

# Green ARTery

Connecting Tampa's Greenspaces

October 2013





# Hillsborough County Metropolitan Planning Organization

## City of Tampa Walk-Bike Plan Phase III

### The Green ARtery Perimeter Trail

FINAL – October 2013



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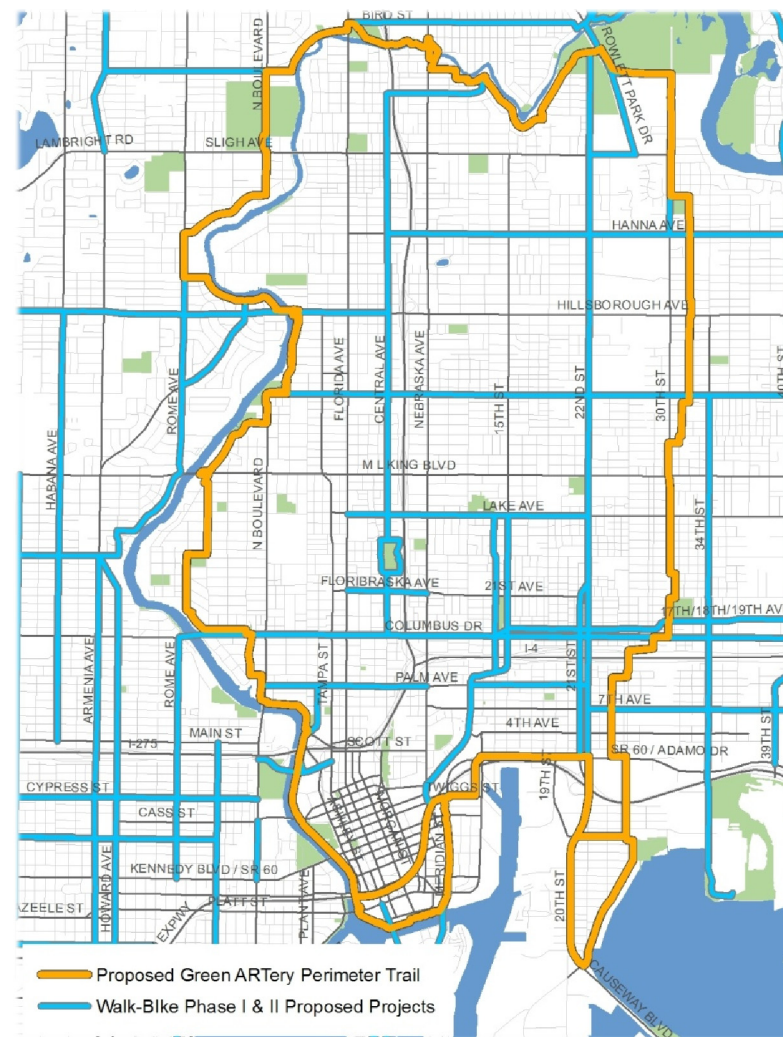
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## Executive Summary

The concept for the Green ARtery Perimeter Trail was born from a Central Tampa, neighborhood-based effort to identify and connect neighborhood assets, the Hillsborough River, Tampa's green spaces and the Greenways and Trails systems with better pedestrian and cycling facilities. The Hillsborough County Metropolitan Planning Organization (MPO) in conjunction with the City of Tampa has identified an alignment of on- and off-street facilities to complete a loop of bicycle and pedestrian facilities around Central Tampa.

The identification of the Green ARtery Perimeter Trail, along with the identification of possible bicycle and pedestrian connections in the New Tampa area, form the third phase of the City of Tampa's Walk-Bike Plan. The previous two phases of the Walk-Bike Plan looked at the City of Tampa, south of Fletcher Avenue, and identified over 100 cost-feasible bicycle and pedestrian infrastructure projects. These projects were designed to provide people with enhanced mobility options so they can move throughout the city without relying exclusively on automobiles.

The Green ARtery Perimeter Trail represents an attempt to bring neighborhoods together to provide a safe and comfortable transportation option between many of the city's notable neighborhoods and parks for families, walkers, joggers, and cyclists of all levels of experience.



**The Proposed Green ARtery Perimeter Trail with Proposed Walk-Bike Phase I and II Projects**

As mentioned, the Green ARtery Perimeter Trail is a network of on- and off-street facilities that travel their way through the neighborhoods of Central Tampa. Along with refining the Green ARtery Perimeter Trail alignment, a major component of this effort was identifying the appropriate trail facilities to complete the Perimeter Trail. Three main facility types were identified for use along the Perimeter Trail; the following provides a description of the three trail facility types:

- Multi-Use Paths – These are facilities designed for non-motorized forms of transportation. Users may include bicyclists, pedestrians, and skaters, among others. Multi-use paths are typically

between 10 and 12 feet wide and are typically physically separated from motorized traffic by either an open space or some other barrier.



- Park Trails – Similar to a multi-use path, a park trail is a wide pathway that runs through a park or other green space. Many of the proposed park trails along the Perimeter Trail look to highlight natural



resources, like the Hillsborough River and McKay Bay.

- Neighborhood Greenways – Sometimes called “bike boulevards,” these are low-volume, low-speed streets that have been modified to encourage bicycle and pedestrian travel. Neighborhood greenways typically use neighborhood streets and may include pavement markings, special signage, traffic calming treatments, and/or intersection crossing treatments.



The intention of a neighborhood greenway is to provide a comfortable, convenient, and attractive environment for pedestrians and cyclists of all ages and experience.

In total, the Green ARtery Perimeter trail is made-up of nearly nine miles of multi-use paths, eight miles of neighborhood greenways, and over two miles of park trails. In addition to these facilities numerous locations have been identified for new or enhanced crosswalks and/or crossing features. Detailed engineering and design work would need to be conducted to determine the actual cost to construct the entire Perimeter Trail, but using generic unit costs, it is estimated that the cost of constructing the Perimeter Trail as it is identified in this document would likely be between \$4 million and \$5 million. Which, considering that the cost to widen a four lane road to six lanes is \$3.5 million per mile, this cost is relatively low for nearly 20 miles of bicycle and pedestrian facilities.

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## Introduction

Our community vision for a multi-modal transportation system full of choices that reflect and support the way we want to live and travel includes the following goals:

- We are well-connected among places where people live, work, shop, and play in the Tampa Bay region.
- Our accessible streets are lined with green and paved with space for people, bicycles, and motorized vehicles alike.
- We have a variety of transportation choices, including rail, bus rapid transit, and other multimodal options.
- We share rides, bike and walk securely, and deliver goods safely and on time.
- We support local neighborhoods and the business community while competing in the global economy with our world-class port and aviation facilities.

*Source: Hillsborough County Metropolitan Planning Organization (MPO) 2035 Long Range Transportation Plan (LRTP).*

- Provide a safe, convenient, and efficient bicycle and pedestrian network to facilitate walking trips within neighborhoods and activity centers and bicycle trips both within and between neighborhoods and activity centers.

*Source: City of Tampa Comprehensive Plan.*

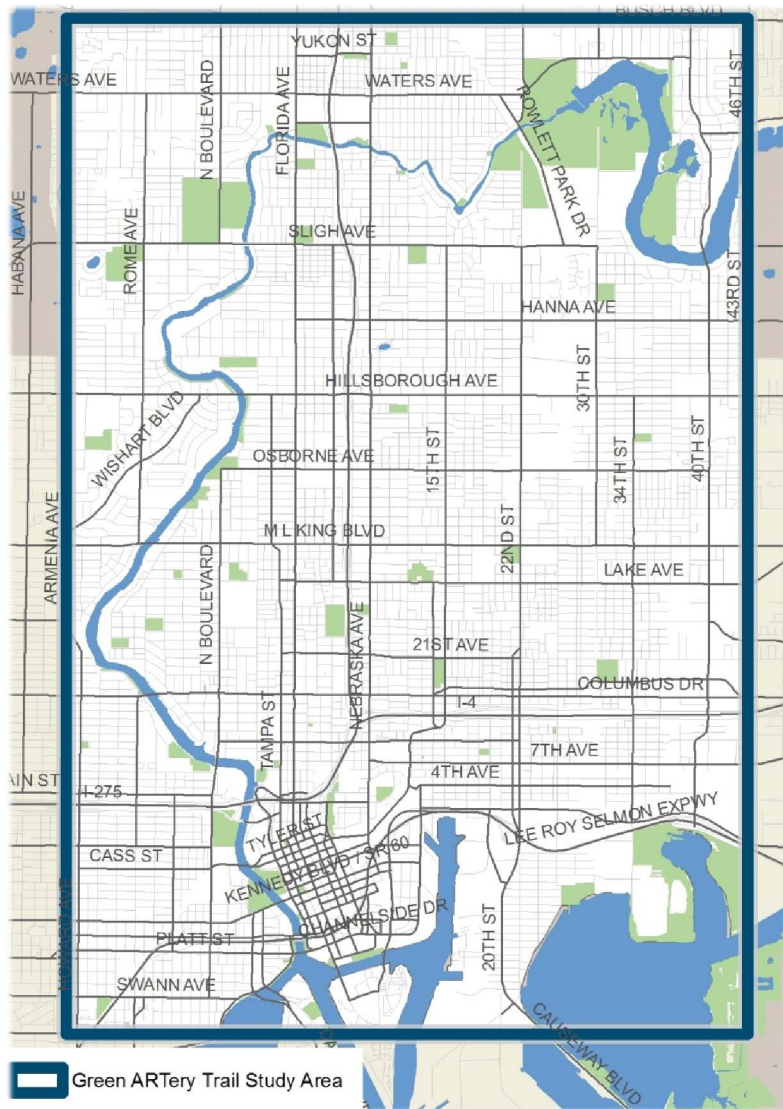
These goals are consistent with the mission of the Green ARTery: to safely connect an inviting network of trails and paths to the Hillsborough River, McKay Bay, neighborhood parks, natural springs, tree-canopied streets, public art, and other attractions that traverse Tampa's beautiful central core.

By doing so, the community will have more safe multimodal travel options, improved access to public green spaces, and better connections to neighborhoods and businesses.

The Green ARTery seeks to connect over 20 parks and neighborhoods in central Tampa by developing the Perimeter Trail. Part of the City of Tampa's Walk-Bike Plan (Phase III), the Green ARTery Perimeter Trail is a network of on- and off-road facilities that completes a loop around Central Tampa. The Perimeter Trail is designed for users of all levels of experience, from walkers and joggers to experienced cyclists to families on an afternoon adventure.

The Perimeter Trail emphasizes Central Tampa's natural resources and beauty, all while creating safe and comfortable connections throughout and between many of the city's notable neighborhoods. **Figure 1** depicts the general area that was considered for the Green ARTery Perimeter Trail.

This document provides a general overview of the elements that make up the proposed Green ARTery Perimeter Trail, along with a detailed description of the recommended alignment, and preliminary "planning" level cost estimates.



**Figure 1: Green ARtery Perimeter Trail Study Area**

## City of Tampa Walk-Bike Plan

The City of Tampa updated its Comprehensive Plan in 2009 to encourage growth within the three core “business centers” identified in the City’s Comprehensive Plan (Downtown Tampa, Westshore, and the University of South Florida [USF]), along major transit corridors, and within designated “Mixed Use Corridors and Villages.” This vision for infill and urban redevelopment is predicated on enhancing mobility options available to people so they can move around the city without relying exclusively on automobiles. One aspect of providing enhanced mobility options, consistent with the City’s Comprehensive Plan and the Hillsborough County MPO 2035 LRTP, is the identification, prioritization, and eventual implementation of cost-feasible bicycle and pedestrian infrastructure projects.

### Phases I and II

In 2011, the Hillsborough County MPO, working in close coordination with the City of Tampa, produced Phase I of the City of Tampa Walk-Bike Plan that identified low-cost options to enhance bicycle and pedestrian mobility along approximately 30 roadway corridors within and around the three business centers.

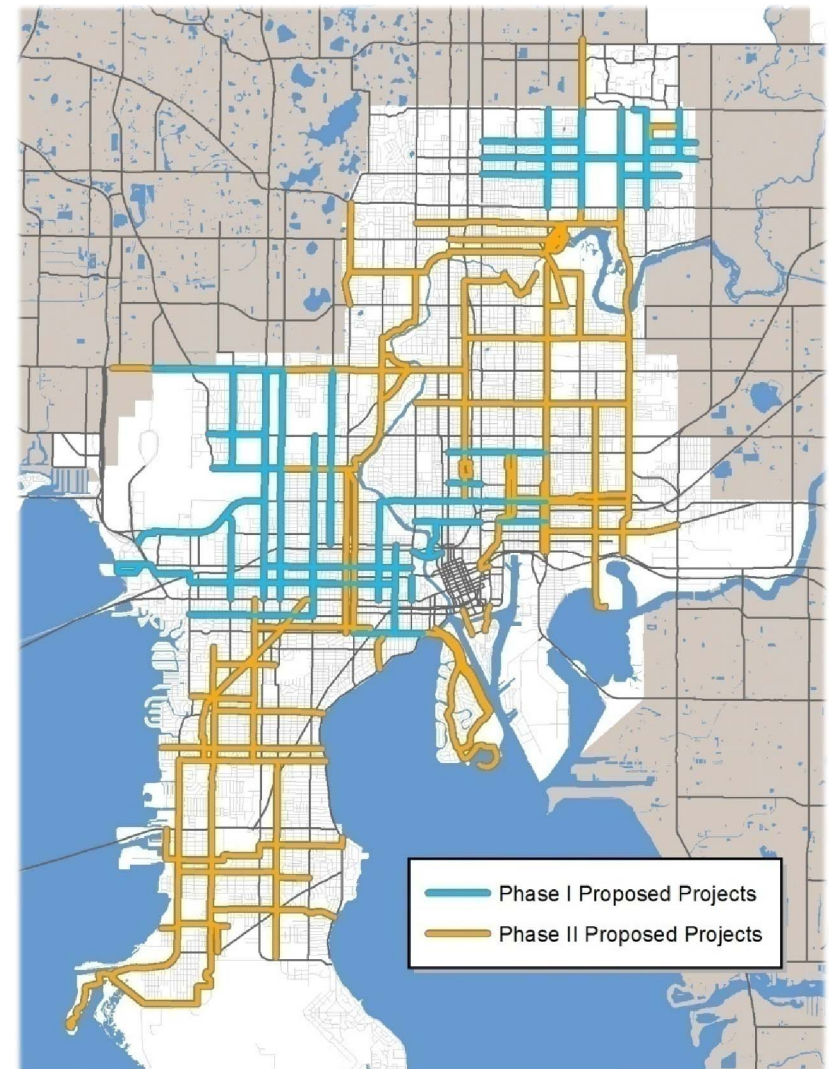
Following the successful completion of the Phase I Walk-Bike Plan, the Hillsborough County MPO, with the City of Tampa, completed Phase II of the City of Tampa Walk-Bike Plan in 2012. Phase II expanded the Plan beyond the City’s three business centers and identified candidate bicycle and pedestrian projects to complete a network within the Interbay Peninsula and throughout west, central, and east Tampa.

**Figure 2** illustrates the locations of projects identified during Phase I and Phase II of the City of Tampa Walk-Bike Plan.

Phase III

Phase III of the Walk-Bike Plan has two major objectives. One objective is to identify bicycle and pedestrian connectivity opportunities in the area north of Fletcher Avenue, known as New Tampa. The second objective is to work with the Green ARtery neighborhood-based organization and the City of Tampa to refine the Green ARtery Perimeter Trail concept.

This document will describe the alignment and physical components of the proposed Green ARtery Perimeter Trail.



**Figure 2: City of Tampa Walk-Bike Plan Phase I and II Projects**

## Green ARtery

Initially called the Central Tampa Greenspace Initiative, the Green ARtery organization was started in 2010, through the combined efforts of the Old Seminole Heights and Tampa Heights neighborhoods. Today the Green ARtery consists of more than 20 neighborhoods along with multiple public and private organizations.

Green ARtery's goal is to connect an inviting network of trails and paths to the Hillsborough River, McKay Bay, neighborhood assets, neighborhood parks, natural springs, tree-canopied streets, public art, and other attractions that traverse Tampa's beautiful central core.

The mission of this neighborhood-based effort is to identify, enhance, and expand pedestrian/wheelchair, bike paths, parks, Greenways and trail systems that safely connect green spaces throughout the city, while emphasizing the beauty of the City's existing assets and acknowledging the need to continue building upon that beauty.

To date the Green ARtery has garnered support from 20 Central Tampa neighborhoods that have committed to joining forces to achieve the goals of the Green ARtery.

## Elements of the Green ARtery Perimeter Trail

The Perimeter Trail is a network of on- and off-street facilities that meander through the neighborhoods of Central Tampa. The elements and features that make up the Perimeter Trail can be categorized into three groups:

- Trail Facilities
- Crossing Features
- Traffic Calming Strategies

The following provides a summary of these elements and describes how each may be used as part of the Perimeter Trail, however elements of the Perimeter Trail are not limited to those listed in this section, nor will all of these elements necessarily be used as part of the Perimeter Trail.

### Trail Facilities

The Green ARtery Perimeter Trail largely consists of three facility types: Multi-Use Paths, Park Trails, and Neighborhood Greenways. While there are some significant differences between these facility types, all three are designed to provide bicyclists and pedestrians with a safe and comfortable environment. These three facility types, along with the concept of creating unique trailheads, are discussed on the following pages.

### Multi-Use Path

Multi-use paths are facilities designed for non-motorized forms of transportation. Users may include bicyclists, pedestrians, and skaters, among others. Physically separated (by either open space or other barrier) from motorized traffic multi-use paths often run parallel to the road and are most appropriate along roads with relatively higher traffic volumes and speeds. They are typically between 10 and 12 feet wide (according to the Federal Highway Administration the minimum width should be no less than 8 feet), which provides adequate room to accommodate users in both directions.

One item of note is that multi-use paths are not intended to serve as a substitute for on-street facilities, but rather a component of the non-motorized network to complement on-street facilities. As a general rule, roadways with multi-use paths should be evaluated for inclusion of on-street bicycle lanes or shared-use arrows if they do not already exist.

### Park Trail

Similar to a multi-use path, a park trail is a wide pathway that runs through a park or other green space. Many of the proposed park trails take advantage of Tampa's natural assets, like the Hillsborough River and McKay Bay.



Source: Rick Root (Bend, CO)

**Figure 3: Multi-Use Path**



**Figure 4: Park Trail**

### Neighborhood Greenway

Neighborhood greenways or “bike boulevards” are low-volume, low-speed streets that have been modified to encourage bicycle and pedestrian travel. Neighborhood greenways typically use neighborhood streets and may include traffic calming treatments, special signing and pavement markings, and intersection crossing treatments. The intention of a neighborhood greenway is to provide a comfortable, convenient, and attractive environment for pedestrians and cyclists of all ages and experience. Clearly indicating that a street is a neighborhood greenway cues drivers to slow-down and recognize that non-motorized users have priority on the street.

### Trailheads

Trailheads are places along the trail that identify the trail and provide public access. Trailheads can include park structures, informational kiosks, restrooms, vehicular parking, bike parking facilities, outdoor seating, and public art. They also may serve as hubs for other recreational and transportation options including kayak/canoe launches and water taxi facilities. Trailheads should be strategically located so that they are highly visible and inviting. Trailheads also provide the opportunity to serve as community hubs for the neighborhoods along the Green ARTery, providing a unique place for residents to gather and interact.



Source: Columbusunderground.com (Columbus, OH)

**Figure 5: Bike Boulevard**



Source: tampafloridaphoto.blogspot.com (Tampa, FL)

**Figure 6: Sculpture along a Trail**



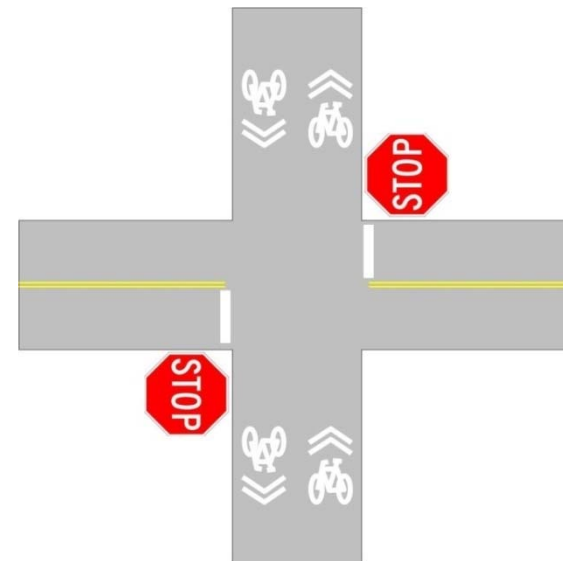
## Crossing Features

One of the biggest challenges in developing the Green ARtery Perimeter Trail is addressing how to safely get people across roadways, especially when the trail crosses busy streets. Whether crossing a street to continue along an off-street trail or dealing with automobile traffic at cross streets for on-street facilities, these crossings present a major challenge from both a safety standpoint, and from a cyclist comfort and traffic operations standpoint. While the bulk of the attention is given to the type of treatment and location of the actual trail facilities (whether the trail is on-street, such as a neighborhood greenway or bike lanes, or is the trail off-street, such as a multi-use path or park trail), the ability to provide safe and seamless crossings may ultimately decide the success of the Perimeter Trail.

As a general rule, all Perimeter Trail roadway crossing areas should be marked with a crosswalk and consideration should be given in providing advanced warning signs and/or pavement markings where the trail crossings may be unexpected. The following pages provide illustrations of crossing options that may be used along the Perimeter Trail. These pictures represent some of the crossing options available and it should be recognized that each crossing should be evaluated individually, as a one-size fits all approach should not be taken when dealing with unique roadway crossings.

## Stop Sign Configuration

Whenever possible, stop signs along the Perimeter Trail should be configured to allow users to travel continuously along the trail with a minimum number of stops (**Figure 7**). Frequent stops, especially for cyclist, lead to longer travel times, an increase in expended energy, and a greater likelihood of non-compliance. To minimize the number of stops that users must make, stop signs should be configured to control cross traffic, not traffic in the direction of the trail. Reconfiguring the direction of stop signs may have the unintended consequence of attracting more vehicular traffic; therefore, traffic calming measures should be explored in conjunction with the reconfiguring of stop signs.



**Figure 7: Neighborhood Greenway Preferred Stop Sign Configuration**

### High Emphasis Crosswalk (HEC)

High Emphasis Crosswalk (HEC) or ladder crosswalks refer to a specific pavement marking design for marked crosswalks (**Figure 8**). There are many different crosswalk markings, but it is recognized that HECs are more visible to drivers and create more awareness to the potential of crossing pedestrians.

### Mid-Block Crossings

Mid-block crosswalks are marked crossings at uncontrolled or partially controlled locations along a roadway (**Figure 9**). Mid-block crossings are typically used when the distance to the nearest “controlled” crossing is greater than the reasonably acceptable distance to walk or bike to the nearest intersection. A raised median or refuge island is recommended for all mid-block crossing locations and required for all uncontrolled crossings where the traffic volumes are greater than 12,000 average daily trips or the crossing distance is greater than 60 feet.

For most mid-block crossing locations a marked crosswalk does not result in a safer crossing. Other treatments should be considered in conjunction with marked crosswalks at mid-block locations. Some of the additional treatments include: curb extensions, raised crosswalks, additional signage and markings, raised crosswalks, flashing beacons, or signalized control. Several of these additional treatments are described in more detail on the following pages.



**Figure 8: High Emphasis Crosswalk**



Source: Oregon Department of Transportation

**Figure 9: Mid-Block Crossing**

### Rapid Rectangular Flashing Beacons (RRFB)

Rapid Rectangular Flashing Beacons (RRFB) are rectangular-shaped high-intensity LED-based flashing indicators that are typically attached to a standard pedestrian crossing sign at non-signalized crossing locations (**Figure 10**). The flashing lights of a RRFB are used to warn drivers that a bicycle or pedestrian is about to enter into a crosswalk.

### High Intensity Activated Crosswalk (HAWK)

High Intensity Activated Crosswalk (HAWK) or pedestrian hybrid beacons are activated warning devices either located on mast arms over mid-block crosswalks or alongside the road (**Figure 11**). HAWKs are typically used as an intermediate option between RRFB and a full traffic signal. They provide pedestrians and bicyclist with a full stop controlled crossing, but without the usual traffic delay associated with a full traffic signal. Since the HAWK is an unfamiliar traffic control device to many people, especially in the State of Florida, it would be important to perform public outreach to educate both drivers and pedestrians/bicyclist on how a HAWK operates and on what they should do when they encounter one.



Source: FHWA MUTCD

**Figure 10: Rapid Rectangular Flashing Beacons**



Source: Ada County Highway District, Boise, Idaho

**Figure 11: High Intensity Activated Crosswalk**

### Bike Boxes

Bike boxes are specially designated areas at signalized intersections that allow bicyclists to pull in front of waiting traffic (**Figure 12**). They are intended to reduce conflicts between vehicles and pedestrians by increasing the visibility of the cyclist and providing them with a head start when the light turns green. Some of the biggest challenges with bike boxes are vehicle encroachment into the boxes, education – for both drivers and cyclists, and right-turn on red movements.



**Figure 12: Bike Box at Signalized Intersection**

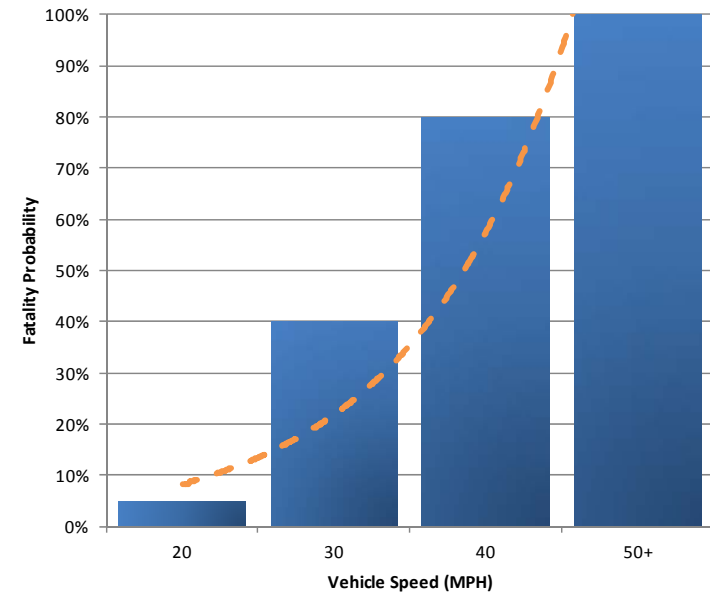
## Traffic Calming Strategies

Traffic calming strategies are typically described as physical changes to the roadway designed to reduce speeds. While there are many traffic calming strategies available, it is important to recognize the importance of properly applying traffic calming techniques. It is expected that the Perimeter Trail will incorporate some traffic calming strategies, especially along the on-street sections of the trail. The traffic calming strategies proposed for parts of the Perimeter Trail are described on the following pages.

### Speed Limit Reduction

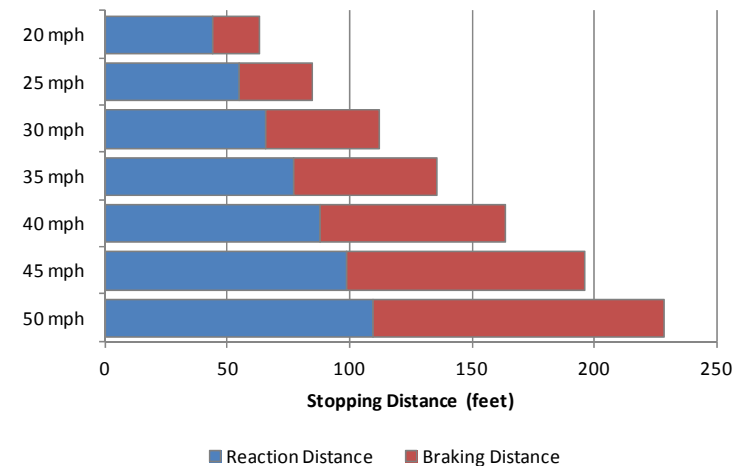
Strategies for reducing speed can include education and enforcement initiatives, engineering and roadway design, and policy efforts that aim to lower posted speed limits. There is a strong relationship between vehicle speed and the risk of injury and death, especially in collisions that involve vehicles and pedestrians or cyclists. Unlike car-to-car collisions, pedestrians and cyclists are not protected by the physical structure and safety features provided by an automobile. **Figure 13** shows the probability of death in vehicle-pedestrian crashes by vehicle speed. As shown, the probability that a pedestrian will die in a crash involving a vehicle traveling at 40 miles per hour (mph) is twice that of when a vehicle is traveling at 30 mph. In addition to reducing injury severity, lower speeds may reduce overall crashes by reducing vehicle stopping distance. **Figure 14** shows the relationship between vehicle speed and stopping distance.

Speed limits on streets designated as neighborhood greenways should be evaluated for potential speed limit reductions, with a goal of having a posted speed limit of no more than 25 mph.



Source: Pasanen, (1992)

**Figure 13: Vehicle Speed and Fatality Probability in Pedestrian Crashes**



**Figure 14: Vehicle Speed and Stopping Distance**

### Speed Humps

Speed humps are rounded humps that are placed across a roadway for the purpose of slowing traffic (**Figure 15**). Speed humps are typically used along residential streets where lower speeds are desirable. The greatest criticisms of speed humps are that they increase emergency vehicle response times and are not considered desirable from the cyclists' point-of-view.

### Speed Cushions

A speed cushion is similar to a speed hump, only with several spaces provided in between (**Figure 16**). The spaces allow larger sized vehicles with wider wheel bases (such as emergency vehicles and buses) to navigate around the smaller humps, therefore not causing an increase in response or travel times. The spaces between the cushions also provide a space for cyclists to navigate around the humps.



**Figure 15: Speed Hump**



**Figure 16: Speed Cushion**

### Traffic Circles

Traffic circles are raised circular islands constructed in the intersection of residential streets (**Figure 17**). Traffic circles reduce vehicle speeds by forcing drivers to navigate around the circle. Traffic circles may be used at stop controlled intersections or may be used in place of stop signs.



**Figure 17: Traffic Circle**

### Traffic Diverters

Traffic diverters are typically raised islands or devices that prevent motorists from making particular turn or through movements. While there are many types of traffic diverters the main types of diverter being considered along the Perimeter Trail are median barriers and partial traffic diverters (**Figures 18 and 19**).

Median barriers are designed to prevent left turns in and out of a residential street from an arterial or collector roadway. Breaks in the barrier that allow bicyclists and pedestrians to pass through may be included. Median barriers should be a minimum of 4 feet wide (preferably 8 feet wide) and of adequate length to prevent drivers from “cheating” around them.



Source: L.A. Streetsblog (Drew Reed) (San Luis Obispo, CA)

**Figure 18: Median Traffic Diverter**

Partial traffic diverters are used to physically block one direction of vehicular traffic into or out of an intersection. Partial traffic diverters allow full access to bicyclists and pedestrians, but by preventing one direction of vehicular traffic they make neighborhood streets less attractive to cut-through traffic. Since one side of the street at the intersection is still open for vehicular traffic, emergency vehicles do not have to divert around them.



Source: www.transportation.org (Dan Burden)

**Figure 19: Partial Traffic Diverter**

## Traffic Calming Concerns and Challenges

When traffic calming elements are put in place there are often many concerns and challenges that need to be addressed. It is important to properly address these concerns and challenges to ensure that any recommended traffic calming treatments are properly executed and that new traffic problems are not created, which could lead to a negative opinion of the Perimeter Trail. The most common concerns and challenges related to traffic calming include:

- Access to property – It is important to assure residents and businesses that access to their property by motorized vehicle will be maintained. Some people may have to slightly alter their route or it may take longer due to slower travel speed, but residents and businesses will continue to have full access to their properties.
- Impact on traffic patterns – When traffic is calmed along one street there is a possibility that traffic along adjacent streets may increase. It is important to monitor traffic flows before and after implementing any traffic calming elements.
- Emergency Response – Traffic calming techniques can be a concern to emergency response personnel (police, fire, EMS) if there are substantial increases in response times. Emergency response personnel should be consulted when considering traffic calming and, whenever possible, traffic calming elements should be designed in a way that allows emergency vehicles (fire truck or ambulance) to maintain appropriate response time.
- Enforcement – Enforcement, especially concerning speed management, is critical in ensure that the traffic calming measures put in place are effective.



## Green ARtery Perimeter Trail

The Green ARtery Perimeter Trail includes approximately 20 miles of multi-use path, park trails, and neighborhood greenways, and encompasses an area of nearly 13 square miles. This section of the document will explore the Perimeter Trail in greater detail, providing turn-by-turn information about the recommended alignment and treatment type. In many instances, multiple alternatives were explored and the recommended alignment represents what may be the best alignment.

In order to gain a better sense of the details of the Perimeter Trail, this section has broken the Perimeter Trail into 15 segments, as shown in **Figure 20**. Each segment of the trail is explained in further detail on the following pages. Following the detailed descriptions, **Figure 21** shows the proposed alignment with facility types. The 15 segments of the Perimeter Trail are:

1. Ridgewood Park
2. Riverside Heights
3. South Seminole Heights
4. Riverbend
5. Lowry Park Central
6. Sulphur Springs
7. Old Seminole Heights
8. Rogers Park
9. East Seminole Heights
10. East Tampa
11. College Hill
12. East Ybor
13. Palmetto Beach
14. Channel District
15. Downtown

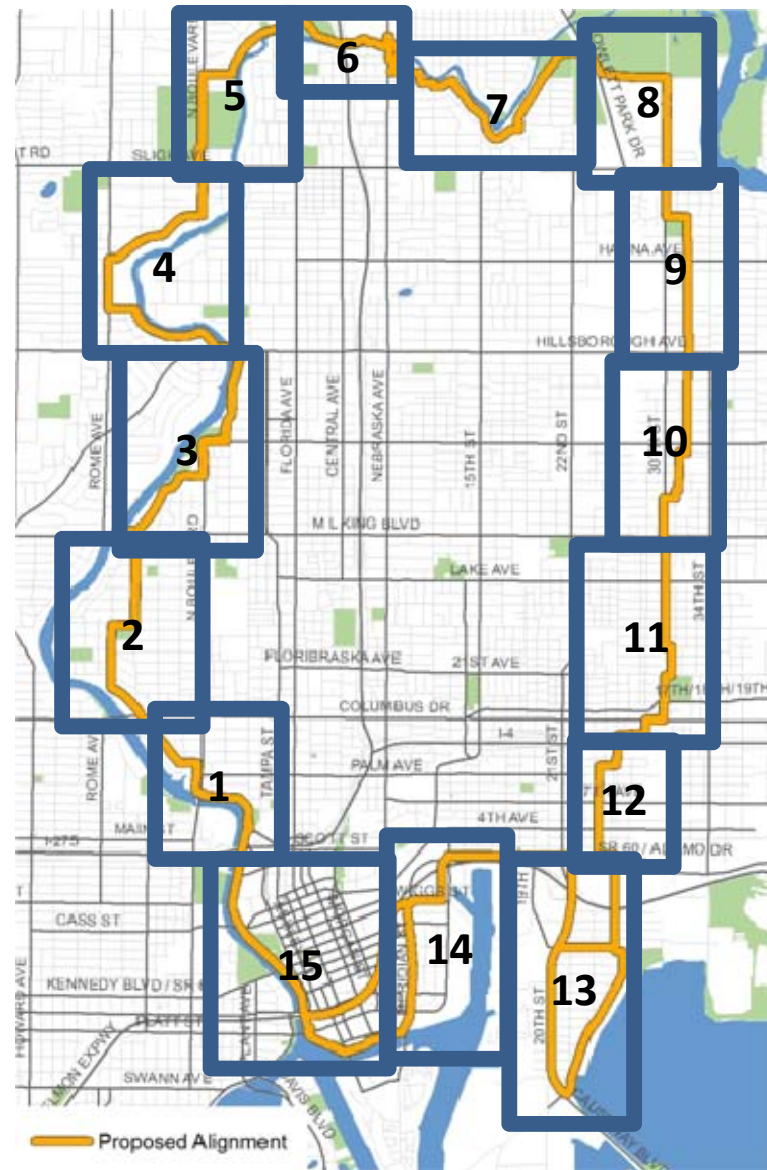


Figure 20: Sections of the Green ARtery Perimeter Trail

## 1. Ridgewood Park Segment



- From Downtown Tampa, the Perimeter Trail will follow the proposed Tampa Riverwalk from I-275 to North Boulevard. This is contingent upon the completion of the Riverwalk from Water Works Park to North Boulevard, which is projected to be privately funded through development of the Tampa Heights Riverfront Community Redevelopment Area (CRA).
- Provide a multi-use path under the North Boulevard Bridge that will connect the Riverwalk to the southern terminus of Cruis A Cade Place.
- Continue a multi-use path along the west side of Cruis A Cade Place to Ross Avenue.
- Continue the multi-use path along the south side of Ross Avenue to Ridgewood Avenue.
- Continue as a neighborhood greenway along Ridgewood Avenue to Columbus Drive. Install a high emphasis crosswalk along the southern leg of the Ross Avenue-Ridgewood Avenue intersection.
- Evaluate traffic along Ridgewood Avenue; traffic calming may be needed to discourage cut-through traffic.
- Enhance the existing crosswalks at the intersection of Ridgewood Avenue and Columbus Drive to high emphasis crosswalk. Monitor and evaluate traffic operations at the intersection; consider installing a bicycle box at the intersection for the northbound/southbound movements.



**Water Works Park, looking south**



**Cruis A Cade Place, looking north**



**North Boulevard Bridge, looking west**



**Ridgewood Avenue at Columbus Drive, looking south**

## 2. Riverside Heights Segment



- Continue as a neighborhood greenway along Ridgewood Avenue between Columbus Drive and Kinyon Avenue.
- Install a traffic circle at the intersection of Ridgewood Avenue and Oakdale Avenue to help calm traffic through this intersection.
- Evaluate traffic along Ridgewood Avenue; traffic calming may be needed to help discourage cut-through traffic.
- Continue the neighborhood greenway along Kinyon Avenue from Ridgewood Avenue to Adalee Street/Plymouth Park.
- Replace the existing sidewalk adjacent to Plymouth Park on Kinyon Avenue between Adalee Street and Plymouth Street with a 12 foot wide park trail.
- Replace the existing sidewalk along the north side of Plymouth Park between Kinyon Avenue and Oakdale Avenue with a 12 foot wide park trail.
- Transition to a neighborhood greenway along Oakdale Avenue from north of Plymouth Street to Orient Street.
- Continue the neighborhood greenway along Orient Street west to Ridge Avenue.
- Continue the neighborhood greenway along Ridge Avenue to south of Dr Martin Luther King Jr. Boulevard.
- Transition the neighborhood greenway to a multi-use path along the south side of Dr Martin Luther King Jr. Boulevard.
- Continue the multi-use path west approximately 250 feet.
- Provide a multi-use path under the Dr Martin Luther King Jr. Boulevard Bridge.
- Continue the multi-use path east along the north side of Dr Martin Luther King Jr. Boulevard to Riverside Drive.



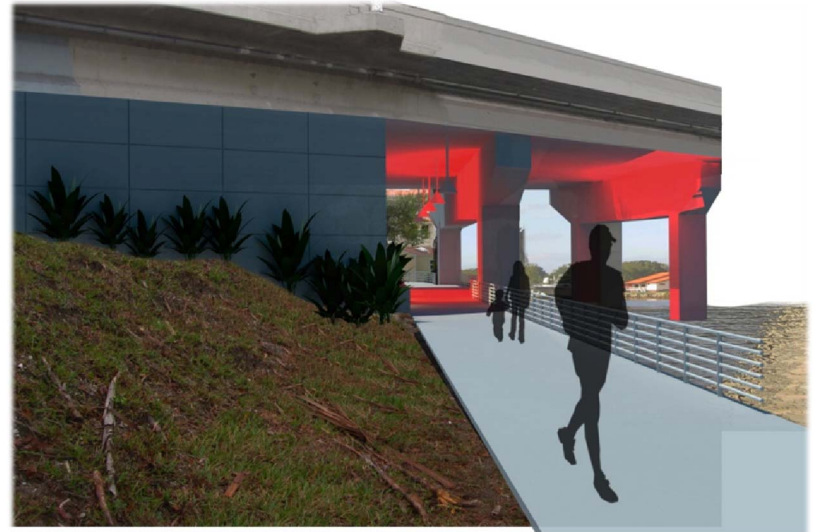
Sidewalk along west side of Plymouth Park



Underneath the Dr M. L. King Jr. Bridge, looking north

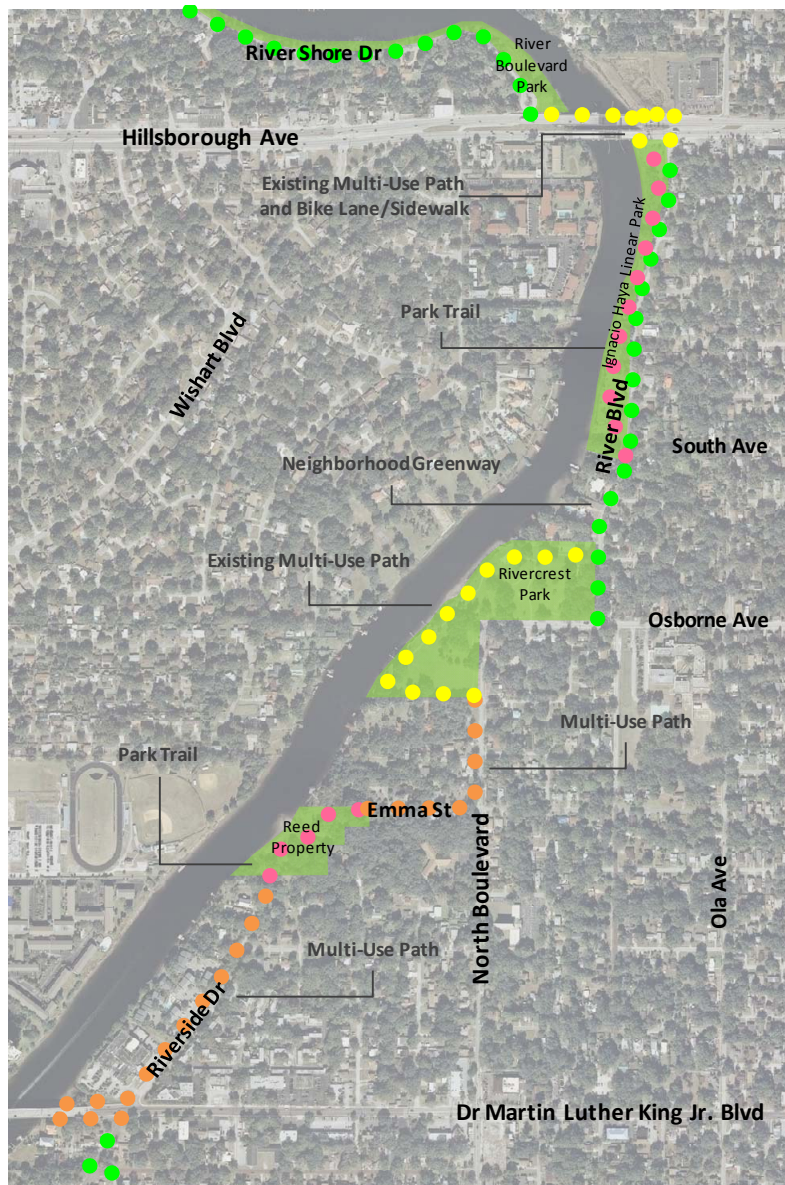


Oakdale Avenue from Plymouth Park, looking north



Conceptual Rendering of M. L. King Jr. Bridge Underpass

### 3. South Seminole Heights Segment



- Continue the multi-use path along the west side of Riverside Drive north to the Reed Property Park (north of River Heights Avenue.)
- Continue as a park trail through the Reed Property to Emma Street.
- Continue as a multi-use path along the north side of Emma Street to North Boulevard.
- Continue the multi-use path along the west side of North Boulevard north to Rivercrest Park. North Boulevard currently has shared lane arrows and traffic calming along this section.
- Utilize the existing park trails through Rivercrest Park. In addition to the park trails continue the existing shared lane arrows on North Boulevard along Osborne Avenue to Ola Avenue.
- Transition to a neighborhood greenway along River Boulevard from Osborne Ave north to the end of River Boulevard south of Hillsborough Avenue.
- In addition to the neighborhood greenway along River Boulevard, provide a park trail through Ignacio Haya Park between South Avenue and Hillsborough Avenue.
- Utilize the existing bridge undercrossing/multi-use path at Hillsborough Avenue.
- Cross the Hillsborough River using the existing sidewalk and bicycle lanes along the north side (westbound) of Hillsborough Avenue.



**Reed Property**



**Ignacio Haya Linear Park**

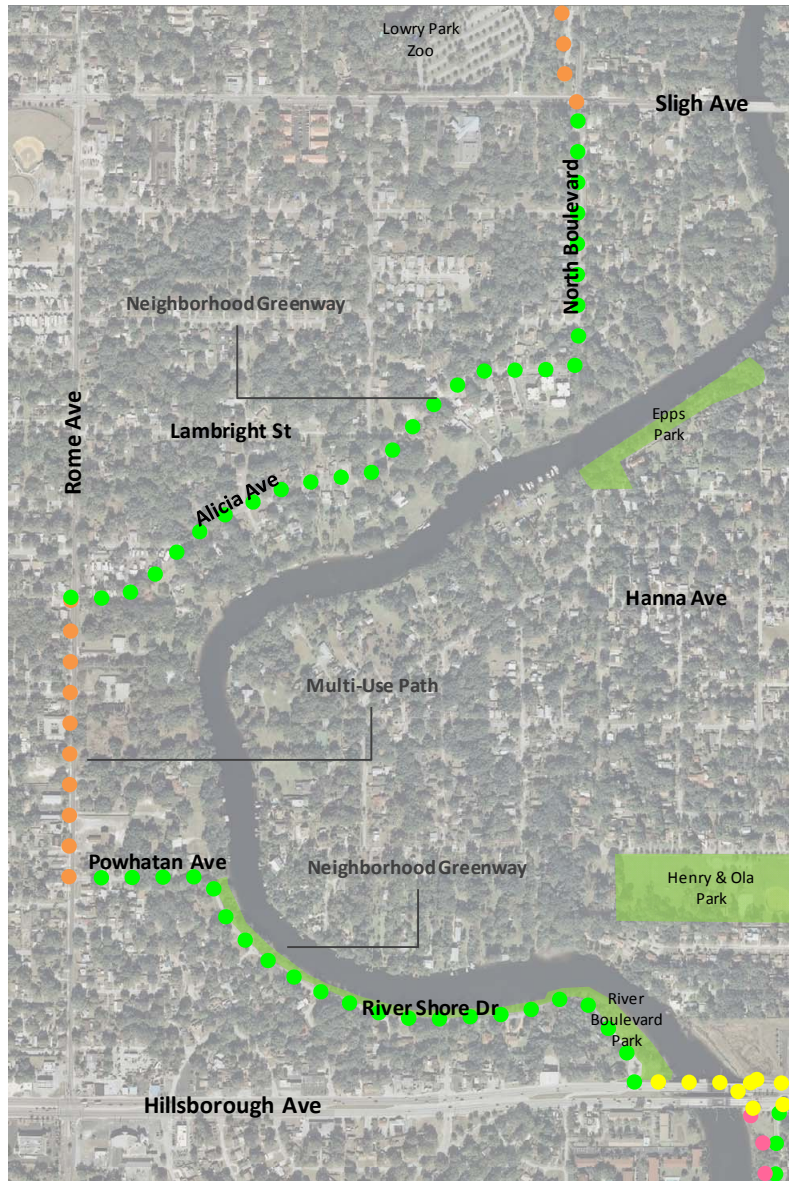


**Park trail through Rivercrest Park**



**Multi-use path under the Hillsborough Avenue Bridge**

## 4. Riverbend Segment



- Provide a ramp from the Hillsborough Avenue bridge to River Shore Drive
- Continue as a neighborhood greenway along River Shore Drive between Hillsborough Avenue and Powhatan Avenue
- Continue the neighborhood greenway along Powhattan Avenue from River Shore Drive to Rome Avenue. Provide a high emphasis crosswalk with RRFB at the intersection of Powhatan Avenue and Rome Avenue.
- Continue as a multi-use path along the west side of Rome Avenue from Powhatan Avenue to Hanna Avenue. This was identified as a project in Phase II of the Walk-Bike Plan. The preferred alignment would be along the east side of Rome Avenue, but cost related to drainage impacts may be too high.
- Provide a high emphasis crosswalk with RRFB along the south leg of the intersection of Rome Avenue and Hanna Avenue (Walk-Bike Plan Phase II project).
- Continue as a neighborhood greenway and sidewalk (south side) along Hanna Avenue from Rome Avenue to Alicia Avenue. The right-of-way at the eastern terminus of Hanna Avenue may provide an opportunity to develop a “pocket” park.
- Continue the neighborhood greenway and provide a sidewalk (south side) along Alicia Avenue between Hanna Avenue and North Boulevard. Provide a marked crossing at the intersection of Alicia Avenue and Lambright Street. The right-of-way on North Boulevard at the intersection of Alicia Avenue may provide an opportunity for a “pocket” park.
- Continue the neighborhood greenway along North Boulevard from Alicia Avenue to Sligh Avenue.





**River Shore Drive from the Hillsborough Ave Bridge**



**Rome Avenue from south of Hanna Avenue, looking south**



**River Shore Drive, looking north**



**Alicia Avenue from Lambricht Street, looking north**

## 5. Lowry Park Central Segment



- Provide high emphasis crosswalks at the intersection of North Boulevard and Sligh Avenue and evaluate providing bike boxes on North Boulevard.
- Continue as a multi-use path (west side) and shared lane arrows along North Boulevard between Sligh Avenue and Kirby Street. The multi-use path may require coordination with Lowry Park Zoo to bring the path around a parking lot.
- Provide a controlled mid-block crossing along the north leg of the intersection of North Boulevard and Kirby Street.
- Continue as a neighborhood greenway along Kirby Street from North Boulevard to River Shore Drive.
- Continue the neighborhood greenway along River Shore Drive between Kirby Street and Florida Avenue.
- In addition to the neighborhood greenway provide a multi-use path from Purity Springs to Florida Avenue along the north side of River Shore Drive. Provide a marked crossing across River Shore Drive at Purity Springs.
- Continue as a multi-use path or wide sidewalk along the west side of Florida Avenue between River Shore Drive and Bird Street. Provide a high emphasis crosswalk along the west side of Florida Avenue at River Shore Drive.
- Utilize existing signal and crosswalk at Bird Street to cross Florida Avenue.



**River Shore Drive, looking north**



**Purity Springs Park**



**Hillsborough River from River Shore Drive**



**Intersection of Florida Avenue and Bird Street, looking east**

## 6. Sulphur Springs Segment



- Continue as a park trail through River Tower Park between Florida Avenue and I-275.
- Utilize the existing boardwalk and trail underneath I-275 from River Tower Park to Sulphur Springs Park.
- Continue as a park trail through Sulphur Springs Park from I-275 to the intersection of Nebraska Avenue and Sitka Avenue. The existing boardwalk through Sulphur Springs Park and underneath I-275 may need to be upgraded to comfortably accommodate bicycle traffic.
- Utilize the existing crosswalks to cross Nebraska Avenue at Sitka Avenue.
- The immediate/short-term alignment would utilize the existing sidewalk along the east side of Nebraska Avenue to cross the Hillsborough River to Hollywood Street.
- A neighborhood greenway along Hollywood Street would be provided from Nebraska Avenue to Van Dyke Place.
- The longer term alignment would provide a multi-use path/wide sidewalk along the east side of Nebraska Avenue from Sitka Avenue to Grant Avenue.
- A neighborhood greenway along Grant Avenue would connect Nebraska Avenue to a pedestrian/trail bridge over the Hillsborough River at Van Dyke Place.
- The pedestrian/trail bridge would connect to a neighborhood greenway along Van Dyke Place on the south side of the Hillsborough River.



River Tower Park



Boardwalk through Sulphur Springs Park

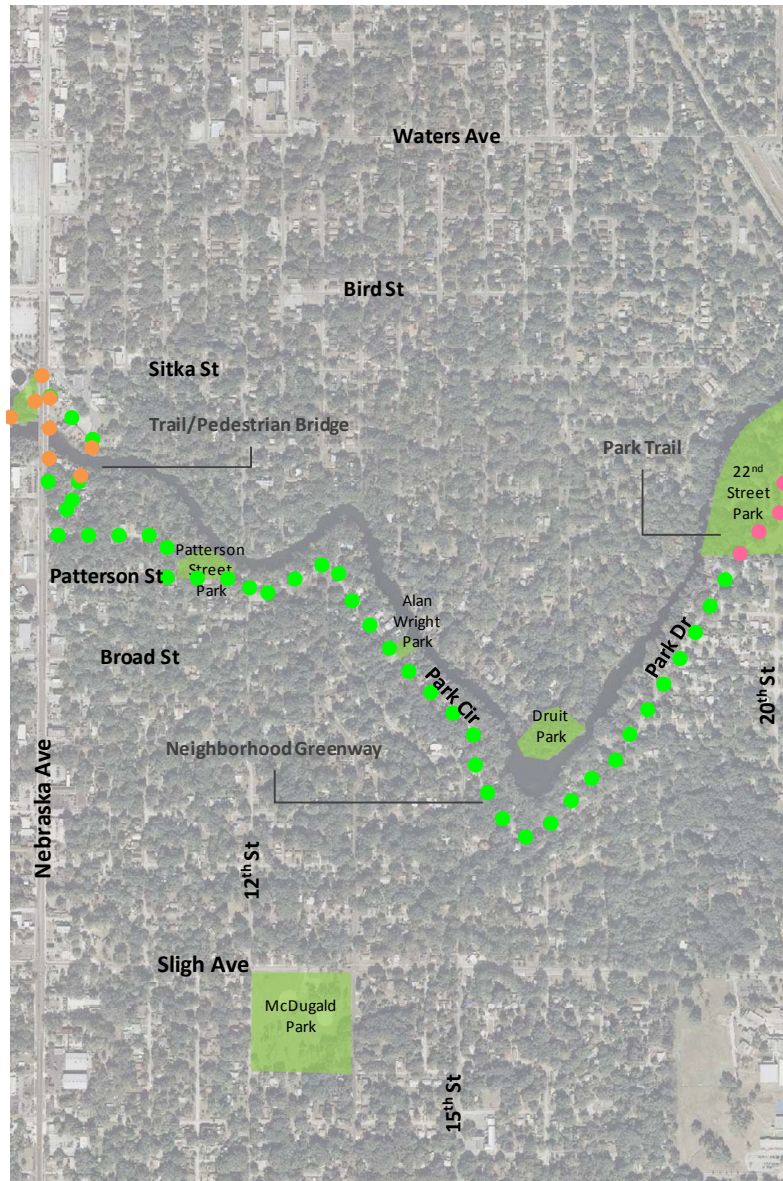


Boardwalk through River Tower Park



Location of former streetcar bridge at N. Van Dyke Place

## 7. Old Seminole Heights Segment



- Continue the neighborhood greenway along Van Dyke Place to Hamilton Heath Drive.
- Continue the neighborhood greenway along Hamilton Heath Drive from Van Dyke Place to Patterson Street.
- Continue the neighborhood greenway along Patterson Street (adjacent to Patterson Street Park) to 12<sup>th</sup> St and then to Park Circle.
- Continue the neighborhood greenway along Park Circle (adjacent to Alan Wright Park) from 12<sup>th</sup> St to Park Drive/Hamilton Avenue.
- Continue the neighborhood greenway along Park Drive from Park Circle to 22<sup>nd</sup> Street Park.



**Patterson Street Park**



**Park Circle, looking east**



**Alan Wright Park**



**22<sup>nd</sup> Street Park**

## 8. Rogers Park Segment



- Continue as a park trail through 22<sup>nd</sup> Street Park from Park Drive to Rowlett Park Drive.
- Provide a controlled mid-block crossing across Rowlett Park Drive. Coordinate with City of Tampa Parks and Recreation department on location of crossing.
- Continue as a multi-use path adjacent to the railroad tracks through Rogers Park Golf Course from Rowlett Park Drive to 30<sup>th</sup> Street (at Veve Lane). Walk-Bike Phase II proposed installing a multi-use path along the west side of Rowlett Park Drive and a multi-use path along the Veve Lane right-of-way. The crossing of Rowlett Park Drive could be accommodated here, but exact location should be coordinated with the Parks and Recreation department.
- Provide a high-emphasis crosswalk at 30<sup>th</sup> Street and Veve Lane.
- Continue the multi-use path along the east side of 30<sup>th</sup> Street from Veve Lane to Diana Street. Walk-Bike Phase II proposed installing shared lane markings on this section of 30<sup>th</sup> Street.
- Identified as an additional alignment there may be an opportunity to provide a pedestrian bridge across the Hillsborough River from 22<sup>nd</sup> Street Park to Mulberry Drive and Rowlett Park.





**22<sup>nd</sup> Street Park**



**30<sup>th</sup> Street – Existing Condition**



**Rogers Park Golf Course Cart Path**



**Proposed Multi-Use Trail along 30<sup>th</sup> Street**

## 9. East Seminole Heights Segment



- Continue the multi-use path from 30<sup>th</sup> Street along the south side of Diana Street (adjacent to Woodland Terrace Park) to 32<sup>nd</sup> Street.
- Continue the multi-use path along the west side of 32<sup>nd</sup> Street (adjacent to Woodland Terrace Park) to Fern Street.
- Transition the multi-use path along the west side of 32<sup>nd</sup> Street into a neighborhood greenway at Fern Street. Provide a high-emphasis crosswalk and signage at the intersection of 32<sup>nd</sup> Street and Fern Street to facilitate the transition between multi-use path and neighborhood greenway.
- Continue the neighborhood greenway along 32<sup>nd</sup> Street from Fern St to Hillsborough Avenue.
- Provide high-emphasis crosswalks and traffic diverters where 32<sup>nd</sup> Street intersects Hanna Avenue and Henry Avenue.
- Provide a controlled mid-block crossing at the intersection of 32<sup>nd</sup> Street and Hillsborough Avenue.



Woodland Terrace Park



32<sup>nd</sup> St, south of Hanna Avenue, looking south

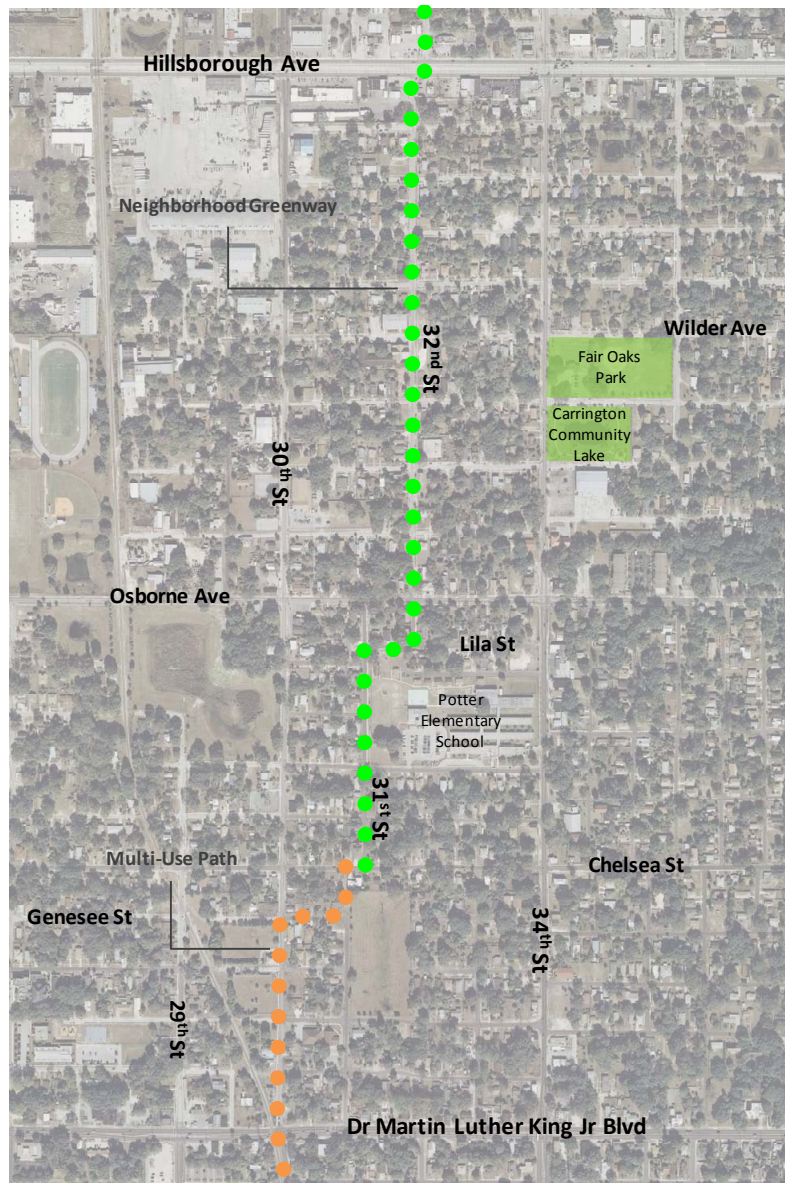


32<sup>nd</sup> Street, near Woodland Terrace Park, looking south



Hillsborough Avenue and 32<sup>nd</sup> Street

## 10. East Tampa Segment



- Continue the neighborhood greenway along 32<sup>nd</sup> Street from Hillsborough Avenue to Lila Street.
- Continue the neighborhood greenway along Lila Street from 32<sup>nd</sup> Street to 31<sup>st</sup> Street.
- Continue the neighborhood greenway along 31<sup>st</sup> Street from Lila Street to Chelsea Street.
- Provide a high-emphasis crosswalk across Chelsea Street.
- Continue as a multi-use path along the south side of Chelsea Street from 31<sup>st</sup> Street to the 31<sup>st</sup> Street right-of-way.
- Continue the multi-use path through the 31<sup>st</sup> Street right-of-way from Chelsea Street to Genesee Street.
- Continue the multi-use path along the north side of Genesee Street from the 31<sup>st</sup> Street right-of-way to 30<sup>th</sup> Street.
- Provide a high-emphasis crosswalk along the northern leg of the Genesee Street and 30<sup>th</sup> Street intersection.
- Continue the multi-use path along the west side of 30<sup>th</sup> Street from Genesee Street to Dr Martin Luther King Jr. Boulevard.
- Provide a controlled mid-block crossing at the intersection of 30<sup>th</sup> Street and Dr Martin Luther King Jr. Boulevard.
- Provide a traffic diverter along Dr Martin Luther King Jr. Boulevard at 30<sup>th</sup> Street. To accommodate a six foot wide traffic diverter/median the travel lanes along Dr Martin Luther King Jr. Boulevard will need to be reduced to 10.5 feet through this portion of road.



**32<sup>nd</sup> Street at Wilder Avenue, looking north**



**30<sup>th</sup> Street south of Chelsea Street, looking south**



**31<sup>st</sup> Street at Curtis Street (near Potter Elementary), looking south**



**30<sup>th</sup> Street at Dr M.L. King Jr. Boulevard, looking south**

## 11. College Hill Segment



- Continue the multi-use path along the west side of 30<sup>th</sup> Street from Dr Martin Luther King Jr. Boulevard to Lake Avenue.
- Provide a high-emphasis crosswalk and median island at the intersection of 30<sup>th</sup> Street and Lake Avenue.
- Continue the multi-use path along the 30<sup>th</sup> Street right-of-way adjacent to the railroad tracks from Lake Avenue to 24<sup>th</sup> Avenue.
- Provide high-emphasis crosswalks and signage where the multi-use path crosses Chipco Street, 26<sup>th</sup> Avenue, and 24<sup>th</sup> Avenue.
- Continue as a multi-use path along the south side of 24<sup>th</sup> Avenue from the 30<sup>th</sup> Street right-of-way to 31<sup>st</sup> Street.
- Continue as a neighborhood greenway along 31<sup>st</sup> Street from 24<sup>th</sup> Avenue to 21<sup>st</sup> Avenue.
- Provide a traffic diverter for southbound traffic onto 31<sup>st</sup> Street from 24<sup>th</sup> Avenue and another traffic diverter for northbound traffic onto 31<sup>st</sup> Street from 31<sup>st</sup> Avenue.
- Provide a high-emphasis crosswalk and signage at the intersection of 31<sup>st</sup> Street and 21<sup>st</sup> Avenue.
- Continue as a park trail along the northern and western perimeter of Al Barnes Jr. Park between 21<sup>st</sup> Avenue and 18<sup>th</sup> Avenue.
- Continue as a multi-use path along the north side of 18<sup>th</sup> Avenue from Al Barnes Jr. Park and the railroad crossing/30<sup>th</sup> Street right-of-way.
- Provide a high-emphasis crosswalk and signage across 18<sup>th</sup> Avenue immediately west of the railroad tracks.
- Continue the multi-use path along the 30<sup>th</sup> Street right-of-way between 18<sup>th</sup> Avenue and Columbus Drive.



30<sup>th</sup> Street south of Dr M.L. King Jr. Boulevard, looking south



Al Barnes Jr. Park

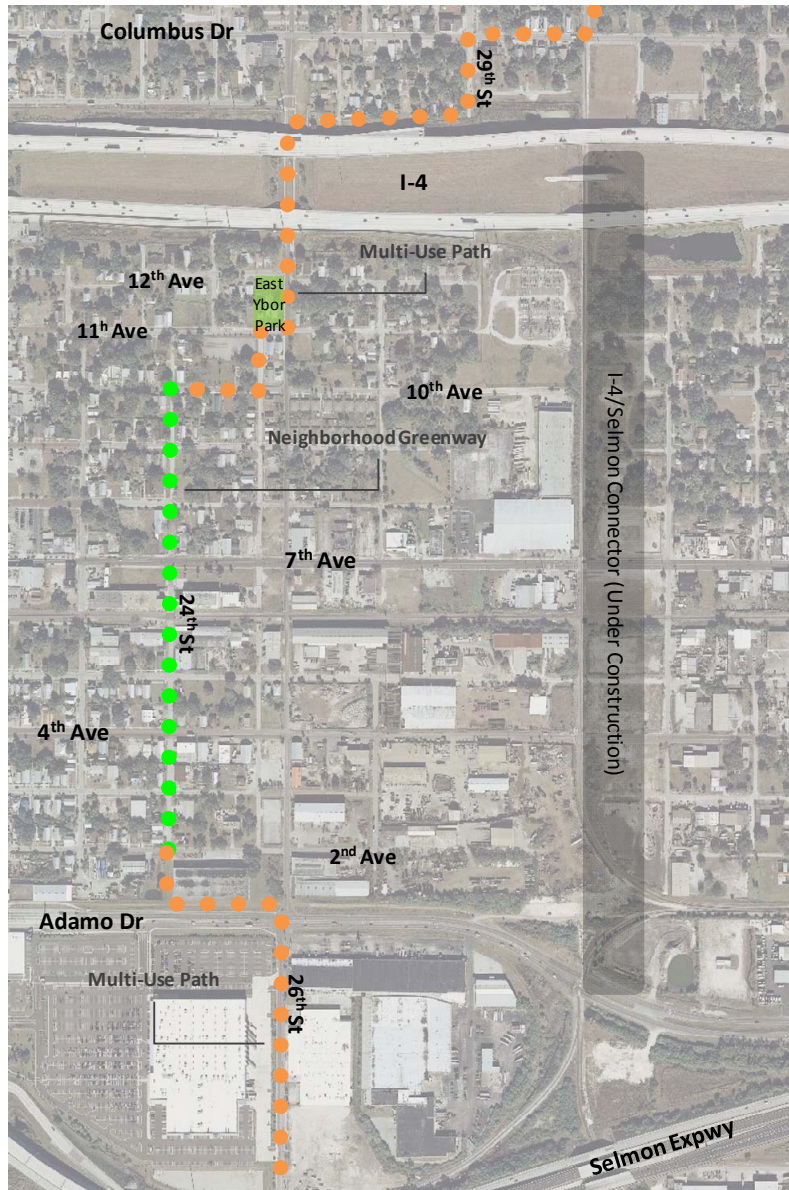


30<sup>th</sup> Street north of Lake Avenue, looking south



30<sup>th</sup> Street right-of-way next to Al Barnes Jr. Park, looking south

## 12. East Ybor Segment



- Continue the multi-use path along the north side of Columbus Drive from the 30<sup>th</sup> Street right-of-way to 29<sup>th</sup> Street. Provide a controlled mid-block crossing along the eastside of 29<sup>th</sup> Street across Columbus Drive.
- Continue the multi-use path along the east side of 29<sup>th</sup> Street from Columbus Drive to the I-4 right-of-way south of 15<sup>th</sup> Avenue.
- Continue the multi-use path along the I-4 right-of-way between 29<sup>th</sup> Street and 26<sup>th</sup> Street.
- Continue the multi-use path along the east side of 26<sup>th</sup> Street from the I-4 right-of-way to 12<sup>th</sup> Avenue. Provide a high-emphasis crosswalk and signage at the intersection of 26<sup>th</sup> Street and 12<sup>th</sup> Avenue.
- Continue the multi-use path along the west side of 26<sup>th</sup> Street from 12<sup>th</sup> Avenue to 11<sup>th</sup> Avenue.
- Continue the multi-use path along the north side of 11<sup>th</sup> Avenue from 26<sup>th</sup> Street to 24<sup>th</sup> Street. Provide a high-emphasis crosswalk and signage at the intersection of 11<sup>th</sup> Avenue and 24<sup>th</sup> Street. Also provide a traffic diverter for southbound traffic onto 24<sup>th</sup> Street from 11<sup>th</sup> Avenue.
- Continue as a neighborhood greenway along 24<sup>th</sup> Street from 11<sup>th</sup> Avenue to 2<sup>nd</sup> Avenue. Provide controlled mid-block crossings and median traffic diverters where the neighborhood greenway crosses 7<sup>th</sup> Avenue and 4<sup>th</sup> Avenue.
- Continue as a multi-use path along the 24<sup>th</sup> Street right-of-way from 2<sup>nd</sup> Avenue to Adamo Drive.
- Continue the multi-use path along the north side of Adamo Drive between the 24<sup>th</sup> Street right-of-way and 26<sup>th</sup> Street.





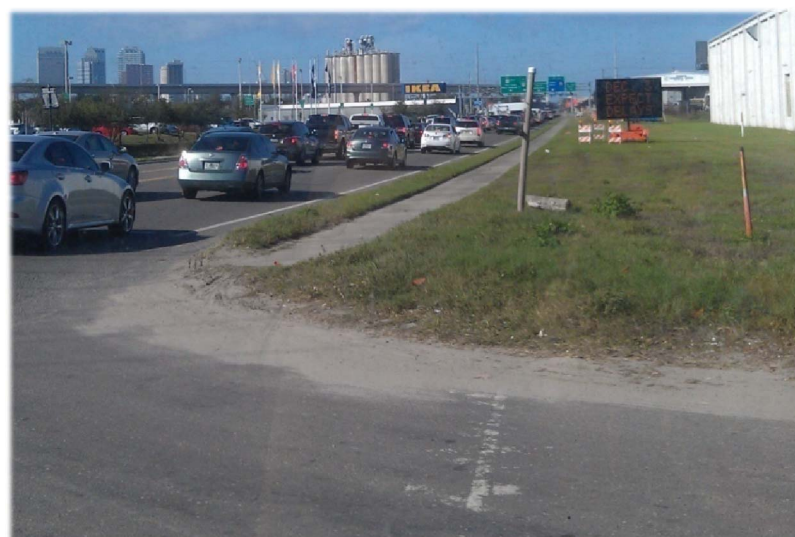
**26<sup>th</sup> Street, south of I-4**



**24<sup>th</sup> Street at 7<sup>th</sup> Avenue, looking south**



**East Ybor Park**



**26<sup>th</sup> Street at Adamo Drive, looking west**

### 13. Palmetto Beach Segment



- Provide a traffic signal at the intersection of Adamo Drive and 26<sup>th</sup> Street with high-emphasis crosswalks.
- Continue the multi-use path along the west side of 26<sup>th</sup> Street from Adamo Drive to Corrine Street.
- Continue the multi-use path along the south side of Corrine Street between 26<sup>th</sup> Street and Desoto Park.
- Continue as a park trail through Desoto Park between Corrine Street and Bermuda Boulevard.
- Continue as a multi-use path along the east side of Bermuda Boulevard between Desoto Park and Hemlock Street. Provide a controlled mid-block crossing at the intersection of Bermuda Boulevard and Hemlock Street/22<sup>nd</sup> Street.
- Continue the multi-use path along the west side of 22<sup>nd</sup> Street from Hemlock Street to 20<sup>th</sup> Street.
- Utilize the existing multi-use path along the east side of 20<sup>th</sup> Street from 22<sup>nd</sup> Street to Stuart Street. Provide marked crosswalks and signage (along both 20<sup>th</sup> Street and side streets) where the path crosses the side-streets and evaluate eliminating the “stop” signs along the existing path.
- 20<sup>th</sup> Street becomes 22<sup>nd</sup> Street north of Stuart Street, continue to utilize the existing multi-use path along the east side of 22<sup>nd</sup> Street between Stuart Street and Adamo Drive.
- In addition to the route along Bermuda Boulevard, provide a neighborhood greenway along Corrine Street between 26<sup>th</sup> Street and 20<sup>th</sup> Street.



DeSoto Park



Bermuda Boulevard near Davis Street, looking south



Existing multi-use path along 20<sup>th</sup> Street, looking north



Proposed Multi-Use Path along Bermuda Boulevard

## 14. Ybor/Channel District Segment



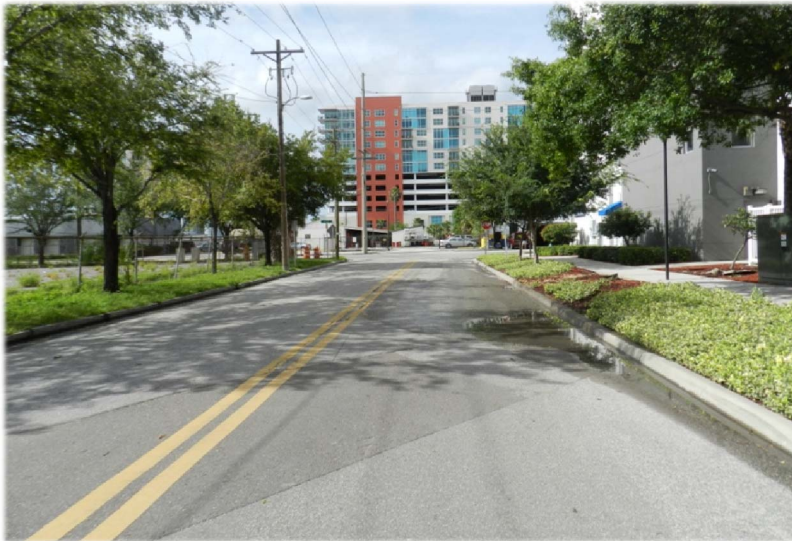
- From the intersection of Adamo Drive and 22<sup>nd</sup> Street, use the existing multi-use path along the north side of Adamo Drive from 22<sup>nd</sup> Street to just east of 19<sup>th</sup> Street.
- Continue the multi-use path along the north side of Adamo Drive to 19<sup>th</sup> Street.
- *The following portions may be completed through part of the proposed Selmon Greenway project and are subject to change.*
- Use the existing signal at Adamo Drive and 19<sup>th</sup> Street to cross Adamo Drive.
- Continue the multi-use path along the south side of Adamo Drive from 19<sup>th</sup> Street to Channelside Drive.
- Continue the multi-use path along the south side of Adamo Drive approximately 50 feet.
- Transition the multi-use path along the south side of Adamo Drive to a neighborhood greenway along Adamo Drive to 12<sup>th</sup> Street.
- Continue the neighborhood greenway along 12<sup>th</sup> Street from Adamo Drive to Twiggs Street.
- Use the existing wide sidewalk along the north side of Twiggs Street between 12<sup>th</sup> Street and Raymond Street.
- Continue as a multi-use path/wide sidewalk along the north side of Twiggs Street between Raymond Street and Meridian Avenue. Use the existing signalized crossing to cross Meridian Avenue.
- Continue the multi-use path along the south side of Twiggs Street to the Selmon Expressway (proposed Selmon Greenway.)



**Adamo Drive at 19<sup>th</sup> Street, looking west**



**Twiggs Street at 12<sup>th</sup> Street, looking west**



**12<sup>th</sup> Street north of Twiggs Street, looking south**

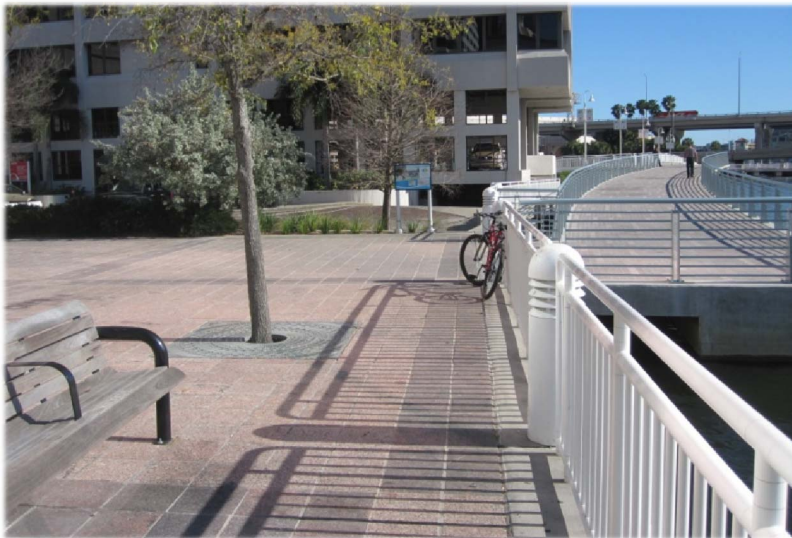


**Existing path along Meridian Avenue, looking south**

## 15. Downtown Segment



- Access through southern downtown may be accomplished in one of two ways:
  - Utilize the proposed Selmon Greenway between Meridian Avenue and the Riverwalk at Ashley Drive.
  - Utilize the existing multi-use path along the west side of Meridian Avenue between Twiggs Street to Channelside Drive and continue to the Riverwalk between Channelside Drive and Brorein Street.
- Use the existing and planned Riverwalk from Brorein Street to North Boulevard.



**MacDill Park**



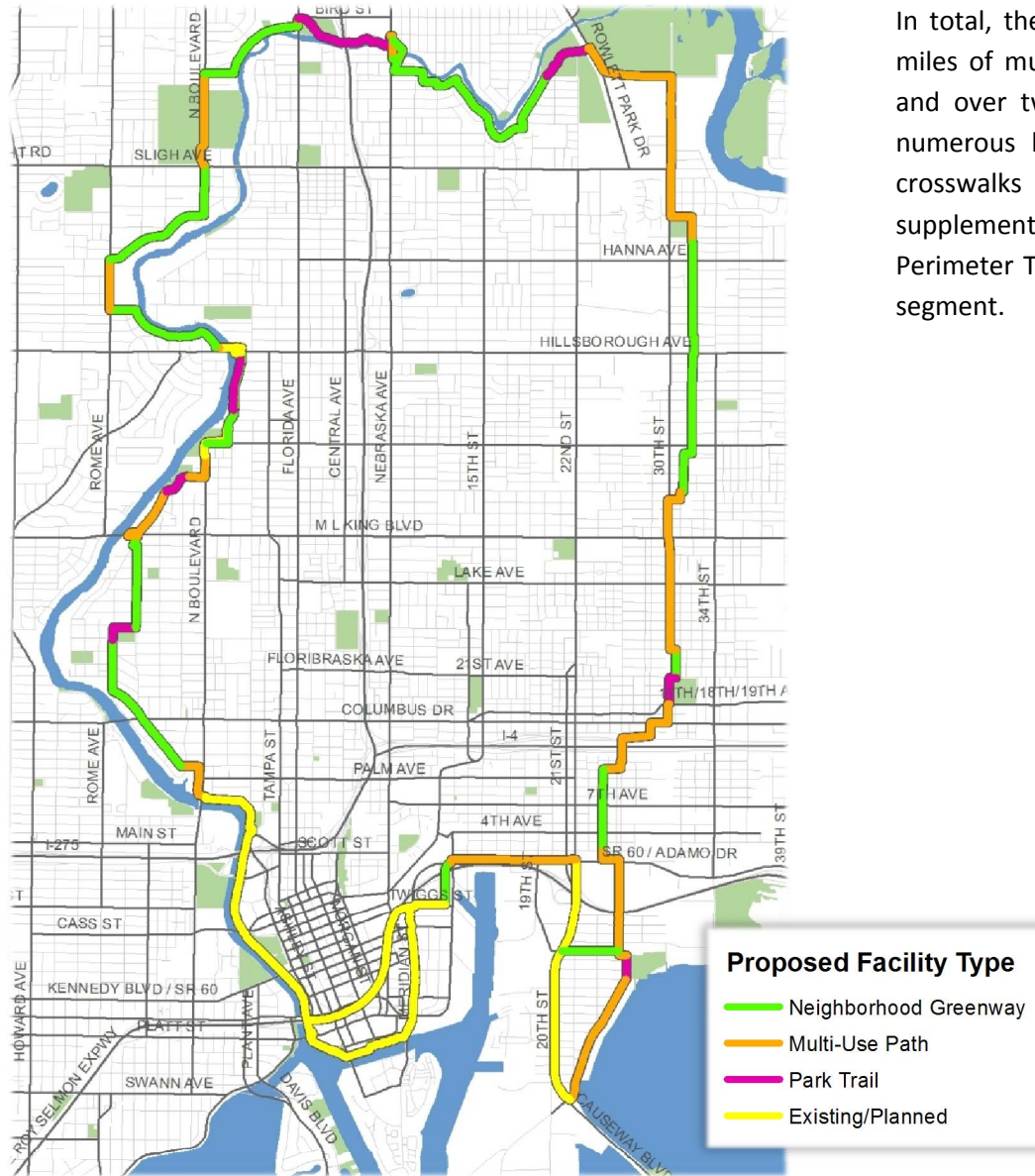
**Curtis Hixon Park**



**USF Park**



**Water Works Park**



In total, the Green ARtery Perimeter Trail consists of nearly nine miles of multi-use paths, eight miles of neighborhood greenways, and over two miles of park trails. In addition to these facilities numerous locations have been identified for new or enhanced crosswalks and/or crossing features, traffic calming, and supplemental signage. **Figure 21** shows the entire proposed Perimeter Trail alignment with the proposed facility types for each segment.

**Figure 21: Proposed Perimeter Trail Alignment and Facility Type**



## Supporting Facilities Review

The Perimeter Trail is expected to incorporate two major trail investments, phases of which that have already been completed, are funded, or are being planned. These two investments are the Tampa Riverwalk and the Selmon Greenway. This section provides a brief overview of the status of these projects as they relate to the Perimeter Trail.

### Tampa Riverwalk

When completed, the Tampa Riverwalk will be a 2.6 mile long waterside pathway that will stretch from North Boulevard to the Channelside area. Officially the Riverwalk project started in 1975, but remained on the back shelf for nearly 30 years. In 2003, a renewed emphasis was placed on developing the City's waterfront. As of today, about 1.7 miles of the Tampa Riverwalk has been completed. In June of 2012, the City of Tampa received a \$10.9 million federal Transportation Investment Generating Economic Recovery (TIGER) grant to construct bicycle and pedestrian facilities in downtown; \$9.5 million of the grant is for the completion of two more sections of the Riverwalk. The two TIGER grant funded segments are expected to be complete by summer 2015 and will create a continuous 2.4 mile facility connecting the Channelside area and Water Works Park. The remaining portion of the Riverwalk in the Tampa Heights Riverfront CRA is planned to be completed in conjunction with private development of the adjacent property. **Figure 22** shows the completed Riverwalk segments, segments that will be constructed with the TIGER funds, and the segment to be completed through private development.



**Figure 22: Tampa Riverwalk**

### Selmon Greenway

The Selmon Greenway is a proposed 1.7 mile, multi-use path located within and adjacent to the Selmon Expressway right-of-way in downtown Tampa. This facility will connect the Tampa Riverwalk, Central Business District, Channel District, and Ybor City. Along with increased pedestrian and bicycle access throughout downtown, the Greenway will also provide opportunities to increase downtown park space and incorporate art, educational elements, monuments, and improve stormwater collection while retaining much of the current parking facilities. A majority (\$1.4 million) of the funding for the Selmon Greenway is being provided through the \$10.9 million federal TIGER grant awarded to the City in June 2012 and from the Tampa-Hillsborough County Expressway Authority (THEA). While a construction date has not yet been determined, THEA has recently

advertised the project for design and construction. **Figure 23** shows a potential alignment for the proposed Selmon Greenway.



**Figure 23: Potential Selmon Greenway Alignment**

## Green ARtery Perimeter Trail Cost Estimates

Detailed engineering and design work must be conducted to determine actual costs to construct the entire Perimeter Trail. However, generic unit costs can be used to estimate that the Perimeter Trail will likely cost between \$4 million and \$5 million to construct. Which, considering that the cost of widening one mile of a four lane road to six lanes is \$3.5 million, this cost is relatively low for nearly 20 miles of improved bicycle and pedestrian facilities. **Figure 24** provides a list of the unit costs used to calculate the estimated Perimeter Trail costs. Appendix A provides a segment by segment break-down of the recommended facilities and planning level cost estimate for the Perimeter Trail. A detailed study is required to determine the actual cost to design and construct each segment of the Perimeter Trail.

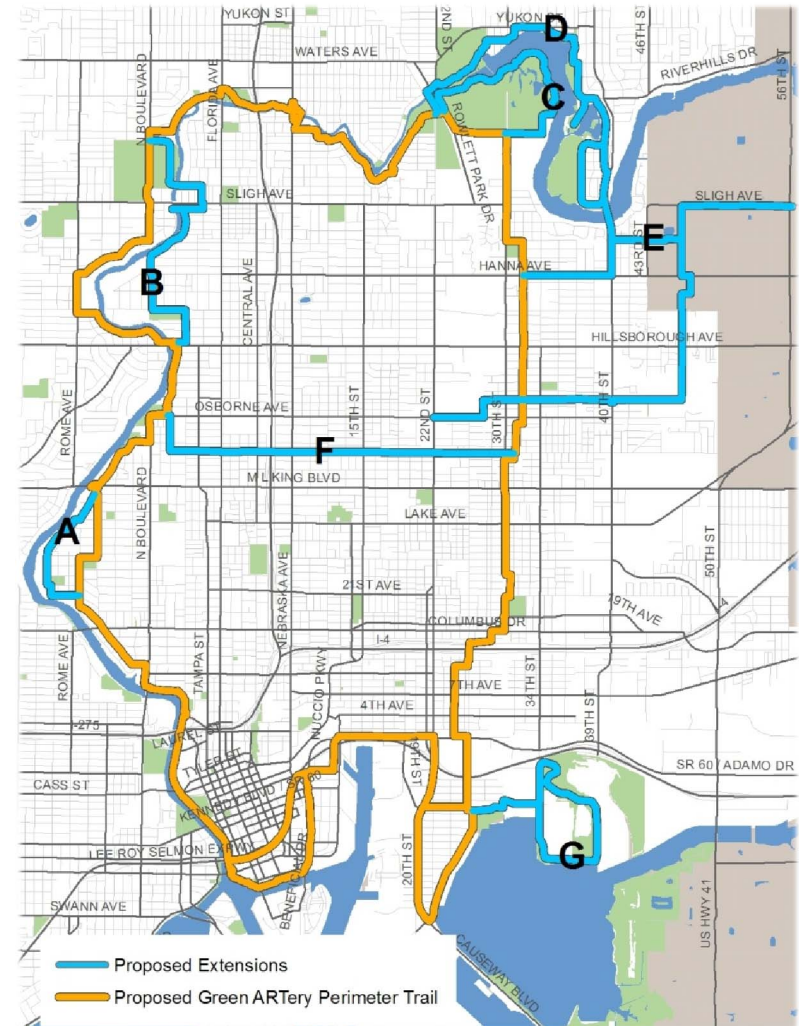
Treatment	Estimated Cost	Unit
Multi-Use Path/Park Trail (12')	\$ 320,000	per mile
Sidewalk (6', 1-side)	\$ 175,000	per mile
High Intensity Activated Crosswalk (HAWK)	\$ 100,000	per location
Neighborhood Greenway	\$ 35,000	per mile
Rapid-Rectangular Flashing Beacons	\$ 20,000	per location
Speed Humps/Cushions	\$ 10,000	per mile
Traffic Circles	\$ 10,000	per location
Pedestrian Bridge/Overpass	\$ 335	per Sq Ft
Traffic Separator (4')	\$ 25	per linear foot
High Emphasis Crosswalk	\$ 10	per linear foot

**Figure 24: Sample Cost Estimates**

## Extensions to the Green ARtery Perimeter Trail

In addition to the main Perimeter Trail alignment there are several proposed trail extensions. These extensions are a combination of trail loops and spurs that would help bring people from Tampa and unincorporated Hillsborough County onto the Perimeter Trail. **Figure 25** shows the proposed Perimeter Trail extensions. These extensions are viewed as longer-term additions to the Perimeter Trail and have not been evaluated to the level of detail as the sections along the Perimeter Trail.

The identified Perimeter Trail extensions are described on the following pages.



**Figure 25: Green ARtery Trail Extensions**

#### Extension A:

- Provide a neighborhood greenway along Charter Street from Kinyon Avenue to Perry Avenue.
- Continue the neighborhood greenway along Perry Avenue to Coral Street/Riverside Garden Park.
- Continue the neighborhood greenway along Coral Street to Perry Avenue.
- Continue the neighborhood greenway along Perry Avenue to Woodlawn Avenue.
- Continue the neighborhood greenway along Woodlawn Avenue to Ridge Avenue.
- Continue the neighborhood greenway along Ridge Avenue to Orient Street.

#### Extension B:

- Provide a multi-use path along the north side of Hillsborough Avenue from the Hillsborough Avenue bridge underpass east to Ola Avenue.
- Continue as a neighborhood greenway along Ola Avenue from Hillsborough Avenue to Henry and Ola Park near Powhatan Avenue.
  - Provide a high-emphasis crosswalk near the intersection of Ola and Powhatan Avenues.
- Continue as a park trail through Henry and Ola Park from Ola Avenue to Henry Ave near Otis Avenue.
  - Provide a high-emphasis crosswalk at intersection of Henry and Otis Avenues.
- Continue as a neighborhood greenway along Otis Avenue from Henry Avenue to Fern St/Epps Park.
- Continue a park trail through Epps Park from Fern Street to River Boulevard.
- Continue as a neighborhood greenway along River Boulevard from Epps Park to Elm Street.
  - *Evaluate the possibility of constructing a pedestrian/trail bridge over the Hillsborough River south of the Sligh Avenue Bridge between River Boulevard and River Shore Drive.*

- Continue the neighborhood greenway along Elm Street between River Boulevard and Highland Avenue.
- Continue the neighborhood greenway along Highland Avenue to Sligh Avenue.
- Install a mid-block crossing at the intersection of Highland Ave and Sligh Avenues; provide high-emphasis crosswalk and evaluate for traffic control (RRFB or Pedestrian Signal).
- Continue the neighborhood greenway along Highland Avenue from Sligh Avenue to Flora Street.
- Continue the neighborhood greenway along Flora Street to west of River Boulevard where Flora Street currently ends.
  - Provide a pedestrian/trail bridge over the Hillsborough River from Flora Street to Lowry Park.
- Continue as a park trail through Lowry Park connecting the pedestrian/trail bridge to North Boulevard.

Extension C:

- Provide a park trail and/or boardwalk around the perimeter of the Rogers Park Golf Course along the Hillsborough River from 22<sup>nd</sup> Street Park/Rowlett Park Drive to Veve Lane.
- Continue as a neighborhood greenway along Veve Lane to 30<sup>th</sup> Street.

Extension D:

- Provide a park trail through 22<sup>nd</sup> Street Park to the Hillsborough River, west of the railroad tracks.
- Provide a pedestrian/trail bridge across the Hillsborough River from 22<sup>nd</sup> Street Park to Mulberry Drive.
- Continue as a multi-use path along Mulberry Drive to Rowlett Park.
- Continue as a park trail through Rowlett Park to the intersection of 28<sup>th</sup> Street and Waters Avenue.
- Continue as a neighborhood greenway along Waters Ave between 28<sup>th</sup> and Yukon Streets.
- Continue the neighborhood greenway along Yukon Street between Waters Avenue and Riverview Drive.
- Evaluate providing a multi-use path or wide sidewalk along Yukon Street in addition to the neighborhood greenway.
- Continue as a multi-use path/park trail along Riverview Drive and then through Temple Crest Park to River Hills Drive.
- Continue the multi-use path/park trail along Greenwood Avenue.
- Continue as a neighborhood greenway along River Hills Drive to Lakeshore Drive.
- Continue the neighborhood greenway along Lakeshore Drive to Hutton Place.
- Continue the neighborhood greenway along Hutton Place between Lakeshore Drive and Crawford /40<sup>th</sup> Street.
- Continue as a multi-use path/park trail along Lakeshore Drive and the Greenwood Site from Hutton Place to Norfolk Street.
- Transition to a neighborhood greenway along Lakeshore Drive from Norfolk Street to 40<sup>th</sup> Street.
- Continue as a wide sidewalk/multi-use path along the west side of 40<sup>th</sup> Street from Crawford Street to Hanna Avenue.
- Continue the multi-use path along the south side of Hanna Avenue from 40<sup>th</sup> Street to 32<sup>nd</sup> Street.

### Extension E:

- Cross 40<sup>th</sup> Street at Diana Street/River Grove Drive using the existing signal.
- Provide a neighborhood greenway along Diana Street and through the existing right-of-way to 43<sup>rd</sup> Street.
  - Provide a high-emphasis crosswalk at 43<sup>rd</sup> Street.
- Continue the neighborhood greenway along Diana Street to the existing drainage basin (county-owned).
- Continue as a multi-use path along the perimeter of the drainage basin property to 47<sup>th</sup> Street.
- North Spur:
  - Provide a multi-use path along the west side of 47<sup>th</sup> Street to Sligh Avenue.
  - Continue the multi-use path along the south side of Sligh Avenue to 56<sup>th</sup> Street; use the existing signal to cross 56<sup>th</sup> Street.
  - Continue the multi-use path along the south side of Sligh Avenue in front of King High School.
- South Loop:
  - Provide a multi-use path along the west side of 47<sup>th</sup> Street to Hanna Avenue.
    - Provide a high-emphasis crosswalk at intersection of 47<sup>th</sup> Street and Hanna Avenue.
  - Continue the multi-use path along the north side of Hanna Avenue to 48<sup>th</sup> Street.
  - Continue as a neighborhood greenway along 48<sup>th</sup> St to Idelwild Avenue.
  - Continue the neighborhood greenway along Idelwild Avenue to 47<sup>th</sup> Street.
  - Continue the neighborhood greenway along 47<sup>th</sup> Street until a block north of Hillsborough Avenue.
  - Transition to a multi-use path along the east side of 47<sup>th</sup> Street to Hillsborough Avenue.
  - Provide a controlled mid-block crossing at the intersection of Hillsborough Avenue and 47<sup>th</sup> Street.
    - Evaluate partial median closure.
  - Continue the multi-use path along the west side of 47<sup>th</sup> Street to Ellicott Street.
  - Continue as a neighborhood greenway along Ellicott Street to 40<sup>th</sup> Street.
    - Utilize the existing signalized crossing on 40<sup>th</sup> Street, just south of Ellicott Street.
  - Continue the neighborhood greenway along Ellicott Street to 32<sup>nd</sup> Street.
    - Provide partial traffic diverters where Ellicott Street intersects 34<sup>th</sup> Street and 37<sup>th</sup> Street.

- Middleton High School Spur:
  - Provide a neighborhood greenway along Ellicott Street from 32<sup>nd</sup> Street to the 28<sup>th</sup> Street right-of-way along the railroad tracks.
  - Continue as a multi-use path along the east side of the railroad tracks to Osborne Avenue.
  - Use the existing wide sidewalk along the north side of Osborne Avenue past Middleton High School to 22<sup>nd</sup> Street.

Extension F:

- Provide a neighborhood greenway along Chelsea St from 30<sup>th</sup> Street to 12<sup>th</sup> Street.
  - Provide traffic diverters at the intersections of 26<sup>th</sup> Street, 19<sup>th</sup> Street, and 12<sup>th</sup> Street.
  - Complete the sidewalk along the north side of Chelsea Street between 17<sup>th</sup> Street and 15<sup>th</sup> Street.
- Continue as a multi-use path along the north side of Chelsea Street from 12<sup>th</sup> Street to Florida Avenue.
  - Provide a controlled mid-block crossing at Florida Avenue.
- Continue the multi-use path along the south side of Chelsea Street from Florida Avenue to Highland Avenue.
- Provide a mid-block crossing at Highland Avenue; evaluate the need for a controlled crossing.

- Continue as a neighborhood greenway along Chelsea St from Highland Avenue to Lynn Avenue.
- Continue the neighborhood greenway along Lynn Avenue from Chelsea Street to Osborne Avenue (Broward Elementary School/Rivercrest Park).

Extension G:

- Provide a park trail through Desoto Park from 26<sup>th</sup> Street to 30<sup>th</sup> Street.
- Continue as a neighborhood greenway along 30<sup>th</sup> Street from Desoto Park to Clark Street.
- Continue the neighborhood greenway along Clark Street from 30<sup>th</sup> Street to 34<sup>th</sup> Street.
- Continue the neighborhood greenway between along 34<sup>th</sup> Street between Grace Street and McKay Bay Nature Preserve.
- Continue as a park trail along the perimeter of the McKay Bay Nature Preserve.



## Public Involvement

The previous phases of the City of Tampa’s Walk-Bike Plan were vetted at the City Transportation and Hillsborough County MPO staff level and were more technical in nature. Given that the concept for the Green ARtery Perimeter Trail was born from the community, it was important that this process included members of the community as active leaders in developing the Perimeter Trail.

**Appendix B** provides the Public Involvement Plan that was developed at the beginning of the planning process for the Perimeter Trail. As identified in the Public Involvement Plan, the public involvement goals for the Perimeter Trail are:

1. Communicate the Green ARtery urban trail concepts
2. Provide multiple opportunities for formats and public input
3. Understand, document, and address community concerns
4. Build community support for plan implementation

Most of the public involvement focused around four public workshops/open houses that allowed attendees to participate in the process of developing the Perimeter Trail. Green ARtery leadership and Hillsborough County MPO staff helped to publicize the following events.

- Workshop #1 (February 27, 2013) at Tampa Preparatory School for Old Seminole Heights, Live Oaks Square, Ybor Heights, Riverside Heights, Channel District neighborhoods
- Workshop #2 (March 27, 2013) at the Rogers Park Golf Course Club House for Southeast Seminole Heights, Hampton Terrace, East Tampa, East Ybor, Central Park/Encore neighborhoods

- Workshop #3 (April 24, 2013) at the DeSoto Park Community Center for South Seminole Heights, VM Ybor, Palmetto Beach, Tampa Heights, East Seminole Heights neighborhoods
- Workshop #4 (May 29, 2013) at the Seminole Heights Garden Center for Woodland Terrace, Historic Ybor, Downtown Partnership, Ridgewood Park, Rogers Park neighborhoods

Part of the workshop process included a series of polling questions that were asked as part of the workshop presentation. **Appendix C** contains the questions and combined results of the four workshops. Just over 100 people participated in the polling questions, with overall workshop attendance estimated between 120 and 150 people. In a group activity, workshop participants were also asked to identify assets/opportunities and issues/challenges along the proposed Perimeter Trail alignment. Their responses are in **Appendix C**.



**Workshop #1, Tampa Preparatory School, February 2013**



**Workshop #3, DeSoto Park Community Center, April 2013**



**Workshop #2, Rogers Park Golf Course Club House, March 2013**



**Workshop #4, Seminole Heights Garden Center, May 2013**

## Conclusion

This document identifies the recommended alignment and treatment types for the Green ARtery Perimeter Trail. These recommendations represent a combined effort of technical and public input and are viewed as the best way to complete the Green ARtery Perimeter Trail. The technical approach of this plan was to identify and mitigate any potential “fatal flaws,” but a more detailed design and engineering study is needed to determine the actual feasibility and cost of developing the Perimeter Trail.

The Green ARtery organization will continue to be the champion for this project and will maintain a level of public involvement as it progresses. Any future design and/or construction phases of the Perimeter Trail should also include a forum for public involvement and input to ensure that the Perimeter Trail continues to reflect the goals and values of the neighborhoods and community.

It will be important for any future phases of the Perimeter Trail to take a proactive approach in dealing with safety concerns (personal and property) along the trail. The streets and pathways that make-up the Perimeter Trail need to have adequate lighting, clear sight lines, and need to be viewed as safe and welcoming to both users of the trail and to those who live along the trail. It will also be important to monitor traffic patterns (volumes and speed) along the Perimeter Trail roadways, and those parallel to the trail, to ensure that unintended consequences do not arise from development of the trail.

Since many portions of the Perimeter Trail use existing City park facilities and the trail is both a transportation and recreational facility, it will be important to coordinate with the City’s

Transportation Division and Parks and Recreation Department concerning issues related to access to (as many of the City’s parks are only open from sunrise to sunset) and maintenance of the trail. Also, as the trail concepts move to a more formal design phase, emergency response personnel (police, fire, and emergency medical services) should be consulted to ensure that response times are not negatively affected and that access to properties are maintained.

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## Appendix A – Green ARtery Perimeter Trail Segment Detail

ID	Trail Section	On	From	To	Recommended Treatment	Side of Road	Estimated Treatment Cost	Notes
1	Ridgewood Park	North Boulevard Bridge	Riverwalk Termini	Cruis A Cade Pl	Multi-Use Path	-	\$14,200	Path underneath the North Boulevard Bridge
2	Ridgewood Park	Cruis A Cade Pl	North Boulevard Bridge	Ross Ave	Multi-Use Path	West	\$49,300	
3	Ridgewood Park	Ross Ave	Cruis A Cade Pl	Ridgewood Ave	Multi-Use Path	South	\$32,000	Install a marked crossing (high-emphasis crosswalk) along the southern leg of the intersection of Ross Ave and Ridgewood Ave
4	Ridgewood Park	Ridgewood Ave	Ross Ave	Columbus Dr	Neighborhood Greenway	-	\$14,600	Evaluate the need for traffic calming; Enhance crosswalks (high-emphasis crosswalk) at Columbus Dr; Monitor and evaluate operations at the intersection of Columbus Dr (consider installing a bike box.)
5	Riverside Heights	Ridgewood Ave	Columbus Dr	Kinyon Ave	Neighborhood Greenway	-	\$18,300	Evaluate the need for traffic calming along Ridgewood Ave; Provide high-emphasis crosswalk at the intersection of Kinyon Ave; Install a traffic circle at the intersection of Oakdale Ave
6	Riverside Heights	Kinyon Ave	Ridgewood Ave	Plymouth Park/Adalee St	Neighborhood Greenway	-	\$12,050	Provide a high-emphasis crosswalk across Kinyon Ave at Adalee St/Plymouth Park; evaluate need for traffic calming
7	Riverside Heights	Plymouth Park/Kinyon Ave	Adalee St	Plymouth St	Park Trail	East	\$27,300	Replace the existing sidewalk adjacent to Plymouth Park with a 10-12 foot park trail
8	Riverside Heights	Plymouth Park	Kinyon Ave	Oakdale Ave	Park Trail	North	\$40,250	Replace the existing sidewalk along the north side of Plymouth Park with a 10-12 foot park trail; provide a marked crossing at Oakdale Ave
9	Riverside Heights	Oakdale Ave	Plymouth Park	Orient St	Neighborhood Greenway	-	\$20,700	Re-orient the stop sign placement and evaluate the need for traffic calming along Oakdale Ave
10	Riverside Heights	Orient St	Oakdale Ave	Ridge Ave	Neighborhood Greenway	-	\$800	
11	Riverside Heights	Ridge Ave	Orient St	S. of M.L. King Blvd	Neighborhood Greenway	-	\$4,500	Evaluate installing a median traffic diverter along M. L. King Blvd at the intersection of Ridge Ave to prohibit left turn movements.
12	Riverside Heights	M.L. King Blvd	Ridge Ave	M.L. King Blvd Bridge	Multi-Use Path	South	\$17,600	
13	Riverside Heights	M.L. King Blvd Bridge	M.L. King Blvd	M.L. King Blvd	Multi-Use Path	-	\$500,000	Bridge undercrossing
14	Riverside Heights	M.L. King Blvd	M.L. King Blvd Bridge	Riverside Dr	Multi-Use Path	North	\$13,300	
15	South Seminole Heights	Riverside Dr	M.L. King Blvd	Reed Property	Multi-Use Path	West	\$85,800	

ID	Trail Section	On	From	To	Recommended Treatment	Side of Road	Estimated Treatment Cost	Notes
16	South Seminole Heights	Reed Property	Riverside Dr	Emma St	Park Trail	-	\$52,100	
17	South Seminole Heights	Emma St	Reed Property	North Boulevard	Multi-Use Path	North	\$27,900	This connection could be made with a neighborhood greenway
18	South Seminole Heights	North Boulevard	Emma St	Rivercrest Park	Multi-Use Path	West	\$37,900	North Blvd currently has shared lane arrows and traffic calming, but a separated facility would be preferred along this section
19	South Seminole Heights	Rivercrest Park	North Boulevard	River Blvd	Park Trail	-	\$500	Utilize existing greenways and trails through Rivercrest Park; Provide a crosswalk across River Blvd, south of the parking entrance to Rivercrest Park
20	South Seminole Heights	River Blvd	Osborne Ave	Hillsborough Ave	Neighborhood Greenway	-	\$22,500	Monitor traffic volumes and speed along River Blvd; traffic calming and/or traffic diverters may be needed
21	South Seminole Heights	Ignacio Haya Linear Park	South Ave	Hillsborough Ave	Park Trail	-	\$103,000	Determine feasibility of providing a trail through the park, if not feasible widen the sidewalk along the park's frontage on River Blvd to a min. of 8'
22	South Seminole Heights	Hillsborough Ave	River Blvd	River Shore Dr	Multi-Use Path	-	-	Utilize the existing bridge undercrossing and the sidewalk and bike lane along the north side of Hillsborough Ave to connect to Rivershore Dr
23	Riverbend	Hillsborough Ave	Hillsborough Ave Bridge	River Shore Dr	Multi-Use Path	-	\$7,300	Consider providing an additional access ramp from Hillsborough Ave to Rivershore Dr
24	Riverbend	River Shore Dr	Hillsborough Ave	Powhattan Ave	Neighborhood Greenway	-	\$18,900	
25	Riverbend	Powhattan Ave	River Shore Dr	Rome Ave	Neighborhood Greenway	-	\$25,300	Provide a marked crosswalk with RRFB across Rome Ave at Powhattan Ave
26	Riverbend	Rome Ave	Powhattan Ave	Hanna Ave	Multi-Use Path	West	\$109,000	This was identified in Tampa Walk-Bike II; Provide a crosswalk with RRFB across Rome Ave along the south leg of the intersection with Hanna Ave
27	Riverbend	Hanna Ave	Rome Ave	Alicia Ave	Neighborhood Greenway	-	\$10,600	Provide a sidewalk along the south side of Hanna Ave; Opportunity may exist to develop a "pocket" park at the eastern end of Hanna Ave
28	Riverbend	Alicia Ave	Hanna Ave	North Boulevard	Neighborhood Greenway	-	\$18,950	Provide a marked crosswalk at the intersection of Alicia Ave and Lambright St; Opportunity may exist to provide a "pocket" park at the southern terminus of North Blvd near Alicia Ave
29	Riverbend	North Boulevard	Alicia Ave	Sligh Ave	Neighborhood Greenway	-	\$11,600	Provide high-emphasis crosswalks at the intersection of North Blvd and Sligh Ave. Also, evaluate providing bike boxes on North Blvd at the intersection of Sligh Ave
30	Lowry Park Central	North Boulevard	Sligh Ave	Kirby St	Multi-Use Path	West	\$18,110	May require coordination with Zoo to bring path around a parking lot; Provide shared lane arrows along North Blvd in addition to the path

ID	Trail Section	On	From	To	Recommended Treatment	Side of Road	Estimated Treatment Cost	Notes
31	Lowry Park Central	Kirby St	North Boulevard	River Shore Dr	Neighborhood Greenway	-	\$25,900	Provide a controlled marked crossing at the intersection of North Blvd and Kirby St
32	Lowry Park Central	River Shore Dr	Kirby St	Florida Ave	Neighborhood Greenway	-	\$58,900	Provide a marked crossing across River Shore Dr at Purity Springs; Provide a wide sidewalk along River Shore Dr between Purity Springs and Florida Ave
33	Lowry Park Central	Florida Ave	River Shore Dr	Bird St	Multi-Use Path	West	\$14,600	Provide a high-emphasis crosswalk along the west side of Florida Ave at River Shore Dr; Utilize the existing signal at Bird St to cross Florida Ave
34	Sulphur Springs	River Tower Park	Florida Ave	I-275	Park Trail	-	\$84,800	Utilize existing park trails through River Tower Park where available
35	Sulphur Springs	Under I-275	River Tower Park	Sulphur Springs Park	Park Trail	-	-	Utilize the existing boardwalk and undercrossing underneath I-275
36	Sulphur Springs	Sulphur Springs Park	I-275	Nebraska Ave	Park Trail	-	-	Utilize the existing trails through Sulphur Springs Park
37	Sulphur Springs	Nebraska Ave	Sulphur Springs Park	Sitka Ave	Controlled Crossing	-	-	Utilize the existing signal to cross Nebraska Ave
38	Sulphur Springs	Nebraska Ave	Sitka Ave	Hollywood St	Sidewalk	East	-	Utilize the existing sidewalk
39	Sulphur Springs	Hollywood St	Nebraska Ave	Van Dyke Pl	Neighborhood Greenway	-	\$1,300	
40	Sulphur Springs	Nebraska Ave	Sitka Ave	Grant Ave	Multi-Use Path	East	\$7,300	Longer-term alternative
41	Sulphur Springs	Grant Ave	Nebraska Ave	Van Dyke Pl	Neighborhood Greenway	-	\$2,900	
42	Sulphur Springs	Pedestrian Bridge	Van Dyke Pl	Van Dyke Pl	Pedestrian Bridge	-	\$600,000	Provide a pedestrian/trail bridge where the old streetcar bridge was once located
43	Old Seminole Heights	Van Dyke Pl	Hillsborough River	Hamilton Heath Dr	Neighborhood Greenway	-	\$2,900	
44	Old Seminole Heights	Hamilton Heath Dr	Van Dyke Pl	Patterson St	Neighborhood Greenway		\$7,400	
45	Old Seminole Heights	Patterson St	Hamilton Heath Dr	12th St	Neighborhood Greenway		\$2,700	Provides access to Patterson Park

ID	Trail Section	On	From	To	Recommended Treatment	Side of Road	Estimated Treatment Cost	Notes
46	Old Seminole Heights	12th St	Patterson St	Park Cir	Neighborhood Greenway		\$700	
47	Old Seminole Heights	Park Cir	12th St	Park Dr	Neighborhood Greenway		\$24,500	Provides access to Alan Wright Park
48	Old Seminole Heights	Park Dr	Park Cir	22nd St Park	Neighborhood Greenway		\$10,300	
49	Rogers Park	22nd St Park	Park Dr	Rowlett Park Dr	Park Trail	-	\$117,500	Provide a controlled marked crosswalk across Rowlett Park Dr
50	Rogers Park	Rowlett Park Dr	22nd St Park	Rogers Park Golf Course	Multi-Use Path	East	\$47,300	Adjacent to the railroad tracks
51	Rogers Park	Rogers Park Golf Course	Rowlett Park Dr	30th St	Multi-Use Path	-	\$118,200	Along the perimeter of Rogers Park Golf Course to the intersection of 30th St and Veve Ln
52	Rogers Park	30th St	Veve Ln	Diana St	Multi-Use Path	East	\$242,650	Provide a high-emphasis crosswalk at the intersection of 30th St and Veve Ln
53	East Seminole Heights	Diana St	30th St	32nd St	Multi-Use Path	South	\$37,250	Adjacent to Woodland Terrace Park; Provide marked crossing across Diana St at 30th St
54	East Seminole Heights	32nd St	Diana St	Fern St	Multi-Use Path	West	\$46,000	Adjacent to Woodland Terrace Park; Provide marked crossing and signage at intersection of 32nd St and Fern St
55	East Seminole Heights	32nd St	Fern St	Hillsborough Ave	Neighborhood Greenway	-	\$24,900	Provide crosswalks and traffic diverters where 32nd St intersects Hanna Ave and Henry Ave
56	East Seminole Heights	32nd St	at Hillsborough Ave	-	Mid-Block Crossing	-	\$100,000	Provide controlled mid-block crossing with raised median at the intersection of 32nd St and Hillsborough Ave
57	East Tampa	32nd St	Hillsborough Ave	Lila St	Neighborhood Greenway	-	\$20,900	Provide crosswalks and traffic diverters where 32nd St intersects Osborne Ave
58	East Tampa	Lila St	32nd St	31st St	Neighborhood Greenway	-	\$1,600	
59	East Tampa	31st St	Lila St	Chelsea St	Neighborhood Greenway	-	\$7,550	Provide a marked crosswalk across Chelsea St at 31st St
60	East Tampa	Chelsea St	31st St	31st St ROW	Multi-Use Path	South	\$5,500	



ID	Trail Section	On	From	To	Recommended Treatment	Side of Road	Estimated Treatment Cost	Notes
61	East Tampa	31st St ROW	Chelsea St	Genesee St	Multi-Use Path	-	\$13,900	
62	East Tampa	Genesee St	31st St ROW	30th St	Multi-Use Path	North	\$19,050	Provide a marked crosswalk along the northern leg of the Genesee and 30th St intersection
63	East Tampa	30th St	Genesee St	M.L. King Blvd	Multi-Use Path	West	\$64,500	
64	East Tampa	30th St	at M.L. King Blvd	-	Mid-Block Crossing	-	\$25,000	Provide a controlled mid-block crossing; Provide a 6' median traffic diverter along M.L. King Blvd, reduce travel lane width along M.L. King Blvd to 10.5' to accommodate median diverter
65	College Hill	30th St	M.L. King Blvd	Lake Ave	Multi-Use Path	West	\$79,600	Provide high-emphasis crosswalk and median island at intersection of 30th St and Lake Ave
66	College Hill	30th St ROW	Lake Ave	24th Ave	Multi-Use Path	-	\$114,600	Provide marked crossings and signage where path crosses Chipco St, 26th Ave, and 24th Ave
67	College Hill	24th Ave	30th St ROW	31st St	Multi-Use Path	South	\$10,900	
68	College Hill	31st St	24th Ave	21st Ave	Neighborhood Greenway	-	\$5,600	Provide a traffic diverter for southbound traffic onto 31st St from 24th Ave and a diverter for northbound traffic onto 31st St from 31st Ave
69	College Hill	Al Barnes Jr. Park	21st Ave/31st St	18th Ave	Park Trail	-	\$56,000	Along northern and western perimeter of the park; Provide high-emphasis crosswalk and signage at intersection of 31st St and 21st Ave, near park entrance
70	College Hill	18th Ave	Al Barnes Jr. Park	30th St ROW	Multi-Use Path	North	\$3,800	Provide high-emphasis crosswalk and signage across 18th Ave west of the railroad tracks
71	College Hill	30th St ROW	18th Ave	Columbus Dr	Multi-Use Path	-	\$29,700	
72	East Ybor	Columbus Dr	30th St ROW	29th St	Multi-Use Path	North	\$50,500	Provide a controlled mid-block crossing along eastside of 29th St across Columbus Dr
73	East Ybor	29th St	Columbus Dr	I-4 ROW	Multi-Use Path	East	\$20,600	
74	East Ybor	I-4 ROW	29th St	26th St	Multi-Use Path	-	\$49,100	
75	East Ybor	26th St	I-4 ROW	12th Ave	Multi-Use Path	East	\$40,250	Provide a marked crosswalk at the intersection of 26th St and 12th Ave

ID	Trail Section	On	From	To	Recommended Treatment	Side of Road	Estimated Treatment Cost	Notes
76	East Ybor	26th St	12th Ave	11th Ave	Multi-Use Path	West	\$13,600	
77	East Ybor	11th Ave	26th St	24th St	Multi-Use Path	North	\$30,800	Provide a marked crosswalk at the intersection of 11th Ave and 24th St; Provide a traffic diverter for southbound traffic onto 24th St from 11th Ave
78	East Ybor	24th St	11th Ave	2nd Ave	Neighborhood Greenway	-	\$56,400	Provide controlled crossings and median traffic diverters at the intersections of 7th Ave and 4th Ave
79	East Ybor	24th St ROW	2nd Ave	Adamo Dr	Multi-Use Path	-	\$15,200	
80	East Ybor	Adamo Dr	24th St ROW	26th St	Multi-Use Path	North	\$129,700	Provide a traffic signal and high-emphasis crosswalk at the intersection of 26th St and Adamo Dr
81	Palmetto Beach	26th St	Adamo Dr	Corrine St	Multi-Use Path	West	\$159,400	
82	Palmetto Beach	Corrine St	26th St	Desoto Park	Multi-Use Path	South	\$12,700	
83	Palmetto Beach	Desoto Park	Corrine St	Bermuda Blvd	Park Trail	-	\$40,900	
84	Palmetto Beach	Bermuda Blvd	Desoto Park	Hemlock St	Multi-Use Path	East	\$224,000	Provide high-emphasis crosswalk at the intersection of Bermuda Blvd and Hemlock St/22nd St, evaluate the need for a controlled crossing
85	Palmetto Beach	22nd St	Hemlock St	20th St	Multi-Use Path	West		Utilize the existing path along the west side of 22nd St
86	Palmetto Beach	20th St	22nd St	Adamo Dr	Multi-Use Path	East		Utilized the existing path; Evaluate cross-street stop bar placement and need for stop signs along 20th St path
87	Palmetto Beach	Corrine St	26th St	20th St	Neighborhood Greenway	-	\$10,800	
88	Channel District	Adamo Dr	22nd St	19th St	Multi-Use Path	North	-	Utilize existing multi-use path
89	Channel District	Adamo Dr	19th St	14th St	Multi-Use Path	North	-	Identified as part of a FDOT project
90	Channel District	Adamo Dr	14th St	W. of Channelside Dr	Multi-Use Path	North	\$61,800	Approximately 250' west of Channelside Dr

ID	Trail Section	On	From	To	Recommended Treatment	Side of Road	Estimated Treatment Cost	Notes
91	Channel District	Adamo Dr	W. of Channelside Dr	12th St	Neighborhood Greenway	-	\$800	
92	Channel District	12th St	Adamo Dr	Twiggs St	Neighborhood Greenway	-	\$7,800	
93	Channel District	Twiggs St	12th St	Raymond St	Multi-Use Path	North	-	Utilize existing wide sidewalk
94	Channel District	Twiggs St	Raymond St	Meridian Ave	Multi-Use Path	North	\$5,000	Widen existing sidewalk to min. 8'
95	Channel District	Twiggs St	Meridian Ave	Selmon Greenway	Multi-Use Path	South	\$16,700	Widen existing sidewalk between Meridian Ave and proposed Selmon Greenway
96	Channel District	Meridian Ave	Twiggs St	Channelside Dr	Multi-Use Path	West	-	Utilize existing multi-use path
97	Downtown	Selmon Greenway	Meridian Ave	Riverwalk (Ashley Dr)	Multi-Use Path	-	-	Proposed bicycle facility
98	Downtown	Riverwalk	Channelside Dr	Brerein St	Multi-Use Path	-	-	Existing Riverwalk
99	Downtown	Riverwalk	Brerein St	North Boulevard	Multi-Use Path	-	-	Existing and planned portions of the Riverwalk

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## Appendix B – Public Involvement Plan (February 2013)

### Introduction

This Public Involvement Plan (PIP) prepared for the Green ARtery project describes the process of how and when the community can be involved and how they will be able to contribute input throughout to achieve project goals. The PIP also describes the roles of responsible parties involved in the project, public involvement goals, and outreach techniques that will identify and engage citizens. This strategic plan will ensure that the finished Green ARtery Perimeter Trail reflects and incorporates the wishes and needs of the community.

### Roles and Responsibilities

#### The Green ARtery

The Green ARtery organization was started in 2010, through the combined efforts of the Old Seminole Heights and Tampa Heights neighborhoods. The goal of this multi-organizational effort is to identify, expand and enhance a trail system and to safely connect and unify the greenspaces throughout the city. The Green ARtery's mission is to create an inviting network of trails that will address and provide unique encounters with the Hillsborough River, McKay Bay, neighborhood parks, natural springs and tree canopies throughout the central core of Tampa.

The Green ARtery has acquired 501C3 Non-Profit status under the Tampa Community Design Center (TCDC) which advocates for quality design and education in the city. The organization is run by a board, comprised of neighborhood representatives and an advisory committee.

It is the responsibility of the Green ARtery Board of Directors and Advisory Committee to serve as the directing force for this project, specifically in the organization and leadership of public involvement events. With assistance from the team members below, the Green ARtery will effectively communicate project details to gain public input that will then be folded into the final design.

### **Tindale-Oliver & Associates, Inc.**

With a focus on customer service, TOA provides high quality, innovative urban planning, multimodal transportation planning, engineering, and financing services. TOA's expertise is in understanding the relationship of transportation and land use/redevelopment goals, and their relationship to larger community goals, public finance, and the efficient provision of infrastructure and services.

Tindale-Oliver will assist the Green ARtery as part of the Walk-Bike Plan Phase III. The project team will provide technical supporting information as well as visual graphic materials that depict possible bike and pedestrian facility improvements specific to the project for public engagement outreach. These will be used during public meetings on the Green ARtery and MPO webpages. In addition, the Tindale-Oliver team will attend and assist in facilitating public meetings, open house events, and MPO Committee Meetings.

### **Hillsborough County MPO**

The Hillsborough County Metropolitan Planning Organization (MPO) is a transportation policy-making board comprised of representatives from local governments and transportation agencies. Since the 1980s, the MPO has provided multi-modal transportation planning and programming. The Hillsborough County MPO has recognized bicycling and walking as healthy and common-sensed based alternative for short trips, as well as the consistent desire of the public for more bike lanes, trails, and continuous sidewalks. The Bicycle Pedestrian Advisory Committee and the Livable Roadways Committee both make recommendations to the

MPO board regarding walking, cycling, trails, urban design, bike and pedestrian plans, and livable roadways planning.

The Hillsborough County MPO will coordinate Green ARtery presentations to MPO committees and boards, attend and assist in facilitating public involvement events, and host project material on the MPO webpage.

### **City of Tampa**

The planning division of the City of Tampa addresses the growth and expansion of Tampa's urban form is achieved sustainably through land use, transportation, natural resources, and quality urban design. The division is comprised of development code, community planning, long range and strategic planning, transportation planning, natural resources, and GIS.

The City of Tampa has formed a project team of professionals from engineering, planning, economic development, and parks and recreation to provide input and guidance for the Green ARtery project. Specifically, they will assist Green ARtery members in securing meeting venues and providing logistical support, provide additional project graphic support as necessary, and attend and assist in facilitating public involvement events.

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## Public Involvement Goals

Four overarching goals pertaining to the public involvement and outreach process for the Green ARtery project have been identified, as described as follows:

### **Goal 1: Communicate Green ARtery urban trail concepts**

In determining the alignment and design of the Green ARtery trail, many alternative solutions will be suggested including bike boulevards, linear park trails, crosswalks and shared-use paths. It is important that these trail elements be communicated accurately so the public so they can most effectively provide input into how they would use and access the Green ARtery.

### **Goal 2: Provide multiple opportunities for formats and public input**

To ensure that project information is communicated effectively, it is important to provide multiple opportunities for members of the community to get involved. The citizens located in the study area come from diverse backgrounds and lifestyles, so providing multiple ways for them to become involved is crucial to most effectively collect the input of the community.

### **Goal 3: Understand, document, and address community concerns**

After collecting information from members of the community and future users of the trail, is important to understand, document, and fully address their concerns in the final design of the Green ARtery.

### **Goal 4: Build community support for plan implementation**

The Green ARtery project has been developed and led passionately by members of the community to address their desire and need for a more connected network for multimodal transportation and recreation. The project's future will undoubtedly be strengthened by the increased support of adjacent neighborhoods. The more the plan reflects the wishes of members of the city's urban core, the more efficiently it will be implemented over time.

## Public Involvement Outreach Techniques

### Booth at Seminole Heights Sunday Morning Market

The Seminole Heights Sunday Market was started in 2010, is held monthly, supports 100-130 vendors, and caters to the greater Seminole Heights neighborhood. Its mission statement in part is to strengthen the social fabric of the local community by increasing awareness and support of local agriculture and the arts.

The Green ARtery will have a booth at the market for a 5 month period beginning in January 2013. Located adjacent to the Seminole Heights Bicycle Club, the two organizations will provide information and awareness of the project, while collecting the input of members of the community.

### Open House Workshop Events

Four open house workshop events will be held monthly from February to May 2013, dates and locations as coordinated by Green ARtery leadership. Members of all twenty neighborhoods included in the Green ARtery study area will be invited to attend gather input from a cross-section of people affected by the project. Groups of neighborhoods invited to each open house are as follows:

- Group 1: Old Seminole Heights, Live Oaks Square, Ybor Heights, Riverside Heights, Channel District
- Group 2: Southeast Seminole Heights, Hampton Terrace, East Tampa, East Ybor, Encore
- Group 3: South Seminole Heights, VM Ybor, Palmetto Beach, Tampa Heights, East Seminole Heights

- Group 4: Woodland Terrace, Historic Ybor, Downtown Partnership, Ridgewood Park, Rogers Park

Groups are organized so that the neighborhoods represented at each open house are not from the same geographical location. This is done in attempt to have a diverse number and group of attendees at each event and therefore, a fair and balanced discussion regarding the design of the project.

### Online Outreach

In addition to the events held by the organization, public involvement material will be hosted on the Green ARtery and Hillsborough County MPO websites, as well as communicated through social media outlets. These will be used to communicate and publicize events as well as project development and details.

### Neighborhood Meetings

The Green ARtery team will present the project at neighborhood meetings planned within the public involvement phase (February to June). These meetings will be used to bolster support, recruit volunteers, and build attendance at the open house events.

### MPO/City Council

Presentations will be made to the MPO Board, Committees, and the Tampa City Council to inform involved parties of the project status and update on the public involvement process. The Green ARtery will be assisted by the Hillsborough County MPO and Tindale-Oliver & Associates in preparing and conducting these presentations.



## Public Involvement Timeline

The timeline presented below provides an overview of the project schedule and includes the planned timing for the public involvement activities outlined in this public involvement plan. The specific timing of each activity will be determined as the project progresses.

	January	February	March	April	May	June
Market Booth	[Activity bar spanning January to June]					
Open House Workshops		[Activity bar spanning February to May]				
Neighborhood Meetings		[Activity bar spanning February to June]				
Online Outreach	[Activity bar spanning January to June]					
MPO/City Council						[Star icon]

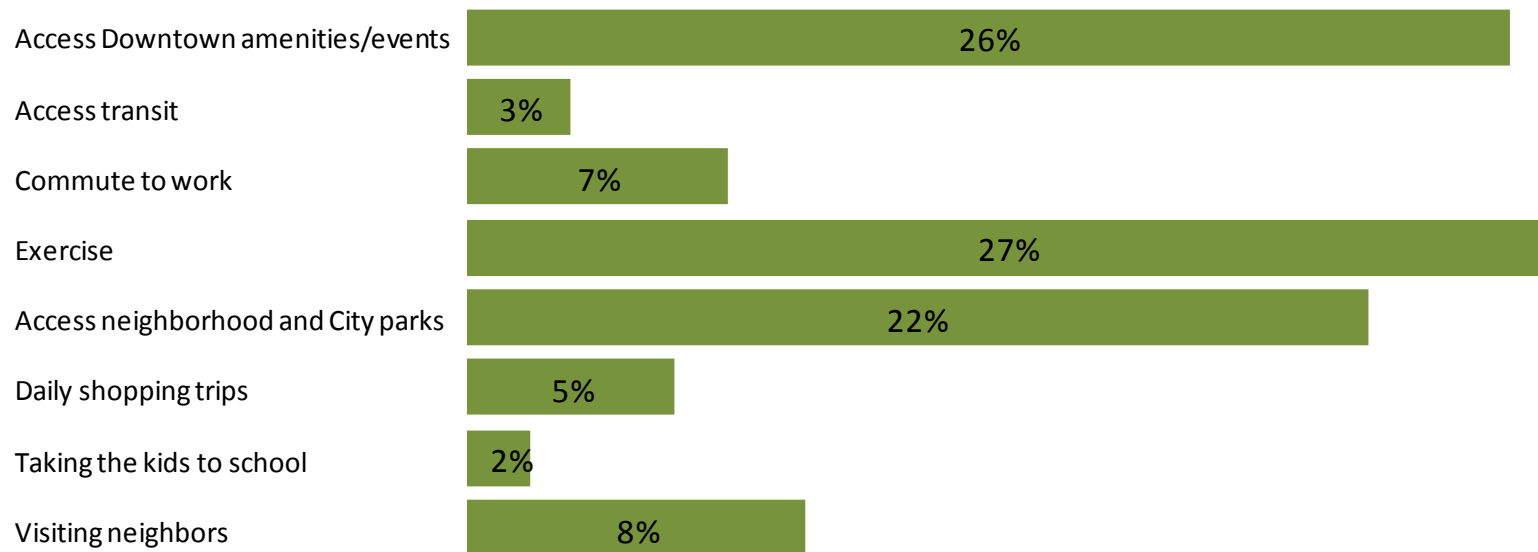
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## Appendix C – Open House Public Workshop Results

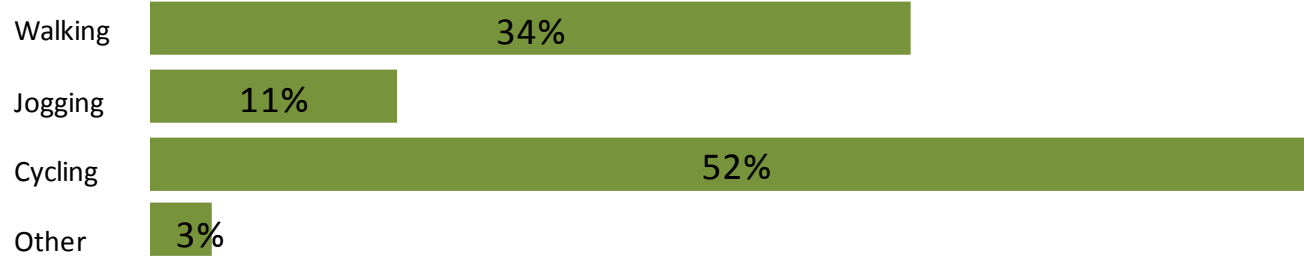
### Open Polling Questions

During each open house workshop, attendees were giving electronic voting buttons to answer a series of questions. Voting results from all four events are summarized and shown below.

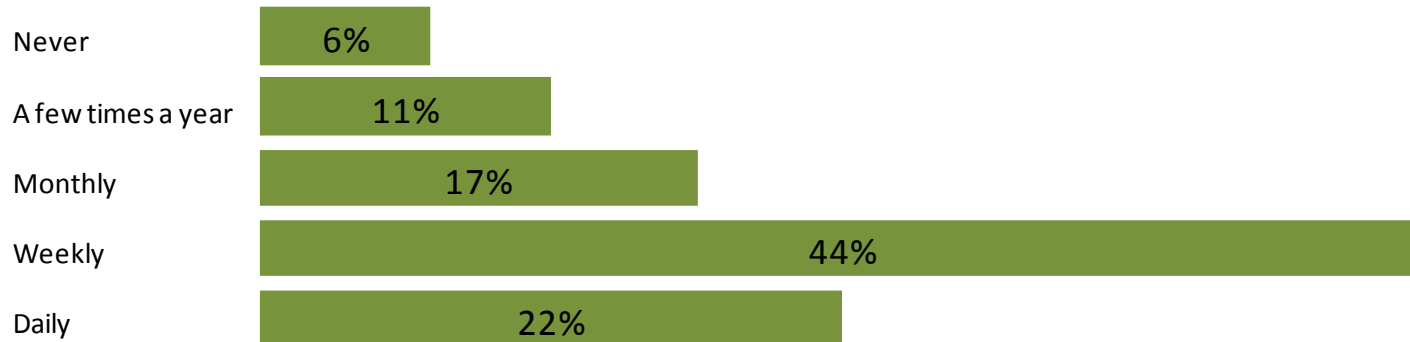
#### 1. How would you use the Green ARtery Trail? (Choose Three)



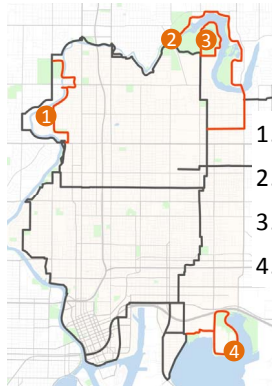
**2. How would you use the Green ARTery Trail? (Choose One)**



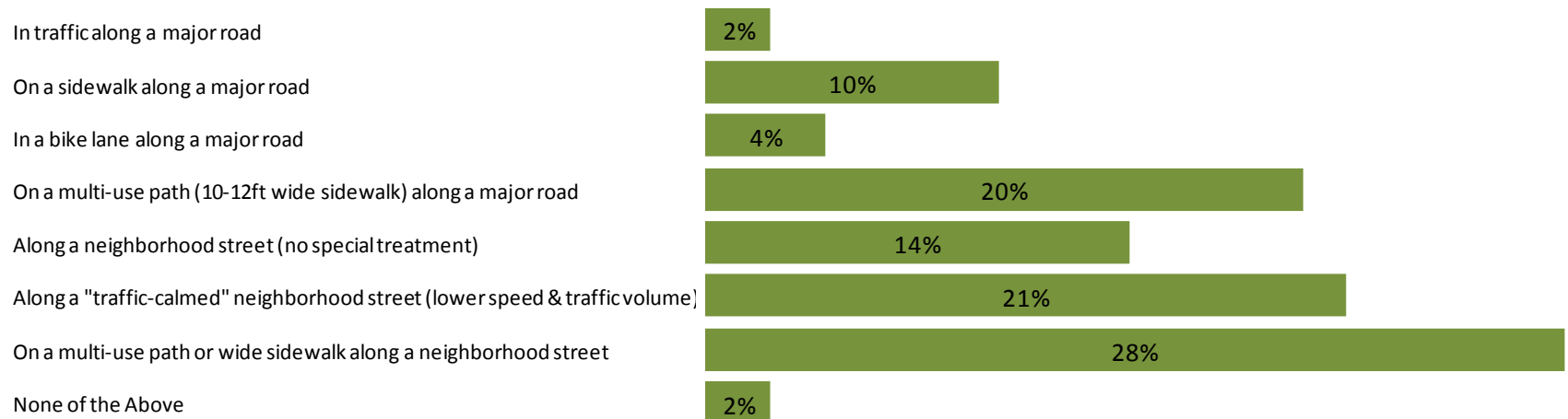
**3. How often would you use the Green ARTery Trail? (Choose One)**



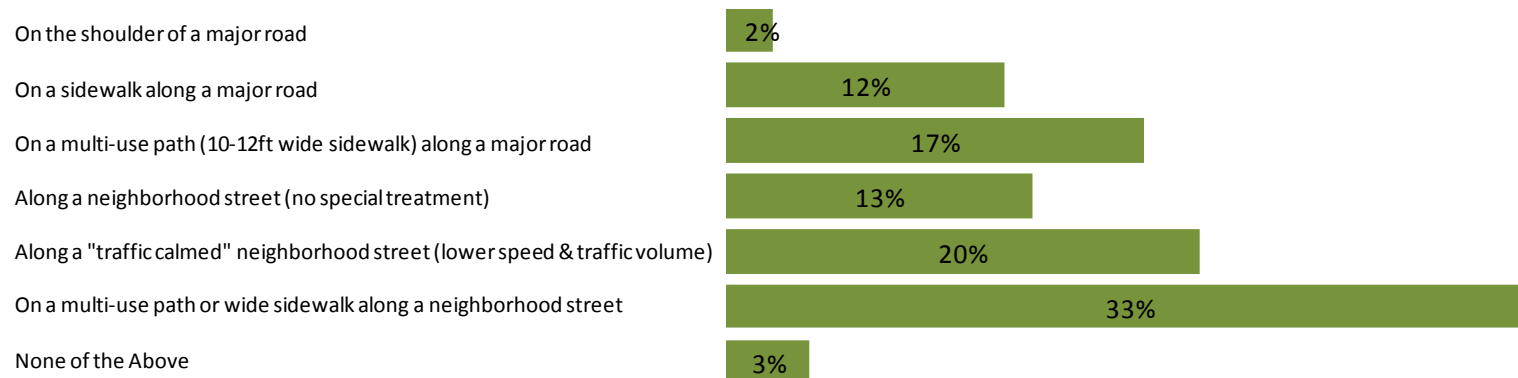
**4. Several additional loops are proposed for incorporation in the Trail. Which would be top priority? (Choose One)**



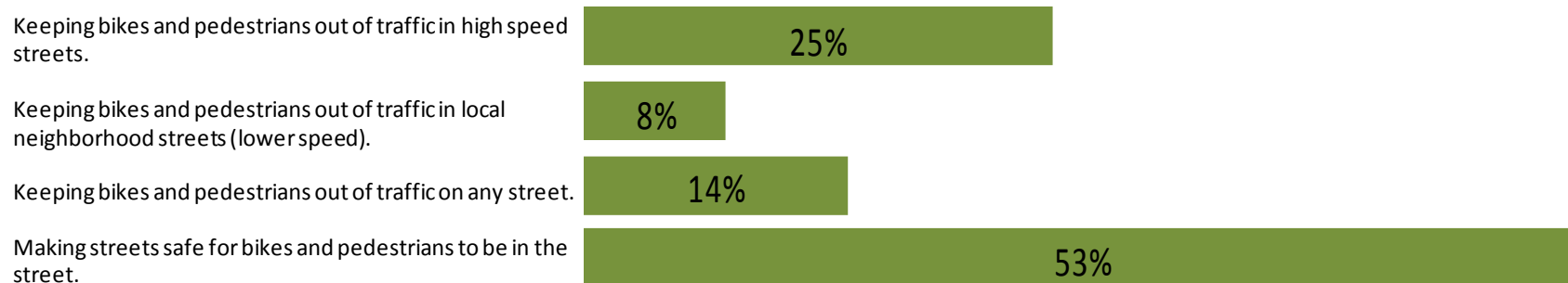
**5. On which type of facility would you be comfortable taking a family bike ride? (Choose all that apply)**



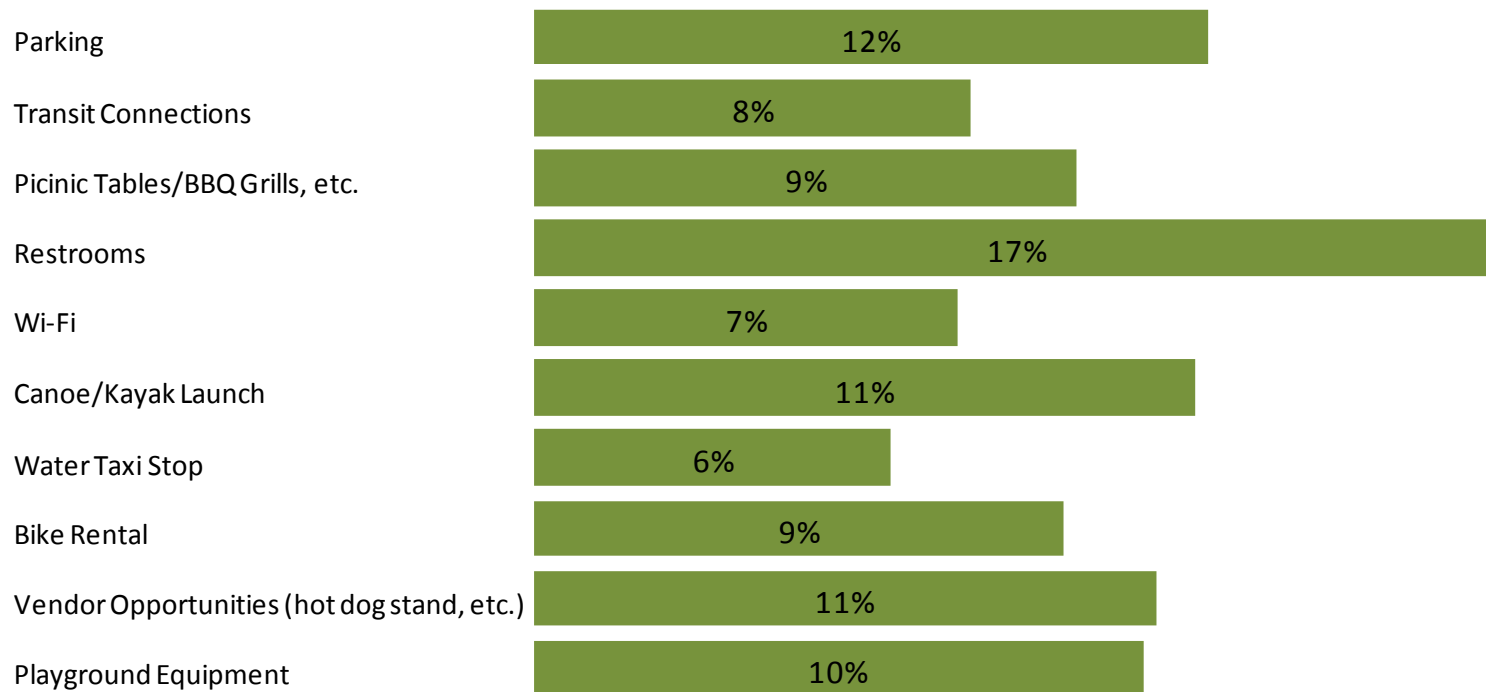
**6. On which type of facility would you be comfortable taking a family walk? (Choose all that apply)**



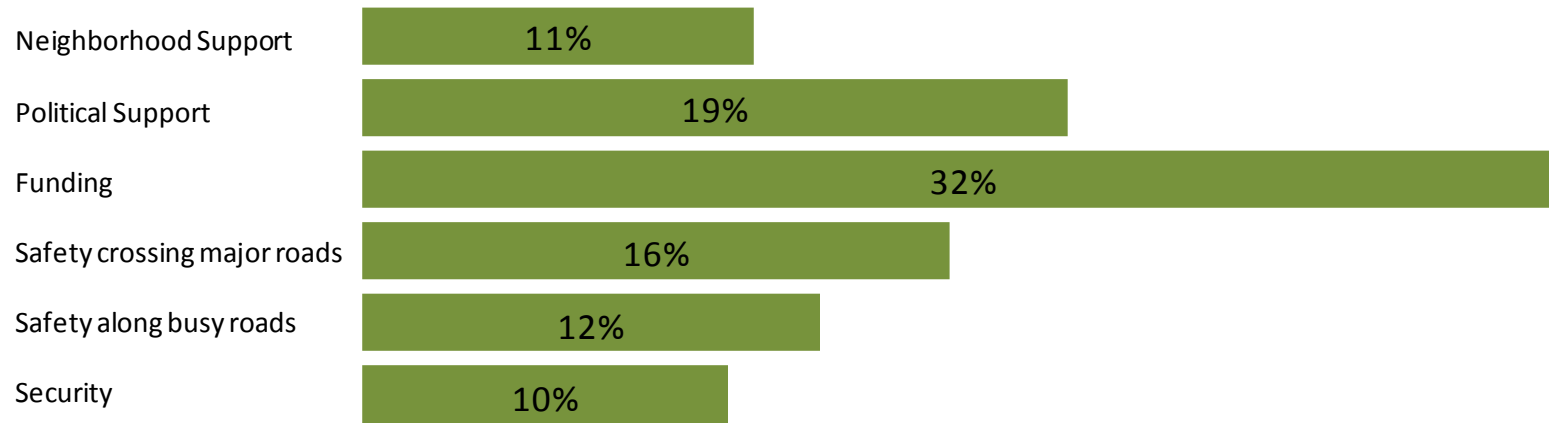
**7. Which of the following efforts is most important? (Choose One)**



**8. At existing City parks or new trail heads, what are the most important features/amenities to provide? (Choose Five)**



**9. What are the greatest hurdles to implementation of the Green ARTery Perimeter Trail? (Choose Three)**





## Group Activity

After the polling question portion of the workshops, the attendees were asked to form groups and participate in two activities. The first activity was to identify assets (places that you love and feel should be highlights of the Perimeter Trail) and issues (places that could cause problems for users of the Perimeter Trail) along the Perimeter Trail alignment. The second activity was to prioritize those assets and issues and present them, below is a list of some of the most common assets and issues discussed at the four workshops.

### Assets/Opportunities:

- Tie into schools
- Connect to parks
- Connect to historical landmarks
- Connection to Nebraska Ave
- Connections to daycares
- Tie in to water taxi
- Access into downtown and Bayshore
- Connect to libraries
- Increase additional routes/connections to the trail
- Increase east-west connections
- Access to shopping, restaurants, entertainment
- Connect to University of Tampa
- Connect to University of South Florida

### Issues/Challenges:

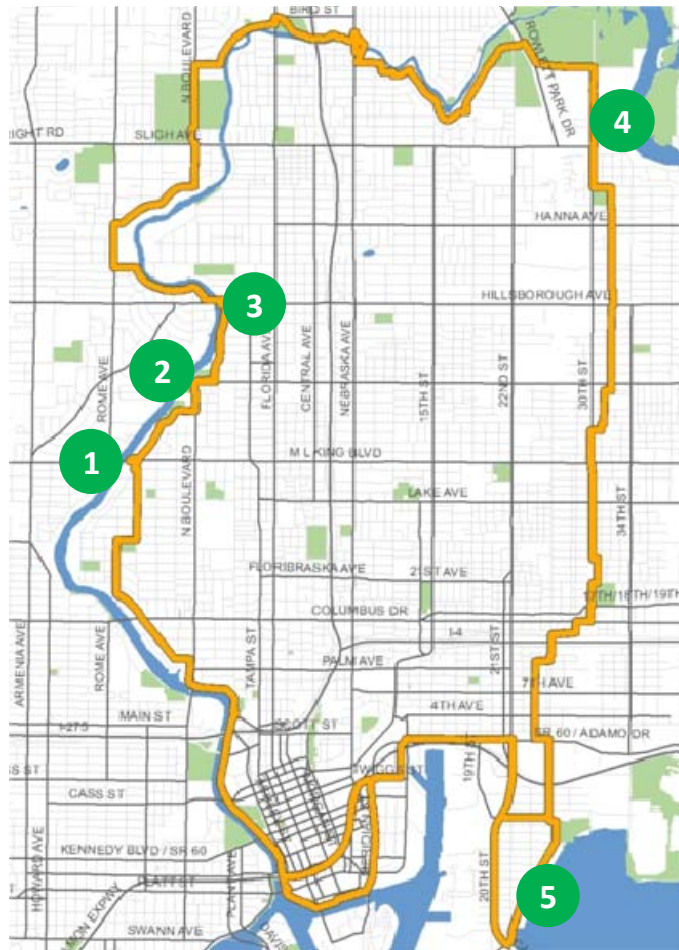
- Neighborhood safety – from increased traffic
- Safety – personal/user safety
- Increased traffic
- Funding
- Public support/involvement
- Getting across the river
- Crossing major roads
- Lighting
- Parking
- Crossing East Hillsborough Avenue

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## Appendix D – Conceptual Renderings

A series of conceptual renderings were produced to help aid the discussion on the type of facilities being considered for the Green ARtery Perimeter Trail. The figure below shows the location of the conceptual renderings, and the following pages show the current condition of each location along with the proposed concepts.

Location of conceptual renderings:



1. Undercrossing at Dr. Martin Luther King Jr. Boulevard

Current Condition:



Proposed Concept:



2. Park Trail at Ignacio Haya Linear Park

Current Condition:



Proposed Concept:



3. Trail Head at Hillsborough Avenue  
Current Condition:





Proposed Concept:



4. Multi-Use Path along North 30<sup>th</sup> Street

Current Condition:



Proposed Concept:



5. Multi-Use Path along Bermuda Boulevard  
Current Condition:



Proposed Concept:

