cabarrus County Convention and Visitors' Bureau

Timeline: Immediate (Years 1-3)

Cost: Staff Time

Funding: N/A

References: Page 15, Municipal Service District

Adopt Form-Based Code

The development of a new form-based code for the Boulevards area will create a cornerstone of the area's continued prosperity. This code will ensure that future developments are built in a way that is compatible with the area's vision as a place that welcomes multiple ways of moving around and provides attractive, vibrant places for residents, workers, and visitors.

Lead Agency: City of Concord Planning

Supporting Agencies: Boulevards of Concord MSD

Timeline: Immediate (Years 1-3)

Cost: Staff Time & \$50,000

Funding: City of Concord and Boulevards of Concord Funds

References: Page 20, Pedestrian-Oriented Form-Based Code

Create Area Identity and Branding

The newly-formed MSD should commission the identification of a community identity and the creation of a brand that can be used throughout the area to create a sense of place and uniformity. This should include considerations for signage, online communications, gateways and other placemaking features.

Lead Agency: Boulevards of Concord MSD

Supporting Agencies: Cabarrus County Convention and Visitors' Bureau, City of Concord

Timeline: Short-Term (Years 3-5)

Cost: \$100,000-\$500,000

Funding: Boulevards of Concord MSD Funds

References: Page 16, Gateways and Bridge Beautification and Page 21, Streetscape Enhancements

Short-Term Actions (Years 1-5)

These actions will **create immediate signs of progress and investment** in the Boulevards area with relatively small investments. These should be done quickly to create momentum and support for ongoing investment in the area.

Fill Small Gaps in Bicycle and Pedestrian Network

The Boulevards area includes many areas where modest investments in sidewalks, crosswalks, and other facilities could make a substantial difference in the connectivity of the walking network in particular. This could include adding crosswalks to existing traffic signals, small stretches of sidewalk to smaller streets, and/or new enhanced mid-block pedestrian crossings.

Lead Agency: City of Concord Transportation

Supporting Agencies: NCDOT, Cabarrus-Rowan MPO, Boulevards of Concord MSD, City of Concord Parks and Recreation

Timeline: Short- to Mid- Term (Years 1-10)

Cost: Varies depending on specific projects selected. Sidewalks typ. \$4-6M/mile

Funding: NCDOT TAP Funds, Federal Grant Funds, Boulevards of Concord MSD Funds

References: Page 19, Parallel Connections and Page 25, Sidewalk and Trail Connectivity

Develop Area-Wide Streetscape Plan

The roads and streets that connect the shops, restaurants, lodging, and residences of the Boulevards area are its central feature and enhancement of these corridors should begin with a coordinated plan considering the operational needs and placemaking goals of the roadway network. This streetscape plan could include enhanced intersections and smaller gateways.

Lead Agency: Boulevards of Concord MSD

Supporting Agencies: NCDOT, City of Concord Transportation and Planning

Timeline: Short- to Mid- Term (Years 2-6)

Cost: \$250,000-\$600,000

Funding: NCDOT TAP Funds, Boulevards of Concord MSD Funds

References: Page 21, Streetscape Enhancements and Page 23, Roadway Crossings

Beautify Key Intersections and Create Gateways

A central strategy to creating a sense of place is to delineate the area with gateway features at key entrances. This should be an early step to identify the Boulevards area as a distinct destination.

Lead Agency: Boulevards of Concord MSD

Supporting Agencies: City of Concord, Cabarrus County CVB

Timeline: Short- to Mid- Term (Years 3-5)

Cost: \$100K - \$1M per location

Funding: Boulevards of Concord MSD

References: Page 16, Gateways and Bridge Beautification and Page 21, Streetscape Enhancements

Mid-Term Investments (Years 5+)

With a solid foundation of detailed plans underfoot, key investments can be made in the area to enhance its aesthetics and function. These improvements would bring **substantial changes to how residents and visitors can move around** and would create highly visible changes in the area.

Construct Streetscape Improvements

Working in phases, the Boulevards MSD should work with NCDOT and the City of Concord to enhance and harmonize the streetscape on the Concord Mills Boulevard/Bruton Smith Boulevard corridor and on the many secondary streets in the area. This work should include the creation of small places to rest and gather, and incorporate placemaking features and branding of the area.

Lead Agency: Boulevards of Concord MSD

Supporting Agencies: NCDOT, City of Concord Transportation and Planning

Timeline: Mid- to Long-Term (5 to 20 years)

Cost: To be determined by Streetscape Plan

Funding: Boulevards of Concord MSD, NCDOT TAP Funds, Transportation Grant Funding

References: Page 21, Streetscape Enhancements

Support Transit Route Changes

The Boulevards should support Rider Transit's vision to decouple circulator service within the Boulevards area from the connector service that connects to the transit hub to the north. This support could include the creation of new enhanced bus stops, creation of local places for vehicle storage and operator rest, public communication about route changes, and/or co-branding the circulator service.

Lead Agency: Rider Transit

Supporting Agencies: Boulevards of Concord MSD, City of Concord Transportation

Timeline: Mid- to Long-Term (5 to 20 years)

Cost: Varies.

Funding: Boulevards of Concord MSD, NCDOT TAP Funds, Transportation Grant Funding

References: Page 18, Transit

Construct Western Portion of Hector H. Henry II Greenway

The northwestern portions of the Boulevards area hold access to a floodplain area that could provide key connections to businesses, residences, and nature through the Hector H. Henry II Greenway. This segment of the greenway will provide a non-automotive route parallel to the Concord Mills Boulevard/Bruton Smith Boulevard corridor that connects many of the northern residential areas to the businesses at the area's heart.

Lead Agency: City of Concord Parks and Recreation

Supporting Agencies: Boulevards of Concord MSD

Timeline: Mid-Term (5 to 10 years)

Cost: To be determined. Greenways typically cost \$2-6M per mile.

Funding: Boulevards of Concord MSD, City of Concord, Transportation Grant Funding

References: Page 25, Sidewalk and Trail Connectivity

Long-Term Investments (Years 10+)

Some improvements will require substantial time to plan, design, fund, and implement. These investments represent substantial pieces of infrastructure that **will create huge benefits for businesses and visitors** across the Boulevards area.

Connect Hector H. Henry II Greenway Across I-85

A tremendous potential amenity and access tool for the area, the connection of the Hector H. Henry II Greenway from its existing segment east of Weddington Road across I-85 will require coordination with the Concord-Padgett Regional Airport and NCDOT. This connection will allow entirely non-motorized transportation across I-85 for shoppers, visitors, and residents, enhancing the resiliency of the area.

Lead Agency: City of Concord Parks and Recreation

Supporting Agencies: Boulevards of Concord MSD

Timeline: Long-Term (10 to 15 years)

Cost: To be determined. Greenways typically cost \$2-6M per mile.

Funding: Boulevards of Concord MSD, City of Concord, Transportation Grant Funding

References: Page 25, Sidewalk and Trail Connectivity

Connect Quay and Old Holland Roads

The Quay-Old Holland connector would create a new way to cross I-85, support walking, bicycling, and transit in a way the current roadway cannot, open new lands to development, and establish a landmark gateway into the Boulevards area, the City of Concord, and Cabarrus County. This connection will increase the area's ability to handle large volumes of visitors and will increase the roadway network's resiliency by providing multiple routes and modes for travel.

Lead Agency: NCDOT

Supporting Agencies: Boulevards of Concord MSD, City of Concord Transportation

Timeline: Long-Term (10 to 20 years)

Cost: Approx. \$50 million (2024 dollars)

Funding: NCDOT STIP funds, Boulevards of Concord MSD, Transportation Grant Funding

References: Page 19 Parallel Connections and Page 25, Sidewalk and Trail Connectivity

Look to the Future

As the area continues to grow and change, additional concerns should be explored to identify ways to keep the area vibrant and attractive for the next generation of business owners, visitors, and residents. These could include a detailed traffic and safety study, economic development studies, and/or others as needs arise.

Lead Agency: Boulevards of Concord MSD

Supporting Agencies: Multiple.

Timeline: Long-Term (10 to 20 years)

Cost: Varies

Funding: Boulevards of Concord MSD

strategies

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municipal service district

Funding is a critical component of any plan for future investment in an area. Throughout the planning process, multiple funding mechanisms for the Boulevards were considered, including reviving a previously-attempted food and beverage tax, tax increment financing, and additional sales taxes. Ultimately, the mechanism that best suits the needs of the Boulevards is a Municipal Service District.

A Municipal Service District, or MSD, is a defined area in which all property owners pay an additional dedicated annual property tax.

These funds can then be used to provide services and complete projects within the defined area. Funds raised through the MSD tax can not be used outside of district boundaries, reducing concerns about subsidizing projects outside of the Boulevards area. **MSDs are typically led by a dedicated board**, appointed by City Council, that manages funds and coordinates projects.

MSD funds can be used directly to **hire staff, procure services, and make physical investments** in the area, but can also be used as **local matching funds for grants**, effectively multiplying their power. Many MSDs have found success in funding the planning and design of potential improvements and then leveraging other organizations or grant funds for full constructions.

To create a Municipal Service District, the district must be approved by City Council after holding hearings and providing notice to all property owners within the proposed boundary. The MSD, if approved, may become active at the start of the next fiscal year.

MSDs in urban areas in primary cities typically use rates between three and four cents per \$100 valuation (e.g. Center City Partners and University City Partners). In areas more suburban in nature, four to five cents is typical (e.g. Town Center CID in Georgia). Small town downtowns or neighborhood-based MSDs may have much higher rates.

Peer Examples

SouthPark Community Partners

Work includes advocacy, community engagement, economic development, marketing and events, placemaking, and urban planning.

University City Partners

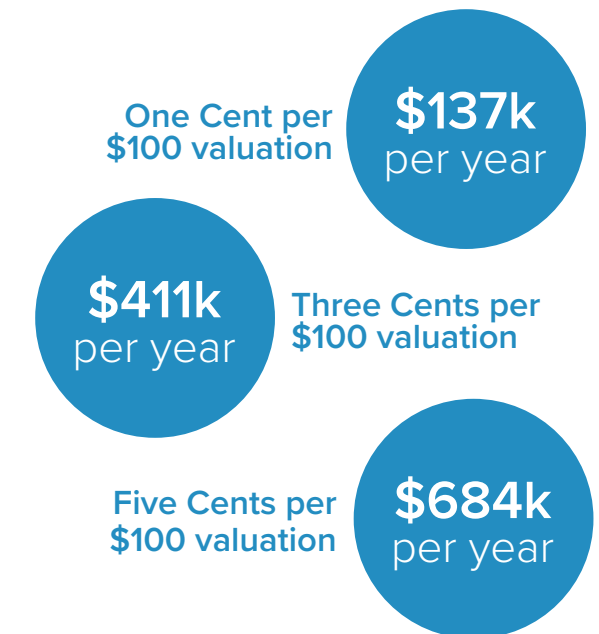
Work by University City Partners includes planning and development, economic development, and marketing and communications. The organization promotes public/private partnerships to create and sustain economic vitality within University City.

Downtown Concord

The City of Concord has created a MSD within the downtown area. Property within this district is taxed at an additional tax rate to be utilized for infrastructure and other improvements inside the district.

Downtown Raleigh

The City of Raleigh created the MSD over 15 years ago to provide additional cleaning and safety services, economic development, activation, marketing and community engagement. Safety Ambassadors act as eyes on the street and can provide guidance for visitors in the area.



Revenue generation rates are based on FY21 property values and may be different based on the final MSD area and FY 25 property values.

gateways and bridge beautification



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The Boulevards area today struggles with identity. While large anchor institutions are well-known, the area as a whole is not understood as a single district and does not have a specific identity. Creating **gateways and focal points that delineate where the area exists** and communicate a **common name and brand** is a great way to welcome visitors and let them know where they are.

Major Gateways

Thanks to its location on the edge of the City of Concord and Cabarrus County, the Boulevards area could serve as a major gateway to all of these locales. In particular, Interstate 85 brings a significant portion of overall traffic to the area



Case Study: Town Center Community Improvement District



The Town Center Community Improvement District (CID) is a self-taxing region similar to an MSD anchored by a mall and retail along an interstate corridor. The CID has an effective Placemaking program that includes Gateway Monuments, Bridge Murals, and Trail Signage. More information can be found at the following link:

[Placemaking in Town Center Project Overview](#)



gateways and bridge beautification



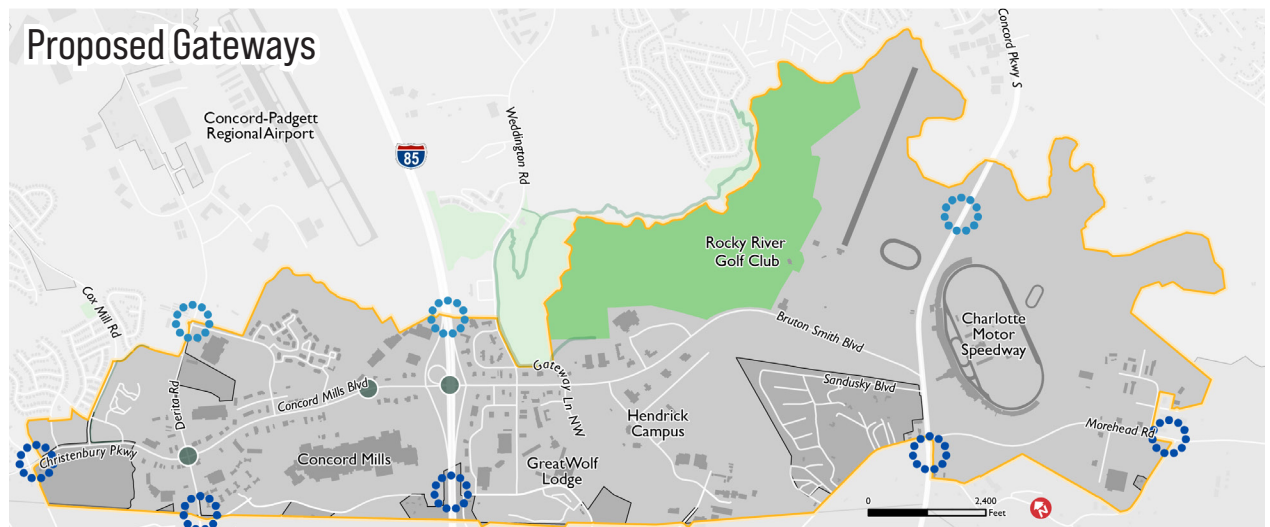
and serves as the “front door” of the area. A gateway element, such as a bridge treatment on either the existing bridge or on the new Quay-Old Holland bridge, or monumentation near the County line could be placed in this area to welcome people to the Boulevards.




Minor Gateways

Additional roadways such as US 29, Chistenbury Parkway, and Derita/Mallard Creek Road serve as significant access points as well. These locations could have additional, smaller gateway features to delineate the area and welcome visitors. Of particular interest is a potential gateway to or from the Concord Padgett Regional Airport, which is a popular access point for out-of-town visitors. All gateways could include directional signage to major destinations in the area.

Beautification at Key Intersections

In the interior of the Boulevards area, major intersection like the fly-over ramp to Concord Mills Mall or the intersection with US 29 could be given enhanced landscaping and eye-catching monuments or other features to improve the look and feel of the area while matching the branding of the area.



-  Beautification Improvements at Intersections
-  Combined City / Boulevards Gateway
-  Boulevards Gateway



Transit Vision

A key component of **providing more mobility within the area while managing congestion** is the viability of transit services to provide a reasonable alternative to driving alone. In concurrence with the 2020 Cabarrus County Long-Range Public Transit Master Plan, transit will continue to evolve on the corridor to provide such an option. In Phase 3 of the transit plan, circulation within the Boulevards corridor has been identified as a challenge due to the development pattern of the area and traffic congestion. To create more efficient transit, the **current route would be split into a circulator route and a connection route that travels to the transit system's main hub**. These changes would allow for more efficient travel between the eastern and western ends of the corridor, **reducing the need for visitors and guests to use personal automobiles** to travel to various destinations in the area.

Providing more efficient transit service also supports the City of Concord's 2030 Land Use Plan. Within Section 7.0 Connectivity & Mobility, Concord sees multimodal connectivity as an opportunity to support those who live, work, and visit the area. The proposed transit modifications are a step in the right direction to provide mobility options.

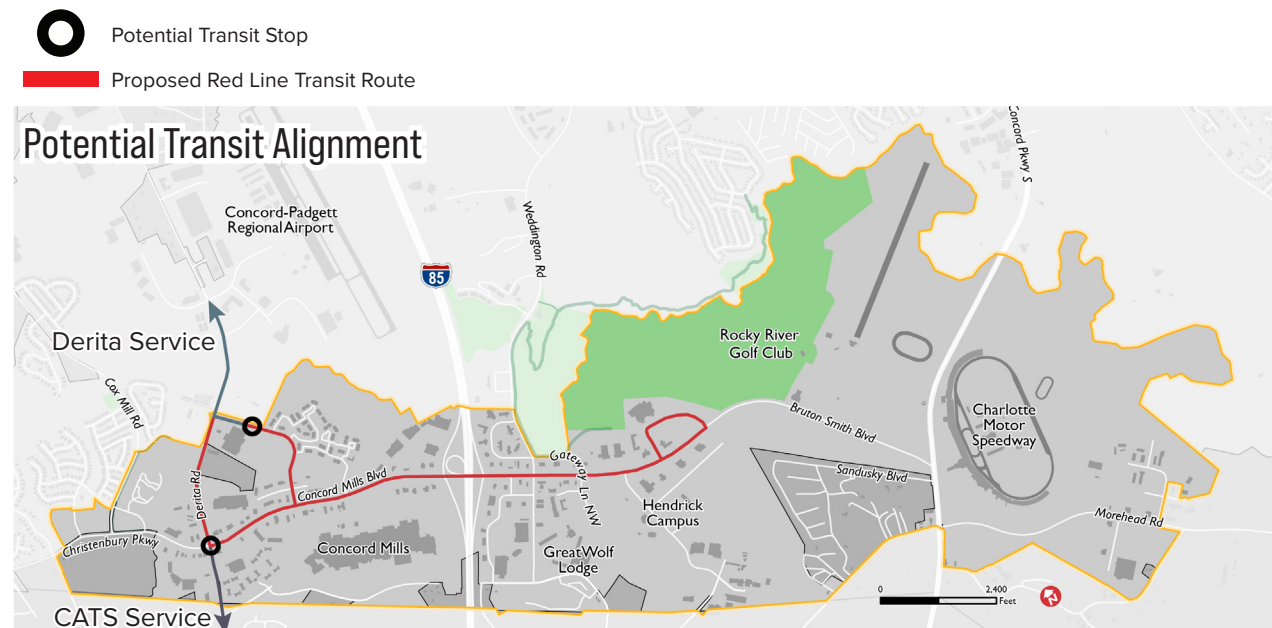
Future Routings

According to the Long-Range Public Transit Master Plan transit operations in this area would be improved through various phases.

In Phase 3 (Year 7-8), the current Red Line would become a circulator and operate on a 15-minute frequency within the area. To continue the connection to Downtown Concord, Route 206 (analogous to the current Route 6) would connect with the circulator at Walmart on Thunder Road, in the western half of the study area (dependent on the Downtown Concord hub being constructed in an earlier phase). Local CATS bus routes would also connect to the circulator in this area as they currently connect at Concord Mills Mall.

In **Phase 6 (Year 15-20), High Capacity Transit (HCT) may be introduced on the corridor.**

Based on LRTP stakeholder and public engagement processes, two potential modes emerged: bus rapid transit (BRT) or light rail transit (LRT). The specific mode and alignment would be determined based on further study and engagement. Federal funding sources would be applied for by Rider Transit to finance the development of HCT projects.





Branding

The local circulator route presents opportunities for continued placemaking. The bus vehicles used in this area as well as bus stops could be **branded to improve their visibility and attractiveness while further reinforcing the area's identity.** (Top Image)

Vehicle Capacity

Due to the corridor's unique offerings and amount of residents and visitors, the Proposed Red Line may use **smaller vehicles** to complete its route. This will allow the vehicle to operate easier in congested conditions, make tighter turns more easily, and be more sustainable while meeting the needs of riders. (Bottom Images)

Looking to the Future

In the future, it is possible that autonomous vehicles may be operable in everyday traffic conditions. The corridor may benefit from this technology to shuttle people to and from different attractions. While this is not currently a reality, the City of Concord and stakeholders should be prepared to update the corridor's infrastructure as needed to accommodate new technologies.



parallel connections



Currently, the I-85 interchange is a huge bottleneck, effectively severing the western Concord Mills Boulevard area from the eastern Bruton Smith Boulevard. In addition to being congested, the interchange provides no facilities to allow people to walk or roll across. **Introducing new ways to move across I-85 would aid in distributing traffic throughout the area across new routes and by using new modes.** Two new connections across I-85 could be made while managing significant physical barriers.

Quay-Old Holland Bridge

Before I-85 and the Boulevards were constructed, Quay and Old Holland Roads provided a prime route through this area. The rights of way for these roads are still owned by the state. **A new bridge reconnecting these roads would create a new way to move from east to west in the Boulevards area for all modes of travel.** This new connection could relieve congestion at and near the interchange and would improve roadway network's ability to provide reliable travel times during major events or during events like car crashes that impact the existing roadway.

Without the need to accommodate traffic to and from I-85, this bridge could provide a **safe, comfortable route for pedestrians and bicyclists** as no other safe Interstate crossing exists within the study area. The new bridge would also sit on the Cabarrus/Mecklenburg

County line, which also serves as the City of Concord's border. **This new bridge could be designed to incorporate gateway features welcoming travelers to any or all of these areas.**

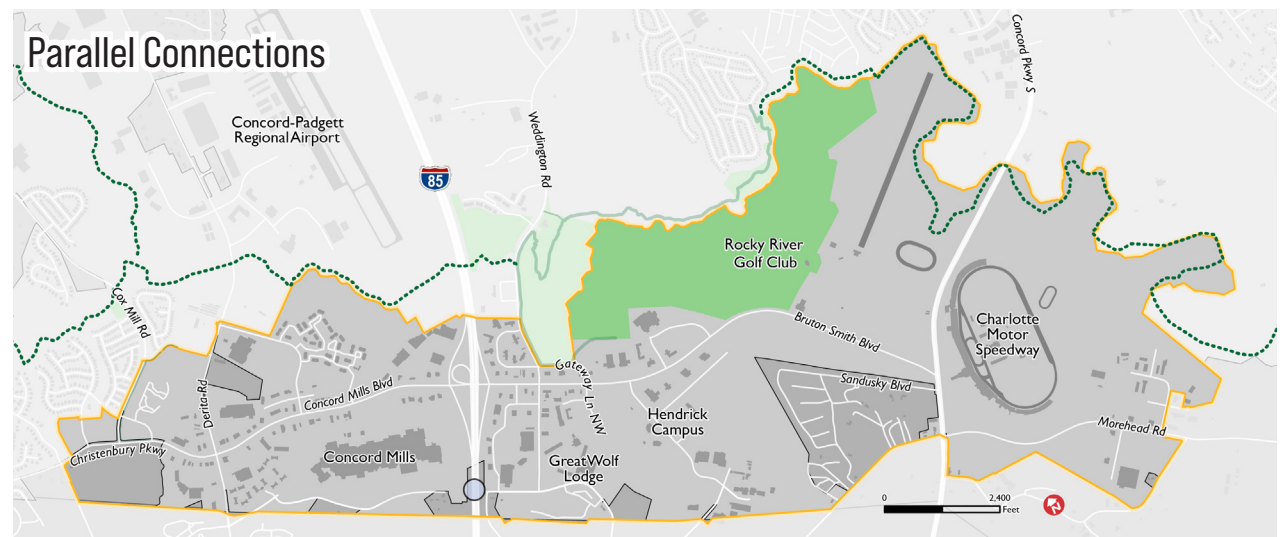
Hector H. Henry II Greenway

To the north of the existing interchange, the **Hector H. Henry II Greenway could be expanded to cross Interstate 85.** This route, which is included in the City of Concord's Open Space Connectivity Analysis Plan, would introduce a non-vehicular means of traveling along the Boulevards. Previous planning efforts, including work completed by the Carolina Thread Trail, show the expansion following the Rocky River and intersecting with Derita Road, before continuing northwards through nearby neighborhoods. This route could connect neighborhoods to the northwest with the core

commercial area, and **could connect visitors to the many hotels on the east side of the interstate to the many retail establishments and restaurants on the west**, all without adding to major roadway congestion.

The greenway alignments shown in this document are based on the City's previously-adopted Open Space Connectivity Analysis Plan. As each segment of the greenway network is designed and built, specific alignments and neighborhood connections will be determined based on local conditions and additional public engagement. No specific neighborhood connections have been identified as part of this plan and these may change as the greenway network is developed.

- Proposed Shared-Use Path / Greenway
- New Bridge Over I-85



pedestrian-oriented, form-based code



Today, the Boulevards area promotes and enables vehicular traffic, but with intentional improvements, could be more welcoming to pedestrians and transit users, especially within key focus areas. **A form-based code, or modifications to the current development ordinance**, could be useful in creating these incremental changes and **promoting the construction of pedestrian infrastructure as places change and adapt to visitors' needs and wants.**

At the policy-level, a form-based code could be considered to guide future development in the study area. **This type of code uses the physical form of the environment, natural and built, rather than the separation of uses as its foundation.**

These codes address the relationship between physical buildings and the public realm and the relationship between buildings themselves. A form-based code, if adopted, could create pedestrian-oriented developments that would require less use of a personal vehicle. **Such a code should cover the following:**

- » **Building Positioning:** The site of a building and its major entrances makes an outside impact on the walkability of an area. Development should be encouraged to push buildings towards streets, greenways, and other buildings to minimize walking distances and focus activity on centralized areas.

- » **Cross-Development Connectivity:** Currently, many developments are isolated from their neighbors and the Concord Mills Boulevard/Bruton Smith Boulevard is the only connection between different locations. Future development could be required to provide multiple access points, shared driveways, and/or frontage/backage roads to improve inter-parcel connectivity and decrease dependence on major roads. Connectivity requirements should be considered for vehicular modes as well as walking and bicycling.

- » **Parking:** While the majority of developments today provide their own dedicated parking lots, this can create large swaths of land dedicated to parking that are rarely fully utilized. A code rewrite should encourage smaller, shared parking areas including mixed-use developments to reduce the need for additional parking.

With a form-based code, **changes to the built-environment would occur incrementally** as businesses and lots redevelop. Incremental changes would allow modifications to happen over time and the code could be adjusted as needed.

Form-Based Code, LaFayette, LA



Example of a Form-Based Code



GROUND-FLOOR USE	CAFÉ ZONE	PEDESTRIAN ZONE	LANDSCAPE + FURNITURE ZONE	PARKING + PLANTER ZONE	SHARED TRAVEL ZONE
MULTI-FAMILY RESIDENTIAL	Not Applicable See Appendix A.5 Private Frontage Guidelines.	6' - 8'	6' - 8' Tree wells; Street furniture to be provided per Section 6;	8' parallel	See Section 3.3 for Street Type Standards.
COMMERCIAL	Where Applicable; 6' - 12' Additionally, See Appendix A.5 Private Frontage Guidelines.	7' - 10'	See Section 3.5 for Street Landscape Standards.	16' - 18' head-in diagonal OR 8' parallel Parking Lane Planters (optional)	

streetscape enhancements







Today, the entire Boulevards area features roads that are primarily large swaths of pavements with few amenities for modes of transportation other than the personal automobile. Through community engagement efforts, a **desire for places to safely walk and bike** was identified, as well as a **desire for ongoing beautification and placemaking** in the area.

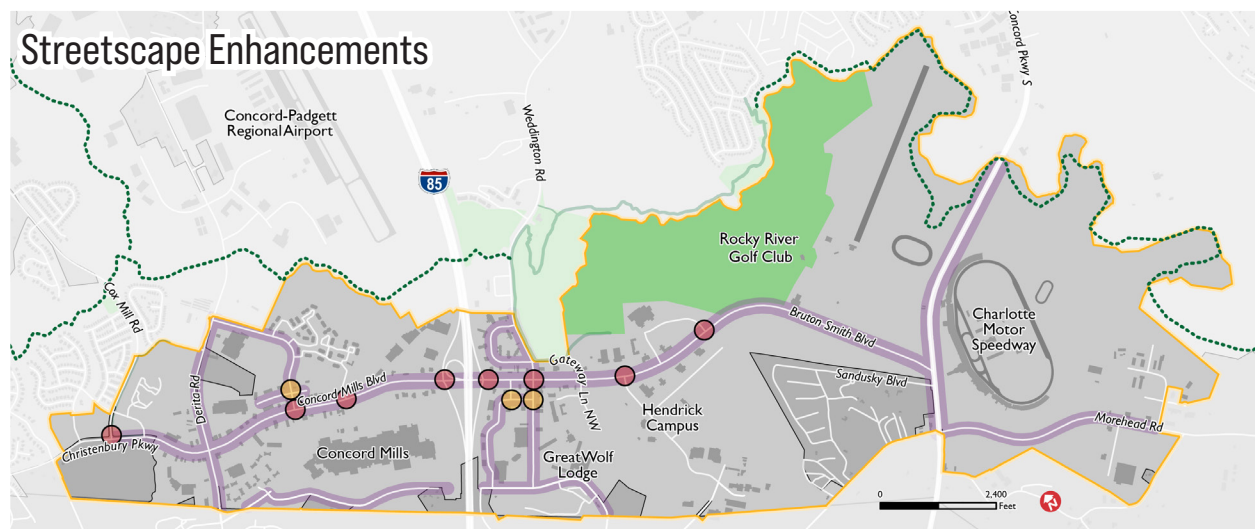
Through coordinated design and construction, **a more multi-modal network can be creating while increasing the attractiveness of the area.** The location, look, and feel of these treatments will depend on where they are being applied within the Project Area. **Not all proposed amenities will be appropriate or useful in every part of the corridor** due to nearby land uses, traffic volumes, and physical constraints.

Potential amenities to be incorporated into these streetscapes could include:

- » Shared-Use Paths and Greenways (Incorporated where appropriate)
- » Enhanced crossings (at intersections and mid-block)
- » Benches
- » Pedestrian lighting
- » Street trees
- » Additional landscaping



-  Crossing Improvements at Other Intersections
-  Crosswalk Additions at Existing or Proposed Signalized Intersections
-  Proposed Shared-Use Path / Greenway
-  Proposed Streetscape Enhancements



streetscape enhancements

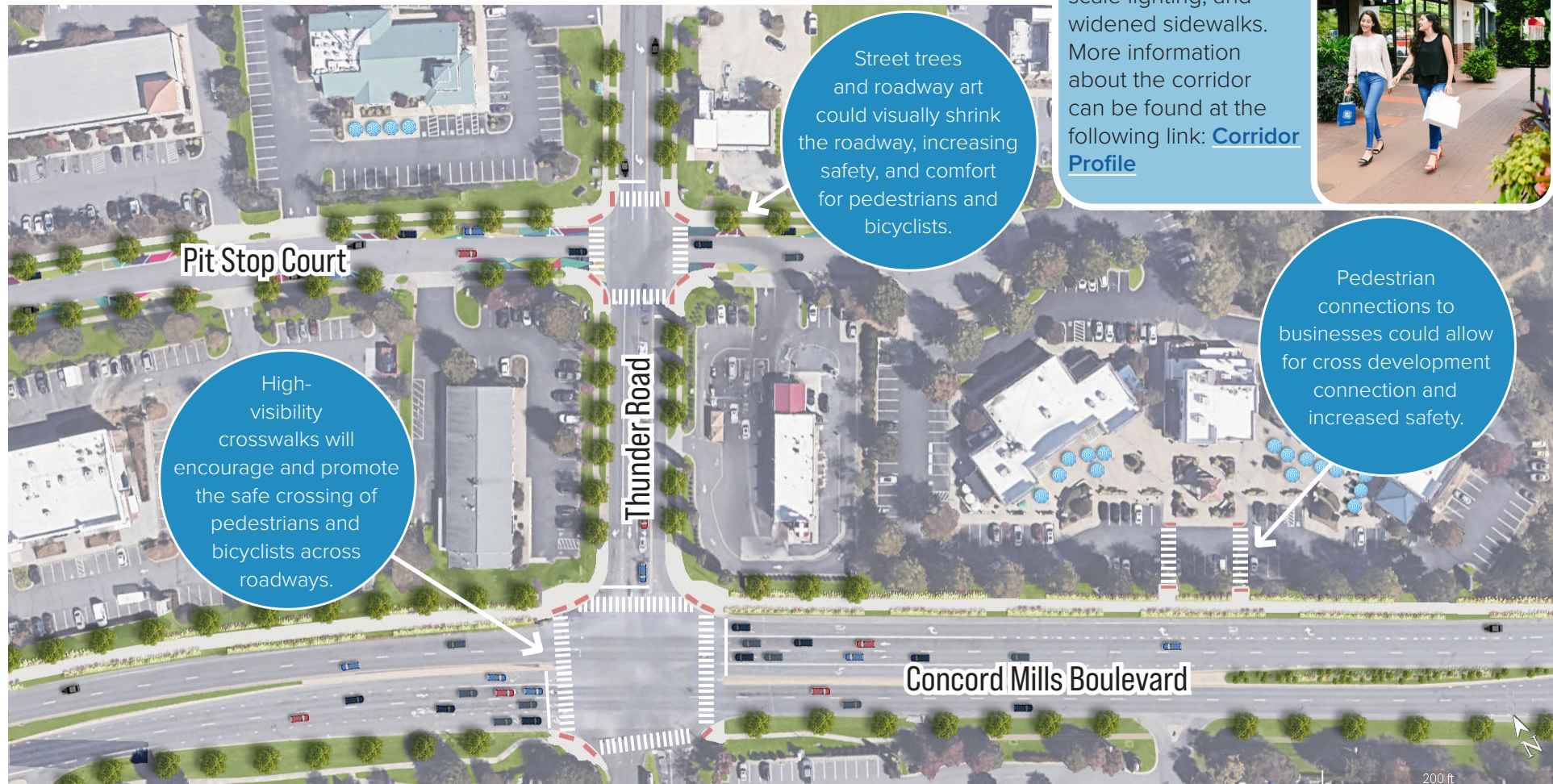


Streetscape improvements will support pedestrian and bicycle activity along the corridor. Residents who live nearby will have the option to walk or bike from their homes while visitors will be able to park once and walk from place to place. In this way, these improvements will support increased

economic activity in the area without adding more congestion or need for parking. Additionally, safety will increase as more people travel through and have eyes on the area. Streetscape enhancements are described in greater detail on the following pages.

Case Study: Village District

The Hillsborough Street Community Service Corporation (HDCSC) is an MSD that covers a series of districts. The HDCSC has improved the area's streetscape by adding street trees, benches, pedestrian-scale lighting, and widened sidewalks. More information about the corridor can be found at the following link: [Corridor Profile](#)

roadway crossings



Very few safe and convenient crossings of Concord Mills Boulevard/Bruton Smith Boulevard exist today, making it impossible to move around safely outside of a vehicle. **Implementing safe crossings will allow residents and guests to walk from one area to another without the use of a vehicle.** This, in turn, decreases the amount of traffic and provides choices for mobility.

These new locations have been chosen due to substantial destinations on either side of the Boulevard and/or the presence of existing pedestrian infrastructure to connect to.



- Proposed Sidewalks
- Crosswalk Additions at Existing or Proposed Signalized Intersections
- Crossing Improvements at Other Intersections

Across the Boulevards

Along Concord Mills Boulevard / Bruton Smith Boulevard, **shown in red highlights, crosswalks will be added at existing or proposed signalized intersections.** This will allow the safe crossing of pedestrians over the Boulevards at the busiest intersections. The following intersections have been identified for these improvements:

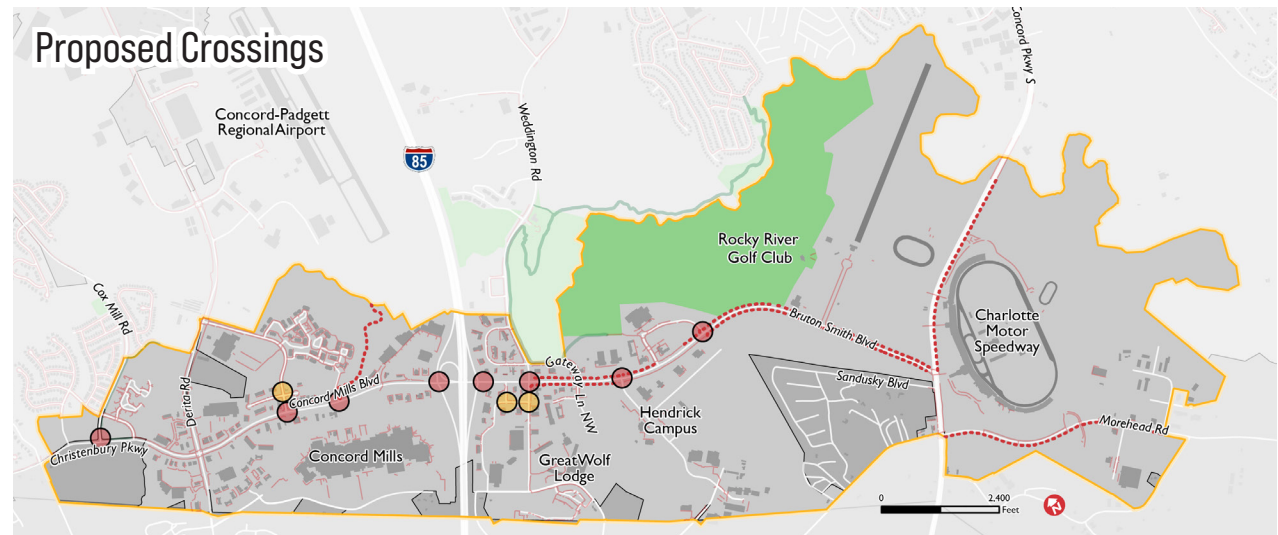
- » Cox Mill Road
- » Thunder Road
- » Bexley Way
- » I-85 Interchange Ramps
- » Weddington Road
- » Papa Joe Hendrick Boulevard
- » John Q. Hammons Drive

Other Locations

On the map, **yellow highlights show crossing improvements that could be implemented on streets near the Boulevards.** These improvements may involve new and/or repainted crosswalks and signage to bring awareness to the presence of pedestrians. In some cases, these areas may involve a push button to give pedestrians and bicyclists the right-of-way. The following intersections have been identified for these improvements:

- » Pit Stop Court
- » Lyles Lane
- » Lyles Lane and Weddington Road

These infrastructure **improvements should be complimented by landscape improvements and lighting that is appropriate for local context** to create a welcoming and safe environment.



sidewalk and trail connectivity



Within the Boulevards area, a variety of sidewalks exist on internal developments. For example, a row of retail stores will have a sidewalk connecting each of the entrances. However, there is a lack of sidewalks along major roadways and between development that may otherwise serve pedestrians and bicyclists.




Sidewalks

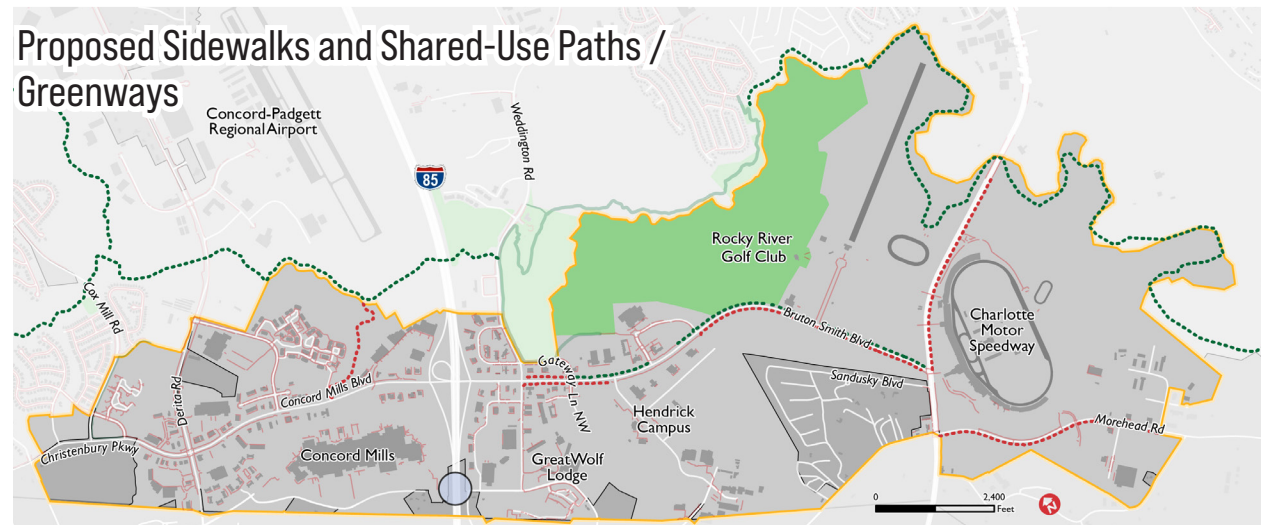
This is most prominent along Bruton Smith Boulevard, Concord Parkway South and Morehead Road. During event days at the Charlotte Motor Speedway pedestrians come from nearby lodging which includes hotels along John Q. Hammons Drive and RV spaces south of the Rocky River Golf Club. Providing sidewalks, including widened sidewalks/side paths, to the Charlotte Motor Speedway will make pedestrian trips easier and reduce the need for vehicular drive over a short distance. Similar improvements should be made along Concord Parkway South.

A ten-foot wide side path is also proposed along Morehead Road. This project will connect to the Town of Harrisburg and their developments within the Morehead West area.

Additionally, **sidewalk gaps should be eliminated as funding is available.** This will create a more connected area that is safe for pedestrians and bicyclists.



-  New Bridge Over I-85
-  Proposed Shared-Use Path / Greenway
-  Proposed Sidewalks



sidewalk and trail connectivity



Hector H. Henry II Greenway

Greenways are vital infrastructure for multi-modal connectivity. Adjacent to the study area is the Rocky River and the Hector H. Henry II Greenway. This greenway is a part of the regional Carolina Thread Trail which connects approximately two million people in over fifteen counties. Greenways can also be used to create a sense of place through events and unique signage.

Currently, the Hector H. Henry II Greenway has only been constructed on the eastern side of Interstate 85. **In the future, the greenway is planned to travel across the Interstate and connect to neighborhoods, shopping centers, and schools.** This would allow residents and visitors a vehicle free route adjacent to the corridor that connects major destinations to numerous residential areas.

As noted previously, detailed alignments and the presence or absence of specific neighborhood connections will be determined as part of the greenway's design based on a more detailed understanding of the area and additional public engagement.

Parallel Connections

Additionally, **crossings should be implemented to join the east and west sides of the corridor.** While implementing pedestrian and bicycle infrastructure may not be appropriate through the interchange, parallel connections could be made through the expansion of the Hector H. Henry II Greenway and the joining of Quay Road and Old Holland Road which are discussed on page 18.





ITS infrastructure works to provide innovative services as related to multiple modes of transportation. **This infrastructure works to create a comprehensive system that serves the user.**

As noted previously, a new traffic signal is planned to be installed at John Q. Hammonds Drive and Bruton Smith Boulevard at the Speedway. The City has indicated there are no other ITS-related RFPs or recent relevant contracts that would affect this corridor.

Recommendations For Further Evaluation

Based on a review of existing ITS infrastructure within the corridor and feedback from the City, **the following potential ITS planning-level solutions are recommended to be further evaluated:**

- » New and/or upgraded fiber along the length of the corridor
- » Real-time passenger information for shuttle and/or transit services
- » Pedestrian and bicycle detection upgrades at signals
- » Additional DMS sign(s) for southbound I-85 traffic
- » Increased camera coverage for traffic and security

New And/Or Upgraded Fiber Along The Length Of The Corridor

Since the signals on the west side of the corridor are interconnected via NCDOT fiber and the shared use agreement is limited, any enhanced or added ITS capabilities would require an upgrade to the fiber network.

Therefore, it is recommended that an enhanced fiber optic communications cable network along the entire corridor be evaluated.

With connectivity along the entire corridor provided via City-owned fiber, there would be the capacity to expand ITS capabilities and provide redundancy within the City's network.

Real-Time Passenger Information For Shuttle And/Or Transit Services

The primary purpose of real-time passenger information (RTPI) is to communicate to passengers when the next transit vehicle is due to arrive. Waiting at shuttle/transit stops is shown to be the highest negative experience for passengers and **RTPI minimizes the uncertainty during the wait by providing communication directly with passengers during their trip.**

A factor in increasing ridership and improving a rider's experience on transit services is to get information related to routes, arrivals, alerts, etc. to passengers as fast as possible. RTPI helps to reach those who either do not have a personal mobile device or have not downloaded the needed app or signed up for the alert service. Therefore, and particularly if a transit loop is implemented within this corridor, further

evaluation of installing RTPI displays throughout the corridor and/or within hotel lobbies and other significant origins and destinations within the corridor is recommended.



its infrastructure



Pedestrian And Bicycle Detection Upgrades At Signals

Bicycle and pedestrian detection can enhance levels of service and safety for pedestrians and bicyclists while also minimizing delays to passenger and transit vehicles.

Detection alerts the traffic signal controller to the presence of bicycle or pedestrian crossing demand and can be implemented through pushbuttons or automated means such as video, in-pavement loops, etc. Pedestrian detection primarily occurs via pushbuttons. Therefore, further evaluation of bicycle and pedestrian detection is recommended along this corridor.

Enhanced fiber connectivity along the corridor (as recommended for further evaluation above) would support this enhanced technology at the traffic signals.

Additional DMS Sign(s) For Southbound Traffic

As stated above, the corridor currently has two DMS signs located on the northbound ramp from I-85 to Concord Mills Boulevard. Lane assignment provided by DMS signs is **effective in directing particularly unfamiliar motorists to the correct lane to help get them to their desired destination.**

Additionally, as special events or other traffic pattern demands necessitate, the dynamic lane assignments aid in dispersing traffic evenly to reduce spillover onto the interstate. In order to more fully provide effective traffic management

at a significant entrance point to the corridor, evaluation for additional DMS sign(s) for the southbound I-85 ramp is recommended.

Increase Camera Coverage For Traffic And Security

While this corridor has complete camera coverage at all intersections along Concord Mills Boulevard, it has been noted that the police department may be interested in adding additional camera coverage, particularly in the vicinity of the hotels.

Therefore, it is recommended that camera coverage be further evaluated from both a traffic and safety perspective to determine if additional coverage is warranted.

It should be noted that if various departments desire to share video feeds for different purposes, evaluating and establishing guidelines for camera control and use is also recommended. An improved fiber optic communications network (as recommended for further evaluation above) would be instrumental in supporting the bandwidth needed for additional camera coverage.