

# US 70 Multimodal Corridor Study

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PREPARED FOR



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## Appendix

### Appendix A – Opinion of Probable Cost Details

# 1

## Study Context

The following section defines the study area and purpose.

### 1.1 Purpose

The US 70 Corridor Study is an in-depth review of: the 18.9-mile stretch of US 70 between NC 119 in Mebane to the Orange/Durham County line; and the 3-mile stretch of US 70 Business from NC 86 (Churton Street) to US 70. The existing two-lane roadway is a regionally significant east-west corridor with daily traffic volumes ranging from less than 4,000 vehicles/day to 17,000. Peak period congestion is concentrated at locations with more frequent intersections and/or heavy conflicts/turning movements. The route acts as an alternate route for I-85 and I-40 while connecting diverse agricultural, residential, commercial, industrial, and institutional land uses, posing conflicting priorities for roadway design.

Much of the western portion of the corridor runs adjacent to the North Carolina Railroad (NCRR) line carrying both passenger and freight rail services. Numerous streams cross this portion of US 70, most notably the Eno River – where the Mountains-to-Sea Trail (MST) is also present. Parks and open space in the study area include the Eno River State Park and Quarry, Historic Occoneechee Speedway and Natural Area, River Park and Riverwalk Trail, Kings Highway Park, Efland-Cheeks Park and Community Center, and Lake Michael Park.

Recognizing the need to evaluate this vital roadway, Orange County, the City of Mebane, Town of Hillsborough, NCDOT Division 7, NCDOT Integrated Mobility Division, Burlington-Graham Metropolitan Planning Organization (BGMPPO), and the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO) united to fund this study.

The goal of this study is to develop a long-term vision for US 70, the communities it serves, and the surrounding natural areas. This vision is comprehensive, preserving and enhancing the corridor's character, economic vitality, environmental resources, and multimodal transportation options. While this report will not determine ultimate design details, its analysis and recommendations will guide those decisions by documenting transportation needs, community priorities, and environmental constraints. This report is meant to support and enhance other relevant planning studies throughout the corridor and to guide the inclusion of multimodal facilities in future projects along US 70, whether through localized improvements or as incorporated within larger roadway projects, such as the US 70 widening.

The project's Study Team reflects the broad interests of the corridor, representing the City of Mebane, the Town of Hillsborough, BGMPO, DCHC MPO, Alamance and Orange Counties, VHB, and Rose & Associates. The Study Team examined existing growth management plans, economic and land use trends, and transportation systems to inform short- and long-term recommendations for region's future prosperity.

## 1.2 Context

The study corridor spans 18.9 miles of US 70 from NC 119 in Mebane and the Orange/Durham County line (classified as Minor Arterial per federal function classifications), and 3 miles of US 70 Business from NC 86 (Churton Street) in Hillsborough to US 70 (Major Collector/Other Principal Arterial).

Historically, this route was designed to link the municipalities of Durham, Hillsborough, and Mebane; while the corridor is still an important commuter route, it now acts as a secondary route for I-85 and I-40, and a growing share of its trips begin or end within the corridor in response to increasing residential and commercial development.

To address the corridor's diverse traffic demand, land use, topography, and roadway design, this report divides the corridor into shorter segments that share relevant characteristics. Figure 1 identifies seven corridor segments, A – F. Segments A through E comprise the US 70 corridor from west to east, while Segment F is US 70 Business. The average segment is 3.6 miles long, each spanning between three and four miles.

### **Segment A**

Segment A passes through Downtown Mebane – the most urban part of the corridor – and the Alamance/Orange County line, extending from James Walker Road east to Mace Road.

NCRR tracks run along the southern side of this segment, creating delays and safety concerns when trains cross intersecting roadways. Right-of-way constraints and historical sites limit improvement options. Outside of Downtown Mebane, US 70 is predominantly abutted by commercial and light industrial uses.

The most recent BGMPO Comprehensive Transportation Plan (CTP), adopted on May 24, 2022, identifies congestion relief, enhanced mobility, and intersection modernization as key needs for this segment. Additional plans recommend bicycle/pedestrian improvements and a fixed-route bus service in Downtown Mebane.

Key segment attributes:

- The prevailing roadway cross-section is two lanes with paved 2'-4' shoulders.
- There are no bicycle accommodations.
- The speed limits drops from 55 mph to 45 mph at the western end of this segment, transitioning down to 25 mph through the Central Business District (CBD), then back up to 45 mph through the eastern half of the segment.
- Estimated 2022 average annual daily traffic volumes (AADTs) through the Mebane CBD range from 9,000 to 12,000 vehicles per day (vpd).
- The Orange-Alamance Connector and Orange-Durham Express bus routes operate along this segment.

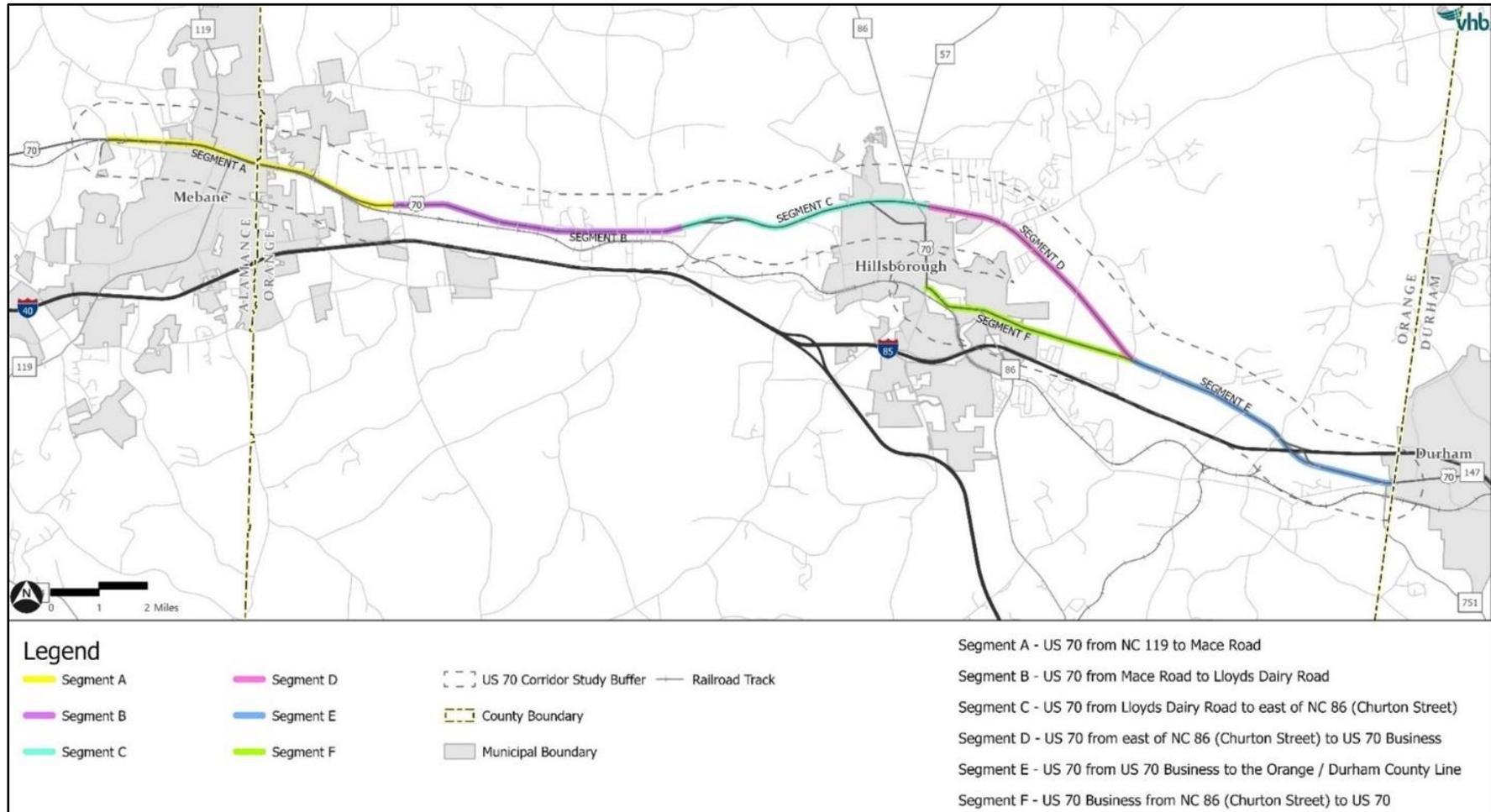


Figure 1 US 70 Study Corridor, Segmented

## Segment B

Segment B extends from the Buckhorn Road intersection east to Lloyds Dairy Road.

Land use along this segment includes industrial, institutional, commercial, residential, and agricultural development. The latest DCHC MPO CTP (amended March 9, 2022) recommends transit improvements along this segment.

Key segment attributes:

- The prevailing roadway cross-section is two lanes with paved 2'-4' shoulders.
- There are no sidewalks or bicycle facilities.
- The Orange-Alamance Connector and Orange-Durham Express bus routes operate along this segment.
- The speed limit is 45 mph throughout.
- Estimated 2022 AADTs range from 5,000 to 7,500 vpd, decreasing as the corridor extends east from Mebane.

## Segment C

Segment C extends eastward from Lloyds Dairy Road to the NC 86/Churton Street intersection.

It includes a high-speed interchange with the I-85 Connector that does not serve eastbound US 70 traffic and incorporates an unorthodox left-lane exit (westbound) and a mainline yield (eastbound). This design presents particular challenges to pedestrians and bicyclists.

East of this interchange is a narrow bridge over the Eno River, followed by a significant hill and curve. This river crossing falls within the watershed critical area immediately upstream of the town of Hillsborough's water treatment plant and river outtake. Land use along this segment includes industrial, institutional, commercial, residential, and agricultural.

The latest DCHC MPO CTP (amended March 9, 2022) identifies this segment as needing bicycle, pedestrian, and transit improvements, and recommends a park-and-ride lot near Revere Road. The I-85 / US 70 Connector interchange is planned for conversion to a full access connection.

Key segment attributes:

- The prevailing roadway cross-section is two lanes with paved 2'-4' shoulders, with the exception of the I-85 Connector interchange, where the eastbound and westbound lanes separate, and an additional lane is added to the entry/exit roadways.
- Sidewalks and crosswalks are only at the Revere Road/Faucette Mill Road intersection.
- West of the Hillsborough Town Limits, the speed limit is 50 mph, except for a short 55 mph segment through the I-85 Connector interchange. The speed limit is 45 mph within the Hillsborough Town Limits.
- Estimated 2022 AADTs are around 5,000 vpd west of the I-85 Connector, 12,000 west of the Connector, and 15,000 at NC 86/Churton Street.
- The Orange-Alamance Connector and Orange-Durham Express bus routes operate along this segment.

## Segment D

Segment D extends from the NC 86/Churton Street intersection north of downtown to the US 70 Business intersection at Palmers Grove Church Road.

US 70 in the vicinity of Orange High School Road is subject to school-related queuing and delays. Intersections at NC 86, St Mary's Road, and Lawrence Road experience peak-period congestion and lack adequate pedestrian crossing treatments. There are significant grades approaching the new bridge across the Eno River, which lacks pedestrian and bicycle accommodations. Land use along this segment includes industrial, institutional, commercial, residential, and recreational.

The latest DCHC MPO CTP identifies this segment as needing bicycle and pedestrian accommodations west of Lawrence Road. It also recommends bus service improvements west of St Mary's Road, including a park & ride lot near Miller Road.

Key segment attributes:

- The prevailing roadway cross-section is two lanes with paved 2'-4' shoulders.
- Other than a short sidewalk segment on the north side of US 70 east of NC 86, there are no sidewalks or bicycle facilities.
- The speed limit is 45 mph west of the Eno River, transitioning to 55 mph to its east.
- Estimated 2022 AADTs range from 15,000 vpd west of St Mary's Road to 10,000 vpd east of Lawrence Road.

## Segment E

Segment E extends from the US 70 Business intersection east to NC 751, near the Durham County line. The portion of US 70 east of the I-85 interchange is designated US 70 Business (US 70 follows I-85 east though Durham).

This segment is part of the NC Colonial Heritage Byway, as designated in the NC Scenic Byway program. Land use along it includes industrial, institutional, commercial, residential, and recreational.

The latest DCHC MPO CTP identifies this segment as needing multimodal improvements west of Pleasant Green Road. The unconventional high-speed design (left-side exits and required U-turns) of the I-85/US 70 interchange and its proximity to the Pleasant Green/Mt Herman Church Road intersection creates congestion and safety problems. This design is especially challenging for bicyclists and pedestrians, as well as emergency vehicles leaving the Eno Fire Department. While previous plans have suggested solutions, there are currently no planned improvements.

Key segment attributes:

- The prevailing roadway cross-section is two lanes with paved 2'-4' shoulders.
- There are no sidewalks or bicycle facilities.
- The speed limit is 55 mph, except between University Station Road and Mt Herman Church Road/I-85 where it is 45.
- Estimated 2022 AADTs are over 15,000 vpd west of the I-85 interchange, dropping to 10,000 or less to the east.

## Segment F

Segment F extends from east of the NC 86/Churton Street intersection to the US 70 Business intersection at Palmers Grove Church Road.

Like Segment E, this stretch is part of the NC Colonial Heritage Byway. Land use along this segment includes light industrial, institutional, commercial, residential, and recreational. This section contains several local employment centers (about a dozen enterprises), many of which are distribution operations, and is home to a destination recreation facility - Sportsplex -and the Passmore Senior Center. Historical structure pose development constraints.

This facility is functionally classified as Other Principal Arterial west of NC 8 and as Major Collector to the east. The latest DCHC MPO CTP identifies this segment as needing bicycle improvements west of Lawrence Road and enhanced bus service west of NC 86.

Key segment attributes:

- The prevailing roadway cross-section is two lanes with minimal paved shoulders (e.g., less than 2').
- There are limited sidewalks on the south side of US 70 Business, extending east from NC 86 to the Sportsplex.
- There are no bicycle facilities.
- The speed limit is 40 mph throughout.
- Estimated 2022 AADTs range from approximately 9,000 vpd on the west end, down to approximately 3,000 on the east.

# 2

## The Plan Making Process

The following section outlines how public input informed the US 70 Corridor Study.

### 2.1 Steering Committee

The Steering Committee comprised representatives from the City of Mebane, the Town of Hillsborough, BGMPO, DCHC MPO, Alamance and Orange Counties, VHB, and Rose & Associates. For the duration of the two-year project, the group met monthly to discuss goals, draft recommendations, and review plan elements.

### 2.2 Plan Development Overview

Using research compiled from prior planning efforts, GIS databases, and field observations, the project team assessed the corridor's current condition, analyzing roadway design characteristics, bicycle and pedestrian facilities, and environmental and jurisdictional restrictions. After identifying the critical issues revealed by both data analysis and public engagement events, the team evaluated alternative solutions for public feedback and plan development.

### 2.3 Stakeholder Interviews

As part of the Public Involvement Plan, the project team solicited interviews from groups that possessed specialized knowledge of the US 70 corridor. Interviews were conducted over the phone during December 2022. Interview subjects were selected based on their subject matter specialization and ability to complement the study team, as well as existing data sources. These sources included public safety, education, and real estate and development perspectives. Major findings from these discussions are identified below.

- US 70 is often used an alternate route to I-85.
- Wildlife crossings are often seen along the corridor and are important to consider in further recommendations.
- Vehicle crashes are often seen along the corridor, most notably at West Hill Avenue in Hillsborough and 5<sup>th</sup> Street in Mebane.
- There is an existing pedestrian use of the US 70 corridor, particularly for hiking and biking activities near Haw River, Downtown Mebane, and Hillsborough's connection to the MST corridor.
- Speed limits should be considered for lowering in various areas of the corridor.
- There is a safety concern for the corridor, particularly at railroad crossings, including improvements to the I-85 connector.

## 2.4 Community Workshops

Community workshops occurred in two rounds with three sessions per round. The sessions were scheduled for locations that balance the geography of the corridor and are intended for—but not limited to—the general public and affected populations. The first round of community workshops was in March 2023. The workshop dates and locations are listed below:

- March 7, 2023 – 5:00 PM – 7:00 PM
  - Passmore Center – 103 Meadowlands Drive, Hillsborough, NC 27278
- March 9, 2023 – 5:00 PM – 7:00 PM
  - Mebane Arts and Community Center – 633 Corregidor Street, Mebane, NC 27302
- March 14, 2023 – 5:00 PM - 7:00 PM
  - Town Hall Annex – 105 E Corbin Street, Hillsborough, NC 27278

These workshops were advertised by each partner agency in their respective communities. Workshop content informed the community about identified deficiencies, and confirmed the Study Team captured the concerns, needs, and vision of the community as the project team proceeded with developing project alternatives and recommendations. Feedback and responses from the first round of public workshops were incorporated into subsequent project deliverables.

In total, thirty-six individuals attended across all three events. A total of three written comments were shared, while numerous anecdotal observations were made. Participants were asked to label a study area map with areas of concern, areas they would like to see bicycle and pedestrian accommodations, and places of interest (schools, parks, community centers, etc). Participants were also asked to “vote” on the priorities they had for the corridor. Options included:

- Relieving vehicular congestion
- Slowing down speeds of cars
- Improving intersections
- Maintaining the character of the corridor
- Providing more bus connections
- Providing more pedestrian connections
- Providing more bicycle connections.

Over the three community meetings, pedestrian connections were most important to participants, followed by relieving vehicular congestion. The least voted for was maintaining the character of the corridor.

In addition to the in-person meetings, the project team hosted an online website, showing the study area, that allowed individuals to comment. They could place a comment at a specific location and state any concerns, desire for new multimodal connections, and places of interest. The online map was available for a total of 8 weeks. Fifty-five comments were left by the community. The following are comments that appeared regularly:

- Sidewalk additions to various parts of US 70.
- Improved crosswalks.
- Protected bike lanes.
- Improved access and circulation into schools.
- Address speeds.

The second round of community workshops occurred in November and December of 2023. The workshop dates and locations are listed below:

- November 19, 2023 – 2:00 PM – 4:00 PM
  - Mebane City Hall – 106 East Washington Street, Mebane NC 27302
- December 2, 2023 – 2:00 PM – 4:00 PM
  - Town Hall Annex – 105 E Corbin Street, Hillsborough, NC 27278
- December 9, 2023 – 2:00 PM - 4:00 PM
  - Whitted Building – 300 W Tryon Street, Hillsborough, NC 27278

These workshops were advertised by each partner agency in their respective communities. The project team presented a summary of the existing conditions data and findings and presented draft recommendations for each segment of the corridor. Feedback and responses from the second round of public workshops were incorporated into the final recommendations.

In total, twenty-five individuals attended across all three events. Participants were encouraged to ask questions during the presentation about the recommendations and offer comments, which were noted by the project team.

## 2.5 Interactive Map

For each round of community workshops, the project team welcomed corridor comments through an interactive map. The interactive map was prominently featured on the project website and promoted through the workshops and Study Team communications to the public. During the first round of workshops, residents, commuters, and other users of corridor were encouraged to contribute to the Study Team’s understanding of the corridor by placing “markers” on assets, issues, opportunities, and quick fixes on locations of interest. This map was open for comment for 8 weeks.

Figure 2 below displays the distribution of the 55 interactive submissions by comment category. A plurality of submissions was vehicle-related current issues that addressed safety, visibility, speed, passing, and other operational problems.

### Figure 2 Snapshot from the Round 1 Interactive Public Input Map

The second round of community outreach included an interactive map that provided the draft recommendations for public input. Users of the site were able to add comments on each recommendation, identified by mode of travel, and/or “like” a recommendation to show agreement. This map was open for comment for 6 weeks. Figure 3 below displays points of recommendations, coded by segment and recommendation type. Four comments were offered and 14 “likes” were given to various recommendations.

## 2.6 Survey

The project team also offered a survey to garner feedback on policy recommendations that applied to the corridor as a whole. The survey was 15 questions and took about 10 minutes to complete. A total of 5 responses were received. The survey was shared on the project website and by the corridor communities. It was open online for 6 weeks.

Overall, public sentiment regarding the project was positive. Most individuals liked the recommendations presented and acknowledged the need for improved connectivity and access for multimodal users.

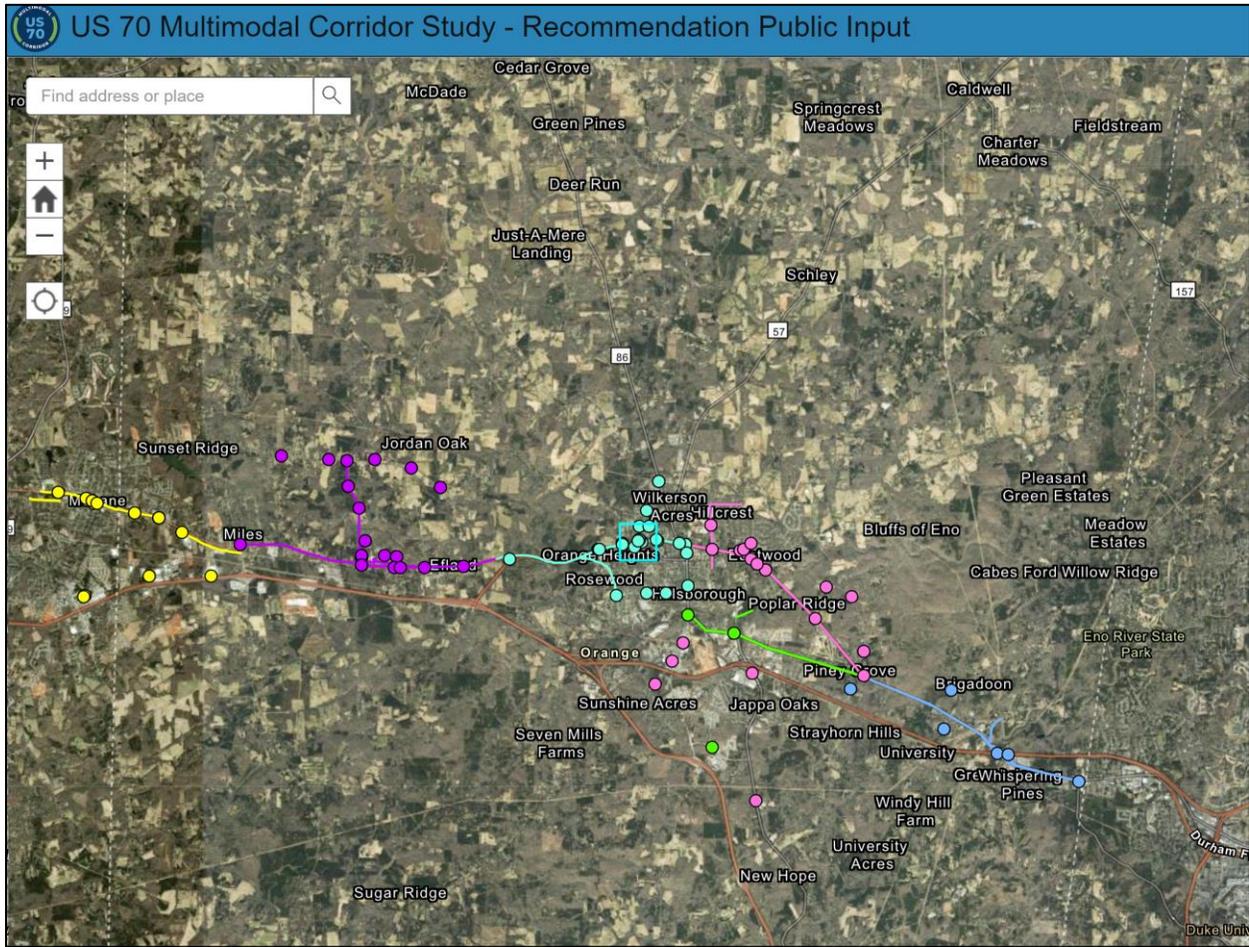


Figure 3 Snapshot from the Round 2 Interactive Public Input Map

# 3

## Goal-Setting

The following section overviews the vision that informed the plan's direction.

### 3.1 Vision

This plan is guided by a community-informed vision that addresses the priorities and concerns of the US 70 corridor's residents. Following these workshops, the most consistently shared values were condensed into a cohesive, aspirational vision statement that guided the subsequent policy framework.

*The US 70 between NC 119 in Mebane to the Orange/Durham County border will be an economically vibrant multimodal corridor, supporting high-capacity transit, free-flowing traffic, efficient freight transport, and bicycle and pedestrian connectivity. Without sacrificing the character and environmental resources of its communities, the corridor's infrastructure and policies will prioritize the safety, mobility, and accessibility of all users traveling on US 70 for work and recreation.*

### 3.2 Plan Goals

The vision statement will drive policy decisions that shape future development in the US 70 corridor. It will guide improvement projects that limit motorized congestion and promote transit use while elevating the accessibility and safety needs of bicyclists and pedestrians. Additionally, improvements will be designed to enhance community character, facilitate broader employment opportunities, and protect the natural environment. These community values are captured in the following goals.

**Table 1 US 70 Corridor Plan Goals**

 <p><b>Mobility</b></p>	<b>Goal 1:</b> Manage increasing vehicular traffic congestion, including auto, EMS, and freight.
	<b>Goal 2:</b> Prioritize bicycle and pedestrian connectivity through the corridor.
	<b>Goal 3:</b> Improve transit accessibility.
 <p><b>Placemaking</b></p>	<b>Goal 4:</b> Guide transportation investment to protect community character.
	<b>Goal 5:</b> Prioritize pedestrian, bicycle, and transit connectivity within urban areas.
 <p><b>Safety</b></p>	<b>Goal 6:</b> Increase the comfort of non-automobile roadway users.
	<b>Goal 7:</b> Work towards Vision Zero.
	<b>Goal 8:</b> Reduce pedestrian-automobile conflicts.
 <p><b>Job Access</b></p>	<b>Goal 9:</b> Improve multimodal access to jobs within the corridor.
	<b>Goal 10:</b> Improve multimodal access to jobs outside the corridor.
 <p><b>Natural Environment</b></p>	<b>Goal 11:</b> Improve multimodal access to parks throughout the corridor.
	<b>Goal 12:</b> Reduce wildlife-automobile conflicts.
	<b>Goal 13:</b> Ensure long term protection of local watersheds.

# 4

## Existing Conditions and Critical Issues

The following section identifies and evaluates the problems that need addressing to attain the plan's goal. An Existing Conditions Report was completed in July 2023. The following sections summarize that report; a copy of the complete report can be found on the project webpage or can be provided upon request.

### 4.1 Natural Environment

An environmental screening was completed for the project study area utilizing existing GIS resources. This screening analysis indicated areas of possible environmental concern, including streams and wetland areas, community resources, and locations of hazardous waste sites. These data were obtained from a variety of sources and mapped throughout the corridor. Detailed information on the various resources reviewed is included in the Existing Conditions Report. This section focuses on the open space and wildlife resources.

#### 4.1.1 Protected Areas and Open Space

The North Carolina Natural Heritage Program (NHP) is responsible for surveying and designating properties and easements where natural resource conservation is one of the primary management goals, also known as managed areas.

This dataset also includes several properties and easements that are not primarily managed for conservation, but that are of conservation interest. This conservation interest ranges from properties and easements which support rare species and intact, high-quality natural communities to those that are open spaces in places where open space is scarce. Managed areas along the project corridor, including two dedicated nature preserves, are shown in Table 2.

**Table 2 Managed Protected Areas in Project Area**

<b>Site Name</b>	<b>Owner</b>	<b>Site Type</b>	<b>Description</b>
Orange County Open Space	Orange County	Local Government	Managed for multi-use – subject to extractive or overhead use
NC Division of Mitigation Services	NCDEQ	State Easement	Managed for biodiversity – disturbance events suppressed
NC Clean Water Management Trust Fund	NCDNCR	State Easement	Managed for biodiversity – disturbance events suppressed
Duke Forest	Duke University	Private Site	Managed for multi-use – subject to extractive or overhead use
Eno River Duke Forest Mesic Slopes Registered Heritage Area	Duke University	Registered Heritage Area	Managed for biodiversity – disturbance events suppressed
Eno River Association Easement	Eno River	Private Easement	Managed for multi-use – subject to extractive or overhead use
Triangle Land Conservancy Easement*	TLC	Private Easement	Managed for biodiversity – disturbance events suppressed
Mountains-to-Sea Trail	NCDNCR	State Park	Managed for multi-use – subject to extractive or overhead use
Historic Preservation Foundation	NC Preserve	Private Site	Managed for multi-use – subject to extractive or overhead use
James M. Johnston Nature Preserve	Classical American Homes Preservation Trust	Dedicated Nature Preserve	Managed for biodiversity – disturbance events proceed or are mimicked
Eno River State Park*	NCDNCR	State Park	Managed for biodiversity – disturbance events proceed or are mimicked
Eno River Nature Preserve	NCDNCR	Dedicated Nature Preserve	Managed for biodiversity – disturbance events proceed or are mimicked

*\*Contains Land Trust Conservation or Conservation Tax Credit Property*

Out of these managed areas, the Montrose Gardens, located in the Triangle Land Conservancy Easement, is identified as a Land Trust Conservation Property, and parts of the Eno River State Park are identified as Conservation Tax Credit Property.

In addition, three voluntary agriculture district parcels, all owned by Andrew B Lloyd Jr., are in the project area west of Hillsborough at US 70 and the I-85 connector. All the protected areas and open space in the project corridor are shown in Figure 4.

This GIS-level screening also included land and water conservation funded properties, but no features were identified within the project study area.

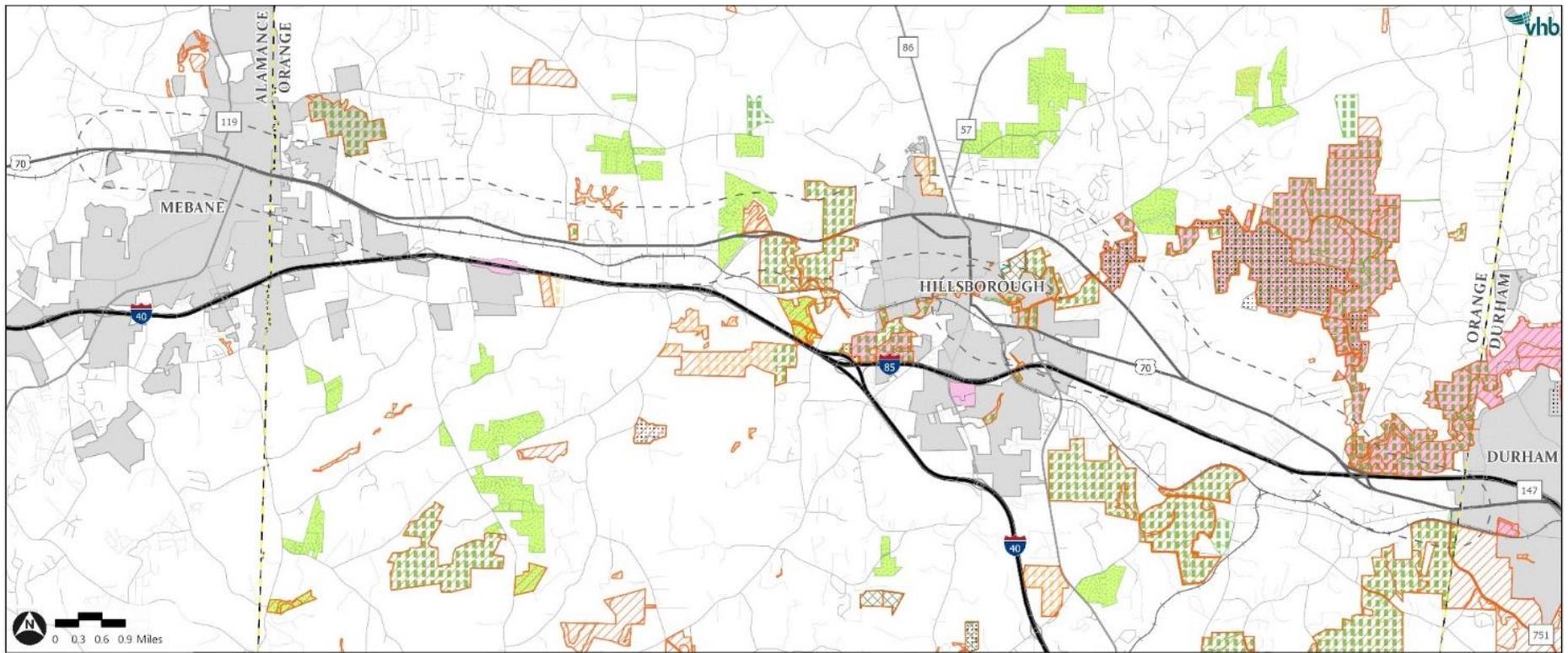


Figure 4 Protected Areas and Open Space

## 4.1.2 Wildlife

### 4.1.2.1 Wildlife Resources

While it is not expected that this corridor study project would directly impact plant or animal species, best management strategies during construction must be implemented to protect aquatic habitats within and downstream of the project study area.

The NC Natural Heritage Program (NHP) is responsible for identifying occurrences of rare plants and animals, exemplary or unique natural communities, and important animal assemblages (see Figure 5). Collectively, these plants, animals, natural communities, and animal assemblages are referred to as elements of natural diversity, or simply as elements.

Some of the NHP resources that have been identified include:

- Easements of land managed by several agencies:
  - NC Clean Water Management Trust Fund (State)
  - NC Division of Mitigation Services (State)
  - Triangle Land Conservation Easement (Private)
- Orange County Water and Sewer Authority (OWASA) Property (Local)
- Orange County Open Space (Local)
  - Six Natural Heritage Natural Areas (*Name – Rating – ID*)
    - Eno River Mesic Slopes and Floodplain – General – NAID #2197
    - Eno River Aquatic Habitat – Very High – NAID #980
    - Poplar Ridge Slopes and Bottom – Very High – NAID #2190
    - Eno River / Cates Ford Slopes and Uplands – Very High – NAID #1701
    - Eno River Mountain Spleenwort and Rhododendron Bluff – General – NAID #2359
    - Middle Eno River Bluffs and Slopes – Very High – NAID #455
  - 30 Natural Heritage Element Occurrences, which are primarily Natural Communities located west of the Town of Hillsborough.

This GIS-level screening also included game lands; however, no features were identified within the study area.

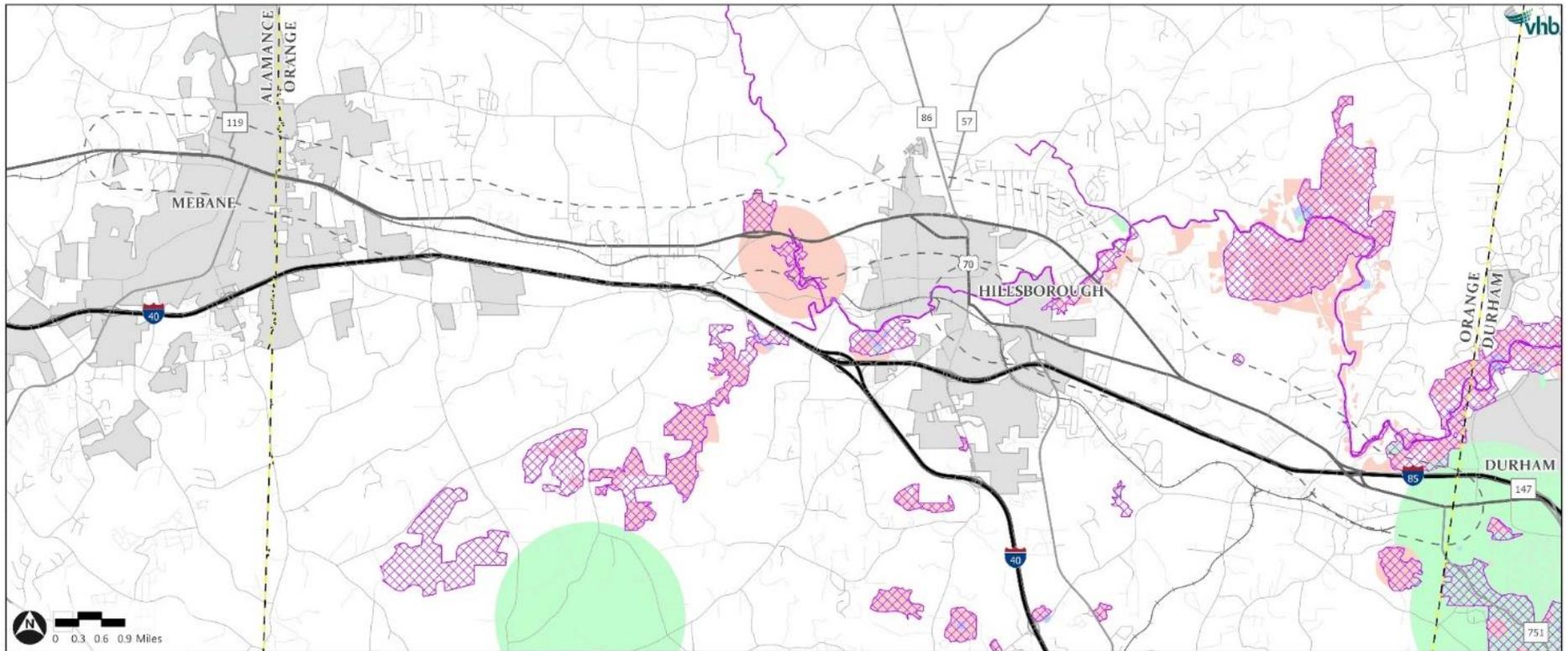
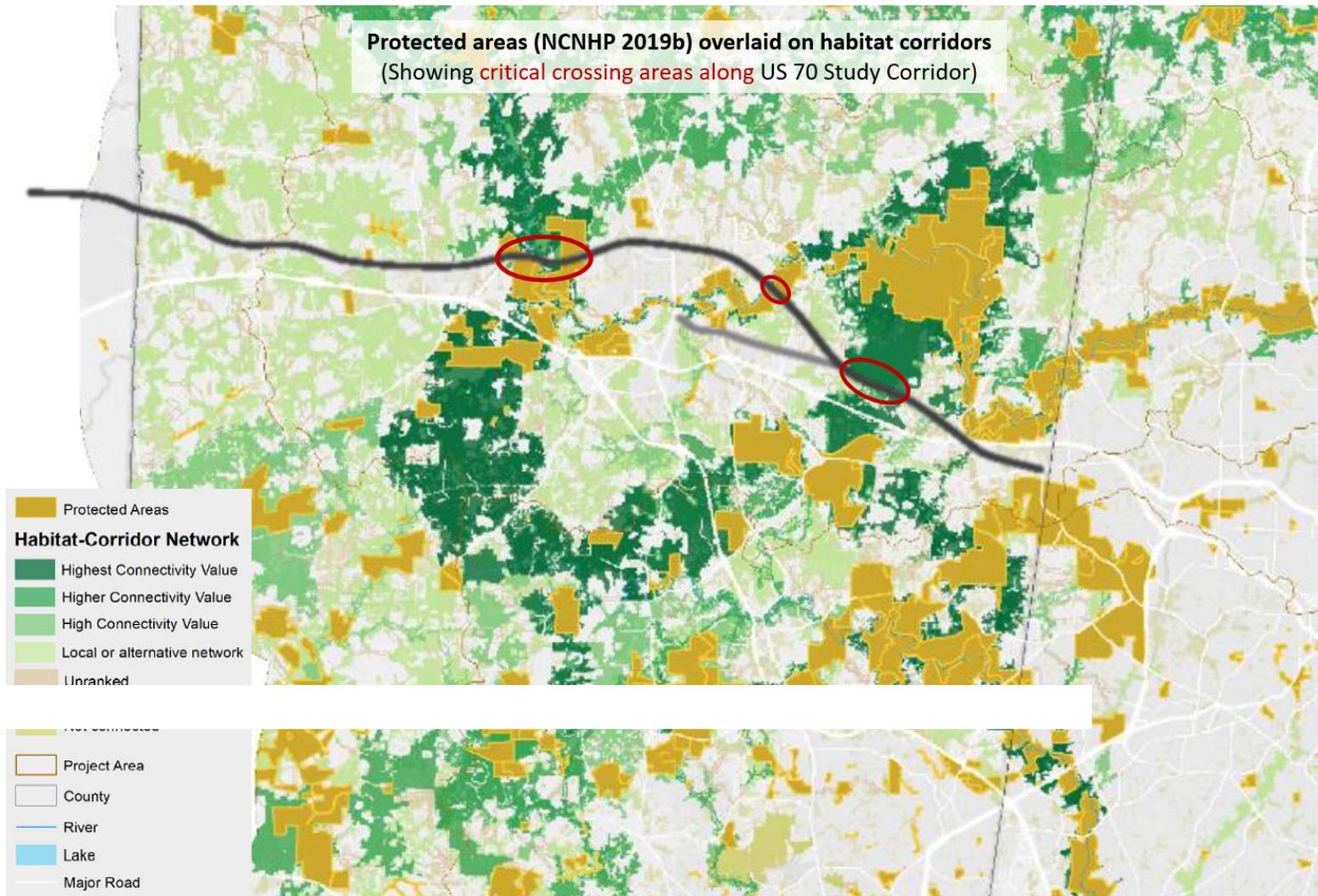


Figure 5 Wildlife Resources in Corridor

#### 4.1.2.2 Animal Crashes

Crash data analysis indicates there were 67 animal crashes (8% of total crashes) in the corridor. Segment B and Segment C had the most animal crashes with 26 and 25, respectively, and most of these were concentrated north of Hillsborough. As detailed in the 2019 report, *A Landscape Plan for Wildlife Habitat Connectivity in the Eno River and New Hope Creek Watersheds*, these crashes represent not only a danger to drivers and passengers. The crashes, along with the barrier created by the roadway itself, are a substantial threat to critical ecosystems and the wildlife they support. The Eno River and New Hope Creek-Jordan Lake watersheds are home to ecologically important habitats supporting a rich diversity of plant and animal species. Development and climate change cause habitat fragmentation and loss. To survive, animal species must be able to move within and between remaining high-priority wildlife habitats. Functional ecosystems require a connected network of habitats and corridors for movement. In addition to sustaining diverse wildlife populations, such connections can benefit water quality, native plants, working farms and forests, and public health and safety.

Figure 6 indicates critical wildlife crossing locations in Segments C, D, and E of the US 70 Corridor. The *Landscape Plan* identifies criteria for barrier roads and potential crossing locations, along with potential actions to preserve and enhance connectivity within and between wildlife habitats. This information will help guide design recommendations for US 70 that will benefit both traffic safety and the environment.



Adapted from *A Landscape Plan for Wildlife Habitat Connectivity*, 2019

**Figure 6 Major Wildlife Corridors & Critical US 70 Crossing Areas**

## 4.1.3 Relevant Plans

### 4.1.3.1 2014 Orange County Comprehensive Parks and Recreation Master Plan 2030

The Orange County Comprehensive Parks and Recreation Master Plan identifies facilities, parks, and trails for expansion, improvement, and creation across Orange County by 2030. Key recommendations include:

- A proposed segment of the MST is planned to cross the study corridor at the confluence of Cane Creek and the Haw River.
- The Orange County trail segment is planned to parallel Cane Creek north from the Alamance County line to the Town of Hillsborough where the trail follows the Eno River westward.
- The plan recommends that the county and other stakeholders develop a master plan to facilitate the completion of the trail segment and consider the location of a node or way station on county or OWASA land to provide basic hiking services.

### 4.1.3.2 A Landscape Plan for Wildlife Habitat Connectivity in the Eno River and New Hope Creek Watersheds (2019)

Recognizing that the Eno River and New Hope Creek-Jordan Lake watersheds are home to ecologically important habitats supporting a rich diversity of plant and animal species, this plan identifies actions to preserve and enhance connectivity within and between wildlife habitats. Development and climate change cause habitat fragmentation and loss. To survive, animal species must be able to move within and between remaining high-priority wildlife habitats. Functional ecosystems require a connected network of habitats and corridors for movement. In addition to sustaining diverse wildlife populations, such connections can benefit water quality, native plants, working farms and forests, and public health and safety.

This plan helps ensure wildlife habitat connectivity throughout the Eno River and New Hope Creek-Jordan Lake watersheds. The objectives most relevant to the US 70 Corridor Study involve guidance for decision-making related to land protection, land-use, and transportation. Three basic principles associated with this effort are:

- Protect conservation priorities, including large natural areas and sensitive habitats.
- Buffer these areas from suburban and urban development.
- Connect these natural areas across the landscape to reduce habitat fragmentation.

### 4.1.3.3 2019 Eno New Hope Plan

The goal of this project is to provide an actionable plan for ensuring wildlife habitat connectivity across the landscape of the Eno River and New Hope Creek-Jordan Lake watersheds through minimizing the impacts from future land uses changes.

Recommendations relevant to US 70 include encouraging the redesign of the I-85/US 70 to incorporate bridge designs that allow wildlife to cross safely under the bridge and that allow pedestrian passage along any existing or planned trail-system connectors.

### 4.1.3.4 2022 Bringing Eno River State Park to Downtown Hillsborough

This project aims to acquire a group of parcels located near downtown between US 70 and 70A as park space. The collection of parcels makes up over 200 acres of preserved open space to be added to the Eno River State

Park. Once added, the Eno River state park will comprise of over 4.7k acres connecting to Durham and other parts of Orange County.

### 4.1.4 Critical Issues

The table below overviews deficiencies in the natural environment that must be addressed to achieve the plan’s goals.

Problem	Relevant Goal(s)
Natural areas that are recreational destinations lack connectivity to the multimodal transportation network.	 2, 3  5  11
The corridor experiences a large amount of animal crash incidents.	 7  12
High growth rates in the corridor threaten to increase the amount of impervious surface, increasing run-off quantity and decreasing water quality.	 13

## 4.2 Built Environment

The built environment in the study area is primarily rural residential, with agricultural farms scattered in between (Figure 7). There are commercial, retail, and industrial developments at the eastern and western ends of the study area and many natural areas on the east end of the corridor. Overall, the study area is low density.

### 4.2.1 Places of Interest

A review of places of worship in the vicinity of the study area identified 27 places of worship and seven cemeteries. Five public schools and one private school are located within the project study area, with most of the schools being located within either Mebane or Hillsborough municipal limits. In addition, there are seven fire stations that are spread across the corridor (including Mebane, Efland, and Eno Fire and Rescue). The full list of community resources is included as an Appendix item.

Other notable places of interest include the three National Register-listed historic districts (Mebane Commercial, Old South Mebane, and Hillsborough Historic) and 14 National-Register-listed historic sites located within those districts.

Lastly, the corridor is sprinkled with numerous open spaces, parks, and natural areas, most notably, the Mebane Community Park, Oconechee Natural Area and Speedway, Eno River State Park and Rock Quarry, and the Duke Forest.

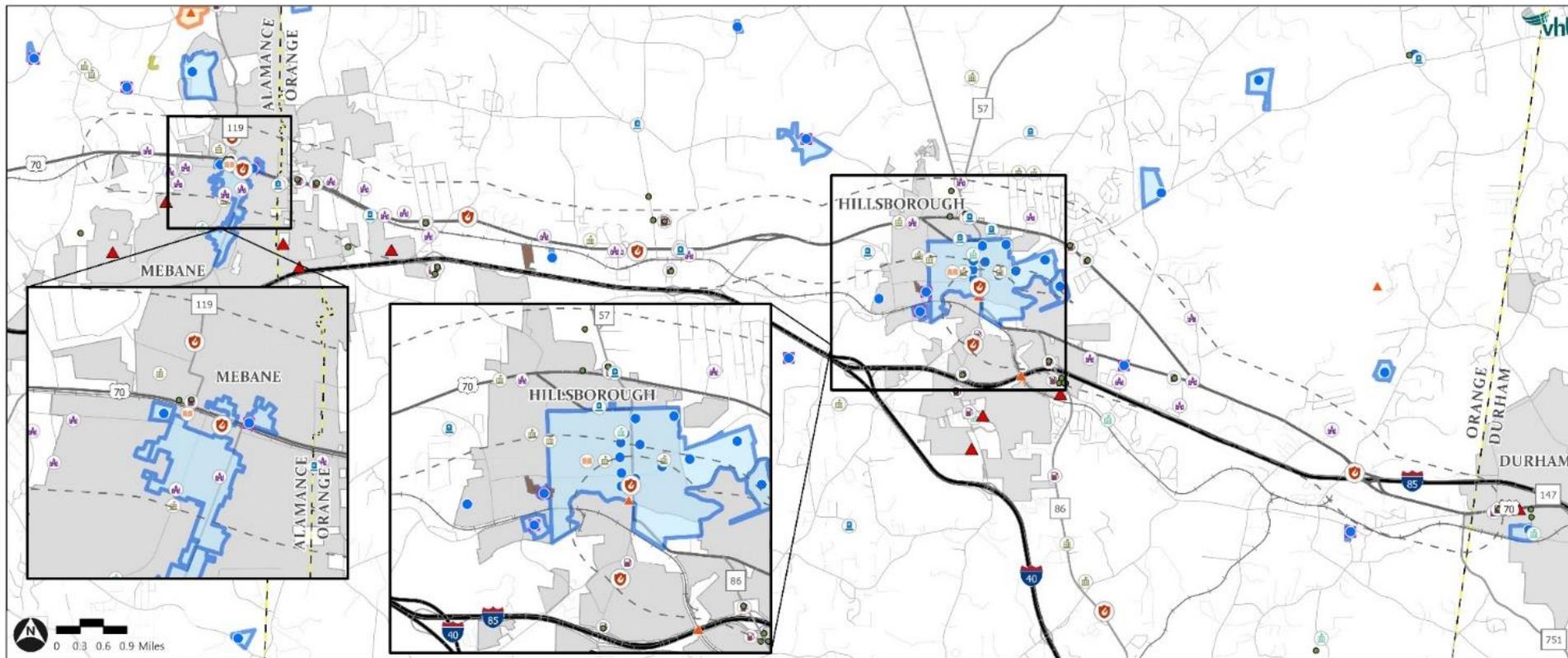


Figure 7 Places of Interest

## 4.2.2 Historic Properties

The North Carolina State Historic Properties Office (SHPO) is responsible for surveying and designating structures and districts of historical significance and maintains an online web viewer with more information <http://gis.ncdcr.gov/hpoweb/>.

The highest level of preservation is the National Register. The second highest is the State Study List. The third level is Determined Eligible, meaning that the properties are in the process of becoming listed on the Study List. The following historic properties were identified within the project study area, shown in Table 3.

## 4.2.3 Hazardous Materials

18 gas stations were identified in the project area, each with underground storage tanks that may pose a potential challenge for redevelopment of these parcels:

- Tommy's Mini-Mart - 300 West Center Street, Mebane, NC 27302
- Foust Corner Market - 509 East Center Street, Mebane, NC 27302
- Foust Oil Company - 601 East Center Street, Mebane, NC 27302
- The Pop Shoppe - 6300 Buckhorn Road, Mebane, NC 27302
- Mebane BP - 7615 US 70, Mebane, NC 27302
- Efland Supermarket - 3419 US 70, Efland, NC 27243
- Talbert's Mini Mart - 225 Mount Willing Road, Efland, NC 27243
- AZ Shop N Go - 2113 US 70 Business, Hillsborough, NC 27278
- Circle K #382 - 1204 US 70 Bypass, Hillsborough, NC 27278
- Hillsborough BP #305 - 1811 NC 86, Hillsborough, NC 27278
- Hwy 86 Amoco Food Shop - 114 NC 86, Hillsborough, NC 27278
- Lloyd's Quickie Mart #2 - 110 NC 86, Hillsborough, NC 27278
- Quality Mart #9 - 1414 US 70 Bypass, Hillsborough, NC 27278
- Quickie Mart – 225 Churton Street, Hillsborough, NC 27278
- Breeze Thru #30026 – 2300 Old Chapel Hill Road, Hillsborough, NC 27278
- Carolina Propane – 4630 Hillsborough Road, Durham, NC 27705
- La Marqueta – 4701 Hillsborough Road, Durham, NC 27705
- Shop & Go Food Mart – 4640 Hillsborough Road, Durham, NC 27705

Three other active underground storage tanks, not found on gas station properties, were also identified in the project area servicing locations such as:

- Dodson's Service Center – 306 West Center Street, Mebane, NC 27302
- Frank Efland – 316 Efland-Cedar Grove Road, Efland, NC 27243
- Orange County Asset Management Services – 600 NC 86, Hillsborough, NC 27278

One hazardous waste site, the former General Electric Mebane Operations site, now known as ABB (6801 Industrial Drive, Mebane, NC 27302), is located approximately 0.3 miles off the US 70 corridor southwest of Mebane. In addition, one Brownfield site is in the project area – former Redman Industries, now known as Barber & Ross Window Company (200 Redman Crossing Road, Mebane, NC 27302) located approximately 0.2 miles off the US 70 corridor between Miles and Efland.

This GIS-level screening also included active and former landfills and dry-cleaning sites, but no features were identified within the project study area.

**Table 3 Historic Properties in the Project Area**

<b>Site Name</b>	<b>Status*</b>	<b>Site ID</b>	<b>Description</b>	<b>Year Listed</b>
Durham Hosiery Mill No. 15	NR	AM1791	1922 two-story brick and concrete textile mill	2010
Rigsbee's Rock House	NR/LL	OR0302	1929 Tudor Revival house	1988
White Furniture Company	NR/LL	AM0466	1924 furniture factory complex	1982
Occoneechee Speedway	NR	OR1542	1940s early NASCAR site	2002
Efland Home	NR	OR2815	1925 one-story hip roof T-shaped frame African American school	2018
Nash Law Office	NR	OR0012	1801-1807 one-story frame building	1971
Old Orange County Courthouse	NR	OR0014	1845 Greek Revival two-story brick courthouse	1971
St. Matthews Episcopal Church and Churchyard	NR	OR0019	1825-1826 Gothic Revival	1971
Heartsease	NR	OR0009	Late 18 <sup>th</sup> to early mid-19 <sup>th</sup> century two-story frame house	1973
Ruffin-Roulhac House	NR	OR0017	1820 Federal/Greek Revival	1971
Sans Souci	NR	OR0020	1813 two-story Federal houses	1971
Eagle Lodge	NR	OR0007	1820 early Greek Revival Masonic Lodge	1971
Burwell School	NR	OR0004	1837 two-story frame house and school	1970
Ayr Mount	NR	OR0002	1814-1816 Georgian/Federal two-story brick tripartite house	1971
Montrose	NR	OR0050	19 <sup>th</sup> – early 20 <sup>th</sup> century Graham Family estate	2001
Mebane Commercial Historic District	NRHD	AM1698	1905-1960 commercial district	2011
Hillsborough Historic District	NRHD	OR0077	18 <sup>th</sup> -20 <sup>th</sup> century county seat residential/commercial district	1973
Old South Mebane Historic District	NRHD	AM1508	1900-1961 residential district	2011
Old South Mebane Historic District Boundary Increase	NRHD	AM2351	1900-1962 residential district	2013
Benjamin Frank Mebane House	SL	AM0284	1855 Greek Revival	1985
S.C. Forrest House II	SL	OR1409	1927 house, S.C. Forrest	1995
Ja-Max Motor Lodge	SL	OR3001	1952 one-story hip roof frame Miscellaneous Modernist building	2017
Orange County Courthouse	SL	OR0054	1953 two-story side gable brick Colonial Revival courthouse	2006
Jones Department Store	SL	AM1507	1910 three-story parapet roof brick Romanesque Revival building	2000
Bridge No. 670241	DOE	OR2222	1922 reinforced concrete t-beam bridge (DOT 670241)	2005

\*Status: NR – National Register-listed, LL – Local Landmark; NRHD – National Register-listed Historic District; SL – Study List; DOE – Determined Eligible

## 4.2.4 Relevant Plans

### 4.2.4.1 2008 Orange County Future Land Use Map (amended 2012)

The future land use plan balances environmental constraints and community needs by accommodating a particular combination of compatible land uses and relating them to current zoning classifications. There are three basic land use categories (Developed, Transition, and Rural) and several overlays (watershed protection).

Properties along the corridor and within the Orange County jurisdiction predominately fall into one of the five following zoning classifications:

- Agricultural Residential (AR) - Agricultural activities and associated residential and commercial uses predominate.
- Rural Residential (R1) - Identifies rural areas to be developed as low intensity and low density residential.
- Public Interest District (PID) - These lands are considered valuable for recreational and research purposes and are afforded special treatment.
- Economic Development (EDB, EDE, EDH) - Identifies areas along major transportation corridors that may be in proximity to 10- Year or 20-Year Transition areas of the County which have been specifically targeted for economic development activity consisting of light industrial, distribution, flex space, office, and service/retail uses.
- Commercial Industrial Transition Activity Node for Office / Research and Manufacturing (O/RM) - Identifies areas changing from rural to urban in form and density. A full range of commercial and industrial activities would be appropriate and allowed.

The amended Future Land Use Map determines the following recommendations for the US 70 corridor:

- The majority of the parcels located along the corridor from the ETJ boundary eastbound to Harding Street fall within the 10 Year Transition land use distinction. Where Eland Cedar Grove and US 70 intersect is considered the Commercial-Industrial Transition Activity Node. After N Lloyds Dairy Road to the end of the ETJ for approximately 2,000 feet is designated as Agricultural Residential.

### 4.2.4.2 2017 Mebane by Design Comprehensive Land Development Plan

The Mebane by Design Comprehensive Land Development Plan is intended to be used by the City of Mebane and County partners to guide land development decisions. It is a long-range guide for public policy decisions concerning the overall growth and development of the Mebane community, and it focuses on the physical growth and development of Mebane and the study area. The plan calls for:

- Detailed guidance on the development of the Downtown District, including along and adjacent to Center Street (US 70).
- Renewed mix-use land use policies for downtown, including the 'Village Concept' that has been deployed elsewhere in Mebane, and higher densities to encourage active transportation.

### 4.2.4.3 Hillsborough Comprehensive Sustainability Plan (2023)

This plan guides future development and the transition to 100% clean energy, balancing environmental stewardship, resiliency, and racial justice with smart growth that will allow for a thriving economy and a great quality of life for the residents of Hillsborough.

Plan elements focus on community connectivity, future land use, parks and recreation, rail station planning, corridor planning, and climate action. A major priority for the Town is multimodal connections, for which the project team has been evaluating opportunities and feasibility with safety and resiliency at top of mind. The plan elements are listed with in the 8 main chapters: Town Government & Public Services, Land Use & Development, Environment & Natural Systems, Transportation & Connectivity, Social Systems & Public Space, Housing & Affordability, Economic Systems & Tourism, and Climate & Energy.

The plan’s transportation and connectivity chapter outline and unifies recommendations listed in the Town’s other controlling plans, with specific future pedestrian and bike facilities. Other key recommendations include an update of the Town’s UDO and Zoning Classifications, as well as an implementation plan for unifying the other controlling plans within the Town.

### 4.2.5 Critical Issues

The table below overviews deficiencies in the built environment that must be addressed to achieve the plan’s goals.

Problem	Relevant Goal(s)
US 70 poses a significant barrier to pedestrian connectivity in urban areas despite existing crossings.	   <b>2</b> <b>4, 5</b> <b>6</b>
US 70 does not have sufficient multimodal facilities to support its growing business.	   <b>2, 3</b> <b>9</b>
US 70 detracts from the character of the municipalities it traverses.	 <b>3</b>

## 4.3 Motorized Transportation

### 4.3.1 Roadway Design

US 70 is a basic 2-lane highway, most of which has 4’ paved shoulders and 120’ ROW. Thirteen intersections along this 18.9-mile segment are signalized. Driveways and intersections are frequent, but visibility is often adequate. The terrain is mildly-to-moderately rolling, with some significant vertical and horizontal curvature,

though not excessive for the primarily 45 mph speed limit. There are no bicycle facilities and limited pedestrian facilities along the corridor.

### 4.3.2 Intersections

Within the study area, US 70 and US 70 Business intersect approximately 95 public streets, and numerous private roads and driveways. Of these, fifteen signalized intersections and two unsignalized intersections were quantitatively evaluated for existing and future year operations (see Figure 8):

#### Signalized Intersections

- US 70 (W. Center Street) at James Walker Road
- US 70 / NC 119 (Center Street) at SR 1962 (Third Street) and Washington Street and Norfolk Southern Railway Crossing 735 469V
- US 70 / NC 119 (Center Street) at 4th Street and Washington Street and Norfolk Southern Railway Crossing 735 471
- US 70/NC 119 (Center Street) at NC 119 (Fifth Street) and Norfolk Southern Railway Crossing 735 472D
- US 70 at SR 1114 (Buckhorn Road)
- US 70 at SR 1004 (Efland-Cedar Grove Road)
- US 70 (Cornelius Road) at US 70 Business/SR 1328 (Faucette Mill Road - Revere Road)
- US 70 at NC 86/US 70 Business/Churton Street
- US 70 at SR 1588 (Orange High School Rd)
- US 70 at SR 1555 (Miller Road)
- US 70 at SR 1002 (St Mary's Road)
- US 70 at SR 1561/1709 (Lawrence Road)
- US 70 at SR 1567 (Pleasant Green Road) and SR 1713 (Mount Herman Church Road)
- US 70 Business at NC 86 / SR 1879 (Elizabeth Brady Road)
- US 70 Business/NC 86 at SR 1009 (Churton Street)

#### Unsignalized Intersections

- US 70/SR 1303 (East Washington Street) at SR 1402 (Mattress Factory Road)
- US 70 at US 70 Business/SR 1562 (Palmer's Grove Church Road)

#### Recent Roadway Improvements

Several signalized and unsignalized intersections have been upgraded through recent projects beyond their original cross-sections to reduce crash potential and/or increase capacity. Such improvements--typically involving additional turn-lanes, acceleration /deceleration lanes, or channelization-are summarized below:

##### *James Walker Road*

- Median crossover, no left turn bay

##### *Third Street*

- Dedicated left turn lanes on US 70

##### *Fourth Street*

- Dedicated left turn lanes on US 70

*Fifth Street*

- Dedicated left turn lanes on US 70
- Dedicated left turn lanes on Fifth Street
- Dedicated eastbound right turn lane on Fifth Street
- Traffic queuing safety measures

*Buckhorn Road*

- Dedicated southbound left turn lane on US 70

*Faucette Mill Road / Revere Road*

- Dedicated left turn lanes on US 70
- Channelized right turn lanes on Faucette Mill Road / Revere Road
- Dedicated westbound left turn lane on Revere Road

*NC 86 / Churton Street*

- Dedicated left turn lanes on US 70
- Channelized right turn lanes on NC 86 / Churton Street
- Dedicated left turn lanes on NC 86 / Churton Street

*Orange High School Road*

- Dedicated northbound left turn lane on US 70
- Dedicated northbound right turn lane on US 70

*Miller Road*

- Dedicated left turn lanes on US 70

*St Mary's Road*

- Dedicated left turn lanes on US 70
- Dedicated northbound right turn lanes on US 70
- Dedicated left turn lanes on St Mary's Road

*Lawrence Road*

- Dedicated left turn lanes on US 70

*Pleasant Green Road / Mount Herman Church Road*

- Dedicated left turn lanes on US 70
- Dedicated right turn lanes on US 70
- Median crossover, no left turn bay

*NC 86 / Elizabeth Brady Road*

- Dedicated left turn lanes on NC 86 / Elizabeth Brady Road

*Old NC 86 / Churton Street*

- Dedicated right and left turn lanes on US 70 Business
- Dedicated eastbound left turn lane on Old NC 86 / Churton Street



Fifth Street at US 70, facing north



NC 86 / Churton Street at US 70, facing north

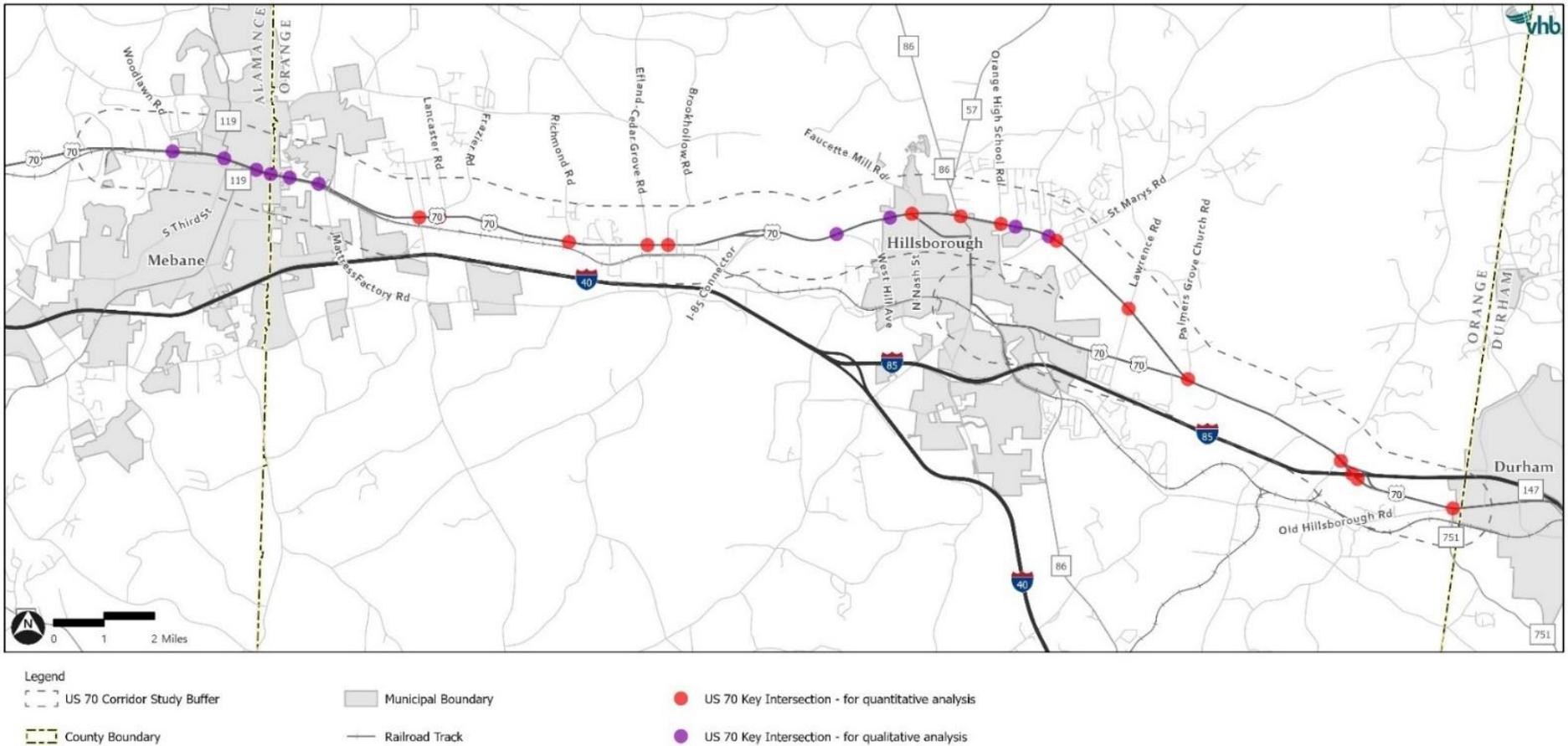


Figure 8 Project Vicinity and Study Intersections

### 4.3.3 Historic Traffic Volumes

NCDOT's count program provides a consistent source of data for assessing traffic volume trends over time. There are multiple count stations on US 70 within the study limits. This study uses data from NCDOT's Traffic Count Database System for the years 2011-2022. AADT estimates derived from StreetLight Insight and traffic counts collected for this study in 2022 were also considered.

AADTs on US 70 are highest on the eastern portion of corridor in Hillsborough (14,400 vpd) and by the I-85 interchange near Durham (17,000 vpd). Volumes are steady through Mebane, then decrease towards the middle of the study corridor, reaching a low of 3,800 vpd in Efland, before increasing through Hillsborough.

Due to the effects of COVID-19, however, traffic volumes dropped substantially in 2020, before beginning to recover in 2021, and continuing through 2022 (although complete NCDOT data for 2022 AADTs are not yet available). Overall, available 2022 traffic levels appear similar to those in 2019.

However:

- Trucks make up a larger share of traffic now than in 2019. This is due in part to increased online shopping and home delivery, and in part because truck traffic was less impacted by COVID than travel by personal automobile.
- Traffic volumes recovered somewhat faster in the western portion of the corridor than the eastern. This may be due to the more industrial/commercial nature of employment in the west, resulting in more work-from-home opportunities (thus less travel) to the east.

Although traffic growth for the study corridor overall averaged about 2.3% annually between 2011 and 2019, rates varied considerably year-to-year and by.

Further analysis of NCDOT count data reveals no substantial, sustained traffic growth trends for US 70 immediately beyond the study limits; in fact, some minor decreases were observed. Traffic volumes for significant roads intersecting US 70 within the study corridor were also assessed. NCDOT AADT records were reviewed, along with other counts and StreetLight estimates, and in general, traffic trends at these locations are consistent with US 70 observations. Figure 9 shows the average historic NCDOT AADT for each segment in the study area from 2011-2022.

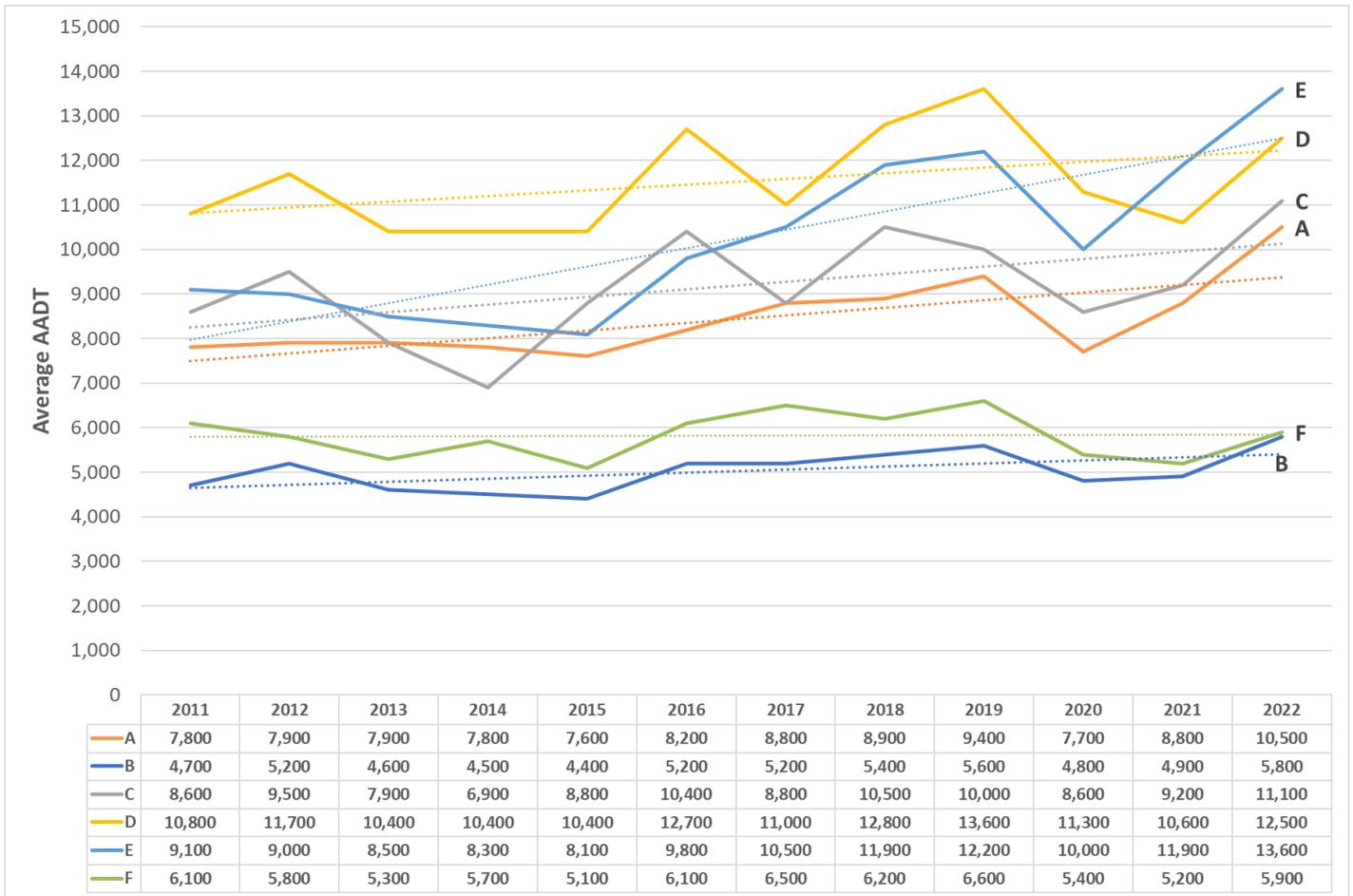


Figure 9 Historic Traffic Volume Trends by Study Segment

### 4.3.4 Traffic Data

VHB collected relevant traffic data at locations along the corridor in September of 2022, primarily at major intersections, both signalized and unsignalized. Data obtained and analyzed included turning movement volumes by time-of-day for all vehicles and for trucks and busses, and bicycles, as well as pedestrian crossing volumes. To capture representative peak conditions, counts were obtained for typical Tuesdays, Wednesdays, and Thursdays when schools were in session.

StreetLight Insight probe data were used to supplement turning movement volumes at additional intersections, and to estimate changes in traffic characteristics observed during the pandemic. StreetLight analysis provided information on changes in daily traffic, time-of-day distributions, truck percentages, travel speeds, trip lengths, and trip origin-destination patterns.

#### 4.3.4.1 Traffic Characteristics

##### 2022 Average Annual Daily Traffic (AADT) Volumes

StreetLight was used to estimate AADTs and other traffic data, such as peaking characteristics and vehicle classifications, for Monday-Thursdays in 2019 and 2021. Available data for 2022 was also collected; however, these AADTs are an approximation using data from September 2021 through April 2022 to obtain an adequate sample size. Truck AADTs (AADTTs), including medium and heavy trucks, were only available for 2019 and 2021. The locations and respective AADTs are listed in Table 4.

**Table 4 StreetLight AADTs**

Route	Segment	Location	2019	2021	2022	
US 70	A	E of Woodlawn	8,900	8,300	8,500	
		W of Supper Club	8,300	7,500	7,800	
		W of Buckhorn	7,100	6,700	7,200	
	B	E of Frazier	3,800	3,800	4,000	
		W of Richmond	3,500	3,200	3,400	
		W of Efland-Cedar Grove	3,900	3,700	4,000	
	C	W of Connector	4,100	4,000	4,400	
		W of Eno R West	10,000	9,200	9,700	
		W of Lakeshore	8,900	8,900	9,500	
	US 70 Bus	D	W of Constitution	9,400	9,700	10,500
			W of Orange High School	12,600	12,000	12,900
			W of Miller	12,500	11,600	12,000
E		W of Eno R East	11,200	9,900	10,200	
		W of Lawrence	11,000	9,700	10,000	
		W of US 70 Bus East	10,100	8,800	9,000	
F	W of University	12,700	10,800	10,700		
	W of Pleasant Green	14,000	11,700	11,800		
US 70 Bus	F	W of NC 751	7,500	7,000	6,600	
		E of Churton	7,600	6,900	6,900	
		E of Quincy Cottage	4,800	4,700	4,900	

Overall, volumes at these locations remained slightly lower in 2021 than in 2019, as people continued working from home through the pandemic. The eastern segments of US 70 experienced a larger drop in volumes (~10%) than the western segments (~5%) and Segment F on US 70 Business near Downtown Hillsborough (6%). This difference may be attributable to socio-economic and employment type differences. Higher-income white-collar work proved more amenable to working from home than did lower-paying industrial, agricultural, and service work. Such variations in demographic data map onto the corridor consistent with the observed changes in traffic volumes. The estimated AADT for each segment is shown in Table 5.

**Table 5 StreetLight Estimated AADTs**

Segment	2019	2021	2022
A	8,100	7,500	7,800
B	3,700	3,600	3,800
C	8,100	7,900	8,500
D	11,500	10,400	10,800
E	11,400	9,900	9,700
F	6,200	5,800	5,900

## Vehicle Speeds

Vehicle speeds were gathered from StreetLight at locations distributed throughout the corridor. The 2019 average and 85th percentile speeds (mph) are shown alongside the speed limit in Table 6 and Figure 10. Locations where the 85th percentile vehicle speed is five mph or higher than the posted speed limit are shown in bold. The locations with vehicle speeds higher than the speed limit are situated in the less urban areas between Mebane and Hillsborough, and Hillsborough and Durham.

**Table 6 2019 Speed Data and Limits**

Route	Location	Average Speed	85th Percentile Speed	Speed Limit
US 70	E of Woodlawn	35	46	45
US 70	W of Supper Club	34	44	45
US 70	W of Buckhorn	39	49	45
US 70	E of Frazier	37	49	45
US 70	<b>W of Richmond</b>	41	<b>51</b>	45
US 70	W of Efland-Cedar Grove	36	47	45
US 70	W of Connector	43	53	55
US 70	<b>W of Eno R West</b>	49	<b>59</b>	50
US 70	W of Lakeshore	45	54	50
US 70	W of Constitution	36	46	45
US 70	W of Orange High School	34	46	45
US 70	W of Miller	34	47	45
US 70	W of Eno R East	36	48	45
US 70	<b>W of Lawrence</b>	39	<b>50</b>	45
US 70	W of US 70 Bus East	41	52	55
US 70	W of University	46	57	55
US 70	<b>W of Pleasant Green</b>	41	<b>52</b>	45
US 70	<b>W of NC 751</b>	43	<b>54</b>	45
US 70 Bus	E of Churton	29	42	40
US 70 Bus	E of Quincy Cottage	30	44	40

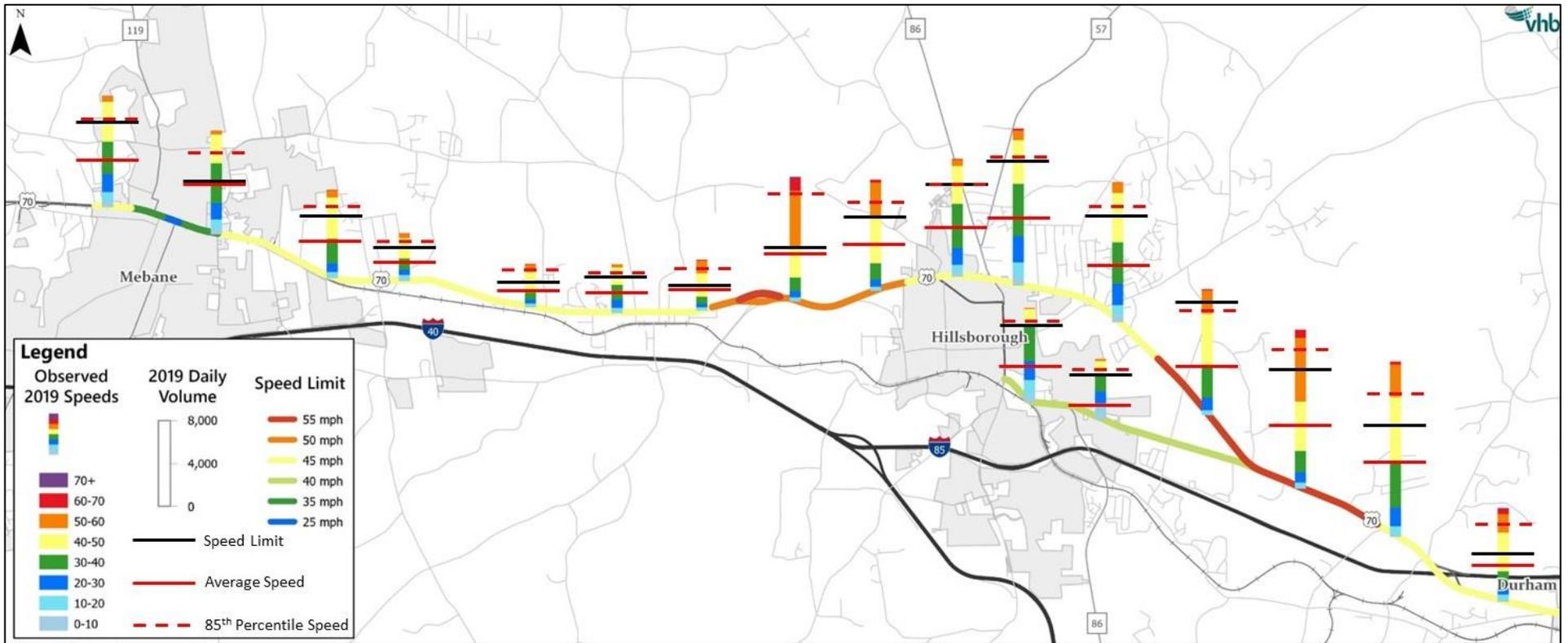


Figure 10 2019 Seed Data and Statutory Limits

## Truck Volumes/Freight Movement

Data is divided into medium trucks, which have two or more axles but no towed trailer, and heavy trucks, which are trucks towing separate trailer units. 2019 average daily traffic data for Monday – Thursday was analyzed using StreetLight data, which were validated against available counts. Truck percentages at multiple locations throughout the corridor are summarized in Table 7. Total Truck Percentages are shown in Figure 11.

**Table 7 2019 Truck Percentages**

<b>Route</b>	<b>Location</b>	<b>Heavy</b>	<b>Medium</b>	<b>All Trucks</b>
US 70	E of Woodlawn	0.6%	2.3%	2.9%
US 70	W of Supper Club	0.8%	2.4%	3.2%
US 70	W of Buckhorn	1.2%	3.2%	4.4%
<b>US 70</b>	<b>E of Frazier</b>	<b>1.7%</b>	<b>5.6%</b>	<b>7.4%</b>
<b>US 70</b>	<b>W of Richmond</b>	<b>1.8%</b>	<b>5.0%</b>	<b>6.8%</b>
US 70	W of Efland-Cedar Grove	1.5%	3.9%	5.4%
US 70	W of Connector	1.1%	3.3%	4.4%
US 70	W of Eno R West	3.1%	2.9%	6.0%
US 70	W of Lakeshore	3.3%	3.2%	6.5%
US 70	W of Constitution	2.9%	2.9%	5.8%
US 70	W of Orange High School	2.2%	2.7%	4.9%
US 70	W of Miller	2.3%	2.7%	5.1%
US 70	W of Eno R East	2.4%	3.3%	5.7%
US 70	W of Lawrence	2.5%	3.4%	5.9%
US 70	W of US 70 Bus East	2.7%	3.6%	6.3%
US 70	W of University	2.2%	4.0%	6.3%
US 70	W of Pleasant Green	2.1%	3.9%	6.0%
US 70	W of NC 751	0.7%	3.4%	4.1%
US 70 Bus	E of Churton	0.3%	1.5%	1.7%
US 70 Bus	E of Quincy Cottage	0.5%	2.9%	3.4%

These truck percentages are in the expected range for a Minor Arterial like US 70, given surrounding land uses and connections. The higher share of truck traffic (especially heavy trucks) in Segment C can be explained by the fact that US 70 is the only viable route for trucks using NC 86 and NC 57 to serve Danville, Yanceyville, Rougemont, Roxboro, and other areas to the north of Hillsborough. The lower truck percentages on US 70 Business are also what would be expected entering Downtown Hillsborough. Truck data from traffic counts and StreetLight were used to calculate intersection levels-of-service during peak periods, when trucks typically comprise a smaller share of total traffic.

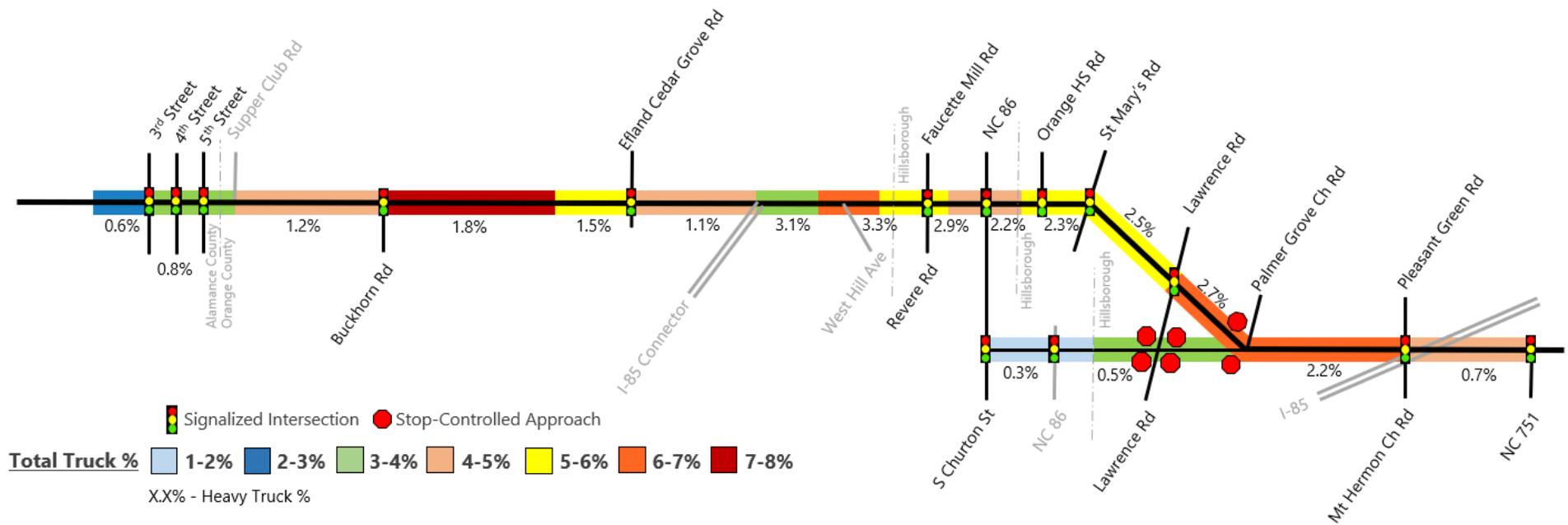


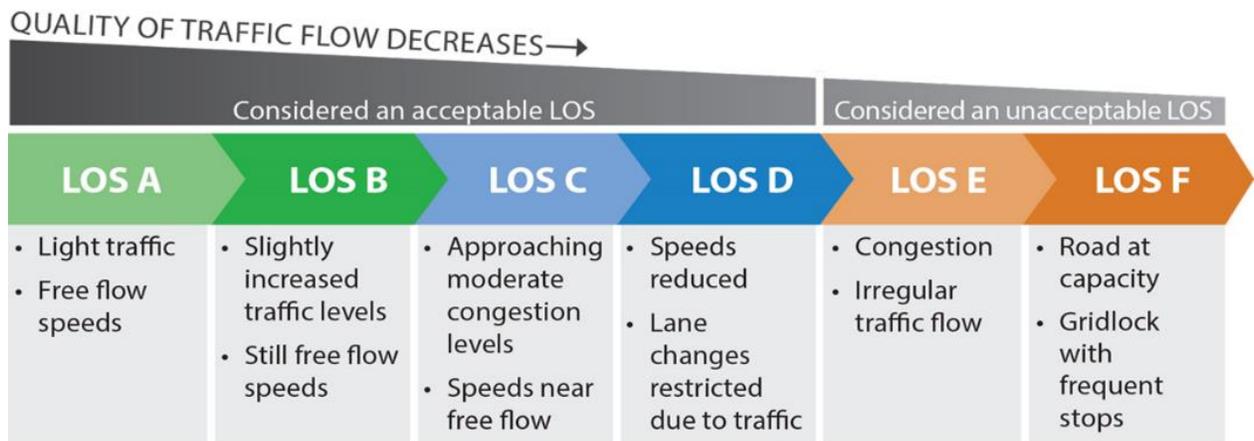
Figure 11 2019 StreetLight Total Truck Percentages

### 4.3.5 Traffic Operations and Quality of Service

There are a variety of ways to measure the performance of a transportation facility. Transportation professionals typically rely on guidance from the Highway Capacity Manual, which describes performance from the traveler point of view that is designed to be useful to roadway operators, decisions makers, and member of the community. Individuals may travel along US 70 via personal vehicle, walking, bicycling, or via transit, each of which can be quantitatively measured using standard criteria such as delay, average speed, percent time spent following, or other measures. The dominant form of transportation currently along US 70 is by automobile. As a result, this section covers traffic operations along the corridor on a corridor basis (i.e. distinguishable segments with common roadway characteristics), as well as by individual intersections. Given the low volume of pedestrian and bicycle trips, and the lack of dedicated facilities, providing a meaningful assessment of bicycle level-of-service is difficult; however, deficiencies and opportunities can be identified.

The conventional concept of traffic, level-of-service (LOS) can be summarized—at least qualitatively—in

Figure 12. More detailed, qualitative tables are presented in subsequent sections. Generally, LOS D is acceptable in most rural and suburban situations. In some highly urbanized settings, or where there are unacceptable environmental/community impacts, excessive costs, or other policy or planning objectives, LOS



E can be appropriate.

Figure 12 Level of Service Illustration

#### 4.3.5.1 Corridor-Level

A corridor-level capacity analysis was completed using Highway Capacity Software Plus (HCS7). Figure 13 graphically represents the worst case (AM or PM peak) directional LOS for the corridor under existing conditions.

Table 8 summarizes the results of HCS capacity analysis by segment and direction for the AM and PM peak periods. In general, LOS is slightly lower in the AM peak due to a combination of higher volumes and more pronounced directionality.

Suburban/urban roadways with more frequent traffic signals require arterial analysis to account for intersection-related delays. An arterial LOS analysis in Synchro using HCM 2000 methodology was completed for sections in Mebane and Hillsborough due to the number and spacing of signalized intersections through both municipalities and their transition areas. The LOS for both sections are shown in Table 9.

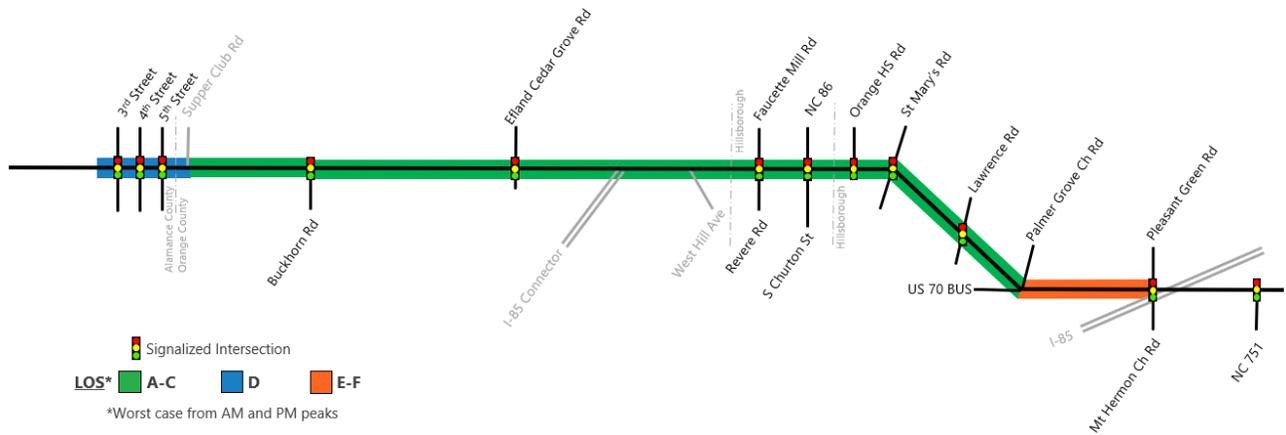


Figure 13 Corridor Level of Service Summary for US 70

Table 8 2022 Corridor Level of Service Summary for US 70 Using Two-Lane Highways Analysis

Segment	Segment Location	Segment Length (miles)	AM Peak	PM Peak
			Segment LOS	Segment LOS
A	Supper Club Rd to Mace Rd (EB / WB)	1.7	C / B	B / C
B	Buckhorn Rd to Eland-Cedar Grove Rd (EB / WB)	3.9	B / A	A / B
C	East of US 70 Connector to Hillsborough Border (EB / WB)	1.4	D / B	C / D
E	US 70 Bus to Pleasant Green Rd (EB / WB)	2.2	B / E	D / B

Table 9 Corridor Level of Service Summary for US 70 in Segment A (Mebane) and Segments C-D (Hillsborough)

Segment	Town	Segment Location	Arterial Class	AM Peak	PM Peak
				Segment LOS	Segment LOS
A	Mebane	3rd St to 5th St (EB / WB)	IV / III	D / D	D / D
C-D	Hillsborough	Faucette Hill Rd to Palmers Grove Rd (EB / WB)	II / I	B / B	B / C

### 4.3.5.2 Intersections

Peak hour LOS measures the adequacy of the intersection geometrics and traffic controls of a particular intersection or approach for the given turning volumes. LOS ranges from A through F, based on the average control delay experienced by vehicles traveling through the intersection during the peak hour. Control delay represents the portion of total delay attributed to traffic control devices (e.g., signals or stop signs). The engineering profession generally accepts LOS D as an acceptable operating condition for signalized intersections in urban areas and LOS C for rural areas.

At unsignalized intersections, LOS E is generally considered acceptable only if the side street encounters delay. Nevertheless, side streets sometimes function at LOS F during peak traffic periods; however, the traffic volumes often do not warrant a traffic signal to assist side street traffic.

Intersection LOS analyses were performed for the typical weekday AM and PM peak hours using *Synchro/SimTraffic Professional Version 11*. Figure 14 graphically depicts the worst case (AM or PM peak) LOS for signalized intersections and unsignalized approaches, as well as identifying locations with potential for queuing problems.

All signalized intersections analyzed operate acceptable overall LOS during peak hours, and conditions are generally similar overall between both peak hours. Mainline US 70 generally experiences a better LOS than the cross streets at each intersection. Most side streets operate at an acceptable LOS during both peak hours except for a few intersections between Durham and Hillsborough. Mt. Herman Church Road and Pleasant Green Road operate at LOS F during both peak hours. At Lawrence Road, the northbound approach operates at LOS E during the AM peak, and the southbound approach operates at LOS E during the PM peak hour.

Between the Mt. Herman Church Road/Pleasant Green Road and Lawrence Road intersections is the unsignalized US 70 Bus/Palmers Grove Road intersection. The NB US 70 Bus approach operates at LOS F during both peak hours (with worse delay in the PM), and the SB Palmers Grove Road approach operates at the LOS D during the AM peak hour and LOS E during the PM peak hour. These LOS deficiencies are due mainly to vehicles waiting to turn onto US 70, although crossing and right-turning vehicles contribute.

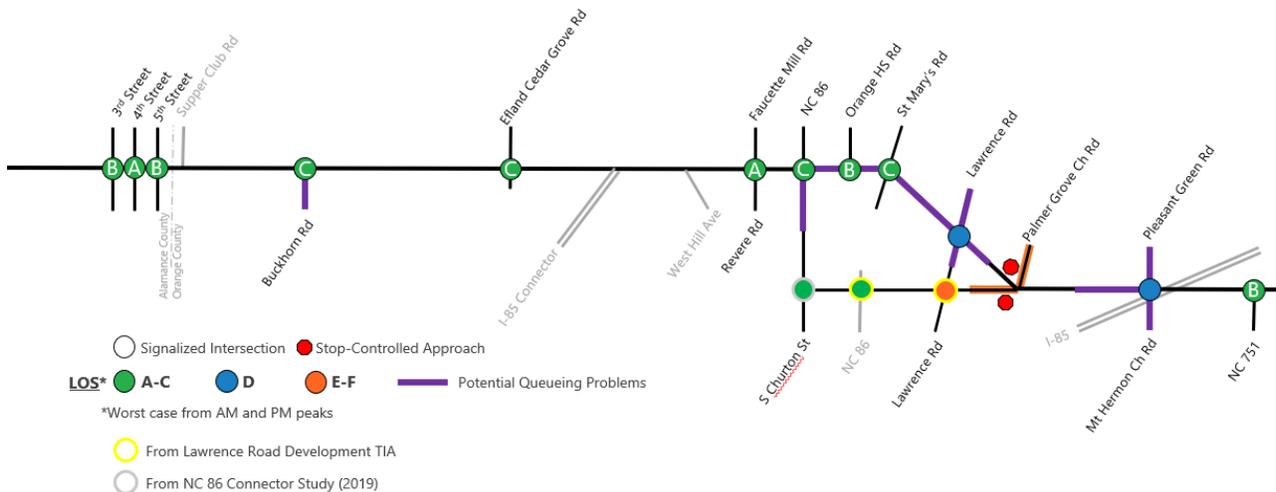


Figure 14 Worst Case Intersection Level of Service Summary for US 70

Combined with heavy peak-hour traffic, high speeds and some visibility constraints create long delays as drivers wait for adequate gaps in traffic.

Due to their proximity to at-grade rail crossings, several signals in Mebane (Moore Street, 3<sup>rd</sup> Street, 4<sup>th</sup> Street, and 5<sup>th</sup> Street) require interconnection with the rail crossing signals and crossing gates to preempt normal traffic signal operation in the presence of a train. This preemption prevents conflicting signal combinations between the relevant traffic control devices. LOS is not calculated for preemptive operation, but such conditions obviously add delay and can create long vehicle queues.

**Table 10 2022 Intersections AM and PM Peak Hour LOS Summary**

ID	Intersection and Approach	Traffic Control	Existing (2022)		ID	Intersection and Approach	Traffic Control	Existing (2022)	
			AM	PM				AM	PM
1	<b>3<sup>rd</sup> St &amp; US 70 (Center St)</b>	Signalized	<b>B-16.2</b>	<b>B-10.6</b>	8	<b>Orange High School Rd &amp; US 70</b>	Signalized	<b>B-16.3</b>	<b>C-21.2</b>
	Eastbound		B-17.1	B-11.4		A-9.3		A-6.1	
	Westbound		B-13.9	A-4.9		C-21.1		C-26.6	
	Northbound		B-14.7	B-15.7		C-21.8		C-29.1	
	Southbound		C-22.5	C-26.7					
2	<b>4<sup>th</sup> St &amp; US 70 (Center St)</b>	Signalized	<b>A-6.7</b>	<b>B-11.9</b>	9	<b>St. Marys Rd &amp; US 70</b>	Signalized	<b>C-22.9</b>	<b>C-26.8</b>
	Eastbound		A-6.4	B-14.2		C-20.3		B-10.4	
	Westbound		A-5.7	A-9.3		B-15.0		C-28.6	
	Northbound		B-14.4	B-14.9		C-30.7		C-28.9	
						D-41.5		D-51.3	
3	<b>5<sup>th</sup> St &amp; US 70 (Center St)</b>	Signalized	<b>B-16.6</b>	<b>B-14.7</b>	10	<b>Lawrence Rd &amp; US 70</b>	Signalized	<b>D-38.0</b>	<b>D-36.9</b>
	Eastbound		B-14.5	A-3.1		D-36.3		C-22.4	
	Westbound		B-17.1	B-15.9		B-16.1		D-35.6	
	Northbound		A-9.3	B-13.7		<b>E-70.2</b>		D-52.6	
	Southbound		C-26.4	C-27.6		D-51.8		<b>E-62.1</b>	
4	<b>Buckhorn Rd &amp; US 70</b>	Signalized	<b>D-35.8</b>	<b>C-26.8</b>	11	<b>US 70 Bus/Palmers Grove Ch Rd &amp; US 70</b>	Two-Way Stop Control	-	-
	Eastbound		D-42.4	C-31.1		<b>F-83.4</b>		<b>F-225.8</b>	
	Westbound		B-15.1	B-11.2		D-31.8		<b>E-37.8</b>	
	Northbound		<b>E-58.1</b>	D-37.4					
5	<b>Efland-Cedar Grove Rd &amp; US 70</b>	Signalized	<b>B-18.2</b>	<b>B-15.2</b>	12	<b>Mt Herman Ch Rd/Pleasant Gr Rd &amp; US 70</b>	Signalized	<b>D-47.7</b>	<b>D-40.3</b>
	Eastbound		B-18.6	B-13.7		D-43.5		C-24.4	
	Westbound		B-14.2	B-15.3		C-26.8		D-37.2	
	Northbound		A-9.7	B-18.1		<b>F-107.0</b>		<b>F-87.9</b>	
	Southbound		C-21.6	B-10.2		<b>F-88.1</b>		<b>F-88.1</b>	
6	<b>Revere Rd/Faucette Mill Rd &amp; US 70</b>	Signalized	<b>A-9.4</b>	<b>B-10.2</b>	13	<b>NC 751 &amp; US 70</b>	Signalized	<b>B-10.7</b>	<b>B-15.4</b>
	Eastbound		A-8.2	A-7.3		B-12.8		B-18.4	
	Westbound		A-7.7	A-9.5		A-5.2		B-10.9	
	Northbound		B-16.0	B-17.5		B-16.4		B-19.8	
	Southbound		B-16.0	B-15.6					
7	<b>NC 86 (S Churton St) &amp; US 70</b>	Signalized	<b>E-59.1</b>	<b>C-34.2</b>					
	Eastbound		<b>F-93.1</b>	C-33.8					
	Westbound		D-42.2	C-33.5					
	Northbound		C-22.6	C-30.9					
	Southbound		<b>E-63.4</b>	D-38.4					

### 4.3.5.3 Queuing Analysis

LOS is not the only metric of intersection performance. The length of vehicle queues waiting to enter the intersection—while related to delay—is not explicitly considered in calculating LOS. A separate inspection of observed/estimated queue length is required. Long vehicle queues have the potential to create problems typically by:

- Exceeding available storage
- Preventing turning vehicles from accessing turn lanes due while stuck in a through lane queue
- Increasing rear-end crashes due to unexpected queues especially around curves
- Increasing potential for blocked intersections (gridlock), driveways, crosswalks, and railroad tracks

Several signalized intersections have potential long queueing issues:

- Buckhorn Road NB lane (Both peak hours) – only about 150' (~6 vehicles) from at-grade railroad crossing in PM.
- Efland-Cedar Grove Road SB lane (AM peak only)
- NC 86 (N. Churton Street) SB through/right-turn lane (AM peak hour) - may block turn lane access.
- NC 86 (N. Churton Street) SB left-turn lane (AM peak only) – may exceed available storage.
- NC 86 (N. Churton Street) NB through lanes (Both peak hours)
- US 70 WB through lane at NC 86 (Both peak hours) – Significant queueing observed back to Orange High School Road which is more severe than reflected in Synchro analysis. Through lane queueing may block access to turn lanes that is compounding problems at the Orange High School Road intersection.
- US 70 WB through lane at Orange High School Road (Both peak hours) – Significant queueing also observed during both peak hours. Right-turning vehicles may be stuck queueing in through lane impacting drop-off/pick-up at the middle school and high school. School-bound vehicles were also observed cutting through a church parking lot.
- US 70 WB through lane at St. Mary's Road (PM peak only) - may block turn lane access and increase potential for rear-end crashes around curve.
- US 70 EB through/right-turn lane at St. Mary's Road (AM peak only) – may block turn lane access and increase potential for rear-end crashes around curve.
- Lawrence Road NB and SB lanes (Both peak hours)
- US 70 WB through/right-turn lane at Lawrence Road (PM peak only)- may block turn lane access.
- US 70 EB through/right-turn lane at Lawrence Road (AM peak only) - may block turn lane access.
- US 70 WB through turn lane at Lawrence Road (PM peak only) – may block turn lane access.
- Mt. Hermon Church Road/Pleasant Green Road NB and SB approaches (Both peak hours)
- US 70 EB through lane at Mt. Hermon Church Road/Pleasant Green Road (AM peak only) – may block turn lane access and increase potential for rear-end crashes around curve.
- NC 751 NB left-turn lane (PM peak only) – may exceed available storage.

## 4.3.6 Planned Improvements and Relevant Plans

### 4.3.6.1 North Carolina Department of Transportation 2020-2029 State Transportation Improvement Program (STIP)

The current NCDOT 2020-2029 State Transportation Improvement Program (STIP) includes seven roadway projects in the project study area (see Figure 16). Each is summarized below:

#### **STIP # U-3109A – NC 119**

U-3109A relocates NC 119 from I-40 / I-85 to north of SR 1921 (Mebane Rogers Road). The project was recently completed.

#### **STIP # RX-2007B – Norfolk Southern Railroad**

RX-2007B proposes to install active warning devices at Norfolk Southern Railroad crossing 735145T near Efland. Construction is scheduled for Fiscal Year (FY) 2023.

**STIP # U-5845 – SR 1009 (South Churton Street)**

U-5845 proposes to widen SR 1009 (South Churton Street) to multilanes from I-40 to the Eno River in Hillsborough. Right of way acquisition is scheduled to begin in FY 2029, and construction is currently unfunded.

**STIP # I-5984 – I-85**

I-5984 proposes to upgrade the I-85 / NC 86 interchange in Hillsborough. Right of way is scheduled for FY 2024, and construction is scheduled for FY 2026.

**STIP # I-5959 – I-85**

I-5959 proposes pavement rehabilitation on I-85 from west of SR 1006 (Orange Grove Road) to the Durham County Line. Construction is scheduled for FY 2028.

**STIP # I-0305 – I-85**

I-0305 proposes to add lanes to I-85 from west of SR 1006 (Orange Grove Road) in Orange County to west of SR 1400 (Sparger Road) in Durham County.

**STIP # BR-0091 – Bridge Replacement**

BR-0091 proposes to replace the existing bridge along US 70 over the Eno River between the I 85 connector and West Hill Avenue.

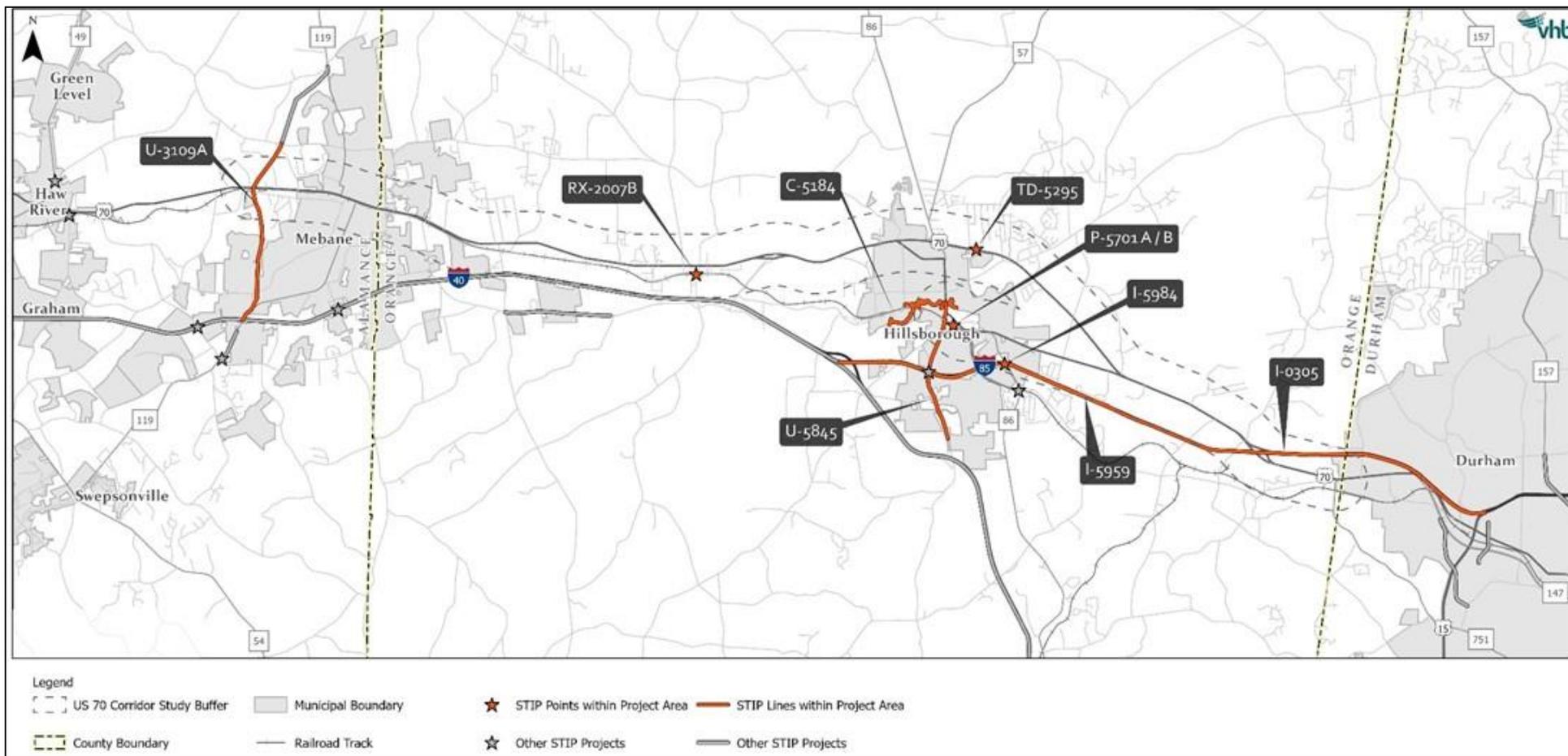


Figure 15 2020-2029 NCDOT STIP Projects in Corridor

#### **4.3.6.2 2022 Burlington Graham Metropolitan Planning Organization Comprehensive Transportation Plan (CTP)**

This plan addresses the aspirational transportation improvements in the Burlington-Graham Metropolitan Planning Organization (BGMPO) area for the next 25 to 30 years. The noted roadway recommendations within the study area are listed below:

- Widen NC 119 to a four-lane, divided facility
- Widen Mattress Factory Road to a four-lane, divided facility
- Realign Mattress Factory Road to allow for safer railroad crossing and improve mobility; extend on a new location as a four-lane, divided facility to US 70
- Construct new interchange along I-85/I-40 for Mattress Factory Road to improve mobility, relieve congestion on Arrowhead Blvd and Oakwood St Ext and provide better access to industrial areas

#### **4.3.6.3 2020 Burlington Graham Metropolitan Planning Organization Metropolitan Transportation Plan (MTP)**

This plan identifies the planned transportation improvements in the Burlington-Graham area through the year 2045. The plan identifies US 70 as a major transportation corridor and key to the economic vitality of the region. Roadway recommendations include:

- I-40 and US 70 integrated corridor management.
- Advanced signal technology upgrades along US 70.

#### **4.3.6.4 2017 Durham-Chapel Hill-Carrboro Metropolitan Planning Organization Comprehensive Transportation Plan (CTP)**

This plan identifies the planned transportation improvements in the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO) area through the year 2040. The notable recommendations along the US 70 corridor include:

- Widen US 70 to a four-lane, divided facility from the I-85 connector to US 70 Business.
- Improve the existing I-85 connector / US 70 interchange to create a full movement interchange.
- Widen Churton Street (US 70 / NC 86) to a four-lane facility with a raised median.

#### **4.3.6.5 2018 Mebane 2040 Comprehensive Transportation Plan**

Mebane's 2040 Comprehensive Transportation Plan (CTP) is for the City of Mebane in Alamance and Orange Counties. The plan is multi-modal, covering roadway, public transportation, and bicycle and pedestrian travel. The plan lists the following roadway project associated with the US 70 corridor:

- Realign the northern terminal of Mattress Factory Road to improve the existing at grade crossing on Washington Street, as the existing configuration does not accommodate heavy vehicles and limits connectivity to US 70 across the railroad.

#### 4.3.6.6 2018 Mebane NC Railroad Traffic Separation Study

The Mebane Traffic Separation Study (TSS) focuses on eight (8) existing at-grade roadway-railroad crossings along a 5-mile span through downtown Mebane to determine the need for improvements and/or elimination of public at-grade crossings to improve safety and mobility for motorists, pedestrians, rail passengers, and train crews. The TSS evaluated the rail line in Mebane that crosses various streets, as well as any planned or programmed railroad and roadway improvements within the study area. The plan recommends configuration changes for multiple crossing locations and adjacent intersections.

#### 4.3.6.7 2022 Mebane Fifth St. Improvement Impact Study

The City of Mebane analyzed potential traffic impacts of the proposed Fifth Street and Washington Street Intersection Improvement project. Analysis includes volume development, capacity analysis, safety assessment, and multimodal evaluation results due to the planned geometrics modifications and resulting travel pattern changes at the Fifth Street and Washington Street intersection and six other adjacent intersections, including intersections with Center Street (US 70). Notable findings included:

- Recommendations include new sidewalk connections, new raised medians, further monitoring for signalization and other crash modifications safety improvements at Fifth/Jackson.
- The signalized Fifth Street and Center Street intersection is projected to operate at LOS B during both the AM and PM peak hours, with or without the roadway project, under both the 2025 and 2035 conditions.
- The signalized Fourth Street and Center Street intersection is projected to operate at LOS A during both the AM and PM peak hours under the Existing conditions. It is projected to operate at LOS B under both the 2025 No-Build and Build conditions, and at LOS B or C under 2035 No-Build and Build conditions.
- Based on travel demand analysis, traffic volumes are expected to continue to increase in the study area (5-10% by 2025, 20-25% by 2035) due to ambient growth and background developments, despite that completion of NC 119 Bypass is expected to result in 9-14% traffic reductions at the Fifth Street and Center Street intersection.

### 4.3.7 System Connectivity

I-85 supplants much of US 70's role in connecting the Mebane/Burlington area with Hillsborough and Durham. While the proportion of traffic traveling the entire length of the corridor has declined since the completion of I-85, new development along the corridor and along roads accessed via US 70 has generated additional trips that use parts of the corridor in travelling to jobs, residences, schools, stores, and other services or activities. Although traffic growth for the study corridor overall averaged about 2.3% annually between 2011 and 2019, rates varied considerably year-to-year and by location. Due to the proximity of I-85 and I-40 merging just west, and the connection US 70 provides to I-40 via the Durham Freeway, this route also provides some relief when incidents impact I-40 between RTP and Mebane.

The lack of north-south connectivity along the corridor results in vehicles using portions of US 70 to complete north-south trips. This adds traffic and turning movement conflicts that increase delay, especially at key intersections. Vehicles using NC 86 and NC 57 north of US 70 is an example of this issue. Congestion through downtown Hillsborough discourages automobile trips, and truck traffic is (mostly) routed around downtown. Completion of the new NC 119 connection helped address a similar situation in Mebane. Traffic also uses US 70 to access one of the limited number of north-south routes across or to/from I-85, such as Lawrence Road.

The lack of western access at the I-85 Connector also represents a lack of connectivity, forcing traffic to use indirect routes on minor roads with at-grade rail crossings through Efland, or to continue eastward on US 70 through Hillsborough. This is a particularly noticeable problem for truck traffic.

The proximity of the rail line to US 70 along the western portion of the corridor limits connectivity to the south, while trains at at-grade rail crossings introduce temporary restrictions to connectivity.

### 4.3.8 Future Conditions

Future year (2050) evaluations of traffic operations were conducted for both the corridor segments as well as the intersections included in the existing conditions analysis. Future traffic volumes were determined based on growth projections derived from the Triangle Regional Travel Demand Model. Table 11 and Table 12 summarize the 2050 projected operations for the evaluated corridor segments and intersections, respectively; these results assume no additional capacity improvements or multimodal initiatives to the corridor or localized intersections. As shown in the future year analysis results, degradation of both the corridor level and intersection level operations are expected throughout the corridor, indicating a need for improvement. This is due to generalized growth in the area as well as taking into account planned future economic growth drivers such as expected growth detailed in the *Efland-Buckhorn-Mebane Access Management Plan* (2019). It should be noted that the major improvement of US 70 (ie, widening from two to four lanes) is considered to be an assumed future year project based on proven need for additional capacity. It is not a recommendation of this study to widen the corridor, rather, the recommendations identified in Chapter 5 are meant to guide the incorporation of multimodal facilities alongside and into such future projects.

**Table 11 2050 Corridor Level of Service Summary for US 70 Using Two-Lane Highways Analysis**

Segment	Segment Location	Segment Length (miles)	AM Peak	PM Peak
			Segment LOS	Segment LOS
A	Supper Club Rd to Mace Rd (EB / WB)	1.7	E / E	E / F
B	Buckhorn Rd to Efland-Cedar Grove Rd (EB / WB)	3.9	E / D	D / E
C	East of US 70 Connector to Hillsborough Border (EB / WB)	1.4	E / D	E / E
E	US 70 Bus to Pleasant Green Rd (EB / WB)	2.2	C / E	E / C

**Table 12 2050 AM and PM Peak Hour Intersection Level of Service Summary**

ID	Intersection and Approach	Traffic Control	No-Build (2050)		ID	Intersection and Approach	Traffic Control	No-Build (2050)	
			AM	PM				AM	PM
1	<b>3<sup>rd</sup> St &amp; US 70 (Center St)</b>	Signalized	<b>C-31.8</b>	<b>B-13.8</b>	8	<b>Orange High School Rd &amp; US 70</b>	Signalized	<b>D-42.6</b>	<b>E-71.1</b>
	Eastbound		D-47.4	B-17.3		C-20.9		B-14.1	
	Westbound		C-21.4	A-9.3		<b>F-92.8</b>		<b>F-167.3</b>	
	Northbound		B-14.4	B-15.7		C-23.6		C-21.4	
	Southbound		C-22.0	C-27.4					
2	<b>4<sup>th</sup> St &amp; US 70 (Center St)</b>	Signalized	<b>B-17.9</b>	<b>D-45.6</b>	9	<b>St. Marys Rd &amp; US 70</b>	Signalized	<b>D-37.5</b>	<b>E-56.4</b>
	Eastbound		B-17.0	C-28.7		C-32.9		B-12.0	
	Westbound		B-19.3	<b>E-61.7</b>		B-18.3		<b>E-71.4</b>	
	Northbound		B-14.0	B-14.2		D-40.9		C-33.8	
				<b>F-88.1</b>		<b>F-107.3</b>			
3	<b>5<sup>th</sup> St &amp; US 70 (Center St)</b>	Signalized	<b>C-29.8</b>	<b>F-95.9</b>	10	<b>Lawrence Rd &amp; US 70</b>	Signalized	<b>E-75.7</b>	<b>F-126.5</b>
	Eastbound		A-4.4	A-5.5		<b>E-70.3</b>		C-26.2	
	Westbound		D-39.4	<b>F-149.8</b>		B-16.5		<b>E-75.6</b>	
	Northbound		C-29.9	<b>F-113.8</b>		<b>F-114.1</b>		<b>F-342.2</b>	
	Southbound		<b>E-61.9</b>	<b>E-72.3</b>		<b>F-137.9</b>		<b>F-141.2</b>	
4	<b>Buckhorn Rd &amp; US 70</b>	Signalized	<b>B-13.9</b>	<b>C-30.4</b>	11	<b>US 70 Bus/Palmers Grove Ch Rd &amp; US 70</b>	Two-Way Stop Control	-	-
	Eastbound		B-19.8	B-12.2		<b>F-717.3</b>		<b>F-4370.3</b>	
	Westbound		A-5.3	D-41.3		F-		F-	
	Northbound		B-19.3	C-24.7					
5	<b>Efland-Cedar Grove Rd &amp; US 70</b>	Signalized	<b>F-173.9</b>	<b>F-171.5</b>	12	<b>Mt Herman Ch Rd/Pleasant Gr Rd &amp; US 70</b>	Signalized	<b>F-130.4</b>	<b>F-109.7</b>
	Eastbound		<b>F-164.8</b>	<b>F-104.7</b>		<b>F-210.4</b>		D-40.8	
	Westbound		<b>F-110.5</b>	<b>F-193.3</b>		D-35.4		<b>F-155.3</b>	
	Northbound		<b>F-126.4</b>	<b>F-278.3</b>		<b>E-68.3</b>		<b>E-70.3</b>	
	Southbound		<b>F-260.5</b>	C-30.7		<b>F-102.8</b>		<b>F-95.2</b>	
6	<b>Revere Rd/Faucette Mill Rd &amp; US 70</b>	Signalized	<b>F-123.8</b>	<b>C-34.7</b>	13	<b>NC 751 &amp; US 70</b>	Signalized	<b>B-13.0</b>	<b>C-22.2</b>
	Eastbound		<b>F-253.2</b>	C-26.9		B-14.7		C-20.9	
	Westbound		D-37.3	D-42.8		A-5.2		B-17.9	
	Northbound		D-35.7	C-29.7		B-19.5		C-31.0	
	Southbound		D-50.0	D-43.7					
7	<b>NC 86 (S Churton St) &amp; US 70</b>	Signalized	<b>F-179.4</b>	<b>F-124.8</b>	40	<b>Buckhorn Road Proposed Alignment &amp; US 70</b>	Signalized	<b>F-200.9</b>	<b>F-129.3</b>
	Eastbound		<b>F-267.0</b>	<b>F-206.4</b>		<b>F-216.6</b>		<b>F-99.1</b>	
	Westbound		<b>F-110.5</b>	<b>F-127.5</b>		D-45.6		D-41.6	
	Northbound		D-39.7	D-44.3		<b>F-456.4</b>		<b>F-274.3</b>	
	Southbound		<b>F-219.6</b>	<b>F-115.7</b>		D-36.8		D-39.8	

### 4.3.9 Critical Issues

The table below overviews roadway deficiencies identified during the existing conditions analysis, and supported by future traffic projections and land use goals, that must be addressed to achieve the plan’s goals.

Problem	Relevant Goal(s)
Schools in the corridor are significant sources of congestion.	 <p>1</p>
Roadway infrastructure in the corridor does not have the capacity for the future projected traffic demand.	  <p>1                      9, 10</p>
High traffic speeds contradict existing and planned residential and commercial development in the corridor.	   <p>2                      4, 5                      6, 7, 8</p>

## 4.4 Active Transportation

### 4.4.1 Pedestrian Facilities

Sidewalks are largely absent from the US corridor (Figure 16). The exception to this is where US 70 travels through the City of Mebane, where there is nearly a mile stretch of sidewalk on the north side of the road between the Mebane Community Park driveway and 9<sup>th</sup> Street. There are also marked crosswalks, pedestrian signal heads, and ADA features at the signalized intersections at Third Street and Fourth Street in Mebane. However, not all of these treatments were constructed in accordance with current best practices. For example, several curb ramps lead into the center of the intersection rather than aligning with the sidewalk/ pedestrian access route.



Marked crosswalk and pedestrian signal heads at Faucette Mill Road

There are two short stretches of sidewalk where US 70 travels through the Town of Hillsborough. One stretch of sidewalk (approximately 350') is in front of the Walgreens near the intersection with US 70 (Churton Street), though the sidewalk does not front the road and therefore does not connect to the bus stop. There is also a small segment of sidewalk on the north side of US 70 and marked crosswalks, pedestrian signal heads, and ADA features at Faucette Mill Road. The crosswalks at this intersection mainly serve pedestrians traveling north-south on Faucette Mill Road/Revere Road. Worn paths along the shoulder of US 70 were also observed in Hillsborough, suggesting that pedestrians are walking along the roadside, particularly between US 70 (Churton Street) and Faucette Mill Road.

Sidewalks are absent near Efland Cheeks Elementary School Road (4401 Fuller Rd, Efland); however, no children have been observed walking along US 70.

There are also several short stretches of sidewalk present on the US 70 Business corridor. There is sidewalk present on the south side of US 70 Business directly in front of Sport Endeavors. There are also segments of unconnected sidewalk on either side of US 70 Business near the Forest Ridge neighborhood and marked crosswalks at the intersection of Quincy Cottage Road and a midblock crosswalk in front of the Orange County Sportsplex.



Worn path observed west of US 70 Business



Pedestrian facilities at Fourth Street in Mebane

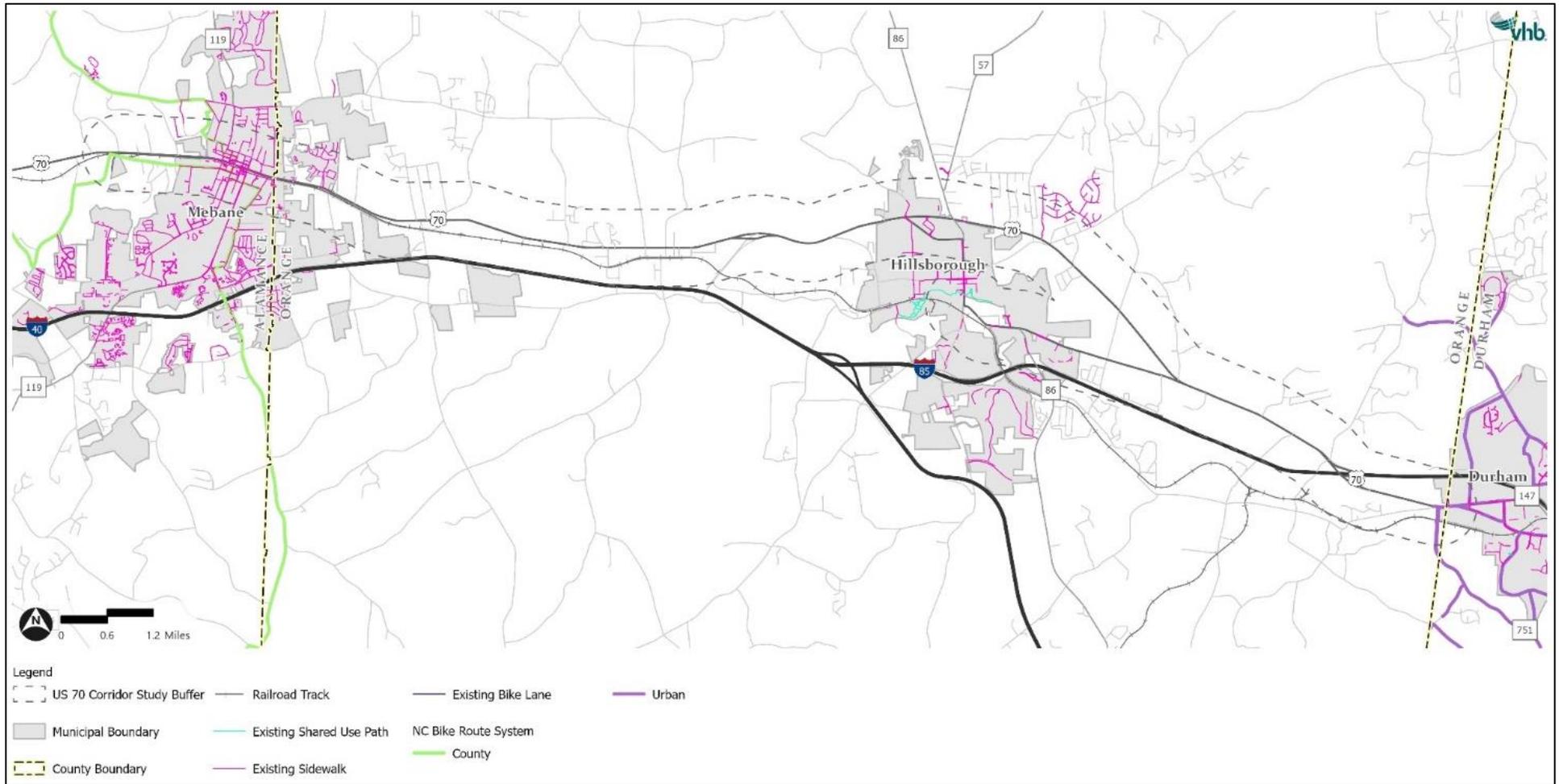


Figure 16 Bicycle and Pedestrian Accommodations

## 4.4.2 Bicycle Facilities

There are no dedicated bicycle facilities on either the US 70 or US 70 Business corridor (Figure 16). There are narrow paved shoulders, generally three or less feet wide, along the two-lane section of roadway, which represents the largest portion of the corridor. These shoulders are not wide enough for cyclists to ride completely out of the travel lane. Neither Share the Road signs nor shared lane markings were found along the corridor to indicate the presence of bicyclists.

## 4.4.3 Observed Pedestrian and Bicycle Trips

Pedestrian counts were collected for this study at the intersections listed above. These counts revealed a total of 192 pedestrians crossing the corridor during the count periods. A total of 131 pedestrians were observed in Mebane at Third Street (100) and Fifth Street (31). In the Hillsborough segment of the corridor, 49 pedestrians were observed at Faucette Mill Road (30), NC 86 (11), St. Mary's Road (7), and Orange High School Road (1).

Bicycle counts collected for this study revealed a total of 99 cyclists at nine intersections. Of these, 75 traveled on roads and 24 used sidewalks. Over 40% of the cyclists (46) were observed on the eastern portion of the corridor near Pleasant Green Road (22) and NC 751 (24). All 22 cyclists at the Pleasant Green Road intersection were using the road, and half (11) were traveling on US 70 through the intersection. Two cyclists were turning onto or off US 70, and nine were traveling across US 70 between Pleasant Green Road and Mt. Hermon Church Road.

At NC 751, 88% (21) of cyclists were using the road. Eight cyclists were traveling on US 70 through the intersection, and six were turning onto or off US 70. The seven remaining cyclists on the road were observed along the old road alignment between NC 751 and Old NC 10. Five used this pavement section to turn right on NC 751, and the remaining two crossed NC 751 to continue eastbound on US 70 towards Durham. Although the pavement section ends without connecting to Old NC 10, a well-traversed path or maintained strip of grass can be seen, suggesting cyclists may be using this old alignment to avoid the section of US 70 between NC 751 and Old NC 10.

Due to large traffic volumes, high travel speeds, and limited accommodations, most cyclists who utilize this corridor are likely experienced and more comfortable operating alongside vehicular traffic. Most cyclists are generally less experienced, and therefore, choose to avoid riding along this corridor.

### 4.4.4 Bicycle Levels of Service

The HCS methodology for estimating LOS for travel by bicycle (BLOS) is an empirically derived procedure that assesses a facility’s suitability for bicycle travel using a specified set of roadway characteristics, including traffic volume and speed; heavy vehicle percentage; pavement condition; access points on right side; presence of bicycle lane; and bicycle lane, shoulder, and outside travel lane widths. Table 13 summarizes the BLOS for each segment by direction and peak period. Note that BLOS for individual intersections has not been calculated.

In its current state, this corridor is generally not well-suited for bicycle travel. Every section analyzed operates at LOS E or LOS F in both directions during both peak hours. The most important contributing factors appear to be traffic volumes and speeds; lack of bicycle lanes; limited width of shoulders and outside travel lanes; limited sight distance, and density of access points.

**Table 13 Corridor Segment Bicycle LOS Summary for US 70**

Segment	Segment Location	Segment Length (miles)	AM Peak		PM Peak	
			Segment BLOS	BLOS Score	Segment BLOS	BLOS Score
A	Supper Club Rd to Mace Rd (EB / WB)	1.7	F / F	5.61 / 5.59	E / E	5.29 / 5.41
B	Buckhorn Rd to Efland-Cedar Grove Rd (EB / WB)	3.9	F / E	5.58 / 4.56	E / E	5.29 / 5.30
C	East of US 70 Connector to Hillsborough Border (EB / WB)	1.4	F / F	6.03 / 6.15	F / F	5.54 / 5.71
E	US 70 Bus to Pleasant Green Rd (EB / WB)	2.2	F / F	5.85 / 6.07	F / F	6.30 / 5.56

### 4.4.5 Planned Improvements and Relevant Plans

#### 4.4.5.1 North Carolina Department of Transportation 2020-2029 State Transportation Improvement Program (STIP)

The current NCDOT 2020-2029 State Transportation Improvement Program (STIP) includes one active transportation project in the project study area .

**STIP # C-5184 – Riverwalk Trail**

C-5184 constructed a paved, off-road trail along the Eno River and a sidewalk to provide bicycle and pedestrian connectivity to the greenway as part of the Riverwalk Trail.

#### 4.4.5.2 NCDOT Pedestrian and Bicycle Plan, “WalkBike NC” (2013)

The State Division of Bicycle and Pedestrian Transportation convened stakeholders and community members statewide to review and update the State’s bicycling routes (among other objectives). The plan adopted an alternate alignment of the MST that takes the route south of US 70, just east of the study corridor, at Trollingwood Road and back up toward US 70 at Mt. Willing Road.

#### 4.4.5.3 Mountains-to-Sea (MST) North Carolina State Trail Master Plan (2015)

The vision for the MST is an off-road hiking trail connecting Clingmans Dome on North Carolina's western border to Jockey's Ridge State Park on its eastern Outer Banks. In this master plan, the NC Division of Parks and Recreation (DPR) remains focused on moving forward to connect these trail limits.

The MST segments 10-12 are included in the US 70 corridor study area. Segment 10, named Haw River Trail, joins the Haw River Trail at the Guilford-Alamance County line and extends south along the Haw River Trail to Cane Creek and follows Cane Creek North into Orange County. Segment 11 runs from the Alamance County line to the Occoneechee Mountain State Natural Area just near the Town of Hillsborough limits. Segment 12 follows the Eno River through the Town of Hillsborough, Occoneechee Speedway, and sections of Eno River State Park to Falls Lake. All these segments are classified as mid-term to long-term in planning priority.

#### 4.4.5.4 2022 Burlington Graham Metropolitan Planning Organization Comprehensive Transportation Plan (CTP)

This plan addresses the aspirational transportation improvements in the Burlington-Graham Metropolitan Planning Organization (BGMPO) area for the next 25 to 30 years. The noted bicycle and pedestrian recommendations within the study area are listed below:

- Modernize US 70 by adding a wider paved shoulder to improve safety and mobility.
- Add bike lanes and sidewalk on Mattress Factory Road from Washington Street to Rock Quarry Road.

#### 4.4.5.5 2017 Durham-Chapel Hill-Carrboro Metropolitan Planning Organization Comprehensive Transportation Plan (CTP)

This plan identifies the planned transportation improvements in the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO) area through the year 2040. The notable recommendations along the US 70 corridor include:

- Construct a dedicated bike lane and sidewalk from the I-85 connector to US 70 Business.
- Construct bike lanes and sidewalks on Churton Street (US 70/NC 86).

#### 4.4.5.6 2018 Mebane 2040 Comprehensive Transportation Plan

Mebane's 2040 Comprehensive Transportation Plan (CTP) is for the City of Mebane in Alamance and Orange Counties. The plan is multi-modal, covering roadway, public transportation, and bicycle and pedestrian travel. The plan lists the following bike/ped project associated with the US 70 corridor:

- Improve safety for pedestrians along Woodlawn and Moore Roads to improve access to the Holt Street Park and crossing of US 70.

#### 4.4.5.7 2015 Mebane Bicycle and Pedestrian Plan

This plan is intended to be a guide for future development and implementation of the City of Mebane's bicycle and pedestrian network. Most of the projects outlined and prioritized in the plan are local bicycle and pedestrian facilities. The plan was funded in part by Burlington Graham MPO and the MPO was identified as a potential partner for future bicycle and pedestrian programming with the City of Mebane. Specific to the US 70 corridor, the plan calls for:

- Construct sidewalk along the north side of US 70/W. Center Street from N. Charles Street westward to Moore Street.
- Construct sidewalk along the north side of US 70/W. Center Street from Ninth Street eastward to Supper Club Road.
- Construct shared-use path along the north side of US 70 from Supper Club Road to Ashbury Boulevard.
- Construct shared-use path along W. Holt Street from Lake Latham Road to Madison Street
- Install intersection improvements, including high visibility crosswalks, upgraded curb ramps, and countdown pedestrian signals at the intersection of South Fifth Street and East Center Street/US 70 Business.
- Extend the sidewalk on both sides of South Fifth Street from East Center Street across the railroad tracks.
- Stripe bike lanes on North Fifth Street from Stagecoach Road to West Center Street.

#### 4.4.5.8 2017 Mebane by Design Comprehensive Land Development Plan

The Mebane by Design Comprehensive Land Development Plan is intended to be used by the City of Mebane and County partners to guide land development decisions. It is a long-range guide for public policy decisions concerning the overall growth and development of the Mebane community, and it focuses on the physical growth and development of Mebane and the study area. The plan calls for:

- Improved pedestrian access across major streets, including US 70.
- Sidewalk connectivity along and across US 70, public arts, and connecting NC-119 Bypass to US 70 and downtown with bicycle and pedestrian facilities.

#### 4.4.5.9 2018 Mebane Downtown Vision Plan

The Mebane Downtown Vision Plan was created to align the community and economic need of Downtown with City officials', local business owners', and residents' visions. The Vision Plan illustrates the potential for nearly 850,000 square feet of new residential and commercial uses in Downtown, and it includes the following recommendations:

- An 8' two-way bike path with a curbed buffer on Center Street (US 70), lane reconfiguration, and street trees.
- Connecting sidewalks on Clay, Center (US 70), 3rd, and 5<sup>th</sup> Streets.
- Improved pedestrian connectivity from Ruffin to Washington to 2<sup>nd</sup> Street, in coordination with the development of the Kingsdown property.

#### 4.4.5.10 2018 Mebane NC Railroad Traffic Separation Study

The Mebane Traffic Separation Study (TSS) focuses on eight (8) existing at-grade roadway-railroad crossings along a 5-mile span through downtown Mebane to determine the need for improvements and/or elimination of public at-grade crossings to improve safety and mobility for motorists, pedestrians, rail passengers, and train crews. The TSS evaluated the rail line in Mebane that crosses various streets, as well as any planned or programmed railroad and roadway improvements within the study area. The relevant recommendations include:

- Improve pedestrian connectivity between US 70 and Washington Street.
- Establish median and pedestrian refuge island on 5th Street with new crosswalks at 5th Street and Washington.
- Establish new pedestrian crossings at 1st Street and 2nd Street, including overpass and underpass options.

#### 4.4.5.11 2022 Mebane Fifth St. Improvement Impact Study

The City of Mebane analyzed potential traffic impacts of the proposed Fifth Street and Washington Street Intersection Improvement project. Analysis includes volume development, capacity analysis, safety assessment, and multimodal evaluation results due to the planned geometrics modifications and resulting travel pattern changes at the Fifth Street and Washington Street intersection and six other adjacent intersections, including intersections with Center Street (US 70). Notable findings included new sidewalk connections at the intersection of Fifth and Jackson.

#### 4.4.5.12 Hillsborough Comprehensive Sustainability Plan (2023)

This plan guides future development and the transition to 100% clean energy, balancing environmental stewardship, resiliency, and racial justice with smart growth that will allow for a thriving economy and a great quality of life for the residents of Hillsborough.

Plan elements focus on community connectivity, future land use, parks and recreation, rail station planning, corridor planning, and climate action. A major priority for the Town is multimodal connections, for which the project team has been evaluating opportunities and feasibility with safety and resiliency at top of mind. The plan elements are listed with in the 8 main chapters: Town Government & Public Services, Land Use & Development, Environment & Natural Systems, Transportation & Connectivity, Social Systems & Public Space, Housing & Affordability, Economic Systems & Tourism, and Climate & Energy.

The plan's transportation and connectivity chapter outlines and unifies recommendations listed in the Town's other controlling plans, with specific future pedestrian and bike facilities. Other key recommendations include an update of the Town's UDO and Zoning Classifications, as well as an implementation plan for unifying the other controlling plans within the Town. Any recommendations made within this study are meant to enhance and compliment those included in this plan.

### 4.4.6 System Connectivity

For pedestrian and bicycle travel, the lack of facilities and continuity in the study corridor is a major obstacle, not only for trips along US 70, but for trips across it. This deficiency also reduces the attractiveness and effectiveness of transit service in the corridor.

### 4.4.7 Critical Issues

The table below overviews active transportation deficiencies identified during the existing conditions analysis that must be addressed to achieve the plan’s goals.

Problem	Relevant Goal(s)
Low-income populations have limited access to the multimodal transportation network.	 <b>2, 3</b>  <b>5</b>  <b>9, 10</b>
Inadequate pedestrian connectivity to bus stops reduces transit demand.	 <b>2, 3</b>  <b>6, 8</b>
Existing pedestrian facilities do not serve most of the corridor.	 <b>2</b>  <b>4, 5</b>  <b>6, 7, 8</b>
No dedicated bicycle facilities exist in the corridor.	 <b>2</b>  <b>6, 7</b>  <b>9</b>

## 4.5 Public Transportation

### 4.5.1 Transit Service

The US 70 study area is served by several public transportation providers and regional transportation authorities that accommodate regional and local transit trips through Alamance County, Orange County, Durham County and within municipalities. Local and regional transportation systems operate a variety of services including demand response services, local fixed route bus and express bus routes. Figure 17 shows the study area’s existing local fixed bus routes, express bus routes, and park-and-ride lots.

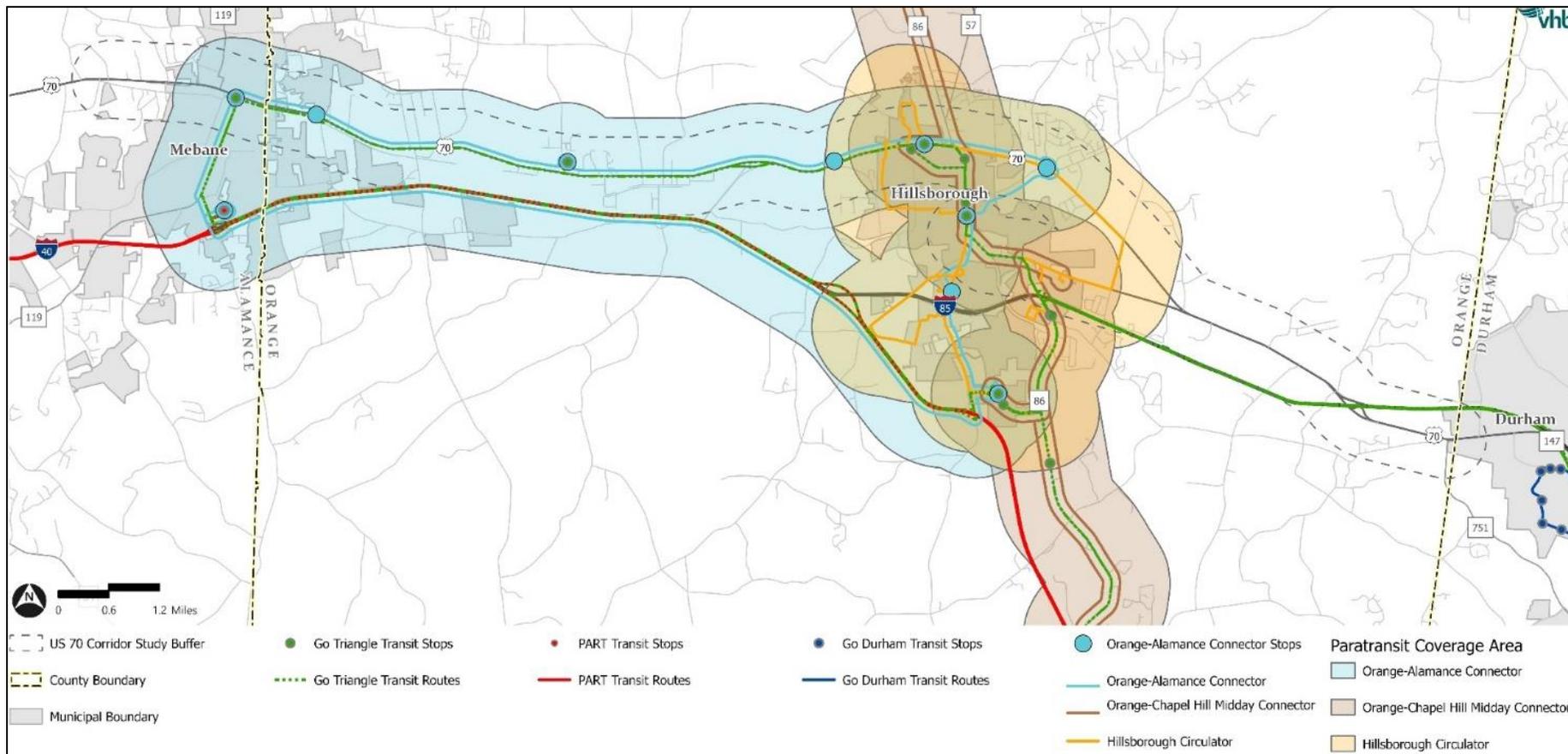


Figure 17 Transit Route in Corridor

### 4.5.1.1 GoTriangle

GoTriangle provides regional transit services between Wake, Durham, Orange, and Alamance Counties. In addition to regional bus operations, GoTriangle provides other commuter resources for the Raleigh-Durham-Chapel Hill area, including paratransit services, ridematching and vanpools, and an emergency ride home program. The following two GoTriangle routes overlap with US 70 study area:

Route 420 - Provides weekday peak period express service hourly between Hillsborough and Chapel Hill. The GoTriangle Short Range Transit Plan (SRTP) (2018) proposed moving the route to I-40 between Chapel Hill and Hillsborough (instead of NC-86) and to use Churton Street instead of NC 86 and US 70 in Hillsborough to improve on time performance and provide more direct service.

Orange-Durham Express (ODX) - Provides weekday rush hour express service hourly between Efland, Mebane, Hillsborough, Duke/VA Hospitals, and downtown Durham. The GoTriangle SRTP (2018) proposed increasing the frequency of the

route to every 30 minutes and streamlining the service between Mebane Cone Park & Ride, the Durham Tech Orange County Campus, and Durham. ODX route does not operate during the evening or on weekends. The GoTriangle transit fare is typically \$2.25 for regional routes and \$3.00 per one way trip on Express routes (with discount fares also available); the agency is temporarily operating a fare-free format until June 2023.

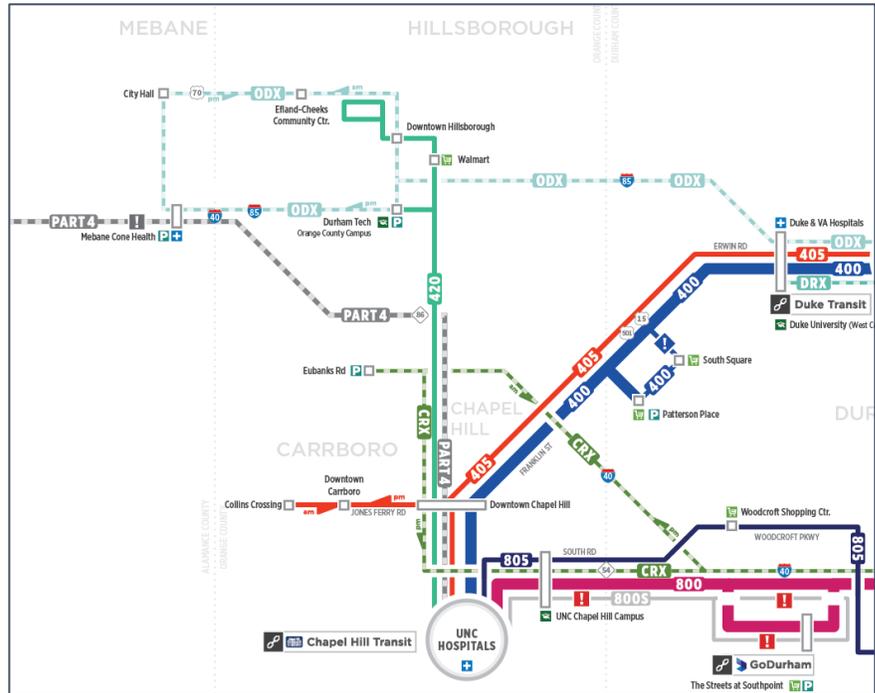


Figure 18 GoTriangle Route Map

### 4.5.1.2 Orange County Public Transportation (OPT)

Orange County Public Transportation (OPT) is Orange County’s transportation agency responsible for providing transportation services to residents of Orange County, the Town of Hillsborough, Efland and a part of the City of Mebane. OPT provides community transportation including demand response and circulator bus service, with the following circulators in service:

- Hillsborough Circulator: A fare-free route connecting major destinations throughout Hillsborough. The Connector provides hourly service Monday-Friday between 8 PM and 5 PM. The Hillsborough Circulator is a fare-free service.
- Orange-Alamance Connector: Connects major destinations in Hillsborough, Efland, and Mebane. The route operates hourly Monday- Friday between 10 AM and 3 PM.

- Orange-Chapel Hill Midday Connector (OCH): Connects major destinations in Hillsborough, Chapel Hill, and Cedar Grove. The OCH runs hourly Monday-Friday between 9:45 AM. and 3:50 PM.
- Paratransit Services: Orange County offers Medicaid transportation services, complimentary Americans with Disabilities Act (ADA) services, and services provided by the Rural Operating Assistance Program (ROAP). Collectively referred to as paratransit, these services are provided within a ¾ mile of all Orange County fixed route service. Service is offered five days a week from 8 a.m. to 5 p.m. and has no cost. Reservations must be made to use the service.
- Mobility-on-Demand (MOD): Option that provides on-demand service in the Hillsborough, NC area; MOD service is available Fridays 5 a.m. to 9 p.m. and Saturdays from 9 a.m. to 5 p.m. The service is \$5 one way.

The fare to ride the Orange-Alamance Connector and the Orange-Chapel Hill Connector is \$2 (one way) for the general public, \$1 for children 6-12, and free to seniors 60+, children under the age of 6, and persons with disabilities. Orange County Transportation has recently shifted to cashless fare collection and accepts UMO smartcard and mobile app for fare payments.

#### 4.5.1.3 Alamance County Transportation Authority (ACTA)

The Alamance County Transportation Authority (ACTA) provides transportation for the elderly, disabled, and general public in Alamance County. ACTA uses ADA-accessible vans and buses to assist individuals with special needs. All transportation services are available Monday-Friday from 5:00 AM-5:30 PM and must be scheduled by 11 AM on the previous working day. ACTA provides transportation for general purpose trips, medical trips, and almost any non-emergency trip destination. In addition, special programs and pricing are available to qualified riders based on eligibility requirements.

ACTA fares are \$5.00 for a one-way trip/or \$10 for a round trip. Starting on March 24, 2020 and through the end of January 2022, ACTA has been waiving the fare collection.

### 4.5.2 Planned Improvements and Relevant Plans

#### 4.5.2.1 North Carolina Department of Transportation 2020-2029 State Transportation Improvement Program (STIP)

The current NCDOT 2020-2029 State Transportation Improvement Program (STIP) includes two active transportation projects in the project study area (see Figure 15).

##### **STIP # P-5701A/B – Norfolk Southern Railroad**

P-5701A proposes to construct a passenger rail station building, site access, utilities, and parking, and P-5701B proposes to construct a station platform and realign the curve for the Norfolk Southern Railroad H-Line at milepost 41.7 in Hillsborough. Construction for P-5701A is scheduled to begin in FY 2022, and P-5701B is scheduled to begin in FY 2023.

##### **STIP # TD-5295 – GoTriangle**

TD-5295 proposes to construct a GoTriangle park-and-ride lot in the Town of Hillsborough. Construction is scheduled for FY 2023.



### **Orange County Transit Plan (2017, amended 2022)**

The Orange County Transit Plan (2017; amended 2022) was developed by representatives from Orange County, the Towns of Hillsborough, Chapel Hill, and Carrboro, the University of North Carolina (UNC), and GoTriangle to improve transit options throughout Orange County and strengthen regional transit connections. The plan examines ways to improve the transit network through enhanced bus service and facilities. The Orange County Transit Plan has several goals, including improving overall mobility and transportation options while providing geographic equity and positive impacts on air quality.

Relevant recommendations include:

- New Hillsborough Train Station for intercity (Amtrak) service
- New commuter express service between Mebane, Hillsborough, and Durham (implemented)
- Improvements to Hillsborough bus stops
- Additional deviated fixed-route transit service
- Hillsborough transfer center to connect Orange Public Transportation and GoTriangle

#### **4.5.2.2 2018 Mebane 2040 Comprehensive Transportation Plan**

Mebane's 2040 Comprehensive Transportation Plan (CTP) is for the City of Mebane in Alamance and Orange Counties. The plan is multi-modal, covering roadway, public transportation, and bicycle and pedestrian travel. The plan lists the following transit project associated with the US 70 corridor:

- Implement a circulator route to provide service to residents as a method of traveling locally around Mebane. Additionally, the route will provide service to the existing bus stops in an effort to make the regional transit more convenient to all residents and visitors. Stops along the route should include popular destinations such as the Post Office, City Hall, Downtown, Mebane Cone Health, and grocery stores. The conceptual route included in the CTP crosses US 70 at 3<sup>rd</sup> Street and 5<sup>th</sup> Street

#### **4.5.2.3 2022 Burlington Graham Metropolitan Planning Organization Comprehensive Transportation Plan (CTP)**

This plan addresses the aspirational transportation improvements in the Burlington–Graham Metropolitan Planning Organization (BGMPO) area for the next 25 to 30 years. The noted transit recommendations within the study area are listed below:

- Modernize US 70 by adding a wider paved shoulder to improve safety and mobility, creating a transit corridor from NC 119 to Supper Club Road.
- Implement urban bus corridors throughout downtown Mebane and along US 70 and a fixed guideway transit system along US 70 east of Third Street.

#### **4.5.2.4 2020 Burlington Graham Metropolitan Planning Organization Metropolitan Transportation Plan (CTP)**

This plan identifies the planned transportation improvements in the Burlington–Graham area through the year 2045. The plan identifies US 70 as a major transportation corridor and key to the economic vitality of the region. Transit recommendations include:

- Hillsborough–Mebane Commuter Rail Connector which would include a new commuter rail station in Mebane.

#### 4.5.2.5 2022 GoTriangle Mebane Park-and Ride Feasibility Study

The GoTriangle Mebane Park-and Ride Feasibility Study was launched in March 2022 to investigate potential new locations for a permanent or leased park and ride facility in Mebane. A pool of potential parcels was identified, evaluated for viability, and narrowed based on their ability to meet the study goals and objectives identified by GoTriangle and key stakeholders. The preferred purchase site is located on Washington Street, across the railroad tracks from US 70 in East Mebane. The plan includes conceptual development at the preferred site including parking facilities, amenities, and a driveway to service the residences. The site currently has access to a water line, but no sewer mains. Orange County is considering expanding utilities north of the interchange. In addition, the parcel was chosen in part because it has no signalized intersections between the proposed site and I-40/85.

### 4.5.3 Critical Issues

The table below overviews public transportation deficiencies identified during the existing conditions analysis that must be addressed to achieve the plan's goals.

Problem	Relevant Goal(s)
<p>Low-income populations have limited access to the multimodal transportation network.</p>	 <p><b>2, 3</b></p>  <p><b>5</b></p>  <p><b>9, 10</b></p>
<p>Inadequate pedestrian connectivity to bus stops reduces transit demand.</p>	 <p><b>2, 3</b></p>  <p><b>6, 8</b></p>
<p>No bus stop in the corridor meets ADA standards.</p>	 <p><b>3</b></p>  <p><b>6</b></p>
<p>Areas projected to experience significant employment growth, particularly for low-income jobs, are not served by public transit.</p>	 <p><b>3</b></p>  <p><b>9</b></p>
<p>Bus service is too infrequent to be a convenient, reliable travel option, especially for those commuting at non-traditional times.</p>	 <p><b>3</b></p>  <p><b>9, 10</b></p>
<p>Bus routes do not serve some of the corridor's largest trip producers and attractions.</p>	 <p><b>3</b></p>  <p><b>9, 10</b></p>

## 4.6 Safety

**Table 14 US 70 Corridor Crash Rates**

Rate	US 70 Crashes	Crashes Per 100 MVM	Statewide Rate <sup>1</sup>	Critical Rate <sup>2</sup>
Total	828	330.18	263.25	280.30
Fatal	4	1.60	1.32	2.71
Non-Fatal	239	95.31	73.07	82.15
Night	210	83.74	57.83	65.93
Wet	115	45.86	43.32	50.36
Run-Off Road	240	95.71	45.46	52.66

**Table 15 US 70 Business Crash Rates**

Rate	US 70 Bus Crashes	Crashes Per 100 MVM	Statewide Rate <sup>1</sup>	Critical Rate <sup>2</sup>
Total	395	339.42	263.25	288.42
Fatal	3	2.58	1.32	3.50
Non-Fatal	113	97.10	73.07	86.53
Night	101	86.79	57.83	69.86
Wet	57	48.98	43.32	53.79
Run-Off Road	77	66.16	45.46	56.17

<sup>1</sup>2017-2021 statewide crash rate for 2-lane undivided urban US Routes

<sup>2</sup>Based on the statewide crash rate (95% level of confidence)

The Study Team analyzed reported crashes between August 2017 through July 2022 along US 70 from SR 1965 (Moore Street) in Alamance County to 25' north of US 70 Business/SR 1562 (Palmer's Grove Church Road) in Orange County to provide an overview of how the corridor is performing and identify potential crash patterns or hotspots. The total crash rate was higher on US 70 than the corresponding critical crash rate determined by comparing the corridor with similar facilities in North Carolina (Table 14). Crash rates along US 70 also exceeded the respective critical rates for non-fatal injury, night (dark), and run-off road crashes. The crash rates for fatal crashes and crashes occurring under wet conditions did not exceed their respective critical crash rates. Crashes reported during the same period along US 70 Business from SR 1009 (S Churton Street) to NC 751 were analyzed as well. Similarly, the total, non-fatal injury, night (dark), and run-off road crashes exceeded their respective critical rates, and the fatal and wet crash rates did not (Table 15).

There were 828 recorded crashes in the study corridor during the analysis period. Rear-end collisions accounted for 366 crashes (44% of total crashes). These crashes occurred frequently throughout multiple sections of the study area especially near isolated intersections and areas with transitions between rural and urban conditions. The frequency of rear-end crashes could be attributable to multiple interrelated causes including sections with curves, numerous driveways and intersections including unexpected or isolated traffic signals, high travel speeds, limited turn lanes, rolling terrain, and transitions between rural and urban conditions.

The second most common crash type was frontal impact crashes, which includes angle, left-turn, and right-turn crashes and accounted for 189 of the total crashes (23%). Of these, angle crashes were the most prominent with 83 crashes (10% of total crashes). Left-turn and right-turn crashes accounted for about 12% and 1% of the total crashes, respectively. These crashes are concentrated in the urban portions of the corridor, north of Hillsborough and in Mebane, and at isolated intersections such as in Efland.

Lane departure crashes accounted for 175 of the total crashes (21%). Of these, fixed object crashes were the most prominent with 86 crashes (10% of total crashes). Run-off road, sideswipe (opposite direction), and head-on crashes accounted for 4%, 2%, and 1% of crashes, respectively. Run-off-road crash locations and severities as well as the passing zones are shown in Figure 19. An explanation of crash severity can be found in Table 16.

**Table 16 Crash Severity Description**

<b>Severity</b>	<b>Description</b>
<b>K</b>	One or more people are killed at the scene or die within 30 days of the crash due to injuries received from the crash.
<b>A</b>	One or more people receive incapacitating injuries that prevent the individuals from performing their normal activities for 24 hours or longer.
<b>B</b>	One or more people receive non-incapacitating injuries that are apparent at the scene and will not prevent the individual from performing their normal activities for more than 24 hours.
<b>C</b>	One or more people complain of pain or momentary unconsciousness; however, the injuries are not visible or obvious at the scene of the crash.
<b>O</b>	No one is injured, and only property is damaged.

Rear end and frontal impact crashes are the most common crash types. Rear end collisions make up almost half of the crashes along the corridor which suggests drivers may not be anticipating the transitions occurring between more rural and more urban conditions. The high proportion of rear end crashes and frontal impact crashes at isolated intersections along the corridor point to unexpected stops in traffic as a contributing factor possibly due to increased turning volumes and at isolated signalized intersections due to queues at red lights. Other potential contributing factors include curving approaches, limited turn lanes, and intersection skew.

**Table 17 Total Crashes per Segment by Severity**

<b>Segment</b>	<b>K</b>	<b>A</b>	<b>B/C</b>	<b>O</b>
A	0	4	38	123
B	1	4	50	116
C	2	4	74	191
D	1	2	63	155
E	2	5	76	166
F	1	0	32	113

The corridor was also analyzed by segment with more attention paid to prominent crash locations and other areas of concern. This detailed analysis can be found in the Existing Conditions Report.

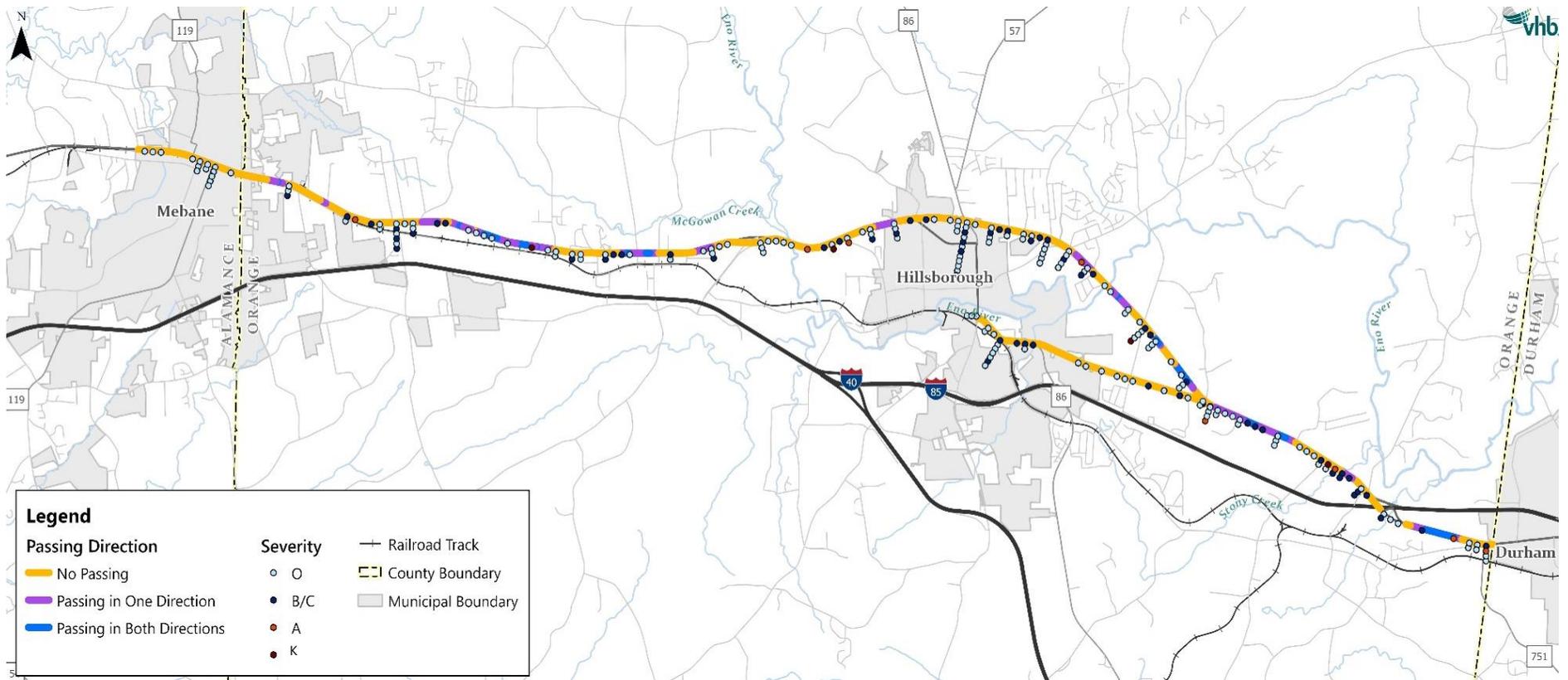


Figure 19 Run-Off Road Crash Severity & Passing Zones

### 4.6.1 Pedestrian and Bicycle Crashes

Four pedestrian crashes and zero bicycle crashes were reported along the corridor between August 2017 and July 2022, as summarized in Table 18. Many bicycle or pedestrian “near-misses” are not reported and are, therefore, unsubstantiated. Both travelling along US 70 and crossing US 70 are potentially hazardous, given the lack of appropriate accommodations for pedestrians and bicyclists. Traffic speeds, rolling terrain, driver expectations, and access locations all contribute to crash potential, and suggest that pedestrian and bicycle travel in this corridor is suppressed due to discomfort and risk. Vehicle safety is typically measured in terms of crash history; given that many bicycle and pedestrian trips are foregone due to the above reasons, crash history is not a reliable indicator of conditions related to bicycle and pedestrian safety. Given the potential amount of latent demand and the scarcity of crash data, bicycle and pedestrian safety are generally assessed differently from vehicular crashes, relying more on physical conditions. A similar approach is applied to railroad safety as well, due to the infrequent—but typically severe—nature of such rail crashes.

**Table 18 Bicycle and Pedestrian Crashes (August 2017 - July 2022)**

Date	Day of Week	Time	Location	Nearest Intersection	Severity	Road Surface Condition	Ambient Light
Jul 2021	Thursday	10:03 PM	Orange County	Buckhorn Rd	Possible Injury (C)	Dry	Dark - Not Lighted
Jul 2021	Sunday	2:44 PM	Hillsborough, Orange County	Faucette Mill Rd	Evident Injury (B)	Dry	Daylight
Feb 2020	Tuesday	7:36 PM	Hillsborough, Orange County	Faucette Mill Rd	Evident Injury (B)	Dry	Dark - Lighted
Jan 2020	Friday	9:38 PM	Hillsborough, Orange County	NC 86	Possible Injury (C)	Dry	Dark - Lighted

### 4.6.2 Large Vehicle Crashes

Sixty-two crashes involving large vehicles were reported along US 70 between Mebane and NC 751, including one fatal crash and four B-injury crashes as well as multiple C-injury crashes. This crash rate appears to be generally proportionate to the volume of trucks relative to total traffic (i.e., there did not appear to be an outsized number of truck crashes relative to the percentage of truck traffic.) The fatal crash involved a truck rear-ending a vehicle leading to a multicar crash in a construction zone when traffic was stopped by a flagger near W Hill Avenue (SR 1161). The largest cluster of truck crashes occurred in Hillsborough near Churton Street (NC 86) including three school bus crashes. All three school bus crashes were rear ends that occurred in the morning around 7:30 am – 8:30 am. Most truck crashes occurred in urban areas along the corridor and about 40% occurred within municipal limits. The truck crashes that occurred in more rural areas along the corridor tended to be rear end and fixed object crashes indicating the possibility of speeding and unexpected stops as attributable factors.

Eight crashes involving large vehicles were reported along US 70 Bus from Churton Street (SR 1009) in Downtown Hillsborough to slightly before Palmers Grove Church Road including one A-injury crash and one B-injury crash as well as multiple C-injury crashes. The A-injury crash involved a left-turning passenger vehicle striking another on Churton Street (SR 1009) at US 70 Bus leading to a multicar crash including a bus. The B-injury crash involved a truck running off the road to the left and striking a utility pole then a house near Efland Street. The largest cluster of truck crashes occurred in Hillsborough near Churton Street (NC 86) including three school bus crashes. All three school bus crashes were rear ends that occurred in the morning around 7:30 am – 8:30 am.

### 4.6.3 Rail Crossing Crashes

Although no active rail lines cross US 70 in the study corridor, there are five at-grade crossings in Segment A that are in close proximity to US 70 (less than 50 feet in several instances). There have been two crashes at these locations over the last 10 years:

- Third Street
  - March 2021 – Passenger train traveling at 76 mph struck a car stopped on tracks in daylight. No injuries.
- Fifth Street
  - December 2014 – Passenger train traveling at 79 mph struck a van trapped between gates in daylight. Driver killed.

### 4.6.4 Critical Issues

The table below overviews safety deficiencies identified during the existing conditions analysis that must be addressed to achieve the plan’s goals.

Problem	Relevant Goal(s)
Pedestrian crossings across US 70 lack adequate safety features.	   <b>2</b> <b>5</b> <b>6, 7, 8</b>
High traffic speeds pose a significant threat to non-automobile users.	   <b>2</b> <b>5</b> <b>6, 7, 8</b>
No dedicated bicycle facilities exist in the corridor.	  <b>2</b> <b>6, 7</b>
The corridor experiences a large amount of animal crash incidents.	  <b>7</b> <b>11</b>



## 4.7 Critical Issues Summary

Table 19 summarizes observed critical issues by the goals that would be achieved by addressing them.

**Table 19 Critical Issues Summary**

Critical Issues	Goals												
	Mobility			Placemaking		Safety			Job Access		Natural Environment		
	1	2	3	4	5	6	7	8	9	10	11	12	13
Schools in the corridor are significant sources of congestion.	x												
Roadway infrastructure in the corridor does not have the capacity for the future projected traffic demand.	x								x	x			
Low-income populations have limited access to the multimodal transportation network.		x	x		x				x	x			
Natural areas that are recreational destinations lack connectivity to the multimodal transportation network.		x	x		x						x		
Inadequate pedestrian connectivity to bus stops reduces transit demand.		x	x			x		x					
US 70 poses a significant barrier to pedestrian connectivity in urban areas despite existing crossings.		x		x	x	x							
High traffic speeds contradict existing and planned residential and commercial development in the corridor.		x		x	x	x	x	x					
Existing pedestrian facilities do not serve most of the corridor.		x		x	x	x	x	x	x				
US 70 does not have sufficient multimodal facilities to support its growing business.		x		x	x	x			x				
No dedicated bicycle facilities exist in the corridor.		x				x	x		x				
US 70 detracts from the character of the municipalities it traverses.			x										
No bus stop in the corridor meets ADA standards.			x			x							
Areas projected to experience significant employment growth, particularly for low-income jobs, are not served by public transit.			x						x				
Bus service is too infrequent to be a convenient, reliable travel option, especially for those commuting at non-traditional times.			x						x	x			
Bus routes do not serve some of the corridor's largest trip producers and attractions.			x						x	x			
The corridor experiences a large amount of animal crash incidents.							x					x	
High growth rates in the corridor threaten to increase the amount of impervious surface, increasing run-off quantity and decreasing water quality.													x

# 5

## Recommendations

The following section identifies recommended projects and policies that should be implemented to achieve the plan's goals.

### 5.1 Plan Overview

Using the critical issues identified in the existing conditions analyses, each goal was deconstructed into measurable, realistic objectives that when completed would indicate progress towards the US 70 vision. Implementing the recommendations of this plan would result in the achievement of these objectives. Objectives and associated policies often contribute to the success of more than one goal.

The strategies outlined in the following sections are coded by an ID number that indicates the applicable segment, objective, and recommendation/policy. For example, "A.15.1" would indicate a strategy for Segment A and meeting Objective 15 by implementing Recommendation 1 for that objective. Tables 21-26 in Section 5.1.6 provides a concise summary of each objective by segment; Section 5.5 details the specific recommendations/policies needed to meet each of those objectives.

Table 20 US 70 Corridor Plan Goals

 <b>Mobility</b>	<b>Goal 1:</b> Manage increasing vehicular traffic congestion, including auto, EMS, and freight.
	<b>Goal 2:</b> Prioritize bicycle and pedestrian connectivity through the corridor.
	<b>Goal 3:</b> Improve transit accessibility.
 <b>Placemaking</b>	<b>Goal 4:</b> Guide transportation investment to protect community character.
	<b>Goal 5:</b> Prioritize pedestrian, bicycle, and transit connectivity within urban areas.
 <b>Safety</b>	<b>Goal 6:</b> Increase the comfort of non-automobile roadway users.
	<b>Goal 7:</b> Work towards Vision Zero.
	<b>Goal 8:</b> Reduce pedestrian-automobile conflicts.
 <b>Job Access</b>	<b>Goal 9:</b> Improve multimodal access to jobs within the corridor.
	<b>Goal 10:</b> Improve multimodal access to jobs outside the corridor.
 <b>Natural Environment</b>	<b>Goal 11:</b> Improve multimodal access to parks throughout the corridor.
	<b>Goal 12:</b> Reduce wildlife-automobile conflicts.
	<b>Goal 13:</b> Ensure long term protection of local watersheds.



## 5.1.1 Mobility Plan

### 5.1.1.1 Goal 1: Manage increasing vehicular traffic congestion, including auto, EMS, and freight.

To achieve Goal 1, improvement projects should:

- Reduce automobile congestion delay times in response to projected traffic demand growth through the corridor (*Objective A.15/B.1/C.1/D.1/E.1/F.1*).
  - A.15.1: When US 70 is widened to a four-lane divided facility from McBane Store Road to Buckhorn Road, include multimodal facilities.
  - B.1.1: When US 70 is widened to a four-lane divided facility from Buckhorn Road to Lloyds Dairy Road, include multimodal facilities.
  - C.1.1: When US 70 is widened to a four-lane divided facility throughout Segment C, include multimodal facilities.
  - C.1.2: Realign Revere Road approach to the US 70/Faucette Mill Road intersection; reroute Short Street accordingly.
  - C.1.3: Construct/extend exclusive turn lanes on the west- and northbound approaches to the US 70/Faucette Mill Road intersection.
  - C.1.4: Construct exclusive turning lanes at the US 70/NC 86 intersection, including dual eastbound left turn lanes from US 70 onto NC 86 northbound.
  - D.1.1: When US 70 is widened to a four-lane divided facility throughout Segment D, include multimodal facilities.
  - D.1.2: Extend existing south- and westbound right turn lanes at the US 70/Orange High School Road intersection
  - D.1.3: Upgrade the US 70/N. Scotswood Blvd. intersection to a roundabout.
  - E.1.1: When US 70 is widened to a four-lane divided facility throughout Segment E, include multimodal facilities.
  - E.1.2: Extend turn lanes at the US 70/NC 751 intersection.
  - F.1.1: Upgrade the US 70 Business/Lawrence Road intersection to a traffic signal.
  - F.1.2: Convert the US 70 Business/Elizabeth Brady Road intersection to a T-intersection with an adjacent roundabout at NC 86.
  - F.1.3: Convert the existing traffic signal at the US 70 Business/NC 86 intersection to a roundabout, including pedestrian crossing markings and signage.
- Improve access between US 70 and I 40/I 85 (*Objective B.2/F.2*).
  - B.2.1: Construct exclusive left- and right-turn lanes on all approaches at the US 70/Efland Cedar Grove Road intersection.
  - B.2.2: Redesign the US 70/I 85 Connector interchange to a fully directional at-grade configuration, such as a “dogbone” roundabout.
  - F.2.1: Implement the US 70 Business realignment proposed in the *NC 86 Connector Study, Phase II (2021)*, built to complete street standards.

- Manage travel demand for future development in the Efland-Buckhorn-Mebane economic development area (*Objective B.3*).
  - B.3.1: Implement and regularly update the *Efland-Buckhorn-Mebane Access Management Plan* (updated 2019).
  - B.3.2: Update the *Efland-Buckhorn-Mebane Access Management Plan* to include more expansive pedestrian, bicycle, and transit connectivity recommendations.
- Manage travel demand resulting from trips to and from schools (*Objective D.3*).
  - D.3.1: Conduct NCDOT Municipal School Transportation Assistance (MSTA) school study to address circulation, queuing, and storage needs specific to Orange High and Middle School complex; update safe routes to school for the corridor.

### 5.1.1.2 Goal 2: Prioritize bicycle and pedestrian connectivity through the corridor.

To achieve Goal 2, improvement projects should:

- Establish alternative east-west bicycle routes to US 70 between Mebane and Hillsborough (*Objective A.1/B.4/C.4*).
  - A.1.1: Develop protected bicycle route on Holt Street from Tate Avenue to 1<sup>st</sup> Street.
  - A.1.2: Install signage to encourage bicycle use along E. Washington Street and Lebanon Road.
  - A.1.3: Develop protected bicycle route on Washington Street from Sargents Path to Buckhorn Road.
  - B.4.1: Develop protected bicycle route on Lebanon Road from Doe Run Road to Old Paths Trail.
  - B.4.2: Develop protected bicycle route along Richmond Road from Lebanon Road to Efland-Cheeks Park and Community Center; connect the route south across US 70 to shared-use path proposed to run parallel to I 40.
  - C.4.1: Add sharrows and signage to establish bike route along the length of Faucette Mill Road north of the Hillsboro Town border.
  - C.4.2: Construct an off-road bicycle path that connects Faucette Mill Road with Lebanon Road across the Eno River.
- Accommodate all transportation modes in roadway improvement projects (*Objective A.7/B.8/C.9/D.8/E.2/F.7*).
  - A.7.1: Construct a minimum 5-foot sidewalk on north side of US 70 from 9<sup>th</sup> Street to Ashbury Blvd.
  - A.7.2: Include a 10-foot shared-use path on the north side and a 5-foot sidewalk on the south side of US 70 from McBane Store Road to Buckhorn Road to accompany the long-term typical section widening; install bicycle pattern rumble strips in the short-term.
  - B.8.1: Include a 10-foot shared-use path on the north side and a 5-foot sidewalk on the south side of US 70 from Buckhorn Road to Lloyds Dairy Road to accompany the long-term typical section widening; install bicycle pattern rumble strips in the short-term.
  - B.8.2: Install high visibility signs along US 70 indicating presence of cyclists between Tinnin Road and Gaines Chapel Road.
  - B.8.3: Revise the US 70/Buckhorn Road realignment to include a 5-foot paved shoulder with bicycle pattern rumble strips.
  - C.9.1: Include a 10-foot shared-use path on the north side and a 5-foot sidewalk on the south side of US 70 from Lloyd's Dairy Road to NC 86.

- D.8.1: Include a 10-foot shared-use path on the north side and a 5-foot sidewalk on the south side of US 70 from NC 86 to Palmers Grove Church Road.
- E.2.1: Include a 10-foot shared-use path on the north side and a 5-foot sidewalk on the south side of US 70 from Palmers Grove Church Road to NC 751; in the short term, widen shoulders to accommodate minimum 5-foot paved shoulder with bicycle pattern rumble strips.
- F.7.1: Construct 5-foot sidewalks on the north and south sides of US 70 Business from NC 86 to Palmer Grove Church Road.
- F.7.2: Widen the shoulders on US 70 Business from NC 86 to Palmer Grove Church Road to provide a minimum 5-foot paved shoulder with bicycle pattern rumble strips.
- Extend sidewalk connectivity to anticipated growth areas (*Objective A.9/B.11/C.11/D.10/E.4/F.9*)
  - A.9.1/B.11.1/C.11.1/D.10.1/E.4.1/F.9.1: Establish a maintenance agreement between NCDOT and Orange County for new and existing pedestrian facilities on US 70.
  - A.9.2/B.11.2/C.11.2/D.10.1/E.4.1/F.9.1: Require developers building on land parcels fronting US 70 to either construct sidewalk along their frontages, dedicate ROW for future construction, or pay in lieu.
- Complete the sidewalk contiguity in downtown Mebane (*Objective A.12*).
  - A.12.1: Maintain existing sidewalk on US 70's north side between Mebane Community Park and 9<sup>th</sup> Street.
  - A.12.2: Combine and minimize curb cuts and wide, flush frontages as parcels redevelop.
- Manage travel demand for future development in the Efland-Buckhorn-Mebane economic development area (*Objective B.3*).
  - B.3.1: Implement and regularly update the *Efland-Buckhorn-Mebane Access Management Plan* (updated 2019).
  - B.3.2: Update the *Efland-Buckhorn-Mebane Access Management Plan* to include more expansive pedestrian, bicycle, and transit connectivity recommendations.
- Improve the permeability of US 70 as a barrier within Hillsborough (*Objective C.14/D.12*).
  - C.14.1: Construct shared-use path along the east side of NC 86 from US 70 to Corbin Street.
  - C.14.2: Modernize the US 70/Faucette Mill Road intersection with accessible pedestrian signal heads/pedestals on all corners, leading pedestrian intervals, no right turn on red restrictions, and high-visibility markings.
  - C.14.3: Modernize the US 70/NC 86 intersection with pedestrian refuge islands, accessible pedestrian signal heads/pedestals on all corners, leading pedestrian intervals, no right turn on red restrictions, and high-visibility markings.
  - D.12.1: Construct sidewalk and protected bicycle route on the entirety of Orange High School Road; connect to Caine Street across US 70 along parcel lines.
  - D.12.2: Modernize the US 70/Orange High School Road intersection with accessible pedestrian signal heads/pedestals on all corners, leading pedestrian intervals, no right turn on red restrictions, and high-visibility markings.
  - D.12.3: Modernize the US 70/Lawrence Road intersection with accessible pedestrian signal heads/pedestals on all corners, leading pedestrian intervals, no right turn on red restrictions, and high-visibility markings.

- Improve bicycle connectivity between residential and commercial centers in Hillsborough (*Objective C.16/D.14/F.12*).
  - C.16.1: Add sharrows and signage to establish bike route on Torain Street between Faucette Mill Road and Rainey Avenue.
  - C.16.2: Add sharrows and signage to establish east-west bike route through Fairview Park from Rainey Avenue to NC 86.
  - C.16.3: Add sharrows and signage to establish a bicycle route on Hayes and Union Streets from West King Street to Cameron Street.
  - C.16.4: Add sharrows and signage to establish a bicycle route on Churton Street between Union Street and Margaret Lane.
  - D.14.1: Add sharrows and signage to establish a bicycle route on the length of Crawford Road.
  - F.12.1: Add sharrows and signage to establish a bicycle route on the length of Meadowlands Drive.
- Connect Eno River State Park to US via bicycle infrastructure (*Objective D.15/E.7*).
  - D.15.1: Add sharrows and signage to establish bike route on Lawrence Road from US 70 to Palmers Grove Church Road.
  - E.7.1: Construct protected bike lane on Pleasant Green Road from US 70 to Cole Mill Road.
  - E.7.2: Add sharrows and signage to establish bike route on Cole Mill Road from Pleasant Green Road to the Eno River State Park entrance.

### 5.1.1.3 Goal 3: Improve transit accessibility.

To achieve Goal 3, improvement projects should:

- Improve bus service reliability (*Objective A.2/B.5/C.5/D.4/F.3*).
  - A.2.1/B.5.1/C.5.1: Increase the frequency and service hours of GoTriangle's ODX route.
  - A.2.2/B.5.2/C.5.2/D.4.1/F.3.1: Increase the frequency and service hours of Orange County's Orange-Alamance Connector and Hillsborough Circulator routes.
  - A.2.3: Increase the frequency and service hours of PART's Route 4.
- Improve the accessibility of existing bus stops (*Objective A.3/B.6/C.6/D.5/F.3*).
  - A.3.1/B.6.1/C.6.1/D.6.1/F.4.1: Update all existing bus stops to accessibility and safety standards, complete with shelters, seating, lighting, visible and audible information, and appropriate pedestrian and ADA connectivity.
- Construct accessible bus shelters that serve Mebane's employment centers (*Objective A.4*).
  - A.4.1: Add two accessible, safe bus shelters with appropriate pedestrian connectivity that serve businesses on Oakwood Street and Industrial Drive.
- Construct accessible bus shelters that serve Mebane's recreation destinations (*Objective A.5*).
  - A.5.1: Add accessible, safe bus shelters either side of US 70 with appropriate pedestrian connectivity that serves Mebane Community Park.
  - A.5.2: Add accessible, safe bus shelters either side of US 70 with appropriate pedestrian connectivity that serves Mebane Memorial Garden.

- Construct accessible bus shelters that service Mebane’s residential communities (*Objective A.6*).
  - A.6.1: Add accessible, safe bus shelters either side of US 70 with appropriate pedestrian connectivity that serves the Supper Club mobile home community.
  - A.6.2: Add an accessible, safe bus shelter with appropriate pedestrian connectivity across US 70 from the existing Ashbury Blvd. stop.
- Expand transit by partnerships with service providers in Alamance County (*Objective A.13*).
  - A.13.1: Incorporate planned stops at Oakwood Street and Industrial Drive into the future Mebane Circulator route.
  - A.13.2: Expand transit service offerings, such as on-demand service, for Mebane’s suburbs, specifically to align with fixed route buses in Alamance County.
- Expand transit by partnerships with service providers in Orange County (*Objective A.14/B.12/C.15/D.13/E.6/F.11*).
  - A.14.1: Extend Orange-Alamance Connector service to the planned Mebane Community Park and Supper Club Road mobile home community stops.
  - A.14.2: Expand transit service offerings, such as on-demand service, for Mebane’s suburbs, specifically to align with fixed route buses in Orange County.
  - A.14.3: Extend Orange-Alamance Connector service to existing Ashbury Boulevard stop.
  - B.12.1: Extend Orange-Alamance Connector service to the planned Ashwick Drive, Graham Trailer Park, and Mebane Memorial Garden stops.
  - B.12.3: Introduce and expand on-demand transit services for rural communities around Efland, specifically to align with fixed route buses.
  - C.15.1: Extend Orange-Alamance Connector service to the existing Faucette Mill/Cornelius Street, Hillsborough Police Station, and West Village stops.
  - C.15.2: Reroute Hillsborough Circulator from Lakeshore Drive to Hill Avenue, and service new stop at Bennetts Mobile Home Park.
  - C.15.3: Extend Hillsborough Circulator service to the existing North Carolina Drivers License stop.
  - C.15.4: Introduce and expand on-demand transit services for Fairview, job centers north along NC 86, and West Hillsborough, specifically to align with fixed route buses.
  - D.13.1: Extend Hillsborough Circulator service to the planned Miller Road, Orange High School Road, and Scotswood Boulevard stops.
  - D.13.2: Reroute Hillsborough Circulator along Orange High School Road, Miller Road, Woodlawn Drive, and Scotswood Boulevard to service planned stops between the existing US 70/Walgreens and Scotswood/US 70 stops.
  - D.13.3: Introduce and expand on-demand transit services for communities adjacent to Palmers Grove Church Road, specifically to align with fixed route buses.
  - E.6.1: Introduce and expand on-demand transit services for rural communities east of Piney Grove, specifically to align with fixed route buses.
  - F.11.1: Extend Hillsborough Circulator service to the planned Cornerstone Court and Orange Grove Road stops.

- F.11.2: Shift partnerships with service providers in Orange County to the new US 70 Business location proposed in the *NC 86 Connector Study, Phase II (2021)*.
- Expand regional transit services to residential centers in the corridor (*Objective A.16/B.13/C.17/F.13*).
  - A.16.1: Extend ODX service to the planned Supper Club Road mobile home community stop.
  - B.13.1: Extend ODX service to the planned Ashwick Drive and Graham Trailer Park mobile home community stops.
  - C.17.1: Extend ODX service to the existing Faucette Mill Road/Cornelius Street, US 70/Rainey Street, and West Village stops.
  - F.13.1: Shift regional transit services to the new US 70 Business location proposed in the *NC 86 Connector Study, Phase II (2021)*.
- Construct accessible bus shelters that serve Efland’s residential communities (*Objective B.7*).
  - B.7.1: Add accessible, safe bus shelters with appropriate pedestrian connectivity either side of US 70 that serve communities near Ashwick Drive.
  - B.7.2: Add accessible, safe bus shelters with appropriate pedestrian connectivity either side of US 70 that serve the Graham Trailer Park.
- Introduce and expand park and ride service (*Objective C.2/D.2*).
  - C.2.1: Implement the Faucette Mill Road park and ride service proposed in the *DCHCMPO CTP* (updated April 2023).
  - D.2.1: Implement the Miller Road/Latta Road park and ride service proposed in the *DCHCMPO CTP* (updated April 2023).
- Expand regional transit access to Hillsborough’s job centers (*Objective C.3*).
  - C.3.1: Extend PART Route 4 service to existing North Carolina Drivers License and Orange County Courthouse stops.
- Construct paired bus stops across US 70 from existing facilities (*Objective C.7*).
  - C.7.1: Add an accessible, safe bus shelter with appropriate pedestrian connectivity across US 70 from the existing North Carolina Drivers License stop.
  - C.7.2: Add an accessible, safe bus shelter with appropriate pedestrian connectivity across US 70 from the existing Faucette Mill Road/Cornelius Street stop.
  - C.7.3: Add an accessible, safe bus shelter with appropriate pedestrian connectivity across US 70 from the existing US 70/Rainey Avenue stop.
- Construct accessible bus shelters that serve Hillsborough’s residential communities (*Objective C.8/D.7/F.6*).
  - C.8.1: Replace Lakeshore Drive stop with a stop serving Bennetts Mobile Home Park and surrounding communities.
  - D.7.1: Add an accessible, safe bus shelter with appropriate pedestrian connectivity on Miller Road.
  - D.7.2: Add an accessible, safe bus shelter with appropriate pedestrian connectivity on Scotswood Boulevard.
  - F.6.1: Add an accessible, safe bus shelter with appropriate pedestrian connectivity near Orange Grove Road and Elfin Boulevard.

- Construct accessible bus shelters that serve Hillsborough’s employment centers (*Objective D.6/F.5*).
  - D.6.1: Add an accessible, safe bus shelter with appropriate pedestrian connectivity on Orange High School Road that serves Orange High School.
  - F.5.1: Add an accessible, safe bus shelter with appropriate pedestrian connectivity near NC 86 and Cornerstone Court.



## 5.1.2 Placemaking Plan

### 5.1.2.1 Goal 4: Guide transportation investment to protect community character.

To achieve Goal 4, improvement projects should:

- Enhance downtown Mebane’s sense of place (*Objective A.11*).
  - A.11.1: Invest in streetscaping projects between Charles and Ninth Streets.
  - A.11.2: Decrease the speed limit to 25 mph between Charles and Ninth Streets.
- Complete the sidewalk contiguity in downtown Mebane (*Objective A.12*).
  - A.12.1: Maintain existing sidewalk on US 70’s north side between Mebane Community Park and 9<sup>th</sup> Street.
  - A.12.2: Combine and minimize curb cuts and wide, flush frontages as parcels redevelop.
- Establish gateways to Hillsborough (*Objective C.13/D.11/F.10*).
  - C.13.1: Upgrade the US 70/Lakeshore Drive intersection to a roundabout.
  - D.11.1: Upgrade the intersection of US 70, US 70 Business, and Palmer’s Grove Church Road to a roundabout.
  - F.10.1: Invest in streetscaping projects on US 70 Business from Tuscarora Drive to US 70 Bypass.
- Prepare east Orange County for smart growth (*Objective E.5*).
  - E.5.1: Construct reduced conflict intersection configurations from Palmers Grove Church Road to the I-85 interchange.
  - E.5.2: Invest in streetscaping projects on US 70 south of I 85.

### 5.1.2.2 Goal 5: Prioritize pedestrian, bicycle, and transit connectivity within urban areas.

To achieve Goal 5, improvement projects should:

- Modernize existing US 70 pedestrian crossings in downtown Mebane (*Objective A.10*).
  - A.10.1: Modernize the US 70/3<sup>rd</sup> Street intersection with accessible pedestrian signal heads/pedestals on all corners, leading pedestrian intervals, no right turn on red restrictions, and high-visibility markings.
  - A.10.2: Modernize the US 70/4<sup>th</sup> Street intersection with accessible pedestrian signal heads/pedestals on all corners, leading pedestrian intervals, no right turn on red restrictions, and high-visibility markings.
  - A.10.3: Modernize the US 70/5<sup>th</sup> Street intersection with accessible pedestrian signal heads/pedestals on all corners, leading pedestrian intervals, no right turn on red restrictions, and high-visibility markings. Coordinate with NCDOT and NCRR to refine design of T-550GC as shown in Mebane’s *5<sup>th</sup> Street Improvement Traffic Impact Study* (August 2022) to maintain three-lane northbound approach and crosswalk/sidewalk design on the east side, and replicate that design on the west side.

- Enhance downtown Mebane’s sense of place (*Objective A.11*).
  - A.11.1: Invest in streetscaping projects between Charles and Ninth Streets.
  - A.11.2: Decrease the speed limit to 25 mph between Charles and Ninth Streets.
- Complete the sidewalk contiguity in downtown Mebane (*Objective A.12*).
  - A.12.1: Maintain existing sidewalk on US 70’s north side between Mebane Community Park and 9<sup>th</sup> Street.
  - A.12.2: Combine and minimize curb cuts and wide, flush frontages as parcels redevelop.
- Improve the safety of pedestrian facilities in the Fairview Neighborhood (*Objective C.12*)
  - C.12.1: Install high-visibility pedestrian crossing signage at the Faucette Mill Road/Torain Street intersection.
  - C.12.2: Include high-visibility crossings in all future sidewalk construction on Faucette Mill Road, Torain Street, and Rainey Avenue where the pedestrian network would otherwise be interrupted by roadway.
  - C.12.3: Install high-visibility pedestrian crossing signage and pedestrian pads at the Rainey Avenue/Torain Street intersection.
- Improve the permeability of US 70 within Hillsborough (*Objective C.14/D.12*).
  - C.14.1: Construct shared-use path along the east side of NC 86 from US 70 to Corbin Street.
  - C.14.2: Modernize the US 70/Faucette Mill Road intersection with accessible pedestrian signal heads/pedestals on all corners, leading pedestrian intervals, no right turn on red restrictions, and high-visibility markings.
  - C.14.3: Modernize the US 70/NC 86 intersection with pedestrian refuge islands, accessible pedestrian signal heads/pedestals on all corners, leading pedestrian intervals, no right turn on red restrictions, and high-visibility markings.
  - D.12.1: Construct sidewalk and protected bicycle route on the entirety of Orange High School Road; connect to Caine Street across US 70 along parcel lines.
  - D.12.2: Modernize the US 70/Orange High School Road intersection with accessible pedestrian signal heads/pedestals on all corners, leading pedestrian intervals, no right turn on red restrictions, and high-visibility markings.
  - D.12.3: Modernize the US 70/Lawrence Road intersection with accessible pedestrian signal heads/pedestals on all corners, leading pedestrian intervals, no right turn on red restrictions, and high-visibility markings.



### 5.1.3 Safety Plan

#### 5.1.3.1 Goal 6: Increase the comfort of non-automobile roadway users.

To achieve Goal 6, improvement projects should:

- Establish alternative east-west bicycle routes to US 70 between Mebane and Hillsborough (*Objective A.1/B.4/C.4*).
  - A.1.1: Develop protected bicycle route on Holt Street from Tate Avenue to 1<sup>st</sup> Street.
  - A.1.2: Install signage to encourage bicycle use along E. Washington Street and Lebanon Road.
  - A.1.3: Develop protected bicycle route on Washington Street from Sargents Path to Buckhorn Road.

- B.4.1: Develop protected bicycle route on Lebanon Road from Doe Run Road to Old Paths Trail.
- B.4.2: Develop protected bicycle route along Richmond Road from Lebanon Road to Efland-Cheeks Park and Community Center; connect the route south across US 70 to shared-use path proposed to run parallel to I 40.
- C.4.1: Add sharrows and signage to establish bike route along the length of Faucette Mill Road north of the Hillsboro Town border.
- C.4.2: Construct an off-road bicycle path that connects Faucette Mill Road with Lebanon Road across the Eno River.
- Improve the accessibility of existing bus stops (*Objective A.3/B.6/C.6/D.5/F.3*).
  - A.3.1/B.6.1/C.6.1/D.6.1/F.4.1: Update all existing bus stops to accessibility and safety standards, complete with shelters, seating, lighting, visible and audible information, and appropriate pedestrian and ADA connectivity.
- Construct accessible bus shelters that serve Mebane’s employment centers (*Objective A.4*).
  - A.4.1: Add two accessible, safe bus shelters with appropriate pedestrian connectivity that serve businesses on Oakwood Street and Industrial Drive.
- Construct accessible bus shelters that serve Mebane’s recreation destinations (*Objective A.5*).
  - A.5.1: Add accessible, safe bus shelters either side of US 70 with appropriate pedestrian connectivity that serves Mebane Community Park.
  - A.5.2: Add accessible, safe bus shelters either side of US 70 with appropriate pedestrian connectivity that serves Mebane Memorial Garden.
- Construct accessible bus shelters that service Mebane’s residential communities (*Objective A.6*).
  - A.6.1: Add accessible, safe bus shelters either side of US 70 with appropriate pedestrian connectivity that serves the Supper Club mobile home community.
  - A.6.2: Add an accessible, safe bus shelter with appropriate pedestrian connectivity across US 70 from the existing Ashbury Blvd. stop.
- Accommodate all transportation modes in roadway improvement projects (*Objective A.7/B.8/C.9/D.8/E.2/F.7*).
  - A.7.1: Construct a minimum 5-foot sidewalk on north side of US 70 from 9<sup>th</sup> Street to Ashbury Blvd.
  - A.7.2: Include a 10-foot shared-use path on the north side and a 5-foot sidewalk on the south side of US 70 from McBane Store Road to Buckhorn Road to accompany the long-term typical section widening; install bicycle pattern rumble strips in the short-term.
  - B.8.1: Include a 10-foot shared-use path on the north side and a 5-foot sidewalk on the south side of US 70 from Buckhorn Road to Lloyds Dairy Road to accompany the long-term typical section widening; install bicycle pattern rumble strips in the short-term.
  - B.8.2: Install high visibility signs along US 70 indicating presence of cyclists between Tinnin Road and Gaines Chapel Road.
  - B.8.3: Revise the US 70/Buckhorn Road realignment to include a 5-foot paved shoulder with bicycle pattern rumble strips.
  - C.9.1: Include a 10-foot shared-use path on the north side and a 5-foot sidewalk on the south side of US 70 from Lloyd’s Dairy Road to NC 86.

- D.8.1: Include a 10-foot shared-use path on the north side and a 5-foot sidewalk on the south side of US 70 from NC 86 to Palmers Grove Church Road.
- E.2.1: Include a 10-foot shared-use path on the north side and a 5-foot sidewalk on the south side of US 70 from Palmers Grove Church Road to NC 751; in the short term, widen shoulders to accommodate minimum 5-foot paved shoulder with bicycle pattern rumble strips.
- F.7.1: Construct 5-foot sidewalks on the north and south sides of US 70 Business from NC 86 to Palmer Grove Church Road.
- F.7.2: Prior to construction of a four-lane US 70 facility, widen the shoulders on US 70 Business from NC 86 to Palmer Grove Church Road to provide a minimum 5-foot paved shoulder with bicycle pattern rumble strips.
- Slow automobile traffic throughout the corridor (*Objective A.8/B.10/C.10/D.9/E.3/F.8*).
  - A.8.1/B.10.1: Reduce posted speed limit on US 70 to 35 miles per hour between McBane Store Road and NC 751.
  - C.10.1: Reduce posted speed limit on US 70 to 35 miles per hour between McBane Store Road and NC 751.
  - C.10.2: Reduce posted speed limit on Faucette Mill Road to 35 miles per hour between the Hillsborough Town border and Frank Perry Road.
  - D.9.1: Reduce posted speed limit on US 70 to 35 miles per hour between McBane Store Road and NC 751.
  - D.9.2: Reduce posted speed limit on Lawrence Road to 35 miles per hour between US 70 and Palmers Grove Church Road.
  - E.3.1: Reduce posted speed limit on US 70 to 35 miles per hour between McBane Store Road and NC 751.
  - E.3.2: Reduce posted speed limit on Pleasant Green Road to 35 miles per hour from US 70 to Cole Mill Road.
  - E.3.3: Reduce posted speed limit on Cole Mill Road to 35 miles per hour from Pleasant Green Road to the Eno River State Park entrance.
- Extend sidewalk connectivity to anticipated growth areas (*Objective A.9/B.11/C.11/D.10/E.4/F.9*).
  - A.9.1/B.11.1/C.11.1/D.10.1/E.4.1/F.9.1: Establish a maintenance agreement between NCDOT and Orange County for new and existing pedestrian facilities on US 70.
  - A.9.2/B.11.2/C.11.2/D.10.1/E.4.1/F.9.1: Require developers building on land parcels fronting US 70 to either construct sidewalk along their frontages, dedicate ROW for future construction, or pay in lieu.
- Enhance downtown Mebane's sense of place (*Objective A.11*).
  - A.11.1: Invest in streetscaping projects between Charles and Ninth Streets.
  - A.11.2: Decrease the speed limit to 25 mph between Charles and Ninth Streets.
- Complete the sidewalk contiguity in downtown Mebane (*Objective A.12*).
  - A.12.1: Maintain existing sidewalk on US 70's north side between Mebane Community Park and 9<sup>th</sup> Street.
  - A.12.2: Combine and minimize curb cuts and wide, flush frontages as parcels redevelop.
- Construct accessible bus shelters that serve Efland's residential communities (*Objective B.7*).

- B.7.1: Add accessible, safe bus shelters with appropriate pedestrian connectivity either side of US 70 that serve communities near Ashwick Drive.
- B.7.2: Add accessible, safe bus shelters with appropriate pedestrian connectivity either side of US 70 that serve the Graham Trailer Park.
- Construct paired bus stops across US 70 from existing facilities (*Objective C.7*).
  - C.7.1: Add an accessible, safe bus shelter with appropriate pedestrian connectivity across US 70 from the existing North Carolina Drivers License stop.
  - C.7.2: Add an accessible, safe bus shelter with appropriate pedestrian connectivity across US 70 from the existing Faucette Mill Road/Cornelius Street stop.
  - C.7.3: Add an accessible, safe bus shelter with appropriate pedestrian connectivity across US 70 from the existing US 70/Rainey Avenue stop.
- Construct accessible bus shelters that serve Hillsborough's residential communities (*Objective C.8/D.7/F.6*).
  - C.8.1: Replace Lakeshore Drive stop with a stop serving Bennetts Mobile Home Park and surrounding communities.
  - D.7.1: Add an accessible, safe bus shelter with appropriate pedestrian connectivity on Miller Road.
  - D.7.2: Add an accessible, safe bus shelter with appropriate pedestrian connectivity on Scotswood Boulevard.
  - F.6.1: Add an accessible, safe bus shelter with appropriate pedestrian connectivity near Orange Grove Road and Elfin Boulevard.
- Construct accessible bus shelters that serve Hillsborough's employment centers (*Objective D.6/F.5*)
  - D.6.1: Add an accessible, safe bus shelter with appropriate pedestrian connectivity on Orange High School Road that serves Orange High School.
  - F.5.1: Add an accessible, safe bus shelter with appropriate pedestrian connectivity near NC 86 and Cornerstone Court.

### 5.1.3.2 Goal 7: Work towards Vision Zero.

To achieve Goal 7, improvement projects should:

- Accommodate all transportation modes in roadway improvement projects (*Objective A.7/B.8/C.9/D.8/E.2/F.7*).
  - A.7.1: Construct a minimum 5-foot sidewalk on north side of US 70 from 9<sup>th</sup> Street to Ashbury Blvd.
  - A.7.2: Include a 10-foot shared-use path on the north side and a 5-foot sidewalk on the south side of US 70 from McBane Store Road to Buckhorn Road to accompany the long-term typical section widening; install bicycle pattern rumble strips in the short-term.
  - B.8.1: Include a 10-foot shared-use path on the north side and a 5-foot sidewalk on the south side of US 70 from Buckhorn Road to Lloyds Dairy Road to accompany the long-term typical section widening; install bicycle pattern rumble strips in the short-term.
  - B.8.2: Install high visibility signs along US 70 indicating presence of cyclists between Tinnin Road and Gaines Chapel Road.
  - B.8.3: Revise the US 70/Buckhorn Road realignment to include a 5-foot paved shoulder with bicycle pattern rumble strips.

- C.9.1: Include a 10-foot shared-use path on the north side and a 5-foot sidewalk on the south side of US 70 from Lloyd's Dairy Road to NC 86.
- D.8.1: Include a 10-foot shared-use path on the north side and a 5-foot sidewalk on the south side of US 70 from NC 86 to Palmers Grove Church Road.
- E.2.1: Include a 10-foot shared-use path on the north side and a 5-foot sidewalk on the south side of US 70 from Palmers Grove Church Road to NC 751; in the short term, widen shoulders to accommodate minimum 5-foot paved shoulder with bicycle pattern rumble strips.
- F.7.1: Construct 5-foot sidewalks on the north and south sides of US 70 Business from NC 86 to Palmer Grove Church Road.
- F.7.2: Prior to construction of a four-lane US 70 facility, widen the shoulders on US 70 Business from NC 86 to Palmer Grove Church Road to provide a minimum 5-foot paved shoulder with bicycle pattern rumble strips.
- Slow automobile traffic throughout the corridor (*Objective A.8/B.10/C.10/D.9/E.3/F.8*).
  - A.8.1/B.10.1: Reduce posted speed limit on US 70 to 35 miles per hour between McBane Store Road and NC 751.
  - C.10.1: Reduce posted speed limit on US 70 to 35 miles per hour between McBane Store Road and NC 751.
  - C.10.2: Reduce posted speed limit on Faucette Mill Road to 35 miles per hour between the Hillsborough Town border and Frank Perry Road.
  - D.9.1: Reduce posted speed limit on US 70 to 35 miles per hour between McBane Store Road and NC 751.
  - D.9.2: Reduce posted speed limit on Lawrence Road to 35 miles per hour between US 70 and Palmers Grove Church Road.
  - E.3.1: Reduce posted speed limit on US 70 to 35 miles per hour between McBane Store Road and NC 751.
  - E.3.2: Reduce posted speed limit on Pleasant Green Road to 35 miles per hour from US 70 to Cole Mill Road.
  - E.3.3: Reduce posted speed limit on Cole Mill Road to 35 miles per hour from Pleasant Green Road to the Eno River State Park entrance.
- Modernize existing US 70 pedestrian crossings in downtown Mebane (*Objective A.10*).
  - A.10.1: Modernize the US 70/3<sup>rd</sup> Street intersection with accessible pedestrian signal heads/pedestals on all corners, leading pedestrian intervals, no right turn on red restrictions, and high-visibility markings.
  - A.10.2: Modernize the US 70/4<sup>th</sup> Street intersection with accessible pedestrian signal heads/pedestals on all corners, leading pedestrian intervals, no right turn on red restrictions, and high-visibility markings.
  - A.10.3: Modernize the US 70/5<sup>th</sup> Street intersection with accessible pedestrian signal heads/pedestals on all corners, leading pedestrian intervals, no right turn on red restrictions, and high-visibility markings. Coordinate with NCDOT and NCRRT to refine design of T-550GC as shown in Mebane's *5<sup>th</sup> Street Improvement Traffic Impact Study* (August 2022) to maintain three-lane northbound approach and crosswalk/sidewalk design on the east side, and replicate that design on the west side.
- Enhance downtown Mebane's sense of place (*Objective A.11*).
  - A.11.1: Invest in streetscaping projects between Charles and Ninth Streets.

- A.11.2: Decrease the speed limit to 25 mph between Charles and Ninth Streets.
- Construct paired bus stops across US 70 from existing facilities (*Objective C.7*).
  - C.7.1: Add an accessible, safe bus shelter with appropriate pedestrian connectivity across US 70 from the existing North Carolina Drivers License stop.
  - C.7.2: Add an accessible, safe bus shelter with appropriate pedestrian connectivity across US 70 from the existing Faucette Mill Road/Cornelius Street stop.
  - C.7.3: Add an accessible, safe bus shelter with appropriate pedestrian connectivity across US 70 from the existing US 70/Rainey Avenue stop.
- Improve the safety of pedestrian facilities in the Fairview Neighborhood (*Objective C.12*).
  - C.12.1: Install high-visibility pedestrian crossing signage at the Faucette Mill Road/Torain Street intersection.
  - C.12.2: Include high-visibility crossings in all future sidewalk construction on Faucette Mill Road, Torain Street, and Rainey Avenue where the pedestrian network would otherwise be interrupted by roadway.
  - C.12.3: Install high-visibility pedestrian crossing signage and pedestrian pads at the Rainey Avenue/Torain Street intersection.
- Establish gateways to Hillsborough (*Objective C.13/D.11/F.10*).
  - C.13.1: Upgrade the US 70/Lakeshore Drive intersection to a roundabout.
  - D.11.1: Upgrade the intersection of US 70, US 70 Business, and Palmer's Grove Church Road to a roundabout.
  - F.10.1: Invest in streetscaping projects on US 70 Business from Tuscarora Drive to US 70 Bypass.
- Improve the permeability of US 70 within Hillsborough (*Objective C.14/D.12*).
  - C.14.1: Construct shared-use path along the east side of NC 86 from US 70 to Corbin Street.
  - C.14.2: Modernize the US 70/Faucette Mill Road intersection with accessible pedestrian signal heads/pedestals on all corners, leading pedestrian intervals, no right turn on red restrictions, and high-visibility markings.
  - C.14.3: Modernize the US 70/NC 86 intersection with pedestrian refuge islands, accessible pedestrian signal heads/pedestals on all corners, leading pedestrian intervals, no right turn on red restrictions, and high-visibility markings.
  - D.12.1: Construct sidewalk and protected bicycle route on the entirety of Orange High School Road; connect to Caine Street across US 70 along parcel lines.
  - D.12.2: Modernize the US 70/Orange High School Road intersection with accessible pedestrian signal heads/pedestals on all corners, leading pedestrian intervals, no right turn on red restrictions, and high-visibility markings.
  - D.12.3: Modernize the US 70/Lawrence Road intersection with accessible pedestrian signal heads/pedestals on all corners, leading pedestrian intervals, no right turn on red restrictions, and high-visibility markings.
- Prepare east Orange County for smart growth (*Objective E.5*).

- E.5.1: Construct reduced conflict intersection configurations from Palmers Grove Church Road to the I-85 interchange.
- E.5.2: Invest in streetscaping projects on US 70 south of I 85.
- Designate wildlife crossings where animal strikes are high (*Objective E.8*).
  - E.8.1: Develop location for a designated wildlife crossing of US 70 between Seven Springs Road and Linden Road.

### 5.1.3.3 Goal 8: Reduce pedestrian-automobile conflicts.

To achieve Goal 8, improvement projects should:

- Accommodate all transportation modes in roadway improvement projects (*Objective A.7/B.8/C.9/D.8/E.2/F.7*).
  - A.7.1: Construct a minimum 5-foot sidewalk on north side of US 70 from 9<sup>th</sup> Street to Ashbury Blvd.
  - A.7.2: Include a 10-foot shared-use path on the north side and a 5-foot sidewalk on the south side of US 70 from McBane Store Road to Buckhorn Road to accompany the long-term typical section widening; install bicycle pattern rumble strips in the short-term.
  - B.8.1: Include a 10-foot shared-use path on the north side and a 5-foot sidewalk on the south side of US 70 from Buckhorn Road to Lloyds Dairy Road to accompany the long-term typical section widening; install bicycle pattern rumble strips in the short-term.
  - B.8.2: Install high visibility signs along US 70 indicating presence of cyclists between Tinnin Road and Gaines Chapel Road.
  - B.8.3: Revise the US 70/Buckhorn Road realignment to include a 5-foot paved shoulder with bicycle pattern rumble strips.
  - C.9.1: Include a 10-foot shared-use path on the north side and a 5-foot sidewalk on the south side of US 70 from Lloyd's Dairy Road to NC 86.
  - D.8.1: Include a 10-foot shared-use path on the north side and a 5-foot sidewalk on the south side of US 70 from NC 86 to Palmers Grove Church Road.
  - E.2.1: Include a 10-foot shared-use path on the north side and a 5-foot sidewalk on the south side of US 70 from Palmers Grove Church Road to NC 751; in the short term, widen shoulders to accommodate minimum 5-foot paved shoulder with bicycle pattern rumble strips.
  - F.7.1: Construct 5-foot sidewalks on the north and south sides of US 70 Business from NC 86 to Palmer Grove Church Road.
  - F.7.2: Prior to construction of a four-lane US 70 facility, widen the shoulders on US 70 Business from NC 86 to Palmer Grove Church Road to provide a minimum 5-foot paved shoulder with bicycle pattern rumble strips.
- Extend sidewalk connectivity to anticipated growth areas (*Objective A.9/B.11/C.11/D.10/E.4/F.9*).
  - A.9.1/B.11.1/C.11.1/D.10.1/E.4.1/F.9.1: Establish a maintenance agreement between NCDOT and Orange County for new and existing pedestrian facilities on US 70.
  - A.9.2/B.11.2/C.11.2/D.10.1/E.4.1/F.9.1: Require developers building on land parcels fronting US 70 to either construct sidewalk along their frontages, dedicate ROW for future construction, or pay in lieu.
- Modernize existing US 70 pedestrian crossings in downtown Mebane (*Objective A.10*).

- A.10.1: Modernize the US 70/3<sup>rd</sup> Street intersection with accessible pedestrian signal heads/pedestals on all corners, leading pedestrian intervals, no right turn on red restrictions, and high-visibility markings.
- A.10.2: Modernize the US 70/4<sup>th</sup> Street intersection with accessible pedestrian signal heads/pedestals on all corners, leading pedestrian intervals, no right turn on red restrictions, and high-visibility markings.
- A.10.3: Modernize the US 70/5<sup>th</sup> Street intersection with accessible pedestrian signal heads/pedestals on all corners, leading pedestrian intervals, no right turn on red restrictions, and high-visibility markings. Coordinate with NCDOT and NCRR to refine design of T-550GC as shown in Mebane's *5<sup>th</sup> Street Improvement Traffic Impact Study* (August 2022) to maintain three-lane northbound approach and crosswalk/sidewalk design on the east side, and replicate that design on the west side.
- Complete the sidewalk contiguity in downtown Mebane (*Objective A.12*).
  - A.12.1: Maintain existing sidewalk on US 70's north side between Mebane Community Park and 9<sup>th</sup> Street.
  - A.12.2: Combine and minimize curb cuts and wide, flush frontages as parcels redevelop.
- Construct paired bus stops across US 70 from existing facilities (*Objective C.7*).
  - C.7.1: Add an accessible, safe bus shelter with appropriate pedestrian connectivity across US 70 from the existing North Carolina Drivers License stop.
  - C.7.2: Add an accessible, safe bus shelter with appropriate pedestrian connectivity across US 70 from the existing Faucette Mill Road/Cornelius Street stop.
  - C.7.3: Add an accessible, safe bus shelter with appropriate pedestrian connectivity across US 70 from the existing US 70/Rainey Avenue stop.
- Improve the safety of pedestrian facilities in the Fairview Neighborhood (*Objective C.12*).
  - C.12.1: Install high-visibility pedestrian crossing signage at the Faucette Mill Road/Torain Street intersection.
  - C.12.2: Include high-visibility crossings in all future sidewalk construction on Faucette Mill Road, Torain Street, and Rainey Avenue where the pedestrian network would otherwise be interrupted by roadway.
  - C.12.3: Install high-visibility pedestrian crossing signage and pedestrian pads at the Rainey Avenue/Torain Street intersection.
- Improve the permeability of US 70 within Hillsborough (*Objective C.14/D.12*).
  - C.14.1: Construct shared-use path along the east side of NC 86 from US 70 to Corbin Street.
  - C.14.2: Modernize the US 70/Faucette Mill Road intersection with accessible pedestrian signal heads/pedestals on all corners, leading pedestrian intervals, no right turn on red restrictions, and high-visibility markings.
  - C.14.3: Modernize the US 70/NC 86 intersection with pedestrian refuge islands, accessible pedestrian signal heads/pedestals on all corners, leading pedestrian intervals, no right turn on red restrictions, and high-visibility markings.
  - D.12.1: Construct sidewalk and protected bicycle route on the entirety of Orange High School Road; connect to Caine Street across US 70 along parcel lines.
  - D.12.2: Modernize the US 70/Orange High School Road intersection with accessible pedestrian signal heads/pedestals on all corners, leading pedestrian intervals, no right turn on red restrictions, and high-visibility markings.

- D.12.3: Modernize the US 70/Lawrence Road intersection with accessible pedestrian signal heads/pedestals on all corners, leading pedestrian intervals, no right turn on red restrictions, and high-visibility markings.



## 5.1.4 Job Access Plan

### 5.1.4.1 Goal 9: Improve multimodal access to jobs within the corridor.

To achieve Goal 9, improvement projects should:

- Construct accessible bus shelters that serve Mebane's employment centers (*Objective A.4*).
  - A.4.1: Add two accessible, safe bus shelters with appropriate pedestrian connectivity that serve businesses on Oakwood Street and Industrial Drive.
- Construct accessible bus shelters that serve Mebane's residential communities (*Objective A.6*).
  - A.6.1: Add accessible, safe bus shelters either side of US 70 with appropriate pedestrian connectivity that serves the Supper Club mobile home community.
  - A.6.2: Add an accessible, safe bus shelter with appropriate pedestrian connectivity across US 70 from the existing Ashbury Blvd. stop.
- Expand transit by partnerships with service providers in Alamance county (*Objective A.13*).
  - A.13.1: Incorporate planned stops at Oakwood Street and Industrial Drive into the future Mebane Circulator route.
  - A.13.2: Expand transit service offerings, such as on-demand service, for Mebane's suburbs, specifically to align with fixed route buses in Alamance County.
- Expand transit by partnerships with service providers in Orange County (*Objective A.14/B.12/C.15/D.13/E.5/F.11*).
  - A.14.1: Extend Orange-Alamance Connector service to the planned Mebane Community Park and Supper Club Road mobile home community stops.
  - A.14.2: Expand transit service offerings, such as on-demand service, for Mebane's suburbs, specifically to align with fixed route buses in Orange County.
  - A.14.3: Extend Orange-Alamance Connector service to existing Ashbury Boulevard stop.
  - B.12.1: Extend Orange-Alamance Connector service to the planned Ashwick Drive, Graham Trailer Park, and Mebane Memorial Garden stops.
  - B.12.3: Introduce and expand on-demand transit services for rural communities around Efland, specifically to align with fixed route buses.
  - C.15.1: Extend Orange-Alamance Connector service to the existing Faucette Mill/Cornelius Street, Hillsborough Police Station, and West Village stops.
  - C.15.2: Reroute Hillsborough Circulator from Lakeshore Drive to Hill Avenue, and service new stop at Bennetts Mobile Home Park.
  - C.15.3: Extend Hillsborough Circulator service to the existing North Carolina Drivers License stop.
  - C.15.4: Introduce and expand on-demand transit services for Fairview, job centers north along NC 86, and West Hillsborough, specifically to align with fixed route buses.

- D.13.1: Extend Hillsborough Circulator service to the planned Miller Road, Orange High School Road, and Scotswood Boulevard stops.
- D.13.2: Reroute Hillsborough Circulator along Orange High School Road, Miller Road, Woodlawn Drive, and Scotswood Boulevard to service planned stops between the existing US 70/Walgreens and Scotswood/US 70 stops.
- D.13.3: Introduce and expand on-demand transit services for communities adjacent to Palmers Grove Church Road, specifically to align with fixed route buses.
- E.6.1: Introduce and expand on-demand transit services for rural communities east of Piney Grove, specifically to align with fixed route buses.
- F.11.1: Extend Hillsborough Circulator service to the planned Cornerstone Court and Orange Grove Road stops.
- F.11.2: Shift partnerships with service providers in Orange County to the new US 70 Business location proposed in the *NC 86 Connector Study, Phase II (2021)*.
- Construct accessible bus shelters that serve Efland’s residential communities (*Objective B.7*).
  - B.7.1: Add accessible, safe bus shelters with appropriate pedestrian connectivity either side of US 70 that serve communities near Ashwick Drive.
  - B.7.2: Add accessible, safe bus shelters with appropriate pedestrian connectivity either side of US 70 that serve the Graham Trailer Park.
- Introduce and expand park and ride service (*Objective C.2/D.2*).
  - C.2.1: Implement the Faucette Mill Road park and ride service proposed in the *DCHCMPO CTP* (updated April 2023).
  - D.2.1: Implement the Miller Road/Latta Road park and ride service proposed in the *DCHCMPO CTP* (updated April 2023).
- Construct accessible bus shelters that serve Hillsborough’s residential communities (*Objective C.8/D.7/F.6*).
  - C.8.1: Replace Lakeshore Drive stop with a stop serving Bennetts Mobile Home Park and surrounding communities.
  - D.7.1: Add an accessible, safe bus shelter with appropriate pedestrian connectivity on Miller Road.
  - D.7.2: Add an accessible, safe bus shelter with appropriate pedestrian connectivity on Scotswood Boulevard.
  - F.6.1: Add an accessible, safe bus shelter with appropriate pedestrian connectivity near Orange Grove Road and Elfin Boulevard.
- Improve bicycle connectivity between residential and commercial centers in Hillsborough (*Objective C.16/D.14/F.12*).
  - C.16.1: Add sharrows and signage to establish bike route on Torain Street between Faucette Mill Road and Rainey Avenue.
  - C.16.2: Add sharrows and signage to establish east-west bike route through Fairview Park from Rainey Avenue to NC 86.
  - C.16.3: Add sharrows and signage to establish a bicycle route on Hayes and Union Streets from West King Street to Cameron Street.

- C.16.4: Add sharrows and signage to establish a bicycle route on Churton Street between Union Street and Margaret Lane.
- Construct accessible bus shelters that serve Hillsborough’s employment centers (*Objective D.6/F.5*).
  - D.6.1: Add an accessible, safe bus shelter with appropriate pedestrian connectivity on Orange High School Road that serves Orange High School.
  - F.5.1: Add an accessible, safe bus shelter with appropriate pedestrian connectivity near NC 86 and Cornerstone Court.

#### 5.1.4.2 Goal 10: Improve multimodal access to job outside the corridor.

To achieve Goal 10, improvement projects should:

- Construct accessible bus shelters that serve Mebane’s residential communities (*Objective A.6*).
  - A.6.1: Add accessible, safe bus shelters either side of US 70 with appropriate pedestrian connectivity that serves the Supper Club mobile home community.
  - A.6.2: Add an accessible, safe bus shelter with appropriate pedestrian connectivity across US 70 from the existing Ashbury Blvd. stop.
- Expand regional transit services to residential centers in the corridor (*Objective A.16/B.13/C.17/F.13*).
  - A.16.1: Extend ODX service to the planned Supper Club Road mobile home community stop.
  - B.13.1: Extend ODX service to the planned Ashwick Drive and Graham Trailer Park mobile home community stops.
  - C.17.1: Extend ODX service to the existing Faucette Mill Road/Cornelius Street, US 70/Rainey Street, and West Village stops.
  - F.13.1: Shift regional transit services to the new US 70 Business location proposed in the *NC 86 Connector Study, Phase II (2021)*.
- Construct accessible bus shelters that serve Efland’s residential communities (*Objective B.7*).
  - B.7.1: Add accessible, safe bus shelters with appropriate pedestrian connectivity either side of US 70 that serve communities near Ashwick Drive.
  - B.7.2: Add accessible, safe bus shelters with appropriate pedestrian connectivity either side of US 70 that serve the Graham Trailer Park.
- Introduce and expand park and ride service (*Objective C.2*).
  - C.2.1: Implement the Faucette Mill Road park and ride service proposed in the *DCHCMPO CTP* (updated April 2023).
  - D.2.1: Implement the Miller Road/Latta Road park and ride service proposed in the *DCHCMPO CTP* (updated April 2023).



### 5.1.5 Natural Environment Plan

#### 5.1.5.1 Goal 11: Improve multimodal access to parks throughout the corridor.

To achieve Goal 11, improvement projects should:

- Connect Eno River State Park to US via bicycle infrastructure (*Objective D.15/E.7*).
  - D.15.1: Add sharrows and signage to establish bike route on Lawrence Road from US 70 to Palmers Grove Church Road.
  - E.7.1: Construct protected bike lane on Pleasant Green Road from US 70 to Cole Mill Road.
  - E.7.2: Add sharrows and signage to establish bike route on Cole Mill Road from Pleasant Green Road to the Eno River State Park entrance.
- Further connect the trail system to the urban active transportation network (*Objective F.14*).
  - F.14.1: Connect Mountains-to-Sea trail to US Business with a shared-use path via Elizabeth Brady Road.

**5.1.5.2 Goal 12: Reduce wildlife-automobile conflicts.**

To achieve Goal 12, improvement projects should:

- Designate wildlife crossings where animal strikes are high (*Objective E.8*).
  - E.8.1: Develop location for a designated wildlife crossing of US 70 between Seven Springs Road and Linden Road.

**5.1.5.3 Goal 13: Ensure long term protection of local watersheds.**

To achieve Goal 13, improvement projects should:

- Require best management practices (BMPs) with regard to erosion control and hydraulic design in future transportation and land development projects (*Objective A.17/B.14/C.18/D.16/E.9/F.15*).
  - A.17.1: Require best management practices (BMPs) with regard to erosion control and hydraulic design in future transportation and land development projects.

**5.1.6 Objectives Summary by Segment**

**Table 21 Segment A Objectives**

A.1: Establish alternative east-west bicycle routes to US 70 between Mebane and Hillsborough.
A.2: Improve bus service reliability.
A.3: Improve accessibility of existing bus stops.
A.4: Construct accessible bus shelters that serve Mebane’s employment centers.
A.5: Construct accessible bus shelters that serve Mebane’s recreation destinations.
A.6: Construct accessible bus shelters that serve Mebane’s residential communities.
A.7: Accommodate all transportation modes in roadway improvement projects.
A.8: Slow automobile traffic throughout the corridor.
A.9: Extend sidewalk connectivity to anticipated growth areas.
A.10 Modernize existing US 70 pedestrian crossing in downtown Mebane.
A.11 Enhance downtown Mebane’s sense of place.
A.12: Complete the sidewalk contiguity in downtown Mebane.
A.13: Expand transit by partnerships with service providers in Alamance County.

- A.14: Expand transit by partnerships with service providers in Orange County.
- A.15: Reduce automobile congestion delay in response to projected traffic demand growth along the corridor.
- A.16: Expand regional transit services to residential centers in the corridor.
- A.17: Ensure long term protection of local watersheds.

**Table 22 Segment B Objectives**

- B.1: Reduce automobile congestion delay times in response to projected traffic demand growth through the corridor.
- B.2: Improve access between US 70 and I 40/I 85.
- B.3: Manage travel demand for future development in the Efland-Buckhorn-Mebane economic development area.
- B.4: Establish alternative east-west bicycle routes to US 70 between Mebane and Hillsborough.
- B.5: Improve bus service reliability.
- B.6: Improve accessibility of existing bus stops.
- B.7: Construct accessible bus shelters that serve Efland’s residential communities.
- B.8: Accommodate all transportation modes in roadway improvement projects.
- B.10: Slow automobile traffic throughout the corridor.
- B.11: Extend sidewalk connectivity to anticipated growth areas.
- B.12: Expand transit by partnerships with service providers in Orange County.
- B.13: Expand regional transit services to residential centers in the corridor.
- B.14: Ensure long term protection of local watersheds.

**Table 23 Segment C Objectives**

- C.1: Reduce automobile congestion delay times in response to projected traffic demand growth through the corridor.
- C.2: Introduce and expand park and ride services.
- C.3: Expand regional transit access to job centers.
- C.4: Establish alternative east-west bicycle routes to US 70 between Mebane and Hillsborough.
- C.5: Improve bus service reliability.
- C.6: Improve accessibility of existing bus stops.
- C.7: Construct paired bus stops across US 70 from existing facilities.
- C.8: Construct accessible bus shelters that serve Hillsborough’s residential communities.
- C.9: Accommodate all transportation modes in roadway improvement projects.
- C.10: Slow automobile traffic throughout the corridor.
- C.11: Extend sidewalk connectivity to anticipated growth areas.
- C.12: Improve the safety of pedestrian facilities in the Fairview Neighborhood.
- C.13: Establish gateways to Hillsborough.

C.14: Improve the permeability of US 70 as a barrier within Hillsborough.
C.15: Expand transit by partnerships with service providers in Orange County.
C.16: Improve bicycle connectivity between residential and commercial centers in Hillsborough.
C.17: Expand regional transit services to residential centers in the corridor.
C.18: Ensure long term protection of local watersheds.

**Table 24 Segment D Objectives**

D.1: Reduce automobile congestion delay times in response to projected traffic demand growth through the corridor.
D.2: Introduce and expand park and ride services.
D.3: Manage travel demand resulting from trips to and from schools.
D.4: Improve bus service reliability.
D.5: Improve accessibility of existing bus stops.
D.6: Construct accessible bus shelters that serve Hillsborough’s employment centers.
D.7: Construct accessible bus shelters that serve Hillsborough’s residential communities.
D.8: Accommodate all transportation modes in roadway improvement projects.
D.9: Slow automobile traffic throughout the corridor.
D.10: Extend sidewalk connectivity to anticipated growth areas.
D.11: Establish gateways to Hillsborough.
D.12: Improve the permeability of US 70 as a barrier within Hillsborough.
D.13: Expand transit by partnerships with service providers in Orange County.
D.14: Improve bicycle connectivity between residential and commercial centers in Hillsborough.
D.15: Connect Eno River State Park to US 70 via bicycle infrastructure.
D.16: Ensure long term protection of local watersheds.

**Table 24 Segment E Objectives**

E.1: Reduce automobile congestion delay times in response to projected traffic demand growth through the corridor.
E.2: Accommodate all transportation modes in roadway improvement projects.
E.3: Slow automobile traffic throughout the corridor.
E.4: Extend sidewalk connectivity to anticipated growth areas.
E.5 Prepare east Orange County for smart growth.
E.6: Expand transit by partnerships with service providers in Orange County.
E.7: Connect Eno River State Park to US 70 via bicycle infrastructure.

E.8: Designate wildlife crossings where animal strikes are high.

E.9: Ensure long term protection of local watersheds.

**Table 25 Segment F Objectives**

F.1: Reduce automobile congestion delay times in response to projected traffic demand growth through the corridor.

F.2: Improve access between US 70 and I 40/I 85

F.3: Improve bus service reliability.

F.4: Improve accessibility of existing bus stops.

F.5: Construct accessible bus shelters that serve Hillsborough’s employment centers.

F.6: Construct accessible bus shelters that serve Hillsborough’s residential communities.

F.7: Accommodate all transportation modes in roadway improvement projects.

F.8.: Slow automobile traffic throughout the corridor.

F.9: Extend sidewalk connectivity to anticipated growth areas.

F.10: Establish gateways to Hillsborough.

F.11: Expand transit by partnerships with service providers in Orange County.

F.12: Improve bicycle connectivity between residential and commercial centers in Hillsborough.

F.13: Expand regional transit services to residential centers in the corridor.

F.14: Further connect the trail system to the urban active transportation network.

F.15: Ensure long term protection of local watersheds.

## 5.2 Roadway Improvements

### 5.2.1 Infrastructure Improvements

#### 5.2.1.1 Reduce automobile congestion delay times in response to project traffic demand growth through the corridor.

Population and job growth in the corridor is projected to generate significantly more car trips by 2050 than present conditions. Although US 70 currently experiences a high level of traffic service, the roadway does not have the capacity to absorb these additional trips without significantly increasing corridor congestion. Subsequent delay times would have implications for freight and emergency service travel, as well as everyday commuting and recreation. To offset this, this study proposes the following infrastructure projects, depicted in Figure 20:

- A.15.1: When US 70 is widened to a four-lane divided facility from McBane Store Road to Buckhorn Road, include multimodal facilities.
- B.1.1: When US 70 is widened to a four-lane divided facility from Buckhorn Road to Lloyds Dairy Road, include multimodal facilities.

- C.1.1: When US 70 is widened to a four-lane divided facility throughout Segment C, include multimodal facilities.
- D.1.1: When US 70 is widened to a four-lane divided facility throughout Segment D, include multimodal facilities.
- E.1.1: When US 70 is widened to a four-lane divided facility throughout Segment E, include multimodal facilities.

Relevant Plan Goals:



Goal 1: Manage increasing vehicular traffic congestion, including auto, EMS, and freight.

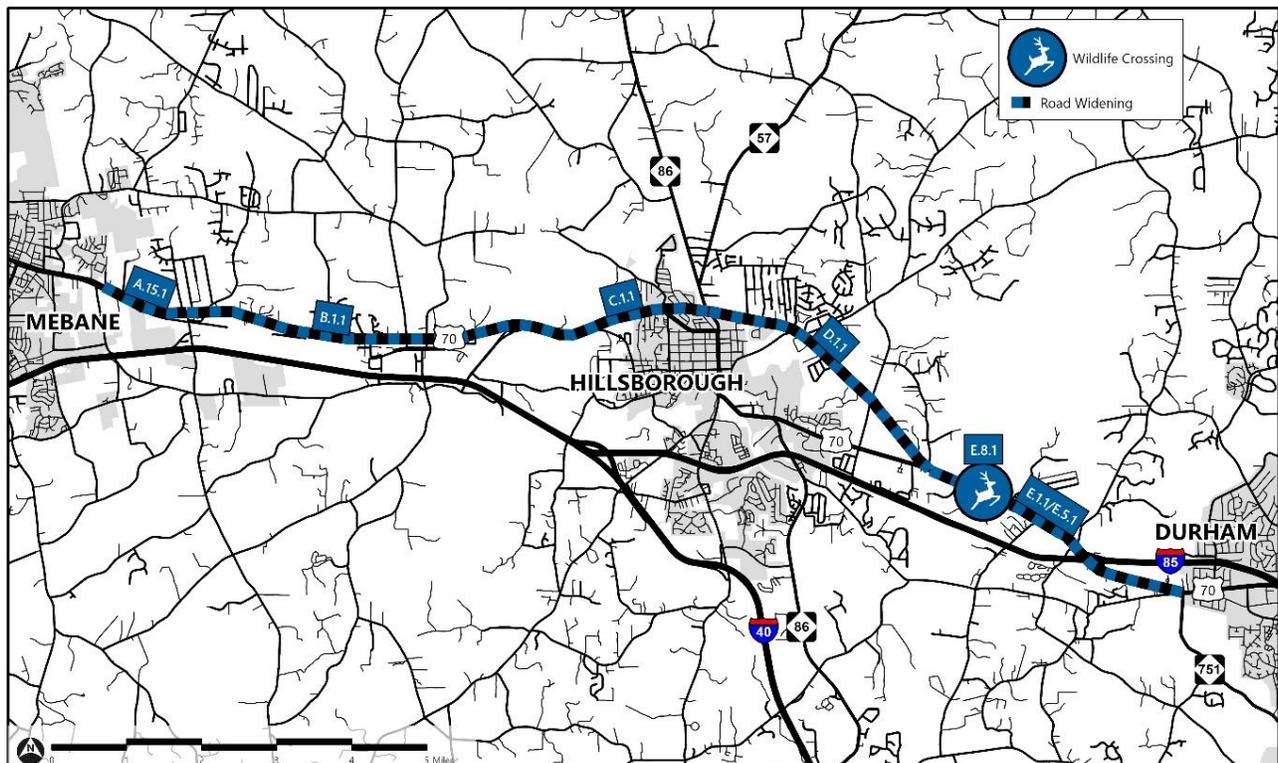


Figure 20 US 70 Recommended Roadway Infrastructure Improvements

5.2.1.2 Prepare east Orange County for smart growth.

With the populations of Durham and Hillsborough both growing, communities in-between need to be planned such that their unique character and economic opportunities do not suffer from their neighbors’ expansion. Reduced conflict intersections (RCI) can prepare the US 70 corridor for smart growth east Orange County. These configurations reduce the number of conflict points at intersections, improving traffic flow and enhancing the safety of pedestrians, bicyclists, and motorists. By implementing this policy now, US 70 will be able to safely accommodate increasing road user densities while managing traffic in configurations more suited for promoting economic activity in the segment. The following policy is depicted in **Error! Reference source not found.**:

- E.5.1: Construct reduced conflict intersection configurations from Palmers Grove Church Road to the I 85 interchange; consider left turn lane and/or roundabout configuration at University Station road as an interim measure.

*Relevant Plan Goals:*



Goal 4: Guide transportation investment to protect community character.



Goal 7: Work towards Vision Zero

### 5.2.1.3 Designate wildlife crossings where animal strikes are high.

The designated crossing in Figure 20 is located on US 70 between Seven Springs Road and Linden Road, where car accidents involving deer were reported at especially high rates. By erecting physical structures such as fencing, this improvement can guide deer to move in a predictable pattern. Signage on US 70 alerting drivers to the crossing will increase their awareness of possible deer interactions.

- E.8.1: Develop location for a designated wildlife crossing of US 70 between Seven Springs Road and Linden Road.

*Relevant Plan Goals:*



Goal 7: Work towards Vision Zero.



Goal 12: Reduce wildlife-automobile conflicts.

## 5.2.2 Traffic Operational Improvements

### 5.2.2.1 Reduce automobile congestion delay times in response to project traffic demand growth through the corridor.

As stated in Section 5.2.1, US 70 is not equipped to effectively absorb projected future car trips without significantly increasing corridor congestion. The following traffic improvements, depicted in Figure 21, will preempt this problem:

- C.1.2: Realign Revere Road approach to the US 70/Faucette Mill Road intersection; reroute Short Street accordingly.
- C.1.3: Construct/extend exclusive turn lanes on the west- and northbound approaches to the US 70/Faucette Mill Road intersection.
- C.1.4: Construct exclusive turning lanes at the US 70/NC 86 intersection, including dual eastbound left turn lanes from US 70 onto NC 86 northbound.
- D.1.2: Extend existing south- and westbound right turn lanes at the US 70/Orange High School Road intersection.
- D.1.3: Upgrade the US 70/N. Scotswood Blvd. intersection to a roundabout.
- E.1.2: Extend turn lanes at the US 70/NC 751 intersection.
- F.1.1: Upgrade the US 70 Business/Lawrence Road intersection to a traffic signal.
- F.1.2: Convert the US 70 Business/Elizabeth Brady Road intersection to a T-intersection with an adjacent roundabout at NC 86.
- F.1.3: Convert the existing traffic signal at the US 70 Business/NC 86 intersection to a roundabout, including pedestrian crossing markings and signage.

*Relevant Plan Goals:*



Goal 1: Manage increasing vehicular traffic congestion, including auto, EMS, and freight.

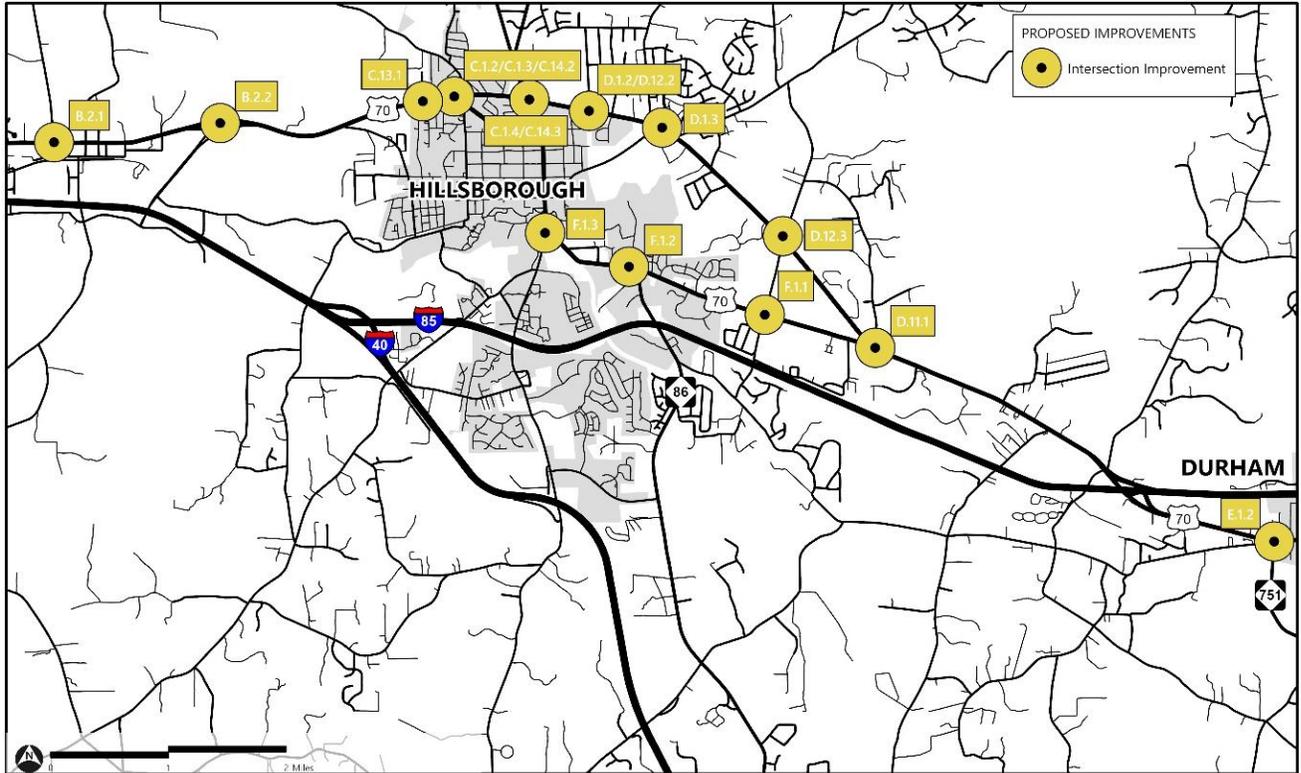


Figure 21 US 70 Recommended Traffic Operational Improvements

### 5.2.2.2 Improve access between US 70 and I 40/I 85.

As the number of those who live and work in the corridor increase, so too will travel to and from it. Running parallel to US 70, I 40/I 85 is the predominant regional connection to the study area. To manage the increasing road user density, the following recommendations, showed in Figure 21, will improve access between US 70 and I 40/I 85:

- B.2.1: Construct exclusive left- and right-turn lanes on all approaches at the US 70/Efland Cedar Grove Road intersection.
- B.2.2: Redesign the US 70/I 85 Connector interchange to a fully directional configuration, such as a “dogbone” roundabout.
- F.2.1: Implement the US 70 Business realignment proposed in the *NC 86 Connector Study, Phase II* (2021), built to complete street standards.

Relevant Plan Goals:



Goal 1: Manage increasing vehicular traffic congestion, including auto, EMS, and freight.

### 5.2.2.3 Establish gateways to Hillsborough.

US 70 lacks features that distinguish its Hillsborough segments, degrading the town's sense of place. Roundabouts offer an opportunity for beautification and placemaking while visually cuing drivers that they are entering an urban environment. Roundabouts also slow traffic and reduce conflict points, benefitting the safety of all users. The following improvements, depicted in Figure 21, will establish these gateways:

- C.13.1: Upgrade the US 70/Lakeshore Drive intersection to a roundabout.
- D.11.1: Upgrade the intersection of US 70, US 70 Business, and Palmer's Grove Church Road to a roundabout.

*Relevant Plan Goals:*



Goal 4: Guide transportation investment to protect community character.



Goal 7: Work towards Vision Zero.

## 5.2.3 Speed Policies

### 5.2.3.1 Slow automobile traffic throughout the corridor.

Reducing car speeds improves roadway user safety without increasing congestion. To improve multimodal transportation in the US 70 corridor, lowering the speed limit to 35 in the following locations, indicated in Figure 22, will complement the proposed bike/ped infrastructure:

- A.8.1: Reduce posted speed limit on US 70 to 35 miles per hour between McBane Store Road and Buckhorn Road.
- B.10.1: Reduce posted speed limit on US 70 to 35 miles throughout Segment B.
- C.10.1: Reduce posted speed limit on US 70 to 35 miles per hour throughout Segment C.
- C.10.2: Reduce posted speed limit on Faucette Mill Road to 35 miles per hour between the Hillsborough Town border and Frank Perry Road.
- D.9.1: Reduce posted speed limit on US 70 to 35 miles per hour throughout Segment D.
- D.9.2: Reduce posted speed limit on Lawrence Road to 35 miles per hour between US 70 and Palmers Grove Church Road.
- E.3.1: Reduce posted speed limit on US 70 to 35 miles per hour throughout Segment E.
- E.3.2: Reduce posted speed limit on Pleasant Green Road to 35 miles per hour from US 70 to Cole Mill Road.
- E.3.3: Reduce posted speed limit on Cole Mill Road to 35 miles per hour from Pleasant Green Road to the Eno River State Park entrance.
- F.8.1: Reduce posted speed limit on US 70 business to 35 miles per hour between NC 86 and US 70.

Relevant Goals:



Goal 6: Increase the comfort of non-automobile roadway users.



Goal 7: Work towards Vision Zero.

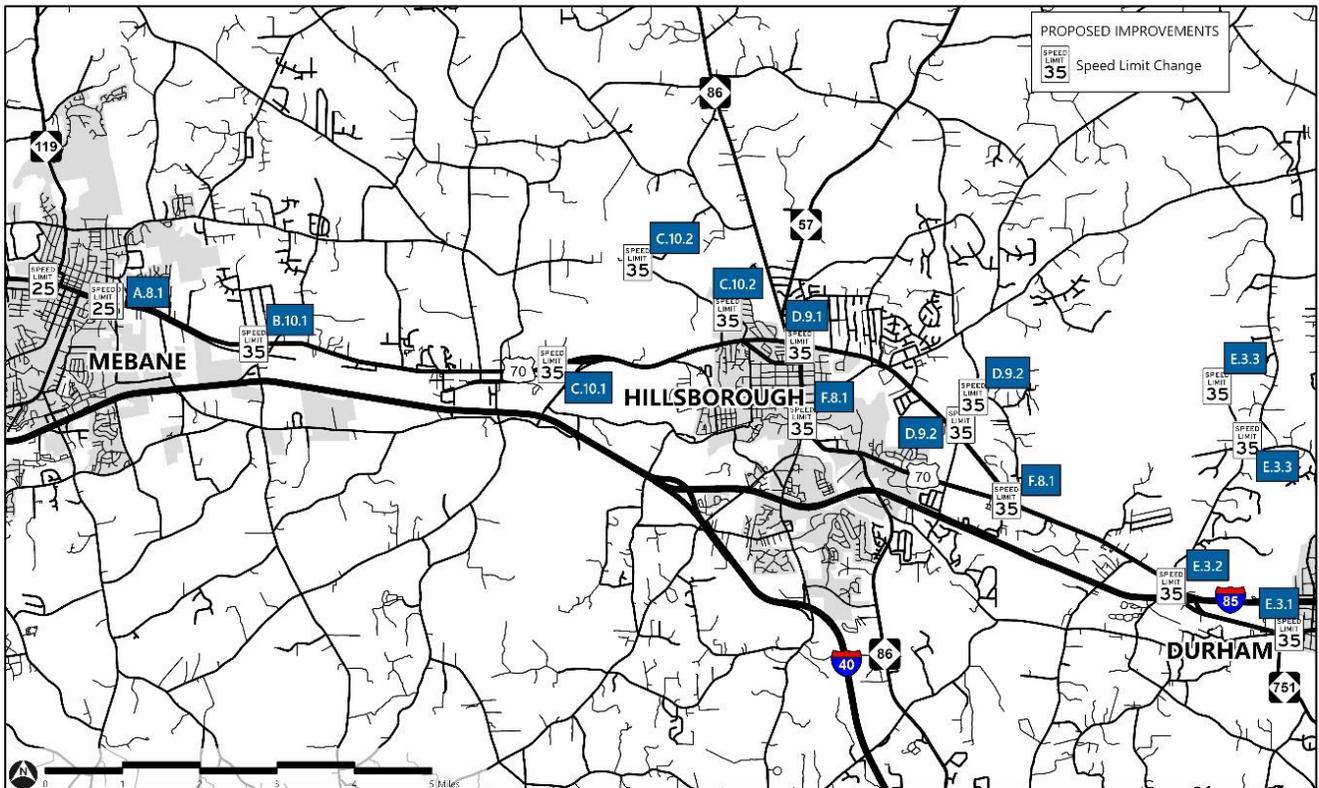


Figure 22 Speed Limit Changes

5.2.3.2 Enhance downtown Mebane’s sense of place.

With slower vehicle speeds, businesses along US 70 will experience more pedestrian traffic and more vibrant street life. The safer, quieter environment will enhance the attraction of downtown Mebane for socializing and commerce. This objective can be achieved with the following policy, shown in

Figure 23:

- A.11.2: Decrease the speed limit to 25 mph between Charles and Ninth Streets.

Relevant Goals:



Goal 4: Guide transportation investment to protect community character.



Goal 5: Prioritize pedestrian, bicycle, and transit connectivity within urban areas.



Goal 6: Increase the comfort of non-automobile roadway users.



Goal 7: Work towards Vision Zero.

## 5.2.4 Additional Policies

### 5.2.4.1 Manage travel demand for future development in the Efland-Buckhorn-Mebane economic development area.

To effectively manage the rapid growth in the Efland-Buckhorn-Mebane economic development area, the existing *Management Plan* must be updated on a regular basis:

- o B.3.1: Implement and regularly update the *Efland-Buckhorn-Mebane Access Management Plan* (updated 2019).

*Relevant Goals:*



Goal 1: Manage increasing vehicular traffic congestion, including auto, EMS, and freight.

### 5.2.4.2 Manage travel demand resulting from trips to and from schools.

School traffic is a leading cause of queuing in the corridor and is therefore a significant strain on US 70's capacity. A detailed school study will be required to fully evaluate mitigation strategies:

- o D.3.1: Conduct NCDOT Municipal School Transportation Assistance (MSTA) school study to address circulation, queuing, and storage needs specific to Orange High and Middle School complex.

*Relevant Goals:*



Goal 1: Manage increasing vehicular traffic congestion, including auto, EMS, and freight.

## 5.3 Bicycle and Pedestrian Improvements

### 5.3.1 US 70 Bike/Ped Improvements

#### 5.3.1.1 Accommodate all transportation modes in roadway improvement projects.

Widening US 70 results in the risk of the corridor becoming even more autocentric that it already is. To ensure multimodality, the roadway infrastructure projects outlined in Section 5.2 can be used as opportunities to also incorporate bike lanes, shared-use paths, and sidewalks:

- A.7.1: Construct a minimum 5-foot sidewalk on north side of US 70 from 9<sup>th</sup> Street to Ashbury Blvd.
- A.7.2: Include a 10-foot shared-use path on the north side and a 5-foot sidewalk on the south side of US 70 from McBane Store Road to Buckhorn Road to accompany the long-term typical section widening; install bicycle pattern rumble strips in the short-term.
- B.8.1: Include a 10-foot shared-use path on the north side and a 5-foot sidewalk on the south side of US 70 from Buckhorn Road to Lloyds Dairy Road to accompany the long-term typical section widening; install bicycle pattern rumble strips in the short-term.
- B.8.2 Install high visibility signs along US 70 indicating presence of cyclists between Tinnin Road and Gaines Chapel Road.
- B.8.3: Revise the US 70/Buckhorn Road realignment to include a 5-foot paved shoulder with bicycle pattern rumble strips.
- C.9.1: Include a 10-foot shared-use path on the north side and a 5-foot sidewalk on the south side of US 70 from Lloyd's Dairy Road to NC 86.
- D.8.1: Include a 10-foot shared-use path on the north side and a 5-foot sidewalk on the south side of US 70 from NC 86 to Palmers Grove Church Road.
- E.2.1: Include a 10-foot shared-use path on the north side and a 5-foot sidewalk on the south side of US 70 from Palmers Grove Church Road to NC 751; in the short term, widen shoulders to accommodate minimum 5-foot paved shoulder with bicycle pattern rumble strips.
- F.7.1: Construct 5-foot sidewalks on the north and south sides of US 70 Business from NC 86 to Palmer Grove Church Road.
- F.7.2: Widen the shoulders on US 70 Business from NC 86 to Palmer Grove Church Road to provide a minimum 5-foot paved shoulder with bicycle pattern rumble strips.

#### Relevant Goals:



Goal 2: Prioritize bicycle and pedestrian connectivity through the corridor.



Goal 6: Increase the comfort of non-automobile roadway users.



Goal 7: Work towards Vision Zero.



Goal 8: Reduce pedestrian-automobile conflicts.

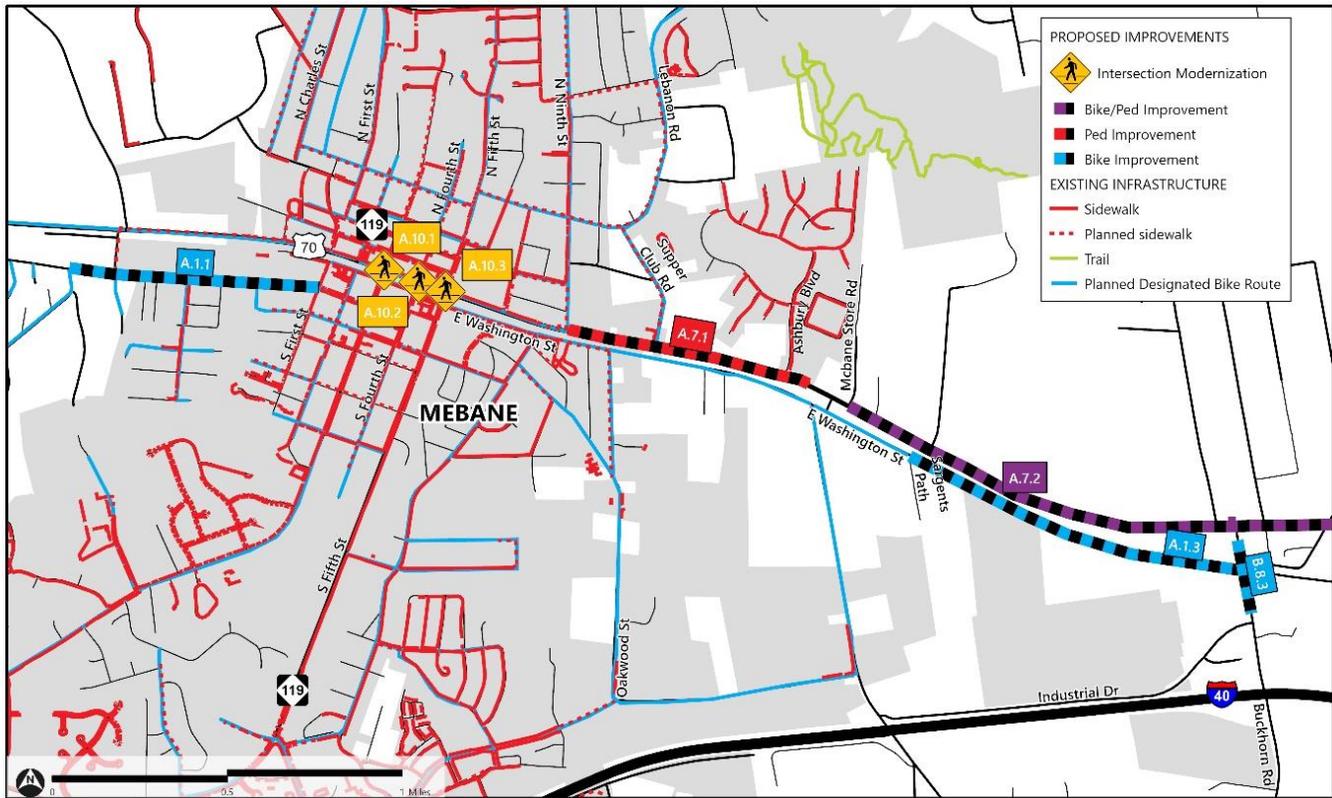


Figure 23 US 70 Bike/Ped Improvements, Segment A

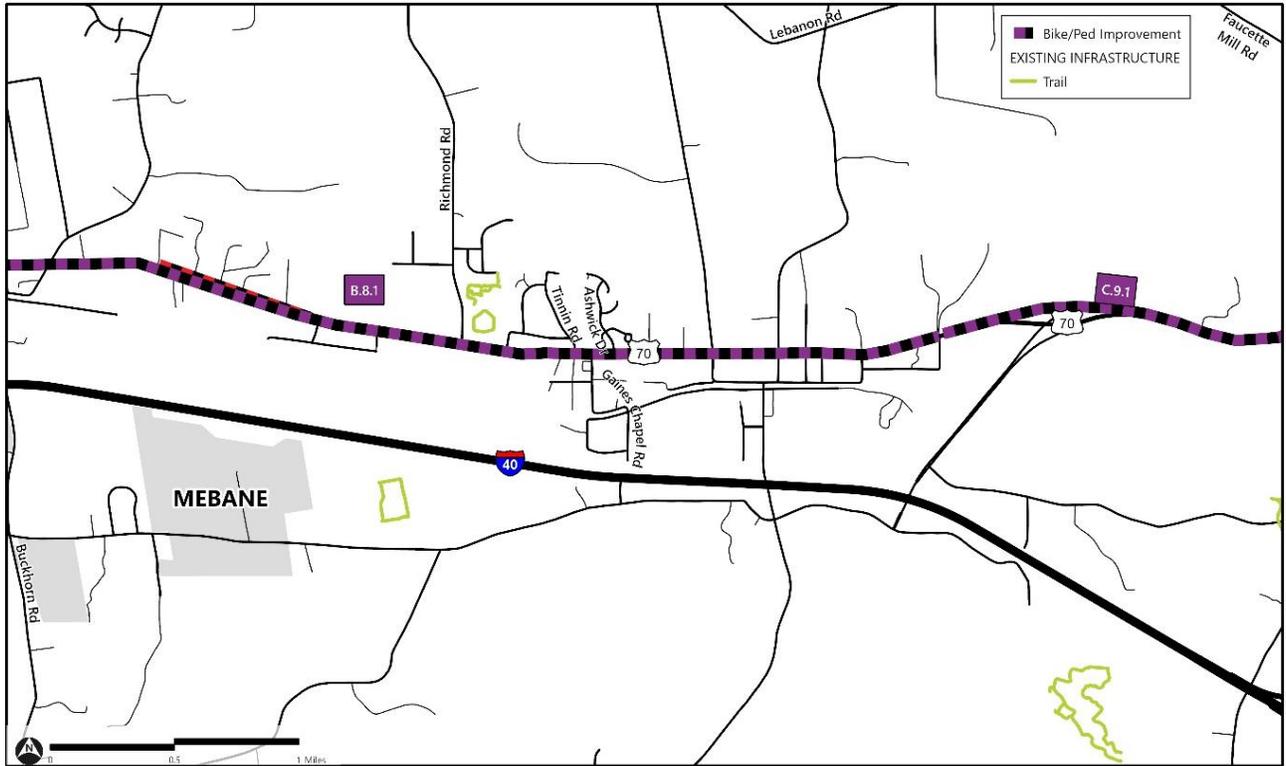


Figure 24 US 70 Bike/Ped Improvements, Segment B

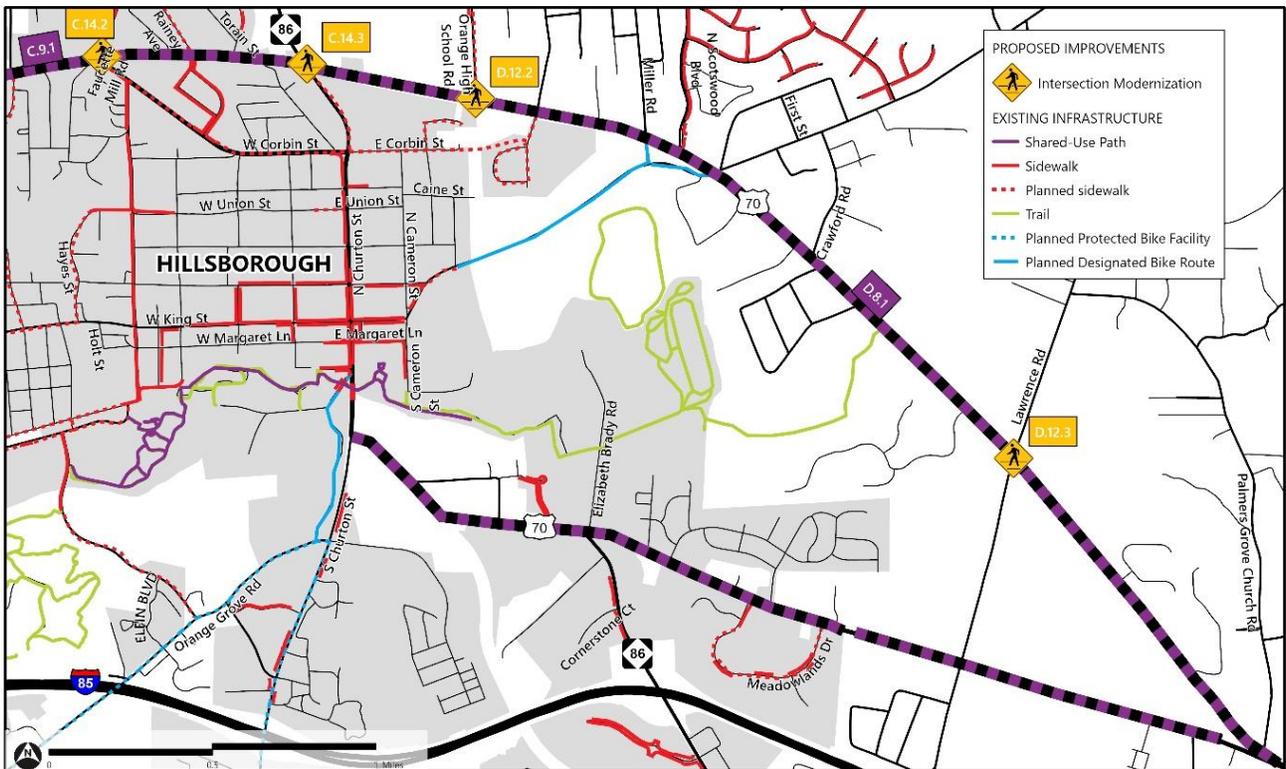


Figure 25 US 70 Bike/Ped Improvements, Segments C/D/F

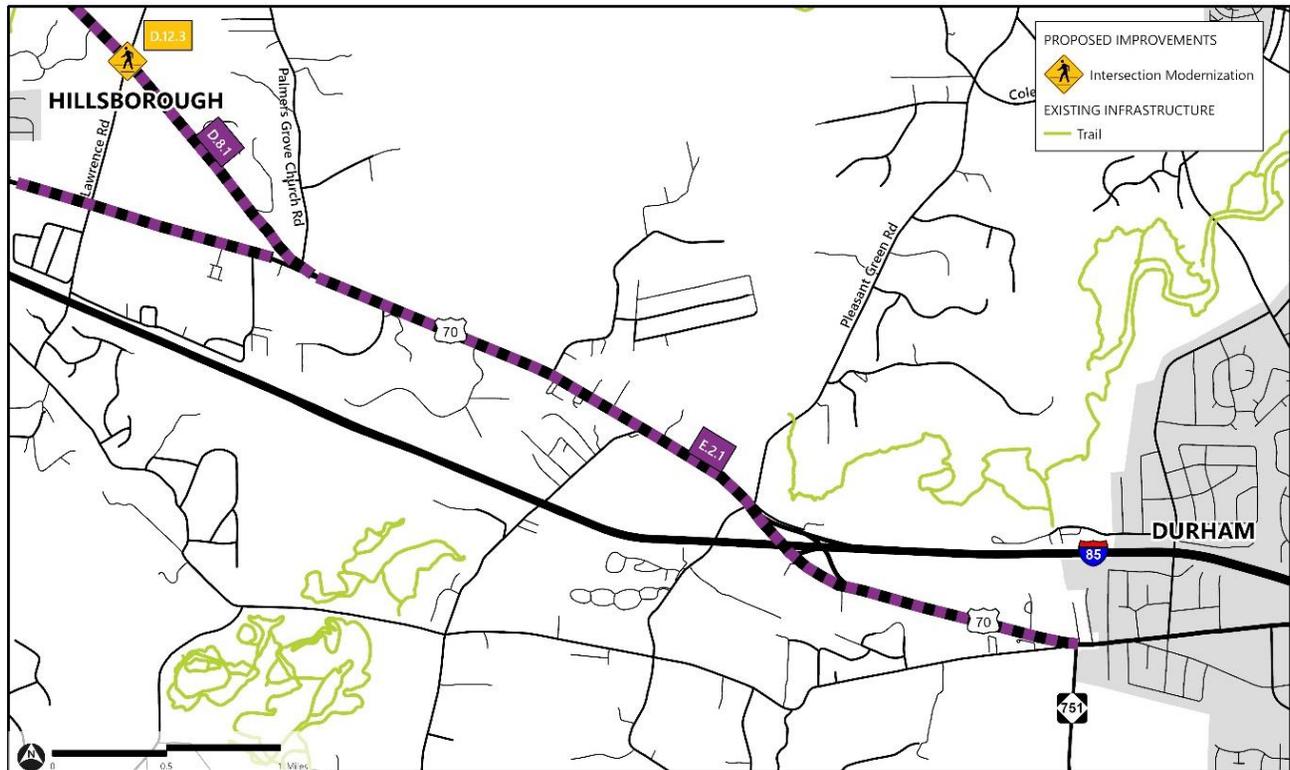


Figure 26 US 70 Bike/Ped Improvements, Segment E

### 5.3.1.2 Modernize existing US 70 pedestrian crossings in downtown Mebane.

Redesigning intersections with sidewalks, clearer crossings, and improved signage make for less stressful pedestrian experiences. Implementing no right turn on red policies and incorporating advanced technology like leading pedestrian intervals prioritizes active intersection users over automobiles resulting in fewer pedestrian injuries and fatalities. The modernizing of intersections forms part of a broader approach to developing safer, more pedestrian-friendly streets. It can greatly reduce the risk of pedestrian-vehicle conflicts and encourage more people to walk, benefiting public health and the environment:

- A.10.1: Modernize the US 70/3<sup>rd</sup> Street intersection with accessible pedestrian signal heads/pedestals on all corners, leading pedestrian intervals, no right turn on red restrictions, and high-visibility markings.
- A.10.2: Modernize the US 70/4<sup>th</sup> Street intersection with accessible pedestrian signal heads/pedestals on all corners, leading pedestrian intervals, no right turn on red restrictions, and high-visibility markings.
- A.10.3: Modernize the US 70/5<sup>th</sup> Street intersection with accessible pedestrian signal heads/pedestals on all corners, leading pedestrian intervals, no right turn on red restrictions, and high-visibility markings. Coordinate with NCDOT and NCRR to refine design of T-550GC as shown in Mebane's *5<sup>th</sup> Street Improvement Traffic Impact Study* (August 2022) to maintain three-lane northbound approach and crosswalk/sidewalk design on the east side, and replicate that design on the west side.

Relevant Plan Goals:



Goal 5: Prioritize pedestrian, bicycle, and transit connectivity within urban areas.



Goal 7: Work towards Vision Zero.

### 5.3.1.3 Enhance downtown Mebane's sense of place.

Beautifying the street environment will enhance Mebane's aesthetic while having a calming effect on traffic. Wayfinding, lighting, and street furniture improvements will create a safe pedestrian-centric destination that contributes connectivity and economic benefits:

- A.11.1: Invest in streetscaping projects between Charles and Ninth Streets.

*Relevant Goals:*



Goal 4: Guide transportation investment to protect community character.



Goal 5: Prioritize pedestrian, bicycle, and transit connectivity within urban areas.



Goal 6: Increase the comfort of non-automobile roadway users.



Goal 7: Work towards Vision Zero.

### 5.3.1.4 Complete the sidewalk contiguity in downtown Mebane.

Building on existing plans in Mebane, completing the pedestrian network will benefit the character, economy, and safety of the community:

- A.12.1: Maintain existing sidewalk on US 70's north side between Mebane Community Park and 9<sup>th</sup> Street.
- A.12.2: Combine and minimize curb cuts and wide, flush frontages as parcels redevelop.

*Relevant Goals:*



Goal 4: Guide transportation investment to protect community character.



Goal 5: Prioritize pedestrian, bicycle, and transit connectivity within urban areas.



Goal 6: Increase the comfort of non-automobile roadway users.



Goal 8: Reduce pedestrian-automobile conflicts.

### 5.3.1.5 Prepare east Orange County for smart growth.

With the populations of Durham and Hillsborough both growing, communities in-between need to be planned such that their unique character and economic opportunities do not suffer from their neighbors' expansion. Preparing the corridor with additional lighting, landscaping, and other community-informed streetscaping will ensure residents and business owners have input over how the area develops:

- o E.5.2: Invest in streetscaping projects on US 70 south of I 85.

*Relevant Plan Goals:*



Goal 4: Guide transportation investment to protect community character.



Goal 7: Work towards Vision Zero.

## 5.3.2 Transit-Oriented Development

### 5.3.2.1 Improve the accessibility of existing bus stops.

Prioritizing pedestrian access to bus stops will promote both demand for transit and development around it. In this way, the corridor will begin to establish TOD from Mebane to Hillsborough.

- o A.3.1/B.6.1/C.6.1/D.6.1/F.4.1: Update all existing bus stops to accessibility and safety standards, complete with shelters, seating, lighting, visible and audible information, and appropriate pedestrian and ADA connectivity.

*Relevant Plan Goals:*



Goal 3: Improve transit accessibility.



Goal 6: Increase the comfort of non-automobile roadway users.

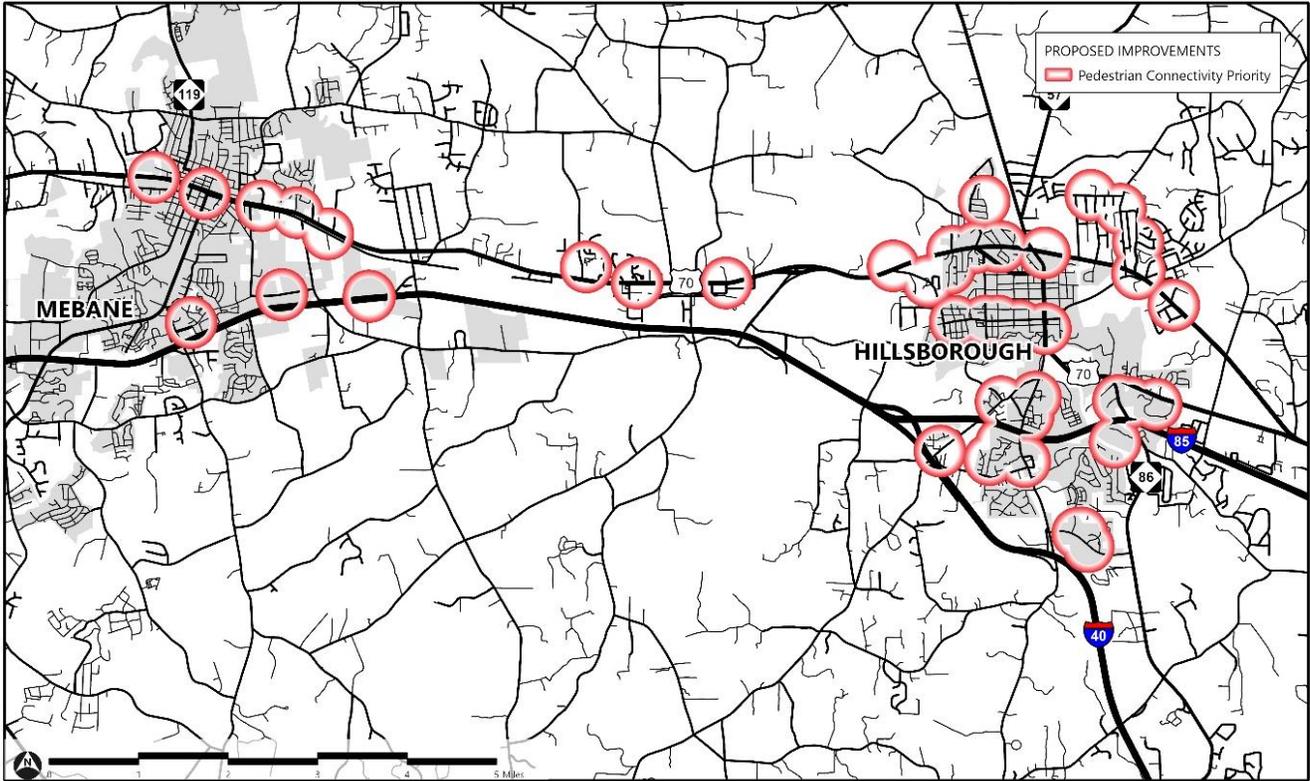


Figure 27 US 70 Recommended TOD Improvements

### 5.3.1 Complementary Bike/Ped Improvements

#### 5.3.1.1 Establish alternative east-west bicycle routes to US 70 between Mebane and Hillsborough.

With traffic on US 70 increasing, the corridor is becoming decreasingly attractive for cyclists. Establishing parallel routes that connect key destinations will offer a more comfortable option for commuters and recreationalists alike:

- A.1.1: Develop protected bicycle route on Holt Street from Tate Avenue to 1<sup>st</sup> Street.
- A.1.2: Install signage to encourage bicycle use along E. Washington Street and Lebanon Road.
- A.1.3: Develop protected bicycle route on Washington Street from Sargents Path to Buckhorn Road.
- B.4.1: Develop protected bicycle route on Lebanon Road from Doe Run Road to Old Paths Trail.
- B.4.2: Develop protected bicycle route along Richmond Road from Lebanon Road to Efland-Cheeks Park and Community Center; connect the route south across US 70 to shared-use path proposed to run parallel to I 40.
- C.4.1: Add sharrows and signage to establish bike route along the length of Faucette Mill Road north of the Hillsboro Town border.
- C.4.2: Construct an off-road bicycle path that connects Faucette Mill Road with Lebanon Road across the Eno River.

Relevant Plan Goals:



Goal 2: Prioritize bicycle and pedestrian connectivity through the corridor.



Goal 6: Increase the comfort of non-automobile roadway users.

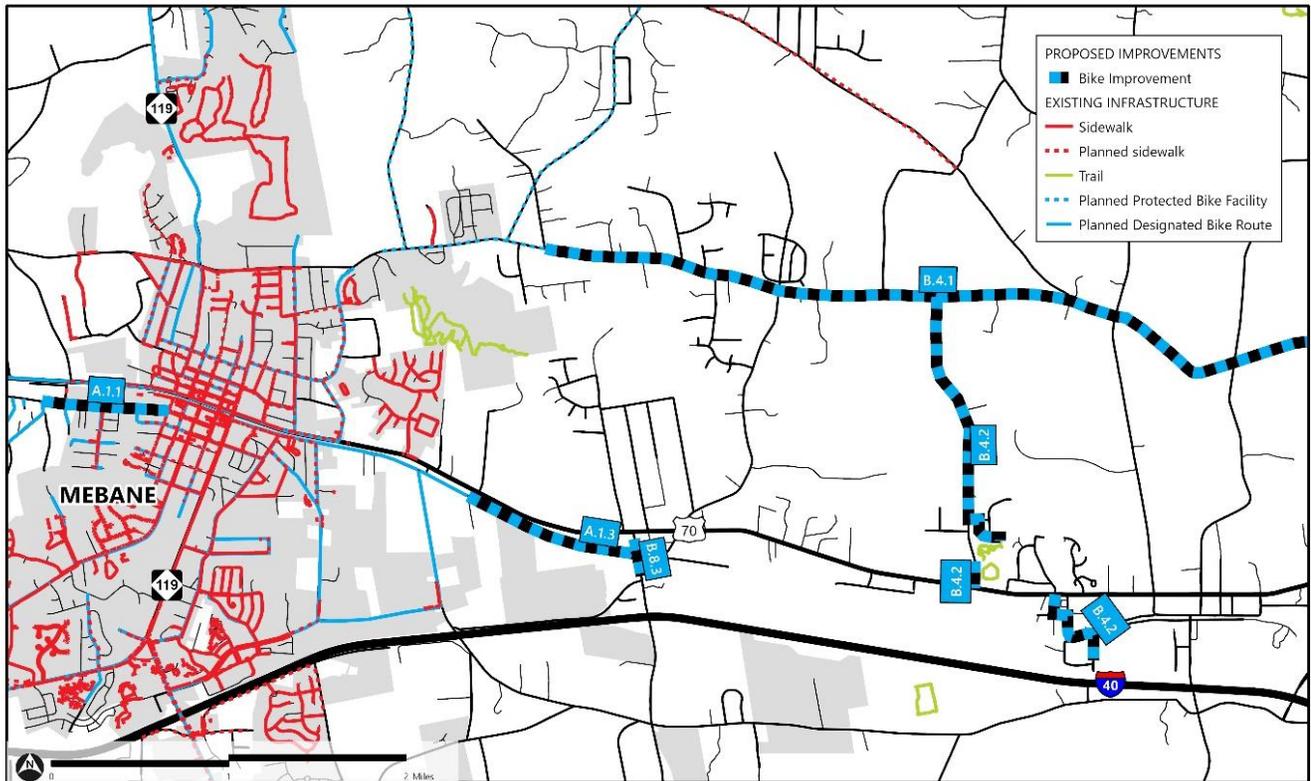


Figure 28 Recommended Complementary Bike/Ped Improvements, Segments A/B

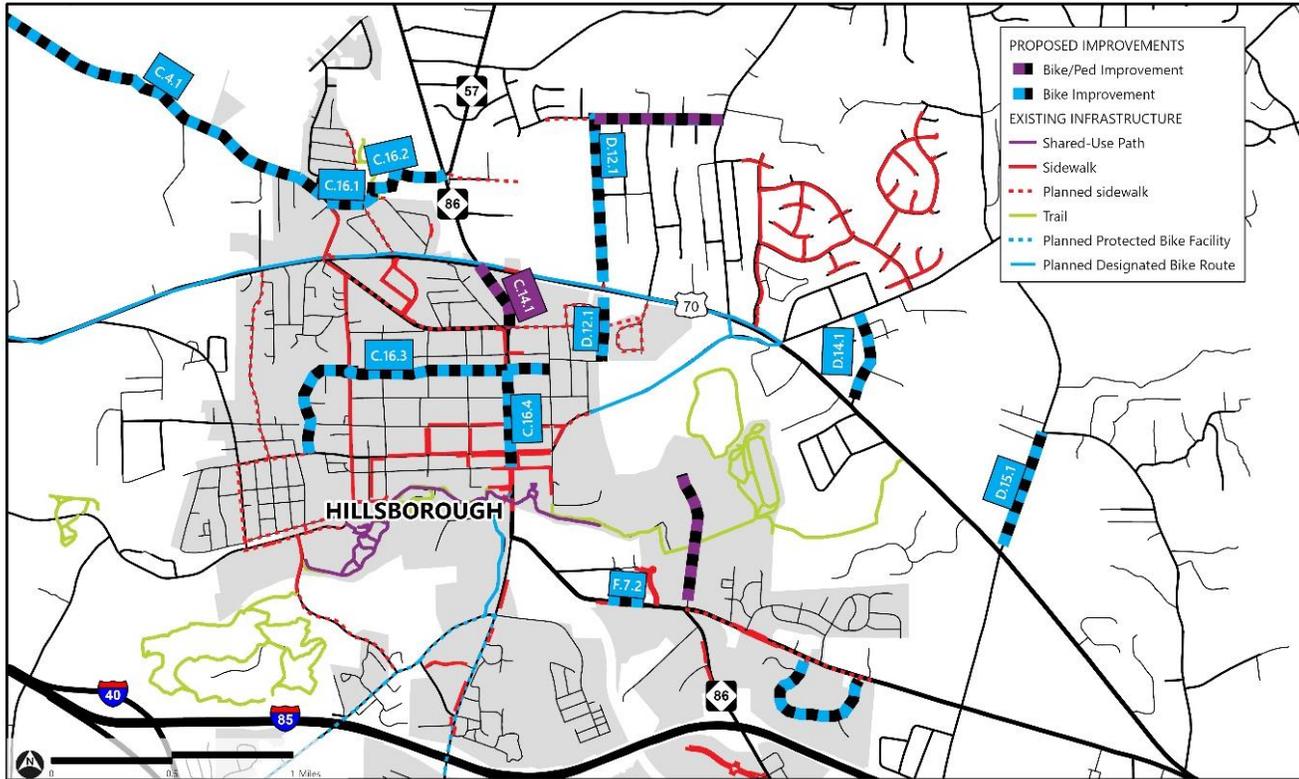


Figure 29 Recommended Complementary Bike/Ped Improvements, Segments C/D

### 5.3.1.2 Improve the safety of pedestrian facilities in the Fairview Neighborhood.

Redesigning crossing with improved marking and signage in Fairview will improve the safety of a historically marginalized community with disproportionately low car ownership and therefore disproportionately high reliance on pedestrian travel:

- C.12.1: Install high-visibility pedestrian crossing signage at the Faucette Mill Road/Torain Street intersection.
- C.12.2: Include high-visibility crossings in all future sidewalk construction on Faucette Mill Road, Torain Street, and Rainey Avenue where the pedestrian network would otherwise be interrupted by roadway.
- C.12.3: Install high-visibility pedestrian crossing signage and pedestrian pads at the Rainey Avenue/Torain Street intersection.

Relevant Plan Goals:



Goal 5: Prioritize pedestrian, bicycle, and transit connectivity within urban areas.



Goal 7: Work towards Vision Zero.



Goal 8: Reduce pedestrian-automobile conflicts.

### 5.3.1.3 Improve the permeability of US 70 as a barrier within Hillsborough.

Redesigning intersections with sidewalks, clearer crossings, and improved signage make for less stressful pedestrian experiences. Implementing no right turn on red policies and incorporating advanced technology like leading pedestrian intervals prioritizes active intersection users over automobiles resulting in fewer pedestrian injuries and fatalities. Facilitating pedestrian crossing of US 70 will improve the connectivity within Hillsborough, expanding safe access to jobs and recreation:

- C.14.1: Construct shared-use path along the east side of NC 86 from US 70 to Corbin Street.
- C.14.2: Modernize the US 70/Faucette Mill Road intersection with accessible pedestrian signal heads/pedestals on all corners, leading pedestrian intervals, no right turn on red restrictions, and high-visibility markings.
- C.14.3: Modernize the US 70/NC 86 intersection with pedestrian refuge islands, accessible pedestrian signal heads/pedestals on all corners, leading pedestrian intervals, no right turn on red restrictions, and high-visibility markings.
- D.12.1: Construct sidewalk and protected bicycle route on the entirety of Orange High School Road; connect to Caine Street across US 70 along parcel lines.
- D.12.2: Modernize the US 70/Orange High School Road intersection with accessible pedestrian signal heads/pedestals on all corners, leading pedestrian intervals, no right turn on red restrictions, and high-visibility markings.
- D.12.3: Modernize the US 70/Lawrence Road intersection with accessible pedestrian signal heads/pedestals on all corners, leading pedestrian intervals, no right turn on red restrictions, and high-visibility markings.

*Relevant Plan Goals:*



Goal 2: Prioritize bicycle and pedestrian connectivity through the corridor.



Goal 5: Prioritize pedestrian, bicycle, and transit connectivity within urban areas.



Goal 7: Work towards Vision Zero.



Goal 8: Reduce pedestrian-automobile conflicts.

### 5.3.1.4 Improve bicycle connectivity between residential and commercial centers in Hillsborough.

A large proportion of the corridor’s commuters live and work in Hillsborough. To induce mode-shift and reduce congestion, the plan proposes the following improvements to the bicycle network:

- C.16.1: Add sharrows and signage to establish bike route on Torain Street between Faucette Mill Road and Rainey Avenue.
- C.16.2: Add sharrows and signage to establish east-west bike route through Fairview Park from Rainey Avenue to NC 86.
- C.16.3: Add sharrows and signage to establish a bicycle route on Hayes and Union Streets from West King Street to Cameron Street.
- C.16.4: Add sharrows and signage to establish a bicycle route on Churton Street between Union Street and Margaret Lane.

*Relevant Plan Goals:*



Goal 2: Prioritize bicycle and pedestrian connectivity through the corridor.



Goal 9: Improve multimodal access to jobs within the corridor.

### 5.3.1.5 Connect Eno River State Park to US 70 via bicycle infrastructure.

To make active transportation a safer option to access recreation, the plan proposes building out the bicycle network to incorporate Eno River State Park:

- D.15.1: Add sharrows and signage to establish bike route on Lawrence Road from US 70 to Palmers Grove Church Road.
- E.7.1: Construct protected bike lane on Pleasant Green Road from US 70 to Cole Mill Road.
- E.7.2: Add sharrows and signage to establish bike route on Cole Mill Road from Pleasant Green Road to the Eno River State Park entrance.

*Relevant Plan Goals:*



Goal 2: Prioritize bicycle and pedestrian connectivity through the corridor.



Goal 11: Improve multimodal access to parks throughout the corridor.

### 5.3.1.6 Establish gateways to Hillsborough.

Placemaking through roundabouts and streetscaping will calm traffic approaching Hillsborough:

- C.13.1: Upgrade the US 70/Lakeshore Drive intersection to a roundabout.
- D.11.1: Upgrade the intersection of US 70, US 70 Business, and Palmer’s Grove Church Road to a roundabout.
- F.10.1: Invest in streetscaping projects on US 70 Business from Tuscarora Drive to US 70 Bypass.

*Relevant Plan Goals:*



Goal 4: Guide transportation investment to protect community character.



Goal 7: Work towards Vision Zero.

### 5.3.1.7 Further connect the trail system to the urban active transportation network.

Strategically expanding the bicycle-pedestrian network will strengthen the ties between Hillsborough and its surrounding natural environment:

- F.14.1: Connect Mountains-to-Sea trail to US Business with a shared-use path via Elizabeth Brady Road.

*Relevant Plan Goals:*



Goal 11: Improve multimodal access to parks throughout the corridor.

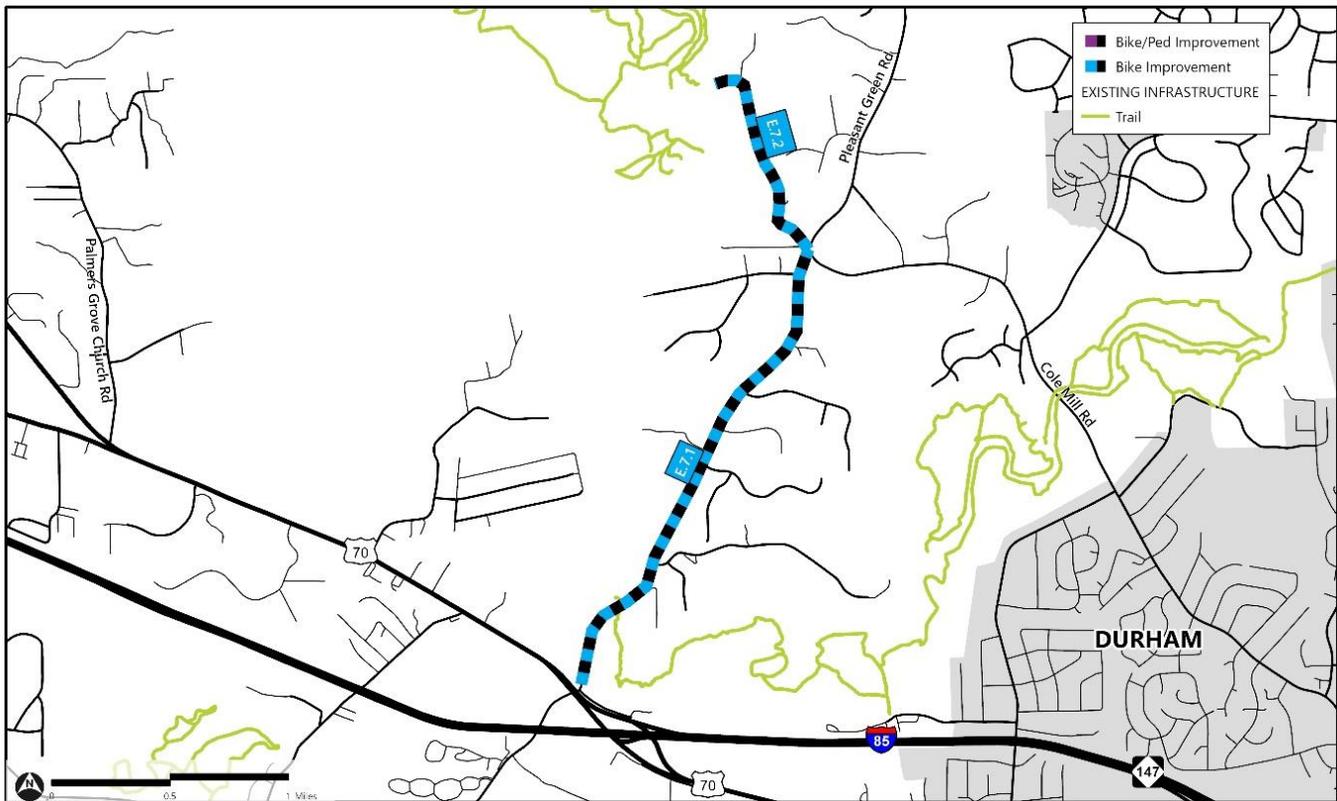


Figure 30 Recommended Complementary Bike/Ped Improvements, Segment E

## 5.3.2 Policy Measures

### 5.3.2.1 Extend sidewalk connectivity to anticipated growth areas.

Having policies in place to require the construction and support the maintenance of sidewalks will reduce the cost and time burden of including them in future site plans:

- A.9.1/B.11.1/C.11.1/D.10.1/E.4.1/F.9.1: Establish a maintenance agreement between NCDOT and Orange County for new and existing pedestrian facilities on US 70.
- A.9.2/B.11.2/C.11.2/D.10.1/E.4.1/F.9.1: Require developers building on land parcels fronting US 70 to either construct sidewalk along their frontages, dedicate ROW for future construction, or pay in lieu.

Relevant Plan Goals:



Goal 2: Prioritize bicycle and pedestrian connectivity through the corridor.



Goal 6: Increase the comfort of non-automobile roadway users.



Goal 8: Reduce pedestrian-automobile conflicts.

### 5.3.2.2 Manage travel demand for future development in the Efland-Buckhorn-Mebane economic development area.

To effectively manage the rapid growth in the Efland-Buckhorn-Mebane economic development area, the existing *Management Plan* must be updated to include multimodal considerations:

- o B.3.2: Update the *Efland-Buckhorn-Mebane Access Management Plan* to include pedestrian, bicycle, and transit connectivity recommendations.

*Relevant Plan Goals:*



Goal 2: Prioritize bicycle and pedestrian connectivity through the corridor.

## 5.4 Public Transit Improvements

Transit improvements were designed to connect residential areas, especially low income neighborhoods, with job centers where commuters from those areas travel. Building transit access will reduce congestion and provide additional economic opportunities.

### 5.4.1 Infrastructure Improvements

#### 5.4.1.1 Construct accessible bus shelters that serve Mebane's employment centers.

- o A.4.1: Add two accessible, safe bus shelters with appropriate pedestrian connectivity that serve businesses on Oakwood Street and Industrial Drive.

*Relevant Plan Goals:*



Goal 3: Improve transit accessibility.



Goal 6: Increase the comfort of non-automobile roadway users.



Goal 9: Improve multimodal access to jobs within the corridor.

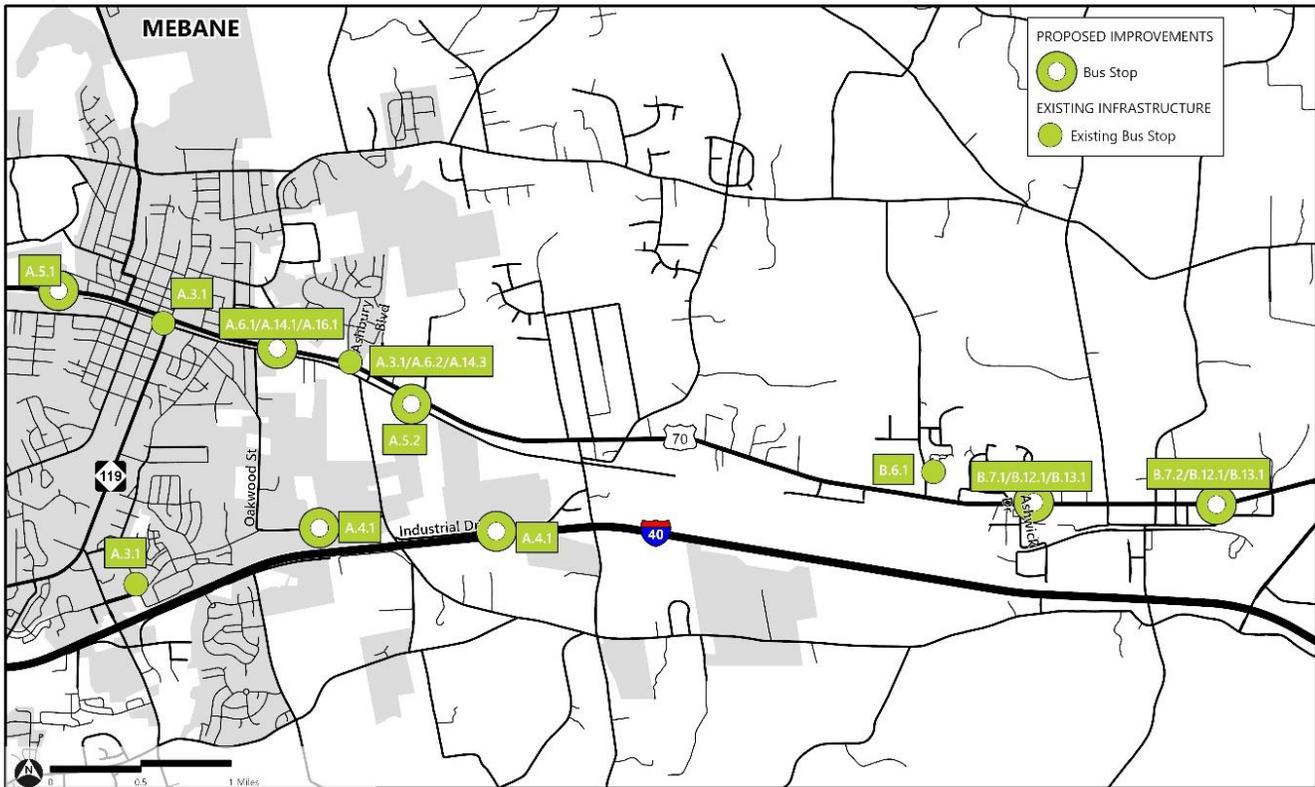


Figure 31 US 70 Recommended Public Transit Infrastructure Improvements, Segments A/B

5.4.1.2 Construct accessible bus shelters that serve Mebane’s recreation destinations.

- A.5.1: Add accessible, safe bus shelters either side of US 70 with appropriate pedestrian connectivity that serves Mebane Community Park.
- A.5.2: Add accessible, safe bus shelters either side of US 70 with appropriate pedestrian connectivity that serves Mebane Memorial Garden.

Relevant Plan Goals:



Goal 3: Improve transit accessibility

5.4.1.3 Construct accessible bus shelters that serve Mebane’s residential communities.

- A.6.1: Add accessible, safe bus shelters either side of US 70 with appropriate pedestrian connectivity that serves the Supper Club mobile home community.
- A.6.2: Add an accessible, safe bus shelter with appropriate pedestrian connectivity across US 70 from the existing Ashbury Blvd. stop.

*Relevant Plan Goals:*



Goal 3: Improve transit accessibility



Goal 6: Increase the comfort of non-automobile roadway users.



Goal 9: Improve multimodal access to jobs within the corridor.



Goal 10: Improve multimodal access to jobs outside the corridor.

**5.4.1.4 Construct accessible bus shelters that serve Efland’s residential communities.**

- B.7.1: Add accessible, safe bus shelters with appropriate pedestrian connectivity either side of US 70 that serve communities near Ashwick Drive.
- B.7.2: Add accessible, safe bus shelters with appropriate pedestrian connectivity either side of US 70 that serve the Graham Trailer Park.

*Relevant Plan Goals:*



Goal 3: Improve transit accessibility



Goal 6: Increase the comfort of non-automobile roadway users.



Goal 9: Improve multimodal access to jobs within the corridor.



Goal 10: Improve multimodal access to jobs outside the corridor.

### 5.4.1.5 Introduce and expand park and ride services.

- C.2.1: Implement the Faucette Mill Road park and ride service proposed in the *DCHCMPO CTP* (updated April 2023).
- D.2.1: Implement the Miller Road/Latta Road park and ride service proposed in the *DCHCMPO CTP* (updated April 2023).

Relevant Plan Goals:



Goal 3: Improve transit accessibility



Goal 9: Improve multimodal access to jobs within the corridor.



Goal 10: Improve multimodal access to jobs outside the corridor.



Figure 32 US 70 Recommended Public Transit Infrastructure Improvements, Segements C/D

### 5.4.1.6 Construct paired bus stops across US 70 from existing facilities.

- C.7.1: Add an accessible, safe bus shelter with appropriate pedestrian connectivity across US 70 from the existing North Carolina Drivers License stop.

- C.7.2: Add an accessible, safe bus shelter with appropriate pedestrian connectivity across US 70 from the existing Faucette Mill Road/Cornelius Street stop.
- C.7.3: Add an accessible, safe bus shelter with appropriate pedestrian connectivity across US 70 from the existing US 70/Rainey Avenue stop.

*Relevant Plan Goals:*



Goal 3: Improve transit accessibility



Goal 6: Increase the comfort of non-automobile roadway users.



Goal 7: Work towards Vision Zero.



Goal 8: Reduce pedestrian-automobile conflicts.

### 5.4.1.7 Construct accessible bus shelters that serve Hillsborough’s residential communities.

- C.8.1: Replace Lakeshore Drive stop with a stop serving Bennetts Mobile Home Park and surrounding communities.
- D.7.1: Add an accessible, safe bus shelter with appropriate pedestrian connectivity on Miller Road.
- D.7.2: Add an accessible, safe bus shelter with appropriate pedestrian connectivity on Scotswood Boulevard.
- F.6.1: Add an accessible, safe bus shelter with appropriate pedestrian connectivity near Orange Grove Road and Elfin Boulevard.

*Relevant Plan Goals:*



Goal 3: Improve transit accessibility.



Goal 6: Increase the comfort of non-automobile roadway users.



Goal 9: Improve multimodal access to jobs within the corridor.

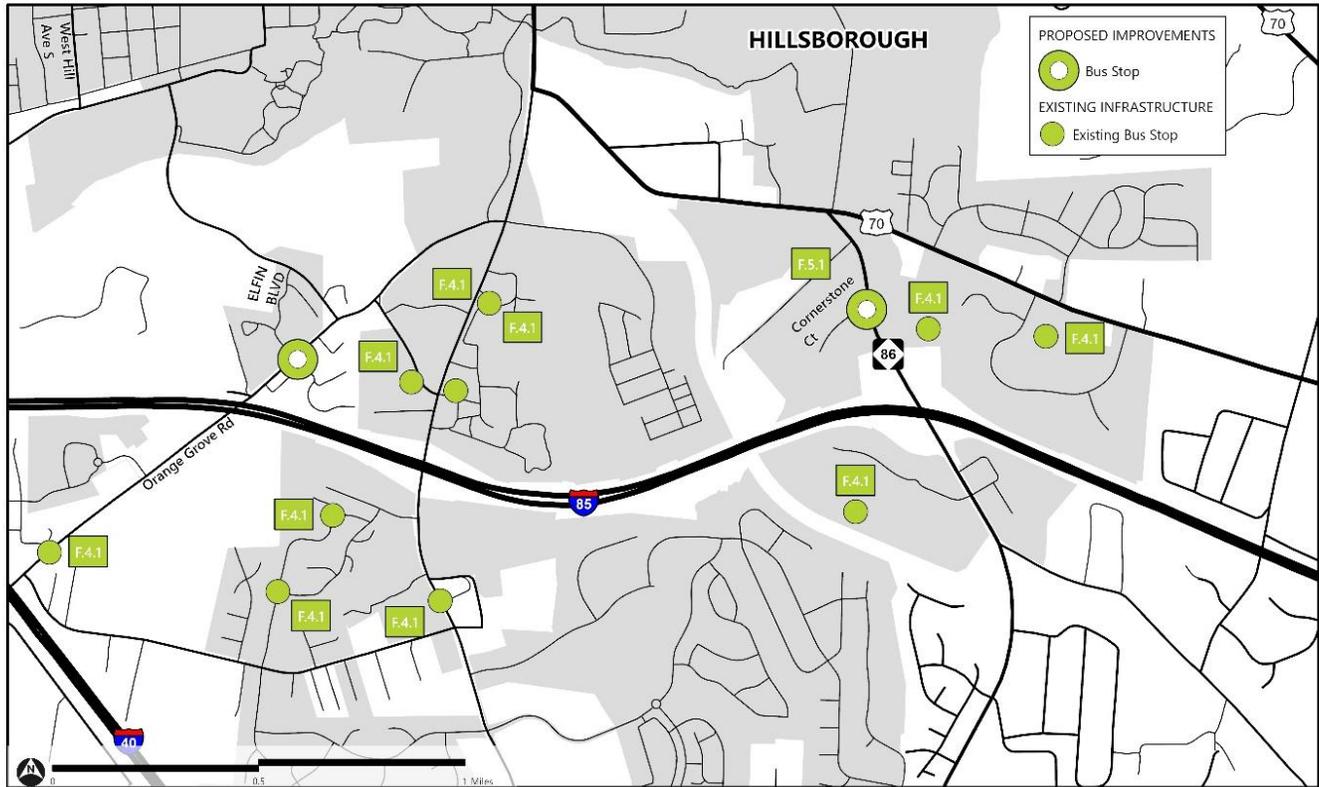


Figure 33 US 70 Recommended Public Transit Infrastructure Improvements, Segment F

5.4.1.8 Construct accessible bus shelters that serve Hillsborough’s employment centers.

- D.6.1: Add an accessible, safe bus shelter with appropriate pedestrian connectivity on Orange High School Road that serves Orange High School.
- F.5.1: Add an accessible, safe bus shelter with appropriate pedestrian connectivity near NC 86 and Cornerstone Court.

Relevant Plan Goals:



Goal 3: Improve transit accessibility



Goal 6: Increase the comfort of non-automobile roadway users.



Goal 9: Improve multimodal access to jobs within the corridor.

## 5.4.2 Service Improvements

### 5.4.2.1 Improve bus service reliability.

- A.2.1/B.5.1/C.5.1: Increase the frequency and service hours of regional transit routes.
- A.2.2/B.5.2/C.5.2/D.4.1/F.3.1: Increase the frequency and service hours of Orange County's Orange-Alamance Connector and Hillsborough Circulator routes.
- A.2.3: Increase the frequency and service hours of PART's Route 4.

Relevant Plan Goals:



Goal 3: Improve transit accessibility.

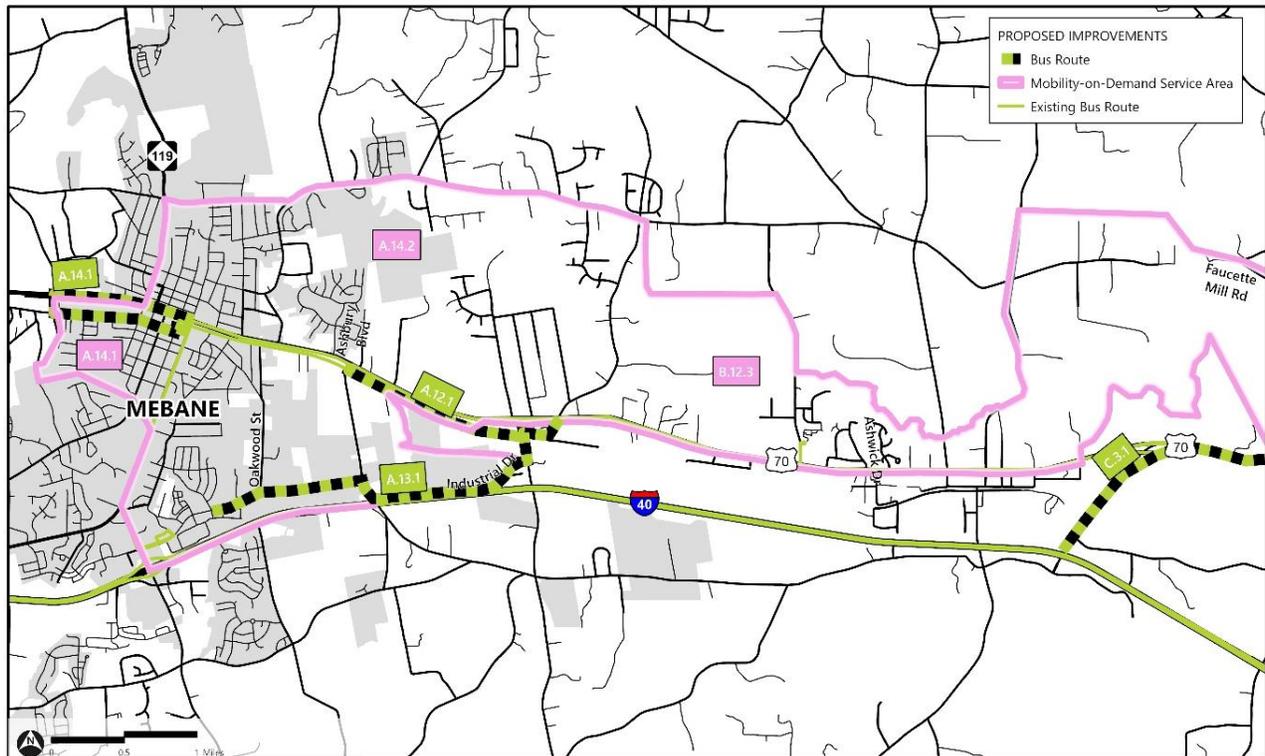
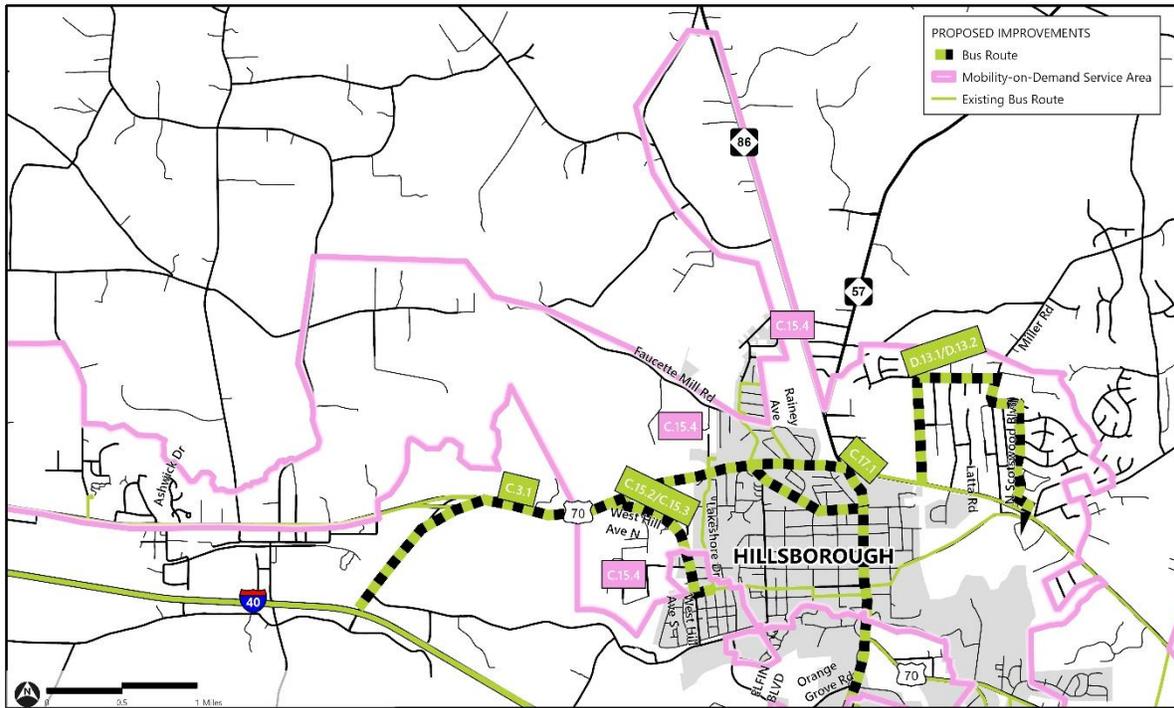


Figure 34 US 70 Recommended Public Transit Service Improvements, Segment A/B



**Figure 35 US 70 Recommended Public Transit Service Improvements, Segment C/D/F**

**5.4.2.2 Expand transit by partnerships with service providers in Alamance County.**

- A.13.1: Incorporate planned stops at Oakwood Street and Industrial Drive into the future Mebane Circulator route.
- A.13.2: Expand transit service offerings, such as on-demand service, for Mebane’s suburbs, specifically to align with fixed route buses, in Alamance County.

*Relevant Plan Goals:*



Goal 3: Improve transit accessibility.



Goal 9: Improve multimodal access to jobs within the corridor.

**5.4.2.3 Expand transit by partnerships with service providers in Orange County.**

- A.14.1: Extend Orange-Alamance Connector service to the planned Mebane Community Park and Super Club Road mobile home community stops.
- A.14.2: Expand transit service offerings, such as on-demand service, for Mebane’s suburbs, specifically to align with fixed route buses, in Orange County.
- A.14.3: Extend Orange-Alamance Connector service to existing Ashbury Boulevard stop.
- B.12.1: Extend Orange-Alamance Connector service to the planned Ashwick Drive, Graham Trailer Park, and Mebane Memorial Garden stops.

- B.12.3: Introduce and expand on-demand transit services for rural communities around Efland, specifically to align with fixed route buses.
- C.15.1: Extend Orange-Alamance Connector service to the existing Faucette Mill/Cornelius Street, Hillsborough Police Station, and West Village stops.
- C.15.2: Reroute Hillsborough Circulator from Lakeshore Drive to Hill Avenue, and service new stop at Bennetts Mobile Home Park.
- C.15.3: Extend Hillsborough Circulator service to the existing North Carolina Drivers License stop.
- C.15.4: Introduce and expand on-demand transit services for Fairview, job centers north along NC 86, and West Hillsborough, specifically to align with fixed route buses.
- D.13.1: Extend Hillsborough Circulator service to the planned Miller Road, Orange High School Road, and Scotswood Boulevard stops.
- D.13.2: Reroute Hillsborough Circulator along Orange High School Road, Miller Road, Woodlawn Drive, and Scotswood Boulevard to service planned stops between the existing US 70/Walgreens and Scotswood/US 70 stops.
- D.13.3: Introduce and expand on-demand transit services for communities adjacent to Palmers Grove Church Road, specifically to align with fixed route buses.
- E.6.1: Introduce and expand on-demand transit services for rural communities east of Piney Grove, specifically to align with fixed route buses.
- F.11.1: Extend Hillsborough Circulator service to the planned Cornerstone Court and Orange Grove Road stops.
- F.11.2: Shift partnerships with providers in Orange County services to the new US 70 Business location proposed in the *NC 86 Connector Study, Phase II (2021)*.

*Relevant Plan Goals:*



Goal 3: Improve transit accessibility



Goal 9: Improve multimodal access to jobs within the corridor.

**5.4.2.4 Expand regional transit services to residential centers in the corridor.**

- A.16.1: Extend ODX service to the planned Supper Club Road mobile home community stop.
- B.13.1: Extend ODX service to the planned Ashwick Drive and Graham Trailer Park mobile home community stops.
- C.17.1: Extend ODX service to the existing Faucette Mill Road/Cornelius Street, US 70/Rainey Street, and West Village stops.
- F.13.1: Shift regional transit services to the new US 70 Business location proposed in the *NC 86 Connector Study, Phase II (2021)*.

*Relevant Plan Goals:*



Goal 3: Improve transit accessibility



Goal 10: Improve multimodal access to jobs outside the corridor.

**5.4.2.5 Expand regional transit access to Hillsborough’s job centers.**

- C.3.1: Extend PART Route 4 service to existing North Carolina Drivers License and Orange County Courthouse stops.

*Relevant Plan Goals:*



Goal 3: Improve transit accessibility

# 6

## Implementation and Funding

This section describes the development of priorities for implementation as well as potential funding options needed to achieve the US 70 Multimodal Corridor Plan.

Implementation of any project recommendation entails a lengthy process of detailed studies identifying impacts and refining designs. This is especially true of a set of recommendations of this magnitude, which will be implemented over time, by various jurisdictions and agencies, utilizing multiple available funding mechanisms. Adjustments to recommendations may be needed to accommodate unanticipated variations in land use, travel demand, and policy and funding priorities. Final design decisions cannot be finalized until late in project development and sometimes into construction, with the documentation of environmental impacts in the NEPA and SEPA (National and State Environmental Policy Acts) process being a critical point in this regard. However, identifying priority recommendations and associated funding options will help guide jurisdictions, NCDOT, and the MPO to an approach for cohesive implementation, resulting in an improved corridor, specifically for multimodal users, over time.

### 6.1 Opinion of Probable Costs

Probable costs have been estimated for the entire set of recommendations for the US 70 Multimodal Corridor Study. The cost consists of construction, design and engineering, and contingency. Not included in these estimates are costs associated with purchasing rights-of-way and residential or commercial structures, relocations, loss of use, landscaping, or extraordinary stormwater treatment costs.

Note that these recommendations and their costs represent the entire package of improvements. Interim steps can be taken earlier, depending on the situation. It must also be emphasized that costs are based on planning-level analysis; detailed design work is needed to refine cost estimates to be more precise and reliable.

Estimates are expressed in constant 2023 dollars, and various subtotals may not add up precisely due to rounding.

The probable cost of the entire package of recommended improvements totals just under **\$258.2 million**. The costs are divided among segments as shown in Table 27. Appendix A includes more detailed improvement specific cost estimate details.

**Table 26 Opinion of Probable Cost by Segment**

Segment	Sum of Total Cost
Segment A	\$ 11,100,000
Segment B	\$ 153,300,000
Segment C	\$ 11,300,000
Segment D	\$ 13,600,000
Segment E	\$ 52,100,000
Segment F	\$ 16,800,000
<b>Corridor Total</b>	<b>\$ 258,200,000</b>

## 6.2 Funding Opportunities

The recommendations in Chapter 5 are based on an assessment of the current facilities, connectivity needs and opportunities, and an understanding of future growth areas and their land use. Current NCDOT policy does not treat all facilities the same in terms of funding. These differences in funding eligibility are substantial enough that they can determine the viability of a specific facility type or design in jurisdictions dependent on NCDOT or public agency participation to pay for construction and maintenance. In such cases, design compromises may be needed if the project is to have a realistic chance for implementation, especially within a given timeframe.

Bicycle and pedestrian facilities may be added along a roadway either as part of a roadway improvement (such as a widening or roadway extension project) or as an independent project. The North Carolina Strategic Transportation Investments (STI) law requires NCDOT to rank highway improvement projects separately from independent bicycle or pedestrian facility projects.

NCDOT may work with a local agency to determine and construct bicycle or pedestrian improvements as part of the roadway project. Otherwise, local agencies may apply for federal funding to add bicycle or pedestrian improvements separate from a roadway project.

### 6.2.1 NCDOT State Transportation Improvement Program (STIP) Funding

NCDOT's State Transportation Improvement Program selects projects to be funded through the State Prioritization Process (SPOT). The process involves scoring all roadway, public transportation, bicycle, pedestrian, rail, and aviation projects on several criteria, which are all weighted differently, as follows:

- Local Input Points from the MPO and Division Engineers (50%)
- Safety (20%)
- Connectivity / Accessibility (15%)
- Demand / Density (10%)
- Cost Effectiveness (5%)

If seeking STIP funding, local municipalities, Orange County and DCHCMPO and the NCDOT Division 7 will be key in ensuring the inclusion of specific recommendations within larger roadway projects as applicable (such as the SUP and sidewalk along US 70) or assigning local priority points to specific recommendations (such as a specific intersection upgrades) to gain traction within the statewide prioritization process. The option of increasing local match dollars in this funding pursuit is unlikely to produce a noticeable priority increase for project scoring; rather, focusing on local input points and safety points are more important.

Once a project is prioritized and funded through the STIP, NCDOT policy allows the Department to pay for and maintain all improvements within the curb or edge of pavement, including wide shoulders and bicycle lanes. When separated by a curb, swale, or vertical element, the Department may require the local jurisdiction to acquire additional right-of-way, share in the cost of construction, and maintain the separated bicycle or pedestrian facility (such as a sidewalk or shared use path). Despite these costs, incidental bicycle and pedestrian improvements are often less expensive than constructing the same improvements through an independent project.

In August 2019, the NCDOT Board of Transportation adopted an updated Complete Streets Policy that requires NCDOT planners and engineers to consider and incorporate multimodal facilities in the design and improvement of all appropriate transportation projects in the state. Under the new policy, pedestrian, bicycle, and public transportation projects included in adopted state, regional, or local transportation plans, such as this plan, will be included as part of the proposed roadway

project.<sup>1</sup> For example, when a SUP is included in an adopted plan and the need for the SUP is identified through the NCDOT Complete Streets evaluation process, NCDOT is expected to pay the full cost of the Shared-Use Path (SUP), including right-of-way, as part of a larger roadway improvement project (Table 27). This financial arrangement could prove beneficial to the development of this study’s recommended SUP and sidewalk along the majority of the length of the US 70 corridor by being included with the eventual expected widening of US 70, should the facilities be reflected in an adopted plan. In instances where a project is not included in a plan or is considered a betterment, cost share requirements would apply (Table 28). The policy allows exceptions to a project’s inclusion, and the policy’s newness may lead to updates and clarifications on implementation and what constitutes an adopted plan, among other issues.

**Table 27 NCDOT Complete Streets Policy (2019) Cost Share Scenarios**

<b>Complete Streets Cost Share</b>			
<b>Facility Type</b>	<b>In Plan</b>	<b>Not in Plan, but Need Identified</b>	<b>Betterment</b>
Pedestrian Facility	NCDOT pays full	Cost Share	Local
Bicycle Facility	NCDOT pays full	NCDOT pays full	Local
Side Path	NCDOT pays full	Cost Share	Local
Greenway Crossing	NCDOT pays full	Cost Share	Local
Bus Pull Out	NCDOT pays full	Cost Share	Local
Bus Stop (pad only)	NCDOT pays full	Cost Share	Local

**Table 28 Complete Streets Betterment Cost Share**

<b>Betterment Cost Share</b>		
<b>Municipal Population</b>	<b>Cost Participation</b>	
	<b>NCDOT</b>	<b>Local</b>
> 100,000	80%	20%
50,000 to 100,000	85%	15%
10,000 to 50,000	90%	10%
< 10,000	95%	5%

<sup>1</sup> North Carolina Department of Transportation, *Memorandum: Complete Streets Policy Guidance*, 30 August 2019, <https://connect.ncdot.gov/projects/Roadway/RoadwayDesignAdministrativeDocuments/CS%20Policy%20Update%20Memo%20Secretary%208.28.19.pdf>

## 6.2.2 North Carolina Highway Safety Improvement Program (HSIP) Funding

Funding through the NCDOT HSIP program may be available for certain recommendations such as intersection signal upgrades specific to pedestrian phasing, either submitted as a single project or as separate projects. It is recommended to combine multiple recommendations into a single project submittal, however. This funding is meant to provide a continuous and systematic process that identifies, reviews, and addresses specific traffic safety concerns throughout the state. There are multiple submittal timeframes throughout the year when projects can be submitted for review, allowing for more frequent review than the SPOT cycle discussed above. This plan, along with others mentioned in Chapter 3, establish and support the need for the recommended improvements, which is needed for submittal. The local municipality and DCHCMPO would work with the Traffic Safety Unit and the Triad Regional traffic safety engineer to have the project formally submitted for consideration. The project would then “compete” against other projects statewide for funding, also on a rolling cycle basis like the submittal process.

If a project does not score well within the HSIP selection process, the Traffic Safety Unit will return feedback that may help future considerations. No resubmittal is needed if the project is not selected; it remains on the list of projects for consideration. Unlike the SPOT process, increased local contributions could make a notable difference in the competitive scoring of HSIP projects.

## 6.2.3 Federal Grant Funding Opportunities

There are several reasons why a local agency may choose to add bicycle and pedestrian improvements in advance of or separate from a roadway improvement. The roadway project may not be scheduled for design and construction for many years after a future need has been identified. This delay may not be acceptable to an agency whose interest is to provide a connected and safe network for cyclists and pedestrians as soon as possible. This is one scenario when pursuit of federal grant awards may be an appropriate funding mechanism to implement the plan recommendations.

### 6.2.3.1 Rebuilding American Infrastructure with Sustainability and Equity (RAISE) Grants

The RAISE grant program is federal funding allotted for planning and capital investments that support roads, bridges, transit, rail, ports, or other intermodal transportation. This program is intended for projects that will improve safety, environmental sustainability, quality of life, mobility and community connectivity, and economic competitiveness and opportunity. Additional considerations include demonstrated project readiness and cost effectiveness. Over the past 15 cycles of competitive grant awards, RAISE and its predecessors (TIGER and BUILD) has awarded nearly \$14.4 billion for national infrastructure investment projects.

Currently, the minimum RAISE grant award is \$5 million with a maximum of \$25 million for projects located in urban areas. While the 2024 RAISE grant application deadline is February 28, 2024, this cycle is relatively predictable and a release for the 2025 applications is expected near the end of 2024 with a February 2025 submittal deadline. Municipalities can use the project prioritization to prepare information that would be needed for a future application submittal.

A RAISE Grant is most suitable as a funding source for corridor wide improvements if they can be bundled with other systemic projects to reach the minimum \$5M grant award threshold. Approved pre-design tasks completed to support the grant application are reimbursable through this grant program.

### 6.2.3.2 Safe Streets for All (SS4A) Grants

The SS4A Implementation Grant is federal funding allotted for designing and implementing roadway safety improvements. These projects can include: system-wide, low-cost roadway safety treatments, identifying and correcting common risks across a network, installing pedestrian safety enhancements, and speed management strategies. A total of \$5 billion is available for the five-year SS4A grant program (2022-2026) for regional, local, and Tribal initiatives that prevent roadway deaths and serious injuries.

To qualify for an SS4A grant, the applicant must have an adopted comprehensive safety action plan such as a Vision Zero plan or Safety Action Plan. At the time of this report, the municipalities within the study area do not have adopted plans to qualify for this grant; however, the Durham-Chapel Hill-Carrboro MPO (DCHC), of which the Town of Hillsborough is a member, is in the process of developing a Vision Zero Action Plan in 2024/2025. This US 70 Multimodal Corridor Study should be used to help inform the DCHC Vision Zero Action Plan, and future SS4A grant awards could be a suitable funding mechanism for recommendations in this plan.

### 6.2.3.3 TPM Bus and Bus Facility Grant Program (TPM)

In February 2024, FTA announced the availability of \$1.5 billion in Fiscal Year 2024 funding to support state and local efforts to buy or modernize buses, improve bus facilities, and support workforce development for agencies with low/zero emission buses in their fleets. GoTriangle and Orange County Transit both have low/zero emission buses within their fleets; thus this grant option is available to implement bus stop enhancements served by these buses. For the current (2024) iteration of this grant program, project applications must be submitted by April 25, 2024; however, there have been annual awards through this program since 2016. Tracking this grant availability should be a priority for all jurisdictions/agencies affected by the transit recommendations in this plan.

## 6.2.4 Private Development Interests

There are multiple recommendations (ie, A.9.2, B.11.2, C.11.2, etc) that encourage jurisdictions to codify policies that require developers along US 70 to either construct sidewalk along their frontages, dedicate ROW for future construction, or pay in lieu as new developments are permitted and constructed. Each jurisdiction should develop a policy that details the level of these requirements tailored to their specific community, but which would result in implementation of the recommendations through private funds. This way, while built in pieces, the outcome is a consistent and connected US 70 corridor within each jurisdiction.

## 6.3 Implementation Priorities

The adoption of this plan is the first step toward ensuring a more accessible and connected US 70 corridor for multimodal users. Additional action is required by each involved municipality, Orange County, and DCHCMPO to fully realize the multimodal corridor vision supported by the plan recommendations. Recommended actions detailed in Chapter 5 are focused around plan goals for the corridor as a whole, with specific actions included for each segment. These specific recommendations should inform and be incorporated into future plans and project priority efforts for each jurisdiction to encourage implementation. These efforts could include Vision Zero or Safety Action Plans, localized pedestrian or bicycle plans, or NCDOT prioritization (SPOT) scoring discussions. As outlined in Section 6.1 above, understanding how to incorporate the plan recommendations into larger NCDOT projects or bundling similar improvements, such as bus stop upgrades, pedestrian signal upgrades at multiple intersections, or bicycle lane markings can also improve chances at obtaining funding, which could move a project, or set of recommendations, up in local priority.

The summary tables below, specific to each segment, assign a likely funding source, or sources, to each recommendation, whereby grouping sets of improvements into potential bundles. As the individual jurisdictions determine the importance of each “bundle” to their communities, tracking the availability of the noted funding option will drive the prioritization order of implementation, which dictates the schedule of additional planning or conceptual design work that may be needed for each funding option.

### 6.3.1 Summary of Funding Opportunities

The following tables outline the plan recommendations by Segment and Objective; also included is a column indicating potential funding source(s) for each improvement. These funding source notes should be used by localities to help group implementation of recommendations for grant funding applications, or for supporting SPOT funding point allocation to potential NCDOT STIP projects.

6.3.1.1 Segment A

Objective	Recommendation/Policy	Potential Funding Source	Goals Met	Improvement Type
<b>A.1: Establish alternative east-west bicycle routes to US 70 between Mebane and Hillsborough.</b>	A.1.1: Develop protected bicycle route on Holt Street from Tate Avenue to 1 <sup>st</sup> Street.	RAISE Grant	Mobility, Safety	Bike
	A.1.2: Install signage to encourage bicycle use along E. Washington Street and Lebanon Road.	RAISE Grant	Mobility, Safety	Bike
	A.1.3: Develop protected bicycle route on Washington Street from Sargents Path to Buckhorn Road.	RAISE Grant	Mobility, Safety	Bike
<b>A.2: Improve bus service reliability.</b>	A.2.1: Increase the frequency and service hours of regional transit routes.	TPM Grant	Mobility, Job Access	Transit
	A.2.2: Increase the frequency and service hours of Orange County’s Orange-Alamance Connector route.	TPM Grant	Mobility, Job Access	Transit
	A.2.3: Increase the frequency and service hours of PART’s Route 4.	TPM Grant	Mobility, Job Access	Transit
<b>A.3: Improve accessibility of existing bus stops.</b>	A.3.1: Update all existing bus stops to accessibility and safety standards, complete with shelters, seating, lighting, visible and audible information, and appropriate pedestrian and ADA connectivity.	TPM Grant	Mobility, Safety	Ped, Transit
<b>A.4: Construct accessible bus shelters that serve Mebane’s employment centers.</b>	A.4.1: Add two accessible, safe bus shelters with appropriate pedestrian connectivity that serve businesses on Oakwood Street and Industrial Drive.	TPM Grant	Mobility, Safety, Job Access	Ped, Transit
<b>A.5: Construct accessible bus shelters that serve Mebane’s recreation destinations.</b>	A.5.1: Add accessible, safe bus shelters either side of US 70 with appropriate pedestrian connectivity that serves Mebane Community Park.	TPM Grant	Mobility, Safety, Natural Environment	Ped, Transit
	A.5.2: Add accessible, safe bus shelters either	TPM Grant	Mobility,	Ped, Transit

Objective	Recommendation/Policy	Potential Funding Source	Goals Met	Improvement Type
	side of US 70 with appropriate pedestrian connectivity that serves Mebane Memorial Garden.		Safety	
A.6: Construct accessible bus shelters that serve Mebane’s residential communities.	A.6.1: Add accessible, safe bus shelters either side of US 70 with appropriate pedestrian connectivity that serves the Supper Club mobile home community.	TPM Grant	Mobility, Safety, Job Access	Ped, Transit
	A.6.2: Add an accessible, safe bus shelter with appropriate pedestrian connectivity across US 70 from the existing Ashbury Blvd. stop.	TPM Grant	Mobility, Safety	Ped, Transit
A.7: Accommodate all transportation modes in roadway improvement projects.	A.7.1: Construct a minimum 5-foot sidewalk on north side of US 70 from 9 <sup>th</sup> Street to Ashbury Blvd	Private, SS4A	Mobility, Safety	Ped
	A.7.2: Include a 10-foot shared-use path on the north side and a 5-foot sidewalk on the south side of US 70 from McBane Store Road to Buckhorn Road to accompany the long-term typical section widening; install bicycle pattern rumble strips in the short-term.	NCDOT STIP	Mobility, Safety	Bike, Ped
A.8: Slow automobile traffic throughout the corridor.	A.8.1: Reduce posted speed limit on US 70 to 35 miles per hour between McBane Store Road and NC 751.	NCDOT	Safety	Auto

Objective	Recommendation/Policy	Potential Funding Source	Goals Met	Improvement Type
<p><b>A.9: Extend sidewalk connectivity to anticipated growth areas.</b></p>	<p>A.9.1: Establish a maintenance agreement between NCDOT and Orange County for new and existing pedestrian facilities on US 70.</p>	<p>Local, NCDOT</p>	<p>Mobility, Safety</p>	<p>Ped</p>
	<p>A.9.2: Require developers building on land parcels fronting US 70 to either construct sidewalk along their frontages, dedicate ROW for future construction, or pay in lieu.</p>	<p>Local</p>	<p>Mobility, Safety</p>	<p>Ped</p>
<p><b>A.10 Modernize existing US 70 pedestrian crossing in downtown Mebane.</b></p>	<p>A.10.1: Modernize the US 70/3<sup>rd</sup> Street intersection with accessible pedestrian signal heads/pedestals on all corners, leading pedestrian intervals, no right turn on red restrictions, and high-visibility markings.</p>	<p>RAISE, SS4A</p>	<p>Placemaking, Safety</p>	<p>Intersection</p>
	<p>A.10.2: Modernize the US 70/4<sup>th</sup> Street intersection with accessible pedestrian signal heads/pedestals on all corners, leading pedestrian intervals, no right turn on red restrictions, and high-visibility markings.</p>	<p>RAISE, SS4A</p>	<p>Placemaking, Safety</p>	<p>Intersection</p>
	<p>A.10.3: Modernize the US 70/5<sup>th</sup> Street intersection with accessible pedestrian signal heads/pedestals on all corners, leading pedestrian intervals, no right turn on red restrictions, and high-visibility markings. Coordinate with NCDOT and NCRR to refine design of T-550GC as shown in Mebane’s 5<sup>th</sup> Street Improvement Traffic Impact Study (August 2022) to maintain three-lane northbound approach and crosswalk/sidewalk design on the east side, and replicate that design on the west side.</p>	<p>RAISE, SS4A</p>	<p>Placemaking, Safety</p>	<p>Intersection</p>

Objective	Recommendation/Policy	Potential Funding Source	Goals Met	Improvement Type
<b>A.11 Enhance downtown Mebane’s sense of place.</b>	A.11.1: Invest in streetscaping projects between Charles and Ninth Streets.	Private, Local	Placemaking	Ped
	A.11.2: Decrease the speed limit to 25 mph between Charles and Ninth Streets.	NCDOT	Placemaking, Safety	Auto
<b>A.12: Complete the sidewalk contiguity in downtown Mebane.</b>	A.12.1: Maintain existing sidewalk on US 70’s north side between Mebane Community Park and 9 <sup>th</sup> Street.	Maintenance	Mobility, Placemaking, Safety	Ped
	A.12.2: Combine and minimize curb cuts and wide, flush frontages as parcels redevelop.	Private	Placemaking, Safety	Ped
<b>A.13: Expand transit by partnerships with service providers in Alamance County.</b>	A.13.1: Incorporate planned stops at Oakwood Street and Industrial Drive into the future Mebane Circulator route.	TPM Grant	Mobility, Job Access	Transit
	A.13.2: Expand transit service offerings, such as on-demand service, for Mebane’s suburbs, specifically to align with fixed route buses in Alamance County.	TPM Grant	Mobility, Job Access	Transit
<b>A.14: Expand partnerships with service providers in Orange County</b>	A.14.1: Extend Orange-Alamance Connector service to the planned Mebane Community Park and Supper Club Road mobile home community stops.	TPM Grant	Mobility, Job Access	Transit
	A.14.2: Expand transit service offerings, such as on-demand service, for Mebane’s suburbs, specifically to align with fixed route buses in Orange County.	TPM Grant	Mobility, Job Access	Transit
	A.14.3: Extend Orange-Alamance Connector service to existing Ashbury Boulevard stop.	TPM Grant	Mobility, Job Access	Transit
<b>A.15: Reduce automobile</b>	A.15.1: When US 70 is widened to a four-lane divided facility from McBane Store Road to	NCDOT STIP	Mobility	Auto

Objective	Recommendation/Policy	Potential Funding Source	Goals Met	Improvement Type
congestion delay times in response to projected traffic demand growth through the corridor.	Buckhorn Road, include multimodal facilities.			
A.16: Expand regional transit services to residential centers in the corridor.	A.16.1: Extend regional transit service to the planned Supper Club Road mobile home community stop.	TPM Grant	Mobility, Job Access	Transit
A.17: Ensure protection of local watersheds.	A.17.1: Require best management practices (BMPs) with regard to erosion control and hydraulic design in future transportation and land development projects.	Local, Private	Natural Environment	Policy

6.3.1.2 Segment B

Objective	Recommendation/Policy	Potential Funding Source	Goals Met	Improvement Type
B.1: Reduce automobile congestion delay times in response to projected traffic demand growth through the corridor.	B.1.1: When US 70 is widened to a four-lane divided facility from Buckhorn Road to Lloyds Dairy Road, include multimodal facilities.	NCDOT STIP	Mobility	Auto
B.2: Improve access between US 70 and I 40/I 85.	B.2.1: Construct exclusive left- and right-turn lanes on all approaches at the US 70/Efland Cedar Grove Road intersection.	NCDOT STIP	Mobility	Intersection
	B.2.2: Redesign the US 70/I 85 Connector interchange to a fully directional configuration, such as a “dogbone” roundabout.	NCDOT STIP	Mobility	Intersection

Objective	Recommendation/Policy	Potential Funding Source	Goals Met	Improvement Type
<b>B.3: Manage travel demand for future development in the Efland-Buckhorn-Mebane economic development area.</b>	B.3.1: Implement and regularly update the <i>Efland-Buckhorn-Mebane Access Management Plan</i> (updated 2019).	Local	Mobility	Auto
	B.3.2: Update the <i>Efland-Buckhorn-Mebane Access Management Plan</i> to include pedestrian, bicycle, and transit connectivity recommendations.	Local, SS4A	Mobility	Bike, Ped, Transit
<b>B.4: Establish alternative east-west bicycle routes to US 70 between Mebane and Hillsborough.</b>	B.4.1: Develop protected bicycle route on Lebanon Road from Doe Run Road to Old Paths Trail.	RAISE, SS4A	Mobility, Safety	Bike
	B.4.2: Develop protected bicycle route along Richmond Road from Lebanon Road to Efland-Cheeks Park and Community Center; connect the route south across US 70 to shared-use path proposed to run parallel to I-40.	RAISE, SS4A	Mobility, Safety	Bike
<b>B.5: Improve bus service reliability.</b>	B.5.1: Increase the frequency and service hours of regional transit routes.	TPM Grant	Mobility	Transit
	B.5.2: Increase the frequency and service hours of Orange County's Orange-Alamance Connector route.	TPM Grant	Mobility	Transit
<b>B.6: Improve accessibility of existing bus stops.</b>	B.6.1: Update all existing bus stops to accessibility and safety standards, complete with shelters, seating, lighting, visible and audible information, and appropriate pedestrian and ADA connectivity.	TPM Grant	Mobility, Safety	Ped, Transit
<b>B.7: Construct accessible bus shelters that serve Efland's residential</b>	B.7.1: Add accessible, safe bus shelters with appropriate pedestrian connectivity either side of US 70 that serve communities near Ashwick Drive.	TPM Grant	Mobility, Safety, Job Access	Ped, Transit

Objective	Recommendation/Policy	Potential Funding Source	Goals Met	Improvement Type
<b>communities.</b>	B.7.2: Add accessible, safe bus shelters with appropriate pedestrian connectivity either side of US 70 that serve the Graham Trailer Park.	TPM Grant	Mobility, Safety, Job Access	Ped, Transit
<b>B.8: Accommodate all transportation modes in roadway improvement projects.</b>	B.8.1: Include a 10-foot shared-use path on the north side and a 5-foot sidewalk on the south side of US 70 from Buckhorn Road to Lloyds Dairy Road to accompany the long-term typical section widening; install bicycle pattern rumble strips in the short-term.	NCDOT STIP	Mobility, Safety	Bike, Ped
	B.8.2 Install high visibility signs along US 70 indicating presence of cyclists between Tinnin Road and Gaines Chapel Road.	NCDOT SS4A	Mobility, Safety	Bike
	B.8.3: Revise the US 70/Buckhorn Road realignment to include a 5-foot paved shoulder with bicycle pattern rumble strips.	NCDOT STIP	Mobility, Safety	Bike
<b>B.10: Slow automobile traffic throughout the corridor.</b>	B.10.1: Reduce posted speed limit on US 70 to 35 miles per hour between McBane Store Road and NC 751.	NCDOT	Safety	Auto
<b>B.11: Extend sidewalk connectivity to anticipated growth areas.</b>	B.11.1: Establish a maintenance agreement between NCDOT and Orange County for new and existing pedestrian facilities on US 70.	Local, NCDOT	Mobility, Safety	Ped
	B.11.2: Require developers building on land parcels fronting US 70 to either construct sidewalk along their frontages, dedicate ROW for future construction, or pay in lieu.	Private	Mobility, Safety	Ped

Objective	Recommendation/Policy	Potential Funding Source	Goals Met	Improvement Type
<b>B.12: Expand transit by partnerships with service providers in Orange County</b>	B.12.1: Extend Orange-Alamance Connector service to the planned Ashwick Drive, Graham Trailer Park, and Mebane Memorial Garden stops.	TPM Grant	Mobility, Job Access	Transit
	B.12.3: Introduce and expand on-demand transit services for rural communities around Efland, specifically to align with fixed route buses.	TPM Grant	Mobility, Job Access	Transit
<b>B.13: Expand regional services to residential centers in the corridor.</b>	B.13.1: Extend regional service to the planned Ashwick Drive and Graham Trailer Park mobile home community stops.	TPM Grant	Mobility, Job Access	Transit
<b>B.14: Ensure protection of local watersheds.</b>	A.17.1: Require best management practices (BMPs) with regard to erosion control and hydraulic design in future transportation and land development projects.	Local, Private	Natural Environment	Policy

6.3.1.3 Segment C

Objective	Recommendation/Policy	Potential Funding Source	Goals Met	Improvement Type
<b>C.1: Reduce automobile congestion delay times in response to projected traffic demand growth through the corridor.</b>	C.1.1: When US 70 is widened to a four-lane divided facility throughout Segment C, include multimodal facilities.	NCDOT STIP	Mobility	Auto
	C.1.2: Realign Revere Road approach to the US 70/Faucette Mill Road intersection; reroute Short Street accordingly.	NCDOT STIP	Mobility	Intersection
	C.1.3: Construct/extend exclusive turn lanes on the west- and northbound approaches to the US 70/Faucette Mill Road intersection.	NCDOT STIP	Mobility	Intersection
	C.1.4: Construct exclusive turning lanes at the US 70/NC 86 intersection, including dual eastbound left turn lanes from US 70 onto NC 86 northbound.	NCDOT STIP	Mobility	Intersection

Objective	Recommendation/Policy	Potential Funding Source	Goals Met	Improvement Type
<b>C.2: Introduce and expand park and ride services.</b>	C.2.1: Implement the Faucette Mill Road park and ride service proposed in the <i>DCHCMPO CTP</i> (updated April 2023).	TPM Grant	Mobility, Job Access	Auto, Transit
<b>C.3: Expand regional transit access to job centers.</b>	C.3.1: Extend PART Route 4 service to existing North Carolina Drivers License and Orange County Courthouse stops.	TPM Grant	Mobility	Transit
<b>C.4: Establish alternative east-west bicycle routes to US 70 between Mebane and Hillsborough.</b>	C.4.1: Add sharrows and signage to establish bike route along the length of Faucette Mill Road north of the Hillsborough Town border.	SS4A	Mobility, Safety	Bike
	C.4.2: Construct an off-road bicycle path that connects Faucette Mill Road with Lebanon Road across the Eno River.	SS4A	Mobility, Safety	Bike
	C.4.3: Install signage to encourage bicycle use of Faucette Mill Road.	SS4A	Mobility, Safety	Bike
<b>C.5: Improve bus service reliability.</b>	C.5.1: Increase the frequency and service hours of regional transit routes.	TPM Grant	Mobility	Transit
	C.5.2: Increase the frequency and service hours of Orange County's Orange-Alamance Connector and Hillsborough Circulator routes.	TPM Grant	Mobility	Transit
<b>C.6: Improve accessibility of existing bus stops.</b>	C.6.1: Update all existing bus stops to accessibility and safety standards, complete with shelters, seating, lighting, visible and audible information, and appropriate pedestrian and ADA connectivity.	TPM Grant	Mobility, Safety	Ped, Transit
<b>C.7: Construct paired bus stops across US 70 from existing facilities.</b>	C.7.1: Add an accessible, safe bus shelter with appropriate pedestrian connectivity across US 70 from the existing North Carolina Drivers License stop.	TPM Grant	Mobility, Safety	Ped, Transit

Objective	Recommendation/Policy	Potential Funding Source	Goals Met	Improvement Type
	C.7.2: Add an accessible, safe bus shelter with appropriate pedestrian connectivity across US 70 from the existing Faucette Mill Road/Cornelius Street stop.	TPM Grant	Mobility, Safety	Ped, Transit
	C.7.3: Add an accessible, safe bus shelter with appropriate pedestrian connectivity across US 70 from the existing US 70/Rainey Avenue stop.	TPM Grant	Mobility, Safety	Ped, Transit
<b>C.8: Construct accessible bus shelters that serve Hillsborough’s residential communities.</b>	C.8.1: Replace Lakeshore Drive stop with a stop serving Bennetts Mobile Home Park and surrounding communities.	TPM Grant	Mobility, Safety, Job Access	Transit
<b>C.9: Accommodate all transportation modes in roadway improvement projects.</b>	C.9.1: Include a 10-foot shared-use path on the north side and a 5-foot sidewalk on the south side of US 70 from Lloyd’s Dairy Road to NC 86.	NCDOT STIP	Mobility, Safety	Bike, Ped
<b>C.10: Slow automobile traffic throughout the corridor.</b>	C.10.1: Reduce posted speed limit on US 70 to 35 miles per hour between McBane Store Road and NC 751.	NCDOT	Safety	Auto
	C.10.2: Reduce posted speed limit on Faucette Mill Road to 35 miles per hour between the Hillsborough Town border and Frank Perry Road.	Local	Safety	Auto
<b>C.11: Extend sidewalk connectivity to anticipated growth areas.</b>	C.11.1: Establish a maintenance agreement between NCDOT and Orange County for new and existing pedestrian facilities on US 70.	Local, NCDOT	Mobility, Safety	Ped
	C.11.2: Require developers building on land parcels fronting US 70 to either construct sidewalk along their frontages, dedicate ROW for future construction, or pay in lieu.	Private	Mobility, Safety	Ped

Objective	Recommendation/Policy	Potential Funding Source	Goals Met	Improvement Type
<b>C.12: Improve the safety of pedestrian facilities in the Fairview Neighborhood.</b>	C.12.1: Install high-visibility pedestrian crossing signage at the Faucette Mill Road/Torain Street intersection.	SS4A	Placemaking, Safety	Intersection
	C.12.2: Include high-visibility crossings in all future sidewalk construction on Faucette Mill Road, Torain Street, and Rainey Avenue where the pedestrian network would otherwise be interrupted by roadway.	SS4A	Placemaking, Safety	Ped
	C.12.3: Install high-visibility pedestrian crossing signage and pedestrian pads at the Rainey Avenue/Torain Street intersection.	SS4A	Placemaking, Safety	Intersection
<b>C.13: Establish gateways to Hillsborough.</b>	C.13.1: Upgrade the US 70/Lakeshore Drive intersection to a roundabout.	NCDOT STIP, Local	Placemaking, Safety	Intersection
<b>C.14: Improve the permeability of US 70 as a barrier within Hillsborough.</b>	C.14.1: Construct shared-use path along the east side of NC 86 from US 70 to Corbin Street.	NCDOT STIP	Mobility, Placemaking, Safety	Bike, Ped

Objective	Recommendation/Policy	Potential Funding Source	Goals Met	Improvement Type
	<p>C.14.2: Modernize the US 70/Faucette Mill Road intersection with accessible pedestrian signal heads/pedestals on all corners, leading pedestrian intervals, no right turn on red restrictions, and high-visibility markings.</p>	<p>NCDOT STIP, SS4A</p>	<p>Placemaking, Safety</p>	<p>Intersection</p>
	<p>C.14.3: Modernize the US 70/NC 86 intersection with pedestrian refuge islands, accessible pedestrian signal heads/pedestals on all corners, leading pedestrian intervals, no right turn on red restrictions, and high-visibility markings.</p>	<p>NCDOT STIP, SS4A</p>	<p>Placemaking, Safety</p>	<p>Intersection</p>
<p><b>C.15: Expand transit partnerships with providers in Orange County services within the corridor.</b></p>	<p>C.15.1: Extend Orange-Alamance Connector service to the existing Faucette Mill/Cornelius Street, Hillsborough Police Station, and West Village stops.</p>	<p>TPM Grant</p>	<p>Mobility, Job Access</p>	<p>Transit</p>
	<p>C.15.2: Reroute Hillsborough Circulator from Lakeshore Drive to Hill Avenue, and service new stop at Bennetts Mobile Home Park.</p>	<p>TPM Grant</p>	<p>Mobility, Job Access</p>	<p>Transit</p>
	<p>C.15.3: Extend Hillsborough Circulator service to the existing North Carolina Drivers License stop.</p>	<p>TPM Grant</p>	<p>Mobility, Job Access</p>	<p>Transit</p>
	<p>C.15.4: Introduce and expand on-demand transit services for Fairview, job centers north</p>	<p>TPM Grant</p>	<p>Mobility, Job Access</p>	<p>Transit</p>

Objective	Recommendation/Policy	Potential Funding Source	Goals Met	Improvement Type
	along NC 86, and West Hillsborough, specifically to align with fixed route buses.			
<b>C.16: Improve bicycle connectivity between residential and commercial centers in Hillsborough.</b>	C.16.1: Add sharrows and signage to establish bike route on Torain Street between Faucette Mill Road and Rainey Avenue.	SS4A	Mobility, Job Access	Bike
	C.16.2: Add sharrows and signage to establish east-west bike route through Fairview Park from Rainey Avenue to NC 86.	SS4A	Mobility, Job Access	Bike
	C.16.3: Add sharrows and signage to establish a bicycle route on Hayes and Union Streets from West King Street to Cameron Street.	SS4A	Mobility, Job Access	Bike
	C.16.4: Add sharrows and signage to establish a bicycle route on Churton Street between Union Street and Margaret Lane.	SS4A	Mobility, Job Access	Bike
<b>C.17: Expand regional transit services to residential centers in the corridor.</b>	C.17.1: Extend ODX service to the existing Faucette Mill Road/Cornelius Street, US 70/Rainey Street, and West Village stops.	TPM Grant	Mobility, Job Access	Transit
<b>C.18: Ensure protection of local watersheds.</b>	A.17.1: Require best management practices (BMPs) with regard to erosion control and hydraulic design in future transportation and land development projects.	Local, Private	Natural Environment	Policy

6.3.1.4 Segment D

Objective	Recommendation/Policy	Potential Funding Source	Goals Met	Improvement Type
<b>D.1: Reduce automobile congestion delay times in response to projected traffic demand growth through the corridor.</b>	D.1.1: When US 70 is widened to a four-lane divided facility throughout Segment D, include multimodal facilities.	NCDOT STIP	Mobility	Auto
	D.1.2: Extend existing south- and westbound right turn lanes at the US 70/Orange High	NCDOT STIP	Mobility	Intersection

Objective	Recommendation/Policy	Potential Funding Source	Goals Met	Improvement Type
	School Road intersection.			
	D.1.3: Upgrade the US 70/N. Scotswood Blvd. intersection to a roundabout.	NCDOT STIP, Local	Mobility, Safety	Intersection
<b>D.2: Introduce and expand park and ride services.</b>	D.2.1: Implement the Miller Road/Latta Road park and ride service proposed in the <i>DCHCMPO CTP</i> (updated April 2023).	TPM Grant	Mobility, Job Access	Transit
<b>D.3: Manage travel demand resulting from trips to and from schools.</b>	D.3.1: Conduct NCDOT Municipal School Transportation Assistance (MSTA) school study to address circulation, queuing, and storage needs specific to Orange High and Middle School complex.	NCDOT STIP	Mobility	Auto
<b>D.4: Improve bus service reliability.</b>	D.4.1: Increase the frequency and service hours of Orange County's Orange-Alamance Connector and Hillsborough Circulator routes.	TPM Grant	Mobility	Transit
<b>D.5: Improve accessibility of existing bus stops.</b>	D.5.1: Update all existing bus stops to accessibility and safety standards, complete with shelters, seating, lighting, visible and audible information, and appropriate pedestrian and ADA connectivity.	TPM Grant	Mobility, Safety	Ped, Transit
<b>D.6: Construct accessible bus shelters that serve Hillsborough's employment centers</b>	D.6.1: Add an accessible, safe bus shelter with appropriate pedestrian connectivity on Orange High School Road that serves Orange High School.	TPM Grant	Mobility, Safety, Job Access	Ped, Transit
<b>D.7: Construct accessible bus shelters that serve Hillsborough's residential communities.</b>	D.7.1: Add an accessible, safe bus shelter with appropriate pedestrian connectivity on Miller Road.	TPM Grant	Mobility, Safety, Job Access	Ped, Transit
	D.7.2: Add an accessible, safe bus shelter with appropriate pedestrian connectivity on Scotswood Boulevard.	TPM Grant	Mobility, Safety, Job Access	Ped, Transit
<b>D.8: Accommodate all transportation modes in roadway improvement</b>	D.8.1: Include a 10-foot shared-use path on the north side and a 5-foot sidewalk on the south side of US 70 from NC 86 to Palmers	NCDOT STIP	Mobility, Safety	Bike, Ped

Objective	Recommendation/Policy	Potential Funding Source	Goals Met	Improvement Type
projects.	Grove Church Road.			
<b>D.9: Slow automobile traffic throughout the corridor.</b>	D.9.1: Reduce posted speed limit on US 70 to 35 miles per hour between McBane Store Road and NC 751.	NCDOT	Safety	Auto
	D.9.2: Reduce posted speed limit on Lawrence Road to 35 miles per hour between US 70 and Palmers Grove Church Road.	NCDOT	Safety	Auto
<b>D.10: Extend sidewalk connectivity to anticipated growth areas.</b>	D.10.1: Establish a maintenance agreement between NCDOT and Orange County for new and existing pedestrian facilities on US 70.	Local, NCDOT	Mobility, Safety	Ped
	D.10.2: Require developers building on land parcels fronting US 70 to either construct sidewalk along their frontages, dedicate ROW for future construction, or pay in lieu.	Private	Mobility, Safety	Ped
<b>D.11: Establish gateways to Hillsborough.</b>	D.11.1: Upgrade the intersection of US 70, US 70 Business, and Palmer's Grove Church Road to a roundabout.	NCDOT STIP, Local	Safety, Placemaking	Intersection
<b>D.12: Improve the permeability of US 70 as a barrier within Hillsborough.</b>	D.12.1: Construct sidewalk and protected bicycle route on the entirety of Orange High School Road; connect to Caine Street across US 70 along parcel lines.	NCDOT STIP, Local	Mobility, Safety, Placemaking	Bike, Ped

Objective	Recommendation/Policy	Potential Funding Source	Goals Met	Improvement Type
	D.12.2: Modernize the US 70/Orange High School Road intersection with accessible pedestrian signal heads/pedestals on all corners, leading pedestrian intervals, no right turn on red restrictions, and high-visibility markings.	NCDOT STIP, SS4A	Safety, Placemaking	Intersection
	D.12.3: Modernize the US 70/Lawrence Road intersection with accessible pedestrian signal heads/pedestals on all corners, leading pedestrian intervals, no right turn on red restrictions, and high-visibility markings.	NCDOT STIP, SS4A	Safety, Placemaking	Intersection
<b>D.13: Expand transit partnerships with providers in Orange County within the corridor.</b>	D.13.1: Extend Hillsborough Circulator service to the planned Miller Road, Orange High School Road, and Scotswood Boulevard stops.	TPM Grant	Mobility, Job Access	Transit
	D.13.2: Reroute Hillsborough Circulator along Orange High School Road, Miller Road, Woodlawn Drive, and Scotswood Boulevard to service planned stops between the existing US 70/Walgreens and Scotswood/US 70 stops.	TPM Grant	Mobility, Job Access	Transit
	D.13.3: Introduce and expand on-demand transit services for communities adjacent to Palmers Grove Church Road, specifically to align with fixed route buses.	TPM Grant	Mobility, Job Access	Transit
<b>D.14: Improve bicycle connectivity between residential and commercial centers in Hillsborough.</b>	D.14.1: Add sharrows and signage to establish a bicycle route on the length of Crawford Road.	SS4A	Mobility, Job Access	Bike
<b>D.15: Connect Eno River State Park to US 70 via bicycle infrastructure.</b>	D.15.1: Add sharrows and signage to establish bike route on Lawrence Road from US 70 to Palmers Grove Church Road.	SS4A	Mobility, Natural Environment	Bike

Objective	Recommendation/Policy	Potential Funding Source	Goals Met	Improvement Type
<b>D.16: Ensure protection of local watersheds.</b>	A.17.1: Require best management practices (BMPs) with regard to erosion control and hydraulic design in future transportation and land development projects.	Local, Private	Natural Environment	Policy

6.3.1.5 Segment E

Objective	Recommendation/Policy	Potential Funding Source	Goals Met	Improvement Type
<b>E.1: Reduce automobile congestion delay times in response to projected traffic demand growth through the corridor.</b>	E.1.1: When US 70 is widened to a four-lane divided facility throughout Segment E, include multimodal facilities.	NCDOT STIP	Mobility	Auto
	E.1.2: Extend turn lanes at the US 70/NC 751 intersection.	NCDOT STIP, Local	Mobility	Intersection
<b>E.2: Accommodate all transportation modes in roadway improvement projects.</b>	E.2.1: Include a 10-foot shared-use path on the north side and a 5-foot sidewalk on the south side of US 70 from Palmers Grove Church Road to NC 751; in the short term, widen shoulders to accommodate minimum 5-foot paved shoulder with bicycle pattern rumble strips.	NCDOT STIP	Mobility, Safety	Bike, Ped
<b>E.3: Slow automobile traffic throughout the corridor.</b>	E.3.1: Reduce posted speed limit on US 70 to 35 miles per hour between McBane Store Road and NC 751.	NCDOT	Safety	Auto
	E.3.2: Reduce posted speed limit on Pleasant Green Road to 35 miles per hour from US 70 to Cole Mill Road.	Local	Safety	Auto
	E.3.3: Reduce posted speed limit on Cole Mill Road to 35 miles per hour from Pleasant Green	Local	Safety	Auto

Objective	Recommendation/Policy	Potential Funding Source	Goals Met	Improvement Type
	Road to the Eno River State Park entrance.			
<b>E.4: Extend sidewalk connectivity to anticipated growth areas.</b>	E.4.1: Establish a maintenance agreement between NCDOT and Orange County for new and existing pedestrian facilities on US 70.	Local, NCDOT	Mobility, Safety	Ped
	E.4.2: Require developers building on land parcels fronting US 70 to either construct sidewalk along their frontages, dedicate ROW for future construction, or pay in lieu.	Private	Mobility, Safety	Ped
<b>E.5 Prepare east Orange County for smart growth.</b>	E.5.1: Construct reduced conflict intersection configurations from Palmers Grove Church Road to the I 85 interchange.	NCDOT STIP	Safety, Placemaking	Auto
	E.5.2: Invest in streetscaping projects on US 70 south of I 85.	Private, Local	Placemaking	Ped
<b>E.6: Expand transit by partnerships with service providers in Orange County within the corridor.</b>	E.6.1: Introduce and expand on-demand transit services for rural communities east of Piney Grove, specifically to align with fixed route buses.	TPM Grant	Mobility, Job Access	Transit
<b>E.7: Connect Eno River State Park to US 70 via bicycle infrastructure.</b>	E.7.1: Construct protected bike lane on Pleasant Green Road from US 70 to Cole Mill Road.	SS4A	Mobility, Safety, Natural Environment	Bike
	E.7.2: Add sharrows and signage to establish bike route on Cole Mill Road from Pleasant Green Road to the Eno River State Park entrance.	SS4A	Mobility, Natural Environment	Bike
<b>E.8: Designate wildlife crossings where animal strikes are high.</b>	E.8.1: Develop location for a designated wildlife crossing of US 70 between Seven Springs Road and Linden Road.	Local	Safety, Natural Environment	Auto
<b>E.9: Ensure protection of local watersheds.</b>	A.17.1: Require best management practices (BMPs) with regard to erosion control and hydraulic design in future transportation and land development projects.	Local, Private	Natural Environment	Policy

6.3.1.6 Segment F

Objective	Recommendation/Policy	Potential Funding Source	Goals Met	Improvement Type
<b>F.1: Reduce automobile congestion delay times in response to projected traffic demand growth through the corridor.</b>	F.1.1: Upgrade the US 70 Business/Lawrence Road intersection to a traffic signal.	NCDOT STIP, Local	Mobility, Safety	Intersection
	F.1.2: Convert the US 70 Business/Elizabeth Brady Road intersection to a T-intersection with an adjacent roundabout at NC 86.	NCDOT STIP, Local	Mobility, Safety	Intersection
	F.1.3: Convert the existing traffic signal at the US 70 Business/NC 86 intersection to a roundabout, including pedestrian crossing markings and signage.	NCDOT STIP, Local	Mobility, Safety	Intersection
<b>F.2: Improve access between US 70 and I 40/85.</b>	F.2.1: Implement the US 70 Business realignment proposed in the <i>NC 86 Connector Study, Phase II</i> (2021), built to complete street standards.	NCDOT STIP, Local	Mobility, Safety	Intersection
<b>F.3: Improve bus service reliability.</b>	F.3.1: Increase the frequency and service hours of Orange County’s Orange-Alamance Connector and Hillsborough Circulator routes.	TPM Grant	Mobility	Transit
<b>F.4: Improve accessibility of existing bus stops.</b>	F.4.1: Update all existing bus stops to accessibility and safety standards, complete with shelters, seating, lighting, visible and audible information, and appropriate pedestrian and ADA connectivity.	TPM Grant	Mobility, Safety	Ped, Transit
<b>F.5: Construct accessible bus shelters that serve Hillsborough’s employment centers.</b>	F.5.1: Add an accessible, safe bus shelter with appropriate pedestrian connectivity near NC 86 and Cornerstone Court.	TPM Grant	Mobility, Safety, Job Access	Ped, Transit
<b>F.6: Construct accessible bus shelters that serve Hillsborough’s residential communities.</b>	F.6.1: Add an accessible, safe bus shelter with appropriate pedestrian connectivity near Orange Grove Road and Elfin Boulevard	TPM Grant	Mobility, Safety, Job Access	Ped, Transit

Objective	Recommendation/Policy	Potential Funding Source	Goals Met	Improvement Type
<b>F.7: Accommodate all transportation modes in roadway improvement projects.</b>	F.7.1: Construct 5-foot sidewalks on the north and south sides of US 70 Business from NC 86 to Palmer Grove Church Road.	NCDOT STIP	Mobility, Safety	Ped
	F.7.2: Widen the shoulders on US 70 Business from NC 86 to Palmer Grove Church Road to provide a minimum 5-foot paved shoulder with bicycle pattern rumble strips.	NCDOT STIP	Mobility, Safety	Bike
<b>F.8.: Slow automobile traffic throughout the corridor.</b>	F.8.1: Reduce posted speed limit on US 70 business to 35 miles per hour between NC 86 and US 70.	NCDOT	Safety	Auto
<b>F.9: Extend sidewalk connectivity to anticipated growth areas.</b>	F.9.1: Establish a maintenance agreement between NCDOT and Orange County for new and existing pedestrian facilities on US 70.	Local, NCDOT	Mobility, Safety	Ped
	F.9.2: Require developers building on land parcels fronting US 70 to either construct sidewalk along their frontages, dedicate ROW for future construction, or pay in lieu.	Private	Mobility, Safety	Ped
<b>F.10: Establish gateways to Hillsborough.</b>	F.10.1: Invest in streetscaping projects on US 70 Business from Tuscarora Drive to US 70 Bypass.	Private	Placemaking	Ped
<b>F.11: Expand transit by partnerships with service</b>	F.11.1: Extend Hillsborough Circulator service to the planned Cornerstone Court	TPM Grant	Mobility, Job Access	Transit

Objective	Recommendation/Policy	Potential Funding Source	Goals Met	Improvement Type
providers in Orange County.	and Orange Grove Road stops.			
	F.11.2: Shift partnerships with service providers in Orange County to the new US 70 Business location proposed in the <i>NC 86 Connector Study, Phase II (2021)</i> .	TPM Grant	Mobility, Job Access	Transit
F.12: Improve bicycle connectivity between residential and commercial centers in Hillsborough.	F.12.1: Add sharrows and signage to establish a bicycle route on the length of Meadowlands Drive.	SS4A	Mobility, Job Access	Bike
F.13: Expand regional transit services to residential centers in the corridor.	F.13.1: Shift regional transit services to the new US 70 Business location proposed in the <i>NC 86 Connector Study, Phase II (2021)</i> .	TPM Grant	Mobility, Job Access	Transit
F.14: Further connect the trail system to the urban active transportation network.	F.14.1: Connect Mountains-to-Sea trail to US Business with a shared-use path via Elizabeth Brady Road.	SS4A	Mobility, Safety, Natural Environment	Bike, Ped
F.15: Ensure protection of local watersheds.	A.17.1: Require best management practices (BMPs) with regard to erosion control and hydraulic design in future transportation and land development projects.	Local, Private	Natural Environment	Policy

