



**BEACH**

PARKS & REC



# URBAN TRAILS **MASTER PLAN**

FINAL REPORT MASTER PLAN

11.29.22

CHIX AVRES AG

# TOC

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CHIX AVRES AG

### Mayor & City Council

#### CITY OF JACKSONVILLE BEACH

|                     |                    |
|---------------------|--------------------|
| Christine Hoffman   | Mayor              |
| Fernando Meza       | At-Large, Seat 1   |
| Dan Janson          | At-Large, Seat 2   |
| Chet Stokes         | At-Large, Seat 3   |
| Cory Nichols        | District 1, Seat 4 |
| Georgette E. Dumont | District 2, Seat 5 |
| Sandy Golding       | District 3, Seat 6 |

### Stakeholders

#### CITY OF JACKSONVILLE BEACH

|                       |                                  |
|-----------------------|----------------------------------|
| Mike Stafopoulous     | City Manager                     |
| Jason Phitides        | Director of Parks and Recreation |
| Dennis Barron         | Public Works Director            |
| Matt Seely, PE        | Project Engineer                 |
| Kayle Moore, PE       | Project Engineer                 |
| Heather Ireland, AICP | Planning Director                |
| Jacob Board           | Communications Manager           |
| Molly Allegor         | Office Administration            |
| Trevor Hughes         | Golf Course Superintendent       |
| Karen Nelson          | Deputy City Manager              |
| Derek Dixon           | FDOT District Two                |
| Nick Hope             | FDOT District Two                |
| Colin Moore           | Neptune Beach Resiliency Manager |





# URBAN TRAILS MASTER PLAN







# UNDERLYING OBJECTIVES

## CHAPTER 2

# MISSION

To create a multi-modal urban trails network for the City of Jacksonville Beach that provides safe access and usability for all ages and abilities of residents and visitors.

- ▶ **CREATE A MULTI-USE TRAIL NETWORK FOR PEDESTRIANS, JOGGERS/RUNNERS, BICYCLISTS, ROLLER BLADERS, SKATEBOARDERS.**
- ▶ **DEVELOP A CONCEPT AND DESIGN STRUCTURE TO GUIDE FUTURE PUBLIC INFRASTRUCTURE INVESTMENTS.**
- ▶ **INTRODUCE POLICIES, PROCESSES, AND REGULATIONS THAT ENHANCE THE NETWORK AND USE OF THE NETWORK.**
- ▶ **ENSURE A COMPREHENSIVE, SAFE SYSTEM THROUGH EVALUATION AND DESIGN THAT PROVIDES A TRAIL NETWORK AVAILABLE FOR THE ENJOYMENT OF ALL USERS.**

## GOALS

**CREATE MULTI-USE TRAIL NETWORK**

**GUIDE FOR FUTURE INFRASTRUCTURE INVESTMENTS**

**POLICIES, PROCESSES, REGULATIONS**

**COMPREHENSIVE, SAFE SYSTEM**

# INTRODUCTION

In 2021, the City of Jacksonville Beach embarked on an effort to develop an **Urban Trails Master Plan**. The goal was to provide City residents and visitors of all ages and abilities a **high-quality network of urban trail** infrastructure that would serve as a **multi-modal transportation network** as well as provide a system for activity and recreation.

This Urban Trails Master Plan provides a framework for implementing such a comprehensive trail system. Utilizing public input obtained from discussions with the community, the trail plan identifies

- > A **vision and framework** for a city-wide, multi-use trail system.
- > **Links between neighborhoods, beaches, parks, commercial focal points, and natural areas.**
- > **Routes**, providing design parameters and concepts for various facility types.

Design concepts were developed using best practices with considerations for the desired user groups. This document also serves as a guide for implementing and directing future investments in the right-of-way (R.O.W.) by delineating an approach for realizing a built network through **identifying priorities** for future capital improvement funding and potential grant opportunities.

The Plan also provides **policy guidance for designing the corridor** as well as considerations for **new development and connections to neighboring communities**. A significant regional trail, the East Coast Greenway Trail (ECG Trail), is also discussed within the Plan. Jacksonville Beach is one of the communities that the ECG Trail will pass through and by providing a corridor that is consistent with the guidelines, will **create a regionally significant asset in the community**.

This Plan is a **culmination of community, stakeholder, staff input, and latest planning and design practices**. Public input provided a clear list of goals and objectives for the Plan and became the basis for concept designs and routing.



# BENEFITS OF TRAILS

The development of a comprehensive trail system often takes a considerable amount of time. Planning, designing, and constructing a trail system all rely on financial programming. Most communities expect to take years to complete a comprehensive trail system. Though single projects are funded through the typical annual budgeting process, the road to completion often feels “slow” and “drawn out” to the community. The communities that do have large portions of a trail network in place today can testify to the decades-long drive necessary to reach that point. Therefore, it is important during the long process of trail network development to remain focused on why multi-use trails are important and beneficial to a community.



## BENEFITS OF TRAILS

### ECONOMIC ACTIVITY AND VITALITY

.....

### RECREATIONAL ACTIVITY

.....

### RESILIENT TRANSPORTATION CHOICES

.....

### HEALTH ENHANCEMENT

.....

### COMMUNITY IDENTITY



## **ECONOMIC ACTIVITY AND VITALITY**

The economic advantages of a comprehensive trail network are numerous and benefit the entire community. While many property owners are sometimes unsure if trails increase their property values, the effect of multi-use trails on property value is clear. Both studies and anecdotal evidence definitively show that access and proximity to trails raises home values and promotes the influx of capital into local economies. (References: National Association of Realtors and National Association of Home Builders, 2020, Consumers Survey on Smart Choices for Home Buyers; CEOs for Cities, 2009, Walking the Walk: How Walkability Raises Home Values in U.S. Cities; Trust for Public Land, The Economic Benefits of Parks and Open Space; Rails to Trails Conservancy, 2005, Economic Benefits of Trails and Nature trails.) Location and proximity to trails also provide additional forms of access to local businesses. While heavy vehicular traffic can be prohibitive for trip planning, a trail system can provide alternative modes of transportation that bypasses vehicular traffic. Tourism is enhanced through multi-use trail systems. Visitors to an area with a comprehensive trail system may view the alternative modes of transportation, such as bicycling or walking, as a part of the experience created by the community they are visiting.

## **RESILIENT TRANSPORTATION CHOICES**

Compared to owning and operating a motor vehicle, multi-use trail systems offer low-cost alternative modes of transportation, especially when such systems are well-integrated and make businesses and destinations more accessible. A safe and convenient city-wide trail network opens the opportunity for these low-cost options of travel. From an ROI (return on investment) perspective, a multi-use trail that costs several hundred thousand dollars per mile is much more cost-effective than a roadway that costs multiple, if not tens of millions of dollars to implement.

## **HEALTH ENHANCEMENT**

Lack of physical activity is a major health consideration in our society today. The Centers for Disease Control and Prevention report that obtaining the recommended amount of daily physical activity could prevent or reduce chronic diseases, yet only one in four adults do. This lack of physical activity equates to an estimated \$117 billion in annual health care costs (Centers for Disease Control and Prevention, 2022, Lack of Physical Activity). Having a trail within a 4-minute walk of every residential dwelling unit could have a profound impact on community health and activity for the City of Jacksonville Beach.

## **COMMUNITY IDENTITY**

Trails, open spaces, and parks create a sense of community and a sense of place. A trails network becomes a place of interaction and community involvement. These characteristics are not always possible in a traditional transportation network environment. Trails bring people out and about and create opportunities to better experience and enjoy the community they live in.

## PROJECT APPROACH

CHW DETERMINED OUR PROJECT APPROACH WOULD INCLUDE THREE (3) IMPORTANT PHASES FOR DESIGN AND IMPLEMENTATION OF THE URBAN TRAILS MASTER PLAN. **LEARN. VISION. IMPLEMENT.**

These established phases encompassing our strategic tasks and subtasks will help deliver the Urban Trails Master Plan with ease, on time, and on budget.

### LEARN

### VISION

### IMPLEMENT

| TASK 1              | COMMUNITY ENGAGEMENT                                    | TASK 1              | IDENTIFY THE NETWORK                                                                | TASK 1             | PROJECT PRIORITIES AND FUNDING                  |
|---------------------|---------------------------------------------------------|---------------------|-------------------------------------------------------------------------------------|--------------------|-------------------------------------------------|
| Subtask 1           | Research and Present Ideas, Inspiration                 | Subtask 1           | Getting from A to B                                                                 | Subtask 1          | Project Priorities                              |
| Subtask 2           | Meet with Community Residents, Businesses, Stakeholders | Subtask 2           | Defining a Corridor Hierarchy                                                       | Subtask 2          | Catalog of Funding Opportunities and Strategies |
| Subtask 3           | Community Design Workshops                              | --                  | --                                                                                  | --                 | --                                              |
| TASK 2              | ASSET INVENTORY AND ANALYSIS                            | TASK 2              | DESIGN ELEMENTS                                                                     | FINAL DELIVERABLES |                                                 |
| Subtask 2           | Origin and Destinations                                 | Subtask 2           | Corridor Map                                                                        | <b>Assets</b>      | Maps, Photos, Illustrations, Infographics       |
| Subtask 1           | Today's Infrastructure                                  | Subtask 1           | Cross Section Menu                                                                  | <b>Document</b>    | Public Participation Plan Report                |
| Subtask 3           | Opportunities Analysis                                  | Subtask 3           | Amenity Elements                                                                    | <b>Document</b>    | Master Plan Final Report                        |
| <b>Deliverables</b> | <b>Public Engagement Plan</b>                           | <b>Deliverables</b> | <b>Draft Master Plan Concept<br/>Policy Analysis<br/>Existing Conditions Report</b> | <b>Document</b>    | Master Plan Executive Summary                   |



# PROJECT SCHEDULE



The CITY OF JACKSONVILLE BEACH PARKS AND RECREATION and our professional consultants **CHW, A&G, AYERS**, are excited to introduce and engage with you on the **URBAN TRAILS MASTER PLAN PROJECT** by hosting a **COMMUNITY MEETING**.

JOIN US IN THE RESEARCH AND DISCOVERY PROCESS ON OCTOBER 27, 2021, as we host an open community meeting to introduce the project, our goals and objectives, answer questions. We believe thoughtful design that reflects the character and history of the local community while making it functional and affordable. The goal is to provide our residents, visitors, of all ages and abilities, a high-quality pedestrian and bicycle network that serves as a safe and active for all recreation and transportation. We intend to collaborate with you to uncover the city's rich history, charm, and sense of place that will protect our natural resources and provide recreational, cultural, and social opportunities to the city of Jacksonville Beach for generations to come.

**MEETING INFORMATION**

**Title:** City of Jacksonville Beach Parks and Recreation Urban Trails Master Plan Community Meeting

**Consultants:** CHW + A&G

**Date:** Wednesday, October 27, 2021

**Time:** 4:00pm - 7:00pm

**Address:** 2020 Beach Parkway, Jacksonville Beach, FL 32250

**Rsvp/Questions:** jacksonbeach@chwa.com

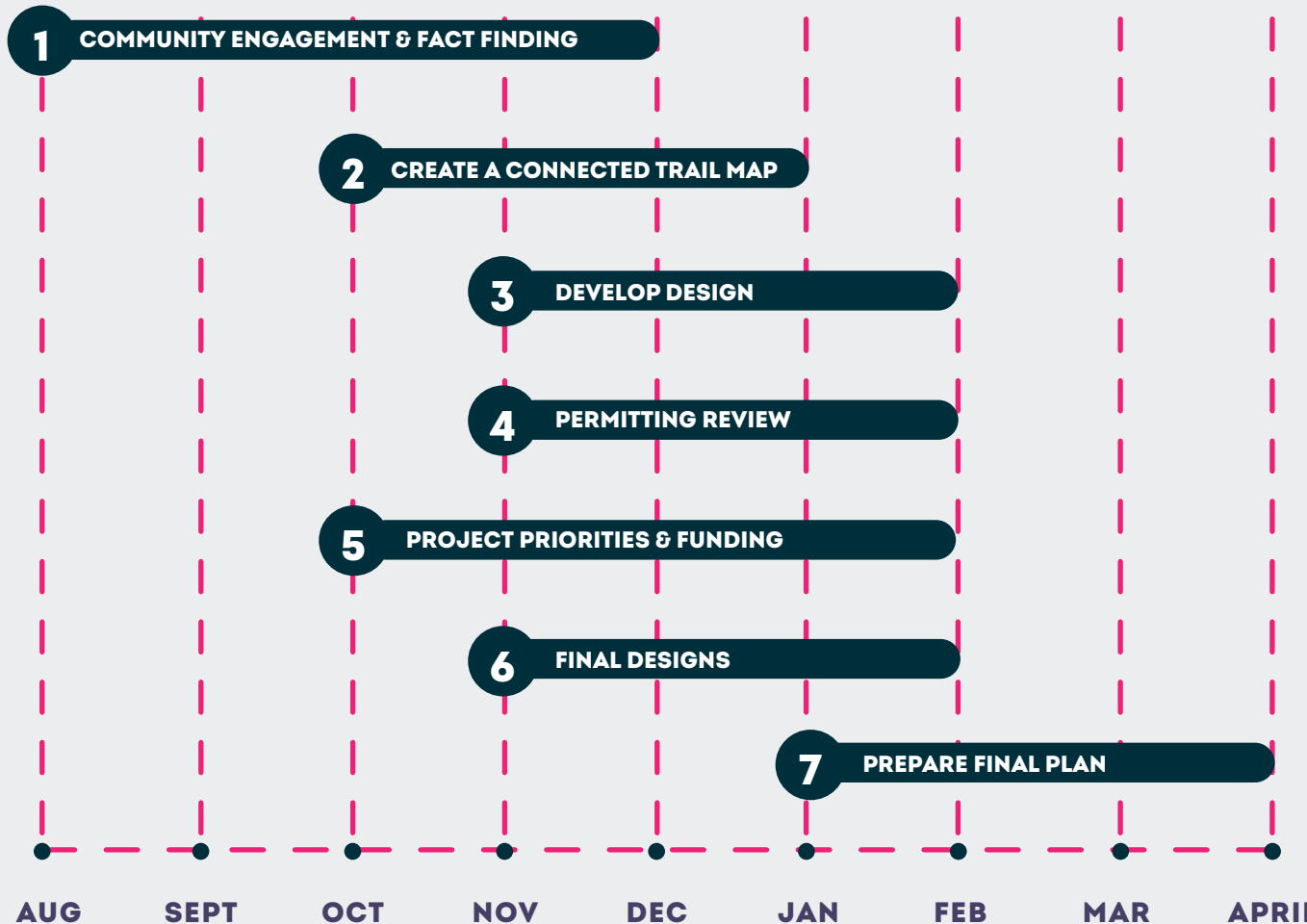
**Website:** www.jacksonbeach.org/4233/Parks-Recreation

**Email:** jacksonbeach@chwa.com | **Phone:** 904.235-4805 | **CHW AYERS AG**



## COMMUNITY ENGAGEMENT

- 10.27.21 Public Workshop
- 12.01.21 Community Meeting
- 12.20.21 Stakeholder Meeting
- 01.12.22 Stakeholder Meeting
- 01.24.22 City Council Meeting
- 01.26.22 Stakeholder Meeting
- 02.09.22 Stakeholder Meeting
- 02.23.22 Stakeholder Meeting
- 03.23.22 Stakeholder Meeting





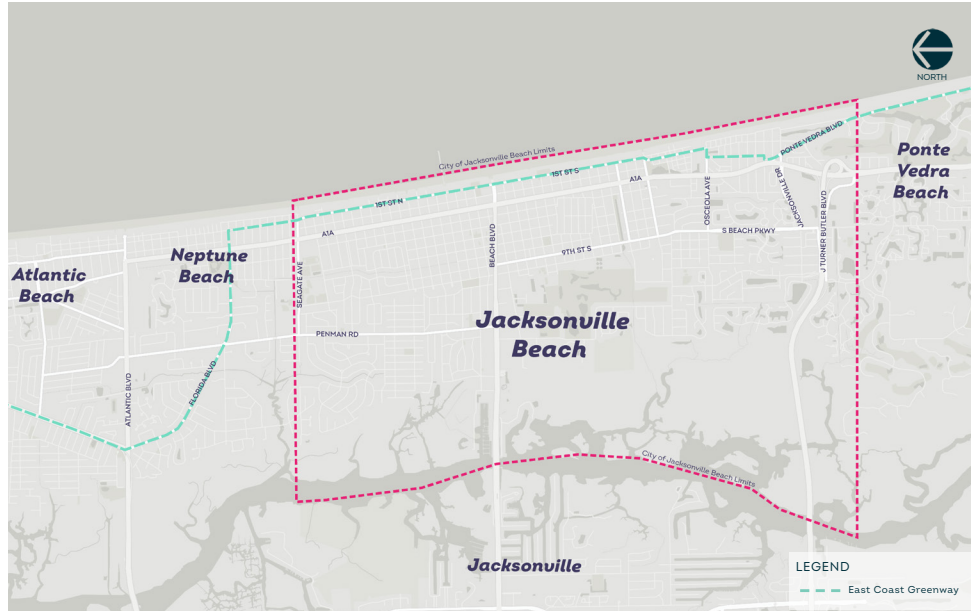


# EXISTING CONDITIONS

## CHAPTER 3



## REGIONAL CONTEXT MAP



### PROXIMITY

**32 MILES JACKSONVILLE INTERNATIONAL AIRPORT**

**184 MILES TALLAHASSEE**

**142 MILES ORLANDO**

## EXISTING CONDITIONS



Pedestrian walkway through greenspace is constrained for multiple users



Minimum width shaded walkway is separate from the roadway.



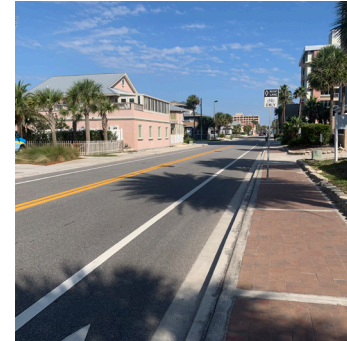
Greenspace provides an opportunity for trail and landscaping.



Bicycle parking is limited and inconvenient



Off street parking must backup across pedestrian and bicycle facilities.



Minimum width sidewalk and bikelane without separation from the travel lanes.



On street parking pushes bicyclist to the travel lane and constrains the pedestrian walkway.



Formal parking adjacent to semi-formal grass parking.



Sidewalk used for "other" purposes results in constrained pedestrian areas.



Wider right of ways create opportunities for trail widths that accommodate multiple users.



Wider right of ways create opportunities for trail widths that accommodate multiple users.



Opportunity to convert greenspaces to trail resulting in varied experiences throughout the network.



# DATA COLLECTION & FIELD WORK SUMMARY

Extensive field work and desktop research of the proposed trail corridors was conducted to gather the necessary data and information for this project.

First, a desktop analysis was conducted to gather available information. The desktop analysis listed each corridor and priority number outlined from the City of Jacksonville Beach's Request For Proposals (RFP). Information gathered included:

- R.O.W. width (perceived)
- R.O.W. width (actual)
- Estimated sidewalk width, and if sidewalks are present
- Estimated bike lane width, and if bike lanes are present
- Curbs and gutters present
- Utility constraints
- Street type (residential v.s. commercial)
- Owner
- Street lighting
- Stretch without roadway
- Significant features
- Other additional notes

The next step was to develop a field work plan, which laid out the strategy for visiting the project sites. Prior to site visits, a project spreadsheet was developed to organize information and determine the primary objectives for observation during site visits:

- **Verify** desktop analysis (any changes or new construction)
- **Identify** tree canopy/pedestrian comfort
- **Identify** community landmarks/destinations/origins
- **Locate** open space, parks, & existing/potential nature trails
- **Locate** utilities not observed in desktop analysis
- **Collect** photos of existing conditions
- **Locate** street lighting
- **Locate** bike racks
- **Identify** potential public areas for parking
- **Note** general observations/opportunities/constraints

## FIELD WORK GOALS

**GAIN AN UNDERSTANDING OF THE AREA, CORRIDORS, AND FAMILIARITY WITH THE COMMUNITY.**

**INVENTORY EXISTING CONDITIONS AND VERIFY DESKTOP ANALYSIS FOR CORRIDORS IDENTIFIED BY THE CITY.**

**COLLECT INFORMATION AND PHOTOS THAT WILL BE USED TO CREATE THE FINAL MASTER PLAN DOCUMENT.**

**UTILIZE A MULTI-DISCIPLINARY APPROACH TO COLLECT AND ANALYZE DATA.**





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Two multi-disciplinary teams consisting of landscape architects, planners, and engineers were created and assigned areas of focus. One team was assigned the area north of Beach Boulevard and the other was assigned the area south of Beach Boulevard.

Each team was responsible for walking, biking, and driving the trail corridors in their assigned area to make observations and collect information. Scheduling for site visit days was coordinated between team captain and co-captain with available members able to attend to collect data. Captains worked together to prioritize time and effort to focus on high priority corridors and ensure consistency.

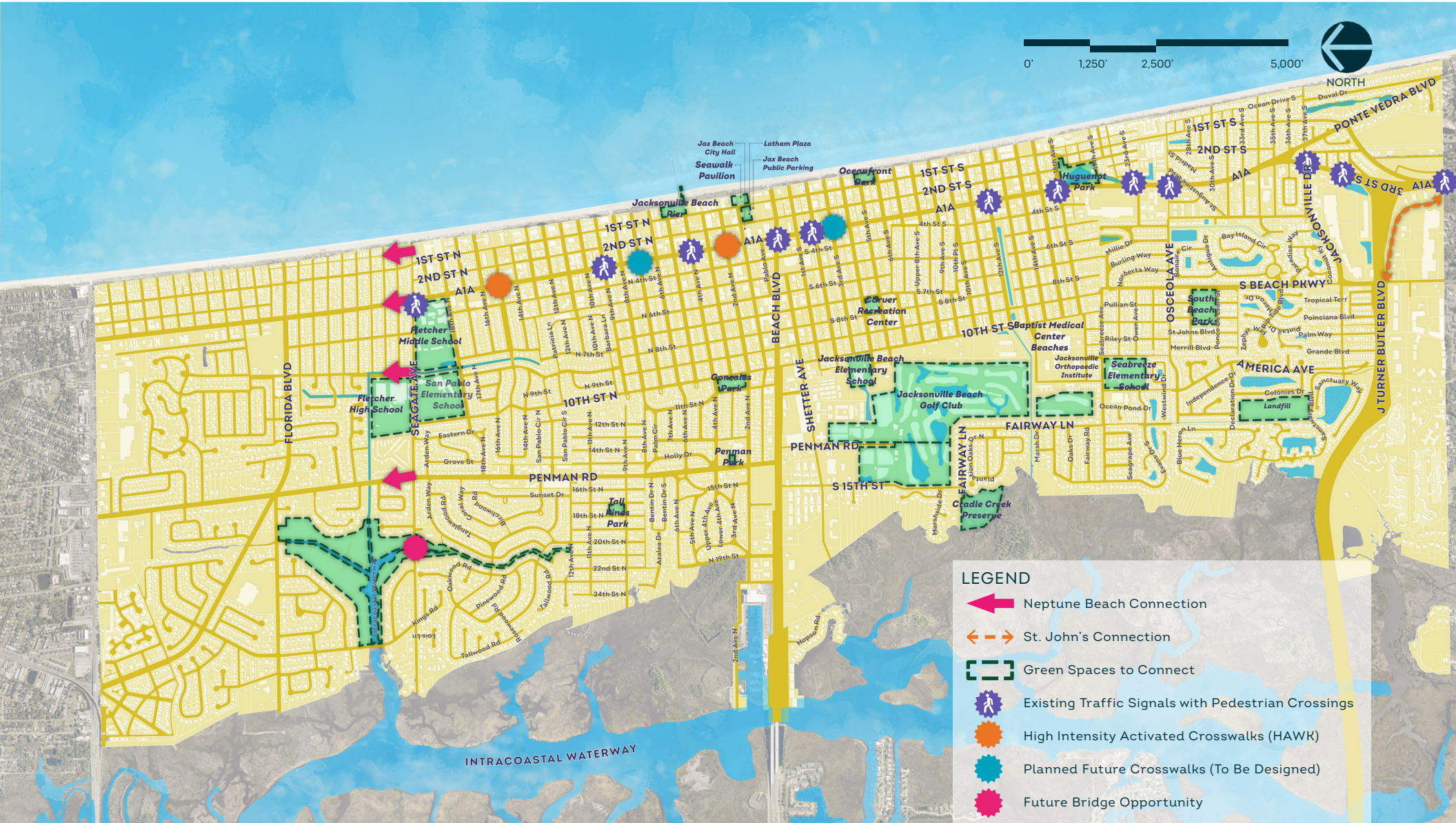
Maps that included necessary base information were created from Google Earth. Maps were created and named utilizing the corridors identified by the City of Jacksonville Beach during the RFP process.

Upon completion of field work, all of the data (maps, photos, and other relevant notes) were saved and the analysis process began.





# OPPORTUNITIES & CONSTRAINTS MAP





# OPPORTUNITIES & CONSTRAINTS

The following opportunities were identified through the design process. These opportunities were discovered as a result of the data collection, research, and community and stakeholder workshops process, as well as extensive conversations with City of Jacksonville Beach Staff.

- > ADJACENT MUNICIPALITIES CONNECTIONS TO THE NORTH & SOUTH
- > EXISTING GREEN SPACES
- > EXISTING TRAFFIC SIGNALS WITH PEDESTRIAN CROSSINGS
- > HIGH INTENSITY ACTIVATED CROSSWALKS (HAWK)
- > FUTURE CROSSWALKS
- > CONTINUATION OF THE EAST COAST GREENWAY TRAIL
- > PLANNED PENMAN ROAD IMPROVEMENTS

With the data collection and field work phase completed, the design team began to identify the opportunities and constraints existing within the Jacksonville Beach area. Identifying potential connections throughout the City's network of existing open spaces, parks and the beach was important to the development of the trail network.

## Opportunity: Connection to Neighboring Communities

Regional opportunities include potential connections to the adjacent areas of St. Johns County and The City of Neptune Beach. Both were involved in the process and have several of their own ongoing trails projects. It will be to the City of Jacksonville Beach's benefit to connect with these projects, creating a transportation and recreational network that extends beyond Jacksonville Beach.

## Opportunity: Incorporation of Existing Traffic Signals

During our meetings with stakeholders and staff, the design team was able to learn about the many proposed future and underway projects within the City. There are several High Intensity Activated Crosswalks (HAWK) that are planned for future installation along A1A. These pedestrian-focused crosswalks provide key infrastructure to cross a corridor that would otherwise be a barrier for the community.

Improvements are planned for Penman Road. Using a complete streets approach, the City of Jacksonville is creating a vital, multi-modal north south corridor that will be part of an urban trail network spine throughout the City of Jacksonville Beach.



*Image of HAWK Beacon*



## OPPORTUNITIES & CONSTRAINTS

### Opportunity: Connection to Parks

The genesis of the trails master plan was to provide an urban trail network that connects the community to city parks. The network was organized around the location of the parks, with links to other points of interest included thereby creating a network that would serve a variety of users and purposes.

| PARK                                     | ADDRESS                                   | AMENITIES                                                                                                                                               |
|------------------------------------------|-------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Cradle Creek Preserve</b>             | 15th Street S and Fairway Lane            | Nature trails, Boardwalks, Observation platform (Pablo Creek), Canoe/Kayak landing                                                                      |
| <b>Gonzales Park</b>                     | 2nd Avenue N and 10th Street N            | Ballfields, Basketball courts, Picnic areas with BBQ grills, Play-ground                                                                                |
| <b>Huguenot Park</b>                     | 3rd Street between 16th and 19th Avenue S | Lake with fishing pier, Jacksonville Beach tennis club, Basketball courts, Playground                                                                   |
| <b>Lathan Plaza and Seawalk Pavilion</b> | 11 1st Street N                           | Event pavilion, Beach front                                                                                                                             |
| <b>Oceanfront Park</b>                   | 1st Street S between 5th and 6th Avenue S | Beachfront, Picnic shelters, Sand volleyball, Playground, Dune walk-overs                                                                               |
| <b>Paws Dog Park</b>                     | 468 Penman Road S                         | Off leash dog park                                                                                                                                      |
| <b>Rotary Park</b>                       | 2293 2nd Avenue North                     | Boat ramp, Fishing pier, Picnic tables, Playground                                                                                                      |
| <b>South Beach Park</b>                  | 2514 S Beach Parkway                      | Turf field, Basketball court, Pickle ball courts, Playground, Fitness trail, Picnic shelters with BBQ grills, Splash pad, Tennis court, Sand volleyball |
| <b>Tall Pines Park</b>                   | 9th Avenue N, west of Penman              | Basketball court, Picnic pavilion with BBQ grill, Playground                                                                                            |
| <b>Wingate Park</b>                      | South Penman Road                         | Softball fields, Football fields, T-ball fields, Little league baseball fields                                                                          |
| <b>Carver Recreations Center</b>         | 5th Avenue South at SW 8th Street         | Community programs and activities, outdoor recreation activities                                                                                        |
| <b>12th Avenue South - Park</b>          | 12th Avenue South                         | Passive park and waterway                                                                                                                               |

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### **Constraint: Urban Nature of the Region**

The City of Jacksonville Beach is significantly built-out. This can pose a challenge when attempting to prioritize safety and accessibility for trail users. A1A is a high traffic, heavily used vehicular-focused corridor separating the majority of Jacksonville Beach from beach access and the downtown area. The crossing of A1A can be dangerous and difficult and since it is a State Road, improvements will require extensive coordination and approval with the FDOT.

### **Constraint: Narrow Rights-of-Way**

The developed, urban nature of the City adds the challenge of working within constrained right-of-way corridors. Consideration was also given to use of the right-of-way by adjacent property owners. Parking in a narrow right-of-way could be eliminated to accommodate a trail. However, doing so could result in a future enforcement problem if drivers choose to park on the trail anyway. While some of the right-of-way widths are narrow, the trail network improvements are recommended in corridors where larger right-of-way widths are available, while still maintaining a logical, intuitive network.

### **Constraint: Stormwater Requirements**

With narrow rights-of-way, accommodating stormwater mitigation will be a challenge. The trail should be planned for the wider corridors, so that stormwater requirements can be met.

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## EAST COAST GREENWAY TRAIL

The EGC is over 30 years in the making. Overall, the collaborative effort of communities and organizations along the east coast of the United States has attracted more than \$1 billion in public investment, with the goal of connecting communities along the east coast from Maine to Florida.

To achieve its vision, the ECG design guide identifies implementation criteria, design features, and standards.

These parameters include:

- > **Connect people to places**
- > **Provide free accessibility to the public year-round**
- > **Avoid steep grades**
- > **Make the trail wide enough for shared use (consistency with AASHTO Standards)**
- > **Construct the trail of a firm surface**
- > **Make the trail safe for all**
- > **Separate the trail from traffic to protect trail users from motor vehicles**

**ECG MISSION** TO PARTNER WITH LOCAL, STATE, AND NATIONAL AGENCIES AND ORGANIZATIONS TO PROMOTE THE ESTABLISHMENT, STEWARDSHIP, AND PUBLIC ENJOYMENT OF A SAFE AND ACCESSIBLE MULTI-USER NATURE TRAIL LINKING CITIES AND TOWNS FROM MAINE TO FLORIDA.

**ECG VISION** A 3,000-MILE ROUTE FOR BIKING, WALKING, AND OTHER ACTIVE MEANS FROM MAINE TO FLORIDA. BY PROVIDING FUN, SAFE, AND ACCESSIBLE INFRASTRUCTURE FOR EVERYTHING FROM A LOCAL COMMUTE TO A LONG ADVENTURE, THE NATURE TRAIL WILL FOSTER HEALTHY, SUSTAINABLE, AND PROSPEROUS COMMUNITIES THROUGHOUT THE EASTERN SEABOARD, LINKING CITIES AND TOWNS FROM MAINE TO FLORIDA.

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The design guidelines for the ECG trail are consistent with those discussed in this Master Plan for the City of Jacksonville Beach.

The ECG design guide recommends a shared-use trail width of twelve feet. Location-specific conditions, such as user volume and environmental factors, could result in differing widths. Generally, the ECG trails are expected to be built according to federal standards and best practices.

A suitable surface for any trail should take into consideration the potential user groups, the volume of users, and the environmental context of the trail corridor. Through Jacksonville Beach, the most likely surface would be asphalt or concrete. Generally, asphalt has a lower installation cost than concrete. While concrete is more expensive to install than asphalt, the life of the material is longer with fewer maintenance requirements.

A key goal and attribute of the ECG trail is the criterion of separation between the trail and traffic. Nature trails meet this criterion, but providing protection is challenging when the trail is located within the road right-of-way, as is the case in Jacksonville Beach.

According to the design guide, the East County Greenway Alliance (ECGA) may designate trails that share the right-of-way or even roadway as part of the ECG trail provided there is a physical barrier separation from the vehicle travel lanes. The term “physical barrier” includes firm, fixed objects, concrete separators, planters, railing, and/or guardrails. Bike lanes separated by flexible delineators is generally not accepted.

To be considered part of the ECG, the City of Jacksonville Beach would need to construct a trail, recommended at twelve feet in width, with a buffer/physical barrier from the adjacent roadway. The preferred corridor for this trail would be along 1st Street, most near the beach.

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*All images on this page sourced from East Coast Greenway Trail website, <https://www.nature>*







# PUBLIC INVOLVEMENT & INPUT

## CHAPTER 4

# PUBLIC ENGAGEMENT

Public engagement for this planning process began in the Fall of 2021 and continued throughout the approval process and plan completion. Early on, City of Jacksonville Beach staff determined the overall engagement goal for this project to be collaborative with the public through an iterative process. This means that the design team and City of Jacksonville Beach staff worked directly with the public and stakeholders throughout the process to ensure that perspectives were consistently understood, considered, and reflected in project decisions.

The genesis of the plan originated with the public. A comprehensive and safe trail network usable for all ages was repeatedly mentioned at a series of Community meetings with the City Manager. In developing this Master Plan, two Community Workshops and six Stakeholder Meetings were held to gain input and opinions about the multi-use trail network. The first public meeting was a workshop held to engage the Community and identify objectives, concerns, and goals. The second meeting was held to demonstrate and conceptualize suggestions offered at the first meeting through examples and design ideas to ensure that the developing concepts were consistent with the information provided at the first workshop. The Stakeholder meetings were held to guide and develop the trail network and implementation plan.



## QUESTIONS/TOPICS

### WHAT MAKES A SUCCESSFUL TRAIL SYSTEM?

### HOW WILL YOU USE THE TRAIL SYSTEM?

### ORIGINS & DESTINATIONS: WHERE ARE YOU GOING?

### PREFERRED MODES OF TRANSPORTATION: HOW ARE YOU GETTING THERE?

### STICKY PLACES: MEMORABLE PLACES/TRAILS THAT HAVE STUCK WITH YOU

### VISUAL PREFERENCES BOARD

### BARRIERS TO USE



# COMMUNITY WORKSHOPS

Utilizing an open house format, several questions were posed to attendees and their responses were used to develop the corridors and design concepts.

## QUESTION: WHAT WOULD BE YOUR PREFERRED MODE OF TRANSPORTATION ON THE TRAIL?

Overwhelmingly (73%), the community would use the trail system for walking and bicycling.

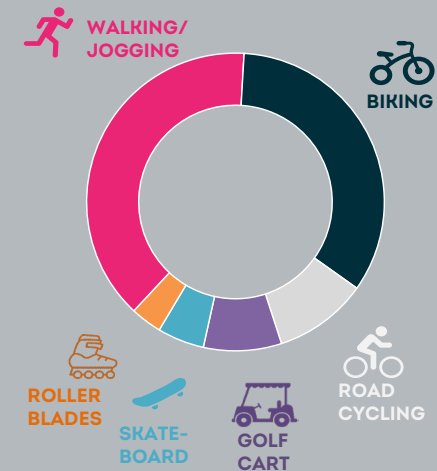
## QUESTION: WHAT WOULD MAKE THE JACKSONVILLE BEACH URBAN TRAIL SYSTEM SUCCESSFUL?

Attendees indicated that a successful Jacksonville Beach trail system would provide connectivity throughout the community, be well organized and clearly defined, and be open to all typical multi-use trail modes. A consistent focus in public comments was safety. The system would need to provide clear separation from vehicles and trail users to create a safe and comfortable experience for all users.

## QUESTION: WHAT WOULD DISCOURAGE YOU FROM USING THE URBAN TRAIL SYSTEM?

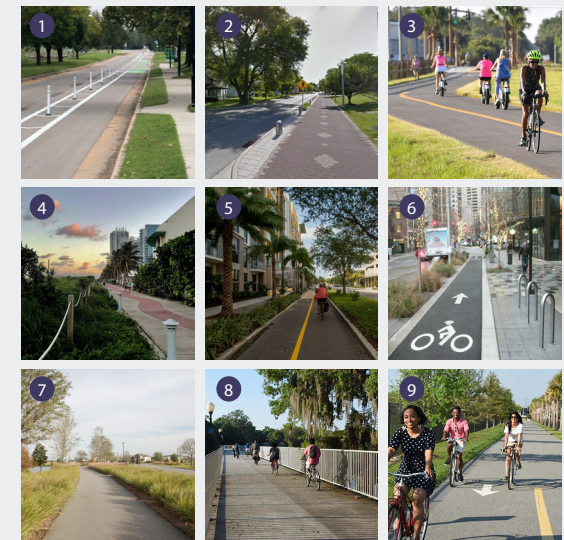
Considerations that would discourage trail use focused on a lack of safety. Interactions with higher speed vehicles such as golf carts, electric bikes, and electric scooters were also identified as issues that would discourage trail use. Using the existing sidewalk network as the trail system was also expressed as being insufficient for promoting trail use.

## PREFERRED MODE OF TRANSPORTATION



## VISUAL PREFERENCES BOARD

image board



**TRAIL LOCATIONS**

- Neighborhood Street, Oklahoma City, OK ❶
- Neighborhood Street, Indianapolis, IN ❷
- Legacy Trail, Sarasota, FL ❸
- Miami Beach Boardwalk, Miami Beach, FL ❹
- The Pinellas Trail, St. Petersburg, FL ❺
- Downtown Blue Lane, Seattle, WA ❻
- Orlando Southeast Trail, Orlando, FL ❼
- Orlando Urban Trail, Orlando, FL ❽
- Orlando Urban Trail, Orlando, FL ❾

# COMMUNITY WORKSHOPS

## QUESTION: STICKY PLACES – WHAT PLACES HAVE STUCK WITH YOU? WHAT ARE MEMORABLE TRAILS?

Many examples were offered in response to this question, and while some of the trails mentioned were in urban settings, most were nature trails with an open nature experience—largely free from roadways and vehicles.

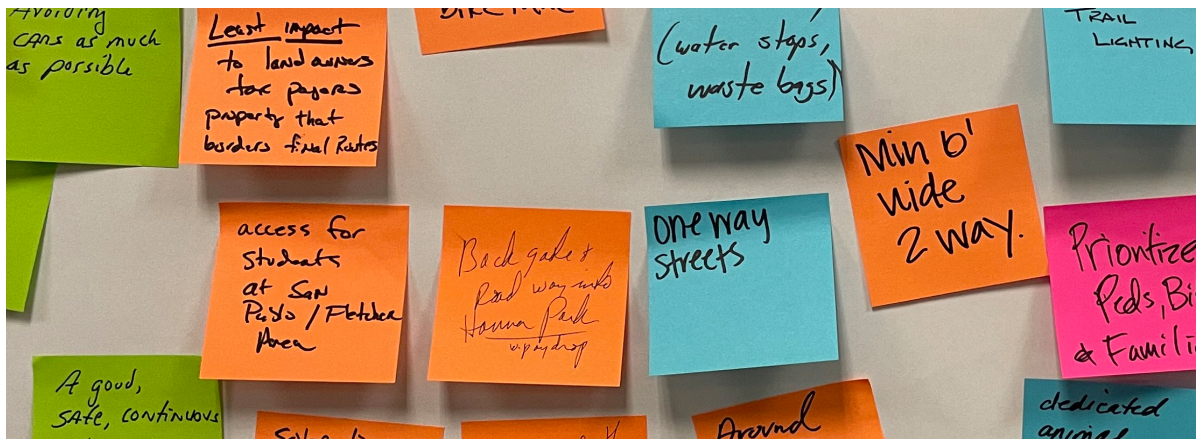
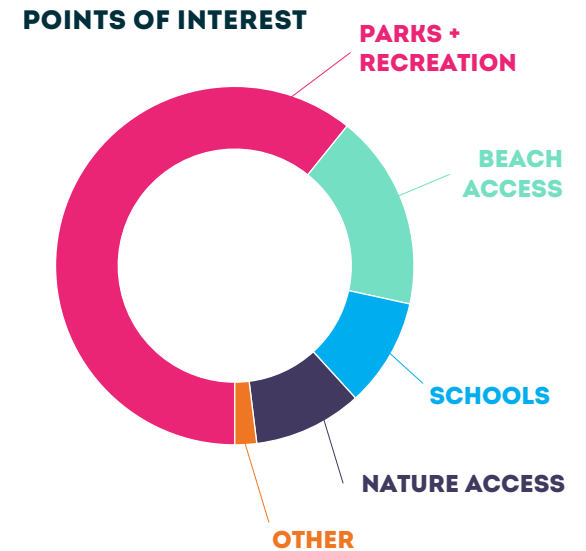
## QUESTION: WHAT ARE THE SIGNIFICANT ORIGINS AND DESTINATIONS?

The most obvious focus for the multi-use trail network would be beach access. The community also desired access to the City's parks via the trail system. Additionally, many of the shopping areas were identified as destinations along the trail network.

## COMMUNITY PROPOSED IDEAS

The first Public Workshop also included a map and comment exercise, where attendees could post sticky notes with suggestions along the map provided. This station received significant attention at the Workshop. The community was invited to introduce its ideal network features:

- > **A trail route through the golf course.**
- > **Creating a loop system that would allow user experience more than just an “out and back” route.**
- > **Use of the old landfill for a route and possible single-track off-road experience.**
- > **Enhancements at major roadway crossing locations (especially A1A and Penman Road).**





# PUBLIC INFLUENCE ON NETWORK & DESIGN

The input from the two workshops played an important role in the network and design aspects of the multi-use trail.

## NATURE TRAILS

The community's desire for a "nature trail" type of corridor lead to design that prioritized layout of the network across the widest possible rights-of-way. When possible, corridors were aligned to access open, natural areas.

## SAFETY

The key aspects for safety focus on design and use. For the design, the goal is to provide as wide a trail as possible to minimize adverse interaction of uses. Additionally, the maximizing the space between the trail and roadway would produce the greatest level of safety. Operationally, consideration would need to be given to define trail use through speed limits and strict prohibitions of certain user types.

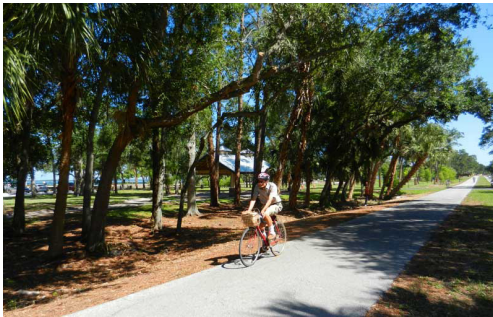
## NETWORK HIERARCHY

Many of the streets throughout the City have sidewalks, thus a hierarchy of trails should allow users to work their way to primary trails. Sidewalks would provide local, immediate access to residences, while secondary trails would connect the sidewalks to primary trails.



## MEMORABLE TRAILS

As part of the workshopping process, the public was asked to identify places or trail systems they had visited that left a lasting impression. Each of the responses were reviewed and the standout characteristics of the corridors or networks were factored into the priorities for Jacksonville Beach. One such place was adjacent to Jacksonville Beach, the Florida Boulevard Path located in Neptune Beach, FL; an urban trail path located within the road right-of-way but separated from vehicle travel lanes. Some of the other popular and memorable places are shown below:



**Pinellas Trail (St. Pete, Florida)**



**Music City Bikeway (Nashville, TN)**



**Monterey Bay Coastal Recreation Trail (Monterey, CA)**



**Monterey Bay Coastal Recreation Trail (Monterey, CA)**



**Austin Urban Trails Program (Austin, TX)**



**Silver Comet Trail (Atlanta, GA)**



## STAKEHOLDER MEETINGS

The City of Jacksonville Beach and professional consultants CHW, ADG, and AYRES presented to the public in a series of Stakeholder Meetings. The goal was to engage the public and provide information concerning the master plan as the project progressed and allow for comments to help guide the project.

Meetings were advertised through various mediums for public outreach, presented, and recorded. Communications and documentation of the presentations were posted on the City's website and social media.

The impact of stakeholder participation throughout the master planning process was extremely important in guiding the process' trajectory and outcomes, ensuring that many voices were being heard, documented, and considered. The developed Master Plan is truly the result of a robust public participation process that occurred at a variety of scales over the course of the project.

### The most prominent results of engagement in the master plan focused on

One Way conversion of 1st Street may be problematic

Policy on design parameters and implementation of the plan

Feedback from Law Enforcement on trail users, trail safety, and types of vehicles

Coordination with City of Jacksonville Design Concepts for Penman Road.

Comments on the maps and document layout to review additional corridors. Reviewed trail type concepts and made modifications based on public input.

Created a series of concepts for the levels of impact to 1st Street.

Stakeholder Meeting Presentations and Recordings Can Be Found On The City Of Jacksonville's Website At [www.jacksonvillebeach.org/540/Urban-Trails-Master-Plan-Project](http://www.jacksonvillebeach.org/540/Urban-Trails-Master-Plan-Project)



# STAKEHOLDER MEETINGS

## MEETING DATES & TOPICS

### Meeting #1 - December 20, 2021

- > Introductions
- > Review Results from Public Workshop
- > Establish Project Goals

### Meeting #2 - January 12, 2022

- > Secondary Corridors in the Network
- > Capital Improvement Program
- > Concepts for 1st Avenue

### Meeting #3 - January 26, 2022

- > Policy Review
- > Smart Trail Concept
- > Trail Experience Enhancements and Feature Areas

### Meeting #4 - February 9, 2022

- > Penman Road Corridor Concepts and Coordination
- > Connections to Neptune Beach; Seagate Design Concepts
- > A1A Crossings and Supporting Trail Network

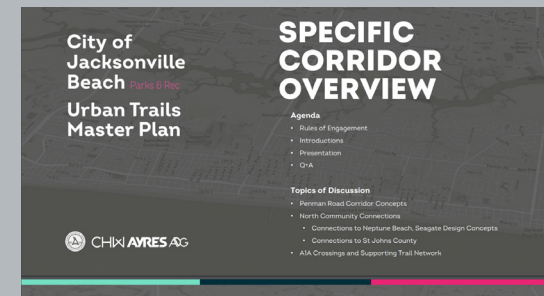
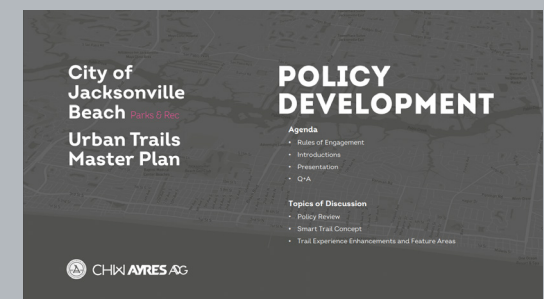
### Meeting #5 - February 23, 2022

- > Review Draft "Urban Trails Master Plan" Document

### Meeting #6 - March 23, 2022

- > 1st Street Business District Concept, Discussion with Business Owners
- > Nature trails and Impacts to Backyards
- > Penman Road Collaboration

## Presentations



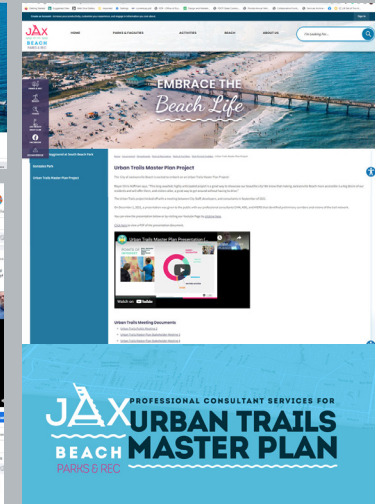
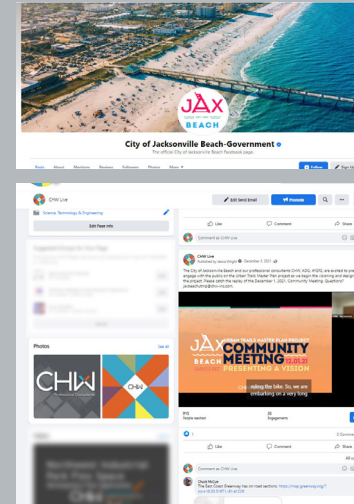


# COMMUNITY ENGAGEMENT

## OUTREACH

Outreach and data gathering activities include the following:

- Advertisements
- Mass email communication (Next Door app)
- Specific project email contact
- Announcements on City of Jacksonville Beach website
- Meeting Invitations
- Social Media
- Public workshop
- Community meetings
- Stakeholder meetings
- Visualization techniques
- Presentations
- Website repository for project updates and information



## COMMUNITY ENGAGEMENT PHASE 1

### LEARN.

Community Workshop  
Open House

Community Presentation  
Open House



## COMMUNITY ENGAGEMENT PHASE 2

### VISION.

(4) Stakeholder Meeting(s)  
69 Comments  
84 Attendees

City Council Presentation



## COMMUNITY ENGAGEMENT PHASE 3

### IMPLEMENT.

(1) Stakeholder Meeting(s)  
15 Comments  
19 of Attendees

(1) Community Presentation

City Council Presentation









# TRAIL TYPES

## CHAPTER 5

**LEGEND**

- Roadways
- Parks & Open Space
- Water Bodies

0' 1,250' 2,500' 5,000'

NORTH

Map of Jacksonville, Florida, showing the city grid, parks, water bodies, and major roads. The map includes a legend, a scale bar, and a north arrow. The legend identifies roadways (yellow), parks and open space (green), and water bodies (blue). The scale bar shows distances from 0 to 5,000 feet. The north arrow points towards the top right. The map shows the city's layout with major roads like Florida Blvd, Seagate Ave, Penman Rd, and Fairway Ln. Parks and open spaces include Jacksonville Beach, Oceanfront Park, Carver Recreation Center, Jacksonville Beach Golf Club, and Cradle Creek Preserve. Water bodies include the Intracoastal Waterway and Jacksonville Beach. The map also shows the city's boundary and the location of the Jacksonville International Airport.

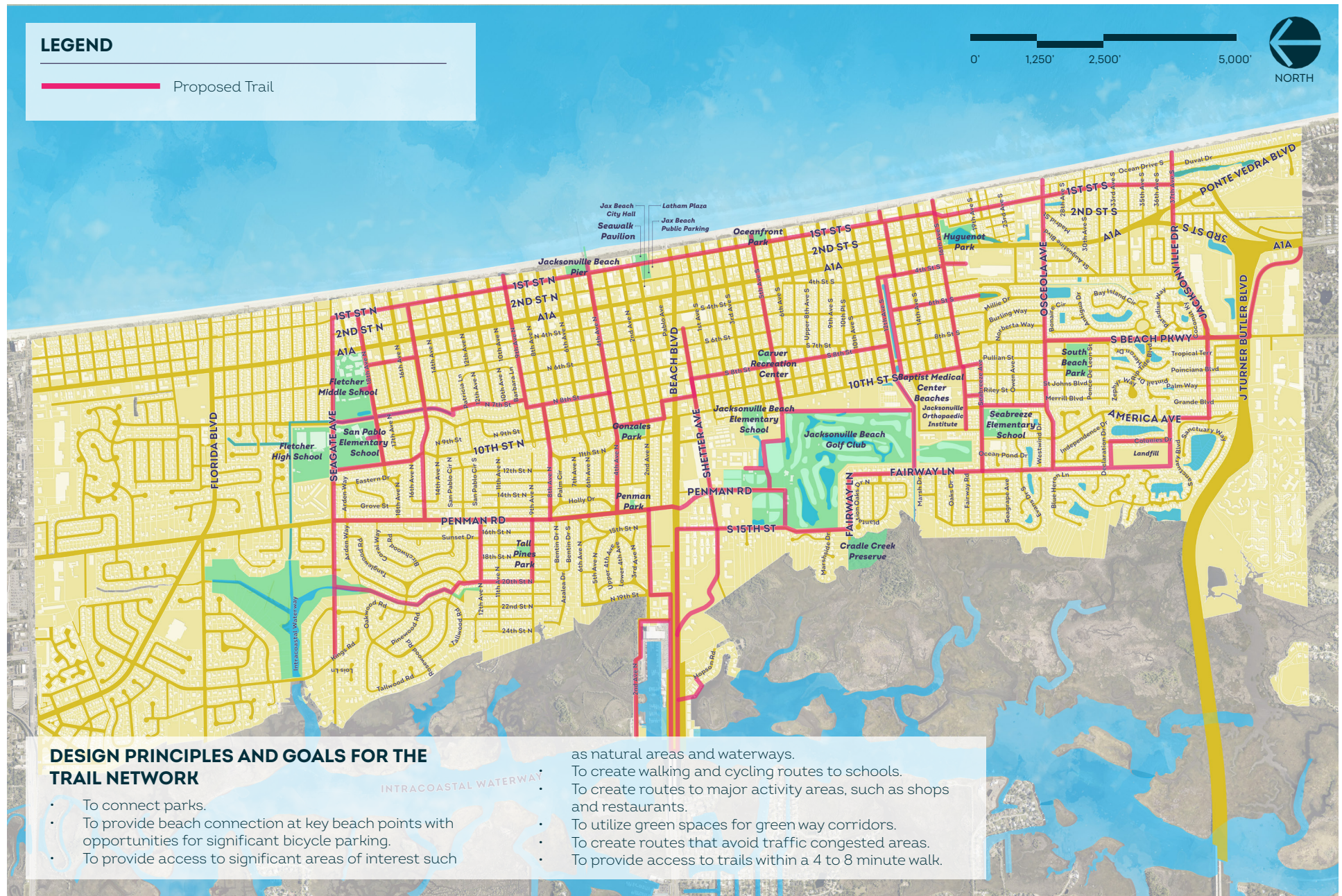


# PROPOSED NETWORK MAP

## LEGEND

Proposed Trail

0' 1,250' 2,500' 5,000'



## DESIGN PRINCIPLES AND GOALS FOR THE TRAIL NETWORK

- To connect parks.
- To provide beach connection at key beach points with opportunities for significant bicycle parking.
- To provide access to significant areas of interest such

as natural areas and waterways.

- To create walking and cycling routes to schools.
- To create routes to major activity areas, such as shops and restaurants.
- To utilize green spaces for green way corridors.
- To create routes that avoid traffic congested areas.
- To provide access to trails within a 4 to 8 minute walk.

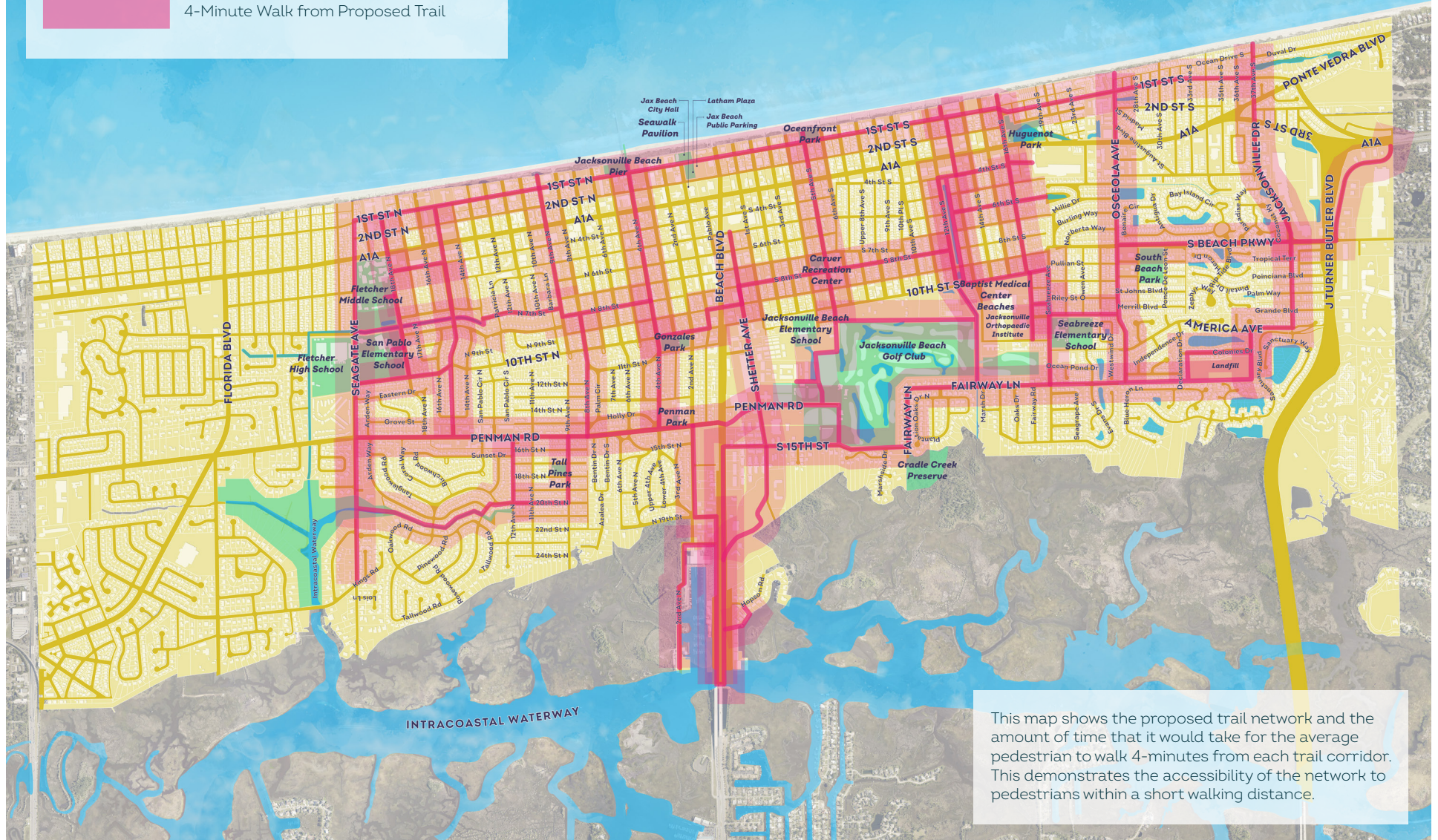


# 4-MINUTE WALK MAP

## LEGEND

-  Proposed Trail
-  4-Minute Walk from Proposed Trail

0' 1,250' 2,500' 5,000'





**LEGEND**

- A** Trail Type 'A' - Nature trail
- B** Trail Type 'B' - Protected Path
- B-2** Trail Type 'B-2' - Street Converted to Protected Path
- C** Trail Type 'C' - Adjacent Path

0' 1,250' 2,500' 5,000'

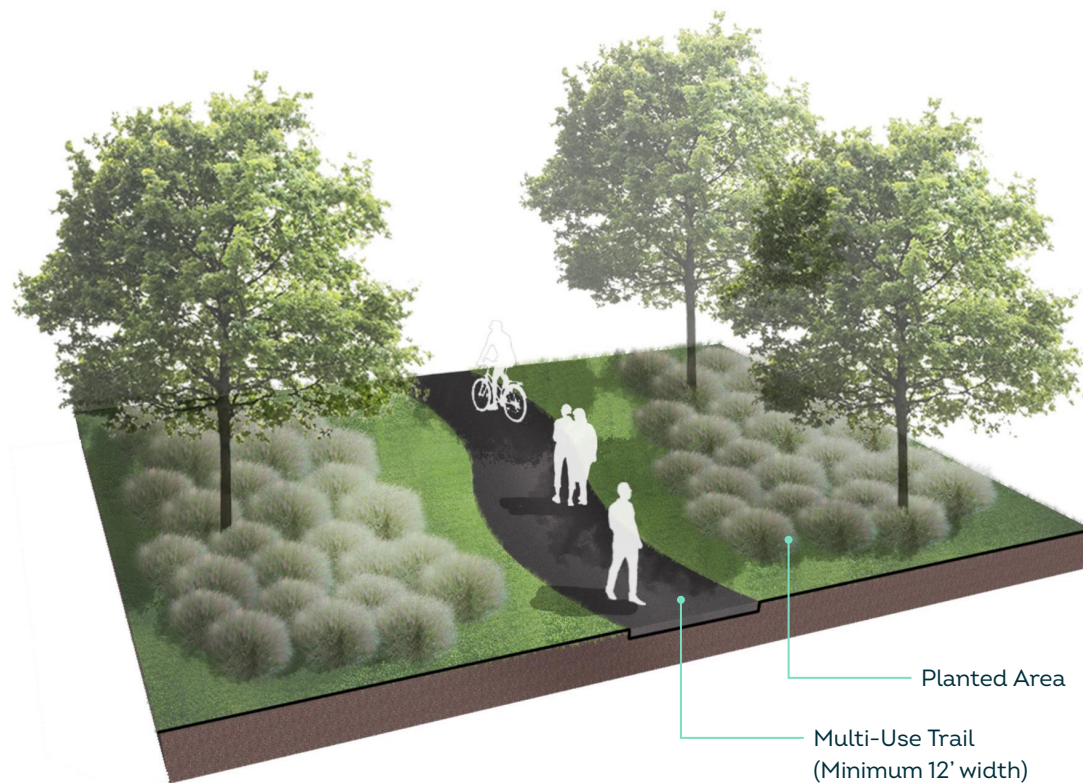
NORTH

There are four different trail types throughout the proposed overall network. These types are outlined in the next few pages, including descriptions of the trail types, cross sections, and example photos.



## TYPE A: NATURE TRAIL

- > A dedicated corridor through green belt or similar area
- > Nature-oriented
- > Little exposure along trails (although there may be roadway crossings)
- > Safe environment for all levels of experience and ages of users



LEGACY TRAIL, SARASOTA, FL



LEGACY TRAIL, SARASOTA, FL

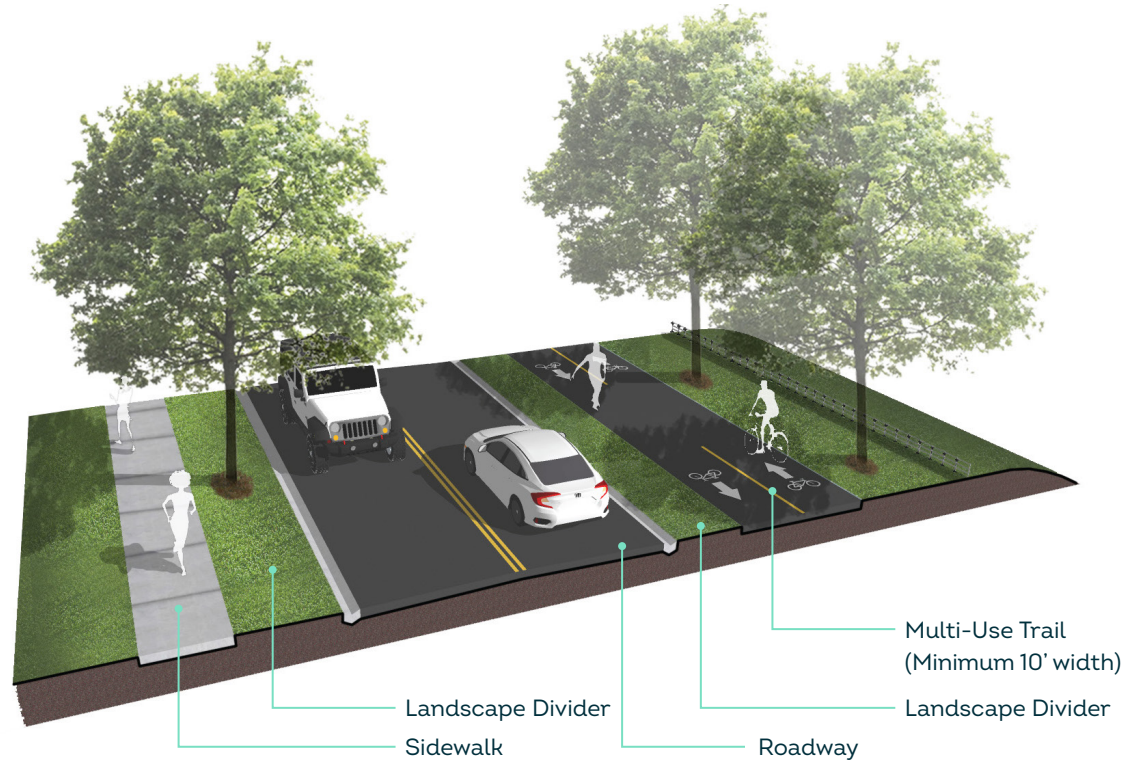


TOWN OF TIOGA, NEWBERRY, FL



## TYPE B: PROTECTED PATH

- > Corridor within the road right-of-way
- > Separated by distance, typically greater than 10 feet, provides a safer environment and comfort for multi-modal users
- > Space between the edge of roadway and trail may include significant landscaping
- > Roadway and driveway crossings minimized
- > Safe environment for diverse user group



WALNUT CREEK URBAN TRAIL, AUSTIN, TX



ORLANDO URBAN TRAIL, ORLANDO, FL



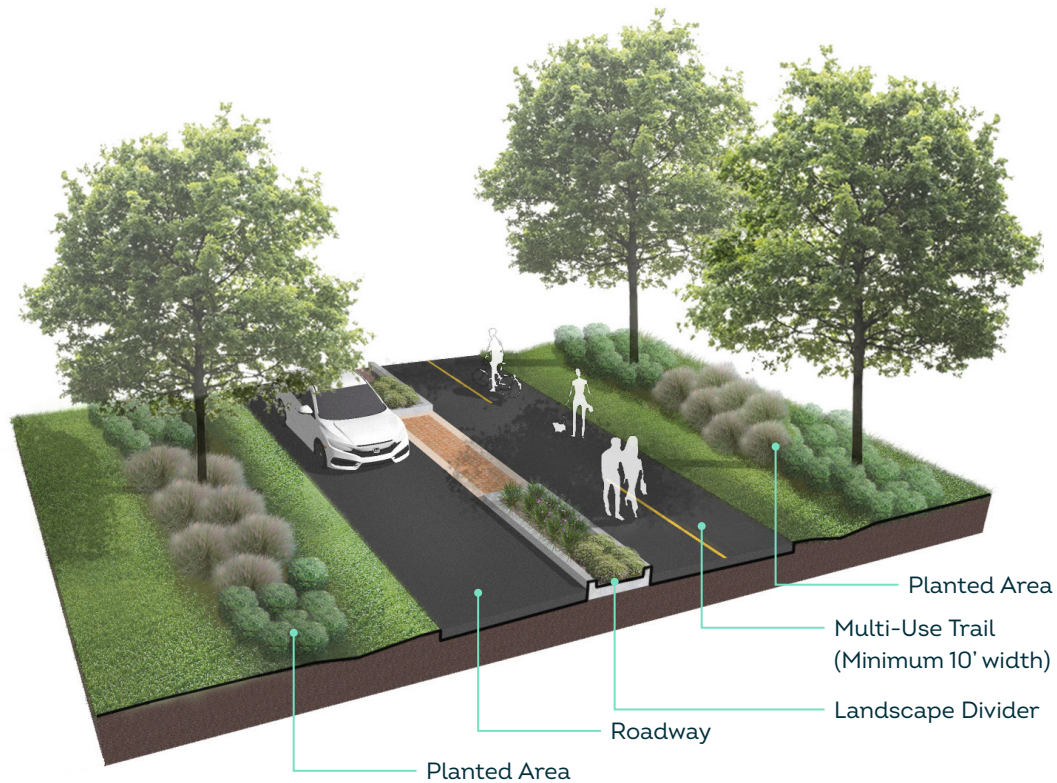
THE ESPLANADE NORTH, VENICE, FL



## TYPE B2:

### STREET CONVERTED TO PROTECTED PATH

- > Provides a trail separated from traffic
- > Converts one of two lanes to a trail corridor, remaining corridor repurposed for a trail separated from the vehicle travel way
- > Remaining lane becomes one lane/one way or single lane vehicle path providing local access
- > Safe environment for diverse user group

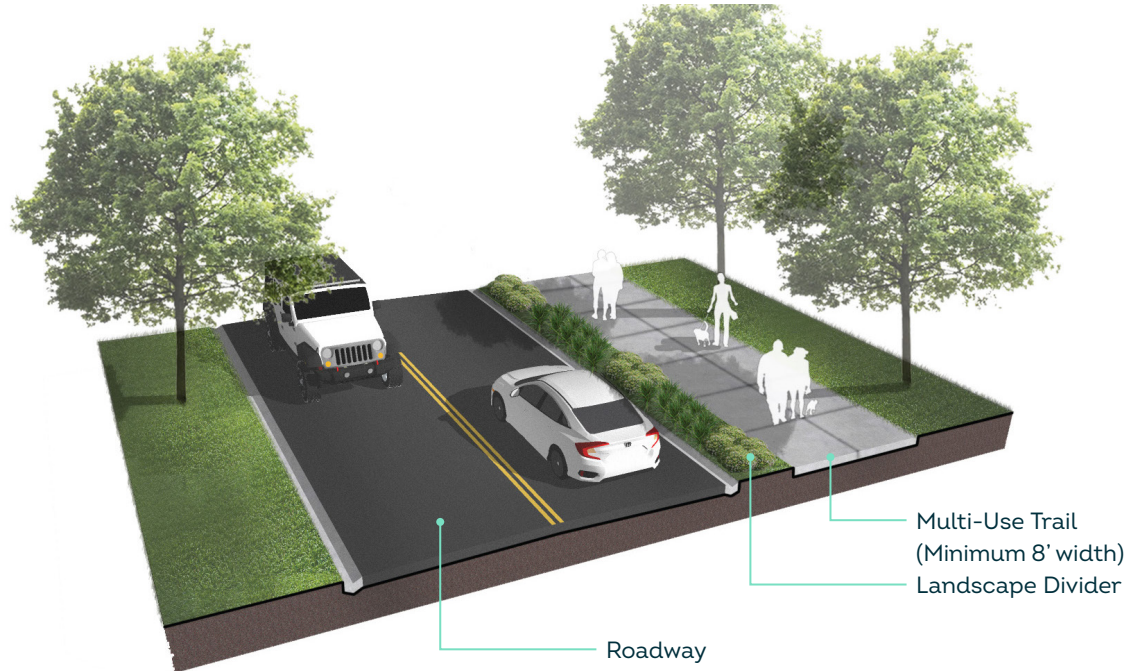


MOUNT DORA, FL



## TYPE C: ADJACENT PATH

- > Corridor within the road right-of-way, along one side of the road
- > Separation between the trail and edge of vehicle traffic way is minimal (less than 10 feet, but typically 5 feet)
- > The proximity of the multi-use trail to the edge of the roadway can result in a less comfortable user experience, especially on higher volume roadways
- > Area between trail and travel way may be planted with groundcovers due to a narrow planting area



BUCKHEAD, ATLANTA, GA



JORDAN RIVER TRAIL, UT



GREENWOOD, IN

## CORRIDOR EXPERIENCE DESCRIPTION: SHARED STREET CONCEPT

A commercial shared street environment should be considered when pedestrian volumes are high and traffic volumes are low or are desired to be low.

These shared streets are different than pedestrian malls, which are defined by retail shops (hence the term 'mall') and only allow pedestrian traffic. On the other hand, a commercial shared street allows vehicles.

Commercial shared streets maintain accessibility for vehicles, although certain times vehicular traffic may be prohibited. This type of shared implementation helps accommodate the heaviest pedestrian traffic and prioritizes and enhances the pedestrian experience. During periods of lower pedestrian activity, vehicular traffic can be allowed to facilitate easy access to businesses for customers and deliveries.

Even if vehicular access is always permitted, it is allowed at low speeds. Low vehicular speeds are accomplished through regulation, environmental cues to drivers, and the prominence of pedestrian activity.

### Existing to Future Conditions

**Sidewalks.** Pedestrian activity is prioritized on a shared street. For decades, typical sidewalks have been constructed at a width of five feet. This width is adequate for orderly walking, but additional activities or higher pedestrian traffic make the five-foot width inadequate.

Two people, walking side-by-side can easily fit on a five-foot-wide sidewalk. Thus with minimal use, sidewalk capacity is not an issue. However, additional pedestrians traveling in opposing directions requires groups of pedestrians to move into a single file line. This congestion or crowding may force people into planter areas or into the street. Both can be safety hazards due to the trip hazards (planters and curbs) or vehicle interactions.





Addressing the profile difference between the traditional pedestrian area and the street reduces capacity constraints. Pedestrians organically claim the space based on need according to the volume of pedestrians. Drivers then recognize this shift and change their behavior, slowing down to speeds more compatible with pedestrians. For example, drivers experience this frequently in parking lots, where the drive aisles are full of both vehicles and pedestrians using the same space.



#### ***Pavement Texture and Color.***

Pavement changes in texture and color can notify the pedestrian and the driver of a unique use. Pavers, stamped concrete, or pigmented concrete are techniques commonly used to indicate a specialized area for travel.

In some cases, a curb is used to set apart the vehicle path, although this can create a clear delineation that reduces the desired affect of a shared street by creating a step and possible trip hazard for pedestrians. Other delineations should be considered as an alternative to curbs. These alternatives could include ribbon curbs or gradual slope separation (usually with the incidental benefit of managing stormwater).

***Street Furniture.*** Street furniture includes benches, tables, planters, lighting, and bollards, to name a few. These items change the character of the corridor and signal to the driver that other uses may be present. These items can also be used to delineate a vehicle travel lane or trail.

## CORRIDOR EXPERIENCE DESCRIPTION: 1ST STREET

Jacksonville Beach's 1st Street has been raised repeatedly in public meetings as a key bicycle/pedestrian environment. The route is bound by Seagate Avenue on the north and Ponte Vedra Boulevard on the south, near the southern city limits. The corridor can be described as consisting of three distinct segments.

The northern segment (Seagate Avenue to 6th Avenue North) serves as access to both single family and multi-family residential development. The roadway is generally a two-lane undivided roadway with bike lanes and sidewalks.

The middle segment (south of Beach Boulevards) is also residential. Where the north segment is more multi-family, the middle segment is more single family. This part of the corridor consists of two travel lanes with bike lanes, but the sidewalk only exists in a portion of the corridor.

The southern portion of the 1st Street corridor, south of 25th Avenue South, is a one-way street (northbound). The one-way segment has one 14-foot-wide travel lane for vehicles, a single bike lane, and on-street parking within the 30 feet of pavement.

Over the three segments, there may be different objectives for converting 1st Street to a one-way street, or even to a primarily pedestrian oriented street. Developing a multi-use trail close to the coast that accommodates bicycles and pedestrians (and everything in between) has been repeated as a community goal. There is ample room to provide such a trail within the existing pavement cross sections while still maintaining access to all developments, both residential and commercial.

The design of the corridor should be uniform and consistent from north to south. Due to the location of the trail along the coast (one block west of the beach) and through the downtown/commercial area, use could be significant if designed correctly to provide a safe and comfortable experience. The commercial portion of 1st Street presents a different opportunity. The cross section currently has flush pavement with a two-way travel lane. There are many examples of similar commercial streets that are completely





closed to traffic or have limited access at certain times to allow for deliveries.

Implementing one-way traffic through the commercial area would allow pedestrian activities to expand through the use of street furniture and planters and by providing ample room for a multi-use trail corridor.

This concept is typically referred to as a commercial shared street. This shared street type is considered when pedestrian volumes are high (or have the potential to be high) and traffic volumes are low or are desired to remain low.

A commercial shared street allows vehicles. This shared implementation is done to accommodate the heaviest pedestrian use times by prioritizing and enhancing the pedestrian experience over accommodating a vehicle. During periods of lower pedestrian activity, vehicular traffic can be allowed to facilitate easy access to businesses for customers and deliveries.

Even if vehicular access is always permitted, it is permitted at low speeds. The low vehicular speeds are accomplished through regulation, environmental cues to drivers, and the prominence and possibility of pedestrian activity.

As a shared street, pedestrian activity is considered the priority. For decades, typical sidewalks have been constructed at a width of five feet. Two people, side-by-

side can easily fit on a 5-foot-wide sidewalk and with minimal use, sidewalk capacity is not an issue. However, adding pedestrians in opposing directions requires groups of walkers to walk single file.

This congestion or crowding may force people into planter areas or into the street. Both can be safety hazards due to the trip hazards (planters and curbs) or vehicle interactions.

Moving street furniture into the right-of-way and further delineating a travel lane would allow vehicular use when necessary or desired.

## RECOMMENDATIONS

**In the residential segments north and south of downtown:**

- > Implement one-way travel lanes for vehicles with a multi-use trail corridor and a barrier/buffer between the trail and vehicle travel lane.

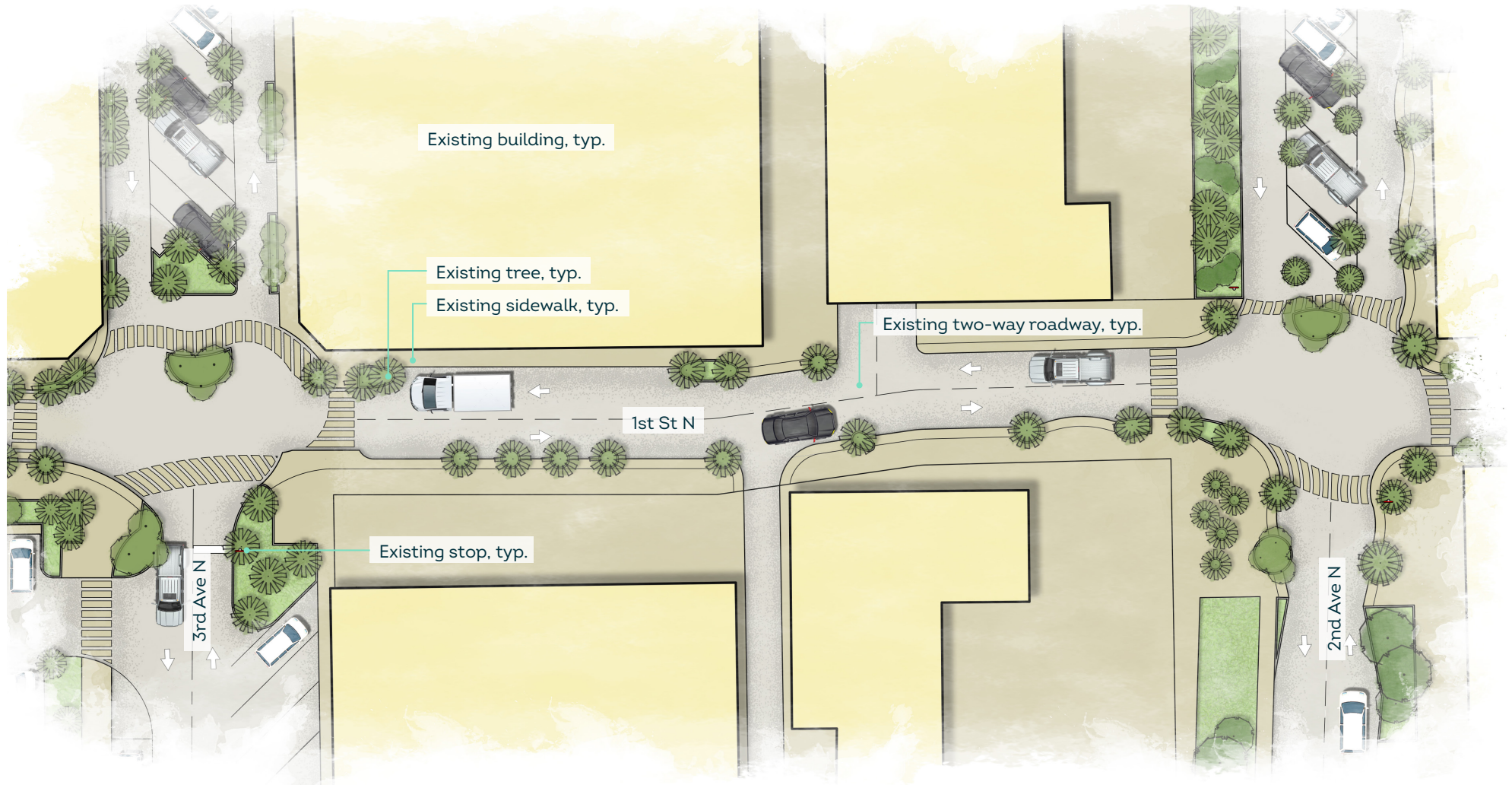
.....

**In the downtown/commercial area:**

- > Close the roadway from 6th Avenue North to just north of Beach Boulevard. Encourage pedestrian use as the primary activity with local delivery and maintenance access at certain times.

.....

# 1ST STREET STREETSCAPE EXISTING CONDITIONS

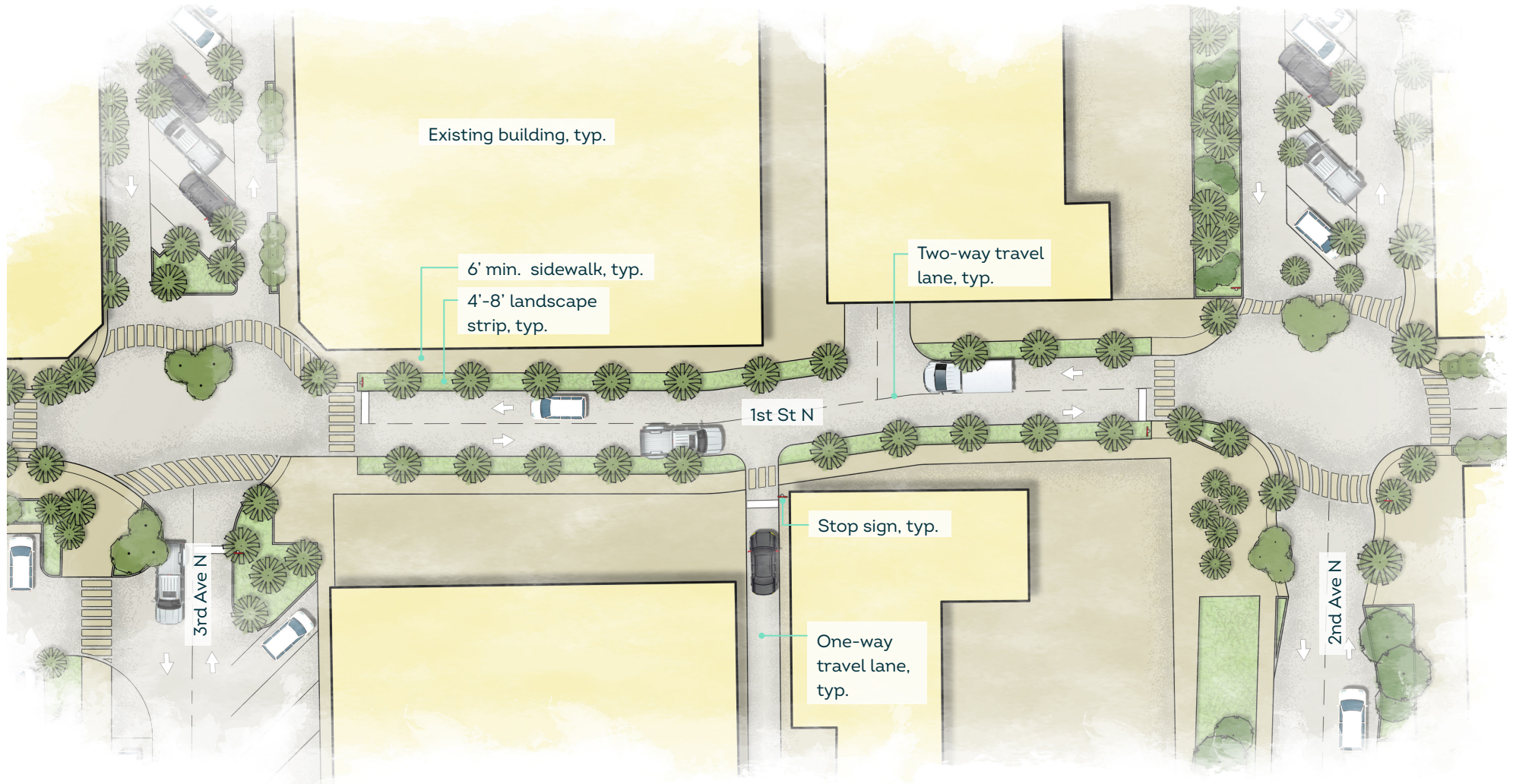


The existing roadway has 12 foot travel lanes with on-street parallel parking in some areas. The sidewalk varies in width between 5 feet and 10 feet, depending on the location. The travel lanes, parking, and sidewalks are separated by curbed planting areas





# 1ST STREET STREETSCAPE CONCEPT 'A'

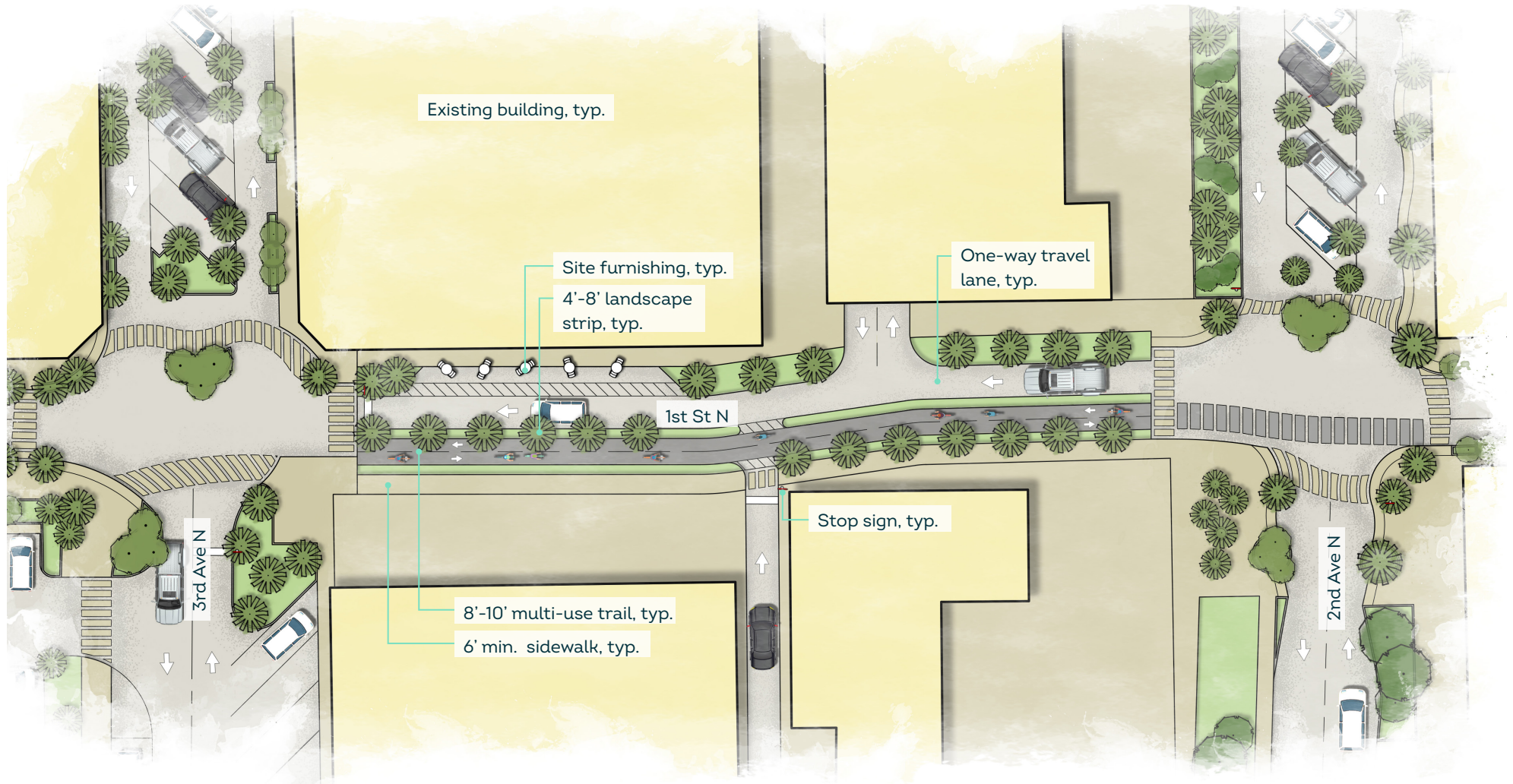


To enhance walkability, separation from the travel lanes could be further delineated by replacing the parking with additional planting areas or moveable planters. Lanes could be reduced to 10 feet. Loading areas could be added or permitted in the travel lane for short periods.





# 1ST STREET STREETSCAPE CONCEPT 'B'

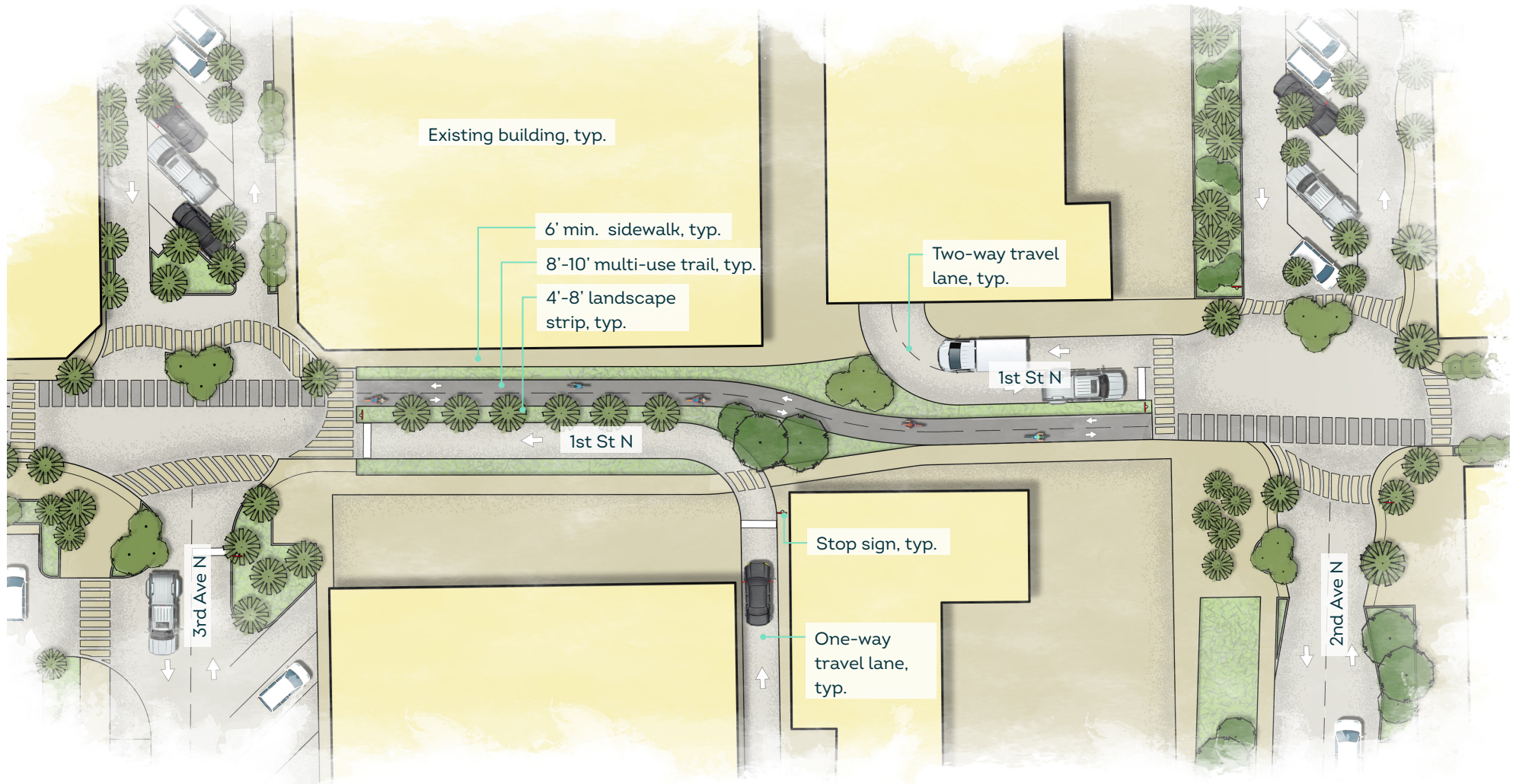


Add a trail corridor by repurposing one vehicle travel lane. The remaining travel lane would allow one-way traffic only. Access to parking areas or alleys would be maintained, but with one-way travel in the corridor. The trail adds a level of separation between pedestrians and vehicular traffic, which would enhance the pedestrian experience on the one side of the corridor. The one-way travel will also limit the amount of vehicular traffic in the corridor, which also enhances trail and pedestrian use.





# 1ST STREET STREETSCAPE CONCEPT 'C'

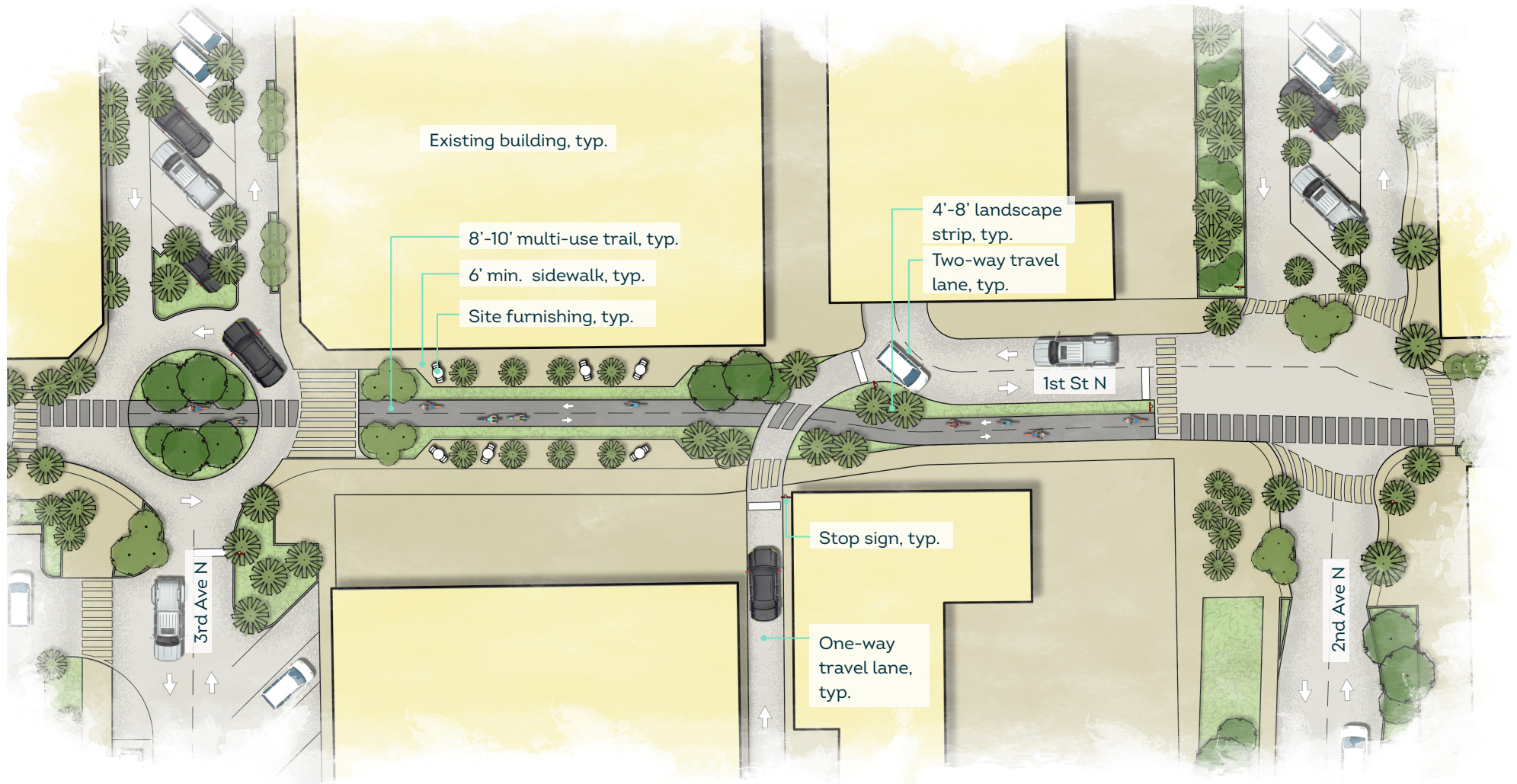


Pedestrians and the trail become the priority use in the corridor. The street is closed to through traffic, while local access is maintained through a short segment of roadway or driveway extension. The design allows for greater multi-modal use of the corridor. Traffic volumes are reduced as the roadway becomes the trail.





## 1ST STREET STREETSCAPE CONCEPT 'D'



Similar to CONCEPT C, the trail and pedestrians become the primary use in the corridor. Access to parcels is routed such that a portion of the corridor is completely closed to vehicular traffic. This approach to closing the street to vehicular traffic allows the greatest pedestrian use of the area and adds a dedicated trail through the corridor.





## A NOTE ON IMPLEMENTATION

These four concepts are shown as design options for the commercial sections of 1st Street. They are presented in order of level of change to the existing conditions. Although any of these could be immediately implemented with one project, implementation could also be gradual, evolving from one option to the next. This process would allow the community to experience different iterations of 1st street and would provide opportunities for the community to inform possible changes to the corridor. Choosing which option to implement and how to do so is a question of policy.

## CORRIDOR EXPERIENCE DESCRIPTION: JACKSONVILLE BEACH GOLF CLUB

During the public workshops, several Jacksonville Beach residents advocated for a trail route through the Jacksonville Beach Golf Club. The idea also introduces more nature trail opportunities throughout the region, another stated goal of the community.

Trails through or around the golf course are not a foreign idea. Several communities have laid out routes through or along golf courses. Mitigating the exposure of trail users to flying golf balls is the most significant concern along with mitigating conflicts with golf carts.

Several members of the community suggested that a trail be constructed around the golf course. The concept was reviewed and is feasible. If the City of Jacksonville Beach proceeds with the golf course trail, a detailed design would be recommended to identify the best locations for the trail and the length of protective fencing if necessary.









## **CASE STUDY:** KYRENE CANAL TRAIL KEN MCDONALD GOLF COURSE, TEMPE, ARIZONA

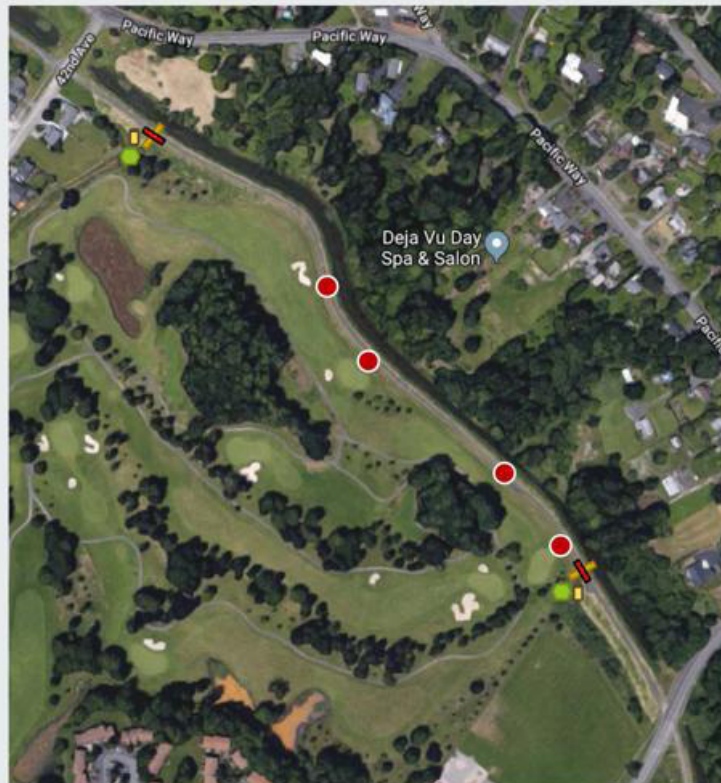
Portions of the Kyrene Canal Trail run along several holes of the Ken McDonald Golf Course. At the closest point, the trail is 40 feet from the edge of the fairway. Through the most vulnerable area, trail users are protected by arched chain link fencing. The fence is next to the trail on the golf course side and arches over the trail users. The fence has a small mesh to deflect golf balls. Landscaping can soften the look of the fence from the golf course if necessary.





## CASE STUDY: MINT VALLEY GOLF COURSE LONGVIEW, WASHINGTON

The trail runs along two holes for a little more than ½ mile. The center of the trail is between 30 and 50 feet of the edge of the fairway or green on each hole. The trail does sit atop a drainage way berm, which may add a level of comfort to trail users, even though the trail is well within the hitting area of the golf course. The golf course does provide notification to trail users (see signing program below) of possible flying golf balls, including warning signs at the entry to the golf course property as well as warning signage where the trail is closest to the course.

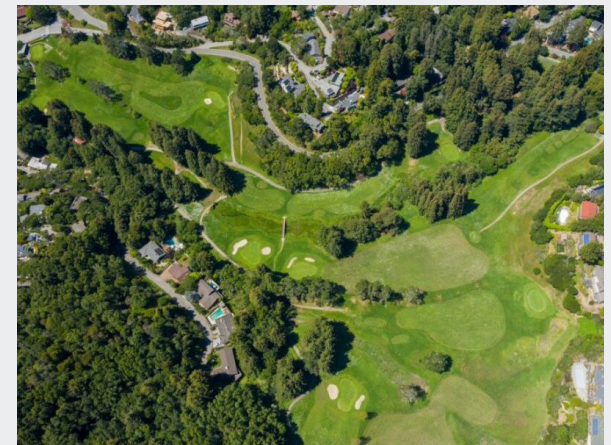


- Vehicle Gates
- Rules Signs
- Warning – Entry Signs
- Warning – Path Signs
- Mutt Mitt/Trash Cans

Signs are not to scale and locations are approximate.

Path signs will be coordinated with CDID and the golf course for permission and best placement.

Map courtesy of  
The DailyNews







Jacksonville Beach  
Fishing Pier

NO  
SMOKING

NATIONAL  
HOTEL & RESORTS  
800-362-5675



# TRAIL DESIGN GUIDANCE STANDARDS

## CHAPTER 6

## DESIGN F.A.Q.

### Q: How do we make a trail safe for all users?

#### PHYSICAL DESIGN

Designing the correct width for the appropriate volume of different types of users is a key to safety. An 8-foot-wide trail may be appropriate in areas we used is limited and volumes are low. Nature trails or short neighborhood access points would likely see limited use and therefore conflicts would be minimal. Where the volume of users is higher a wider trail, 12 feet or wider, may be warranted. This would allow pedestrians and bicycles to operate on the same facility while minimizing conflicts.

Pavement markings are used by some communities. Unlike streets, continuous pavement marking on trails is not a universal standard across communities. At a minimum, in the heaviest use areas or congested areas (i.e. street intersections, constrained points, and high volume crossings) may require pavement markings, signage, or messaging to address the conflict.

#### COMPATIBLE USER GROUPS

User groups should generally “operate” at the relatively same speed in the same vicinity. With higher volumes of users conflicts increase. Speed is a big factor in the compatibility of users. For example, a bicycle can easily operate on a trail with walkers, provided the bicycle is traveling at a comparable speed (i.e., 7 to 10 mph) and the space is wide enough to accommodate both users side by side.

#### ETIQUETTE

Etiquette is key to safety with multiple users. Reducing speeds and users announcing their presence is vital to ensuring conflicts are minimized and collisions are avoided. Being predictable is also important and understanding some users, by nature, may not be predictable. Smaller children typically fit into this category.

### Q: What is the appropriate width for a trail corridor?

The width of a trail corridor is different than the width of the paved surface of the trail. The corridor, at minimum, includes the paved surface and clear zone from the paved surface. The corridor may also include buffers and facilities for other uses. For example, some communities elect to separate bicycle use from pedestrian use. This division is largely due to the volume of bike and/or pedestrian traffic; with higher volumes, conflicts should be reduced for the safety of the users.



The City of Jacksonville Beach is an urban/suburban setting, and the overall corridor width will likely be driven by availability of right-of-way. The primary location of trails throughout Jacksonville Beach will be within the roadway right-of-way, where that space will be shared with the street, possibly a sidewalk, and utilities.

With the trail within the right-of-way, several goals have developed during design:

- > Create a safe experience for the user and adequate room to provide necessary signage.
- > When feasible, add plantings to enhance the experience.
- > Provide a maximum separation between the trail surface and adjacent roadway.

A successful and safe trail experience will provide the user with a clear sense of separation and relief from the nearby vehicular traffic. The ideal separation between the trail and vehicular traffic is at least eight (8) feet. This places the trail outside of the clear zone of the roadway and allows for the installation of substantial landscape. Separations between the trail and roadway greater than eight feet will enhance the experience even further.

The minimum separation between the trail and vehicular traffic should be five (5) feet. Five (5) feet allows for the provision of minimal plant material and accommodates typical signage of a standard size.

In the most urbanized parts of Jacksonville Beach, constraints will be encountered that make it difficult to provide the ideal width of eight (10) feet. Every effort should be made to maintain the ideal width and minimum width separation should be optimized. Separation between the trail and adjacent street that are narrower than the minimums should only be used when constraints make accomplishing the minimum width not physically or financially feasible.

### **Q: What is the best pavement width for the trail?**

The Jacksonville Beach multi-use trail network has a target width of twelve feet of pavement. However, due to the typical urban constraints, widths may vary, and narrower trails may be the only option. In general, to ensure safety and increase usability, the multi-use trails should be eight to twelve feet wide, with the width being driven by expected use and anticipated number of users.

## DESIGN F.A.Q.

### Q: Why not opt for a narrower width so that the construction funds will go further?

Volume and variety of users should be the driving variable for the pavement width of a trail. Consideration of physical space will also play a factor in the width, at least over short segments where there are existing conditions that cannot be adjusted.

A width of eight (8) to twelve (12) feet provides a true multi-use experience. Groups of recreational bicyclists typically desire to ride next to each other. Groups of walkers seldom walk in a single file line. When encountering other users, single file use will be the norm, but a narrow trail that always requires single file use feels cramped and crowded.

### Q: How wide should the clear zone be for a twelve foot paved trail?

Like roadways, trails also have clear zones. The standard clear zone on a multi-use trail is 2 feet on each side. The goal is to provide a safe transition area, rather than a drop off or barrier, if a user veers off the paved surface.

### Q: How are roadway intersections handled along the trail corridors?

Intersection with motor vehicles fall into three categories.

**1) TRAIL INTERSECTION WITH STREETS.** A decision should be made at each intersection as to which use should logically have the priority. Signage and pavement designs should clearly convey the intent for each user, both trail users and motor vehicles. If necessary, traffic signals or **z (High intensity Actuated, crossWalkK)** signals should be considered on high volume routes.

Minor roadway crossings will be the biggest challenge, where only signage and pavement markings are used. Motor vehicles tend to believe they have the right-of-way (which is not supported by State of Florida law). Multi-use trail users sometimes tend to use a “glance and go” technique to crossing. Both approaches create a safety issue. Clear signage, along with pavement marking and design can help reduce safety concerns at these locations.





**2) TRAIL INTERSECTION WITH DRIVEWAYS.** Driveway/trail intersections present “surprises” for motor vehicles and frustration for trail users. The general goal should be to prioritize a trail user over a motor vehicle entering/exiting a driveway. This is done by messaging to motor vehicles the “rule of the road” through signage and pavement markings on the roadway corridors of a multi-use trail. For trail users, clearly identifying the driveway crossing is key.

One method of delineating the right-of-way at driveways is to provide consistent pavement for the priority use. If an asphalt trail crosses a concrete driveway, maintaining the asphalt through the driveway will provide a subtle message to both motor vehicle and trail user who has the right-of-way.

**3) TRAIL INTERSECTIONS WITH OTHER TRAILS.** Trails crossing other trails should be handled similarly to streets crossing other streets. If one route clearly has priority of the other, it should be evident to users of both routes. Alternatively, treating the intersection with signage and pavement markings similar to a four-way stop is likely the best approach.

Each crossing location will need to be examined and treated on a case-by-case basis. Following the Manual on Uniform Traffic Control Devices (MUTCD) standards is key to providing a predictable environment and safe experience. The National Association of City Transportation Officials (NACTO) guides also provide excellent examples and schematics for best practice designs at intersections.

### **Q: What can be done to keep motorized vehicles off the trails?**

This may be an issue in some areas of Jacksonville Beach, with parking on or across the trail being the most likely situation. Signage and education will be important to maintain the integrity of the trail corridor use without the impact of vehicles.

As part of the planning process for this Master Plan, the City of Jacksonville Police Department recommends an educational component followed by an enforcement campaign, if necessary. Some communities have implemented “User Groups” that assist with this education, by distributing flyers explaining violations.

Clear city ordinances that prohibit motor vehicles parking or driving on the trail should be adopted to make the requirements clear, understandable, and enforceable.

### **Q: What about items like e-bikes, e-scooters, e-skate boards, and one-wheels?**

Electrically assisted bikes and similar vehicles are fast becoming a popular means of recreation and commuting.

## DESIGN F.A.Q.

The scale of the device is consistent with the typical uses of a multi-use trail facility, in other words, a bicycle and an e-bike are the same size with the same basic maneuverability. However, the top speed of these devices (which affects maneuverability) is the difference and presents a potential incompatibility.

As a comparison, Florida Statutes identify limitations for electrically assisted vehicles when used in State Parks or on State-maintained multi-use trails. While bicycles (human-powered) are allowed, the State limits the use of electrically assisted and electrically powered bicycles. These limitations focus on the operating speed (Florida State Statutes 316.20655).

Use of e-vehicles on the trail is ultimately a policy decision to be made by the City of Jacksonville Beach. It is recommended that if e-vehicles are allowed, a speed limit for the trail is implemented and enforced to ensure that compatibility is maintained through multiple users.

The City of Jacksonville Beach recommended a clear delineation for enforcement purposes. Prohibiting “motorized vehicles” is clear but ultimately may not allow electrically assisted vehicles. The policy of prohibiting certain vehicles should focus more on the operation than on the vehicle itself, with a focus on limitations on speed and compatible maneuverability.

### Q: Should golf carts or low speed vehicles be allowed on the multi-use trails?

Low speed vehicles have a designation in the Florida Statutes and are permitted on roadways under certain conditions. Golf carts can fall into the category of a low-speed vehicle if modified appropriately. Both can be permitted on public roadways. Generally, low speed vehicles and golf carts are not permitted on multi-use trails. This is usually an issue addressed by local policy.

The policy question is one of compatibility and comparable speeds. Pedestrians, skateboards, roller blades and bicycles operate at comparable speeds. The speeds and maneuverability allow for easy adjustment if there is a conflict. Golf carts and low speed vehicles have a much higher operating speed and maneuverability is different and inconsistent with other users of trail system.

A properly equipped low speed vehicle is much more suitable to travel on roadways, especially local roadways. Based on consistency of speeds and maneuverability, a prohibition of low-speed vehicles and golf carts on trails should be implemented.



*(Image of the 606 Recreational Trail in Chicago, Brian Cassella / Chicago Tribune)*



## Q: What is the best trail surface?

Trails can be constructed of several different materials. Natural or loose materials may reduce accessibility for some users; the most common paved surfaces are asphalt or concrete pavement. Asphalt is typically the preferred material for urban multi-use trails as it accommodates a greater variety of users. While bicyclists can operate easily on either asphalt or concrete, walkers, joggers, and inline skaters prefer asphalt due to the smoother nature of the surface. Concrete surfaces require expansion/contraction joints that may increase trip hazards, although saw joints would help reduce this concern. However, environmental conditions may prohibit asphalt and concrete surfaces due to either installation issues or the environmental impact of the surface. Although there is a multitude of trail types, the most common and likely to be utilized by the City of Jacksonville Beach are summarized in the table below:

| TRAIL SURFACE TYPE           | ADVANTAGES                                                                                                                                    | DISADVANTAGES                                                                                                           |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| <b>Asphalt</b>               | Versatile, multi-use. Long lasting material (with high use) – 7 to 15 years. Immediate use. Favorable walking, jogging, and running material. | Difficult construction in constrained areas. Tree roots may create uneven surfaces.                                     |
| <b>Concrete</b>              | Versatile, multi-use. Longest lasting material 25 years or more.                                                                              | Rigid material, subject to tree root “jacking.” Unpopular with joggers and runners due to extremely hard material.      |
| <b>Gravel, crushed stone</b> | Holds up under heavy use. Pervious material to address stormwater runoff.                                                                     | Not completely multi-modal. May present accessibility constraints.                                                      |
| <b>Mulch</b>                 | Blends well with environment. Minimizes permitting requirements and environmental impacts. Allows for immediate installation at low cost.     | Requires frequent replacement and maintenance due to material degradation. May present accessibility constraints.       |
| <b>Natural Earth</b>         | Minimizes permitting requirements and environmental impacts.                                                                                  | Inconsistent surface, resulting in possible muddy or low areas. Low volume uses. May present accessibility constraints. |

For the proposed trails throughout Jacksonville Beach, the most likely and recommended surface material is asphalt. In some corridors, there may be existing concrete sidewalks, making a concrete trail most sensible when widening or extending that existing infrastructure. Gravel, mulch, or natural earth could be used on the City’s nature trail corridors but would only be recommended for low user volume areas or to address environmental concerns.

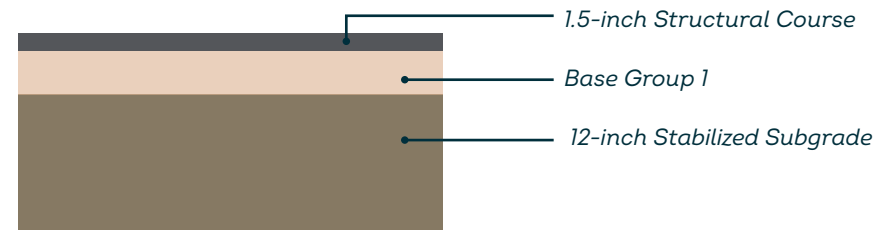


The 606, Chicago, Illinois

## PAVEMENT STANDARDS

Shared use paths, also known as multi-use trails, are paved facilities physically separated from motorized vehicular traffic by an open space or barrier. These paths also introduce a pedestrian/bike lane riding against motor vehicle traffic, which is contrary to the normal rules of the road.

To ensure safety through these corridors, the pedestrian safety shall be in accordance with the most current American Disabilities Act (ADA) requirements for curb ramps and overall path geometry. Along with slope and access constraints, the trail must provide a pavement design equivalent to standard shoulder pavement, according to the FDOT Design Manual, [Section "224 Shared Use Path"](#), which includes:

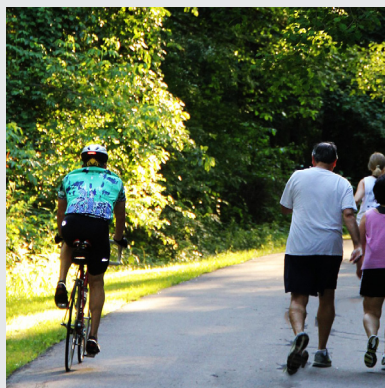


Pavement design decision should be made on a case-by-case basis for each unique conditions, such as locations that may experience normal vehicular traffic (such as driveway or maintenance access to adjacent facilities) or drainage issue (such as high water tables or exposure).





**BIKE RACKS**



**TREES & SHADE**



**POINTS OF INTEREST**



**REST AREAS**



**WATER STATIONS**



**LIGHTING**

## ANCILLARY IMPROVEMENTS

Additional improvements along the trails will provide places of rest, hydration, and points of interest along the trail. Lighting is crucial to ensure pedestrian safety when using trails after daylight hours. Adequate tree plantings and structures can provide the necessary shade to help shade trail users from the hot sun.

# USER TYPES

## PEDESTRIANS (WALKING)

### TYPICAL USER DIMENSIONS

Eye height: 4'-6" to 6'  
 Presence width: 1'-10" to 2'-6"  
 Minimum accommodating pathway: 2'-6"  
 Preferred accommodating pathway: 5'  
 Operating speed: 3 to 4 miles per hour



## WHEELCHAIR

### TYPICAL USER DIMENSIONS

Eye height: 3'-9"  
 Presence width: 2'-6"  
 Minimum accommodating pathway: 3'  
 Preferred accommodating pathway: 5' (allows easy turning)  
 Operating speed: 3 miles per hour



## JOGGERS

### TYPICAL USER DIMENSIONS

Eye height: 4'-6" to 6'  
 Presence width: 2'-6"  
 Minimum accommodating pathway: 4'  
 Preferred accommodating pathway: 5'  
 Operating speed: 4 to 6 miles per hour



## ROLLERBLADERS

### TYPICAL USER DIMENSIONS

Eye height: 4'-9" to 6'-6"  
 Presence width: 2'-6"  
 Minimum accommodating pathway: 5'  
 Preferred accommodating pathway: 6' (allows easy turning)  
 Operating speed: 8 to 16 miles per hour



## SKATEBOARDS

### TYPICAL USER DIMENSIONS

Eye height: 4'-6" to 6'  
 Presence width: 1'-9"  
 Minimum accommodating pathway: 4'  
 Preferred accommodating pathway: 5'  
 Operating speed: 8 miles per hour



## BICYCLE

### TYPICAL USER DIMENSIONS

Eye height: 5'  
 Presence width: 2'-6"  
 Minimum accommodating pathway: 4'  
 Preferred accommodating pathway: 5'  
 Operating speed: 7-18 miles per hour  
 (beginner to intermediate)





# USER TYPES

## E-BIKE

### TYPICAL USER DIMENSIONS

Eye height: 5'  
 Presence width: 2'-6"  
 Minimum accommodating pathway: 4'  
 Preferred accommodating pathway: 5'  
 Operating speed: up to 28 miles per hour



## SCOOTERS

### TYPICAL USER DIMENSIONS

Eye height: 5'-0" to 6'-6"  
 Presence width: 1'-9"  
 Minimum accommodating pathway: 4'  
 Preferred accommodating pathway: 5'  
 Operating speed: 15-24 miles per hour



## GOLF CARTS

### TYPICAL USER DIMENSIONS

Eye height: 5'-6"  
 Presence width: 4'  
 Minimum accommodating pathway: 6'  
 Preferred accommodating pathway: 12'  
 Operating speed: 14 to 25 miles per hour



## RESOURCE DOCUMENT SUMMARY

There are many resources to guide the design and provide the standards for recreational trails or urban trails. Design and guides from the United States and abroad can both be valuable for designing, building, and maintaining trail system. Guides and standards from outside the United States should be used with some caution so as to not conflict with the base design and standards of the United States and Florida.



**THE MANUAL OF UNIFORM MINIMUM STANDARDS FOR THE DESIGN, CONSTRUCTION, AND MAINTENANCE OF STREETS AND HIGHWAYS, ALSO KNOWN AS THE “FLORIDA GREENBOOK” BY THE FLORIDA DEPARTMENT OF TRANSPORTATION**

The Florida Greenbook is a design and standards resource for public transportation facilities. This includes bridges, sidewalks, curbs and curb ramps, bicycle facilities used for vehicle, bicycle, and pedestrian travel. While adopted by the State of Florida, the content is intended for use by local officials on all projects not within the State or Federal highway system. The Florida Greenbook includes chapters that specifically address Pedestrian Facilities, Bicycle Facilities, Residential Street Design, and Traditional Neighborhood Development.

**URBAN BIKEWAY DESIGN GUIDE BY THE NATIONAL ASSOCIATION OF CITY TRANSPORTATION OFFICIALS & URBAN STREET DESIGN GUIDE BY THE NATIONAL ASSOCIATION OF CITY TRANSPORTATION OFFICIALS**

NACTO is an association of 89 major North American cities and transit agencies formed to exchange ideas, insights, experience, and concepts regarding the transportation issues facing cities. The book provides excellent examples and schematics to address design challenges experienced by transportation engineers and designers.

Like the Urban Bikeway Design Guide, the Street Guide provides excellent design concepts and schematics showing how to design and construct urban streets that enhance the non-motorized transportation experience. Both guides provide an invaluable resource for design and implementation of safe multi-modal transportation systems.

**GUIDE FOR THE PLANNING, DESIGN, AND OPERATION OF PEDESTRIAN FACILITIES BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY TRANSPORTATION OFFICIALS**

The book provides guidance on the design and planning of pedestrian facilities and identifies effective measures for accommodating pedestrians on roadways and public rights-of-way. The primary audience is planners, roadway engineers, and transportation engineers. While this book focuses on pedestrians and pedestrian facilities, the strategies presented are effective and consistent with multi-use trail design.

# ENVIRONMENTAL CONSIDERATIONS

## Overview

Most of the Jacksonville Beach trail network spans developed lands and rights-of-way, likely minimizing permitting requirements. In some cases, the trail system is planned to traverse a waterway or environmental system for which more extensive permitting and processes will be required. While the actual permits, process, and mitigation methods required are determined during project design and construction, anticipated permitting requirements are summarized below for planning purposes.

### Environmental Resource Permit (ERP)

The ERP governs the construction, alterations, operations, and maintenance of stormwater management systems located in, on, or over wetlands and other surface waters. 62-330.051(10), F.A.C. exempts the construction of recreational paths for pedestrians, bikes, and golf carts, from state permitting, with stipulations pertaining to wetland impact, size, and use. Generally, the trail is likely to be exempt from state permitting except where it crosses wetlands and surface waters.

#### 12th Avenue

12th Avenue appears to be adjacent to the water and crosses over an existing bridge at 9th Street. An added trail may require entirely new pavement/path adjacent to the bridge. These factors may not meet ERP permitting exemption requirements for paving/repaving of existing municipal roads and repair or replacement of bridges. However, the crossing may qualify for a de minimis exemption pursuant to Section 363.406(6) Florida Statutes, which would require a case-by-case review from FDEP St. Johns River Water Management District.

#### Seagate Avenue

At Seagate Ave, construction of a new pedestrian bridge would require an Environmental Resource Permit. DEP concerns include wildlife movement, fencing to limit access, reduced speed zones, and vertical and horizontal clearance for watercraft. National Pollutant Discharge Elimination System (NPDES)

Florida's NPDES stormwater program regulates stormwater discharges. Where the total project disturbs more than one acre of land, a general stormwater permit for construction from FDEP is required, though permitting is tiered depending on acreage.





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## **National Pollutant Discharge Elimination System (NPDES)**

Florida's NPDES stormwater program regulates stormwater discharges. Where the total project disturbs more than one acre of land, a general stormwater permit for construction from FDEP is required, though permitting is tiered depending on acreage.

## **Clean Water Act**

Federal Section 404 Clean Water Act also requires that projects that would require filling or dredging in a waterway also be reviewed under the Clean Water Act in a joint ERP application.

## **Local Requirements**

### **Floodways**

The City also regulates roads and watercourse crossings in regulated floodways under Section 34-467 of the municipal ordinances. Crossings must meet limitations in 34-467(a)(10)c.1.(f) if there is filling or grading in a flood hazard area and permits are obtained from the Planning and Development Department.

### **Municipal Stormwater**

Ordinance 34-466(d) states "The clearing of land which is to be used solely for conservation, recreation, agriculture, or open space provided no disruption of natural surface waters or impoundment of surface water will result. This exemption will not apply where clearing and drainage may directly or indirectly impact areas defined as conservation/protected areas pursuant to the comprehensive plan."

The City of Jacksonville Beach Comprehensive Plan identifies a conservation area to the north of the Seagate Avenue crossing, outside city limits. This may require coordination with the neighboring community depending on the trail alignment and the location of the jurisdictional boundary.

Ponds are not typically required for construction. If the trails do not meet the state exemption requirements, stormwater mitigation may include additional stormwater management features, such as swales.



## 12TH AVENUE SOUTH (LOOKING WEST) - BEFORE



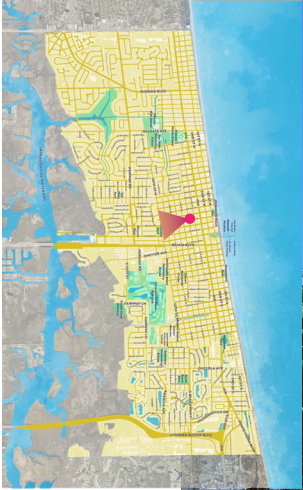


## 12TH AVENUE SOUTH (LOOKING WEST) - AFTER





## 4TH AVENUE NORTH (LOOKING WEST) - BEFORE





## 4TH AVENUE NORTH (LOOKING WEST) - AFTER





## NEAR LIBERTY LANE (LOOKING NORTH) - BEFORE





## NEAR LIBERTY LANE (LOOKING NORTH) - AFTER





## 1ST STREET NORTH (LOOKING SOUTH) - BEFORE





# 1ST STREET NORTH (LOOKING SOUTH) - AFTER





## WILLIAMS STREET (LOOKING NORTH) - BEFORE





## WILLIAMS STREET (LOOKING NORTH) - AFTER





## 1ST STREET NORTH DOWNTOWN (BEFORE)





# 1ST STREET NORTH DOWNTOWN (AFTER)





## 1ST STREET DOWNTOWN (BIRD'S EYE) - BEFORE



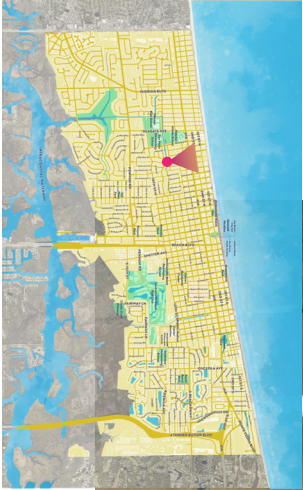


## 1ST STREET DOWNTOWN (BIRD'S EYE) - AFTER



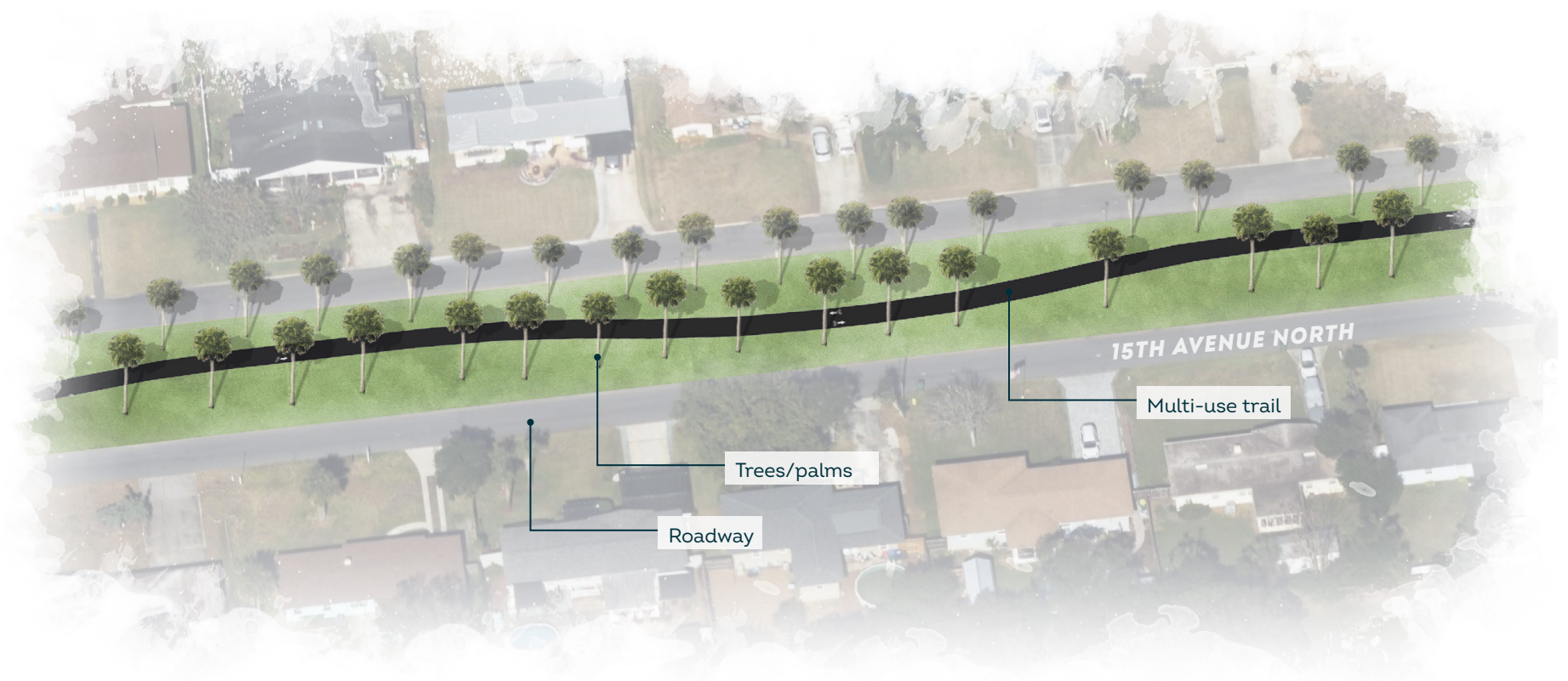


## 15TH AVENUE NORTH (BIRD'S EYE) - BEFORE





## 15TH AVENUE NORTH (BIRD'S EYE) - AFTER



## BEACH BOULEVARD (BIRD'S EYE) - BEFORE





## BEACH BOULEVARD (BIRD'S EYE) - AFTER





## 8TH STREET SOUTH (BIRD'S EYE) - BEFORE





## 8TH STREET SOUTH (BIRD'S EYE) - AFTER









# POLICY CONSIDERATIONS

## CHAPTER 7

# INTRODUCTION

As the City's Urban Trails Master Plan becomes a reality, regulations on trail design, trail usage, and trail-adjacent development should be considered for adoption. This document outlines policy issues that are worth considering as the City moves forward, and provides examples from other communities, options, and considerations for how to proceed.

## TRAIL FRONTAGE DEVELOPMENT STANDARDS

### Understanding

Standards may be needed to define how development can occur for properties abutting an urban trail. Regulations may include setbacks, building frontage, glazing, and other architectural standards.

### Existing Jacksonville Beach Standards

No trail frontage development standards currently exist in the City of Jacksonville Beach's Land Development Code. Road setback standards exist and are implemented by each zoning district.



### SPECIFIC STANDARDS BY USE TYPE: SINGLE-FAMILY RESIDENTIAL, MULTIFAMILY RESIDENTIAL, NON-RESIDENTIAL, MIXED-USE

- > Developers of single-family residential projects may want the trails further from their developments, but still accessible.
- > Developers of multifamily residential projects may want their projects to be closer to the trail.
- > Retail developments may appreciate proximity to the trail, as it would allow ease of access to a broader range of shoppers.

### STRATEGY FOR INCORPORATION

- > Currently, City of Jacksonville Beach Land Development Code (LDC) lists zoning district setback requirements in each zoning district's individual code section. CHW recommends doing this with trail frontage standards as well.
- > Additionally, trail frontage standards could be provided in a standalone section, applicable across zoning districts.

### TRAIL HIERARCHY

- > CHW recommends that development standards be based on Primary and Secondary Trail designations.



# CONSTRUCTION CONTRIBUTION REQUIREMENTS

## FOR TRAILSIDE DEVELOPMENT

The City will need to define how development on property that abuts existing and planned trail corridors works with and contributes to trail construction.

### Existing Jacksonville Beach Standards

Currently, the City of Jacksonville Beach has a Mobility Fee program, as outlined in LDC Sec. 34-565. This program applies a fee system to new development based on a mobility fee calculation. This calculation is centered on automobile vehicle miles traveled.

The Jacksonville Beach Mobility Fee program includes a provision that offers an offset to the calculated mobility fee, with conditions, if a developer or landowner constructs a transportation improvement project identified in the 2030 Mobility Plan.

## Examples

### City of Jacksonville

The City of Jacksonville requires property owners developing land that abuts a street, park, or public place in the City to construct a sidewalk, curb, and gutter along its frontage at the time the parcel is developed.

The City of Jacksonville also offers an In-Lieu Sidewalk program, also referred to as the “Sidewalk Construction Special Revenue Fund.” If a developer is unable to construct sidewalks based on a set of criteria, a contribution to the In-Lieu Sidewalk Program can be paid as substitute, with City approval. Finally, the City of Jacksonville has a mobility fee. The funding from this fee funds mobility plan projects based on a development’s mobility zone.

### City of Sarasota

The City of Sarasota established a Multimodal Transportation Impact Fee. This requires new development to pay a pro rata share of the reasonably anticipated expansion costs of new multimodal transportation facilities created by new growth and development.

## Options & Considerations

### TRAIL CONCEPTUALIZATION

- > Is an urban trail any different from a sidewalk for the sake of a development? If a development that abuts a planned urban trail would be required to construct a sidewalk, would it instead be required to construct a portion of the trail?

### CASE BY CASE DEVELOPMENT V.S. FEE PAYMENT

- > One option is to require development occurring adjacent to planned trail segments to construct the portion of trail that abuts their property. This could potentially result in piecemeal trail development.
- > An alternative would be to require new development adjacent to planned trail segments to pay into a fund that is then utilized to build trail segments of the City’s choosing.

# TRAILSIDE LANDSCAPING & HARDSCAPING STANDARDS

## Understanding

Similar to the need for trail frontage development standards, landscaping standards may also be needed for property fronting the trails. Enhanced landscaping and hardscaping can improve trail experience by the provision of shade and a diversity of view.

## Existing Jacksonville Beach Standards

No trailside landscaping standards currently exist in the City of Jacksonville Beach's LDC. The LDC does include landscape buffering requirements separating parking lots from public rights-of-way. These buffers are required to be five (5) ft. in width, have one (1) shade tree / 25 ft. of frontage, and have a hedge or nonliving barrier up to two (2) ft. tall along the parking lot side.

Sec. 28-5. establishes that it is the duty of abutting landowners to care for and protect sidewalks and parkways adjacent to their lot(s). This provision makes it lawful for landowners to improve by planting grass, flowers, and shrubbery along the edge, as well as a suitable barrier.

## Examples

The City of Jacksonville includes landscaping standards for the Emerald Trail in the Emerald Trail Master Plan.

## Options & Considerations

When crafting trail frontage development standards, factors to consider include:

### CITYWIDE STANDARDS OR SPECIFIC STANDARDS BY USE TYPE

- > Multifamily residential, single family residential, and nonresidential developments may all warrant different landscaping standards.

### TRAIL LOCATION

- > Will trail landscaping and hardscaping standards be the same across a property, or will the trail's location relative to the property's front, side, or rear influence the standards?
- > How should development treat landscaping if adjacent to an existing trail?

### TRAIL HIERARCHY

- > Will there be a uniform standard for all urban trails? Will different tiers and types of trails have different standards?

### STRATEGY FOR INCORPORATION

- > Trailside landscaping and hardscaping standards could be incorporated into the LDC by zoning district, as setbacks are currently.
- > These standards could also be incorporated into a standalone section, applicable across zoning districts.
- > Finally, landscaping and hardscaping standards could be worked out as part of negotiations of development agreements.
- > Landscaping and hardscaping enhancements may be most beneficial for multifamily, nonresidential, or mixed-use projects fronting a Primary Trail. These standards would need to be consistent with setback requirements and/or other development standards for the same uses. Such enhancements could include bicycle parking.



# BICYCLE PARKING

## Understanding

The trails will be used to connect users to destinations. Bicycle parking makes it possible for trail users to patronize trailside businesses while safely and securing storing their bicycles.

## Existing Jacksonville Beach Standards

LDC §34-373.(a)(6) allows one (1) parking space in off-street parking lots containing ten (10) or more spaces to be converted to bicycle parking. This is an allowance, rather than a requirement.

## Examples

### City of Sarasota

The City of Sarasota includes bicycle parking requirements as part of their Off-street Parking and Loading section (Zoning Code Article VII, Division 2). Highlights include:

- Bicycle parking requirements based on percent of total automobile parking spaces required
- Style of bicycle parking—inverted U shape preferred
- Delineation of short-term and long-term bicycle parking location and design. Both are required, split 50/50.
- Short term—parking for customers, generally used for two hours or less
- Long term—parking for employees, residents, commuters, and others staying at a location for several hours



## Examples

### City of Neptune Beach

The City of Neptune Beach includes bicycle parking requirements as part of their Off-street Parking and Loading section (Unified Land Development Regulations Article XIII). The requirements are only applicable to the City's Central Business District (CBD).

Highlights include:

- Bicycle parking requirements for retail or commercial office uses based on gross square footage or percentage of total required automobile parking spaces.
- Guidelines on placement of bicycle parking spaces, related to visibility, lighting, weather protection, and clearance

### City of Jacksonville

The City of Jacksonville includes bicycle parking requirements as part of their Off-street Parking, On-street Parking, and Mobile Home Subdivisions section (Zoning Section Ch. 656, Part 6). Section 656.608. delineates required number of bicycle parking spaces based on factors including dwelling units, square footage, or other similar factors. Section 656.609. delineates design standards, including those related to spacing, anchoring, and location.

The City of Jacksonville devotes Section 3.6 of its Land Development Procedures Manual to outlining standards for bicycle parking. These standards cover short-term parking and long-term parking solutions. Topics covered include location; design; and short- and long-term bicycle parking standards related to placement choice and installation.

## BICYCLE PARKING (CONT.)

### Options & Considerations

#### CITYWIDE V.S. TRAILSIDE

- > CHW recommends city-wide bicycle parking requirements for multifamily, commercial, and mixed-use development projects, with enhanced requirements along Primary Trails. An alternative would be to require new development adjacent to planned trail segments to pay into a fund that is then utilized to build trail segments of the City's choosing.
- > If bicycle parking requirements are applied city-wide, pertinent LDC sections to update are within LDC Article VIII Division 1. This section outlines vehicular parking standards, including design standards (§34-373), location standards (§34-374), and amount standards (§34-377).

#### FACTORS TO REGULATE

- > Factors to include in bicycle parking standards include but are not limited to: bicycle rack type; bicycle parking location; and required number of spaces.

## TRAIL CONSTRUCTION STANDARDS

### Understanding

Standards for trail construction by type will ensure uniform and well-engineered trails throughout the City.

### Existing Jacksonville Beach Standards

No trail construction standards currently exist in the City of Jacksonville Beach's LDC.

### Examples

#### City of Jacksonville

The City of Jacksonville includes section details for the Emerald Trail as part of the Emerald Trail Master Plan. The City also has a Standard Details manual provided by the Public Works Department.

### Options & Considerations

#### LOCATION OF STANDARDS

- > Trail construction standards could be written out in the Master Plan and referenced in the LDC. CHW recommends this approach to streamline any necessary updates to the standards in the future.
- > Trail construction standards could be adopted into the Code of Ordinances, potentially in Chapter 7–Buildings and Building Regulations.





# MOTOR VEHICLES AND SPEED LIMITS

## Understanding

To ensure safety for all trail users, regulations on what vehicles are allowed and how fast users may travel will be necessary.

## Existing Jacksonville Beach Standards

Jacksonville Beach regulates lawful speeds in Code of Ordinances §31-18. These regulations are based on where the roadway is. Examples include in a business district, residence district, school zone, or east of the established seawalls. Jacksonville Beach regulates the movement of bicycles, electric personal assistive mobility devices, micromobility devices, and motorized scooters in §31-5.

## Examples

### City of Sarasota

Sarasota County established an operation and use policy for the Legacy Trail through formal resolution by the Board of County Commissioners. Resolution No. 2019-234 dictates trail rules and regulations encroachment onto the trail by abutting property owners.

### Neptune Beach

Neptune Beach regulates the operation of golf carts, low-speed vehicles, and utility vehicles on roads in §22.73. of their Code of Ordinances.

## Options & Considerations

### TYPES OF VEHICLES

- > As personal mobility choices continue to expand, a decision will need to be made on the types of vehicles allowed on the urban trails.
- > A simple approach would be to impose a blanket ban on motorized vehicles other than those used by persons with mobility assistance needs.

### SPEED LIMITS

- > A maximum speed should be imposed on the urban trails. Determination of this speed may be influenced by the types of vehicles permitted and/or through coordination with local stakeholder groups and adjacent communities. 15 miles per hour (MPH) is a common speed limit for similar trails systems.

### ENFORCEMENT

- > Will the regulations on trail usage be actively enforced by law enforcement officers?
- > Will the regulations on trail usage be passively enforced with infrastructure, such as bollards?
- > A combination of active and passive enforcement is also possible.



# WAIVER FROM MINIMUM STANDARDS

## Understanding

A method of obtaining a waiver from the minimum trailside development standards will allow development with unique circumstances the flexibility needed to complete construction.

## Existing Jacksonville Beach Standards

LDC Article VI, Division 6 outlines the process for obtaining a variance. No other similar process could be found in the City's LDC.

## Examples

### City of Jacksonville

The City of Jacksonville does not have an explicit process for requesting a waiver from minimum standards, but Matt Fall, City Bicycle-Pedestrian Coordinator at time of writing, explained that "discretion was built into the code." This discretion allows the city to work with development on a case-by-case basis to ensure success and compromise.

## Examples

### City of Gainesville

In order to provide flexibility for the unique circumstances of individual developments, the City of Gainesville offers a method for applicants to seek modification from development standards in City of Gainesville LDC §30-3.54. Modifications are required to provide delineated minimum compensating enhancement to the public realm. Modification requests are administratively approved and do not require public hearings. Examples include:

| REQUESTED MODIFICATION                                                                                                       | MIN. COMPENSATING ENHANCEMENT OF PUBLIC REALM                                                   |
|------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| Variation in required street setback up to 3 feet.                                                                           | 10% increase above required 1st floor glazing.                                                  |
| Reduction in required glazing percentages up to 10%.                                                                         | Increase of 2 feet above required sidewalk width.                                               |
| Reduction in required building frontage percentages up to 10%.                                                               | 10% increase above required building frontage.                                                  |
| Reduction in required landscape zones up to 2 feet; however, in no case shall a landscape area be less than 4 feet in depth. | Increase of 4 feet above min. 1st floor height;<br>Increase of 2 ft. above min. landscape zone. |

## Options & Considerations

### PROCESS

- > Will a request for a waiver be administratively approved, or would the City prefer it go before a board? CHW recommends an administrative approval process.



# ADOPTION AND UTILIZATION OF OFFICIAL MAP

## Understanding

An official map will delineate Jacksonville Beach's Urban Trails in law and provide the basis for implementation of the plan.

## Existing Jacksonville Beach Standards

No map currently exists.

## Examples

### City of Jacksonville

The City of Jacksonville does not appear to include a map of the Emerald Trail system in either its code of ordinances or Comprehensive Plan. The City does adopt an official map and boundaries for its Downtown Overlay Zone Map in the ordinance code. While the overlay is not a similar example compared to a trail system, it does offer an example of a map being adopted.

### Sarasota County

The Legacy Trail is depicted on multiple maps in Sarasota County's Comprehensive Plan. The Master Plan is adopted by resolution.

## Options & Considerations

It is suggested to have the official map as part of the Urban Trails Master Plan. The Comprehensive Plan can make reference to this map and require it exist and be updated. The LDC can adopt this map by reference. This will make amendment easier, as it avoids having to follow state statute protocol (Comprehensive Plan) and minimizes LDC updates. This will also help to ensure updates are comprehensive, rather than piecemeal.

It is also suggested that a provision be put in place requiring review and/or update of the official map at defined intervals. This will help keep the plan alive, rather than be forgotten.









# OPERATIONS & MAINTENANCE

## CHAPTER 8

# ETIQUETTE

Public input and feedback have raised several concerns about conflicting uses of the trail and the interaction of trail users and vehicles. The City of Jacksonville Beach trail network uses public right-of-way where the trail is located between the edge of pavement and homes. This raises two immediate concerns, both of which were received as public comments:

## BE PREPARED TO STOP

The use of headphones and earbuds is a popular enhancement to hiking, jogging, and bicycling. This may hamper trail etiquette where signaling is expected, so... be prepared to stop!

## KEEP RIGHT or KEEP LEFT

Some communities have adopted a convention in which faster moving vehicles (such as bicycles, scooters, and skateboards) stay to the right while pedestrian and joggers stay to the left, facing on-coming users. This is the same convention used when walking on a roadway where sidewalks are not available.

Either approach has its benefits, but consistency and building expectations is key ensuring compliance.

Much of the trail will be located in what is currently the “front yard” of homes or businesses. Today that area is treated as private property and may be landscaped or used for parking. Additionally, the interaction between the trail user and vehicles will be prevalent due to the proximity of the two corridors.

The following summary of best practices provides recommendations from the trail community and the City of Jacksonville Beach Police Department for etiquette to adhere to during trail use.

## ETIQUETTE RECOMMENDATIONS

### STAY RIGHT, PASS LEFT!

WHEN ENCOUNTERING OTHERS, PROCEED LIKE A CAR – USE THE RIGHT SIDE OF THE TRAIL FOR TRAVEL, LEFT SIDE FOR PASSING.

### LEAVE ROOM TO PASS.

WHETHER WALKING OR MOVING AT A FASTER PACE (E.G. JOGGING, BICYCLING) STAY TO THE RIGHT OF THE CENTERLINE, ALLOWING OTHERS ROOM TO PASS.

### ANNOUNCE BEFORE PASSING.

USE A BELL OR ANNOUNCE “ON YOUR LEFT” WHEN PASSING ANOTHER TRAIL USER.

### MAINTAIN COMPARABLE SPEEDS.

RECOGNIZE THAT PEOPLE CAN BE UNPREDICTABLE, SO BE PREPARED TO STOP. WHEN APPROACHING OR PASSING OTHERS, MAINTAIN A COMPARABLE SPEED OR SLIGHTLY FASTER.

### KEEP THE PATH OPEN.

PULL OFF THE PATH TO LOOK AROUND OR TAKE A BREAK. DO NOT STOP OR PARK IN THE PATH.



# RISK MANAGEMENT & LIABILITY

When considering a multi-use trails network, the impact to private property throughout a community may be assumed to be limited. However, a design limitation constraining trail networks to only public land may result in an inadequate and incomplete system, especially regarding connections to private development, such as commercial establishments and private residential developments.

A complete and comprehensive trail system should have continuous sidewalk systems where walking on a public sidewalk to a commercial establishment is seamless. The pedestrian may not necessarily know they have crossed the property line and if they do, it is likely because the logical walking route has been broken (for example, when a sidewalk intersects with a driveway.)

Well-planned urban trails system should provide the necessary logical, intuitive, and seamless connections with private property. The simplest method of implementing these connections is through local policy and development regulations. Risk and liability are always a concern and there are statutes within the State of Florida addressing this (Florida State Statutes 375.251). *(Image: Bell Street Park, Seattle, WA)*



## RISK MANAGEMENT

State law requires that a managing agency must provide a reasonably safe facility. This is accomplished through good design and regular risk management procedures to identify and address problems before they arise. As the network grows, so will maintenance demands. Instituting and funding a maintenance program will go a long way to manage overall risk.

## LIABILITY

To protect landowner rights, local governments can implement legal frameworks, such as a Public Use Easement, to ensure the trail system connectivity is not diminished due to legal concerns. Additionally, all fifty states have enacted some form of liability protection that limits land owner liability for recreational facilities. Under these protections, landowners are not liable for recreational trail injuries resulting from carelessness or accidents, provided the property owner has not engaged in wanton misconduct.

# ACCESS, ENFORCEMENT & SECURITY

With the increasing popularity of E-bicycles and E-scooters, questions about trail use have arisen. With these vehicles traveling faster than their unmotorized counterparts, compatibility on the trail is a concern. Research shows that the allowance or banning of such vehicles is typically a local decision. Federally operated and maintained trails allow electronic, battery powered, or battery assisted vehicles, but defer to local agencies for local trails.

The City of Jacksonville Beach Police Department recommends a clear limitation on allowed versus prohibited vehicles: that only “human-powered” vehicles be allowed. In all cases, golf carts and low speed vehicles should be prohibited.

## ACCESS

The City of Jacksonville Beach Police Department also observed that due to the proximity of the trail to the roadway, motor vehicle access could be a problem. This would likely occur in two ways:

1. Parking on the trails. Active education was thought to be the best approach, and if necessary, issuing warnings and citations.
2. Wrong way turns at driveway and intersections. Site specific design should alleviate most of the problem, though bollards can be installed if necessary.  
(See *Exhibit A*.)

## ENFORCEMENT

Based on discussions with the Police Department, enforcement should take a backseat to education as the trail corridors open. Doing so will give the public a chance to adapt to the new facilities.

EXHIBIT 'A'





Safety and security are a high priority for any public recreation infrastructure and should be a consideration on urban trail design through Jacksonville Beach. Good design can alleviate many safety issues and can mitigate security concerns as well.

## SECURITY

Good visibility is the most important component of trail security. Fortunately, the City of Jacksonville Beach has a built environment and infrastructure that lends itself to a secure environment. Good sight lines should be provided around constraints and trail users should have at least 100 feet of forward and rear visibility.

Dense foliage should be limited in trail areas and amenities. Tall fences that block visibility immediately adjacent to the trail also project negative image and should be avoided. Pedestrian scale lighting also helps to create a safer nighttime experience.

In remote areas, consideration should be given during design for access to emergency vehicles, primarily ambulances. The pavement, culverts, and, if applicable, bridges should be designed to accommodate emergency vehicles if no other immediately convenient route exists.

## TRAIL PATROLS

The City of Jacksonville Police Department indicated that an education campaign would be implemented and later, if necessary, and enforcement campaign. This would most likely accomplished through bicycle or foot patrols around the network.

Some communities have also endorsed volunteer efforts to accomplish much of the same goals. These volunteers are usually avid users and enthusiasts. They care about the use and etiquette of the trail and want to help promote a successful trail network. They wear basic, noticeable uniforms (e.g., brightly colored t-shirts) and provide guidance, technical assistance, and education throughout the trail network. While these volunteers do not provide rules or regulatory enforcement, their presence around the network does provide an element of security and promotes a safe user experience.



**WAYFINDING IS:** LITERALLY, FINDING YOUR WAY.  
ALL THE WAYS PEOPLE ORIENT THEMSELVES IN  
PHYSICAL SPACE AND NAVIGATE FROM PLACE TO  
PLACE.

- > **A holistic view from a visitor's perspective**
- > **Accomplished using a system of signage, banners, or other elements to direct people to destinations**
- > **A thoughtful, organized approach to direct people to destinations**
- > **An opportunity for community branding**



DOWNTOWN KISSIMMEE, FL



FREDERICK, MD



SANTA BARBARA, CA



WAUSAU, WI





# WAYFINDING PRINCIPLES

Our work in wayfinding includes brand development, creative concept design, placement planning, design intent drawings, construction drawings, bid preparation and assistance, and construction support. Six core principles guide the placement and design of the wayfinding system to create a clear wayfinding experience and achieve a more navigable transportation network:

- > **Connecting Places:** Facilitate travel between destinations and provide guidance to new destinations. Wayfinding should provide seamless connections to and from destinations.
- > **Promote Active Travel:** Encourage increased rates of active transportation by helping people to realize they can walk, bike, or roll to the places they want to go.
- > **Maintain Motion:** Be legible and visible for people on the move so that they can interpret wayfinding elements without stopping.
- > **Keep it Simple:** Present information simply, using clear fonts and simple designs, so that it can be understood quickly.
- > **Be Predictable:** Standardize the placement and design of signs so that patterns are established, and wayfinding elements become predictable.
- > **Be Inclusive:** Signage should be accessible and designed to be comprehensible by a wide range of users, including people of all ages, ability levels, and languages.

## SIGN TYPES & EXAMPLES



**GATEWAY**



**DESTINATION**



**DIRECTIONAL**



**TRAIL MARKER**



**BANNER**

# WAYFINDING RECOMMENDATIONS

## PHASING

- > Develop a phasing plan to prioritize signage, fabrication, and installation over the long term.
- > Focus on the most highly visible locations first.
- > Develop a long-term maintenance plan for the signage system.

## ACCESSIBILITY & SAFETY

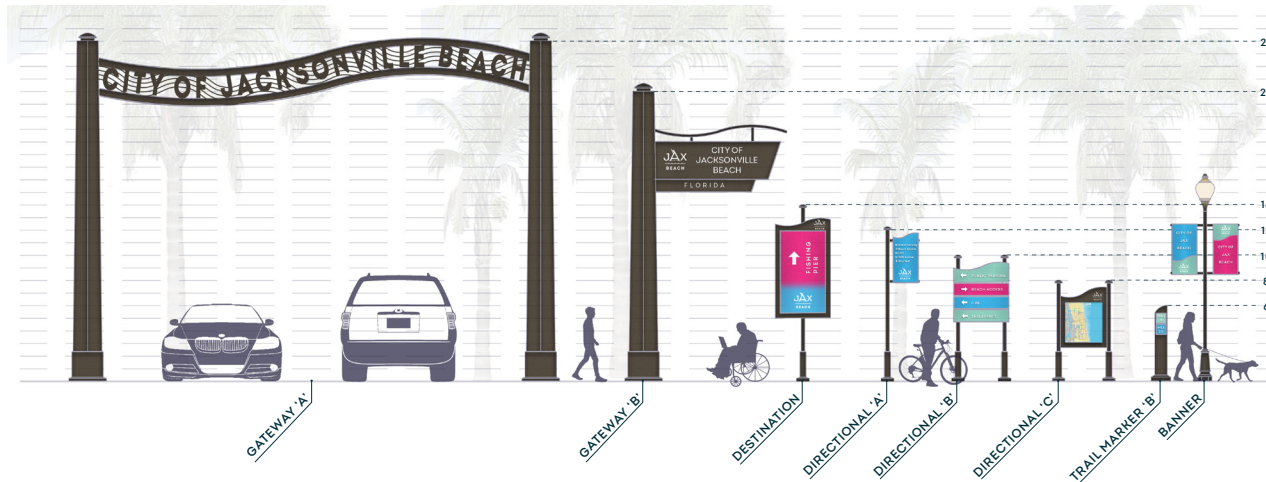
- > Comply with ADA standards to ensure users of all abilities can enjoy safely.
- > Locate signage while taking sight distance and pedestrian/vehicular/bicycle safety standards into consideration.
- > Adhere to the Manual on Uniform Traffic Control Devices (MUTCD) where required for roadway signage to ensure clear communication to drivers.

## VISIBILITY & FUNCTIONALITY

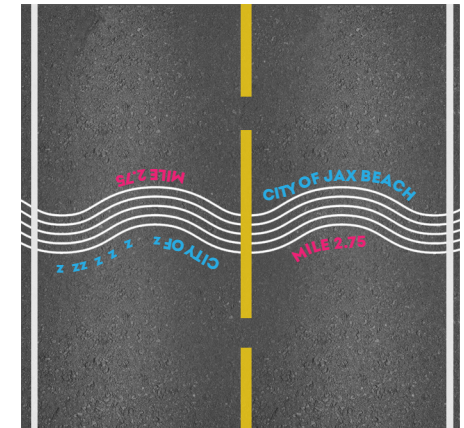
- > Assess whether existing trees may need to be removed or selectively pruned to ensure signage is visible from major roadways.
- > Coordinate locations of signs to ensure optimized visibility from major roadways.
- > Utilize removable panels on directional signage for increased flexibility.
- > Coordinate with FDOT to approve signage located within the FDOT ROW.
- > Highlight the signage on major highways with lighting to attract visitors from major corridors and help visitors to find their way at night.



# SIGNAGE DESIGN CONCEPTS



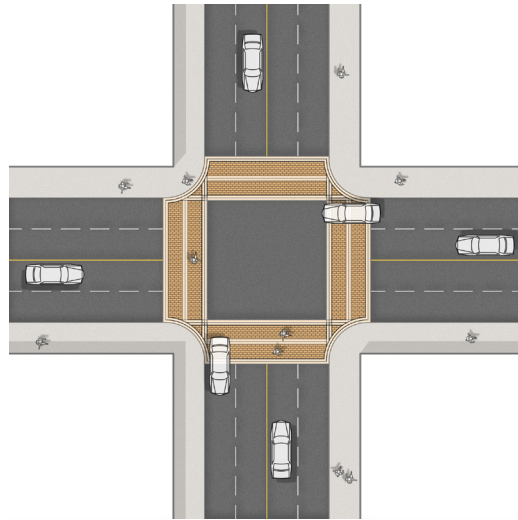
TRAIL MARKER 'A'



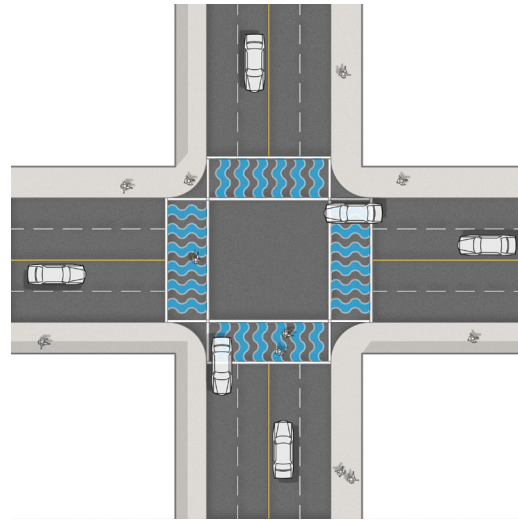
TRAIL MARKER 'B'

# INTERSECTION CROSSING TREATMENTS

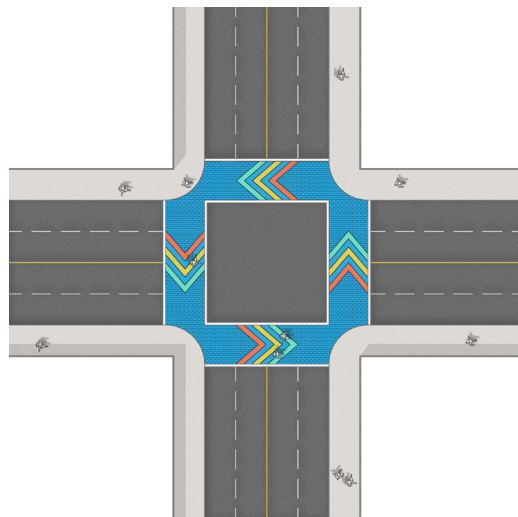
CONCEPT 'A'



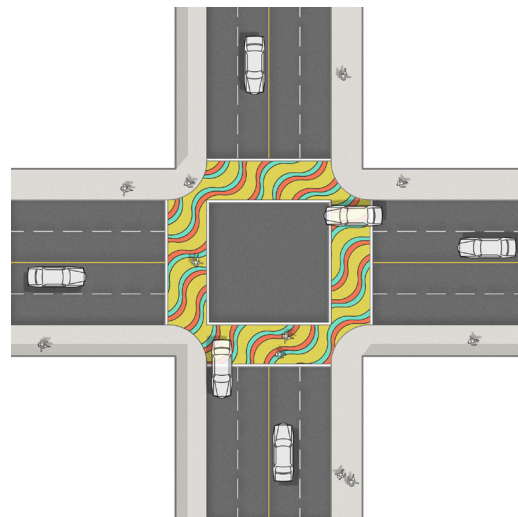
CONCEPT 'B'



CONCEPT 'C'



CONCEPT 'D'





# SITE FURNISHINGS 'TRADITIONAL'

## BENCH



PRODUCT: GBS  
MANUFACTURER: Victor Stanley



PRODUCT: Scarborough Bench  
MANUFACTURER: Landscape Forms

## TRASH & RECYCLE



PRODUCT: Plaza Collection  
MANUFACTURER: Tournesol



PRODUCT: Chase Park Litter  
MANUFACTURER: Landscape Forms

## TABLE & CHAIRS



PRODUCT: Knight Table  
MANUFACTURER: Forms + Surfaces



PRODUCT: Mingle Table & Chairs  
MANUFACTURER: Landscape Forms

## BIK RACK



PRODUCT: BRQS-101  
MANUFACTURER: Allegro



PRODUCT: BK-4  
MANUFACTURER: Victor Stanley

# SITE FURNISHINGS 'ECLECTIC'

## BENCH



PRODUCT: Wave Resin Bench  
MANUFACTURER: Allegro Classics



PRODUCT: Naguisa Bench  
MANUFACTURER: Landscape Forms

## TRASH & RECYCLE



PRODUCT: Lakeside  
MANUFACTURER: Landscape Forms



PRODUCT: Pacifica  
MANUFACTURER: Tournesol

## TABLE & CHAIRS



PRODUCT: Bravo Table & Chairs  
MANUFACTURER: Landscape Forms



PRODUCT: Harvest Table & Chairs  
MANUFACTURER: Landscape Forms

## BIK RACK



PRODUCT: Buzz Bike Bench  
MANUFACTURER: Tournesol



PRODUCT: Custom Bike Parking  
MANUFACTURER: Dero



# SITE FURNISHINGS ‘CONTEMPORARY’

## BENCH



**PRODUCT:** Glide Bench  
**MANUFACTURER:** Landscape Forms



**PRODUCT:** Knight Bench  
**MANUFACTURER:** Forms + Surfaces

## TRASH & RECYCLE



**PRODUCT:** Tonyo Waste Receptacle  
**MANUFACTURER:** Forms + Surfaces



**PRODUCT:** Cordia Waste Receptacle  
**MANUFACTURER:** Landscape Forms

## TABLE & CHAIRS



**PRODUCT:** Soleris  
**MANUFACTURER:** Forms + Surfaces



**PRODUCT:** Chipman Table & Chairs  
**MANUFACTURER:** Landscape Forms

## BIK RACK



**PRODUCT:** Bay City Bike Rack  
**MANUFACTURER:** Form + Surfaces



**PRODUCT:** Ring Bike Rack  
**MANUFACTURER:** Landscape Forms



## VOICE

Vibrant Beach Community

## VISION

to provide residents and visitors of all ages and abilities a high-quality pedestrian and bicycle network that serves as a safe and active form of recreation and transportation.

## TAGLINE

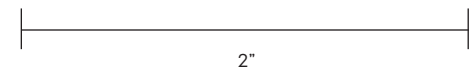
Ride. Roll. Stroll.

## BRAND IDENTITY

The Jacksonville Beach logo, typefaces, color palette, and usage requirements reflect and reinforce the voice of Jacksonville Beach. Following the brand identity guidelines helps define Jacksonville Beach for our community, visitors, and cater to the beach lifestyle. Used consistently, they will help individuals recognize, differentiate, and remember Jacksonville Beach.

These guidelines are designed to help present the **JAX BEACH LOGO** and image in a consistent way in all communication materials produced.

Jax Beach logo treatments are to be incorporated with wayfinding systems, signage, and branded spaces to create environments that communicate.



2"



## TYPEFACE

Intro Condensed

Stempel Schneidler

Universe Bold Condensed

SEAGATE AVE. TO PENMAN RD.

SEAGATE AVE. TO PENMAN RD.

SEAGATE AVE. TO PENMAN RD.

## COLOR PALLETTE

### PMS COLOR



CMYK  
RGB  
Hexadecimal

### PURE CYAN



c100 m0 y0 k0  
r0 g174 b239  
#00AEEF

### PMS 3375



c48 m0 y34 k3  
r127 g212 b178  
#7FC6B2

### PMS 213



c1 m98 y24 k0  
r234 g29 b118  
#EA1D76

### PMS 610



c13 m10 y81 k0  
r227 g212 b84  
#E3D454

### PMS 601



c7 m3 y55 k0  
r242 g232 b143  
#F2E88F

### PMS 158



c2 m66 y100 k0  
r239 g118 b34  
#EF7622

### PMS 5265



c82 m82 y36 k26  
r65 g57 b95  
#41395F

## TRAIL TAGLINE

**Ride. Roll. Stroll.**

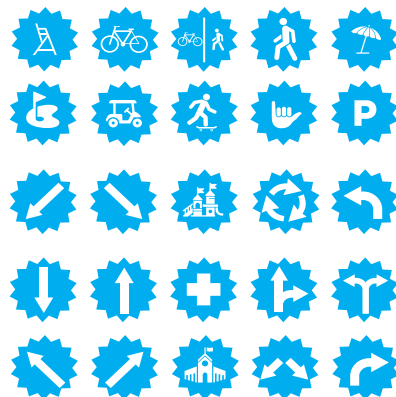
## JAX BEACH LOGO



## CONCEPTUAL TRAIL LOGO TREATMENT



## DIRECTIONAL ICONS



## SIGNAGE EXAMPLES









# FUNDING SOURCES

## CHAPTER 9

# GRANT FUNDING OPPORTUNITIES

| Grant Program                             | Agency              | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                  | Maximum Request                              | Program/Cost Share                               |
|-------------------------------------------|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------------------|
| <b>FEDERAL PROGRAMS</b>                   |                     |                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                              |                                                  |
| Federal Recreational Trails Program       | FWHA (through FDEP) | The federally funded Recreational Trails Program of the United States Department of Transportation's Federal Highway Administration (FHWA) provides competitive, matching-grant funds to renovate, develop, or maintain recreational motorized, nonmotorized, and mixed-use trails and trailside facilities. Trail planning is NOT an eligible expense for this Program (62S- 2.072(4)(e) F.A.C.)                                        | \$1,000,000                                  | The more match provided, the more points awarded |
| Land and Water Conservation Fund          | FDEP                | LWCF is a competitive program that provides grants for acquisition or development of land for public outdoor recreation use. Florida Department of Environmental Protection (DEP) administers the program on behalf of the U.S. Department of the Interior, National Park Service. Enclosed buildings and structures (except restrooms, restroom/concession buildings and bathhouses) are ineligible.                                    | Announced prior to the application period    | 50/50                                            |
| RAISE Grants                              | USDOT               | The Rebuilding American Infrastructure with Sustainability and Equity, or RAISE Discretionary Grant program, provides a unique opportunity for the DOT to invest in road, rail, transit and port projects.                                                                                                                                                                                                                               | \$5,000,000 minimum;<br>\$25,000,000 maximum | 80/20                                            |
| Federal Lands Access Program              | USDOT               | The goal of the Federal Lands Access Program is to improve transportation facilities that provide access to, are adjacent to, or are located within Federal lands. The program supplements State and local resources for public roads, multiuse trails, transit systems, and other transportation facilities, with an emphasis on the improvement of access to federally owned highuse recreation sites and Federal economic generators. | TBD                                          | 100/0 (per legislative action)                   |
| <b>STATE PROGRAMS</b>                     |                     |                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                              |                                                  |
| Florida Recreation Development Assistance | FDEP                | FRDAP is a competitive program that provides grants for acquisition or development of land for public outdoor recreation use or to construct or renovate recreational trails.                                                                                                                                                                                                                                                            | \$200,000                                    | 0%-50%, depending on award request               |
| Florida Local Agency Program              | FDOT                | The Local Agency Program or "LAP" provides sub-recipient towns, cities and counties funds to develop, design, and construct transportation facilities with federal funds. Eligible projects include safety projects; Re-surfacing projects; Bicycle and pedestrian facilities; Traffic calming projects; Bridges and tunnels; Infrastructure-based Intelligent Transportation System projects                                            | TBD                                          | TBD                                              |



| Grant Program                                                     | Agency | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Maximum Request                     | Program/Cost Share |
|-------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|--------------------|
| <b>STATE PROGRAMS</b>                                             |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                     |                    |
| Coastal Partnership Initiative                                    | FDEP   | The Coastal Partnership Initiative (CPI) grant program was developed to protect and effectively manage, at the local level, Florida's coastal resources. The program funds community projects such as habitat restoration, park planning and improvements, waterfront revitalization and improving communities' resiliency to coastal hazards.                                                                                                                                                                                                                                                                                                                                                                                                                                          | \$74,000                            | 50/50              |
| Transportation Alternatives Program                               | FDOT   | The TA Set-Aside program provides funding for programs and projects consistent with details described under 23 U.S.C. 133(h)(3), including 1) Transportation Alternatives, 2) Recreational Trails Program, 3) Safe Routes to School Program, and 4) planning, designing, or constructing boulevards and other roadways largely in the right-of-way of former Interstate System routes or other divided highways.                                                                                                                                                                                                                                                                                                                                                                        | Determined by FDOT District and MPO | 80/20              |
| Shared-Use Nonmotorized (SUN) Trail Network                       | FDOT   | The Shared-Use Nonmotorized (SUN) Trail program provides funding for the development of a statewide system of interconnected paved multi-use trails (SUN Trail network) for bicyclists and pedestrians, physically separated from the road. The SUN Trail network is a refined version of the Florida Nature trails and Trails System (FGTS) Plan's Land Trail Priority network. SUN Trail funded projects will improve the intermodal connectors by closing gaps in the statewide paved trail system to increase the reliability of Florida's transportation system.                                                                                                                                                                                                                   | Generally \$500,000                 | TBD                |
| Parks and Open Space, Florida Forever (Florida Communities Trust) | FDEP   | Florida Forever is the state's conservation and recreation lands acquisition program. This program provides funding to acquire land for parks, open space, nature trails. The grant program assists FDEP in helping communities meet the challenges of growth, supporting viable community development and protecting natural resources and open space.                                                                                                                                                                                                                                                                                                                                                                                                                                 | TBD                                 | TBD                |
| Nature trails and Trails Acquisition Program                      | FDEP   | According to Florida Statutes 259.105, The Florida Forever Act, OGT receives 1.5 percent of Florida Forever money to acquire nature trails and trails or nature trails and trail systems including, but not limited to, abandoned railroad rights-of-way and the Florida National Scenic Trail and for capital project expenditures.                                                                                                                                                                                                                                                                                                                                                                                                                                                    | TBD                                 | TBD                |
| Safe Routes to School                                             | FDOT   | Florida's Safe Routes to School (SRTS) program can help communities address their school transportation needs and encourage more students to walk or cycle to school. It strives to enable and encourage children in grades Kindergarten through High School, including those with disabilities, to walk and bike to school; to make walking and biking to school safer and more appealing, and to facilitate the planning, development, and implementation of projects that will improve safety and reduce traffic, fuel consumption, and improve air quality in the vicinity of schools. In addition to encouraging more children to walk or cycle to school, the program also seeks to address the safety needs of children already walking or biking in less than ideal conditions. | TBD                                 | TBD                |

## GRANT FUNDING OPPORTUNITIES

| Grant Program                      | Agency                  | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Maximum Request | Program/Cost Share |
|------------------------------------|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|--------------------|
| <b>STATE PROGRAMS, CONT.</b>       |                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                 |                    |
| Small Cities/CV CDBG               | FL DEO                  | The primary statutory objective of the program is to develop viable communities by providing decent housing and a suitable living environment and by expanding economic opportunities, principally for persons of low- and moderate-income. The Program awards subgrants in four categories: Economic Development; Neighborhood Revitalization; Housing Rehabilitation; and Commercial Revitalization.                                                                                                                                                                                          | \$5,000,000     | 100/0              |
| <b>PRIVATE PROGRAMS</b>            |                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                 |                    |
| Kodak American Nature trails Grant | The Conservation Fund   | A partnership between The Conservation Fund and photo giant Eastman-Kodak has launched the American Nature trails Eastman Kodak Awards (formerly the American Nature trails DuPont Awards). Grants can be used to cover planning, technical assistance, legal or other costs associated with nature trail projects. Grants may not be used for academic research, general institutional support, lobbying, or political activities.                                                                                                                                                             | \$2,500         | 100/0              |
| National Trails Fund               | American Hiking Society | A national grants program dedicated to building and protecting hiking trails. Created in response to the growing backlog of trail maintenance projects, the National Trails Fund has helped hundreds of grassroots organizations acquire the resources needed to protect America's cherished hiking trails. The National Trails Fund awards grants to organizations in order to improve hiking access or hiker safety on a particular trail.                                                                                                                                                    | \$3,000         | 100/0              |
| Trail Accelerator Grants           | IMBA                    | Trail Accelerator grants provide a jump-start to communities that have the interest and political support to develop trail systems but need assistance to get projects up and running. A Trail Accelerator grant offers awardees professional trail planning and consultation services to launch their trail development efforts, which can often leverage additional investment from local, regional, and national partners.                                                                                                                                                                   | \$30,000        | 50/50              |
| Community Grants                   | PeopleForBikes          | A national grants program dedicated to building and protecting hiking trails. Created in response to the growing backlog of trail maintenance projects, the National Trails Fund has helped hundreds of grassroots organizations acquire the resources needed to protect America's cherished hiking trails. The National Trails Fund awards grants to organizations in order to improve hiking access or hiker safety on a particular trail. <i>Note: PeopleForBikes is reviewing their Community Grant program and process. They do not have any open grant cycles scheduled at this time.</i> | \$3,000         | 100/0              |



| Grant Program                         | Agency                      | Summary                                                                                                                                                                                                                                                                                                                                                                                                                | Maximum Request    | Program/Cost Share |
|---------------------------------------|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--------------------|
| <b>PRIVATE PROGRAMS, CONT.</b>        |                             |                                                                                                                                                                                                                                                                                                                                                                                                                        |                    |                    |
| Doppelt Family Trail Development Fund | Rails-to-Trails Conservancy | A program to support organizations and local governments that are implementing projects to build and improve multi-use trails.                                                                                                                                                                                                                                                                                         | Generally \$30,000 | 100/0              |
| Conservation Alliance Grants          | Conservation Alliance       | The Conservation Alliance seeks to protect threatened wild places throughout North America for their habitat and recreational values. As a group of outdoor companies, they help protect the wild lands and waterways on which our customers recreate and wildlife thrives. To achieve that goal, they make grants to nonprofit organizations working to protect the special wild lands and waters in their backyards. | TBD                | TBD                |
|                                       |                             |                                                                                                                                                                                                                                                                                                                                                                                                                        |                    |                    |

# GRANT FUNDING STRATEGY

---

## 1) Be Ready!

The State and Federal government provide funding for various projects. Having a set of designs or even concepts at the ready opens the door to immediate project implementation when funding is available. These opportunities usually occur outside the normal process when other projects are completed, leaving funds available. At that point, the agency is often looking for an opportunity to move funds and complete another, usually smaller project. Communication is also a key part of creating these opportunities. This relationship building effort can put the City in a position of being called on to use available funding on short notice.

## 2) Focus on Language & Stretch

When identifying potential grants, the grant title and agency advertising the grant may not clearly relate to multi-use trails. Many trail grants come from agencies or programs not normally associated with trail funding. Many trails have been funded from economic development or tourism grants. Energy and sustainability grants may also present opportunities due to the fact urban trails, like the system City of Jacksonville Beach is planning, provide a “green” transportation alternative.

## 3) Community Involvement

Build a community effort around the trail system. Many communities have created a trails advisory or advocacy group, either through public sector efforts or through grass-roots involvement. These groups take on several roles. First, through focus and enthusiasm, they create a shared vision for the community. Second, a not-for-profit community organization can be a hub for community involvement and funding. Third, community-oriented groups often take on minor maintenance and security efforts for a trail system. This community involvement and enthusiasm tells grant providers that the funds will be appreciated and the project will be popular.

## 4) Project Knowledge and Education

Grant programs, including state and federal funding programs, focus on funding clear objectives and outcomes. Explaining the trails in terms of economic benefits, transportation opportunities, public health, and access to parks and nature all play a role in securing funding.





## COST ESTIMATES

Cost estimates provide an approximate budgetary number for financial planning purposes. Planning level cost estimates are different than design cost estimates. As a project goes through the design process, construction cost estimates are developed based on actual project elements and quantities. However, during planning or budgeting, the exact details of a project are not known since quantities have not been determined. For this reason, planning level cost estimates are calculated based on unit costs for similar types of projects.

The Florida Department of Transportation provides the Cost per Mile Models for Long Range Estimating for guidance in planning level estimating. Planning level estimates are also summarized in State University System and Florida State Parks documentation.

| SOURCE                                                         | COST ESTIMATE PER MILE                                            | NOTES                                                        |
|----------------------------------------------------------------|-------------------------------------------------------------------|--------------------------------------------------------------|
| 10 to 14 foot Multi-Use Trail                                  | PD&E = \$75,000<br>Design = \$125,000<br>Construction = \$650,000 | FDOT/LAP Funded                                              |
| 10 to 14 foot Multi-Use Trail                                  | Design = \$40,000<br>Construction = \$290,000                     | Florida Fixed Capital Outlay (FCO) Funded                    |
| 12-foot Multi-Use Path, Two Directional                        | Construction = \$344,769                                          | State of Florida Cost Per Mile Model - Long Range Estimating |
| 12-foot Shared Use Rails to Trails                             | Construction = \$324,467                                          | State of Florida Cost Per Mile Model - Long Range Estimating |
| Sidewalk 4" Thick w/Driveways, Adjusted from 5 feet to 12 feet | Construction = \$352,713                                          | State of Florida Cost Per Mile Model - Long Range Estimating |



## CITY OF JACKSONVILLE BEACH PROJECT COST ESTIMATE BY PHASE

DESIGN = \$50,000 PER MILE

CONSTRUCTION = \$350,000 PER MILE

DECREASE CONSTRUCTION COSTS BY:  
7% FOR 10 FOOT TRAIL  
14% FOR 8 FOOT TRAIL

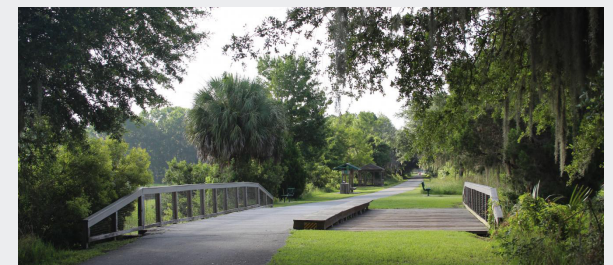
Most of the Jacksonville Beach trail system will be constructed at grade. In some cases, it may be necessary to bridge areas or use a boardwalk to cross drainage systems or waterways. These structures vary significantly due to the location of the structure, design requirements, or environmental requirements and mitigation specific to the site. Cost estimates can range anywhere from \$40 per square foot for a short simple boardwalk to \$200 per square foot for a concrete structure of considerable length.



ST. MARKS HISTORIC RAILROAD TRAIL, TALLAHASSEE, FL



WITHLACOOCHEE STATE TRAIL, FL



WITHLACOOCHEE STATE TRAIL, FL





WHAT IS THE BEST USE OF PARKS?  
JAX, FLA

Museum Take

Museum Take

RESIDENTIAL

HOW DO WE KEEP SEPARATE?

NO DAVE BLOCK

CONCEPT W/ STREET RETHINK ACCESS





# IMPLEMENTATION & RECOMMENDATIONS

## CHAPTER 10

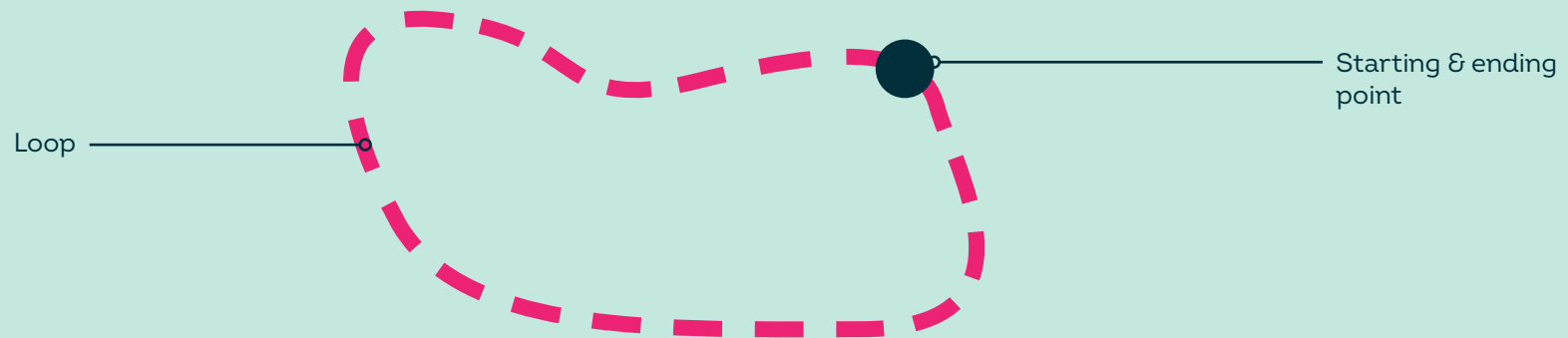
## WHAT'S IN A NAME?

---

The naming of trails routes may seem unnecessarily nuanced, but descriptive naming can help users with routing and guidance while on the network. Coupled with the City of Jacksonville Beach's gridded street system, descriptively named trails can provide both location and direction information for trail users.

### **LOOPS**

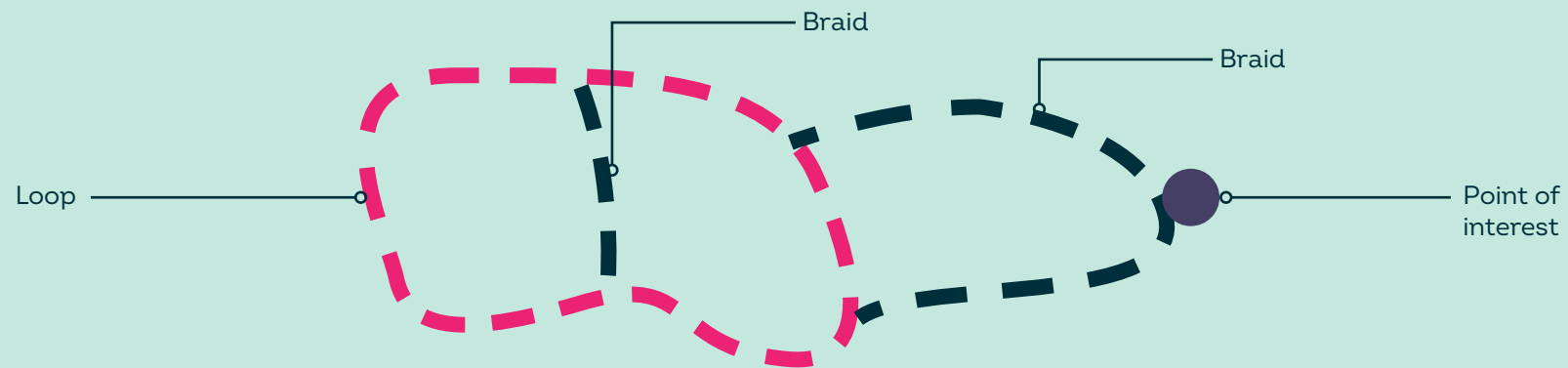
Loops take the user in a circle, a loop around the community. Starting at one location and heading in one direction on the loop, the user will eventually find their back to the starting point.





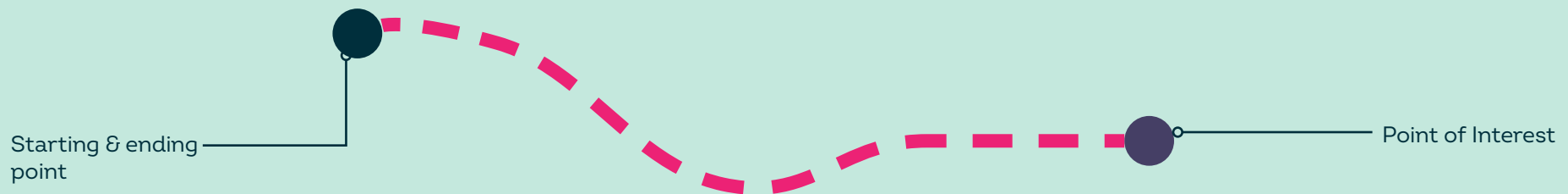
## BRAIDS

Braids take the trail user off the loop and take them to a trail that may return them to the original loop or an entirely different trail. The route may include a point of interest, such as a park, or it may be a short cut.

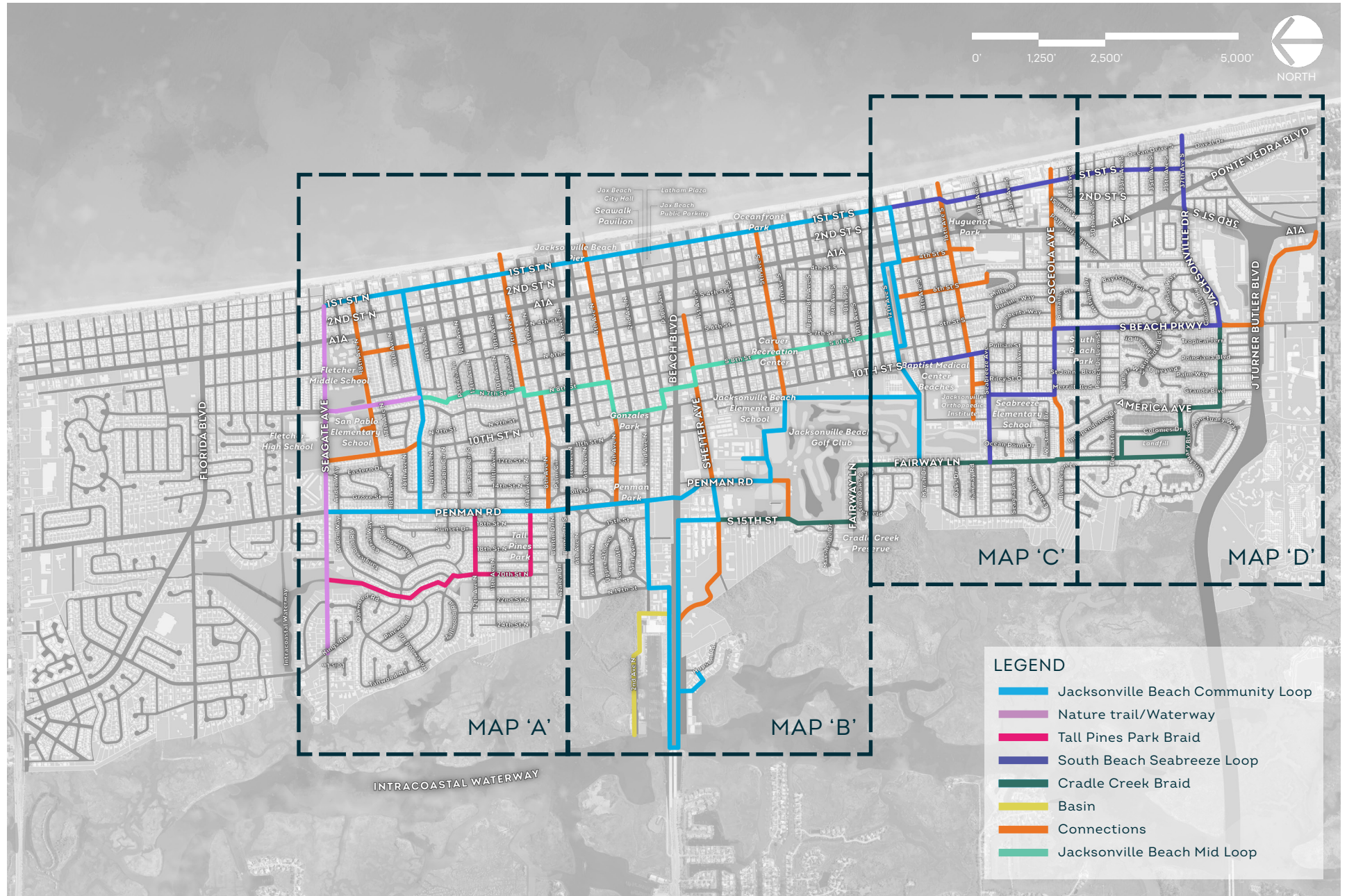


## CONNECTORS

Connector trails take the user someplace—to a shopping district, a park, the beach, or other places. The route is direct to the destination with a terminal point. The return trip retraces the step along the same route, but in the opposite direction.



# IMPLEMENTATION MAP





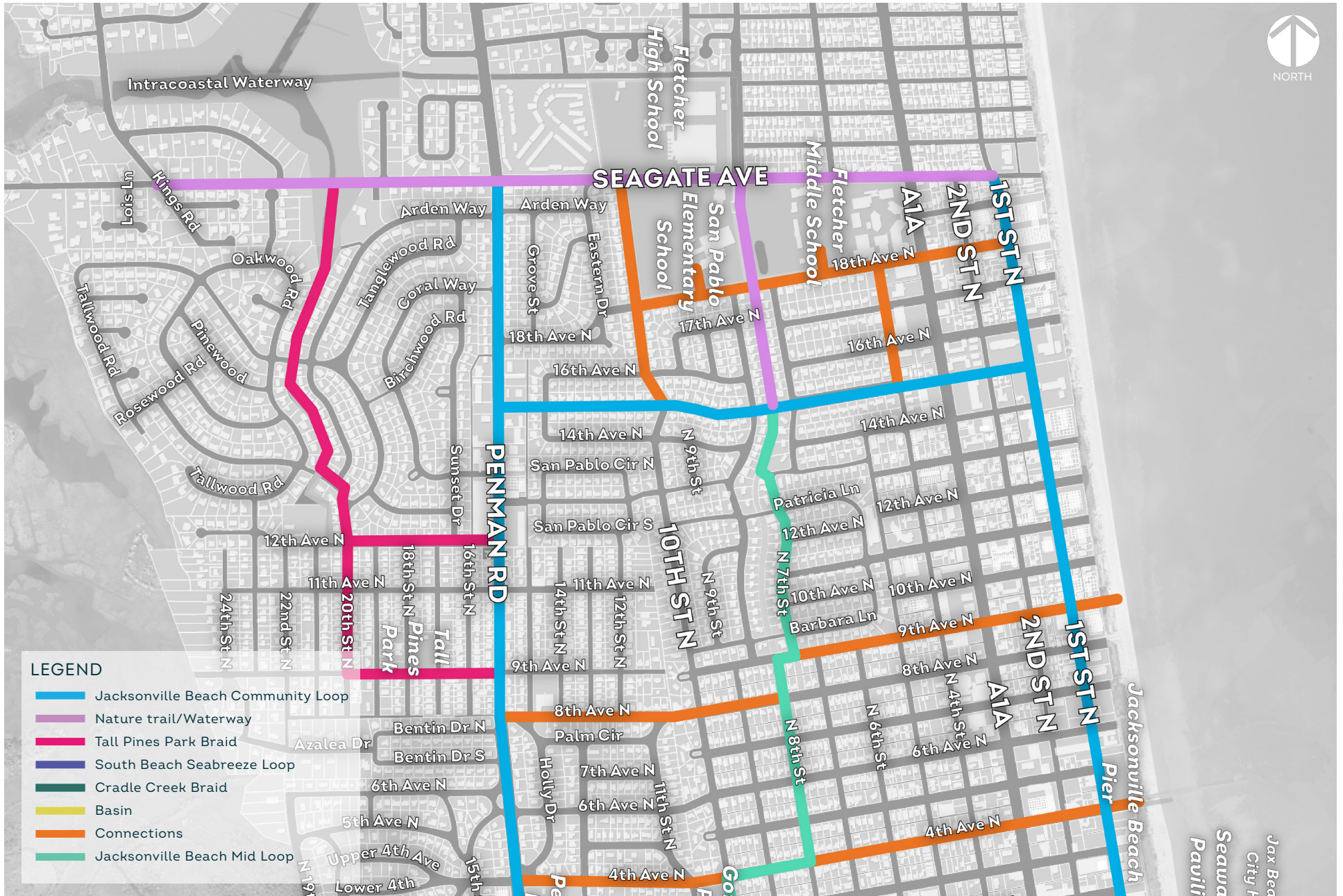
# DESTINATION MATRIX

## LEGEND

- DESTINATION IS ON THE TRAIL/ROUTE
- DESTINATION IS WITHIN ~5-MINUTE WALK OF THE TRAIL/ROUTE

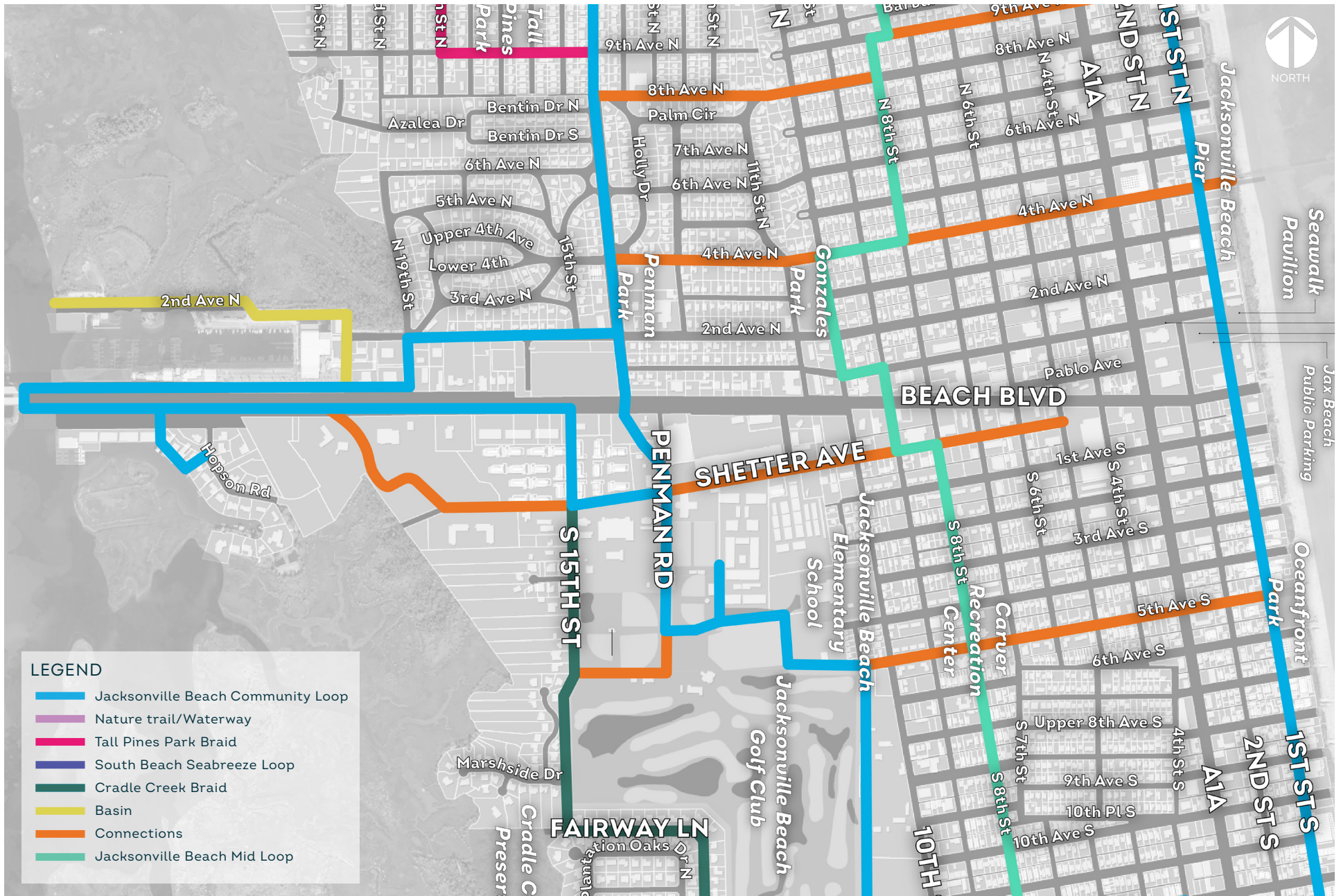
|                                        |                                        | JACKSONVILLE BEACH<br>COMMUNITY LOOP | JACKSONVILLE<br>COMMUNITY MID LOOP<br>BRAID | SOUTH BEACH LOOP | CRADLE CREEK<br>BRAID | TALL PINE PARK<br>BRAID | SANDRA DRIVE<br>CONNECTOR | MIDDLE BEACH<br>COMMONS<br>CONNECTOR | OSCEOLA BEACH<br>CONNECTOR | OCEANFRONT PARK<br>CONNECTOR | HUGUENOT PARK<br>CONNECTOR | PIER CONNECTOR | SAN PABLO FLETCHER<br>CONNECTOR | SEAGATE WATERWAY<br>CONNECTOR | BEACH BOULEVARD<br>BASIN CONNECTOR | WINGATE BASEBALL<br>PARK CONNECTOR | ST. JOHN'S<br>CONNECTOR | BAPTIST<br>MEDICAL CENTER<br>CONNECTOR | NORTH BOARDWALK<br>CONNECTOR |
|----------------------------------------|----------------------------------------|--------------------------------------|---------------------------------------------|------------------|-----------------------|-------------------------|---------------------------|--------------------------------------|----------------------------|------------------------------|----------------------------|----------------|---------------------------------|-------------------------------|------------------------------------|------------------------------------|-------------------------|----------------------------------------|------------------------------|
| <b>PARKS</b>                           |                                        |                                      |                                             |                  |                       |                         |                           |                                      |                            |                              |                            |                |                                 |                               |                                    |                                    |                         |                                        |                              |
|                                        | LANDFILL                               |                                      |                                             |                  | ●                     |                         |                           |                                      | ●                          |                              |                            |                |                                 |                               |                                    |                                    |                         |                                        |                              |
|                                        | SOUTH BEACH PARK                       |                                      |                                             | ●                |                       |                         |                           |                                      | ●                          |                              |                            |                |                                 |                               |                                    |                                    |                         |                                        |                              |
|                                        | HUGUENOT PARK                          | ■                                    |                                             | ●                |                       |                         |                           |                                      |                            |                              | ●                          |                |                                 |                               |                                    |                                    |                         |                                        |                              |
|                                        | CRADLE CREEK PRESERVE                  |                                      |                                             |                  | ●                     |                         |                           |                                      |                            |                              |                            |                |                                 |                               |                                    |                                    |                         |                                        |                              |
|                                        | JACKSONVILLE BEACH GOLF CLUB           | ●                                    |                                             |                  |                       |                         |                           |                                      |                            | ■                            |                            |                |                                 |                               |                                    | ■                                  |                         |                                        |                              |
|                                        | WINGATE BALL PARK                      | ●                                    |                                             |                  | ■                     |                         |                           |                                      |                            |                              |                            |                |                                 |                               |                                    | ●                                  |                         |                                        |                              |
|                                        | PENMAN PARK                            | ●                                    |                                             |                  |                       |                         |                           |                                      |                            |                              |                            | ■              |                                 |                               |                                    |                                    |                         |                                        |                              |
|                                        | GONZALES PARK                          |                                      | ●                                           |                  |                       |                         |                           |                                      |                            |                              |                            | ■              |                                 |                               |                                    |                                    |                         |                                        | ●                            |
|                                        | TALL PINE PARK                         | ■                                    |                                             |                  |                       | ●                       |                           |                                      |                            |                              |                            |                |                                 |                               |                                    |                                    |                         |                                        | ■                            |
|                                        | WATERWAY TO INTERCOASTAL - SEAGATE     | ■                                    |                                             |                  |                       | ●                       |                           |                                      |                            |                              |                            |                |                                 | ●                             |                                    |                                    |                         |                                        |                              |
|                                        | BEACH BLVD. TO INTERCOASTAL WATERFRONT | ●                                    |                                             |                  |                       | ●                       |                           |                                      |                            |                              |                            |                |                                 |                               | ●                                  |                                    |                         |                                        |                              |
| <b>BEACH ACCESS</b>                    |                                        |                                      |                                             |                  |                       |                         |                           |                                      |                            |                              |                            |                |                                 |                               |                                    |                                    |                         |                                        |                              |
|                                        | OSCEOLA ACCESS                         | ●                                    |                                             |                  |                       |                         |                           |                                      | ●                          |                              |                            |                |                                 |                               |                                    |                                    |                         |                                        |                              |
|                                        | OCEANFRONT PARK                        | ●                                    |                                             |                  |                       |                         |                           |                                      |                            | ●                            |                            |                |                                 |                               |                                    |                                    |                         |                                        |                              |
|                                        | SEAWALK PAVILION                       | ●                                    |                                             |                  |                       |                         |                           |                                      |                            |                              |                            |                |                                 |                               |                                    |                                    |                         |                                        |                              |
|                                        | JACKSONVILLE BEACH/PIER                | ●                                    |                                             |                  |                       |                         |                           |                                      |                            |                              |                            | ●              |                                 |                               |                                    |                                    |                         |                                        |                              |
| <b>SCHOOLS &amp; COMMUNITY CENTERS</b> |                                        |                                      |                                             |                  |                       |                         |                           |                                      |                            |                              |                            |                |                                 |                               |                                    |                                    |                         |                                        |                              |
|                                        | SEABREEZE ELEMENTARY                   | ■                                    |                                             | ●                | ■                     |                         |                           |                                      |                            |                              |                            |                |                                 |                               |                                    |                                    |                         |                                        |                              |
|                                        | BAPTIST MEDICAL CENTER                 | ●                                    | ■                                           | ●                | ■                     |                         |                           |                                      |                            |                              |                            |                |                                 |                               |                                    |                                    |                         | ●                                      |                              |
|                                        | JACKSONVILLE BEACH ELEMENTARY          | ●                                    | ■                                           |                  |                       |                         |                           |                                      |                            | ●                            |                            |                |                                 |                               |                                    |                                    |                         |                                        |                              |
|                                        | SAN PABLO ELEMENTARY                   | ■                                    | ■                                           |                  |                       |                         |                           |                                      |                            |                              |                            |                | ●                               |                               |                                    |                                    |                         |                                        |                              |
|                                        | FLETCHER MIDDLE SCHOOL                 | ■                                    | ■                                           |                  |                       |                         |                           |                                      |                            |                              |                            |                | ●                               |                               |                                    |                                    |                         |                                        |                              |
|                                        | FLETCHER HIGH SCHOOL                   | ■                                    | ■                                           |                  |                       |                         |                           |                                      |                            |                              |                            |                | ●                               |                               |                                    |                                    |                         |                                        |                              |
|                                        | CARVER COMMUNITY CENTER                |                                      | ●                                           |                  |                       |                         |                           |                                      |                            | ■                            |                            |                | ●                               |                               |                                    |                                    |                         |                                        |                              |
| <b>COMMERCIAL &amp; SHOPPING</b>       |                                        |                                      |                                             |                  |                       |                         |                           |                                      |                            |                              |                            |                |                                 |                               |                                    |                                    |                         |                                        |                              |
|                                        | SOUTH BEACH REGIONAL                   |                                      |                                             | ●                | ■                     |                         |                           |                                      |                            |                              |                            |                |                                 |                               |                                    |                                    |                         |                                        |                              |
|                                        | TARGET/PUBLIX/WORLD MARKET             |                                      |                                             | ■                |                       |                         |                           |                                      |                            |                              |                            |                |                                 |                               |                                    |                                    | ●                       |                                        |                              |
|                                        | WHOLE FOODS/MARSHALLS                  |                                      |                                             | ■                |                       |                         | ■                         |                                      |                            |                              |                            |                |                                 |                               |                                    |                                    |                         |                                        |                              |
|                                        | MIDDLE BEACH COMMONS                   |                                      | ■                                           |                  |                       |                         |                           | ●                                    |                            |                              |                            |                |                                 |                               |                                    |                                    |                         |                                        |                              |
|                                        | BEACH PLAZA                            | ■                                    | ■                                           |                  |                       |                         |                           | ●                                    |                            |                              |                            |                |                                 |                               |                                    |                                    |                         |                                        |                              |
|                                        | PENMAN COMMERCIAL AREA                 | ●                                    |                                             |                  |                       | ■                       |                           |                                      |                            |                              |                            |                |                                 |                               |                                    |                                    |                         |                                        |                              |
| <b>ADJACENT MUNICIPALITIES</b>         |                                        |                                      |                                             |                  |                       |                         |                           |                                      |                            |                              |                            |                |                                 |                               |                                    |                                    |                         |                                        |                              |
|                                        | CITY OF NEPTUNE BEACH                  | ●                                    | ■                                           |                  |                       | ●                       |                           |                                      |                            |                              |                            |                |                                 |                               |                                    |                                    |                         |                                        |                              |
|                                        | ST. JOHNS COUNTY                       |                                      |                                             |                  |                       |                         |                           |                                      |                            |                              |                            |                |                                 |                               |                                    |                                    | ●                       |                                        |                              |

# IMPLEMENTATION MAP | MAP 'A'



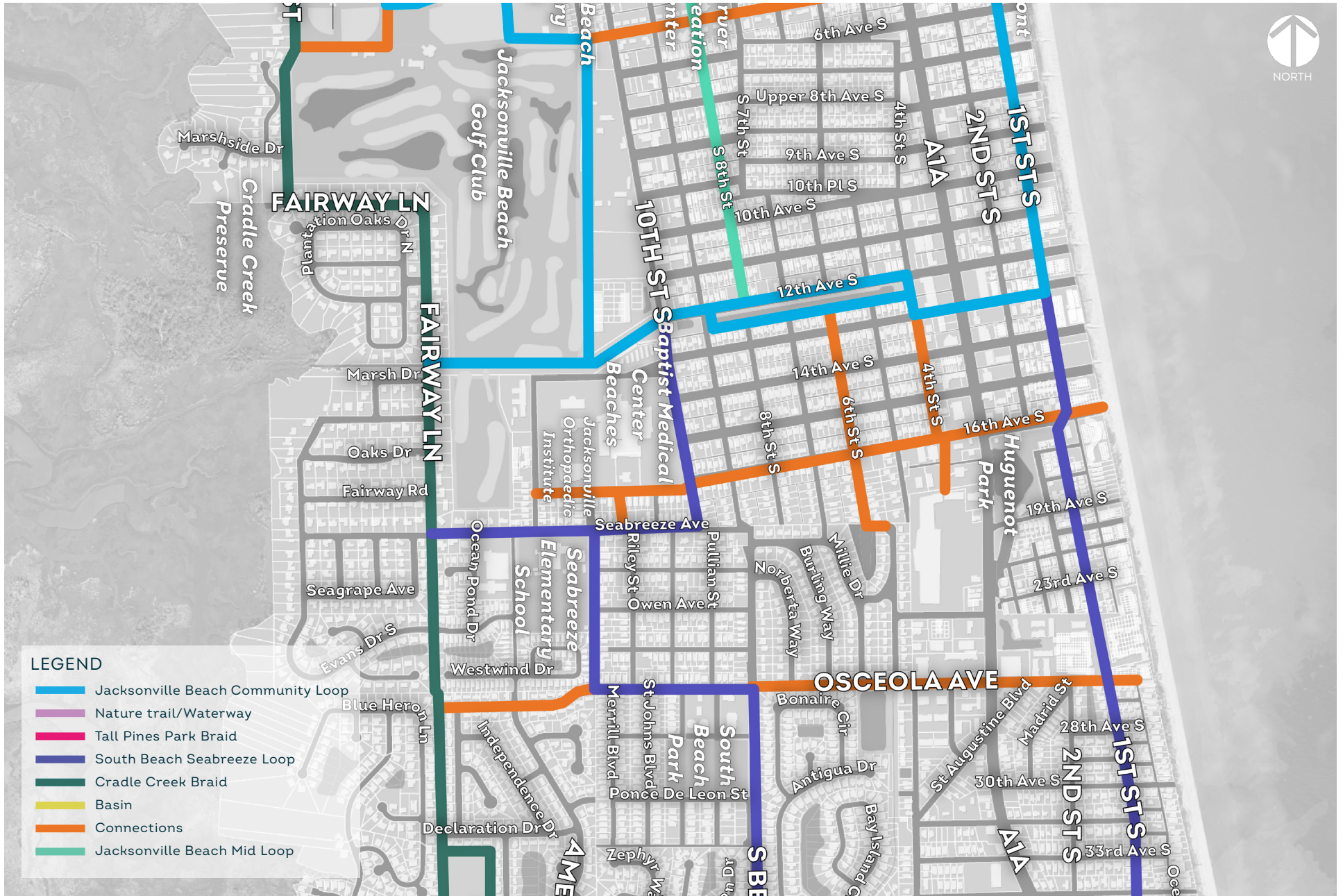


## IMPLEMENTATION MAP | MAP 'B'



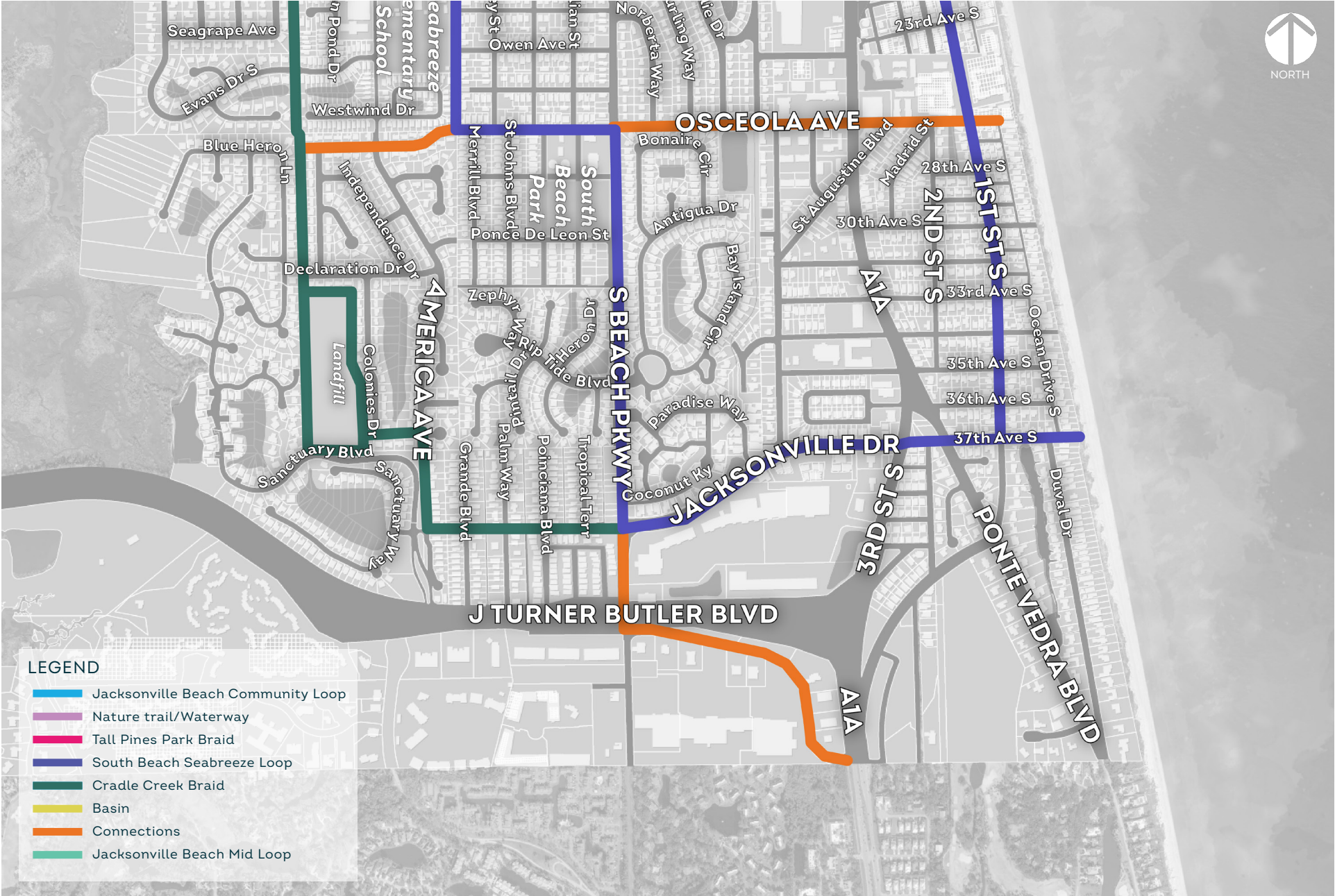


## IMPLEMENTATION MAP | MAP 'C'





IMPLEMENTATION MAP | **MAP 'D'**



# CAPITAL IMPROVEMENT PROGRAM PRIORITIZATION

During the network identification process, access and proximity to other destinations became more evident. Logical routes to include various point of interest became apparent. Where the primary network did not provide direct access to a key destination, a secondary trail network was defined to make a connection and achieve the goal of connectivity. Access routes would be constructed consistent with trail design elements and standards but may also be as simple as a sidewalk that accommodates an anticipated lower volume of users in a particular area.

During a prioritization exercise, focus was placed on defining a three-part network of primary and secondary urban trails as well as access routes to reach the proposed urban trail segments (whether primary or secondary). This information was used to build a priority system, consisting of the following summarized tiered characteristics:

## CHARACTERISTICS OF PRIMARY AND SECONDARY TRAILS

| PRIMARY NETWORK                                                                                                                                                                                                                                       | SECONDARY NETWORK                                                                                                                                                                                                                                         | LOCAL NETWORK                                                                                                                                                                                                                                          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>• Nature trail in nature.</li><li>• Separated from the roadway, ensuring a safe travel environment.</li><li>• Loop route, allowing for a route that does not require doubling back on the same trail.</li></ul> | <ul style="list-style-type: none"><li>• Separated, but closer to the roadway edge, similar to the typical sidewalk location.</li><li>• One-way route to a destination or point of interest.</li><li>• Urban in setting, but shaded for comfort.</li></ul> | <ul style="list-style-type: none"><li>• Provides a safe, off-street route from connection residences to the Primary or Secondary Network trail.</li><li>• Lowest volume use and therefore could be as narrow as the minimum width of 6 feet.</li></ul> |

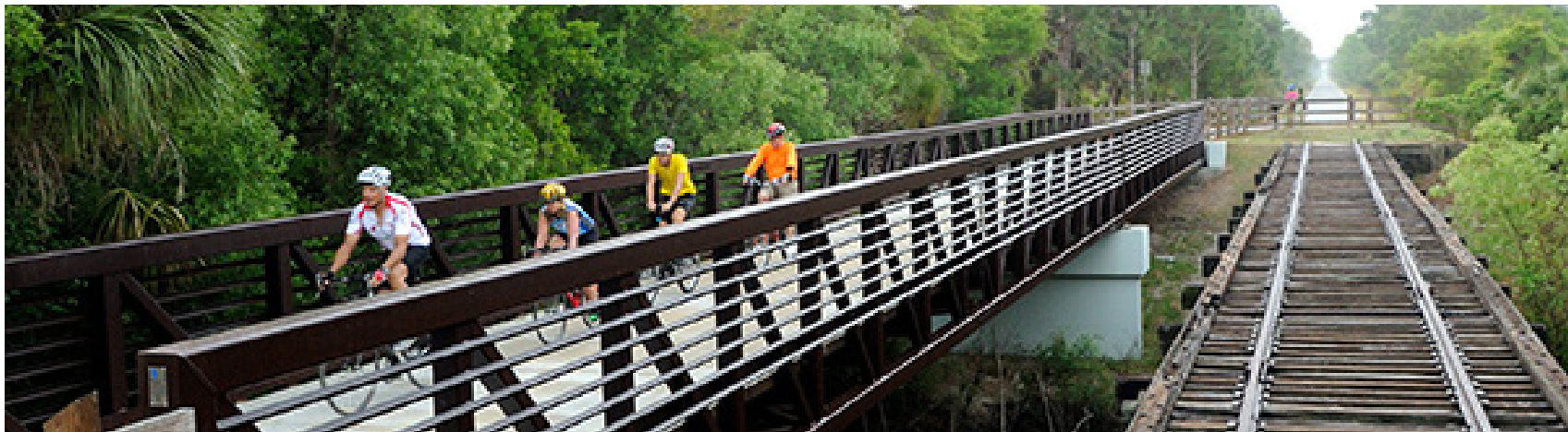


Using the input received at public meetings, the project team identified Jacksonville Beach's perception of an urban trail network, the purposes the network should serve, and the design elements that constituted a good network. The direction from the City of Jacksonville Beach was clear—an urban trail network must include the following attributes:

> **A HIGH-QUALITY BICYCLE/PEDESTRIAN/MULTI-MODAL EXPERIENCE FOR RESIDENTS AND VISITORS ALIKE.**

> **DESIGN THAT ACCOMMODATES ALL USERS, ALL AGES, AND ABILITIES.**

> **SAFE AND ACTIVE FORMS OF TRANSPORTATION.**



# TRAIL MASTER PLAN RECOMMENDATIONS

|                           |        |                                                                                                                                                                                                                                                                                                                                                                                                                          |
|---------------------------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>FIRST<br/>100 DAYS</b> | Policy | Adopt the trail master plan map as the official map, with the trail type designations and expectations of the community.                                                                                                                                                                                                                                                                                                 |
| <b>FIRST<br/>100 DAYS</b> | Design | <p>"Prioritize phasing of the network to segments adjacent to key destinations.</p> <p>Create a loop system that would increase the user experience beyond just an "out and back" route."</p>                                                                                                                                                                                                                            |
| <b>FIRST YEAR</b>         | Policy | Implement regulations that define the compatibility measure for properties abutting an urban trail.                                                                                                                                                                                                                                                                                                                      |
| <b>FIRST YEAR</b>         | Policy | Implement landscaping and hardscaping standards for property fronting the trails.                                                                                                                                                                                                                                                                                                                                        |
| <b>FIRST YEAR</b>         | Policy | <p>"Adopt regulations and standards defining the expectations of development or redevelopment abutting a trail or planned trail with regards to trail connections.</p> <p>Provide intuitive and seamless connections with private property to mitigate risk management and liability. "</p>                                                                                                                              |
| <b>FIRST YEAR</b>         | Policy | <p>"Adopt regulations for development or redevelopment that addresses the need for properties adjacent to the trail or planned trail to contribute to the implementation of the urban trail master plan.</p> <p>Implement development and redevelopment standards that set required connections to the trail system (when property is adjacent to the trail) or to the adjacent bicycle/pedestrian infrastructure. "</p> |
| <b>FIRST YEAR</b>         | Policy | Implement a legislative or administrative approval process for waiver requests for design standards and requirements.                                                                                                                                                                                                                                                                                                    |
| <b>FIRST YEAR</b>         | Policy | Put in place a provision within the land development code or comprehensive plan requiring review and/or update of the official map at defined intervals.                                                                                                                                                                                                                                                                 |



## TRAIL MASTER PLAN RECOMMENDATIONS WITH NOTES

| PHASE          | CATEGORY | ACTION                                                                                                                                                                                                                                                                                                                                                              | DETAILS                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|----------------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FIRST 100 DAYS | POLICY   | Adopt the trail master plan map as the official map, with the trail type designations and expectations of the community.                                                                                                                                                                                                                                            | The adoption of the map as identified and necessary infrastructure and the process of programming that infrastructure opens additional possibilities for implementation and funding of the trail plan.                                                                                                                                                                                                                                                                          |
| FIRST 100 DAYS | DESIGN   | "Prioritize phasing of the network to segments adjacent to key destinations. Create a loop system that would increase the user experience beyond just an "out and back" route."                                                                                                                                                                                     | The system was planned with the goal of connecting the origins and destinations in the network. The first priority routes should implement a core route to which other routes can be connected. These segments should be programmed in the Capital Improvement Program in order to                                                                                                                                                                                              |
| FIRST YEAR     | POLICY   | Implement regulations that define the compatibility measure for properties abutting an urban trail.                                                                                                                                                                                                                                                                 | Regulations for development and redevelopment often dictate orientation and requirements with respect to right-of-way and infrastructure within that right-of-way. This may include setbacks, building frontage, glazing, and other architectural standards.                                                                                                                                                                                                                    |
| FIRST YEAR     | POLICY   | Implement landscaping and hardscaping standards for property fronting the trails.                                                                                                                                                                                                                                                                                   | To improve the urban trail experience or to buffer the trail from the adjacent property, enhanced landscaping may be installed or required. Regulations could be adopted to define safe, appropriate and compatible landscape and hardscape.                                                                                                                                                                                                                                    |
| FIRST YEAR     | POLICY   | "Adopt regulations and standards defining the expectations of development or redevelopment abutting a trail or planned trail with regards to trail connections.<br><br>Provide intuitive and seamless connections with private property to mitigate risk management and liability."                                                                                 | "For properties adjacent to the trail network, connection to the trail network should be provided by any development or redevelopment (with the exception of single family residence construction). The trail connection should meet at least minimum standards for secondary trails, including design standards for surface type, and trail supportive amenities."                                                                                                             |
| FIRST YEAR     | POLICY   | "Adopt regulations for development or redevelopment that addresses the need for properties adjacent to the trail or planned trail to contribute to the implementation of the urban trail master plan.<br><br>Implement development and redevelopment standards that set required connections to the trail system (when property is adjacent to the trail) or to the | New development/re-development adjacent to planned trail segments could be required contribute to the trail or build the trail as necessary infrastructure, similar to roadway improvements and sidewalks. This contribution could occur through multi-modal fees, construction of infrastructure, or dedication of right-of-way.                                                                                                                                               |
| FIRST YEAR     | POLICY   | Implement a legislative or administrative approval process for waiver requests for design standards and requirements.                                                                                                                                                                                                                                               | Standards for trail design are broken into two categories (primary and secondary), each with a minimum width requirement. However, there may be some areas where constraints require a narrower trail for a small segment or at a location. A waiver process should be created to address this situation with qualifiers and requirements for approval of such a request. Without the qualifiers, it is possible something less than the minimum standard will become the norm. |
| FIRST YEAR     | POLICY   | Put in place a provision within the land development code or comprehensive plan requiring review and/or update of the official map at defined intervals.                                                                                                                                                                                                            | As with any infrastructure plan, regular update of plan and related code is necessary to maintain current requirements and address the evolution of the infrastructure.                                                                                                                                                                                                                                                                                                         |

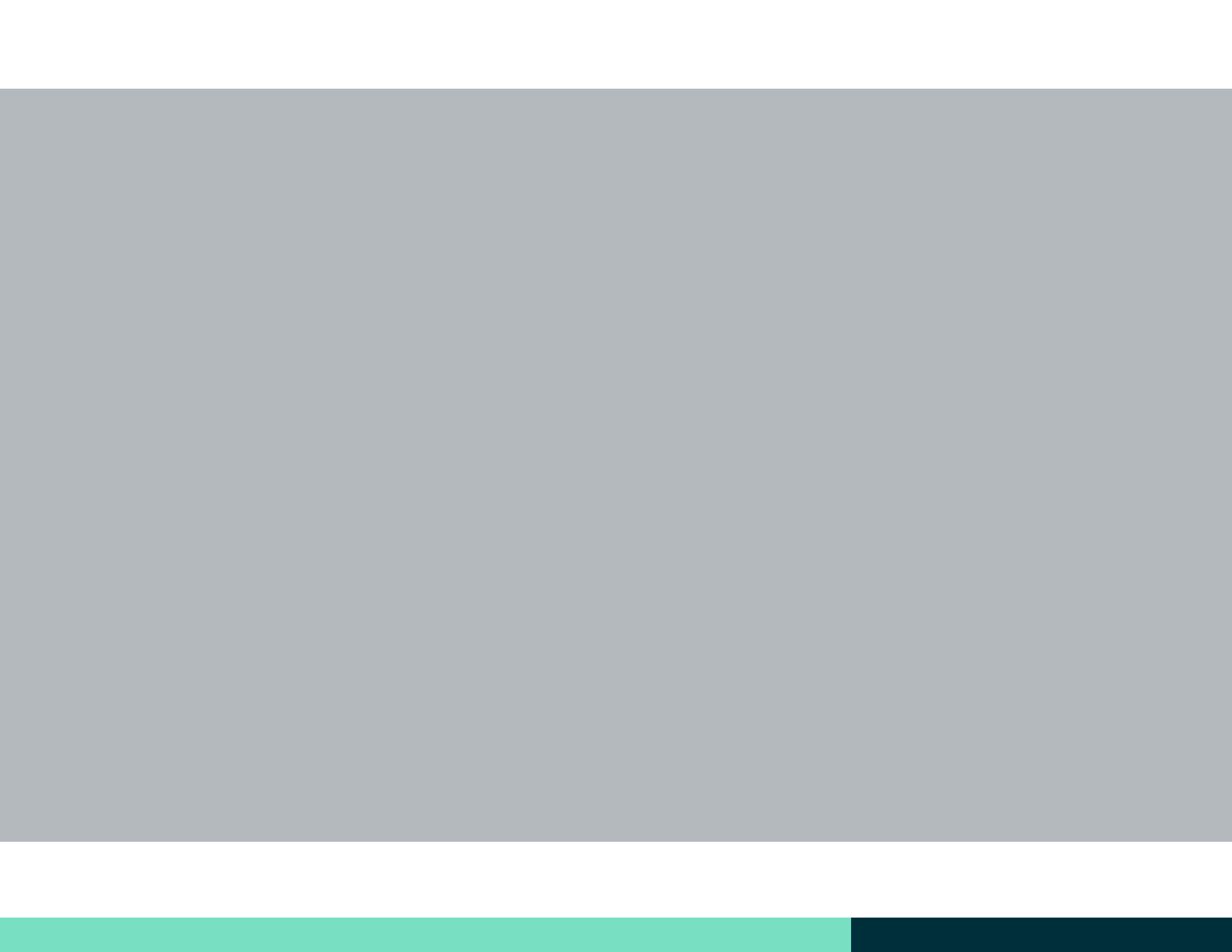
## TRAIL MASTER PLAN RECOMMENDATIONS WITH NOTES (CONTINUED )

| PHASE      | CATEGORY               | ACTION                                                                                                                                                                   | DETAILS                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------------|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FIRST YEAR | POLICY                 | Require city-wide bicycle parking requirements for development.                                                                                                          | Include requirements in the City's Land Development Code that require multifamily, commercial, and mixed-use development projects to provide parking and locking facilities for bicycles. This would enhance the use of trail for transportations by ensuring users can park at the destination.                                                                                                                                                              |
| FIRST YEAR | POLICY                 | Hold community meetings to identify and determine the preferred design cross section for the commercial section of 1st Street, between 7th Avenue N and Beach Boulevard. | 1st Street has the possibility of becoming a very popular part of City of Jacksonville Beach's urban trail system as well as part of the East Coast Greenway Trail. Coupled with the beach-side pedestrian only boardwalk, the two parallel routes can create a short pedestrian loop in the downtown area, making it a key destination. Additional public involvement in the commercial area to determine the best, most desirable approach, is recommended. |
| FIRST YEAR | DESIGN                 | Adopt a uniform standard for trail intersection with other transportation facilities.                                                                                    | Examine trail intersections with streets, driveways, and other trails and follow the recommended State and National guides and standards to provide a predictable environment and safe experience. A uniform standard will also create an intuitive network. Provide clear signage, along with pavement marking and design to alleviate safety concerns at intersections.                                                                                     |
| FIRST YEAR | DESIGN                 | Adopt standard trail widths.                                                                                                                                             | Highest volume trails, referred to as primary trails, should generally have a 10 to 12 foot width while secondary trails should have a 8 to 12 foot width.                                                                                                                                                                                                                                                                                                    |
| FIRST YEAR | DESIGN                 | Ensure a clear zone of two (2) feet on each side to provide a safe transition area.                                                                                      | Clear zones enhance user experience and increase safety. Small recovery areas should be considered through the network and, at least, along trail with the highest anticipated use.                                                                                                                                                                                                                                                                           |
| FIRST YEAR | SAFETY & ACCESSIBILITY | Adhere to the most current American Disabilities Act (ADA) requirements for curb ramps and overall path geometry.                                                        | While this will always be a requirement through Federal legislation, local adoption provides added emphasis for development of the trail system and support infrastructure.                                                                                                                                                                                                                                                                                   |
| FIRST YEAR | OPERATIONS             | Create a community brand which the trail network can use or create specific trail branding to be used for a comprehensive wayfinding program.                            | Branding will add interest and advocacy for the City of Jacksonville Beach's urban trail system. It will also add to the usability of the system by making routes intuitive.                                                                                                                                                                                                                                                                                  |
| FIRST YEAR | OPERATIONS             | Create a wayfinding master plan to address prioritization, fabrication, installation, accessibility, safety, and visibility over the long term.                          | Wayfinding creates an intuitive network that leads the user to destination and routes. The wayfinding system can include specific destinations and possibly businesses, all in an effort to enhance the user experience.                                                                                                                                                                                                                                      |



## TRAIL MASTER PLAN RECOMMENDATIONS WITH NOTES (CONTINUED )

| PHASE          | CATEGORY               | ACTION                                                                                                                      | DETAILS                                                                                                                                                                                                                                                      |
|----------------|------------------------|-----------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FIRST 5 YEARS  | DESIGN                 | Add trail construction standards to the land development code or appropriate City transportation standard requirements.     | The design standards are instrumental in maintaining a consistent trail network. The standards should address width, surface material, typical cross-section based on surface material, landscaping, and signage.                                            |
| FIRST 5 YEARS  | DESIGN                 | Provide a cohesive hardscape and site furnishings program for consistency throughout the trail network.                     | Hardscape and site furnishings can enhance the user experience, add to the branding of the network, and reinforce wayfinding through the network.                                                                                                            |
| FIRST 5 YEARS  | ACCESSIBILITY          | Adopt City ordinances that prohibits the operation, driving or parking of motor vehicles trail.                             | As part of the Master Plan effort, the City of Jacksonville Police Department was consulted on enforcing parking on sidewalk and trail. The recommendation was to provide clear language and easily define motor vehicle to implement effective enforcement. |
| FIRST 5 YEARS  | SAFETY & ACCESSIBILITY | Implement policies to set and enforce trail speed limits to ensure that compatibility is maintained through multiple users. | The goal was to plan a system for multiple users and user types. Each use has a design speed and to ensure safe interactions between users, speeds should be compatible.                                                                                     |
| SECOND 5 YEARS | SAFETY & ACCESSIBILITY | Create an educational program for trail users regarding trail use etiquette and community expectations.                     | To ensure a safe and overall accomodating trail experience, common rules and etiquette should be adopted. Education programs should be implemented to communicate to users the expectations of the community.                                                |
| FIRST 5 YEARS  | OPERATIONS             | Institute and fund a maintenance program to identify and address maintenance issues before they arise.                      | Encourage or establish that the community maintains visibility through vegetation management, provision of good sight lines, and access for emergency vehicles.                                                                                              |





## APPENDIX

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# PUBLIC WORKSHOP & STAKEHOLDER MEETING(S) COMMENTS

| PUBLIC COMMENTS AND INPUT                                                                                                                                                                                            | RESPONSE                                                                                                                                                                                                                                                          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Review extending the boardwalk to the maximum extent. There is an existing strip of concrete near the pier that used to be part of a larger, "contiguous" boardwalk along the beach.                                 | The boardwalk is a valuable part of the trail network for pedestrians. Bicycle and other riding devices are prohibited. For that reason, the trail planning work included 1st Street. This route also provides the greatest access to businesses in the corridor. |
| Request that a trail be reviewed in the 16th Ave corridor.                                                                                                                                                           | The 16th Avenue South route was included in the iteration of the network. The corridor adds accessibility to a neighborhood and Huguenot Park. It is proposed as part of the South Beach Loop Trail.                                                              |
| Desires a safer bike path.                                                                                                                                                                                           | The recommended trail designs include a minimum 4 foot separation buffer (optimally 8 foot) between the roadway and trail.                                                                                                                                        |
| There is a missing north-south pedestrian route on the western side of Jax Beach. Would prefer to see a north-south corridor on the western side.                                                                    | The Cradle Creek Preserve Braid Trail and the Tall Pines Park Braid Trail are included to provide access to the west side of the City of Jacksonville Beach.                                                                                                      |
| Destination Preferences: Ensure access to a local "hidden secret," the tiki bar on the north side of the pier. Also provide a connecting trail to the H. Warren Smith cemetery as it is a nice place to walk around. | Both destination are on a trail or within a 5 minute walk of the trail.                                                                                                                                                                                           |
| Consider a path along Seagate Avenue.                                                                                                                                                                                | The Seagate Avenue path was reviewed. It is not recommended as part of the trail network do to right-of-way constraints. The corridor has sidewalks and large utility infrastructure along the south side of the roadway.                                         |
| Consider the possibility of a bridge across creek to connect Seagate.                                                                                                                                                | A trail and bridge crossing the creek is included in the Master Plan.                                                                                                                                                                                             |
| Ensure East Coast Greenway connectivity. Path in Neptune see on average 1,000 per day, with one day peak volume of 4,000 per day on July 4th.                                                                        | A section discussing the East Coast Greenway is included in the Master Plan.                                                                                                                                                                                      |
| Backyard trail - is that something you've seen before and how it went in other communities? Positive effect on property values?                                                                                      | A section is included in the Master Plan discusses how to mitigate impacts of trails along backyards.                                                                                                                                                             |
| Is there a plan with this project to do any expedited pedestrian crossings?                                                                                                                                          | This effort is a Master Planning effort and does not include project implementation. Expediting is the responsibility of the agency in charge of the project (City of Jacksonville Beach, City of Jacksonville, and the State of Florida.)                        |
| Clarification on how the type B trail interacts with driveways.                                                                                                                                                      | Concept drawings have been provided to show the interaction.                                                                                                                                                                                                      |
| Will there be an increase in 4 way stops.                                                                                                                                                                            | Four-way stops are a traffic control device and are reviewed on case-by-case location basis.                                                                                                                                                                      |
| Look at Monterey, CA bike/pedestrian trail as a reference.                                                                                                                                                           | The trail in Monterey, California was reviewed, and concepts were included in the Master Plan.                                                                                                                                                                    |
| Silver Comet Trail from Atlanta to Georgia border, wide path used by pedestrians.                                                                                                                                    | The trail in Monterey, California was reviewed, and concepts were included in the Master Plan.                                                                                                                                                                    |
| How is a two-way bike traffic incorporate with a one-way roadway?                                                                                                                                                    | Separation and signage are key incorporating both in the same corridor. Best practices are included in the Master Plan.                                                                                                                                           |
| Question about bikes being allowed on sidewalk...are there any statute or local ordinances that apply.                                                                                                               | According to Florida State Statutes, bicycles are permitted on sidewalks. See Florida Statutes Chapter 316.2065.                                                                                                                                                  |
| Concern about E-bikes and E-scooters being allowed on trail.                                                                                                                                                         | Generally, e-bikes and e-scooter are allowed on trails. Speed limitation may be implemented to ensure a safe and compatible environment.                                                                                                                          |
| Clarification on Type "C" trail and how bike path interacts with roadway.                                                                                                                                            | Signage is key to delineate right-of-way and rule of the right-of-way for both drivers and multi-use trail users.                                                                                                                                                 |
| Reach out to commercial businesses to discuss 1st Street design concepts.                                                                                                                                            | A public meeting was held on March 23, 2022 to discuss the downtown area options.                                                                                                                                                                                 |



| PUBLIC COMMENTS AND INPUT                                                                                                                        | RESPONSE                                                                                                                                                                                              |
|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| With the 1st Street (downtown) concepts, business would need access for delivery trucks and ability to park.                                     | Access to businesses has been raised at several meetings. Options for improving bicycle/pedestrian access downtown that also address parking and business deliveries will be considered and provided. |
| People may agree with no cars on 1st Street downtown, but how do you reach businesses and hotels along the corridor.                             | Regardless of the cross section used on the downtown area of 1st Street, access would to businesses (and hotels) would need to be maintained.                                                         |
| There is a concern about delivery trucks with a no-car option on 1st Street downtown.                                                            | Regardless of the cross section used on the downtown area of 1st Street, access would to businesses (and hotels) would need to be maintained.                                                         |
| There is safety concern with errant golf balls if a trail is included along the golf course.                                                     | As part of the Master Plan, examples of trail along golf courses                                                                                                                                      |
| With front setbacks on some residential areas are so small, will there still be room to park.                                                    | During the planning process, potential corridors for trails were reviewed for adequate right-of-way width. Ultimately, during design, yard space should be maximized.                                 |
| How the different modes would be handled? Specifically, golf carts.                                                                              | The objective of the system is to accommodate multiple users across the network. It is recommended that golf carts and low-speed vehicles be prohibited from using the trail networks.                |
| How will e-bikes + scooters be handled?                                                                                                          | Generally, e-bikes and scooters are permitted under state guidance. However, speeds may be limited to ensure safe and compatible use.                                                                 |
| Low Speed Vehicle vs. Golf Carts language (licensed and authorized to be on the roads).                                                          | Low-speed vehicles and golf carts are separate vehicles in State Statutes. The recommendation in this Master Plan is to prohibit both vehicles from using the trail system.                           |
| Review the speed differential of bicycles versus. ebikes/scooters. Cyclists can be faster than ebikes. Recommendation of speed limit signs.      | Speed limitation may be implemented to ensure a safe and compatible environment.                                                                                                                      |
| Comment against speed bumps on the trails. Prefers a speed limit to control travel speeds.                                                       | Speed limitation may be implemented to ensure a safe and compatible environment.                                                                                                                      |
| Review the Greenway in Huntsville Alabama as a reference. Doesn't have a lot of amenities along the trail, but does have a lot of access points. | The trail in Huntsville, Alabama was reviewed.                                                                                                                                                        |
| Should have a place to tie up their bikes. They are currently tying to signs or the walk path.                                                   | Bike racks and other amenities are recommended along the route. Policies requiring bike racks at all facilities are recommended.                                                                      |
| Do we need coordinate with Duval County Public Schools and/or City of Jacksonville? Mentioned new utilities in this location.                    | Adjacent communities were contacted and invited to be involved in Master Plan development process.                                                                                                    |
| Neptune Beach connections/schools – Do we have any opportunities to potentially doing a trail along 8th street.                                  | A trail along 8th Street is include in the Master Plan. Network connectivity to the schools has been include in the Master Plan.                                                                      |
| Section of Marsh Landing down to AIA is City ROW and designation for Maintenance. Going west on Marsh Landing towards JTB falls on FDOT.         | A connection to St. Johns County has been included along the Marsh Landing corridor.                                                                                                                  |
| In the future, any thought on connectivity N. to Mayport.                                                                                        | Connectivity to the north to Mayport should be part of a regional planning effort.                                                                                                                    |

# INFORMATION

City of Jacksonville Beach — Urban Trails Project - Adopted Network and Cost Estimates

Based on construction cost per mile \$ 375,000  
Design costs based on construction 12%

| Trail Name                          | Roadway                       | # | Segment                               | Category  | Characteristic | Type | Width | Length | Special Increase | Special Increase Reason                 | Design       | Construction  | Total Cost    |
|-------------------------------------|-------------------------------|---|---------------------------------------|-----------|----------------|------|-------|--------|------------------|-----------------------------------------|--------------|---------------|---------------|
| 1 Jax Beach - Community Loop        | 1st Street N                  | a | Seagate Avenue to 7th Avenue N        | Primary   | Loop           | B-2  | 12    | 0.7    | 2                | Extra demo and work on existing street. | \$ 62,100    | \$ 517,500    | \$ 579,600    |
|                                     | 1st Street N                  | b | 7th Avenue N to Beach Boulevard       | Primary   | Loop           | B-2  | 12    | 0.7    | 2                | Extra demo and work on existing street. | \$ 58,500    | \$ 487,500    | \$ 546,000    |
|                                     | 1st Street N                  | c | Beach Boulevard to 13th Avenue S      | Primary   | Loop           | B-2  | 12    | 0.8    | 2                | Extra demo and work on existing street. | \$ 72,000    | \$ 600,000    | \$ 672,000    |
|                                     | 12th Ave S/13th Ave S         | d | 1st Street South to Golf Course       | Primary   | Loop           | B    | 12    | 0.7    | 2                | Bridge and intersection work            | \$ 60,300    | \$ 502,500    | \$ 562,800    |
|                                     | Golf Course Route             | e | 13th Ave S/Penman Rd S                | Primary   | Loop           | A    | 12    | 1.2    | 2                | Protection Fencing                      | \$ 110,700   | \$ 922,500    | \$ 1,033,200  |
|                                     | Beach Boulevard Bridge        | f | Penman Rd S to Penman Road            | Primary   | Loop           | C    | 12    | 1.9    | 1                |                                         | \$ 84,150    | \$ 701,250    | \$ 785,400    |
|                                     | Penman Rd                     | g | Beach Boulevard to 15th Avenue N      | Primary   | Loop           | B    | 10    | 1      | 1                |                                         | \$ 43,650    | \$ 363,750    | \$ 407,400    |
|                                     | 15th Avenue                   | h | Penman Rd to 1st Street N             | Primary   | Loop           | B    | 10    | 0.8    | 1                |                                         | \$ 37,800    | \$ 315,000    | \$ 352,800    |
| Subtotal Jax Beach Community Loop   |                               |   |                                       |           |                |      |       |        |                  |                                         | \$ 529,200   | \$ 4,410,000  | \$ 4,939,200  |
| 2 Jax Beach - Mid Loop              | N 8th Street/S 8th Street     | a | 15th Ave N to 12th Ave S              | Primary   | Braid          | B-2  | 10    | 2.1    | 1.3              | Extra demo and work on existing street. | \$ 122,850   | \$ 1,023,750  | \$ 1,146,600  |
| 3 South Beach Seabreeze Loop        | 1st Street S                  | a | 13th St S to Jacksonville Drive       | Primary   | Loop           | B-2  | 10    | 1.3    | 1.5              | Extra demo and work on existing street. | \$ 85,725    | \$ 714,375    | \$ 800,100    |
|                                     | Jacksonville Drive            | b | 1st Street S to S Beach Pkwy          | Primary   | Loop           | B    | 12    | 0.3    | 1                |                                         | \$ 13,500    | \$ 112,500    | \$ 126,000    |
|                                     | S Beach Pkwy/Osceola Ave      | c | Jacksonville Drive to Williams Street | Primary   | Loop           | C    | 10    | 0.9    | 1                |                                         | \$ 39,150    | \$ 326,250    | \$ 365,400    |
|                                     | Williams Street/ 16th Avenue  | d | Osceola Ave to 13th Ave S             | Primary   | Loop           | C    | 10    | 0.9    | 1                |                                         | \$ 41,850    | \$ 348,750    | \$ 390,600    |
| Subtotal South Beach Seabreeze Loop |                               |   |                                       |           |                |      |       |        |                  |                                         | \$ 180,225   | \$ 1,501,875  | \$ 1,682,100  |
| 4 Cradle Creek Braid                | Jacksonville Dr/American Ave  | a | Osceola Ave to Landfill               | Secondary | Braid          | B    | 10    | 0.5    | 1                |                                         | \$ 20,250    | \$ 168,750    | \$ 189,000    |
|                                     | Fairway Lane/S 15h Street     | b | Landfill to Beach Blvd                | Secondary | Braid          | C    | 10    | 2.1    | 1                |                                         | \$ 96,300    | \$ 802,500    | \$ 898,800    |
| Subtotal Cradle Creek Braid         |                               |   |                                       |           |                |      |       |        |                  |                                         | \$ 116,550   | \$ 971,250    | \$ 1,087,800  |
| EAST - WEST BEACH CONNECTORS:       |                               |   |                                       |           |                |      |       |        |                  |                                         |              |               |               |
| 5 Seagate Waterway                  | Seagate Ave                   |   | 1st St N to Kings Rd                  | Secondary | Connector      | B    | 10    | 0.5    | 4                |                                         | \$ 95,400    | \$ 795,000    | \$ 890,400    |
| 6 San Pablo Fletcher Connector      | 18th Ave N                    |   | 10th St N to 1st St N                 | Secondary | Connector      | C    | 12    | 1      | 1                |                                         | \$ 45,000    | \$ 375,000    | \$ 420,000    |
| 7 North Cross Town Connector        | 8th Ave N / 9th Ave N         |   | Penman to 1st St N                    | Secondary | Connector      | A    | 12    | 1      | 1.5              | Utility obstruction east of A1A         | \$ 67,500    | \$ 562,500    | \$ 630,000    |
| 8 Pier Connector                    | 4th Ave N                     |   | Penman Rd to Beach                    | Secondary | Connector      | C    | 10    | 1      | 1                |                                         | \$ 44,550    | \$ 371,250    | \$ 415,800    |
| 9 Oceanfront Park                   | 5th Ave S                     |   | Golf Course to Beach                  | Secondary | Connector      | C    | 10    | 0.7    | 1                |                                         | \$ 30,150    | \$ 251,250    | \$ 281,400    |
| 10 16th Ave South                   | 16th Ave S                    |   | 10th St NS to 4th St S                | Secondary | Connector      | C    | 10    | 0.7    | 1                |                                         | \$ 30,150    | \$ 251,250    | \$ 281,400    |
| 11 Osceola Beach Access             | Osceola Ave                   |   | Fairway Lane to Beach                 | Secondary | Connector      | C    | 10    | 1.1    | 1                |                                         | \$ 51,300    | \$ 427,500    | \$ 478,800    |
| OTHER BRAIDS/CONNECTORS:            |                               |   |                                       |           |                |      |       |        |                  |                                         |              |               |               |
| 12 Tall Pines Park Braid            | 20th St N Greenway/ 9th Ave N |   | Penman Rd to Seagate Ave              | Secondary | Braid          | A    | 10    | 1.1    | 1.25             | Greenway access difficulty              | \$ 60,188    | \$ 501,563    | \$ 561,750    |
| 13 San Pablo Fletcher Nature Trail  | Canal - North of 8th          |   | 15th Ave N to Seagate Ave             | Primary   | Connector      | A    | 12    | 0.4    | 1.25             | Greenway access difficulty              | \$ 20,250    | \$ 168,750    | \$ 189,000    |
| 14 Beach Blvd Basin                 | 2nd Ave North                 |   | Beach Blvd to Basin                   | Secondary | Connector      | C    | 8     | 0.5    | 1                |                                         | \$ 22,950    | \$ 191,250    | \$ 214,200    |
| 15 Middle Beach Commons             | Shetter Ave                   |   | S 15th St to 5th St N                 | Secondary | Connector      | C    | 10    | 0.8    | 1                |                                         | \$ 35,550    | \$ 296,250    | \$ 331,800    |
| 16 Wingate Park Connector           | Park Access Route             |   | S 15th St to Penman Rd S              | Secondary | Connector      | A    | 10    | 0.2    | 1                |                                         | \$ 6,750     | \$ 56,250     | \$ 63,000     |
| 17 Huguenot Park Braid              | 16th Ave S/4th St S           |   | 13th Ave S to 1st St S                | Secondary | Braid          | C    | 8     | 0.4    | 1                |                                         | \$ 18,000    | \$ 150,000    | \$ 168,000    |
| 18 Pablo Connector                  | 4th Street S                  |   | 13th Ave S to south end canal         | Secondary | Connector      | C    | 8     | 0.4    | 1.5              | Greenway access difficulty              | \$ 27,000    | \$ 225,000    | \$ 252,000    |
| 19 Sandra Dr Connector              | 6th St S                      |   | 13th Ave S to Sandra Dr               | Secondary | Connector      | B-2  | 10    | 0.4    | 1                |                                         | \$ 17,100    | \$ 142,500    | \$ 159,600    |
| 20 Baptist Medical Connector        | Seabreeze Ave                 |   | Fairway Lane to hospital              | Secondary | Connector      | C    | 8     | 0.4    | 1                |                                         | \$ 19,800    | \$ 165,000    | \$ 184,800    |
| 21 St. John's Connector             | Marsh Landing Parkway         |   | S Beach Parkway to A1A                | Secondary | Connector      | C    | 10    | 0.6    | 1                |                                         | \$ 27,000    | \$ 225,000    | \$ 252,000    |
| TOTAL LENGTH                        |                               |   |                                       |           |                |      |       | 27.1   | GRAND TOTALS     |                                         | \$ 1,567,463 | \$ 13,062,188 | \$ 14,629,650 |



Connecting  
Under-  
utilized  
spaces

Well defined Street  
Path rules-  
Walk, Skate, Run,  
bike + pet  
friendly

Good connectivity  
throughout the  
entire city  
Shade  
• Safe from cars  
• for bikes & peds.

Barrier  
to  
traffic

Tie in to  
Atl Beach  
Neptune Beh  
Ponte Vedra  
Seamless trail

Safe biking  
• Connectivity to  
event areas  
• Connection to  
larger trail  
systems

PEDESTRIAN  
FRIENDLY!

Make sure  
becomes  
certified  
East of  
Greenwood

Safer  
Walking  
routes to  
schools

Avoiding  
cars as much  
as possible

Least impact  
to land owners  
tax payers  
property that  
borders final routes

Barrier to  
traffic -  
Not a  
bike lane

Pet Friendly  
(water stops,  
waste bags)

TRAIL  
LIGHTING

Good  
Access

Good  
Signage

Connect Locally  
Wood business  
downtown, South beach,  
beach beach Pkwy,  
Berman, Seagate

access for  
students  
at San  
Pedro / Fletcher  
Area

Back gate &  
road way into  
Hanna Park  
w/ pay drop

One way  
streets

Min 6'  
wide  
2 way.

Prioritize  
Peds, Bikes  
& Families

A good,  
safe, continuous  
loop

Solar lighting

Around the  
Golf  
Course

Around  
golf  
course

dedicated  
animal  
spaces

2-WAY  
TRAILS

SAFE =  
- patrolled  
- lighted  
- sign

Designated

Make it

Shared  
Use Path



**City of  
Jacksonville  
Beach** Parks & Rec

## **Urban Trails Master Plan**



**CHIXI AYRES AG**