

# One Community Trail Feasibility Study

City of Jacksonville NORTH CAROLINA



NOVEMBER 2024



# Acknowledgments

This feasibility study was prepared by Stantec for the City of Jacksonville, North Carolina through the North Carolina Department of Transportation - Integrated Mobility Division Feasibility Studies Program. Special thanks to the members of the project team that participated in the development of this Plan:

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# Project Summary

This project examined several potential locations for a trail network in Jacksonville--the One Community Trail.

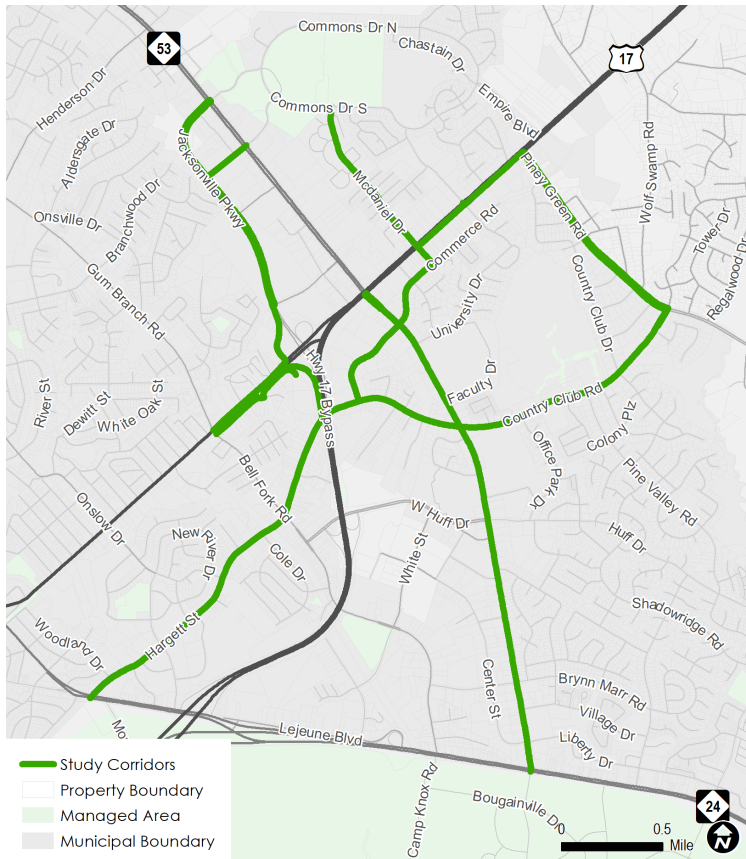
## THIS PROJECT IS A FEASIBILITY STUDY.

A feasibility study reviews alternatives early in the planning process. In this project, we identify and document site constraints or unique challenges that can be avoided or minimized. This saves time and money on the future engineering design work.

## WE SPOKE TO THE COMMUNITY

Through surveys, stakeholder meetings, outreach events, and an interactive map, we learned:

- Study area corridors and neighborhoods could benefit from added connections, with potential to significantly impact biking and walking activity.
- Safety is a core concern for Jacksonville residents and community members, both along and across major roadways.
- Right-of-Way and Utility impacts are a possibility. Avoid impacts where possible and leverage relationships with external partners to improve constructability where impacts are unavoidable.



## WE EXAMINED DATA.

The project team analyzed the following to find the best designs for the future trail network.

- Demographics indicators
- Land uses
- Flood risk
- Natural resources
- Key destinations
- Utilities and rights-of-way
- Traffic volumes
- Crashes and safety

## We developed alternatives.

### DATA ANALYSIS AND COMMUNITY FEEDBACK INFORMED THE ALTERNATIVES.

The One Community Trail's large footprint within Jacksonville presents numerous opportunities and challenges. To plan ahead for, avoid and mitigate challenges to design and construction, alternatives were developed and considered for their feasibility, as well as their contribution to achieving Jacksonville's vision, both for this Trail and for the community.

The project team used data analysis and community feedback to screen trail options. For example, if a design choice would cause safety problems, it was not considered for further analysis.

## We analyzed these alternatives to find the best options.

### CRITERIA #1

#### SAFETY

Does the facility and alignment improve the safety for those who are biking and walking?

### CRITERIA #2

#### CONNECTIVITY

Does the facility and alignment create and/or expand connections between important destinations, neighborhoods and existing sidewalks or bike facilities?

### CRITERIA #3

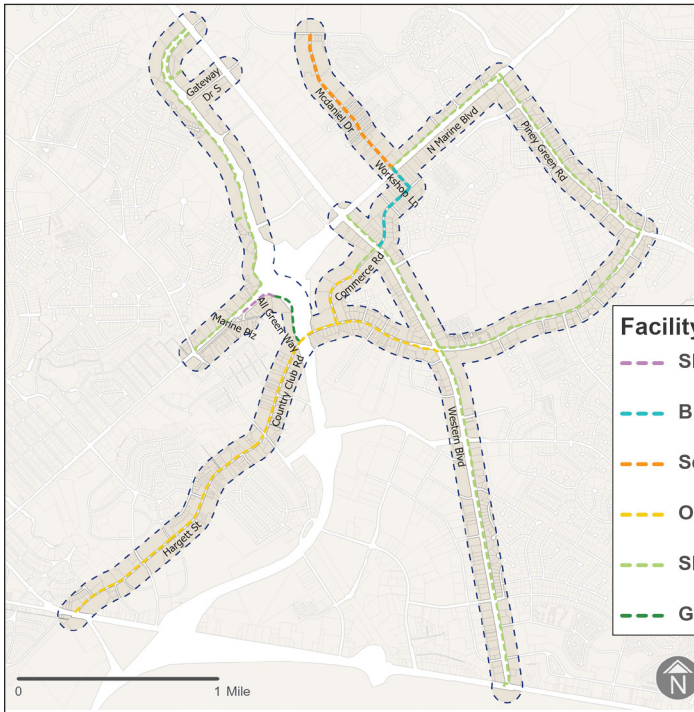
#### CONSTRUCTABILITY

Does the facility and alignment allow for efficiency in design and ease of construction?

| CORRIDOR SECTION (EXTENTS)                                          | SHARED      | ON-STREET |                    | SEPARATED / ABOVE-THE-CURB |                 |
|---------------------------------------------------------------------|-------------|-----------|--------------------|----------------------------|-----------------|
|                                                                     | Shared Lane | Bike Lane | Buffered Bike Lane | Separated Bike Lane        | Shared-Use Path |
| <b>Hargett Street</b><br>Lejeune Boulevard to New River Drive       |             |           |                    |                            |                 |
| <b>Hargett Street</b><br>New River Drive to Bell Fork Road          |             |           |                    |                            |                 |
| <b>Country Club Road</b><br>Bell Fork Road to Western Boulevard     |             |           |                    |                            |                 |
| <b>Country Club Road</b><br>Western Boulevard to Piney Green Road   |             |           |                    |                            |                 |
| <b>Piney Green Road</b><br>Country Club Road to Marine Boulevard    |             |           |                    |                            |                 |
| <b>Marine Boulevard</b><br>Piney Green Road to McDaniel Drive       |             |           |                    |                            |                 |
| <b>Marine Boulevard</b><br>Gum Branch Road to Jacksonville Parkway  |             |           |                    |                            |                 |
| <b>McDaniel Drive</b><br>Marine Boulevard to Commons Drive          |             |           |                    |                            |                 |
| <b>Workshop Lane</b><br>Commerce Drive to Marine Boulevard          |             |           |                    |                            |                 |
| <b>Commerce Drive</b><br>Western Boulevard to Workshop Lane         |             |           |                    |                            |                 |
| <b>Commerce Drive</b><br>Country Club Road to Western Boulevard     |             |           |                    |                            |                 |
| <b>Western Boulevard</b><br>Lejeune Boulevard to Marine Boulevard   |             |           |                    |                            |                 |
| <b>All Green Way</b><br>Miracle Drive to End                        |             |           |                    |                            |                 |
| <b>Jacksonville Parkway</b><br>Western Boulevard to Maine Boulevard |             |           |                    |                            |                 |

- High: most desirable safety and connectivity benefit
- Moderate-High: desirable safety and connectivity benefit
- Moderate: desirable safety and connectivity benefit
- Low: Least desirable safety and connectivity benefit
- Not applicable: does not apply

## The final recommendations include a mix of facility types.



These recommendations, when implemented, will create a low-stress network suitable for Jacksonville residents and community members of all ages and abilities. Facilities are broken into nine projects with phases (see below).

## Projects were developed with cost estimates for design and construction.

|   |                                                      |             |
|---|------------------------------------------------------|-------------|
| 1 | HARGETT STREET ROAD DIET                             | \$2,105,000 |
| 2 | MCDANIEL DRIVE / COMMERCE DRIVE SAFE ROUTE TO SCHOOL | \$3,365,000 |
| 3 | MARINE BOULEVARD SHARED-USE PATH                     | \$1,865,000 |
| 4 | CROSSING JACKSONVILLE PARKWAY (BUNDLE #1)            | \$3,925,000 |
| 5 | COUNTRY CLUB ROAD SHARED-USE PATH                    | \$7,250,000 |
| 6 | PINEY GREEN ROAD SHARED-USE PATH                     | \$2,890,000 |
| 7 | WESTERN BOULEVARD SHARED-USE PATH EXTENSION          | \$7,470,000 |
| 8 | JACKSONVILLE PARKWAY CONNECTOR (BUNDLE #2)           | \$8,537,500 |

# CHAPTER 1: Introduction

## OVERVIEW, BACKGROUND, AND GOALS

Jacksonville is the center of Onslow County: a commercial and cultural hub for the 80,000 residents who call it home. Two of the largest military installations on the eastern seaboard, Marine Corps Base Camp Lejeune and Marine Corps Air Station New River, are found within Jacksonville's city limits (along with the School of Infantry – East, which sees thousands of new personnel each year).

Jacksonville is poised to grow, with a waterfront downtown in the midst of revitalization, abundant outdoor recreation opportunities, beach access, and a growing industry beyond its agricultural roots. Providing safe biking and walking facilities will make it easier, safer, and more convenient for residents to access these features both now and into the future.

## STUDY GOALS, PURPOSE AND NEED

The One Community Trail aims to improve bike and pedestrian safety, connect people to schools, jobs, and shopping, and expand the transportation options Jacksonville has to offer.

- **Improve Safety:** The One Community Trail will make it safer to walk or bike along major streets in Jacksonville.
- **Improve Connectivity:** The One Community Trail will connect vulnerable communities to education, recreation, health care, and other opportunities.
- **Create Mobility Choices:** The One Community Trail will give the people of Jacksonville more choices about how they get from place to place.

## PROJECT LOCATION / STUDY AREA

The One Community Trail will involve a combination of biking and walking improvements, spanning approximately 12.5-miles along main corridors of the City of Jacksonville.

### These main corridors include:

- US 17 / US 17 Business / N Marine Blvd
- NC 53 / SR 1470 / Western Boulevard
- SR 1406 / Piney Green Road
- SR 1705 / Commerce Road
- SR 2714 / Jacksonville Parkway
- SR 1403 / Hargett Street / Country Club Road
- McDaniel Drive / Workshop Lane

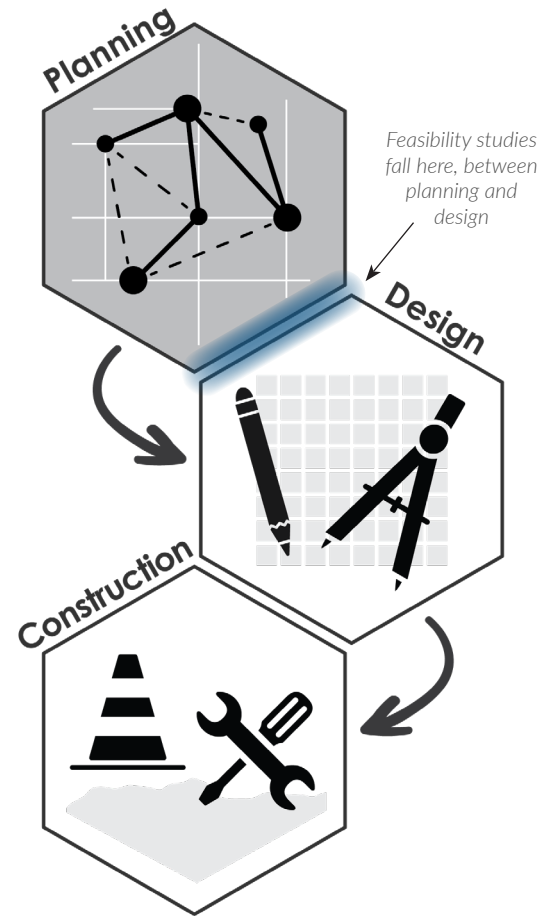
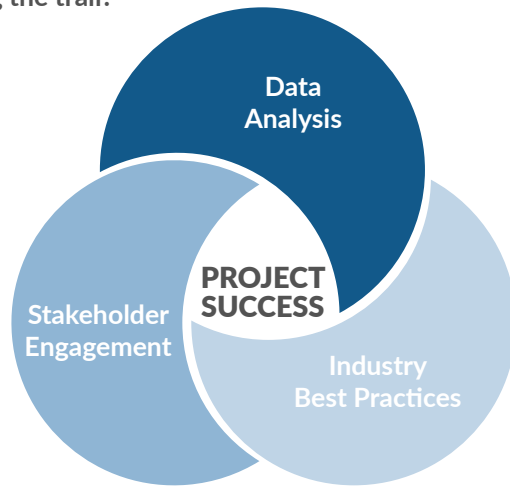
Situated entirely within the corporate limits of the City of Jacksonville, these corridors facilitate movement both to and through Jacksonville, particularly within commercial and residential areas east of downtown. They also provide direct connectivity to Camp Lejeune, downtown Jacksonville, and local parks. The construction of the One Community Trail would increase the City's trail network by 65% and provide access to the Great Trails State network.

## Planning Process & Timeline

### WHAT IS A FEASIBILITY STUDY?

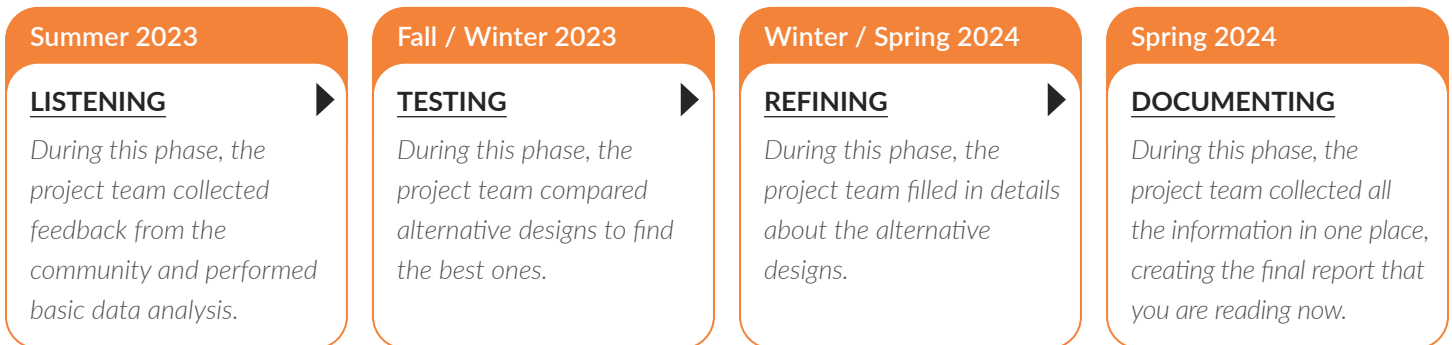
Feasibility studies fall between conceptual planning and engineering design work. A feasibility study often analyzes alternative options for a potential project, and uses community feedback to identify a preferred alternative. By reviewing trail alternatives early in the planning process, we expect to identify and document site constraints or unique challenges that can be avoided or minimized, saving time and money on the future engineering design work.

A feasibility study answers questions such as: **What side of the road will the trail be located? Where (or how) will the trail cross the road? How do we best avoid utilities along the trail?**



### PROCESS & SCHEDULE

The One Community Trail feasibility study started in July of 2023 and concluded in June 2024. The study was divided into phases.



## Project Benefits



### A more connected community.

While the City has an existing trail system comprised of 19 miles, the routes are on the outer City limits. Further advancing groundwork for the trail network, City Council has adopted regulations through the Unified Development Ordinance requiring developments to construct pedestrian accommodations.

« The One Community Trail would join existing trail route, providing a means of transportation that connects people directly to where they live and work.



### Safer Travel.

Introducing a more connected trail system, with multimodal travel at the core, provides all users a safe and comfortable way to get around and decrease the likelihood of crashes. The highest frequency of pedestrian and bicycle crashes is located within the study area with as many as 12 pedestrian and bike crashes from 2017 to 2021. The Annual Average Daily Traffic (AADT) along these roads range from 6,500 up to 37,000.

« Safety will significantly be improved with proper separation and safe crossing locations for non-motorized road users preventing fatalities and serious injuries.



### Transportation options that include everyone's needs.

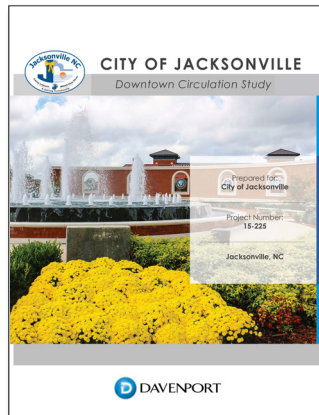
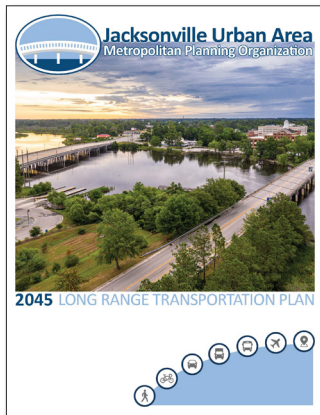
The trail will serve Census block groups with poverty levels as high as 78%, and with carless households as high as 44%, benefiting the most disadvantaged communities. The general land uses abutting the trail consist of 50% residential, 36% commercial, 5% office/institutional and 5% industrial. Therefore, this project will significantly benefit pedestrian and bicyclist commuters in our area.

« Creating mobility options that allow residents to bike and walk to amenities increases quality and comfortable travel options for all.

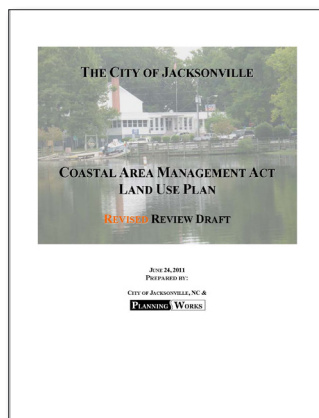
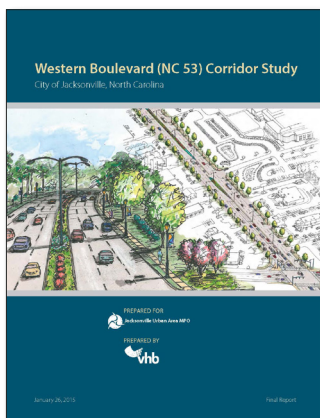
# Background & Context

## PLAN & POLICY REVIEW

The City of Jacksonville, Jacksonville Urban MPO, and Onslow County, have already done the hard work of determining how they would like to grow into the future. To stay consistent with these efforts, we conducted a plan review before analyzing the One Community Trail, summarized here:

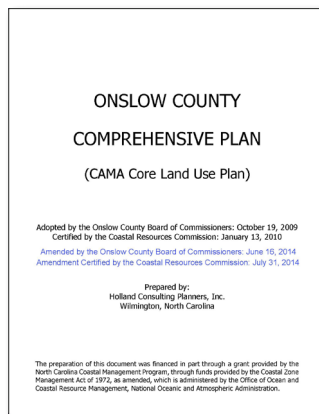
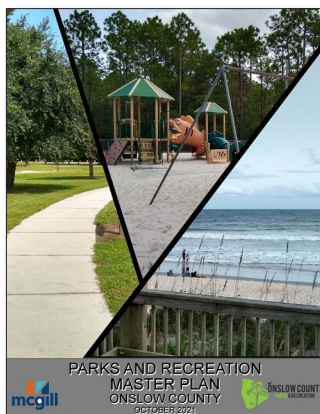


- Jacksonville Urban Area 2045 Metropolitan Transportation Plan (2021)
- Jacksonville Downtown Circulation Study (2017)
- Western Boulevard (NC 53) Corridor Study (2015)
- Jacksonville CAMA Land Use Plan (2011)
- Onslow County Parks and Recreation Master Plan (2021)
- Onslow County CAMA Land Use Plan (2014)



## TAKEAWAYS

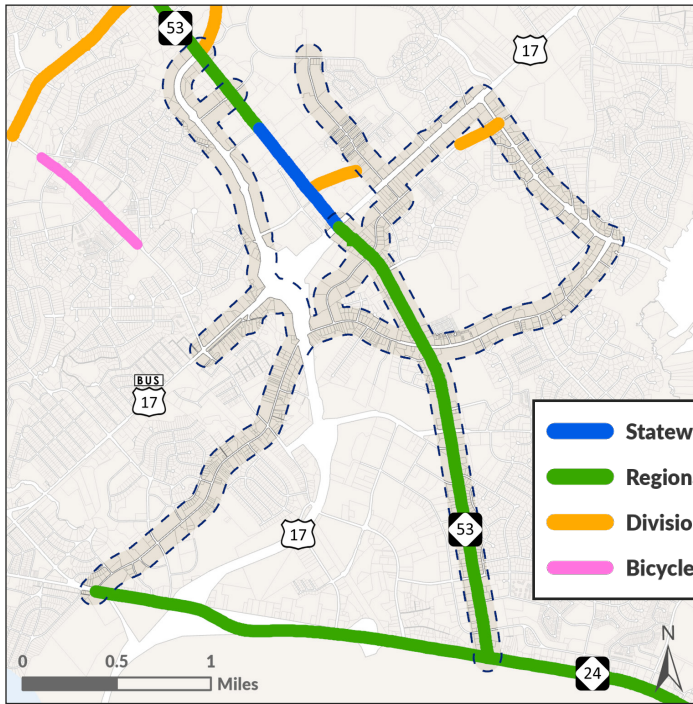
**Opportunities for Incidental Projects:** Several study area corridors, including Western Boulevard, Marine Boulevard, and Country Club Road, have roadway projects identified in the Metropolitan Transportation Plan (MTP), with bike and pedestrian facilities recommended. Validating these recommendations through this process supports their implementation through the NCDOT funding process as part of roadway construction, lowering the financial burden on Jacksonville and easing implementation.



**Preference for Separated Facilities:** With many roadways featuring high speeds and volumes, the MTP and corridor studies recommend separated biking and walking facilities. Onslow County's Master Plan, and Jacksonville's CAMA Land Use Plan, all support the development of greenways -- separated facilities along stream corridors -- both for transportation, recreation, and strengthening resilience to help manage flooding and protect against weather-related events.

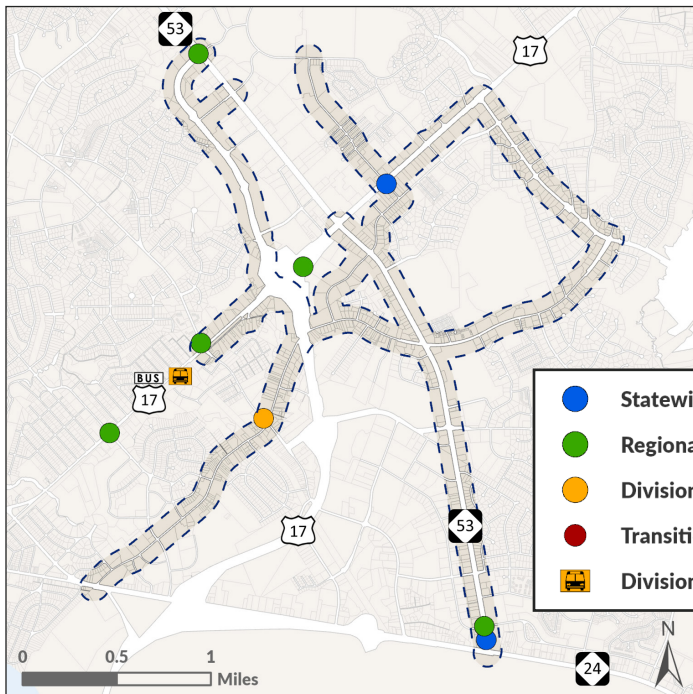
### EXISTING & COMMITTED PROJECTS

The proposed One Community Trail coincides with several planned or programmed projects in Jacksonville. The most notable projects are listed here, with information on why they complement the One Community Trail.



#### Roadways Projects within the State Transportation Improvement Program (STIP):

- **U-6081:** NC 53 / Western Boulevard (Gum Branch Road to US 17). Upgrade to Reduced Conflict Intersection
- **U-5736:** NC 53 / Western Boulevard (US 17 to NC 24). Construct Access Management Improvements. Includes U-4007E (US 17 to Exchange Drive).
- **U-5787:** Trade Street (Western Boulevard to McDaniel Drive). New Roadway construction.
- **U-5741:** NC 24 Lejeune Boulevard (NC 24 Business to NC 172). Construct Access Management Improvements.
- **U-5878:** Commerce Drive (Commerce Drive to Piney Green Road). New Roadway Construction (Constructed during Plan development).



#### Intersection Projects within the State Transportation Improvement Program (STIP)::

- **U-5789:** NC 53 / Western Boulevard at SR 2714 / Jacksonville Parkway.
- **U-6107:** US 17 / Marine Boulevard at McDaniel Drive.
- **U-5951:** US 17 at US 17 Business / Marine Boulevard.
- **U-5728:** US 17 Business / Marine Boulevard at Bell Fork Road.
- **U-6082:** Bell Fork Road at Country Club Road / Hargett Street (Preliminary design during Plan development).
- **U-5508:** NC 24 / Lejeune Boulevard at NC 53 / Western Boulevard.

**Figure 1.1:** STIP Projects, Roadway and Intersection.  
Source: NCDOT.

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# CHAPTER 2: Existing Conditions & Study Considerations



*In order to accurately determine the benefits, challenges, and costs, this study started with what currently exists. This Chapter analyzes the environment of Jacksonville, Jacksonville’s existing built infrastructure, and transportation-specific challenges.*

## Environmental Context

Our environment is made up of both our natural resources and built context -- rivers, streams, buildings and streets -- and both impact the feasibility of the alternatives under consideration in this Plan.

### DEMOGRAPHICS INDICATORS

The proposed One Community Trail touches a large portion of the City of Jacksonville, potentially contributing to improved quality of life for nearly the entire community. A growing city, Jacksonville’s population of nearly 73,000 as of the 2020

Census represents nearly 3% growth. Some neighborhoods in the study area have populations present that may experience a higher proportion of transportation barriers or disadvantages. These communities, highlighted below, may be particularly benefitted by this Project, improving access to opportunities and overall mobility.

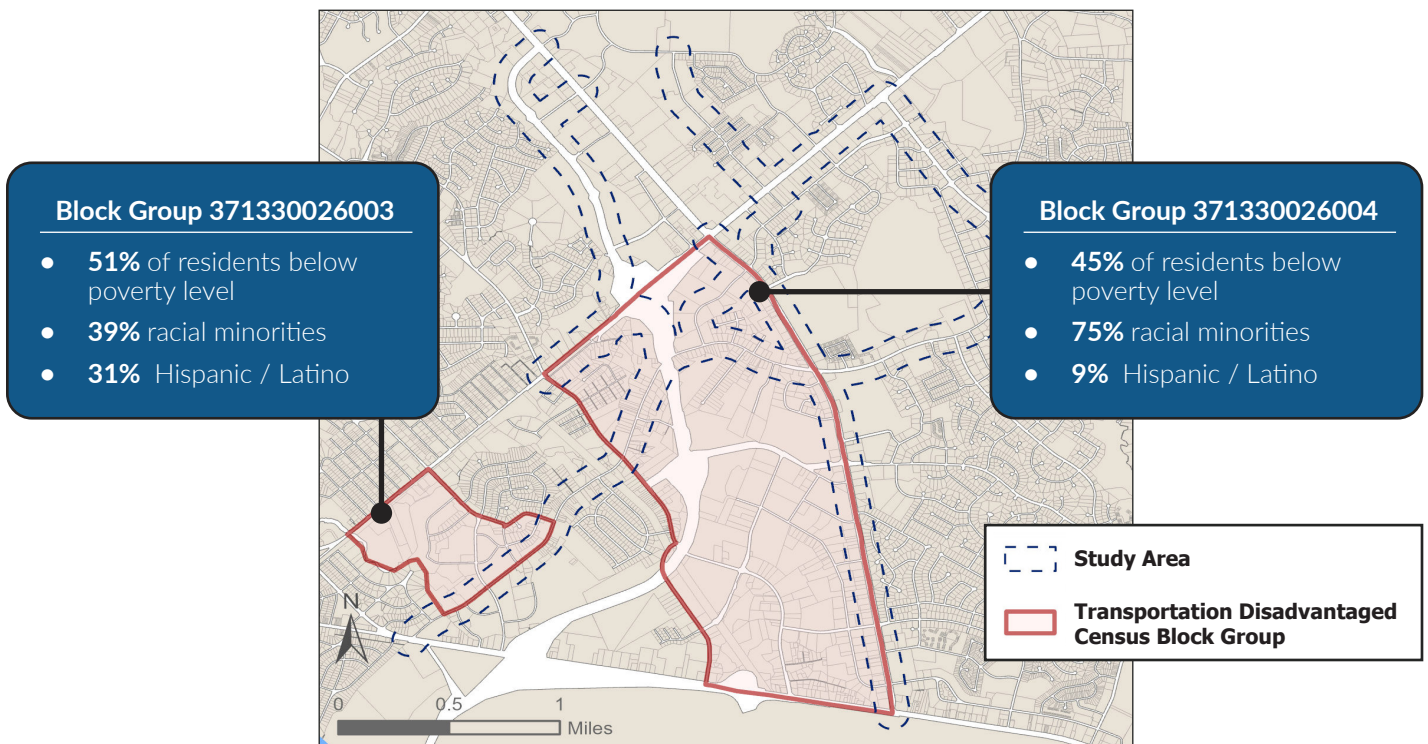


Figure 2.1: Transportation Disadvantaged Communities. Source: NCDOT.

## LAND USE

The One Community Trail study area covers a wide variety of neighborhoods, commercial centers, and accordingly land uses. Most properties in the study area are residential, and single-family household by zoning. However, commercial land uses are also prominent, including the Jacksonville Mall and Gateway Plaza Shopping Center. Commercial properties are higher-intensity in activity, raising potential safety concerns. Land uses in the study area are very separated, increasing travel distances, and making it more difficult to walk or bike.

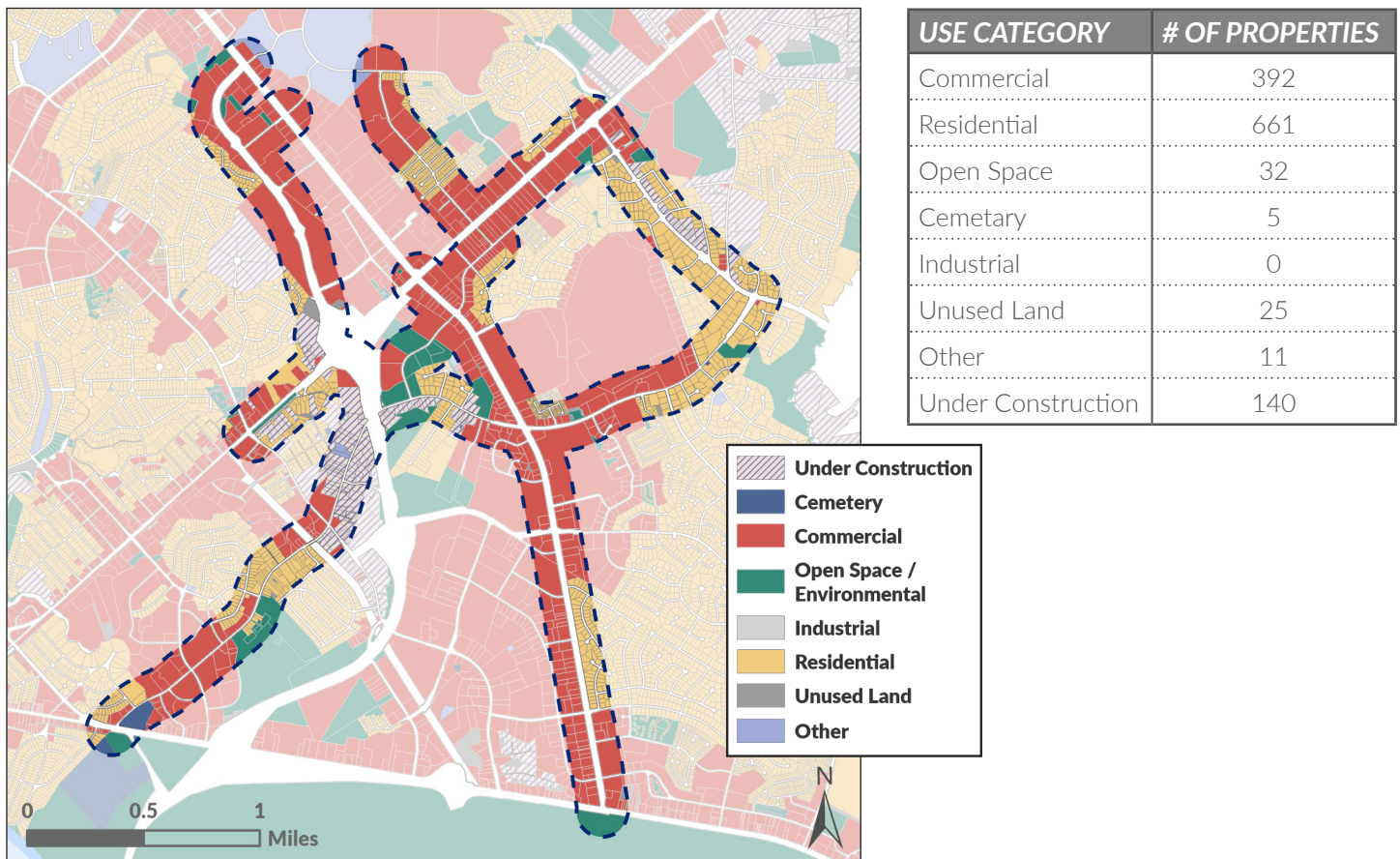


Figure 2.2: Land Uses.

### KEY TAKEAWAYS

- ☑ Commercial space is the predominant use by square footage
- ☑ Residential parcels are smaller in size, and located off of these corridors (0.25 to 0.5 miles)
- ☑ Land use is separated from each other, making it difficult to walk or bike from home to errands

## ENVIRONMENTAL CONSTRAINTS

Natural resources create additional constraints on the feasibility of trail alternatives in the study area. Among the One Community Trail study corridors, four locations stand out: **Burnt House Branch**, crossing Hargett Street; **Sandy Run Branch**, crossing both Commerce Drive and Western Boulevard, and a branch of **Northeast Creek**, crossing Country Club Drive and running parallel to Piney Green Road. These natural areas are in close proximity to potential sidepaths, and may impact the overall feasibility of alternatives that require additional right-of-way or bridging needs.

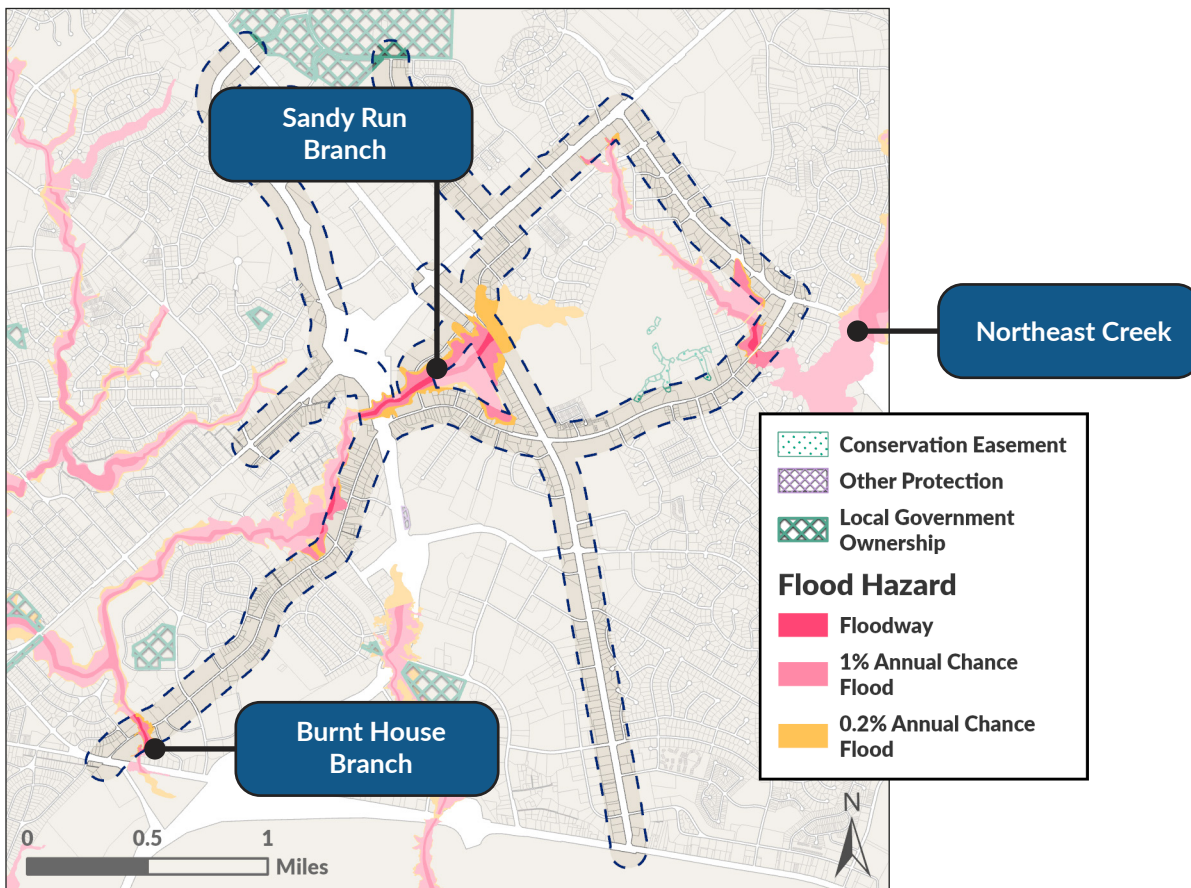


Figure 2.3: Environmental constraints.

### KEY TAKEAWAYS

- ☑ Our study corridors overlap with areas that will flood frequently. Pay extra attention to those places and remain within the right-of-way to avoid environmental impacts.
- ☑ Several important natural areas are near potential sidepaths, an excellent recreational opportunity.

## Built Context

The built context includes everything that already connects our communities. This includes physical connections, like roads and utilities, and social connections such as key destinations.

### KEY DESTINATIONS & EXISTING FACILITIES

The One Community Trail study area connects many distant sections and neighborhoods of Jacksonville, with numerous community destinations in its proximity. Key locations are shown in Figure 2.4. Many of these locations, including the shopping centers at Gateway Plaza and Jacksonville Mall, lie on or near Western Boulevard. However, with no path along Western Boulevard south of Marine Boulevard or crossing locations, users have no safe means to travel to these destinations by walking or biking. Likewise, Camp Lejeune, located at the southern end of the study area, is a major draw both for active

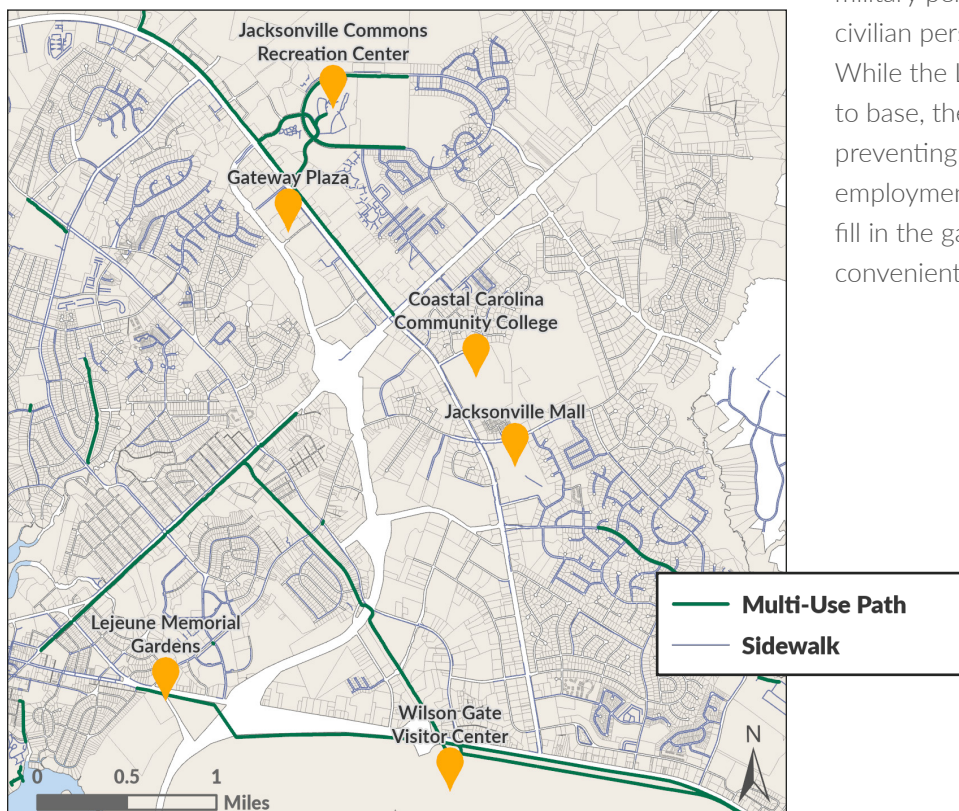


Figure 2.4: Key destinations and existing facilities.

military personnel in the City as well as veterans, civilian personnel, and others having access to base. While the Lejeune Greenway provides some access to base, there are limited opportunities to connect preventing users with limited mobility access to employment opportunities. The proposed trail may fill in the gaps, making biking and walking safer, more convenient, and direct.


### KEY TAKEAWAYS

- ☑ There is no safe path to bike to Coastal Carolina Community College or to Jacksonville Mall
- ☑ Sidewalk network is inconsistent or disconnected, especially on Western Boulevard
- ☑ The proposed paths would help connect neighborhoods to these destinations


### UTILITIES & RIGHT-OF-WAY CONSTRAINTS

Utilities and stormwater facilities relocation can create substantial costs for any project. Within the study area, several corridors face considerations for accommodating power lines or drainage facilities:




 Country Club Road underpass constrains available right-of-way.




 A large ditch and utility lines along the north side of US 17.



 A culvert for the Burnt House Branch at E Hargett Street limits available right-of way.



 Private property adjacent to the existing roadway on Commerce Road.

## EXISTING RIGHTS-OF-WAY CHARACTERISTICS

Understanding the existing roadway characteristics, from typical cross-section to available right-of-way width, aids in determining the feasibility of alternatives.

| CORRIDOR SECTION (EXTENTS)                                                 | ROW<br>MIN (MAX) | CURB-AND-<br>GUTTER | TRAVEL<br>LANES | PAVEMENT<br>WIDTH | MEDIAN        |
|----------------------------------------------------------------------------|------------------|---------------------|-----------------|-------------------|---------------|
| <b>Hargett Street</b><br><i>Lejeune Boulevard to New River Drive</i>       | 44' (56')        | Yes                 | 2 (12')         | 34'               | Yes (12')     |
| <b>Hargett Street</b><br><i>New River Drive to Bell Fork Road</i>          | 56' (60')        | Yes                 | 2 (12')         | 48'               | Yes (12')     |
| <b>Country Club Road</b><br><i>Bell Fork Road to Western Boulevard</i>     | 60' (60')#       | No                  | 2 (12')         | 44'               | Yes (12')     |
| <b>Country Club Road</b><br><i>Western Boulevard to Piney Green Road</i>   | 60' (60')        | No                  | 2 (12')         | 44'               | Yes (12')     |
| <b>Piney Green Road</b><br><i>Country Club Road to Marine Boulevard</i>    | 105' (110')      | Yes                 | 4 (12')         | 76'               | Yes (24')     |
| <b>Marine Boulevard</b><br><i>Piney Green Road to McDaniel Drive</i>       | 165' (180')      | No                  | 4 (12')         | 98'               | Yes (22')     |
| <b>Marine Boulevard</b><br><i>Gum Branch Road to Jacksonville Parkway</i>  | 85' (100')       | Yes                 | 4 (12')         | 65'               | Yes (12')     |
| <b>McDaniel Drive</b><br><i>Marine Boulevard to Commons Drive</i>          | 60' (60')        | Yes                 | 2 (17')         | 34'               | No            |
| <b>Workshop Lane</b><br><i>Commerce Drive to Marine Boulevard</i>          | 50' (50')        | Yes                 | 2 (14')         | 28'               | No            |
| <b>Commerce Drive</b><br><i>Western Boulevard to Workshop Lane</i>         | 60' (60')        | No                  | 2 (12')         | 24'               | No            |
| <b>Commerce Drive</b><br><i>Country Club Road to Western Boulevard</i>     | 60' (60')        | Yes                 | 2 (12'-18')     | 36'               | Partial (12') |
| <b>Western Boulevard</b><br><i>Lejeune Boulevard to Marine Boulevard</i>   | 165' (165')      | Yes                 | 6 (12')         | 86'               | Yes (12')     |
| <b>All Green Way</b><br><i>Miracle Drive to End</i>                        | 60' (60')        | No                  | 2 (10')         | 20'               | No            |
| <b>Jacksonville Parkway</b><br><i>Western Boulevard to Maine Boulevard</i> | 195' (195')      | No                  | 4 (13')         | 93'               | Yes (23')     |

Table 2.5: Roadway characteristics, One Community Trail study area.

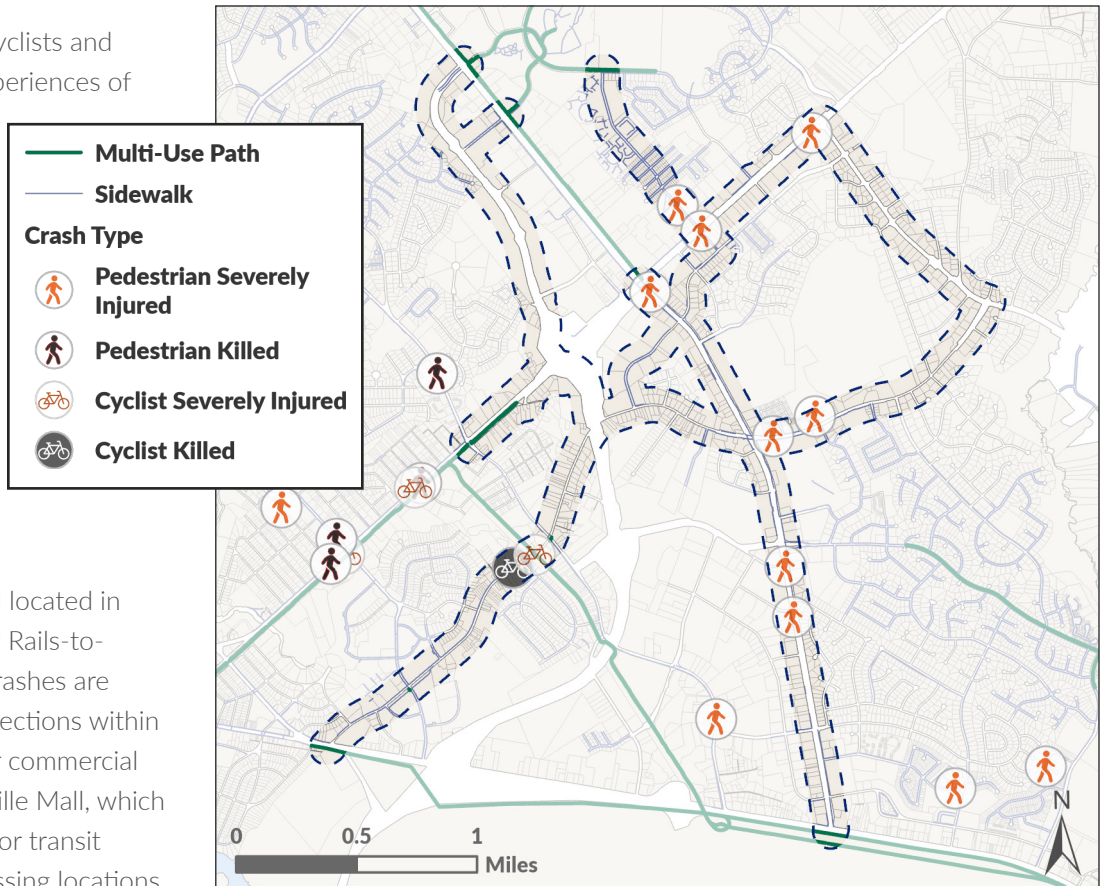
## Transportation Context

The transportation context includes both the roads themselves and a safety analysis.

### BIKE AND PEDESTRIAN SAFETY AND COMFORT

As more vulnerable users, bicyclists and pedestrians have different experiences of the built environment that contribute to perceptions of safety. Areas with higher concentrations of crashes shape this perception, and addressing the safety concerns present in these locations is important to developing feasible alternatives that are safe and enjoyable for the public.

There are few bike crashes, all located in close proximity to the existing Rails-to-Trails Greenway. Pedestrian crashes are concentrated at or near intersections within the study area, as well as near commercial destinations like the Jacksonville Mall, which is also a major transfer point for transit routes. This suggests that crossing locations -- both improving existing and creating new, safe crossing locations at midblock locations, may improve safety on the Trail.



**Figure 2.6:** Bike & Pedestrian crashes, 2018-2022. Source: NCDOT.

### KEY TAKEAWAYS

- ☑ Existing crossing locations may be insufficient or inadequate for safe biking and walking activity
- ☑ Bike and pedestrian activity on the proposed Trail may increase with higher-intensity destinations / locations

### FACILITY CONDITIONS: BIKE AND PEDESTRIAN COMFORT

The study area contains existing bike and pedestrian facilities, but not all are in the same condition:



*The Rails-to-Trails Greenway, a paved asphalt trail connects to Downtown Jacksonville.*



*Sidewalks along Western Boulevard near Commerce Drive are set back from traffic.*



*High-visibility crosswalks near the Country Club Road intersection need maintenance.*



*Crosswalks are missing at the Commerce Drive / Western Boulevard intersection.*



*Missing sidewalks and an inadequate shoulder for biking on Country Club Road.*



*Sidewalks lacking adequate separation and bike lanes on Hargett Street / Country Club Road.*



*A refuge island for bikers and pedestrians on the Greenway near Bell Fork Road.*



*Crosswalks, but no sidewalk connections at Bell Fork Road and Hargett Street.*

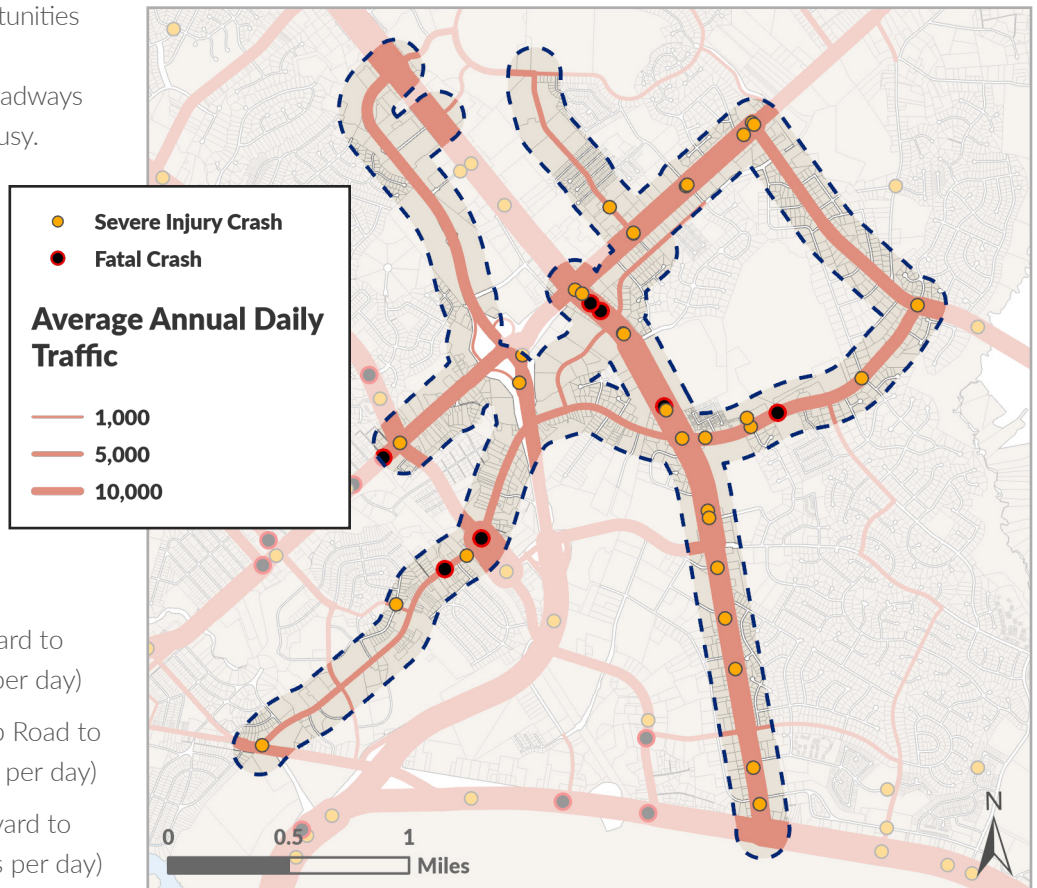
## TRAFFIC VOLUMES AND SAFETY

Study area corridors represent opportunities for connection among Jacksonville's neighborhoods, and as connecting roadways they are among Jacksonville's most busy. They are among Jacksonville's most busy.

Western Boulevard (NC 53) and Marine Boulevard (US 17 / US 17 Business) are the most heavily traveled, with over 30,000 vehicle trips per day on average. Other corridors, such as sections of Country Club Road and Piney Green Road, carry less traffic but still a substantial quantity.

Only three streets have volumes below 10,000 vehicle trips per day:

- **Hargett Street** (Lejeune Boulevard to Bell Fork Road, 4,500 vehicles per day)
- **Commerce Drive** (Country Club Road to Workshop Lane, 2,700 vehicles per day)
- **McDaniel Drive** (Marine Boulevard to Commons Drive, 6,100 vehicles per day)

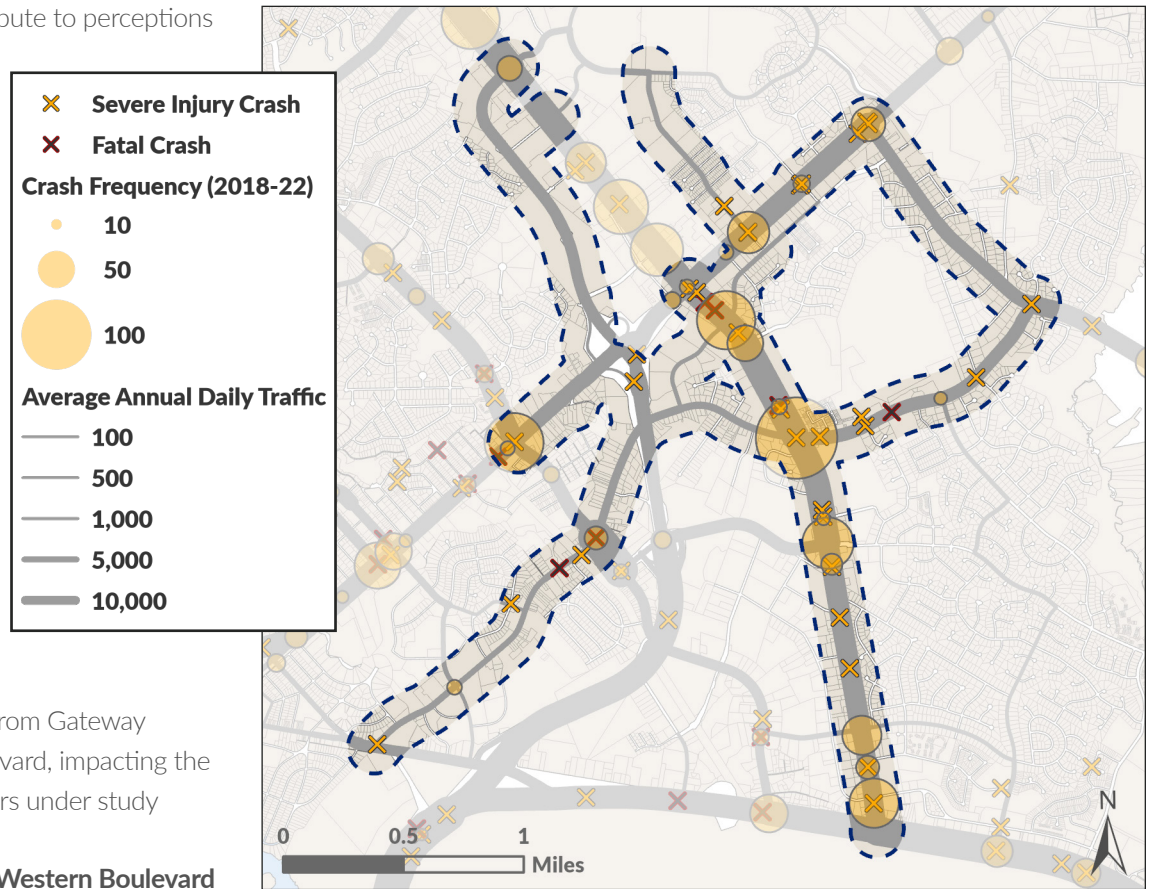


**Figure 2.7:** Traffic volumes and FSI crashes in the study area. Source: NCDOT, 2018-2022.

Vehicle crashes also contribute to perceptions of safety, and reveal additional locations where improvements may be needed to separate more vulnerable users from traffic conditions.

Within the study area, vehicle crashes follow a slightly different pattern from bike and pedestrian-involved crashes. Two areas of emphasis stand out as areas of concern:

- **Western Boulevard:** from Gateway Drive to Marine Boulevard, impacting the extents of two corridors under study
- **Country Club Road / Western Boulevard Intersection:** this intersection features slip lanes for right-turning movement on multiple approaches and high volumes, particularly on Western Boulevard.



**Figure 2.8:** Crashes by Intersection, FSI Crashes and traffic volumes. Source: NCDOT, 2018-2022.

## KEY TAKEAWAYS

- ☑ Comparing crashes to volume allows us to understand if there are any areas that are uniquely dangerous
- ☑ Western Boulevard, Marine Boulevard are clear safety concerns
- ☑ Higher volumes & speeds + perception of being unsafe = need/preference for separated facilities
- ☑ Hargett Street (<5,000 vpd), McDaniel Drive (residential), Commerce Drive (<7,000 vpd) only roads to consider on-street facilities

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# CHAPTER 3: Community Involvement



Public involvement is essential to the planning process. Community members' feedback yields insight on the first-person experiences along the corridors in this Study.

This Chapter documents the outreach methods and results employed during the One Community Trail planning process. Using both virtual and in-person methods, in both group and individual settings, the full picture of community needs, feasibility of potential alternatives, and implementation priorities was revealed.

## Involvement Efforts

### STAKEHOLDER DISCUSSIONS

Stakeholder discussions involved conversations both with an Advisory Committee and community members and stakeholders. These conversations helped to better understand community sentiment on biking and walking in the study area, attitudes towards facility types, localized challenges, and potential obstacles to future implementation.

#### ADVISORY COMMITTEE (x3)

Composed of eight City of Jacksonville staff, representing the multiple departments involved in planning, construction, and maintenance of greenways and biking and walking facilities in the City, this body met three times during the planning process to set vision, evaluate alternatives, and identify pathways for implementation. Committee members were essential to an effective, implementable Plan.



|                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Focus Group #1: Neighborhoods</b></p> <p>What a UNICEF about Jacksonville? This study area? (What are the important issues?)</p> <p>Describe YOUR experience (or perspective) on walking or biking in Jacksonville. (or other area in question) (How do you feel about it?)</p> <p>How can your ORGANIZATION / DEPARTMENT / INDUSTRY/BUSINESS support?</p> <p>What OBSTACLES or PRESSURES may get in the way?</p> | <p><b>Takeaways:</b></p> <ul style="list-style-type: none"> <li>Safety: separation a focus for all, not just us planners!</li> <li>Crosswalks &amp; crossing to neighborhoods valued</li> <li>Focus on connections to commercial centers, parks a positive</li> <li>Utilities (especially transmission) the core ROW consideration</li> </ul> |
| <p><b>Focus Group #4: EMS, Fire &amp; Police</b></p> <p>What a UNICEF about Jacksonville? This study area? (What are the important issues?)</p> <p>Describe YOUR experience (or perspective) on walking or biking in Jacksonville. (or other area in question) (How do you feel about it?)</p>                                                                                                                          | <p><b>Focus Group #5: City of Jacksonville, Camp LeJeune</b></p> <p>What a UNICEF about Jacksonville? This study area? (What are the important issues?)</p> <p>Describe YOUR experience (or perspective) on walking or biking in Jacksonville. (or other area in question) (How do you feel about it?)</p>                                    |

#### FOCUS GROUPS (x5)

During the alternatives development and selection process, a series of five discussions were conducted to test-fit concepts and vet strategies with community members. Groups included area neighborhoods, business owners and business development, transit staff and biking/walking advocates, Fire, Police & Emergency Medical Response, as well as NCDOT and City of Jacksonville officials.

## ONLINE ENGAGEMENT

### ONLINE SURVEY

The project team launched a public survey in October 2023. The survey was advertised on the City and MPO websites, through social media, and at public events. The project team used the survey to do the following:

- Get a basic understanding of public support
- Learn reoccurring problems
- Understand community biking & walking trends

The survey was available until March 2024, and collected a **total of 218 responses**. Full results are in the Appendices.

### INTERACTIVE MAP

The project team launched an interactive map in October 2023, concurrent with the survey. The map allowed members of the public to offer thoughts on specific locations in the study area needing improvement, as well as key destinations, at their convenience 24-hours per day..

The project team used the interactive map to:

- Identify community destinations of importance
- Validate safety hazard intersections with high-crash locations
- Received general feedback / comments that may be non-transportation related

The map was available until March 2024, and collected a total of **33 responses**.

### SURVEY TAKEAWAYS

- ☑ The One Community Trail may have a significant impact on how people get around
- ☑ Crossings are just as important as the connections themselves
- ☑ Respect existing rights-of-way to keep costs down...and residents happy

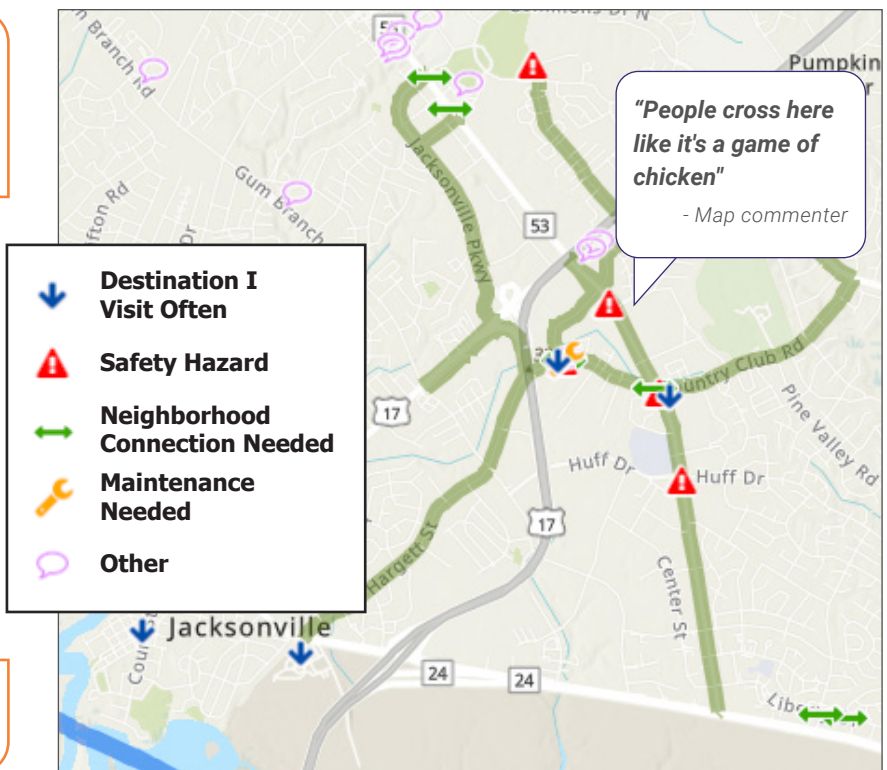


Figure 3.1: Interactive map comments.

## PUBLIC MEETINGS

The project team hosted two public meetings over the course of the planning process. Residents and community members had the opportunity to interact directly with the project team, learn about the planning process, and contribute their thoughts on needs, preferences, and priorities. Over 20 Jacksonville residents and stakeholders attended the events and provided feedback.

### E. PROJECT MEETING #1: OCTOBER 24, 2023

Held concurrently with the JUMPO 2050 MTP Update public outreach event, residents had the opportunity to provide feedback on preferred facility types, as well as to identify places of concern and important destinations

### F. PROJECT MEETING #2: APRIL 29, 2024

The second meeting was held in late April at Jacksonville Station. Residents were given the opportunity to review the recommended facilities for the Study area and offer feedback, as well as to prioritize sections of the study area for construction.



## KEY TAKEAWAYS

The following key takeaways were identified to guide both alternatives development and subsequent evaluation:

- ***Study area corridors and neighborhoods could benefit from added connections, with potential to significantly impact biking and walking activity.***

While a substantial majority of survey respondents indicated that their preferred mode of transportation was driving, **45% of respondents indicated their future preference would be to walk or bike**. With 22% of respondents indicating that lack of nearby facilities prevented them from walking or biking more, trail construction may allow many of these interested, but concerned community members to travel by different means.

- ***Safety is a core concern for Jacksonville residents and community members, both along and across major roadways.***

Safety concerns prevent the majority of survey respondents from walking or biking more often. Approximately 40% indicated that either unsafe or missing connections, or personal safety concerns, prevented more biking and walking activity. Within the study area, a lack of facilities and suitable crosswalks encourages vulnerable users to walk alongside traffic, or dart across major roadways in high-crash locations.

- ***Right-of-Way and Utilities impacts are a possibility. Avoid impacts where possible and leverage relationships with external partners to improve constructability where impacts are unavoidable.***

Many of the study area corridors are in the process of modernization, with utilities close to the roadway or curb-and-gutter being installed through development and redevelopment. Advisory committee members reiterated the importance of maintaining existing curblines where possible, both to make implementation possible within existing capacities and to **avoid potential impacts to residents and businesses**.

# CHAPTER 4: Alternatives Development & Recommendations

This Chapter outlines the process used to identify, evaluate, and select preferred alignments, describes facility recommendations, and identifies constructable projects for each corridor.

Alternatives were developed in a two-stage process. Data analyses and community feedback from the investigative phase of the planning process identified three broad evaluation criteria: **safety, connectivity, and constructability**, from which operational factors were formed. (1) Safety and connectivity were used to narrow the potential multimodal treatments for each corridor. (2) Constructability factors were used select the **preferred route alignment**. The recommendations in this Chapter reflect the preferred alignment, typical cross-sections, and design considerations for each corridor.

## Alternatives Development

### EVALUATION CRITERIA

The following evaluation criteria were used to guide the decision-making process from several alternative alignments toward the **most appropriate alignment**. For each evaluation criteria, a set of operational factors were identified to measure and compare each corridor alternative under consideration.

#### EVALUATION CRITERIA & OPERATIONAL FACTORS

| EVALUATION CRITERIA                                                                                                                                                                      | OPERATIONAL FACTOR                                                                               |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| <b>Safety:</b><br><i>Does the facility and alignment improve the safety for those who are biking and walking?</i>                                                                        | Facility is recommended according to FHWA Bikeway Selection Guidance                             |
|                                                                                                                                                                                          | Facility is "Preferred" or "Optional" according to NCDOT Complete Streets Evaluation Methodology |
|                                                                                                                                                                                          | Number of corridor crossings required                                                            |
|                                                                                                                                                                                          |                                                                                                  |
| <b>Connectivity:</b><br><i>Does the facility and alignment create and/or expand connections between important destinations, neighborhoods and existing sidewalks or bike facilities?</i> | Creates connection with existing facility                                                        |
|                                                                                                                                                                                          | Creates new connection to neighborhood                                                           |
|                                                                                                                                                                                          | Creates biking or walking access to transit stops                                                |
|                                                                                                                                                                                          | Creates biking or walking access to shopping or employment center                                |
| <b>Constructability:</b><br><i>Does the facility and alignment allow for efficiency in design and ease of construction?</i>                                                              | Within existing curblines                                                                        |
|                                                                                                                                                                                          | Within existing right-of-way                                                                     |
|                                                                                                                                                                                          | Avoids property / utilities impacts                                                              |
|                                                                                                                                                                                          | Avoids impacts to floodplain or wetlands                                                         |
|                                                                                                                                                                                          | Preserves existing bike and/or pedestrian infrastructure                                         |
|                                                                                                                                                                                          | Facility recommended within Metropolitan Transportation Plan                                     |
| Potential for roadway-incidental construction project                                                                                                                                    |                                                                                                  |

**Table 4.1:** Evaluation criteria and operational factors.

**FHWA BIKEWAY SELECTION GUIDANCE**

Typical bike users fit the description of one who is "Interested, but concerned," with little tolerance for facilities or conditions that make them feel unsafe. Figure 4.2 on the right depicts recommended facilities to serve these users, who often make up greater than 50% of the general public.

- **Shared Lane Markings:** for the lowest volume and lowest stress locations. Bikes must share the roadway with vehicles, with no separation.
- **On-Street Bike Lanes:** for roadways with slower speeds, but where volumes may pick up. Speed-sensitive users may not find this facility comfortable on roadways with speeds greater than 25 miles per hour.
- **Separated Bike Lanes or Above-the-Curb Facilities:** for higher-speed roadways, or slower speed roads with high volumes (like Country Club Road or Commerce Road).

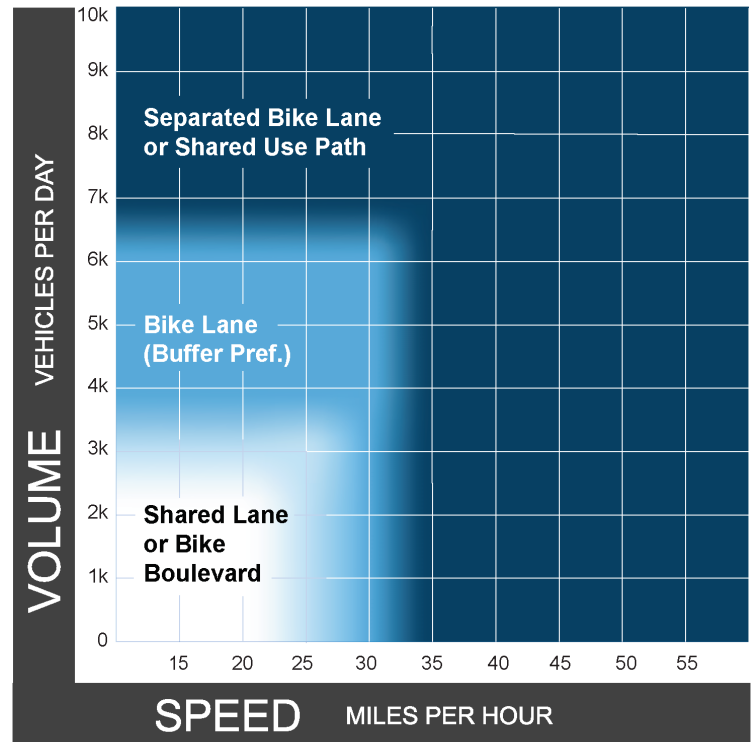


Figure 4.2: FHWA recommended facilities.

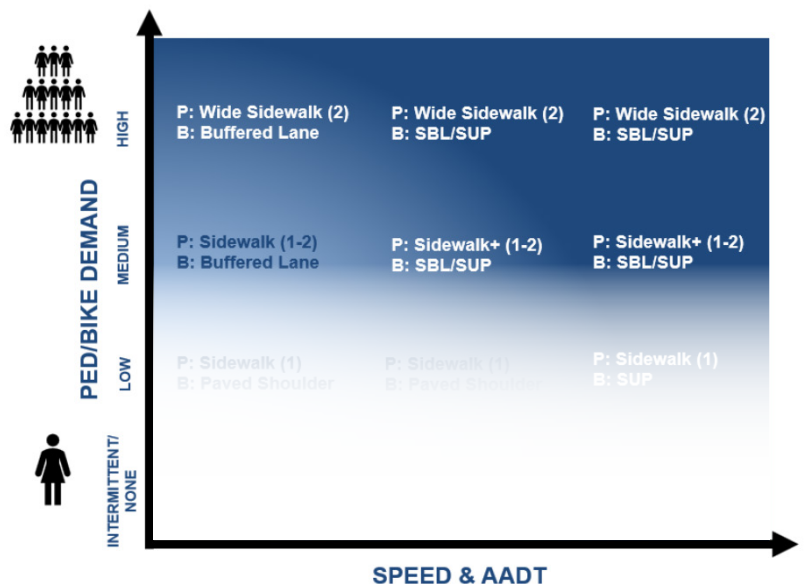
**NCDOT COMPLETE STREETS EVALUATION**

**METHODOLOGY: FACILITY SELECTION**

With several corridors owned by NCDOT or with projects planned for funding through NCDOT's prioritization process, state standards for bikeway facilities are important for establishing consistency with future funding

processes, as well as design and construction. The **Complete Streets Evaluation Methodology** uses bike and pedestrian demand, as well as speeds and volumes, to identify preferred and optional facilities for each corridor. With all study corridors lying in Medium to High demand areas, separated facilities are recommended for nearly all.

**Figure 4.3:** NCDOT Complete Streets Evaluation Methodology-recommended facilities. One Community Trail study corridors are all high- or medium-demand locations.



Evaluation of each corridor for preferred facility types may be seen below. 'Not Applicable' and 'Low' benefit facility types were eliminated from further consideration.

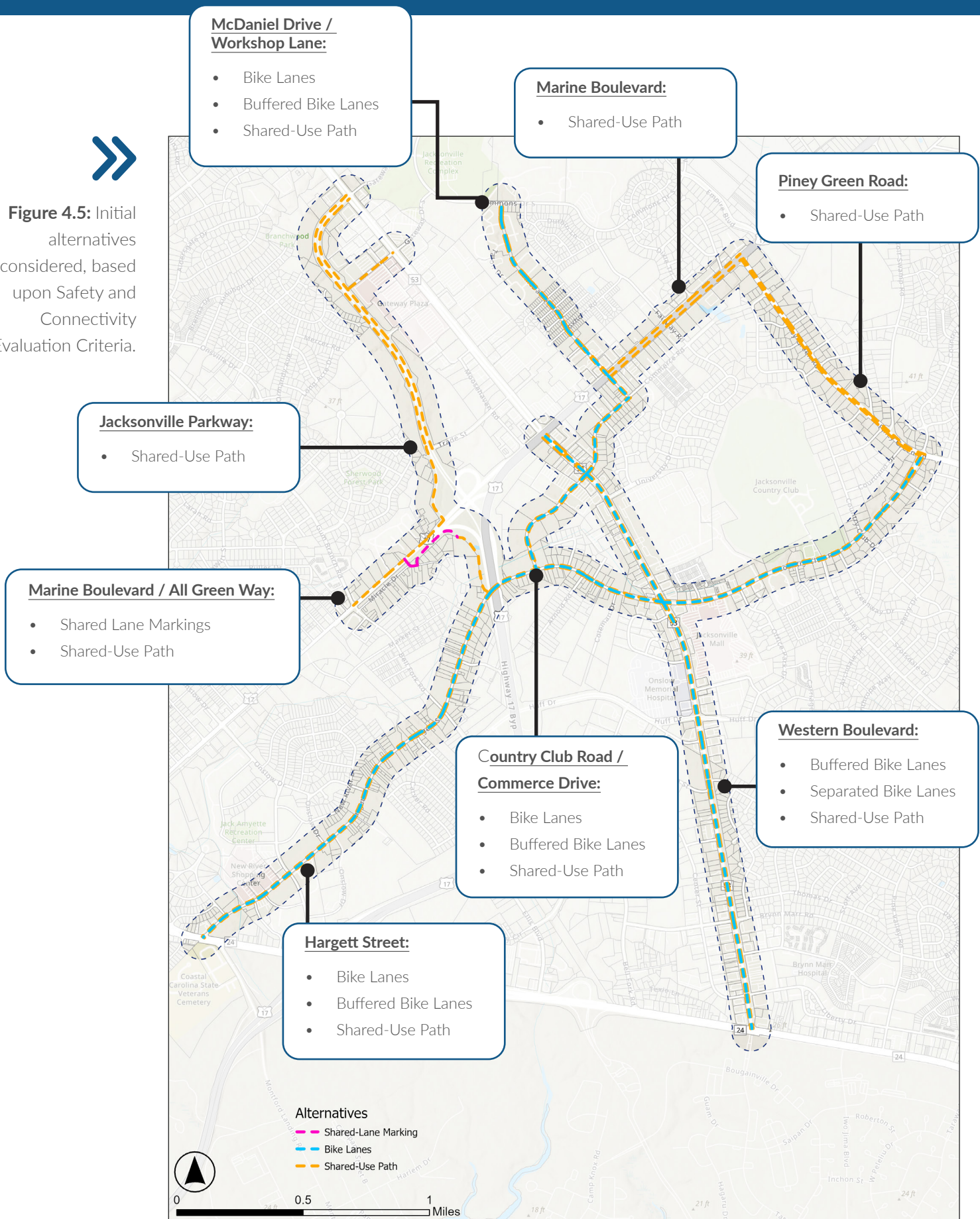
| CORRIDOR SECTION (EXTENTS)                                                 | SHARED      | ON-STREET |                    | SEPARATED / ABOVE-THE-CURB |                 |
|----------------------------------------------------------------------------|-------------|-----------|--------------------|----------------------------|-----------------|
|                                                                            | Shared Lane | Bike Lane | Buffered Bike Lane | Separated Bike Lane        | Shared-Use Path |
| <b>Hargett Street</b><br><i>Lejeune Boulevard to New River Drive</i>       |             |           |                    |                            |                 |
| <b>Hargett Street</b><br><i>New River Drive to Bell Fork Road</i>          |             |           |                    |                            |                 |
| <b>Country Club Road</b><br><i>Bell Fork Road to Western Boulevard</i>     |             |           |                    |                            |                 |
| <b>Country Club Road</b><br><i>Western Boulevard to Piney Green Road</i>   |             |           |                    |                            |                 |
| <b>Piney Green Road</b><br><i>Country Club Road to Marine Boulevard</i>    |             |           |                    |                            |                 |
| <b>Marine Boulevard</b><br><i>Piney Green Road to McDaniel Drive</i>       |             |           |                    |                            |                 |
| <b>Marine Boulevard</b><br><i>Gum Branch Road to Jacksonville Parkway</i>  |             |           |                    |                            |                 |
| <b>McDaniel Drive</b><br><i>Marine Boulevard to Commons Drive</i>          |             |           |                    |                            |                 |
| <b>Workshop Lane</b><br><i>Commerce Drive to Marine Boulevard</i>          |             |           |                    |                            |                 |
| <b>Commerce Drive</b><br><i>Western Boulevard to Workshop Lane</i>         |             |           |                    |                            |                 |
| <b>Commerce Drive</b><br><i>Country Club Road to Western Boulevard</i>     |             |           |                    |                            |                 |
| <b>Western Boulevard</b><br><i>Lejeune Boulevard to Marine Boulevard</i>   |             |           |                    |                            |                 |
| <b>All Green Way</b><br><i>Miracle Drive to End</i>                        |             |           |                    |                            |                 |
| <b>Jacksonville Parkway</b><br><i>Western Boulevard to Maine Boulevard</i> |             |           |                    |                            |                 |

Table 4.4: Evaluation results for safety and connectivity.

- High: most desirable safety and connectivity benefit
- Moderate-High: desirable safety and connectivity benefit
- Moderate: desirable safety and connectivity benefit
- Low: Least desirable safety and connectivity benefit
- Not applicable: does not apply



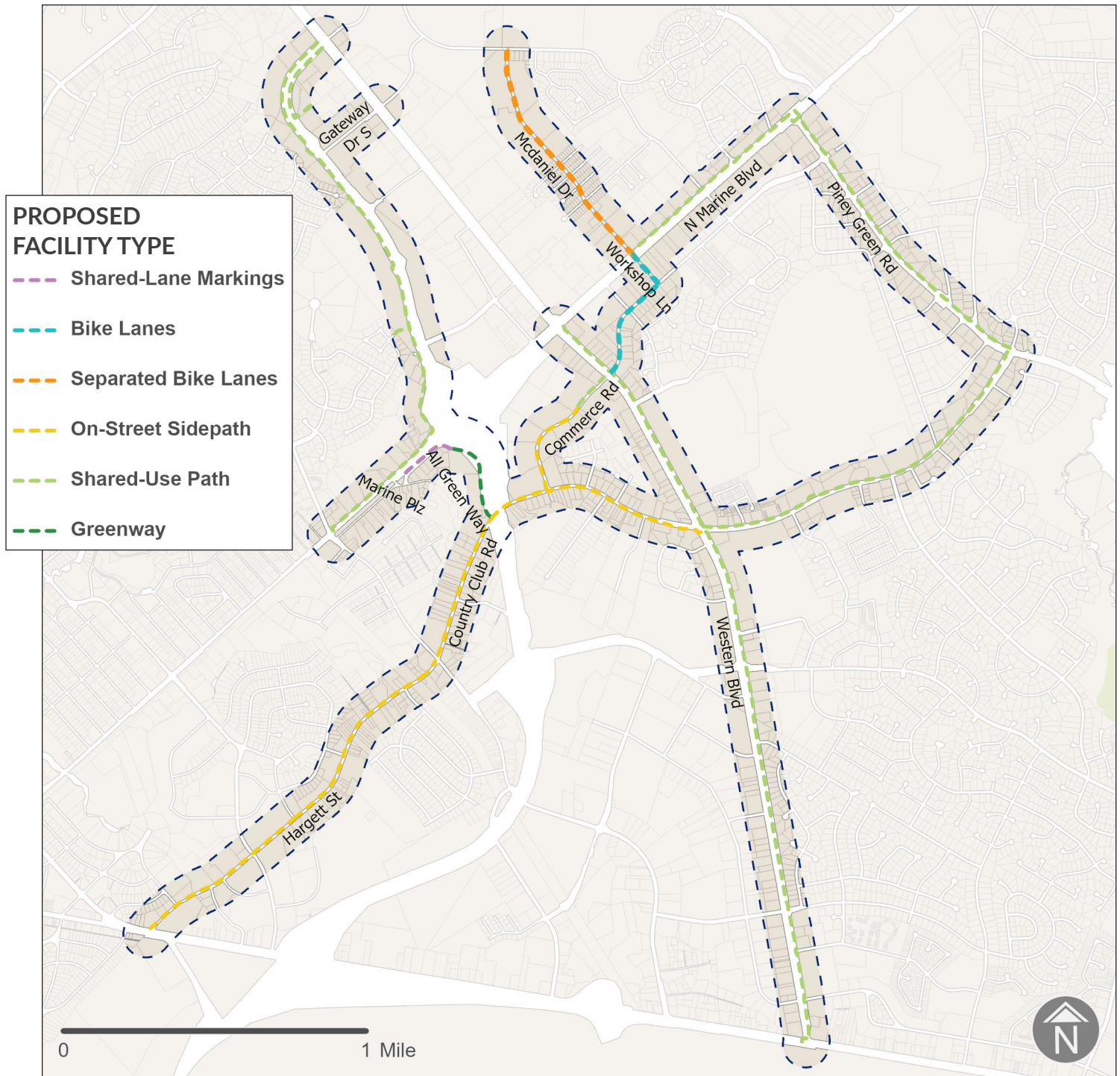
**Figure 4.5:** Initial alternatives considered, based upon Safety and Connectivity Evaluation Criteria.



## Alignment Alternatives

Facility types of moderate- to high-scoring safety and connectivity criteria were further evaluated for their constructability. Advisory Committee members provided final

confirmation of preferred alignments, which are identified in Figure 4.6 and Table 4.7.



**Figure 4.6:** Preferred alignments, based upon feasibility evaluation and Advisory Committee feedback.

|                                         |  | <b>HARGETT STREET</b> |                    |                 |
|-----------------------------------------|--|-----------------------|--------------------|-----------------|
|                                         |  | Separated Bike Lane   | On-Street Sidepath | Shared-Use Path |
| Lejeune Boulevard to Burnt House Branch |  | ●                     | ●                  | ●               |
| New River Drive to Bell Fork Road       |  | ●                     | ●                  | ●               |

|                                       |  | <b>COUNTRY CLUB ROAD</b> |                    |                 |
|---------------------------------------|--|--------------------------|--------------------|-----------------|
|                                       |  | Separated Bike Lane      | On-Street Sidepath | Shared-Use Path |
| Bell Fork Road to Western Boulevard   |  | ●                        | ●                  | ●               |
| Western Boulevard to Piney Green Road |  | ●                        | ●                  | ●               |

|                                        |  | <b>WESTERN BOULEVARD</b>   |                            |
|----------------------------------------|--|----------------------------|----------------------------|
|                                        |  | Shared-Use Path: west side | Shared-Use Path: east side |
| Lejeune Boulevard to Country Club Road |  | ●                          | ●                          |
| Country Club Road to Marine Boulevard  |  | ●                          | ●                          |

|                                       |  | <b>PINEY GREEN ROAD</b>    |                            |
|---------------------------------------|--|----------------------------|----------------------------|
|                                       |  | Shared-Use Path: west side | Shared-Use Path: east side |
| Western Boulevard to Piney Green Road |  | ●                          | ●                          |

|                                         |  | <b>MARINE BOULEVARD</b>     |                             |
|-----------------------------------------|--|-----------------------------|-----------------------------|
|                                         |  | Shared-Use Path: north side | Shared-Use Path: south side |
| Gum Branch Road to Jacksonville Parkway |  | ●                           | ●                           |
| McDaniel Drive to Piney Green Road      |  | ●                           | ●                           |

|                                     |  | <b>MCDANIEL DRIVE / WORKSHOP LANE</b> |                      |                 |
|-------------------------------------|--|---------------------------------------|----------------------|-----------------|
|                                     |  | Bike Lanes                            | Separated Bike Lanes | Shared-Use Path |
| Marine Boulevard to Commons Drive S |  | ●                                     | ●                    | ●               |
| Commerce Road to Marine Boulevard   |  | ●                                     | ●                    | ●               |

|                                        |  | <b>COMMERCE ROAD</b> |                    |                 |
|----------------------------------------|--|----------------------|--------------------|-----------------|
|                                        |  | Bike Lanes           | On-Street Sidepath | Shared-Use Path |
| Western Boulevard to Workshop Lane     |  | ●                    | ●                  | ●               |
| Country Club Road to Western Boulevard |  | ●                    | ●                  | ●               |

|                                     |  | <b>JACKSONVILLE PARKWAY</b> |                            |
|-------------------------------------|--|-----------------------------|----------------------------|
|                                     |  | Shared-Use Path: west side  | Shared-Use Path: east side |
| Marine Boulevard to Merchant Drive  |  | ●                           | ●                          |
| Merchant Drive to Western Boulevard |  | ●                           | ●                          |

**Table 4.7:** Evaluation results, feasibility screening.

- High Feasibility: little to no potential impacts
- Moderate Feasibility: drainage, utility or property considerations, curb movement
- Low Feasibility: potential property impacts and/or utilities relocation required

## Recommendations

The final preferred alternatives reflect a balance between safety for users, connectivity to nearby destinations and neighborhoods, and feasibility for design, and construction. Sections of each corridor are identified and grouped as projects both for developing planning-level cost estimates

and phasing for construction. NOTE: these projects are numbered for identification purposes, and do not reflect priority of any project over another.

|            | <b>CORRIDOR SECTION (EXTENTS)</b>                                         | <b>BIKE FACILITY TYPE</b>        | <b>ALIGNMENT</b> | <b>PEDESTRIAN FACILITY TYPE</b> |
|------------|---------------------------------------------------------------------------|----------------------------------|------------------|---------------------------------|
| <b>1.A</b> | <b>Hargett Street</b><br><i>Lejeune Boulevard to New River Drive</i>      | On-Street<br>Sidepath            | Westbound        | On-Street<br>Sidepath           |
| <b>1.B</b> | <b>Hargett Street</b><br><i>New River Drive to Bell Fork Road</i>         | On-Street<br>Sidepath            | Westbound        | Sidewalk<br>(eastbound)         |
| <b>2.A</b> | <b>McDaniel Drive</b><br><i>Marine Boulevard to Commons Drive</i>         | Separated Bike<br>Lanes          | Both             | Sidewalk (both)                 |
| <b>2.B</b> | <b>Workshop Lane</b><br><i>Commerce Road to Marine Boulevard</i>          | Bike Lanes                       | Both             | Sidewalk (both)                 |
| <b>2.C</b> | <b>Commerce Road</b><br><i>Western Boulevard to Workshop Lane</i>         | Bike Lanes                       | Both             | Sidewalk (both)                 |
| <b>3.A</b> | <b>Marine Boulevard</b><br><i>Piney Green Road to McDaniel Drive</i>      | Shared-Use Path                  | Westbound        | Shared-Use Path                 |
| <b>4.A</b> | <b>Country Club Road</b><br><i>Bell Fork Road to Commerce Road</i>        | On-Street<br>Sidepath            | Westbound        | Sidewalk<br>(eastbound)         |
| <b>4.B</b> | <b>Country Club Road</b><br><i>Commerce Road to Western Boulevard</i>     | On-Street<br>Sidepath            | Eastbound        | Sidewalk<br>(westbound)         |
| <b>4.C</b> | <b>Commerce Road</b><br><i>Country Club Road to Western Boulevard</i>     | Separated Two-<br>Way Bike Lanes | Southbound       | Sidewalk<br>(both sides)        |
| <b>4.D</b> | <b>All Green Way</b><br><i>Miracle Drive to End</i>                       | Shared-Lane<br>Markings          | Both             | --                              |
| <b>5.A</b> | <b>Country Club Road</b><br><i>Western Boulevard to Piney Green Road</i>  | Shared-Use Path                  | Westbound        | Sidewalk<br>(eastbound)         |
| <b>6.A</b> | <b>Piney Green Road</b><br><i>Country Club Road to Marine Boulevard</i>   | Shared-Use Path                  | Northbound       | Sidewalk (existing)             |
| <b>7.A</b> | <b>Western Boulevard</b><br><i>Lejeune Boulevard to Marine Boulevard</i>  | Shared-Use Path                  | Northbound       | Sidewalk<br>(southbound)        |
| <b>8.A</b> | <b>Marine Boulevard</b><br><i>Gum Branch Road to Jacksonville Parkway</i> | Shared-Use Path                  | Westbound        | Shared-Use Path                 |
| <b>8.B</b> | <b>Jacksonville Parkway</b><br><i>Western Boulevard to Merchant Drive</i> | Shared-Use Path                  | Both             | Shared-Use Path                 |
| <b>8.C</b> | <b>Jacksonville Parkway</b><br><i>Merchant Drive to Maine Boulevard</i>   | Shared-Use Path                  | Southbound       | Shared-Use Path                 |

**Table 4.8:** Recommended facilities and projects.

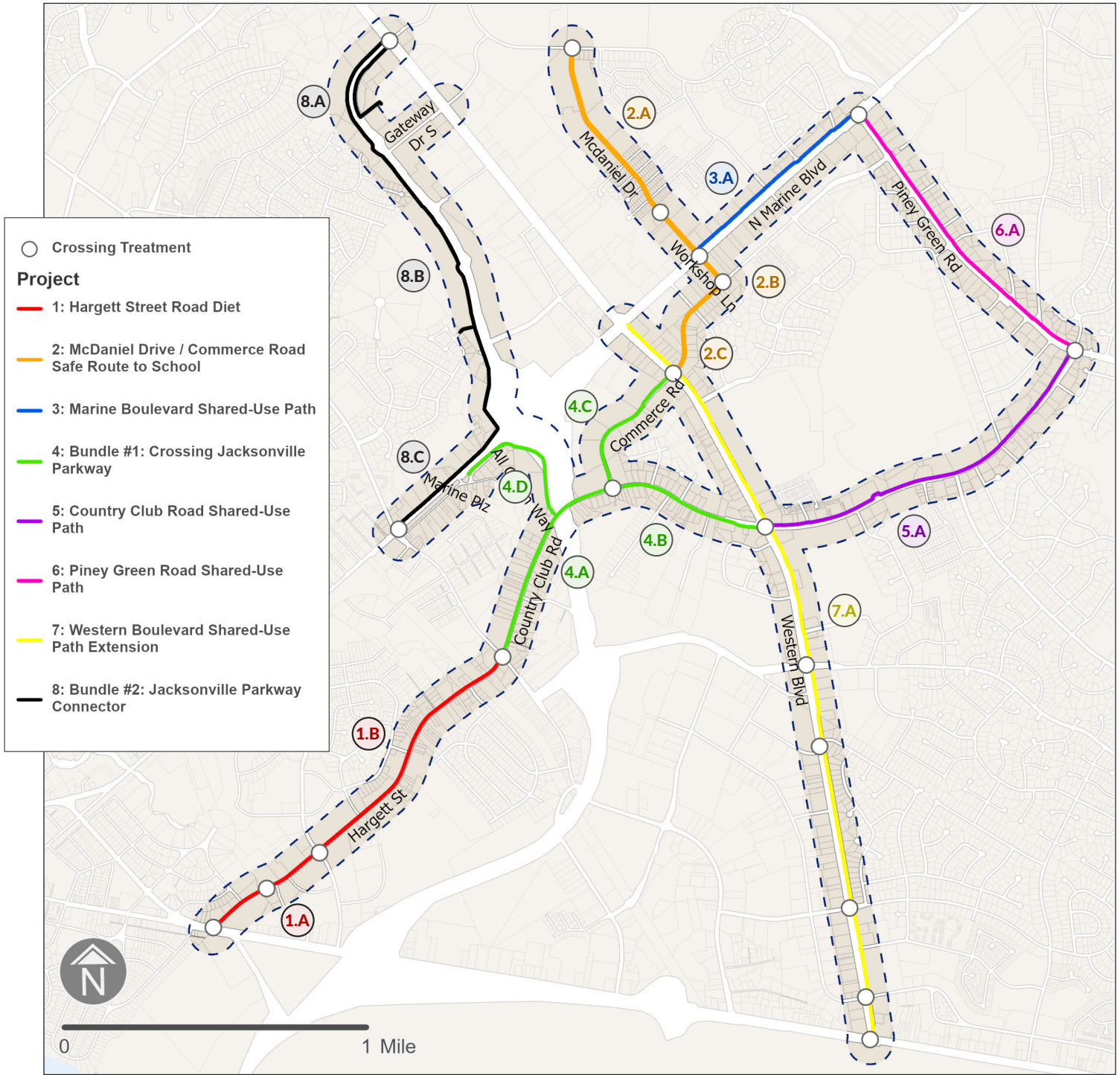


Figure 4.9: Recommended project sections.

# Projects

With multiple corridors under consideration, the study area was divided into projects to develop potential phasing and identify implementation and funding strategies. The following pages document each of these projects:

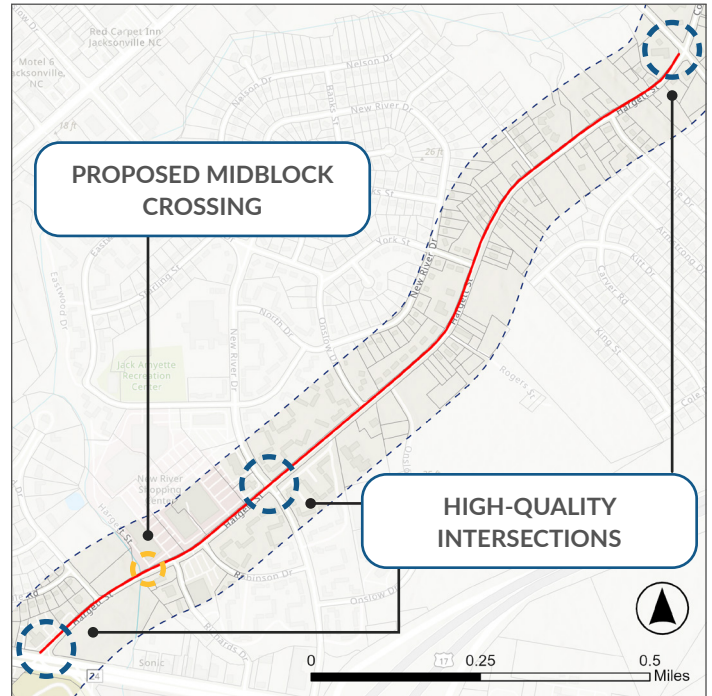
## PROJECT #1: HARGETT STREET ROAD DIET 1.A 1.B

**Description:** This existing three-lane collector reallocates pavement space to create a cycletrack (two-way separated bike lanes) along the north side. Existing intersections are marked for pedestrian crossing improvements, including high-visibility crosswalk patterns, pedestrian countdown heads, and ADA-compliant curb ramps. This project is intended to improve bike and pedestrian connectivity and mobility, while improving safety through lane reduction and reduction of motor vehicle speeds.

**Notable:** This corridor is three lanes wide, with a 35-mph posted speed limit, but carries between 4,500 to 6,000 vehicles per day. Existing right-of-way is constrained by an existing cemetery and the pipe culvert stream crossing at Burnt House Branch, making right-of-way expansion unduely expensive. This alternative was chosen for its combination of safety and connectivity improvements. Remaining within existing curblines improves constructability.

### DESIGN CONSIDERATIONS:

- ~6,100 feet of new sidewalk
- ~6,100 feet 10' cycletrack (two-way separated bike lanes) with concrete median
- ~2.3 lane-miles, resurfacing
- Restriping of double-yellow centerline
- Consider high-visibility crosswalk improvements at Lejeune Boulevard, New River Drive, Bell Fork Road intersections
- Consider mid-block crossing location at Burnt House Branch crossing
- Potential drainage considerations at Burnt House Branch stream crossing
- Avoid potential environmental impacts at Jacksonville City Cemetery



### PLANNING LEVEL COST ESTIMATE:

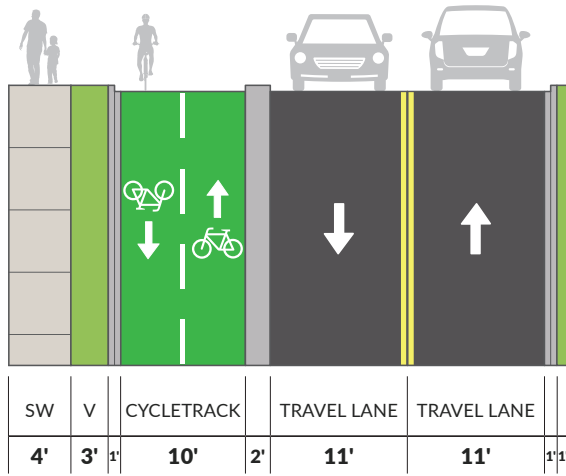
# \$1.9 - 2.3M\*

| Item                     | Cost               |
|--------------------------|--------------------|
| Double Yellow Centerline | \$12,200           |
| Concrete Median          | \$457,500          |
| Pavement Resurfacing     | \$426,300          |
| 5' Concrete Sidewalk     | \$1,200,000        |
| <b>TOTAL</b>             | <b>\$2,105,000</b> |

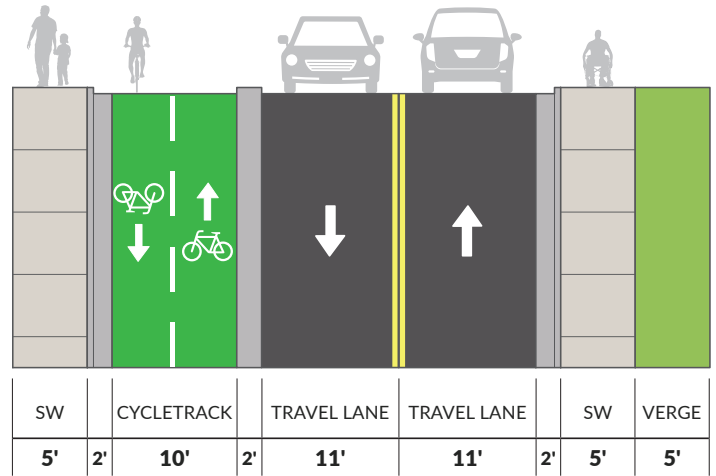
\*Planning-level cost estimates do not include ROW costs.

Unit costs were compiled from a combination of sources, including recent construction bids, NCDOT P6.0 cost estimator tool, similar local projects, and professional judgement. Materials, labor, and inflation have contributed to volatile construction costs in recent years.

**PROPOSED CROSS-SECTIONS (LOOKING EAST)**



Lejeune Boulevard to Burnt House Branch



Burnt House Branch Crossing to New River Drive



Existing

Proposed

**PROJECT #2: MCDANIEL DRIVE / COMMERCE DRIVE SAFE ROUTE TO SCHOOL** 2.A 2.B 2.C

**Description:** This project reallocates pavement space along two key roadway sections to create space for bicyclist and pedestrians. On McDaniel Drive, wide travel lanes are narrowed to construct 5' curb-separated bike lanes where allowed, with 5' concrete sidewalks on both sides. On Workshop Lane, lane widths are reduced to 10' to create room for traditional on-street bike lanes. On Commerce Drive, the roadway widens to construct 5' bike lanes, with curb-and-gutter installed to permit 5' concrete sidewalks.

**Notable:** McDaniel Drive is a wide collector street located in a residential area featuring Jacksonville Commons Recreational Complex and three area schools. This project is intended to improve safety and mobility for students traveling to or from school. Commerce Drive sections should tie into recently completed roadway improvements as part of the Commerce Drive Extension project.

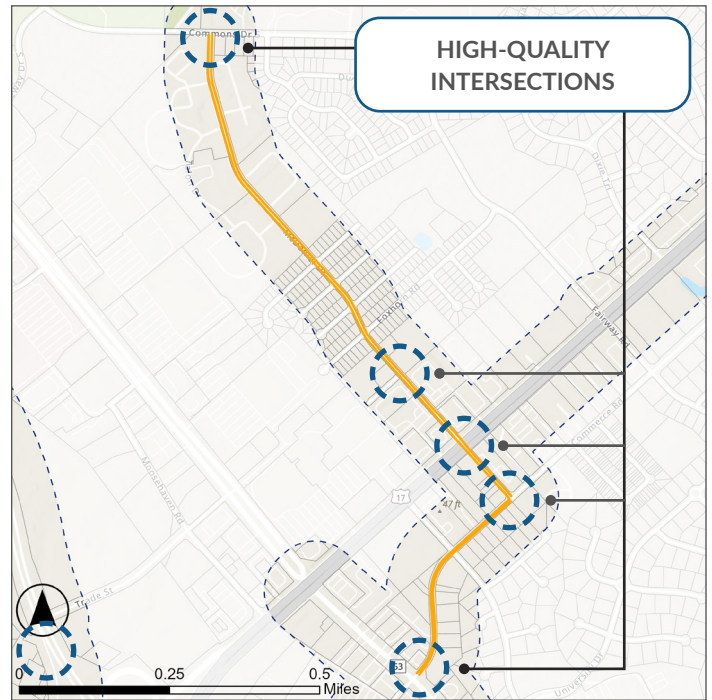
**DESIGN CONSIDERATIONS:**

- ~5,100 feet of new sidewalk
- ~4,500 feet of 5' separated bike lanes with concrete median
- ~2.5 lane-miles, pavement resurfacing
- Restriping of double-yellow centerline
- Consider high-visibility crosswalk improvements at Commons Drive, Trade Street (extension), Marine Boulevard, Commerce Drive, Western Boulevard intersections

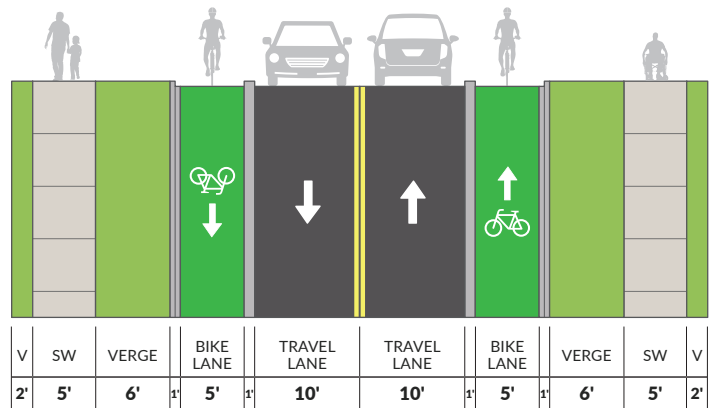
**PLANNING LEVEL COST ESTIMATE:**

**\$3.0 - 3.7M\***

| Item                  | Cost               |
|-----------------------|--------------------|
| Restriping            | \$250,000          |
| Concrete Median       | \$665,000          |
| Pavement resurfacing  | \$485,000          |
| 5' Concrete Sidewalk  | \$1,275,000        |
| Curb-and-Gutter       | \$435,000          |
| Drainage Improvements | \$255,000          |
| <b>TOTAL</b>          | <b>\$3,365,000</b> |



**PROPOSED CROSS-SECTIONS:**

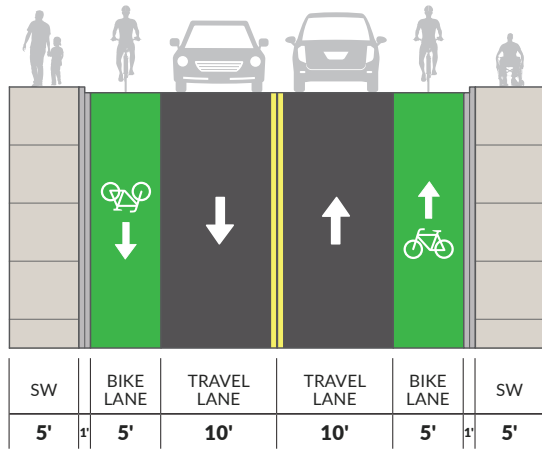


McDaniel Drive: Marine Boulevard to Commons Drive

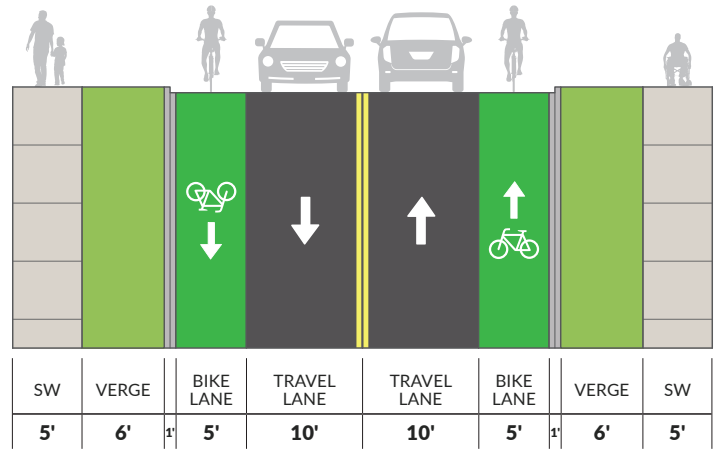
\*Planning-level cost estimates do not include ROW costs.

Unit costs were compiled from a combination of sources, including recent construction bids, NCDOT P6.0 cost estimator tool, similar local projects, and professional judgement. Materials, labor, and inflation have contributed to volatile construction costs in recent years.

**PROPOSED CROSS-SECTIONS**



Workshop Lane: Marine Boulevard to Commerce Drive



Commerce Drive: Marine Boulevard to Workshop Lane



### PROJECT #3: MARINE BOULEVARD SHARED-USE PATH 3.A

**Description:** This project introduces safe bike and pedestrian facilities along this high-speed, high-volume corridor. The shared-use path along the north side of Marine Boulevard takes advantage of greater right-of-way width and existing sidewalk infrastructure. High-quality intersections with high-visibility crosswalks, pedestrian countdown signal heads, and median refuge islands are proposed at McDaniel Drive and Piney Green Road to connect with other facilities on the One Community Trail.

**Notable:** Some ditch reconstruction and drainage improvements may be required along the north side of Marine Boulevard to accommodate stormwater runoff. Redevelopment of properties along the south side of Marine Boulevard may construct a shared-use path outside the existing right-of-way.



**DESIGN CONSIDERATIONS:**

- ~3,700 feet 10' Asphalt Shared-Use Path
- Existing transmission lines 1' outside ROW, north and south side of corridor
- 40' width stormwater ditch for drainage
- Consider high-visibility crosswalk improvements at Piney Green Road, McDaniel Drive intersections

**PLANNING LEVEL COST ESTIMATE:**

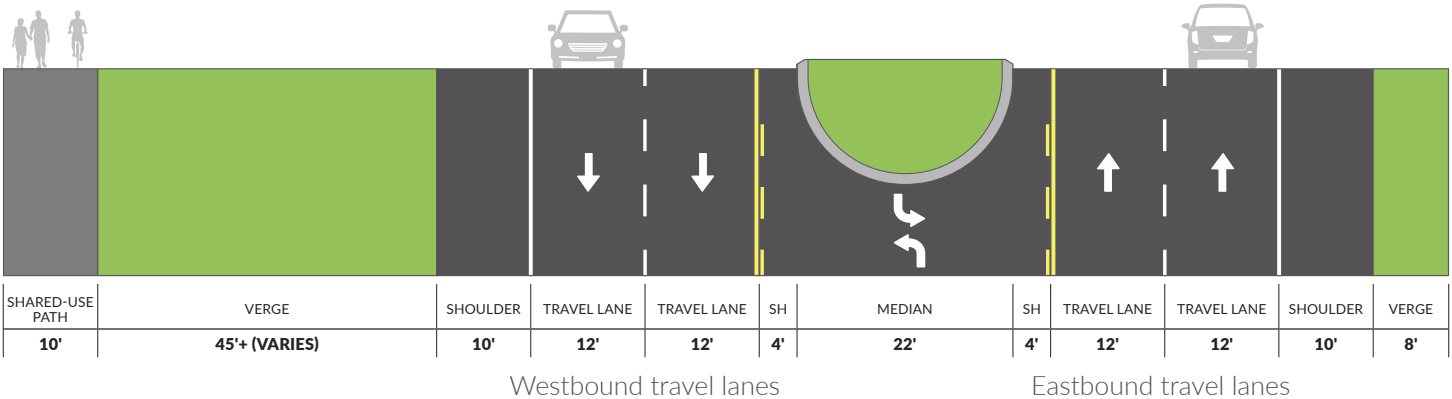
**\$1.7 - 2.0M\***

| Item                        | Cost               |
|-----------------------------|--------------------|
| 10' Asphalt Shared-Use Path | \$1,865,000        |
| <b>TOTAL</b>                | <b>\$1,865,000</b> |

\*Planning-level cost estimates do not include ROW costs.

Unit costs were compiled from a combination of sources, including recent construction bids, NCDOT P6.0 cost estimator tool, similar local projects, and professional judgement. Materials, labor, and inflation have contributed to volatile construction costs in recent years.

**PROPOSED CROSS-SECTION**



**PROJECT #4: CROSSING JACKSONVILLE PARKWAY (BUNDLE #1)** 4.A 4.B 4.C 4.D

**Description:** This bundle of four sections on four different roadways connects neighborhoods west of Jacksonville Parkway with commercial destinations to the east. (4.A) and (4.B) reallocate pavement space on Country Club Road, reducing the roadway to two lanes in order to incorporate a 10' on-street sidepath. (4.C) reallocates pavement space for an on-street sidepath on Commerce Road, transitioning above-the-curb in the existing shopping center. (4.D) proposes shared-lane markings along All Green Way, and a new location greenway is proposed to connect the existing Rail-Trail Greenway with Country Club Road.

**Notable:** The purpose of this project is to improve connectivity and overall mobility for users by crossing the limited-access freeway that current creates a barrier to non-motorized mobility, using the existing grade-separated crossing locations.



**PROJECT CORRIDORS:**

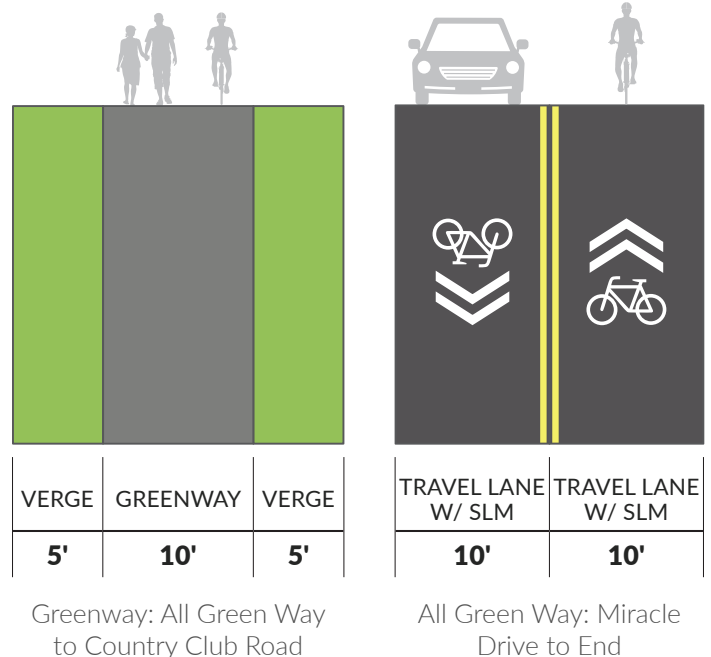
- All Green Way (Shared Lane Markings + Greenway)
- Country Club Drive (On-Street Sidepath)
- Commerce Drive (On-Street Sidepath)

**PLANNING LEVEL COST ESTIMATE:**

**\$3.5 - 4.3M\***

| Location                                                      | Cost               |
|---------------------------------------------------------------|--------------------|
| Country Club Road: Bell Fork Road to Commerce Drive (4.A)     | \$1,625,000        |
| Country Club Road: Commerce Drive to Western Boulevard (4.B)  | \$1,025,000        |
| Commerce Drive: Country Club Drive to Western Boulevard (4.C) | \$475,000          |
| All Green Way (4.D)                                           | \$800,000          |
| <b>TOTAL</b>                                                  | <b>\$3,925,000</b> |

**CROSS-SECTIONS (CONTINUED ON P. 37-38):**



\*Planning-level cost estimates do not include ROW costs.

Unit costs were compiled from a combination of sources, including recent construction bids, NCDOT P6.0 cost estimator tool, similar local projects, and professional judgement. Materials, labor, and inflation have contributed to volatile construction costs in recent years.

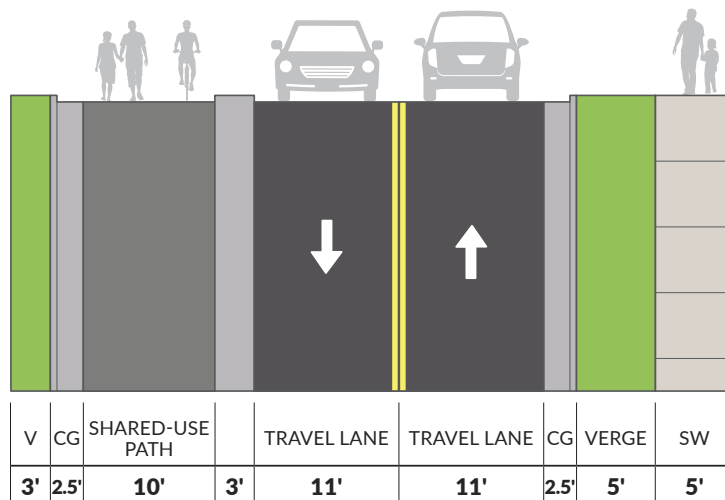
Plan view of intersection crossing treatments,  
Country Club Road at Commerce Drive



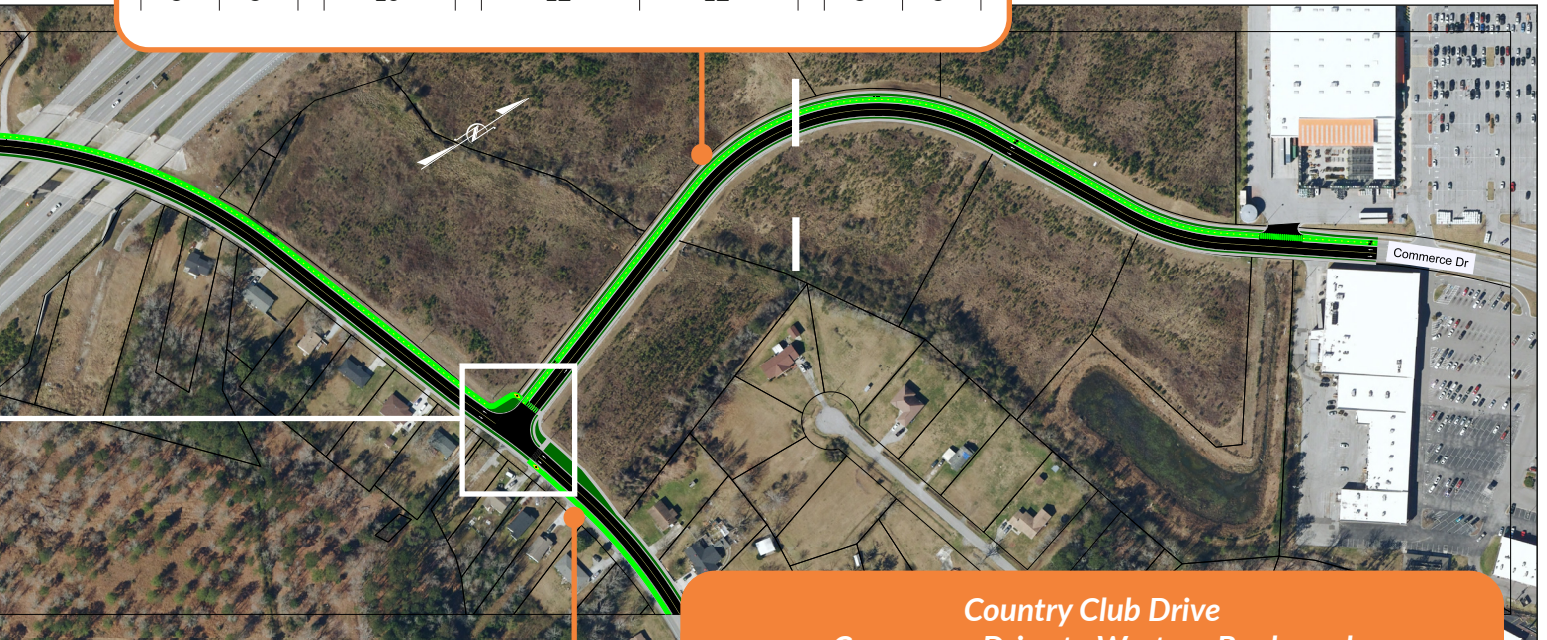
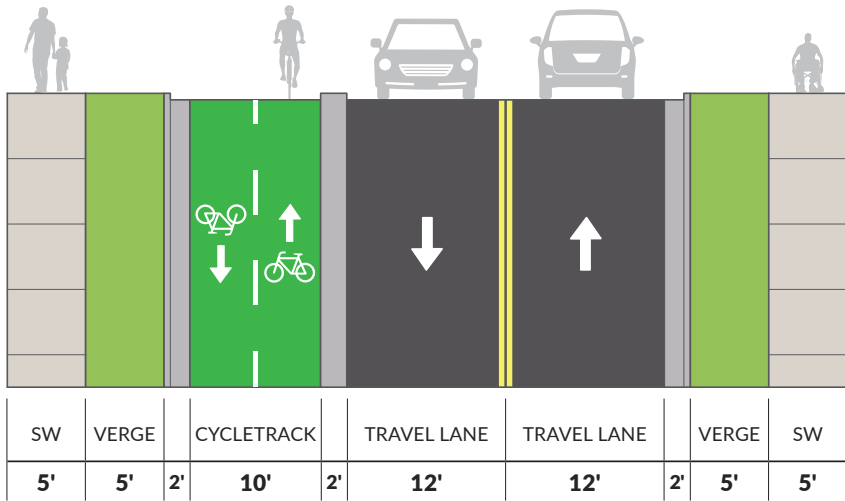
**Figure 4.10:** Conceptual Design, Bundle #1:  
Crossing Jacksonville Parkway.



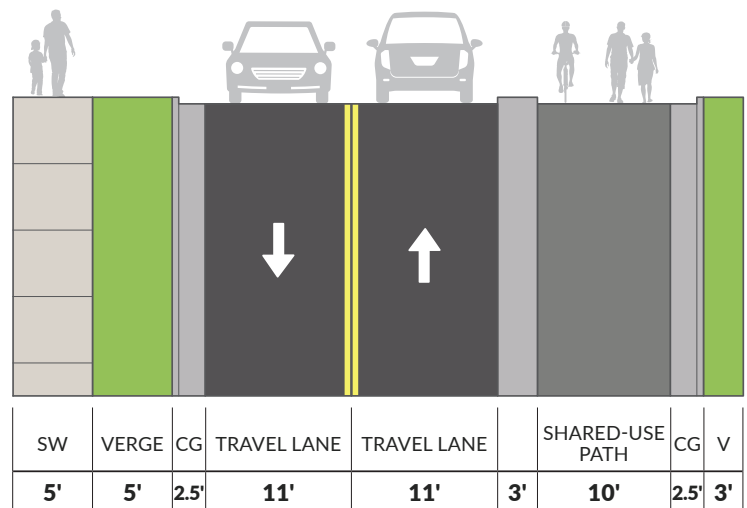
**Country Club Drive  
Bell Fork Road to Commerce Drive**



**Commerce Drive  
Country Club Drive to Western Boulevard**



**Country Club Drive  
Commerce Drive to Western Boulevard**





## PROJECT #6: PINEY GREEN ROAD SHARED-USE PATH

6.A

**Description:** This project provides safe, separated bike and pedestrian facilities along a recently-reconstructed corridor experiencing fast residential and commercial growth and increasing volumes. Space within the right-of-way on the westbound side of the corridor is repurposed as a 10' asphalt shared-use path, preserving newly constructed sidewalks on the eastbound side. High-quality intersections with high-visibility crosswalks, pedestrian countdown signal heads, and refuge islands are proposed for Marine Boulevard, Commerce Drive, and Country Club Road.

**Notable:** Electrical transmission lines are located on the same side of the roadway as the proposed shared-use path. Typical utilities alignment for these corridors is 1' beyond existing right-of-way. The shared-use path should be designed so as to avoid potential impact to these lines.



### DESIGN CONSIDERATIONS:

- ~5,650 feet 10' Asphalt shared-use path
- Consider intersection improvements, including pedestrian countdown signal heads, ADA curb ramps, and high-visibility crosswalk treatments at Country Club Road, Commerce Drive, and Marine Boulevard intersections

### PLANNING LEVEL COST ESTIMATE:

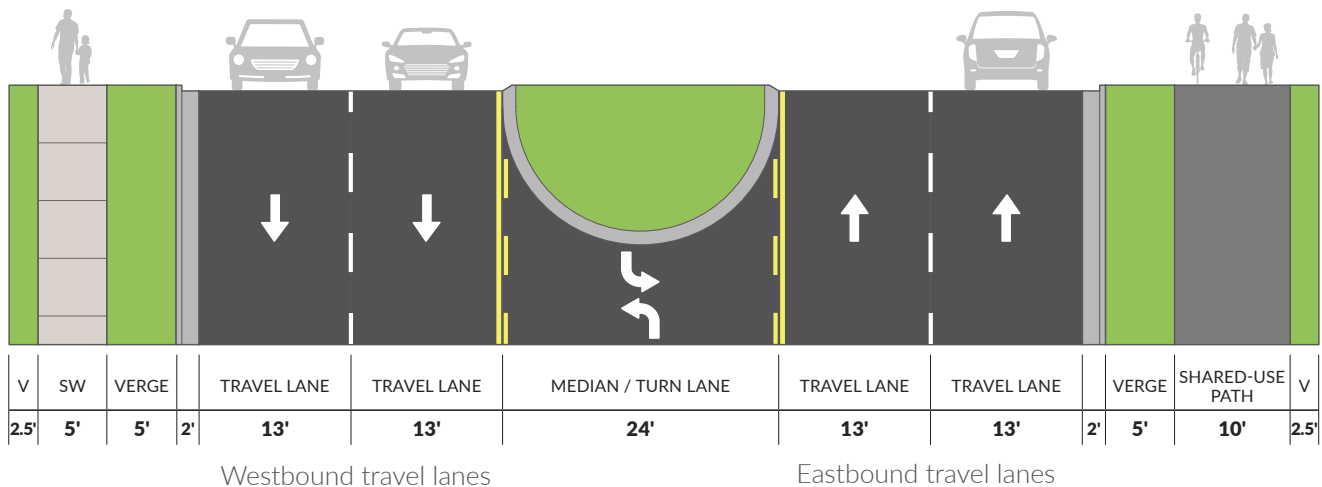
**\$2.6 - 3.2M\***

| Item                        | Cost               |
|-----------------------------|--------------------|
| 10' Asphalt Shared-Use Path | \$2,825,000        |
| ADA Curb Ramps              | \$65,000           |
| <b>TOTAL</b>                | <b>\$2,890,000</b> |

\*Planning-level cost estimates do not include ROW costs.

Unit costs were compiled from a combination of sources, including recent construction bids, NCDOT P6.0 cost estimator tool, similar local projects, and professional judgement. Materials, labor, and inflation have contributed to volatile construction costs in recent years.

### PROPOSED CROSS-SECTION (LOOKING NORTH)



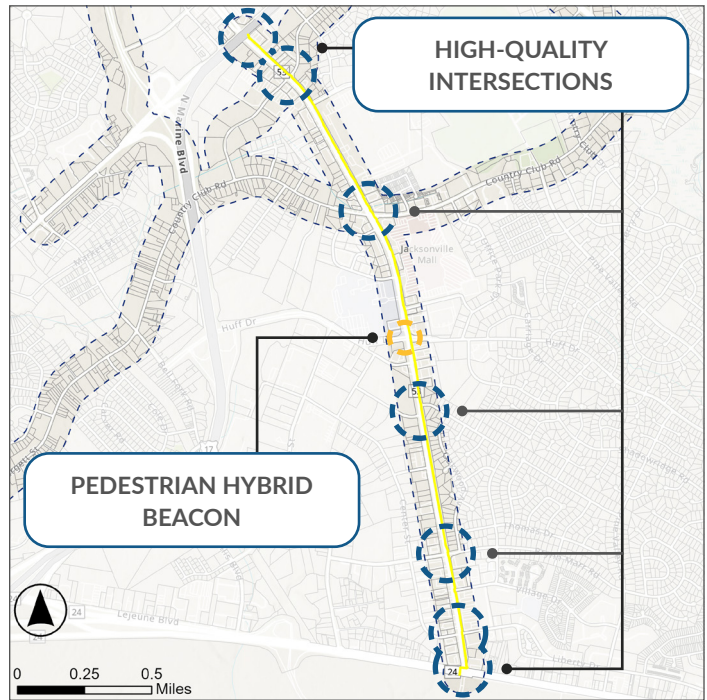
**PROJECT #7: WESTERN BOULEVARD SHARED-USE PATH EXTENSION** 7.A

**Description:** This project connects the existing shared-use path on Western Boulevard north of Marine Boulevard to the Lejeune Greenway at the southern end of the corridor. The preferred alignment reflects a 10' asphalt shared-use path along the northbound (east) side of the roadway, taking advantage of a lack of utilities and existing wide sidewalks. Intersection improvements are proposed at several locations along the corridor, including a Pedestrian Hybrid Beacon near the Rea Street and Winchester Road offset intersections.

**Notable:** This project's purpose is to improve bike and pedestrian safety and to improve mobility and connectivity for bike and pedestrian users on a high-speed, high-volume corridor. Consider Huff Road and Country Club Road intersections for spot safety improvements that can incorporate design elements.

**DESIGN CONSIDERATIONS:**

- ~13,200 feet 10' asphalt shared-use path
- Pedestrian Hybrid Beacon near Rea Street / Winchester Road intersection
- Transmission lines located on west side of corridor
- Privacy wall located along edge of right-of way, east side of corridor



**PLANNING LEVEL COST ESTIMATE:**

**\$6.8 - 8.3M\***

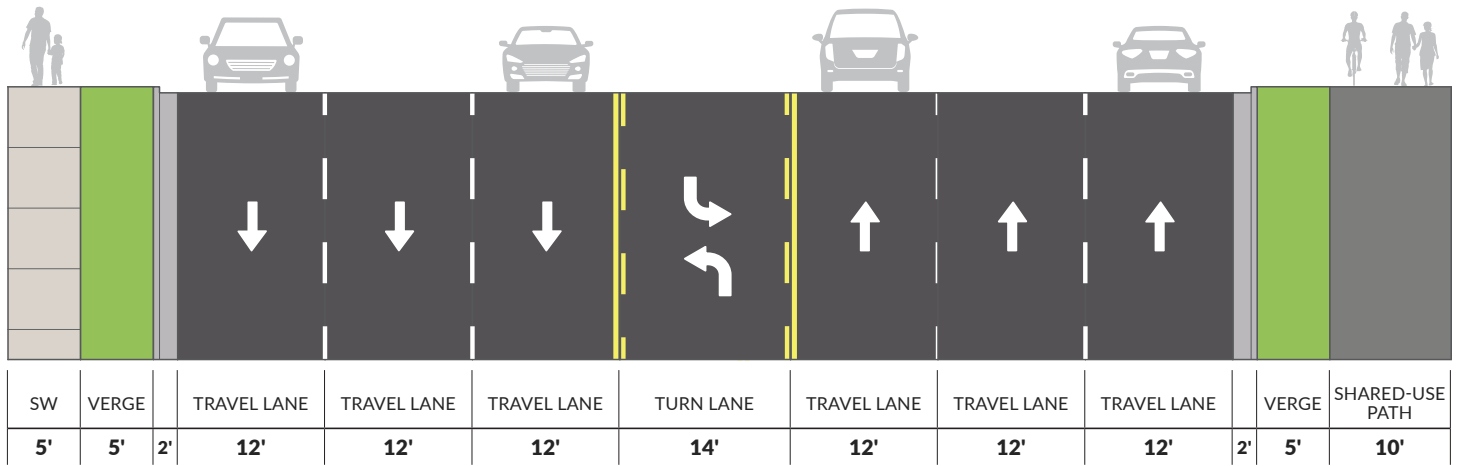
| Item                          | Cost        |
|-------------------------------|-------------|
| 10' Asphalt Shared Use Path** | \$6,600,000 |
| Pedestrian Midblock Crossing  | \$250,000   |
| Pedestrian Hybrid Beacon      | \$120,000   |
| ADA Curb Ramps                | \$500,000   |
| TOTAL                         | \$7,470,000 |

\*Planning-level cost estimates do not include ROW costs.

\*\*Assumes total reconstruction, including removal of existing 5' sidewalk. A 10' concrete shared-use path may allow for repurposing of the sidewalk, reducing cost substantially.

Unit costs were compiled from a combination of sources, including recent construction bids, NCDOT P6.0 cost estimator tool, similar local projects, and professional judgement. Materials, labor, and inflation have contributed to volatile construction costs in recent years.

**PROPOSED CROSS-SECTION (LOOKING NORTH)**



Northbound travel lanes

Southbound travel lanes



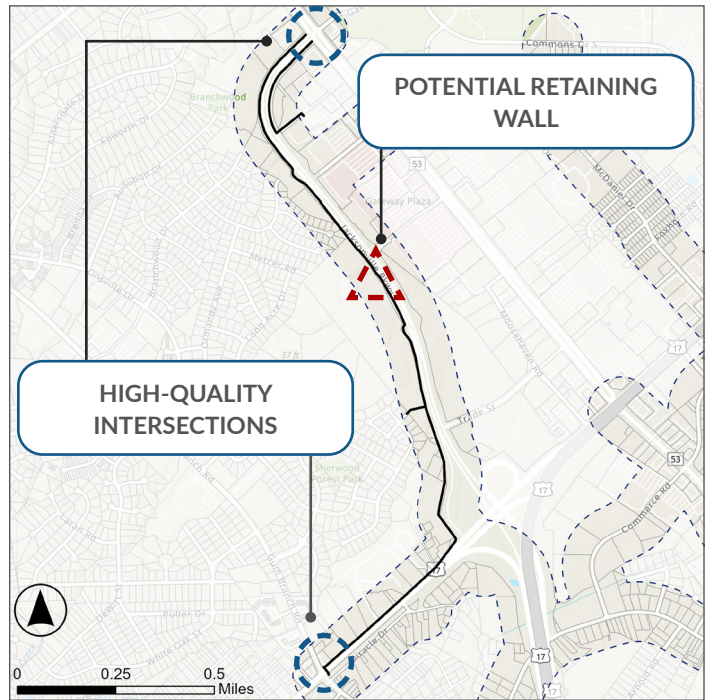
**PROJECT #8: JACKSONVILLE PARKWAY CONNECTOR (BUNDLE #2)** **8.A** **8.B** **8.C**

**Description:** The preferred alignment is a 10' asphalt shared-use path along the southbound (west) side of the Jacksonville Parkway. This corridor is a limited access freeway, crossings are accomplished at existing intersections: Western Boulevard and Bell Fork / Gum Branch Road. A 10' asphalt shared-use path along the northbound (east) side of the roadway provides access to shopping destinations by way of Merchant Drive. A neighborhood connection to the greenway is proposed at Palm Drive. Heavy right-of-way, utilities, and potential structure impacts along Marine Boulevard limit alignment options to a 10' or less asphalt shared-use path at the back-of-curb.

**Notable:** This project provides the second means of connection across the Jacksonville Parkway, improving mobility for bike and pedestrian users and providing increased connections to important community resources, including parks and schools, and commercial destinations.

**DESIGN CONSIDERATIONS:**

- ~13,000 feet Asphalt shared-use path
- 10' Asphalt shared-use path, west (northbound) side, Marine Boulevard to Western Boulevard
- 10' Asphalt shared-use path, east (southbound) side, Merchant Drive to Western Boulevard
- 8' Asphalt shared-use path, north (eastbound) side, Gum Branch Road to Jacksonville Parkway
- Consider intersection improvements, including pedestrian countdown signal heads, ADA curb ramps and high-visibility crosswalk treatments at Gateway Drive North, Gum Branch / Bell Fork Road intersections
- Potential retaining wall near Gateway Drive
- Potential Noise Wall reconstruction near Gateway Drive
- Potential structure impacts, Marine Boulevard near Gum Branch Road intersection
- Utilities relocation needed, Marine Boulevard from Gum Branch Road to Jacksonville Parkway



**PLANNING LEVEL COST ESTIMATE:**

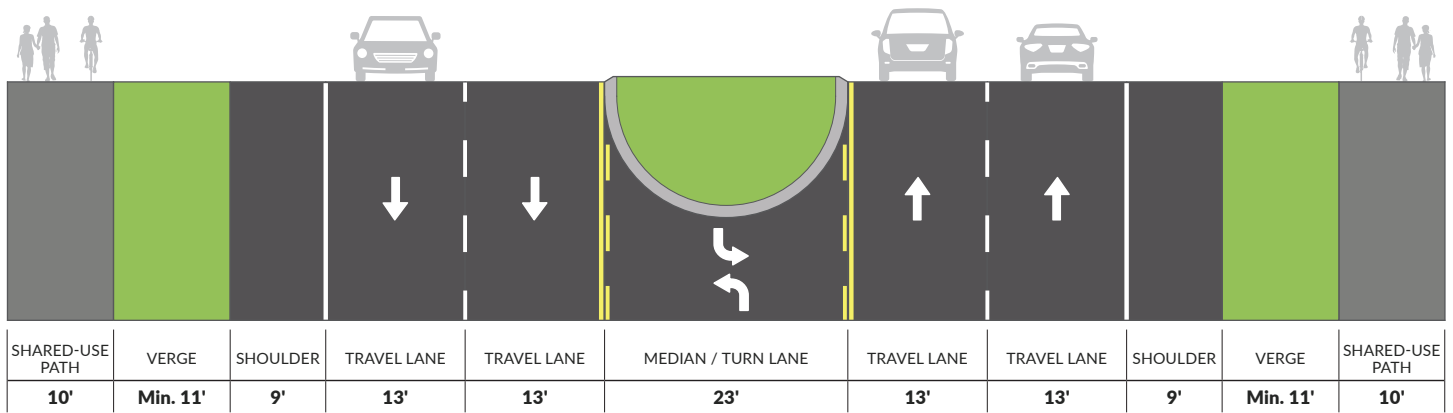
**\$7.7 - 9.3M\***

| Item                                  | Cost               |
|---------------------------------------|--------------------|
| 10' Asphalt Shared-Use Path           | \$6,575,000        |
| Utility Relocation (Marine Boulevard) | \$260,000          |
| Noise Wall (650' x 15')               | \$682,500          |
| Retaining Wall (400 feet)             | \$1,020,000        |
| <b>TOTAL</b>                          | <b>\$8,537,500</b> |

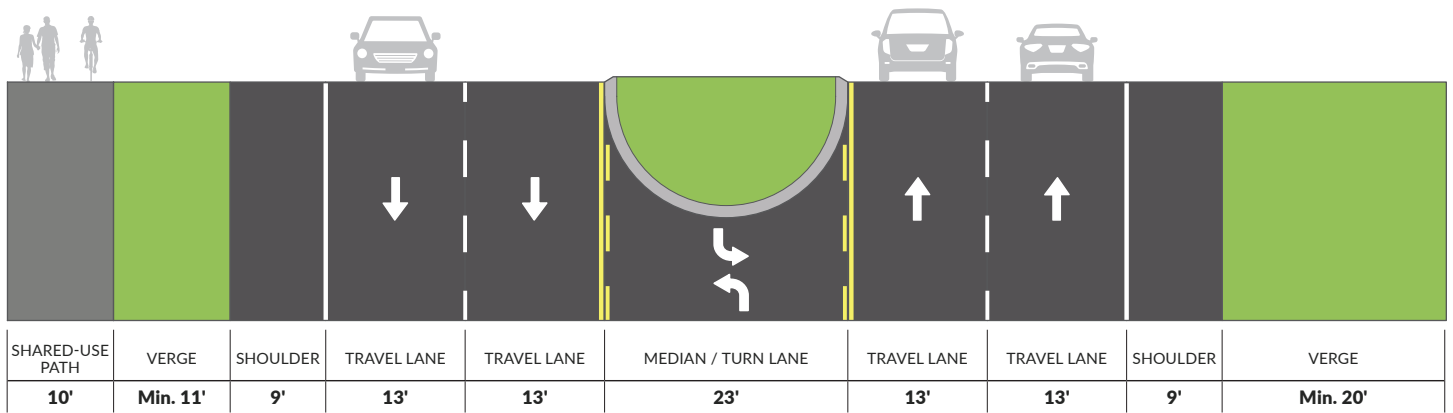
\*Planning-level cost estimates do not include ROW costs.

Unit costs were compiled from a combination of sources, including recent construction bids, NCDOT P6.0 cost estimator tool, similar local projects, and professional judgement. Materials, labor, and inflation have contributed to volatile construction costs in recent years.

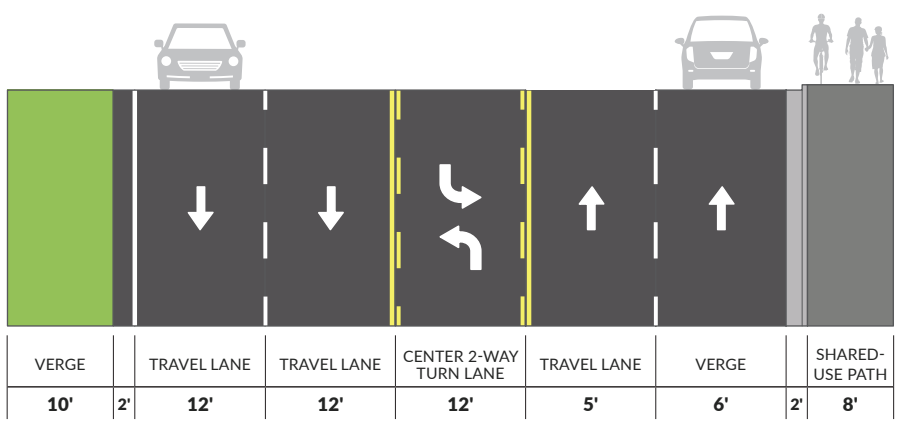
**PROPOSED CROSS-SECTIONS (LOOKING NORTH)**



Northbound travel lanes                      Southbound travel lanes  
Merchant Drive to Western Boulevard



Northbound travel lanes                      Southbound travel lanes  
Marine Boulevard to Merchant Drive



Eastbound travel lanes                      Westbound travel lanes  
Bell Fork / Gum Branch Road to Jacksonville Parkway

⏪ NOTE: 8' Shared-Use Path may require a design exception from NCDOT.

# CHAPTER 5: Implementation

## Implementation Overview

The implementation of the recommendations contained in the Jacksonville One Community Trail Feasibility Study will require a concerted, long-term effort from the City of Jacksonville, but also require support from affiliated partners, like NCDOT, Onslow County, downtown businesses, and advocacy groups. **The purpose of this section is to present recommended project phasing and connect it to funding and other implementation options.**

## Implementation Partners

Implementing and maintaining a network of interconnected walking and biking paths requires cooperation among different parties. Table 5.1 summarizes the partners who are likely to be involved in the next phases of implementation.

| PARTNER                                                             | ROLE(S)                                                                                                                                                                                                                                    | PLANNING/<br>DESIGN | CONSTRUCTION | MAINTENANCE |
|---------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|--------------|-------------|
| City of Jacksonville                                                | Project Lead; usually the Task Lead; funding; labor; coordination, different departments may lead or support specific actions                                                                                                              | ✓                   | ✓            | ✓           |
| NCDOT (Central)                                                     | Assists with permits and environmental compliance; lead designer in some cases (along state-owned streets)                                                                                                                                 | ✓                   | ✓            |             |
| NCDOT (Division 3)                                                  | Assists with design; leads on construction and maintenance; coordination/liaison with local stakeholders                                                                                                                                   | ✓                   | ✓            | ✓           |
| Onslow County                                                       | Supports the City of Jacksonville; land planning and county-wide connectivity to other trails; coordination with different internal departments                                                                                            | ✓                   |              |             |
| Jacksonville Urban Area MPO (JUMPO)                                 | Updating the Metropolitan Transportation Plan (MTP); coordination with state project prioritization                                                                                                                                        | ✓                   |              |             |
| Private Partners (e.g., businesses, residents, private developers)  | Feedback on design and maintenance concerns, communication on pending construction; volunteer labor for maintenance activities; volunteer labor for maintenance activities                                                                 | ✓                   |              | ✓           |
| Non-Profit Organizations (e.g., Coastal Carolina Community College) | Funding from federal and foundation funds limited to 501(c)3, university, or tribal organizations; assistance with programming; volunteer labor for maintenance activities                                                                 | ✓                   |              | ✓           |
| Jacksonville-Onslow Chamber of Commerce                             | Local partnerships with advocacy organizations provide coordination support and feedback on design elements, construction mitigation strategies, integration with public events for the Jacksonville One Community Trail Project and route | ✓                   |              |             |
| Camp Lejeune                                                        | Existing Programs like the Family Advocacy Program can help with messaging and coordination with youth programs                                                                                                                            | ✓                   |              |             |
| NC Rails-Trails Conservancy                                         | State-level advocacy organizations provide expert advice on promoting and developing the trail to its maximum potential; alignment with state-level trail objectives and strategies                                                        | ✓                   |              |             |

Table 5.1: Implementation Partners.



**City of Jacksonville.** The City's Planning & Permitting Department serves the Planning Advisory Board, manages site development review processes, and interprets the Unified Development Ordinance (UDO)

and other planning regulations for the City. Its role extends to leading major planning initiatives, such as the Downtown Master Plan, and participating in transportation planning.

The Planning and Permitting Department is joined by other City Departments in the development of the Jacksonville One Community Trail Project. Among other functions, the Parks and Recreation Department coordinates organized sports; manages park facilities and greenways; and updates the Recreation and Parks Master Plan (Draft 2024). The Public Safety Department is active in bicycle safety and public security/safety programming, and it communicates extensively at the neighborhood level through a variety of programs like Front Porch Roll Call (citizen briefings) and Coffee with a Cop (awareness). Public Works (engineering) and Administration (including City Council's role of project authorization capital funding decisions) all play important roles in the realization of the Jacksonville One Community Trail Project. Notable also is the Community Affairs Department support of nonprofits through training and quarterly forums.



**Onslow County.** Like the City of Jacksonville, Onslow County has multiple departments that will need to be coordinated through the planning function (Planning and Development Department),

with contributions from other Departments, especially Health; Parks and Recreation; and the Communications Office. Marketing and joint efforts for event programming are two examples of interactions that might benefit the Project.



**Jacksonville Urban Area Metropolitan Planning Organization.** JUMPO has

the responsibility of coordinating transportation providers to produce a long-range transportation plan, bi-annual list of prioritized transportation project needs, transportation improvement program, and other functions within an established federal/state legal and policy framework. JUMPO is hosted by the City of Jacksonville but provides planning and coordination services across Onslow County, City of Jacksonville, towns inside the county, and public

transportation providers in collaboration with NCDOT. As the lead planning agency, the City of Jacksonville has strong communication channels with the MPO process and staff, an important factor in successfully positioning recommendations from this Study.

**Private Partners.** The USDOT has long recognized the importance of engaging cyclists and property owners in the development of active mode infrastructure. Business owners, residential renters and owners, and private developers can be daunting to coordinate with. However, the Project's success is highly dependent on successful planning and coordination with private sector entities. It is important to consider the impact of any potential action on each of these stakeholder groups. A good practice is to **develop consistent communication using both high-tech and "high-touch" methods** to reach a broad cross-section of people who may respond to different communication channels.



**NCDOT Central Headquarters**

**(including IMD) and Division 3.** The central offices in Raleigh, NC, facilitate and organize the STI/SPOT project prioritization process, and IMD assists with both detailed design issues as

well as communicating an understanding of relevant policy for bicycle, pedestrian, and transit modes of travel. [The Complete Streets Policy](#) is an example of a relevant statewide policy with practical implications to this Project, since several components of the Project can be associated with roadway projects that would be guided by the Complete Streets Policy and related guidance. This policy and its related guidance are important to Jacksonville for design guidance and funding opportunities, as it states that municipalities are not responsible for active mode project costs if those projects are contained in an adopted local plan.

Funding opportunities at the state level (or passed through the state from federal sources) include Surface Transportation Block Grants (STBG) and Transportation Alternatives (TA) Program set-asides; Congestion Mitigation and Air Quality Improvement (CMAQ) Program funds, the Highway Safety Improvement Program (HSIP), and NC State Street-Aid (Powell Bill) funding. These sources are discussed later, but it's important to emphasize becoming familiar with the personnel who manage these sources, individual program guidelines, and changes to them.



**State Agencies, including the Department of Commerce, Department of Natural and Cultural Resources, and Division of Parks and Recreation.**

These various state agencies provide grants and technical assistance to communities across North Carolina, not only for trail development but also for economic and cultural enhancements and expansion. Some of these organizations sponsor funding



opportunities that are subsequently described in more detail. It is important to be on their mailing lists and attend in-person or virtual meeting opportunities on specific topics sponsored by these agencies pertaining to trail development, accessing funding opportunities, and creating coalitions. This coordination requires time and dedication to build and maintain a working relationship, underscoring the need for the previous recommendation of a city-wide grants manager.

**Local and Non-Profit Agencies, including the Jacksonville Onslow Chamber of Commerce and Coastal Carolina Community College (CCCC).**

Local stakeholders and institutions can provide support to the Jacksonville One Community Trail Project in different capacities. A non-profit organization can serve as a supporter



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CHAMBER OF COMMERCE

(or even as a lead) for some grants to increase the “pipeline” of available funding; labor and planning can occur through students enrolled in high schools or a higher learning institution like CCCC, or the City may find that specialized aspects or benefits of the One Community Trail Project may be synergistic with health, field education, or civic education classes.

A simple example of a potential partnership is the CCCC Health and Fitness Science program (link), where students learn about the importance of exercise and subsequently pursue employment in parks and recreation departments in local or state government. The City has a great resource already in place: the Community Affairs section of its website notes that a quarterly roundtable of non-profits provides coordination, and the City sponsors non-profit training. This existing interaction provides a potential gateway for the City to advance the One Community Trail Project as a significant platform or opportunity for joint partnerships with non-profits.



**Military Installations.** An important participant in the transportation planning of Onslow County is Marine Corps Base Camp Lejeune (MCB Camp Lejeune), a significant presence in the area that encompasses over 153,000 acres.

MCB Camp Lejeune has representation on the JUMPO Technical Committee, for example, and their website features recreational opportunities for the base Marines, Sailors, and their families that could include trails like the Jacksonville One Community Trail. Working with leadership through the JUMPO representative (and other on-base personnel) would potentially help elevate the Jacksonville One Community Trail Project and its recommendations.

## Implementation Priorities

The Action Plan presents specific steps and partners tailored to the Jacksonville One Community Trail Project and this *Feasibility Study's* findings. Opportunities to work with other partners, or to advance an action that is shown as a longer-term strategy, should be considered as higher priorities when contexts and situations change.

### ACTION PLAN STRATEGIES

Strategies on the following pages summarizes several specific actions, partnerships, roles, timeframe for action, and success (performance) indicators. Refer to the section "Implementation Partners" for definitions of the partnerships mentioned in Table 5.2.

| ACTION                                                                                                                                                                                  | LEAD/SUPPORT                                                       | TIMING                           | SUCCESS                                                                                               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|----------------------------------|-------------------------------------------------------------------------------------------------------|
| Adopt the Jacksonville One Community Trail Feasibility Study                                                                                                                            | City of Jacksonville (CoJ) Planning & Permitting Dept.             | Summer 2024                      | Plan Adoption                                                                                         |
| Coordinate nonprofit efforts to obtain funding for events, including health- and youth-oriented activities, in the study area that support the Project                                  | CoJ Community Affairs                                              | 2025/Annually                    | Engage at least one nonprofit organization in the branding, awareness, or other aspect of the Project |
| Amend City plans referencing this project, including Parks Master Plan, Bicycle & Pedestrian Plan, and Comprehensive Plan                                                               | CoJ Planning & Permitting / Parks & Recreation Departments         | 2025 (Parks Master Plan)         | Plan Amendment / Adoptions                                                                            |
| Amend the JUMPO Metropolitan Transportation Plan with reference to this Feasibility Study and recommendations                                                                           | CoJ Planning & Permitting Dept. / JUMPO                            | 2026 (all others)                | Plan Amendment                                                                                        |
| To advance the Jacksonville One Community Trail and affiliated projects, add named line item in the City's Capital Improvement Plan (CIP) in the Community Development Projects section | Planning & Permitting Dept. / CoJ Budget Office                    | 2025                             | Line Item Added to CIP and updated annually with CIP                                                  |
| Prioritize the Jacksonville One Community Trail Project elements in the JUMPO Project Needs List (occurs after recommendation #4)                                                       | JUMPO                                                              | 2025/Annually                    | Project on JUMPO Project Needs List                                                                   |
| Continue to coordinate with NCDOT on current and upcoming projects                                                                                                                      | NCDOT Division 3; JUMPO                                            | 2025/Annually                    | Meet twice per year                                                                                   |
| Coordinate with NCDOT on pavement rehabilitation that occur along the One Community Trail routes                                                                                        | NCDOT Division 3                                                   | Ongoing; At least twice per year | Meet twice per year (concurrent with recommendation #7)                                               |
| Establish a site for people to report needed repairs; use it to brand/promote the One Community Trail Project                                                                           | City of Jacksonville                                               | Ongoing; At least twice per year | Raise awareness of project specifically, and maintenance generally                                    |
| Create visibility through public announcements, signage, etc., when project elements are funded and especially when they are completed                                                  | CoJ Communications Department, Onslow County Communications Office | 2024-Ongoing                     | One Feature on G10TV plus a minimum of 3 additional media releases per year                           |

Table 5.2: Action Plan strategies.

| ACTION                                                                                                                                                                     | LEAD/SUPPORT                                                              | TIMING                                   | SUCCESS                                                                                                                                                                       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Work with the Rails-to-Trails Conservancy to add the Jacksonville One Community Trail on the Tralink directory (link)                                                      | Rails-to-Trails Conservancy                                               | 2025                                     | Website describes the Jacksonville One Community Trail route                                                                                                                  |
| Develop design language for the Jacksonville One Community Trail routes to require and coordinate design elements like lighting, maintenance, and signage                  | Input from business / residential owners                                  | 2025 to 2026                             | Creation of a technical memorandum and images supporting consistent design elements                                                                                           |
| Create a Downtown Design Overlay District to enforce design elements for the Jacksonville One Community Trail route                                                        | CoJ with input from business / residential owners, and private developers | 2026                                     | Adopt new Overlay District language in the City ordinance (after recommendation #12)                                                                                          |
| Review the attached guidance on and priorities for additional grant revenue generation                                                                                     | CoJ; Non-profit partners                                                  | Ongoing                                  | Application for grants                                                                                                                                                        |
| Coordinate at least one annual event that brands the Jacksonville One Community Trail (e.g., Fun Run, Business Fair, Health & Fitness)                                     | Jacksonville-Onslow Chamber of Commerce, Onslow Memorial Hospital         | Annual                                   | One branded event/year                                                                                                                                                        |
| Establish strong health link of Project through active partnership with Onslow Memorial Hospital                                                                           | Onslow Memorial Hospital                                                  | 2025-Ongoing                             | (1) Establish working group that meets 4 times/year to collaborate on health initiatives; (2) Expand the existing Wellness Trail to include the Project routes                |
| Update and amend the Onslow County Community Health Needs Assessment (link) and County Health Report (SOTCH) to incorporate map of One Community Trail network             | Onslow County                                                             | Every three years (HNA) / Annual (SOTCH) | (1) Include Project in the next update that identifies the Project and routes in HNA Report; (2) note Project in “Physical Activity Opportunities” in the annual SOTCH Report |
| Expand grant capacity, skills, coordination, and potential for cross-leveraging by hiring a Grants Manager for the City to manage/coordinate applications and partnerships | City of Jacksonville                                                      | 2025                                     | Hire a permanent, full-time staff member                                                                                                                                      |

Table 5.2: Action Plan strategies (continued)

## Funding Resources

This section outlines funding opportunities for completing the recommendations of the Jacksonville *One Community Trail Feasibility Study* directly or that indirectly support the project purpose by creating more demand for safer biking and walking to and through downtown Jacksonville.

### LOCAL OPPORTUNITIES

#### Private Development Action

Much of the existing pedestrian network has been constructed by individual development projects. Ensuring that planned sidewalks have the full authority of the City Ordinance behind them is important.

#### Capital Improvements

The Jacksonville City Council has the right to construct sidewalks for which the City bears the full cost. One of the Action Plan strategies is to include a persistent line item in the annual capital budgeting documentation (CIP), probably in either the “Community” or “Transportation” sections. Using these funds to leverage matches on grant applications or private development partnerships (see below) extends the reach of limited City funds.

#### Local Bond Referendums

Another tool is the local general obligation bonding authority possessed by towns and cities. Funds are borrowed against future taxing authority and repayment, so having a high municipal credit rating is key. Municipal bond interest rates remain attractive (about 3.7% as of this writing) as investors seek security and federal tax benefits from holding municipal bonds in their portfolios.

#### Public-Private Partnerships

The City has an array of options to exercise with respect to private partnerships, such as downtown business improvement districts (BID) and tax increment financing (TIF) that spread the cost of construction across the private sector property owners that potentially benefit from property value increases realized from the implementation of public projects. Funding is derived from the General Fund as well as an ad valorem tax applied in the BID area and city-wide. Projects include enhanced maintenance of streets and sidewalks as well as marketing, promotion, and capital improvements in the downtown area.

## STATE OPPORTUNITIES

### Strategic Transportation Investments (STI) Strategic Prioritization Process (SPOT).

This prioritization process is updated every other year (typically) and represents the most common state channel for transportation project funding familiar to municipalities, counties, and rural/metropolitan planning organizations. Active mode projects are only funded through the “Division” tier (30% of total funding entering the program, with State and Regional tiers not accessible to the bicycle/pedestrian program) and are based 50% on data and 50% on local input.

<https://connect.ncdot.gov/projects/planning/Pages/StrategicPrioritization.aspx>

### State Street-Aid (Powell Bill) Program

An annual allocation of funds used primarily to resurface streets, Powell Bill funds can be used to plan, construct, or maintain bike paths, greenways, or sidewalks.

<https://connect.ncdot.gov/municipalities/State-Street-Aid/Pages/default.aspx>

### Surface Transportation Block Grant (STBG)/Transportation Alternatives Program (TA or TAP) Set-Aside.

The TA set-aside (10% of total STBG) is dedicated to small-scale projects including pedestrian and bicycle facilities.

<https://www.fhwa.dot.gov/specialfunding/stp/>

### NC Department of Commerce Community Development Block Grant (CDBG)

CDBG funds are connected to improving livability, primarily in areas of low-income populations. It is recommended to coordinate with the City of Jacksonville Neighborhood Improvement Services before pursuing this source of funding.

<https://www.commerce.nc.gov/about-us/divisions-programs/rural-economic-development-division/community-development-block-grants-cdbg>

### NC Main Street Program

Managed through the NC Main Street & Rural Planning Center/ NC Department of Commerce, the NC Main Street Program focuses on providing technical and economic development guidance for downtown revitalization, small business development, and historic property rehabilitation.

<https://www.commerce.nc.gov/about-us/divisions-programs/rural-economic-development-division/nc-main-street-rural-planning-center/main-street-program>

### Highway Safety Improvement Program (HSIP), Spot Safety Program, and Hazard Elimination

The HSIP is managed by NCDOT and identifies locations meeting safety concern, then goes on to conduct detailed crash analyses to recommend countermeasures. The HSIP includes projects identified largely through numbers of bicycle and pedestrian crashes over the preceding 10-year period and a combined severity index.

<https://connect.ncdot.gov/resources/safety/Pages/NC-Highway-Safety-Program-and-Projects.aspx#:~:text=The%20purpose%20of%20the%20North,safety%20concerns%20throughout%20the%20state.>

### Statewide Project Funds

**Small Construction Funds** – Maximum \$250,000 per project requested of Division Engineer by municipality

**Statewide Contingency Funds** – A description and justification for the safety, access, or other project is required to be sponsored by the President Pro Tempore of the NC Senate, House Speaker, and Secretary of Transportation.

**Public Access Funds** – Requests are made by volunteer fire departments (\$50,000 limit), schools (\$25,000), or industrial entities (limit of \$1,000/job created) and include location and justification

<https://connect.ncdot.gov/projects/planning/Economic%20Development/Forms/AllItems.aspx>

## FEDERAL OPPORTUNITIES

Federal opportunities for direct funding are described below. Generally, these federal programs are complex and highly competitive. The transportation-specific programs described here are not the only possible source of federal funds, however, as the Jacksonville One Community Trail Project could be “bundled” with other proposed project elements to qualify for funding or partial funding under other programs. Good practices include scanning the [Grants.gov](https://www.grants.gov) website regularly for upcoming opportunities and consulting available online guidance or recent federal grant applicants.

### Safe Streets and Roads for All (SS4A)

Another federal transportation-focused grant, SS4A, is newer (2022) than RAISE and seeks to prevent serious injuries and deaths on roads. Applicants should be familiar with the USDOT’s National Roadway Safety Strategy and the Safe System Approach to help make their application competitive. Understanding past award statistics is also important to configuring grant applications, and even project elements, to optimize them for an award. The City of Jacksonville may choose to conduct supplemental planning studies such as an Action Plan (required; refer to this [link](#)) to bring the project closer to implementation.

<https://www.transportation.gov/grants/SS4A>

<https://www.transportation.gov/NRSS>

<https://www.transportation.gov/NRSS/SafeSystem>

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

Formerly known as BUILD and TIGER, this transportation infrastructure and planning grant program is well-established, and growing: from 55 projects awarded funds in 2019 to 162 awards in 2023. Federal grants, including RAISE, are often highly competitive and require a good working knowledge of the mechanics of the application process as well as an understanding of the evaluation criteria – both of which change in each round, if only slightly – to optimize the chance for an award. RAISE requires a benefit-cost analysis (BCA), but the BCA and other requirements are becoming more streamlined over time. Jacksonville is in a federally designated rural, historically disadvantaged area of persistent poverty. This designation has implications for application specifics like the minimum award amount (\$1 million) and required local matching amount (none).

<https://www.transportation.gov/RAISEgrants>

### Active Transportation Infrastructure Investment Program (ATIIP)

Funds awarded through this competitive program can be used for elements of an active transportation network such as sidewalks, bike lanes, or shared-use paths. Connectivity is important, like connecting commercial areas/workplaces, residential neighborhoods, downtowns, medical facilities, recreational opportunities, or other community destinations. As with some other federal opportunities, grants can be for planning or construction.

<https://www.transportation.gov/rural/grant-toolkit/active-transportation-infrastructure-investment-program-atiip>

### Reconnecting Communities and Neighborhoods Grant Program (RCN)

Funds awarded through this competitive program can be used for elements of an active transportation network such as sidewalks, bike lanes, or shared-use paths. Connectivity is important, like connecting commercial areas/workplaces, residential neighborhoods, downtowns, medical facilities, recreational opportunities, or other community destinations. As with some other federal opportunities, grants can be for planning or construction.

<https://www.transportation.gov/grants/rcnprogram>

## COMPETITIVE GRANT OPPORTUNITIES

Below are applicable competitive grant opportunities that are relevant to the the *Jacksonville One Community Trail* Project.

| NAME OF OPPORTUNITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | DEADLINE          | SPONSOR(S)                                                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|--------------------------------------------------------------------|
| <b>GREEN AND RESILIENT RETROFIT (GRRPE) GRANTS</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>Spring</b>     | <b>US Dept. of Housing &amp; Urban Development</b>                 |
| <p>Given the coastal exposure of Jacksonville to weather-related disasters stemming from historic and future global climate changes, incorporating resiliency into a grant portfolio for downtown housing and non-residential development is advisable. Providing alternative transportation in the forms of bicycling and walking via the Jacksonville One Community Trail; managing stormwater runoff quality and quantity profiles; and incorporating mixed-use, walkable development favor this grant. It is focused on housing and related initiatives and requires the applicant to pursue a recapitalization of one or more properties. Note that there are three tiers to this program, ranging from planning to comprehensive implementation with greater (\$10 million) maximum values.</p> |                   |                                                                    |
| <i>Funding (min/median/max): \$1/-/\$750,000</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <i>Match: 0%</i>  | <i>Support: Indirect</i>                                           |
| <b>SITE PROGRAM GRANTS</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>Spring</b>     | <b>Golden Leaf Foundation</b>                                      |
| <p>This NC-focused program is a long-standing help to distressed communities, providing a three-tiered (identification, due diligence, and development) programmatic approach to improve former industrial properties that are publicly owned through collaboration and innovation. Funds can be used to extend utilities to the site (not within), access roads, etc., including engineering/design and construction. Assume each of the three stages will need to be followed or demonstrate compliance with those requirements; economic development plan is required.</p>                                                                                                                                                                                                                         |                   |                                                                    |
| <i>Funding (min/median/max): \$1/\$250,000/\$500,000</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <i>Match: 0%</i>  | <i>Support: Indirect</i>                                           |
| <b>BACKING SMALL BUSINESS GRANTS</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>Spring</b>     | <b>National Trust for Historic Preservation</b>                    |
| <p>Small businesses employing at least 20 people located in historic main street or downtown areas can apply directly for funds to purchase equipment, social media campaigns, awnings, façade improvements, rain gardens, utilities (up to 20% of requested funds), and community events, among many other eligible expenses. Typical grants are \$10,000 with 25 of 500 grants being awarded an additional, subsequent \$30,000 for projects that encourage transformative community change. *Note: submit early, as once the number of submissions reaches 5,000 the application period will end.</p>                                                                                                                                                                                              |                   |                                                                    |
| <i>Funding (min/median/max): \$1/\$10,000/\$30,000</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <i>Match: 0%</i>  | <i>Support: Indirect</i>                                           |
| <b>NC RECREATIONAL TRAILS PROGRAM</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>Winter</b>     | <b>NC Division of Parks &amp; Recreation / NC Trails Committee</b> |
| <p>Development of urban trail linkages, maintenance, trail-side/trailhead facilities, accessibility improvements, permitting, design, and environmental compliance activities are allowable grant uses. However, feasibility studies, mapping, sidewalks, and roads are not eligible items under this grant. Review the guidance online prior to application to understand sustainable, economic, and maximally productive project criteria (link). Note: The matching amount applies to funds received, not project cost.</p>                                                                                                                                                                                                                                                                        |                   |                                                                    |
| <i>Funding (min/median/max): \$10,000/-/\$100,000</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <i>Match: 25%</i> | <i>Support: Direct</i>                                             |
| <b>HOMETOWN GRANTS</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>Quarterly</b>  | <b>NC Division of Parks &amp; Recreation / NC Trails Committee</b> |
| <p>Towns with less than 50,000 population can use this grant, awarded to 25 small towns every quarter, to help redevelop public community spaces that “foster personal connections.” Projects should be ready to build or can be completed within 12 months of receiving the funds. Adaptive reuse of buildings, outdoor parks/trails, and technology projects for libraries are some examples of eligible work.</p>                                                                                                                                                                                                                                                                                                                                                                                  |                   |                                                                    |
| <i>Funding (min/median/max): -/-/\$50,000</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <i>Match: 25%</i> | <i>Support: Direct+Indirect</i>                                    |

Table 5.3: Competitive grant opportunities.

## Maintenance of Facilities

A yearly Maintenance Plan is recommended for the Jacksonville One Community Trail (and all trail network elements), establishing a base (target) maintenance level, and provides a maintenance frequency or schedule. Table 5.4 below provides a basic schedule and actions for trail maintenance.

| MAINTENANCE TASK                                                                  | FREQUENCY |         |        |             |             |
|-----------------------------------------------------------------------------------|-----------|---------|--------|-------------|-------------|
|                                                                                   | WEEK      | QUARTER | ANNUAL | AFTER EVENT | AS REPORTED |
| <b>Inspections (can be combined)</b>                                              |           |         |        |             |             |
| Safety                                                                            | ●         |         |        |             | ●           |
| Debris and Trash                                                                  | ●         |         |        | ●           | ●           |
| Vandalism                                                                         |           | ●       |        | ●           | ●           |
| Encroachment                                                                      |           | ●       |        |             | ●           |
| Structures (bridges, lighting, retaining walls, drainage features, signs/signals) |           |         | ●      | ●           | ●           |
| <b>Pavement Condition</b>                                                         |           |         |        |             |             |
| Cracks                                                                            |           |         | ●      |             |             |
| Edge Wear                                                                         |           |         | ●      |             |             |
| Pavement Markings                                                                 |           |         | ●      |             |             |
| Curbing and Bulb-Outs                                                             |           |         | ●      |             |             |
| Flood Damage/Standing Water                                                       |           |         |        | ●           |             |
| <b>Vegetation Condition</b>                                                       |           |         |        |             |             |
| Root Incursion ("push-ups")                                                       |           |         | ●      |             |             |
| Tree Removal/Diseased                                                             |           |         | ●      |             |             |
| Sight-Line Pruning                                                                | ●         |         |        |             |             |
| Incursion Pruning                                                                 |           |         | ●      |             |             |
| Clear Zones Maintenance                                                           | ●         |         |        | ●           |             |
| Sweeping/Blowing of Debris                                                        | ●         |         |        | ●           |             |
| <b>Administration</b>                                                             |           |         |        |             |             |
| Review of Maintenance Costs                                                       |           |         | ●      |             |             |
| Combined Work Order Potential                                                     |           |         | ●      |             |             |
| Volunteer Organization/Recruitment                                                |           |         | ●      |             |             |
| Budget Preparation/Submittal                                                      |           |         | ●      |             |             |
| Contracted Labor Management                                                       |           |         | ●      |             |             |

Table 5.4: Maintenance Plan.

