Coast to Coast Connector:
Brooksville Gap

Alternatives Analysis

September 2016
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1.0 Initial Findings
This chapter describes the process and tools used to develop the preliminary alignments.

1.1 Introduction
In 2012, as part of a process that has been evolving for over two decades, the Florida Department of Environmental Protection’s Office of Greenways and Trails developed the Florida Greenways and Trails System Priority Network Map. This map “serves as a green infrastructure plan to tie together the greenway and trails plans and planning activities of communities, agencies and non-profits throughout Florida”¹ and illustrates trail opportunities across the state.

The Coast-to-Coast Connector, as part of the priority network, was selected by the Greenways and Trails Council and the Office of Greenways and Trails as the priority trail in the state to receive SUNTrail funding. This trail, a 250-mile collection of local trails, connects the Gulf of Mexico to the Atlantic Ocean and spans nine counties and dozens of communities, including Hernando County and Brooksville. It makes use of existing trail infrastructure and fills the remaining 75 miles of gaps to eventually allow bicyclists to ride across Florida from St. Petersburg to Titusville and the Canaveral National Seashore in Brevard County.

Figure 1-1 is a map of the Coast to Coast Connector and identifies existing segments and gaps in the system. The gap from the Suncoast Trail through Brooksville to the existing Good Neighbor Trailhead is one of the gaps identified to be filled during this first round of SUNtrail construction. East of the Trailhead, the Good Neighbor Trail is being extended to connect to the Withlacoochee State Trail. Also being studied by the Florida Department of Transportation (FDOT) at this time is the alignment that will complete the gap in Sumter County.

The Brooksville gap is being completed in two parts, FDOT is in the process of identifying the alignment from the Sun Coast Trailhead to Cobb Road. The goal of this study is to identify the preferred alternative alignment to fill the gap that exists from Cobb Road east to the Good Neighbor Trailhead at Russell Street. Figure 2-1 illustrates the study area and potential corridors.

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¹ Coast to Coast Connector Status Report, July 1, 2014–December 31, 2014
Initial Findings

Figure 1.1: Coast to Coast Connector and GNT gap

Gap in Coast to Coast Trail that runs through Brooksville. Alignment to "close the gap" is the subject of this study.
Initial Findings

Figure 1-2: Study corridors
1.2 Public Involvement

Public Involvement Plan

Community involvement has been critical in the evolution of the Good Neighbor Trail (GNT), and the GNT Advisory Committee has been the driving force behind the construction of the trail for more than two decades. For this reason, community engagement was identified as particularly important for the development of the preferred alternative. The Public Involvement Plan, found in Appendix A, was developed at the beginning of the project to guide the multi-tiered approach to engaging representatives from many different areas.

Stakeholder Interviews

Stakeholder interviews were held with key groups and individuals identified by County staff and the project team as those who represent different points of view in the community. Interviewed were representatives of the Brooksville Vision Foundation, Hernando County, and the City of Brooksville, as well as City and County officials and bicycle shop employees. The questionnaire used to guide the discussions can be found in Appendix B.

Through mostly a discussion format, the interviewees were asked about their vision for the trail in the future, their concerns about the areas along the trail corridor, what the trail needed to connect, what they considered to be community benefits, and what amenities they would like to see included in the plan.

As seen in the word cloud developed from interviewee responses and shown in Figure 1-3, a number of concepts emerged. Primary to the discussion was the idea that the trail could be an economic catalyst for Brooksville; the trail also was seen as a way to allow users to experience Brooksville. Other prospective benefits for the trail included an increase in tourism and a direct tie into the long-term economic development plans for the city.

Public Workshops

Several public workshops were held to get community feedback. The first was held to review the draft concepts identified by the project team. At the meeting, community members were shown four alignments (see Figure 1-4) and asked to comment on them, propose different alignments, and indicate “good–better–best” based on their opinion of how well the alignments would satisfy the preliminary criteria of connectivity, safety, and economic development potential. This exercise provided the team with qualitative measurements of the attendees’ perceptions of each of the alignment alternatives.

Workshop participants were also asked to complete a survey, which also was posted on the project website (see Appendix B). Similar to the stakeholder interviews, the survey asked questions about amenities they consider important, concerns they had about the trail (such as safety, maintenance, etc.), and preferences on the preliminary alignments that were on display.
Initial Findings

Figure 1-4: Preliminary alignments
Generally, concerns included public safety and long-term maintenance. Amenities identified included water fountains, shaded seating areas, and shelters from the weather. These will be used to develop the future trail design plans. Feedback on the alignments suggested a preference for the Uptown Route that ran directly into Uptown Brooksville and also for the Daniel Avenue alignment that offers direct access to the trailhead and the rest of the Coast to Coast Connector.

The public involvement opportunities held early in the project helped identify key criteria and input that helped guide the review of the alignments and narrow the list of candidates.

1.3 Data Collection and Review

The Good Neighbor Trail has been an integral concept in a variety of planning documents developed for the City of Brooksville, the Hernando/Citrus Metropolitan Planning Organization (MPO), and Hernando County. As part of the process, the following planning documents were reviewed:

- MPO, County, and City policies and Comprehensive Plans
- City of Brooksville Community Redevelopment Plan
- 2040 Long Range Transportation Plan
- City of Brooksville Vision 2050
- Coast-to-Coast Trail plans
  - Bicycle and Pedestrian Facilities (Existing and Planned)
  - Development plans for Brooksville
  - TBARTA Multi-use Trail update (2015)

Document Summaries

Brookville Comprehensive Plan
Within the City of Brookville’s Comprehensive Plan, providing safe automobile, bicycle, and pedestrian access to all public facilities as well as establishing a downtown focal point in the community are primary initiatives. Making the connection between a redeveloping and pedestrian-oriented downtown and the Good Neighbor Trail are at the forefront of the economic development, recreation and open space, and transportation elements.

City of Brooksville CRA, Community Redevelopment Plan
Goal 7 of the City of Brooksville Community Redevelopment Plan specifically addresses the Good Neighbor Trail and efforts to realize its economic potential. References to the Trail and its significance to the city are included throughout the Plan.

Hernando Comprehensive Plan, Future Land Use Element
The Future Land Use Element of the Hernando Comprehensive Plan states that the area around the Good Neighbor Trail may be developed with specialty stores and services, including, but not limited to, bicycle shops, art galleries, antique shops, and other compatible uses of scale and intensity. The design of streets will encourage pedestrian and bicycle use and discourage high-speed traffic while enhancing the connection between the downtown and surrounding areas.
2040 Hernando-Citrus Long Range Transportation Plan (LRTP)
The 2040 Hernando-Citrus LRTP supports trails and trail connectivity as part of the transportation network. The gap between the Suncoast Trail and the Good Neighbor Trail has been identified as a regional priority, and total funding for trails, sidewalks, and bike facilities from the County totaled approximately $9.1 million for 2020–2040. As stated in the LRTP, “Brooksville has strongly urged the MPO and FDOT to bring the connecting route for the Coast to Coast Connector through the city, connecting it with the now existing GNT Trailhead facility.”

City of Brooksville Vision 2050
The Vision 2050 plan put forth by the Brooksville Vision Foundation Stakeholders Council specifically mentions closing the gap between the Suncoast and Good Neighbor trails. Maximizing the social and economic benefit to the city and county, Vision 2050’s guiding principles include encouraging multi-modal transportation, developing a walkable and vibrant central business district, and creating an interconnected network of trails, sidewalks and parks.

Coast-to-Coast Trail Plans
The Coast-to-Coast trail was selected as the first trail priority for completion in the Florida Greenways and Trails Plan. The goal of this trail is to create a cross-county non-motorized trail route between St. Petersburg on the Gulf Coast and Titusville on the Atlantic Coast. Completing the identified gaps, including the Brooksville–Good Neighbor gap, will help complete the Coast-to-Coast Trail and ultimately advance efforts ranging from economic development to conservation.

Bicycle and Pedestrian Facilities (Existing and Planned)
The City of Brooksville has a small network of bike lanes on the major roads. Multi-use trails include the Suncoast Trail along the Suncoast Parkway and the Good Neighbor Trail. The Good Neighbor Trail connection to the Withlacoochee State Trail is planned for completion in 2016/2017.
TBARTA Multi-use Trail Update, 2015
The Tampa Bay Area Regional Transportation Authority’s (TBARTA) 2007 Multi-Use Trail Element update and the West Central Florida MPO Chairs Coordinating Committee identified Hernando County as having limited trail facilities with a fragmentation of infrastructure. Particular emphasis is placed on connecting the gaps between trails and facilities, especially between the Suncoast Trail and Withlacoochee State Trail.

The review of documents and plans helped the project team understand the importance of the Good Neighbor Trail to the city and the county, as well as to place it in the larger context of long range plans.

1.4 Site Visits

Initial Field Visit
The project included two field visits. The first was made to gain local insight and understanding about the opportunities and challenges related to the proposed alignments, and the second, which is discussed in the next chapter, looked for engineering and constructability challenges and included an assessment of the alignments prior to review and refinement by the project team.

The first field visit included a tour of the area with the project team to obtain input and perspectives regarding the study area, opportunities for connections, historical information, and any other pertinent information. The visit was preceded by a review of the project area and a discussion about opportunities and challenges for this trail alignment. Other topics discussed included environmental factors such as drainage and the user experience.

Brooksville prides itself on being a special place in a sea of larger communities in the Tampa Bay area. The downtown area has retained its small town feel and the history looms large in its architecture and

historical references. The area is also scenic, with large trees and rolling hills. These factors play a role in how the city wants to present itself to users of the Trail. As a result, there is a strong interest in highlighting the history and the landscape of Brooksville in its trail plans. For example, part of the discussion with City of Brooksville staff was about how to create a historical reference in any needed bridges to the pedestrian bridge that used to cross the railroad tracks at Hendricks Avenue.

Figure 1-5: Pedestrian bridge used to cross railroad tracks at Hendricks Avenue

The main access roads leading into the city, Jefferson Street (SR 50A) and Broad Street (US 41), as with many historic downtowns, are lined with small-scale retail and strip malls. Although there are many occupied buildings, there also are underdeveloped parcels and “For Sale” and “For Rent” signs. Opportunities for community redevelopment exist along many of Brooksville streets, such as establishments that cater to bicyclists as well as restaurants, retail, and other services that support tourism. There are bicycle lanes and sidewalks along Jefferson and Broad streets. With the exception of Jefferson and Broad Streets, most of the roadways are rural in nature, with a low speed limit, low traffic volumes, and open ditch drainage. Bicyclists were seen in the bike lanes and on the sidewalk during the
field visit as well as on many of the roads. Many of the local roads are shaded by a tree canopy that contributes to the charm of the area and also create refuge from the hot Florida sun. The terrain includes a greater variation in elevation gain than is seen in much of the Tampa Bay area. This was noted during the discussions as an attraction to be highlighted and also creates engineering challenges.

A CSX rail line crosses to the west of Uptown and will be a factor in alignment identification and, as a result, early and frequent coordination with FDOT and CSX will need to take place. Other constraints such as right-of-way, traffic, existing structures, crossings, and utilities were identified as they relate to the development of the alignments.

Downtown Brooksville is the historic center of Hernando County and the focus of several programs for long-term economic development. The City is developing a Main Street Program to help revitalize downtown Brooksville and is actively marking the area as “Uptown.” The Main Street Program focuses on developing a vision and strategies for reviving the economic vitality of small towns the county. The City also is working to develop an event and festival program that capitalizes on existing natural resources and community strengths.

Within Brooksville, the primary destinations are “Uptown,” Tom Varn Park, and the Good Neighbor Trailhead. Tom Varn Park is a local community resource that includes ball fields and play equipment and also is envisioned as an activity center for bicyclists and events. Currently, plans are being developed to adapt the former golf course site into an agricultural educational center partnered with the annual Blueberry Festival.

A variety of factors, including user experience and community vision, land use, and constructability, can influence trail design. During the site visit, care was taken to observe the alignments from a variety of perspectives, taking into account adjacent or nearby land uses and community character, drainage, or infrastructure and the impact the engineering of a trail and may impact the cost to construct the trail and visitor experience.

The field visits gave the Project Team the opportunity to get the local expert perspective and begin to identify the opportunities and challenges inherent in each alignment option.
Summary

The Coast to Coast Connector is envisioned to stretch 250 miles across Florida, from St. Petersburg to Titusville. The gap between the Suncoast Trail at SR 50 and the Good Neighbor Trailhead at Russell Street in South Brooksville will be filled to make the regional trail a reality. This project is a collaborative partnership between the City of Brooksville, the Florida Department of Transportation and the Hernando/Citrus MPO.

Through the analysis of existing conditions, expert local insight, community feedback, and review of planning documents and studies, a number of corridors were identified for review. Chapter 2 discusses the analysis of the alternatives leading to the identification of the preferred alternative discussed in Chapter 3.

Figure 1-7: Tree canopy along local road
2.0 Alternatives Analysis
This chapter discusses the factors that were used to develop the recommended alternative.

2.1 Demand and Potential Use
One of the challenges to developing the preferred alignment for the gap in the Coast to Coast Connector through Brooksville is the identification of the typical trail user. The current Good Neighbor Trail, because of its proximity to adjacent communities and the directness of the connection, frequently acts as a sidewalk connecting the adjacent community to the stores and uses on W Jefferson Street. Currently, its short length creates limited appeal for bicyclists, letting it function more as a recreational facility or for short trips and less as a training opportunity or through route. The connection to the Withlacoochee State Trail in 2017 will create options for riders of all abilities, connecting them to 46 miles of one of the best-ranked rail trails in the Southeast. As seen with the extensions of other local trails, the rider make-up and the distance that riders will travel to use the Trail inevitably will change. The final connection to the Suncoast Trail will open up the Good Neighbor Trail to all of its full potential as an outstanding local resource as well as a destination.

General Demographics of Potential Trail Users
Based on surveys and observations conducted on nearby trails, the general demographic of potential trail users can be assumed to be mixed. For example, the Pinellas User Survey (2015) found that user demographics have changed over time. Since the time when the survey was conducted in 1999, female trail use has increased by 3%, male use has increased by 17%, and tourist use has increased by 14%, suggesting that the trail is increasingly considered a destination. The Pinellas Trail stretches 38 miles and is a good comparison to the final length of the Good Neighbor Trail.

The current four-mile stretch of the Good Neighbor Trail is primarily a local trail that is well used by the community. It serves both recreational and utility functions, for users who ride, walk, or run for exercise and acts as a convenient pathway for adjacent neighborhoods to access a variety of destinations along W Jefferson Street. When connected to the Withlacoochee Trail, it will extend 11 miles, making it a recreational destination and offering opportunities to travel along the Withlacoochee Trail or easily to the Croom Forest. The final segment, the six miles connecting it to the Suncoast Trail, will further expand the reach and again change the user group, much the way the user mix has changed on the Pinellas Trail.
As part of the Coast-to-Coast Trail, the trail will draw visitors who want to make the 250-mile journey across nine counties, countless communities, and between the two Florida coasts, giving visitors a wide variety of experiences. The vision for the trail is to become a destination and generator of short- and long-distance travel. As seen in countless communities around the country, there is an increasing trend towards bicycle tourism. A discussion of those potential users follows.

Population Information and Demographic Patterns (Current/Projected)

The general population trend in Hernando County and Brooksville is slow growth. Figure 2-1 shows generally, based on available land and land use patterns, where population growth will occur. This growth is seen to occur mainly surrounding the trail, as much of the city is considered built-out, with most of the parcels currently occupied. Some land use change can be expected, which, in most cases, will not increase the number of residents. The largest population increases are forecasted to occur in areas north of Cortez Boulevard. Other areas of forecasted growth include the areas around Cobb Road and W Jefferson Street. The trail connection to the Suncoast and Good Neighbor trails will increase the convenient access for the community walking and bicycling.

Community Characteristics

The 2013 American Community Survey and ESRI’s Community Analyst were used to create an overview of the study area population within two miles of N Main Street and N Broad Street, as shown in Table 2-1.

### Table 2-1: Current and Projected Community Demographic Characteristics for 2-Mile Study Area around Brooksville

<table>
<thead>
<tr>
<th>Population Summary</th>
<th>0.5 miles</th>
<th>1 mile</th>
<th>2 miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015 Total Population</td>
<td>1,310</td>
<td>4,631</td>
<td>10,873</td>
</tr>
<tr>
<td>2020 Total Population*</td>
<td>1,300</td>
<td>4,659</td>
<td>10,997</td>
</tr>
<tr>
<td>2020 Total Households*</td>
<td>475</td>
<td>1,812</td>
<td>4,854</td>
</tr>
<tr>
<td>2020 Average Household Size*</td>
<td>2.53</td>
<td>2.41</td>
<td>2.16</td>
</tr>
<tr>
<td>Median Age (projected 2020)</td>
<td>44.3</td>
<td>41.2</td>
<td>50.3</td>
</tr>
<tr>
<td>Population over Age 65</td>
<td>24.1%</td>
<td>21.8%</td>
<td>30.4%</td>
</tr>
<tr>
<td>2020 Male*</td>
<td>593</td>
<td>2,089</td>
<td>4,975</td>
</tr>
<tr>
<td>2020 Female*</td>
<td>717</td>
<td>2,542</td>
<td>5,898</td>
</tr>
<tr>
<td>Average Household Income</td>
<td>$42,113</td>
<td>$39,610</td>
<td>$38,105</td>
</tr>
</tbody>
</table>

*Projected

Profile of Potential Trail Users

Trails are increasingly popular around the country with both users and community leaders. Communities have seen their economic fortunes shift with the influx of visitors and tourists as, often, day visitors spend time in the communities shopping and eating, drawn to explore the destinations near the trails they are using. A study done of East Central Florida trail users calculated that users spend about $20 per day.
Figure 2-1: Hernando County/Brooksville Population Change 2010–2040
Bicyclists are another type of trail user that increasingly is playing a role in community’s economies. As reported by David Loww-Rogstad, Principal at Substance, the consultant that planned and designed the RideOregonRide website (www.rideroregonride.com), there are four kinds of bicycle tourists with their own unique characteristics:

- **Self-contained travelers** who visit a new town every day and carry their gear with them and need camping, grocery, and internet access.
- **Ride-centered travelers** who stay overnight and tend to ride during the day, like to eat/drink along the way, often Baby Boomers.
- **Event-centered travelers** who participate in organized or group rides, also event spectators.
- **Urban-cycling travelers** who arrive in a community and travel around the community by bicycle.

Each type also has its own budget and preference for accommodations:

- **Self-contained riders** include any of the types above and generally spend $0–$100+ per day.
- **Shoestring riders**, on average, travel 70–100+ miles per day, spend $15–30 per day, tend to be younger, and tend to Homestay or camp and use public showers.
- **Economy riders** average 50–90 miles per day, spend $50 per day, tend to stay in hostels or biker camps, and appreciate cyclist discounts or benefits.
- **Comfort riders** average 50–75 miles per day, spend $75–100 per day, typically stay in hotels, eat out, tend to be older; their accommodation preference is motel, hotel, or bed & breakfast.

Based on these types, it is possible to begin to develop a series of options that might appeal to a broad range of bicycle visitors. It is recommended that Brooksville be developed as a “base-camp” for ride- and event-centered riders and that historic preservation and the community’s unique sense of place be prioritized. As with any tourist-centric effort, great customer service and a true empathy for the group of travelers being targeted will help the bicycle traveler trade grow, offering a cumulative economic benefit for the entire community from the visit.

**Estimate of Initial Use Levels**

Trail usage, or more generally, measuring levels of walking or biking, is challenging to estimate. In the past several years, there has been a national effort to count users of facilities to determine demand and to set a baseline from which to judge performance. In addition to counting users, it is helpful to understand who they are so the appropriate amenities can be provided. Trail and facility intercept surveys or observations, in which trail users are interviewed, are also a good way to understand who is using the trail.

To assist in the understanding of trail usage and develop a methodology for ongoing counts, trail counts were conducted. In addition, an observation period was conducted to understand how trail users interacted with the crossing of the Good Neighbor Trail and S Jefferson Street.

Overall, 12 pedestrians were observed; of those, 11 used the trail, 2 used the trail and Jefferson Street, and 5 used the crosswalk. A total of 22 people were observed bicycling; of those, 16 used the trail, 6 used the trail and Jefferson Street, and 12 used the crosswalk. It is worth noting that three bicyclists were observed walking their bicycles across the road; two were asked if they would ride across and responded, “Not across this road!” This comment reflects the observation that cars never stopped for people waiting to cross. In the cases where crossings were
observed, it was between gaps in the traffic flow. Per the 2016 FDOT Transportation Engineering Manual, section 3.8.5(c), warrants are not needed to justify the installation of a crossing treatment at a trail crossing, but because this is part of a trail, it is recommended that the crossing should be upgraded to an activated signal. Section 3.8.6 (5) or (6) of the TEM recommends either a Rapid Rectangular Flashing Beacon (RRFB) or a pedestrian activated flashing yellow warning beacon.

It was also noted that the majority of trail users observed during this period appeared to be more utility than recreational. This ratio can be anticipated to shift when the trail connects to the Withlacoochee Trail and the Suncoast Trail, but, for now, the existing segment of the Good Neighbor Trail appears to mostly provide access to nearby residents to various destinations along Jefferson Street.

The current counts were made using a methodology developed for the National Bicycle and Pedestrian Documentation (NBPD) project and described in National Cooperative Highway Research Program (NCHRP) Report 797, “Guidebook on Pedestrian and Bicycle Volume Data Collection.” This approach was modified slightly and can be refined over time. The goal of the first count was to set a baseline for future data collection efforts. Using the NBPD Extrapolation Spreadsheet available on the NBPD website (http://bikepeddocumentation.org/), it was possible to extrapolate the trail usage to annual counts. For example, with 10 trail users in the 2-hour count window, weekly activity can be estimated at 2,500 and monthly at 27,000 trail users.

Because physical counts are specific to a time and place, a more general analysis of potential use also was completed. Several maps were created to calculate the number of potential users. Table 2-4 shows population within 0.25 miles, 0.5 miles and 1-mile walking distances and 5-, 15-, and 30-minute driving distances. Surveys conducted on other local trails show that as a trail gets longer, it draws users from greater distances.

### Table 2-4: Population within Walking and Driving Distances

<table>
<thead>
<tr>
<th>Walking</th>
<th>2000</th>
<th>2010</th>
<th>2015</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.25 mi</td>
<td>139</td>
<td>117</td>
<td>113</td>
<td>110</td>
</tr>
<tr>
<td>0.5 mi</td>
<td>992</td>
<td>966</td>
<td>946</td>
<td>938</td>
</tr>
<tr>
<td>1 mi</td>
<td>3,205</td>
<td>3,074</td>
<td>3,054</td>
<td>3,058</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Driving</th>
<th>2000</th>
<th>2010</th>
<th>2015</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 min</td>
<td>7,219</td>
<td>7,011</td>
<td>7,029</td>
<td>7,097</td>
</tr>
<tr>
<td>15 min</td>
<td>28,639</td>
<td>32,846</td>
<td>33,328</td>
<td>34,128</td>
</tr>
<tr>
<td>30 min</td>
<td>188,757</td>
<td>240,982</td>
<td>247,129</td>
<td>254,835</td>
</tr>
</tbody>
</table>
Estimate of Future Usage Levels

Estimating future trail usage is challenging, but it is safe to assume that connecting to the regional trails to the east and west will generate more connections and result in an increase in recreational riders. To estimate the potential, a number of local trails were researched, and planned Coast-to-Coast Trail usage can reasonably be estimated based on the following:

- The Withlacoochee Trail, which runs from Pasco County to Citrus County and runs 46 miles, had more than 400,000 visitors, according to the 2015 Florida Department of Environmental Protection Economic Impact Assessment.
- The Pinellas Trail is estimated to host 75,000 users per month.
- Central Florida trails are estimated to host about 1 million users per year.

Measures of Success of Trail Use

Trail success can be measured in a number of ways. This section discusses a variety of measures that could be used to measure the success of the Good Neighbor Trail segment of the Coast-to-Coast Trail.

- **Trail user counts** – increases in trail use anticipated when trail is expanded. The first count has been completed for this study, and it is recommended that counts be undertaken annually to track use.
- **Vacancy Rates** – opportunities created for new businesses related to supporting bicycle tourism. Counts of vacant or for rent/sale businesses along the selected routes can be taken annually to show impact. Distance from the trail can be considered but may not be necessary given the compact nature of Brooksville.
- **Jobs supported by trail** – count of jobs related to bicycling, such as bike sales and repair shops, bicycle campgrounds.
- **Economic benefit, hotel/motel vacancy rates** – increases in hotel stays in the area, as measured by rates and a survey to confirm the mode of arrival or trip purpose.
- **Economic benefit, retail/restaurant increases** – related retail and restaurant increases due to increased trail used; can be measured by increased sales and a survey about mode or trip purpose.
- **Tourist Information Requests** – tracks increases in bicycle tourism-related information requests.

Case Studies

**West Orange Trail, Winter Garden, Florida**

Winter Garden has been transformed in large part by the West Orange Trail. According to “Economic Impact Analysis of Orange County Trails” (2011):

- In 2010, the West Orange Trail supported 61 jobs and represented a direct and indirect estimated economic impact of $5 million for Downtown Winter Garden.
- Although extending the Trail through the center of Downtown raised concerns about disruptions to the area, the Trail proved to be a catalyst for downtown redevelopment. Businesses adjacent to the Trail provide convenient access, marketing, and exposure to the 50,000+ trail visitors per month.
- According to counts, September has the highest use, followed by May and October. During fiscal year 2009/2010, almost 889,000 visits were made to the West Orange Trail.
- $5 million was spent by the City to extend the Trail through Downtown and enhance infrastructure and streetscapes to create a one-of-a-kind destination. Improvements included brick streets, a clock tower, and other enhancements. With a 90%+ downtown
Alternatives Analysis

- On average, restaurant and retail expenditures were the most frequent (see Table 2-5).

The Coast-to-Coast Trail already exists in long segments so it is possible to gain some insight into the future simply based on what is already working. The Florida Greenways and Trails Foundation published the “Florida Coast-to-Coast Connector Economic Benefits and Market Report” in 2013, which noted the following:

- Components of the Coast-to-Coast Connector are already producing economic benefit; for example, the Pinellas Trail is already regarded as an important engine for economic growth.

- Dunedin’s Economic Development Director attributes the increase in business occupancy to the Pinellas Trail. Occupancy was 30% in the 1990s before the trail; today occupancy is 95%.

- According to a 2008 National Homebuilders Association survey, trails are a desired amenity. Homes in proximity to trails see home values increase 10–20%.

Whereas no two trail experiences are the same, it is reasonable to think that will experience the benefits of increased tourist traffic and economic activity.

Other survey responses illustrate opportunities that Brooksville should explore as part of its overall Good Neighbor Trail development strategy:

- More than 33% said they used the trail primarily for recreation, more than half said for health and fitness, and just over 11% said for transportation.

- Of those who stayed overnight, about 40% said they had stayed or would be staying in a hotel, motel, or bed & breakfast; almost 5% were using a campground.

### Table 2-5: Average Spending on Related Activities by users of the West Orange Trail by Type

<table>
<thead>
<tr>
<th>Category</th>
<th>$0</th>
<th>$0–5</th>
<th>$10–20</th>
<th>Over $20</th>
<th>Spent in Orange Co.</th>
<th>Response Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restaurant</td>
<td>56</td>
<td>5</td>
<td>32</td>
<td>19</td>
<td>31</td>
<td>112</td>
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<tr>
<td>Food and beverage (retail)</td>
<td>51</td>
<td>25</td>
<td>17</td>
<td>11</td>
<td>24</td>
<td>104</td>
</tr>
<tr>
<td>Transportation</td>
<td>56</td>
<td>14</td>
<td>9</td>
<td>4</td>
<td>9</td>
<td>83</td>
</tr>
<tr>
<td>Books, guides, maps</td>
<td>71</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>78</td>
</tr>
<tr>
<td>Rental fees for bikes, skates, pull-along carriages</td>
<td>71</td>
<td>2</td>
<td>2</td>
<td>7</td>
<td>5</td>
<td>82</td>
</tr>
<tr>
<td>Other</td>
<td>43</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>6</td>
<td>52</td>
</tr>
</tbody>
</table>
Applicable Lessons
There are myriad examples of trails throughout the county and lessons to be learned from each one. Generally, however, a successful trail includes trailheads or places to rest and shelter from storms, available water, wayfinding information, and locations to lock up bicycles. An urban trail typically offers a different experience, with access to shops and restaurants, places to rest, and safely lock bikes and local sites.

Wayfinding signage offers valuable information about direction as well as opportunity and should highlight local destinations, connections, and facilities. Given the nature of the Coast-to-Coast Trail, it also will need to address county-to-county aspects. A separate project is underway to develop unified branding and key trail side amenities such as trail markers and site control structures.

The Good Neighbor Trail, extending from the Suncoast Trail to the Withlacoochee Trail and part of the larger regional Coast-to-Coast Trail, will experience an increase in bicycle tourism and trail usage, representing an opportunity for Brooksville to encourage tourism and benefit economically.

Alternatives Analysis

2.2 Trail Design Standards

Introduction
Hernando County already has several multi-use trails, including the Suncoast Trail, which was built as part of the Suncoast Parkway construction and runs from the Pasco/Hernando County line to US 98. The Suncoast Trail will be extended with the planned extension of the Suncoast Parkway to Citrus County. This 12–15-ft-wide facility includes two major trailheads. The Good Neighbor Trail is a 12-ft wide rail-to-trail conversion. Its western terminus is the Good Neighbor Trailhead that includes parking, water, and restrooms. The facility types identified to fill the gap are proposed as a mix of urban shared use path/cycletrack and multi-use trail. This section discusses the types of facilities and standards that were used to develop the sections for the proposed alignments.

Bicycle Facility Types
Several different types of facilities can be used to develop a bicycle route or an alignment, including multi-use paths, side paths, separated bike lanes, buffered bike lanes, standard bike lanes, shared lane markings, and wide outside lanes.

The identification of the appropriate facility type is determined by a number of factors, including surrounding land use, cost, and available right-of-way. Because this alignment is part of the Coast-to-Coast Trail and the SUN Trail Network, FDOT Trail Legislation (320.072, FS and 339.81, FS) was also considered. This legislation specifically excludes on-road facilities such as bike lanes and shared lane markings except for segments less than ½ mile in length connecting two or more non-motorized trails. For this reason, these facility types were excluded from consideration as facility types for use to complete the gap.
Alternatives Analysis

Trail Settings
The gap between the Suncoast Trail and the Good Neighbor Trail includes semi-urban and rural landscapes. Development includes large-scale commercial, small-scale retail, residential, and historic downtown. Roadways range from multi-lane arterials with curb and gutter to single-lane local roads with open drainage.

The following standards and guidance were referred to when developing the sections:

- Plans Preparation Manual (PPM)
- Florida Greenbook
- Manual on Uniform Traffic Control Devices (MUTCD)
- FHWA’s Separated Bike Lane Planning and Design Guide (although not a standard, specification, or a regulation, document developed by FHWA to “outline considerations for separated bicycle lanes and provide a menu of design options”)

In 2013, FHWA issued a memorandum of support for “taking a flexible approach to bicycle and pedestrian design,” which allowed the NACTO guides to be used in the development of bicycle and pedestrian facilities. These treatments are either allowed or not precluded by the MUTCD. The sections developed are in compliance with the current guidance.

Geometric Design Criteria
Table 2-6 summarizes the criteria used to design trails. Review of the alignment options against these criteria also was used as an evaluation tool to determine facility type. For example, a 5-ft minimum separation from the roadway is required for a multi-use path by the PPM and, in some areas in Brooksville, this is not possible.

<table>
<thead>
<tr>
<th>Multi-use Trail</th>
<th>Rural/Urban</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design speed</td>
<td>18–20 mph</td>
<td>Florida Greenbook, Ch 9, C.5; PPM 8.6.7</td>
</tr>
<tr>
<td>Horizontal clearance</td>
<td>5 ft min; 4 ft each side</td>
<td>Florida Greenbook, Ch 9, C.3; PPM 8.6.10</td>
</tr>
<tr>
<td>Vertical clearance</td>
<td>8–10 ft</td>
<td>Florida Greenbook, Ch 9, C.4, PPM 8.6.6</td>
</tr>
<tr>
<td>Shoulder width</td>
<td>5 ft</td>
<td>Florida Greenbook, Ch 9, C.1</td>
</tr>
<tr>
<td>Trail width</td>
<td>12'</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Separated Bike Lane</th>
<th>Rural/Urban</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design speed</td>
<td>N/A; recreational rider</td>
<td>FHWA Separated Bike Lane Planning and Design Guide, NACTO Urban Bikeway Design Guide</td>
</tr>
<tr>
<td>Horizontal clearance</td>
<td>Context</td>
<td></td>
</tr>
<tr>
<td>Vertical clearance</td>
<td>8–10 ft</td>
<td></td>
</tr>
<tr>
<td>Shoulder width</td>
<td>N/A</td>
<td></td>
</tr>
</tbody>
</table>

Proposed Typical Sections
Proposed typical sections have been developed for this plan and can be found in Appendix C. These sections were developed to understand the different challenges and opportunities for each alignment and develop preliminary cost estimates. The actual design plans will be developed during the next phases of the development of the trail.

Intersection Design
The proposed alignments cross Cobb Road, Ponce de Leon Boulevard, and/or Broad Street and Main Street. Intersection treatments will need
Alternatives Analysis

The trail alignment will be selected according to a variety of applicable standards and to best fulfill the vision of the City of Brooksville and the overall Coast-to-Coast Connector.

2.3 Legal Constraints

A review of land ownership and potential impacts was completed for the initial alignments. This review helped identify preliminary right-of-way impacts. The City of Brooksville is an important partner in the development of the Trail and, accordingly, has begun preliminary discussions with property owners along the proposed alignments. A more detailed review land ownership and right-of-way requirements will be undertaken during subsequent stages of project development.

A preliminary legal review was completed for this study. Additional review will be required during the next phases of project development.

2.4 Trail Corridor Alignments

Site Review

The alignments under consideration at the second field visit were:

- Jefferson/Broad Street, from east of Cobb Road along Jefferson to Southeast Avenue where the trail continues along Harvard Street and Hospital Avenue, then crosses at Mildred Avenue and continues along Broad Street and Main Street to the Russell Avenue Trailhead.

- Park/Broad Street travels through the Park, across the Brook Plaza Mall, up Broad Street to Main Street, where it travels south to the Russell Street trailhead.

to be considered during the design phase. Options for trail crossings include pedestrian activated RRFBs or HAWK signals and are subject to additional study.

Trailheads and Trail Stops

Trailheads are integral to the comfort of trail users and can include a variety of elements. Trail amenities were the subject of both the stakeholder interview questions and the online survey. Although trailhead type amenities are not eligible for SUNTrail funding, they are critical components of the user experience. Local funding sources or further coordination with the MPO should be pursued for these elements. Major trail heads typically include large amounts of parking, informational kiosks, water, restrooms, bicycle racks, and shade structures. Minor trailheads may include lesser amounts of parking, trail information, water, and bicycle racks. At other locations along the trail, weather protection structures are recommended so trail users know there is safe refuge from Florida’s seasonally-temperamental weather.

Design of any of these structures will be undertaken during the next phases of the project.

It is worth noting that the proposed trail alignment will run adjacent to Tom Varn Park, which already includes many parking spaces and available water and restrooms. It is recommended that these existing facilities be updated and incorporated into the alignment to help manage the cost of developing the trail.

Environmental Analysis

A preliminary environmental analysis was completed for the proposed alignments to help identify any challenges that might impact the future design process and can be found in Appendix C. A more in-depth environmental analysis will be done during the next phases of the development of the trail.
Alternatives Analysis

- **Park/Jefferson, via Lamar Avenue** travels through the Park and uses Lamar and Hale avenues to reach Broad Street, where the trail continues to Main Street and south to the trailhead.
- **Park/Hendricks Avenue** travels through Tom Varn Park and uses Lamar, Hale and Hendricks avenues to connect to Main Street and the Russell Street Trailhead.
- **Park/Daniel Avenue** travels through the Park and then travels along Daniel Avenue to Main Street and the Trailhead.

Each of these alignments is discussed in detail in the following sections. Because of the small size of the study area, all roads between the park and the Trailhead were reviewed.

All of the alignments connect to the Coast-to-Coast Trail at the Cortez Boulevard/Cobb Road intersection. Each of the alignments discussed below will have a multi-use trail from Cobb Road heading east toward Tom Varn Park along the north or south side of SR 50, depending on which option to cross Cobb Road is selected. Several options are available to cross Cobb Rd and will be analyzed during design. Some considerations for each option are as follows:

- West of the intersection, if the trail runs along Mobley Road and Clinton Boulevard, a pedestrian bridge will be required to cross SR 50(Cortez Boulevard). The trail would then travel north along the extension of Providence Boulevard and continue on the south side of SR 50A/W Jefferson Street and enter the Tom Varn Park at Darby Road.

- If the trail crosses the Cobb Road/Cortez Boulevard intersection, a pedestrian bridge from the northeast to southwest corner will be required, and the trail will run along the north side of W Jefferson Street; an at-grade crossing at Darby Ave will connect to the trail in Tom Varn Park.

In both cases, some right-of-way may be required. Additional study of the crossing at will be undertaken during the PD&E phase to ensure that the connection to the segment of the Coast-to-Coast Connector that ends at Cobb Road is the most appropriate.
Jefferson Street/Broad Street (2.40 miles)
The Jefferson/Broad Street alignment is proposed to run along Jefferson Street through downtown to Main Street and then turn south to the existing Good Neighbor Trailhead at Russell Street. The 12-ft, two-way multi-use trail is proposed to run on the south side of the street in the park right-of-way and will travel south on the west side of Southeast Avenue until Harvard Street. The trail continues along Harvard Street, crossing Ponce de Leon Boulevard, and goes along Hospital Road to South Mildred Avenue.

Crossing at Mildred Avenue, the trail continues on the north side of W Jefferson Street. An at-grade crossing is proposed where the trail crosses the CSX track. A signal upgrade and coordination will be required to construct this crossing. The trail continues along W Jefferson Street to N Main Street, where it continues south on the east side of the street. This alignment removes nine parking spaces in the Uptown area, one on W Jefferson Street, and eight on Main Street. The trail continues south on Main Street to the Good Neighbor Trailhead at Russell Street.

Figure 2-3: Jefferson Street/Broad Street alignment
Alternatives Analysis

Opportunities for this alignment include the following:

• Most direct route from the SR 50/Cobb Road trail terminus to Uptown.
• Includes a cycle track along Main Street from Broad Street to Russell Street, which is envisioned as part of Brooksville’s economic development strategy.
• Most business exposure along this route.
• Brings visitors directly to “center” of Brooksville.
• Majority of right-of-way appears to be available; south sidewalk would remain the same; a north curb is proposed to be rebuilt to accommodate the trail.
• Much of stormwater infrastructure exists, but some modification would be needed to accommodate drainage.

Challenges for this alignment include the following:

• May need to purchase small amounts of right-of-way around driveways.
• Harvard Avenue constrained and identified only as an alternative for segment of Jefferson Street where trail is not feasible.
• Bridge crossing will require coordination with FDOT/CSX.
• Crosswalk needed at Ponce de Leon Boulevard and Harvard Avenue. Additionally, review recommended to determine need for pedestrian signal at Harvard Street and Ponce De Leon Boulevard or coordinated with signal at W Jefferson Street and Ponce de Leon Boulevard; stop control exists at Harvard Avenue crossing Ponce de Leon Boulevard.

• Several driveways on Main Street may need mitigation:
  – At W Jefferson Street and Main Street, bank drive-thru customers exit onto Main Street—crossing treatments may need to be applied to these trail/driveway intersections.
  – At Main Street and Liberty Avenue, review recommended to study the option to close the Main Street exit and the primary exit/entrance on Orange Avenue.
• Estimated reduction in parking spots in the Uptown area includes two on Jefferson Street and eight on Main Street (to Liberty Avenue). If concern about loss of parking, a parking study is recommended to confirm availability and policy recommendations.
Park/Broad Street (3.23 miles)
This alignment enters Tom Varn Park at Darby Avenue. The proposed 12-ft multi-use trail would cross the park and US 41 and continue along Lamar and Hale avenues to Broad Street, where it would run along the south side of Broad Street to the railroad bridge and then continue as a cycletrack to Main Street to a crossing at Mildred Avenue, where it runs along Broad Street via bridge over the CSX tracks and cycletrack to Main Street, where the cycletrack would continue and connect to the Trailhead at Russell Street.

Opportunities for this alignment include the following:
- Alignment connects through Tom Varn Park to Uptown, allowing both destinations to be highlighted.
- Right-of-way through park already exists.
- Primary exposure to businesses is along Broad and Main streets.
- Includes a cycle track south along Main Street from Jefferson Street to Russell Street.
- Brings visitors to Main Street and South Broad Street.
- On Broad Street, north sidewalk remains same; south curb would need to be rebuilt.

Figure 2-4: Park/Broad Street alignment
Challenges for this alignment include the following:

- Tom Varn Park trails currently for walkers only; plan to manage multiple modes through park recommended.
- Crossing from Benton Avenue to US 41/S Broad Street will need to be redesigned, and pedestrian signal will be needed at Benton Avenue and Ponce de Leon Avenue.
- Coordination with the mall/property owner would be needed to acquire right-of-way to construct a trail through parking lot. Drive aisle would need to be reconstructed as a roadway that includes a trail.
- Reductions in parking spots through Uptown include two on Broad Street and eight on Main Street (to Liberty Avenue). As noted above, parking study may be required.
- Majority of stormwater Infrastructure exists, but would need analysis during next phases of design.
- Alignment requires separate bridge crossing over CSX tracks; appears that right-of-way at east end of bridge will be required. Bridge envisioned as gateway to Brooksville and should be designed with history of area in mind.
- As mentioned previously, driveway/trail intersections at W Jefferson Street and Main Street and at Main Street and parking lot north of W Liberty Street will need study and mitigation.
Park/Jefferson Street via Lamar Ave (2.54 miles)

This alignment enters Tom Varn Park at Darby Avenue. The proposed 12-ft multi-use trail would cross the park and US 41 and continue along Lamar and Hale Avenues to Broad Street, where it would run along the south side of Broad Street to the railroad bridge and then continue as a cycletrack to Main Street to a crossing at Mildred Avenue, where it runs along Broad Street via bridge over the CSX tracks and cycletrack to Main Street, where a cyclerack would continue and connect to the Trailhead at Russell Street.

Opportunities for this alignment include the following:

- Connects through Tom Varn Park to Uptown, allowing both destinations to be highlighted.
- Right-of-way through park already exists.
- Primary exposure to businesses is along Broad and Main streets.
- Includes cycle track south along Main Street from Jefferson Street to Russell Street.

Figure 2-5: Park/Jefferson Street alignment
Alternatives Analysis

- Brings visitors to Main Street and South Broad Street. On Broad Street, north sidewalk remains same; south curb would need to be rebuilt.

**Challenges** for this alignment include the following:

- Current location of road, in center of available right-of-way, does not leave enough room to build a 12-ft trail. Lamar and Hale would have to be rebuilt to accommodate a trail and road in the right-of-way or right-of-way acquired.
- Tom Varn Park trails currently for walkers only; plan to manage multiple modes through park is recommended.
- Crossing from Benton Avenue to U S 41/S Broad Street will need to be redesigned; pedestrian signal needed at Benton Avenue and Ponce de Leon Avenue.
- Coordination with mall owner needed to acquire right-of-way to construct trail through parking lot. A drive aisle would need to be reconstructed as a roadway that includes a trail. Existing crosswalk at mall and US 41 would need to be realigned with trail travel direction to facilitate use and appears to need right-of-way on east side.
- Reductions in parking spots through Uptown include two on Broad Street and eight on Main Street (to Liberty Avenue). As noted above, a parking study may be required.
- Majority of stormwater infrastructure exists, but would need analysis during next phases of design.
- Alignment requires separate bridge crossing over CSX tracks. It appears that right-of-way at east end of bridge will be required. Bridge envisioned as gateway to Brooksville and should be designed with history of area in mind.

- As mentioned previously, driveway/trail intersections at W Jefferson Street and Main Street and at Main Street and parking lot north of W Liberty Street will need study and mitigation.
Park/Hendricks Ave (2.50 miles)

The Hendricks Avenue alignment begins at Tom Varn Park along Darby Lane. The proposed 12-ft multi-use trail would cross the park to connect with Benton Avenue at Veterans Avenue. The trail would continue along the north side of Benton Ave and cross at Ponce de Leon Boulevard. Using right-of-way in Brook Plaza, the trail would continue to the existing signal at US 41/South Broad Street and south to Lamar Avenue.

The trail would continue along Lamar, Hale, and Hendricks avenues. Hendricks Avenue does not currently connect across the railroad tracks. A bicycle/pedestrian bridge is proposed to cross the tracks. This bridge has historical reference; previously, the bridge allowed people to cross the tracks at this location. The trail would continue on the east side of the railroad tracks to Main Street, where it would connect to a sidewalk to the Russell Street Trailhead.

**Figure 2-6: Park/Hendricks alignment**
Alternatives Analysis

Opportunities for this alignment include the following:

- Connects Tom Varn Park and Main Street.
- Bridge required to cross railroad tracks could be designed to connect to Brooksville’s rail heritage.

Challenges for this alignment include the following (Note: Because this alignment uses the same route through Tom Varn Park to Lamar Avenue, the challenges are detailed in the Park/Uptown description, but are summarized below):

- Access through Tom Varn Park will require new trail.
- Park trails currently for walkers only and would need new policy to manage modes.
- Crossing from Benton Avenue and Ponce de Leon Boulevard to US 41/Broad Street would require redesign of intersection.
- Not enough room exists to build 12-ft multi-use trail in right-of-way. Options are to purchase right-of-way or narrow trail along Daniel, Lamar, Hale, and Hendricks avenues.
- Personal safety concerns expressed about Hendricks Avenue alignment, applicable to Lamar, Daniel, Hale, and Hendricks avenues. Issue may be addressed with increasing trail users, but development of safety plan for trail recommended.
- Because of where this alignment ends at Hendricks Avenue and Main Street, signage recommended to identify amenities/unique features in Uptown. Also recommended that overall wayfinding signage strategy be developed.
Park/Daniel Avenue (2.68 miles)
This alignment enters Tom Varn Park at Darby Avenue and meanders through the Park, crossing Broad Street and the 12-foot multi-use trail and continuing along Daniel Avenue to Main Street where it meets the trailhead. The proposed 12-ft multi-use trail would cross the park to connect with Benton Avenue at Veterans Avenue. The trail would continue along the north side of Benton Avenue and cross at Ponce de Leon Boulevard. Using right-of-way in Brook Plaza, the trail would continue to the existing signal at US 41/South Broad Street, then continue along Lamar Avenue and Hale Avenue to West Broad Street, where it connects to a widewalk along Main Street to the Russell Street Trailhead.

Figure 2-7: Park/Daniel Avenue alignment
Opportunities for this alignment include the following:

• Connects to Good Neighbor Trailhead through Tom Varn Park and highlights park.
• Dedicated right-of-way through park already available.
• Riders experience tree canopy and scenery.

Challenges for this alignment include the following:

• Like other alignments through Tom Varn Park, trails currently for walkers only; strategy and policy to manage modes is recommended.
• Crossing at US 41 currently unsignalized. To facilitate crossing by trail users, pedestrian bridge recommended. Right-of-way appears to be needed for bridge landing on east side.
• As noted previously, location of Daniel Avenue within right-of-way precludes construction of a 12-ft trail. Options include purchasing right-of-way or constructing a narrower trail.
• Daniel Avenue potentially would need to be rebuilt as an urban section to address drainage needs.
• Area perceived to have higher crime than others.
• Constructing trail along Daniel Avenue will impact tree line. Construction (trenching for drainage or fill) will disrupt root systems and cause damage.
• Alignment ends at Daniel Avenue and Main Street. Although convenient to trailhead, indirect access to Uptown. Signage would be needed to educate users about points of interest.
• Alignment would require City/MPO funding source for “widewalk” along Main Street from Daniel Avenue to West Broad Street.

Preferred Alternative

Each of the alignments was reviewed against selection criteria that included input, constructability, and responsiveness to the community and the regional vision. Preliminary planning level costs were generated for the alignments that satisfied all of the above criteria and had Stakeholder Team support but were developed for reference and comparison purposes only. The constructability analysis is included in Appendix F.

To keep the analysis clear, the segment from Cobb Road to the Park was identified as a segment “common” to each of the alignments. The decision to build on either side of Jefferson will be dependent on factors beyond the scope of this project, but was found to be feasible on either side. For reference, the section of the trail from the Suncoast Trail to Cobb Road was costed separately and is estimated at $1.4 million. As mentioned at the beginning of this section, the most appropriate way and cost to cross the Cobb Road/Cortez Boulevard intersection will be determined in the next phase of the study, with safety, cost, timing, and availability of right-of-way being factors to consider.

Options include building a trail along Mobley Avenue and Clinton Road, crossing Cortez Boulevard by overpass and continuing up the west side of Cortez along Providence Boulevard where the trail would continue along the south side of Jefferson Street, or an overpass from the southwest to northeast corners of the intersection and a trail along the north side of Jefferson Street with a crossing at Darby Road into the Park. Both of these options provide access to the preferred alternative through Tom Varn Park to Broad Street.

Through stakeholder review, two alignments were identified as preferred. The first, the Park/Broad Street alignment, was included because it has a very high economic development potential and connects two critical areas in the city. Important in the consideration also was the limited right-of-way impacts and constructability. The
Alternatives Analysis

second, the Park/Daniel Avenue alignment, was maintained as an option because it was felt to be scenic and provided the most direct connection to the Trailhead.

Two alignments, as shown in the map in Figure 9, Park/Daniel Avenue and Park/Broad Street were presented to the public at the final workshop held on May 26, 2016. The accompanying chart was used to show the evaluation criteria applied to identify the final preferred alignment.

The public meeting served to affirm the Park/Broad alignment as the preferred alternative. This alignment rated advantageous in the majority of the selection criteria and is estimated to have a lower cost than the second alternative. Other highlights of this alternative include:

- It has much of the needed right-of-way. Additional needs will be coordinated by the City of Brooksville. Preliminary discussions are being held to facilitate the needed agreements.
- The alignment connects two important areas of the City (the Park and the Uptown) and will allow trail users to easily experience the showcase attractions of Brooksville.
- Along Broad Street, much of the stormwater infrastructure is in place.
- It appears only be necessary to rebuild one curb in areas along Broad Street where the cycletrack is proposed.
- This alignment is estimated to have a lower construction cost.
- This alignment received positive reaction from the community, the Brooksville City Council, the Hernando/Citrus MPO Board, and the Brooksville Vision foundation.

Therefore, the results of this study are to recommend and pursue the Park/Broad alignment as the Brooksville Good Neighbor Trail connection of the Coast to Coast connector.
### Alternatives Analysis

Table 2-7: Evaluation Criteria Used to compare preferred alignment alternatives

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Park/Broad St</th>
<th>Park/Daniel Ave</th>
<th>Notes</th>
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</thead>
<tbody>
<tr>
<td>Opportunities for Economic Development</td>
<td>1</td>
<td>2</td>
<td>Trail passes by the most retail, etc.</td>
</tr>
<tr>
<td>Connect to Brooksville</td>
<td>1</td>
<td>2</td>
<td>Most direct connection</td>
</tr>
<tr>
<td>Connection to the Good Neighbor Trail</td>
<td>2</td>
<td>1</td>
<td>Most direct connection</td>
</tr>
<tr>
<td>Interesting</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Best for tourist riders</td>
<td>1</td>
<td>2</td>
<td>Based on access to retail, restaurants, etc.</td>
</tr>
<tr>
<td>Best for local riders</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Community Benefit</td>
<td>1</td>
<td>2</td>
<td>Economic benefit</td>
</tr>
<tr>
<td>Environmental Impacts</td>
<td>1</td>
<td>2</td>
<td>Potential damage to tree canopy</td>
</tr>
<tr>
<td>Personal Safety</td>
<td>1</td>
<td>2</td>
<td>Personal safety concerns noted in workshop #1</td>
</tr>
<tr>
<td>Constructability (drainage, right-of-way)</td>
<td>1</td>
<td>2</td>
<td>Includes cost of common segment from Cobb to Park. Does not include crossing intersection.</td>
</tr>
<tr>
<td>Cost</td>
<td>$8.3M</td>
<td>$10.7M</td>
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<tr>
<td>Evaluation Rank</td>
<td>1</td>
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Figure 2-9: Final preferred alternative alignments
Figure 2-10: The final preferred alignment for the Brookville segment of the Coast to Coast Connector
3.0 Trail Operations
This chapter describes some of the tools and strategies that can be implemented to manage the trails in Brooksville and Hernando County.

3.1 Selection Summary
The recommendation of the Park/Broad Street alignment is a direct result of community support and engagement. This alignment will become part of the economic development strategy for the City of Brooksville and is an opportunity to highlight the richness of the community. This alignment is supported by workshop feedback and a City Council resolution.

3.2 Financing Plan
Although the majority of this trail construction is proposed to be funded with the State funding source identified specifically for trail projects across the state, SUNTrail, additional funding sources will need to be identified for the following amenities:

- Bicycle racks, air stations or lockers;
- Buildings, restrooms, wayside structures or overlooks, shelters or picnic pavilions;
- Kiosks (regulatory and safety signage permitted);
- Landscaping (trail stabilization permitted);
- Litter or recycle receptacles, and doggie bag dispensers;
- Parking areas or trailheads;
- Playgrounds, fitness equipment or structures;
- Promotional or educational materials;
- Sculptures, fountains or art; and
- Water fountains, spigots or showers.

Additional funding sources may include Transportation Alternatives funding or other FDOT identified sources. The trail is already on the MPO’s Priority Project list and appears in the 2040 Long Range Transportation Plan.

3.3 Trail Management Strategy
This section identifies management, operation, and maintenance strategies for the City of Brooksville and Hernando County that may be helpful to consider as the trail system and demands on that system grow. These strategic recommendations have been tailored to the specific needs of the Brooksville Coast-to-Coast Trail gap, but may be implemented along the remainder of the county’s trail system.
Overall Management

The safe and efficient operation of the Brooksville Gap of the Coast-to-Coast Trail is the primary goal of the management plan. Active management of the trail and coordination of tasks ensure that the responsibilities, tasks, procedures, and estimated timeframes are successful and accurate. Table 3-1 identifies some typical trail maintenance activities and frequencies. This should be revised as needed and reviewed annually.

Table 3-1: Typical Trail Maintenance Activities/Frequencies

<table>
<thead>
<tr>
<th>Activity</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mowing</td>
<td>Weekly</td>
</tr>
<tr>
<td>Tree pruning/removal</td>
<td>Annually</td>
</tr>
<tr>
<td>Weed control</td>
<td>Monthly</td>
</tr>
<tr>
<td>Vegetation irrigation</td>
<td>Daily/weekly</td>
</tr>
<tr>
<td>Drain cleaning</td>
<td>Monthly</td>
</tr>
<tr>
<td>Pavement sealing/repave</td>
<td>2–7 years, depending on sealant</td>
</tr>
<tr>
<td>Trash pickup/disposal</td>
<td>Twice weekly</td>
</tr>
<tr>
<td>Graffiti cleanup</td>
<td>As needed</td>
</tr>
<tr>
<td>Lighting repair/replacement</td>
<td>Yearly/as needed</td>
</tr>
<tr>
<td>Furniture repair/replacement</td>
<td>Yearly/as needed</td>
</tr>
<tr>
<td>Signage repair/replacement</td>
<td>Yearly/as needed</td>
</tr>
<tr>
<td>Fence repair/replacement</td>
<td>Yearly/as needed</td>
</tr>
</tbody>
</table>

Operations

Rules and Regulations

The existing Good Neighbor Trail and the Suncoast Trail are open from dawn to dusk. Prior to the completion of the Hernando County portions of the Coast-to-Coast Trail, it is recommended that the rules and regulations, including hours of operation, be reviewed and designed to best suit trail users and the agencies responsible for the safety and security of trail users.

Maintenance and Frequency

There may be additional activities that Hernando County or the City of Brooksville will need to undertake as the trail becomes a cross-jurisdictional feature. Frequencies may change according to funding and staffing availabilities, but need to be kept fairly consistent to keep up with demand and the expected increased trail usage.

The City of Brooksville Parks and Recreation department currently is responsible for the care and maintenance of the Good Neighbor Trail within the city limits; Hernando County Public Works is responsible for the sections that are in the county. It is recommended that staffing levels be reviewed and adjusted as needed in response to the additional miles of trail that will be added to connect to the Withlacoochee State Trail and the eventual connection to the Suncoast Trail. To provide a seamless experience for trail users, intra-agency coordination about maintenance is recommended.
Trail Coordination

Trail Manager

Given the length of the trail and its increasing importance in the Hernando County and City of Brooksville trail systems, the establishment of a position or addition onto a previous position within the City or County government to coordinate between jurisdictions and to serve as the point of contact for citizens and government departments is recommended. The Trail Manager would be responsible for administering the management plan and ensuring the success of the trail. Responsibilities include:

- Coordinate between governmental jurisdictions.
- Serve as point of contact for governments and citizens.
- Implement management plan and seek additional funding.
- Maintain and manage records and trail budget.
- Oversee maintenance and replenishment operations.
- Ensure safety and security of the trail.

Risk Management

Safety

As much as possible and in compliance with the PPM and the Florida Greenbook, the trail will be designed with adequate right-of-way to buffer the trail from the roadway and create connectivity between open spaces. The trail will also be designed such that crime, fire, flooding, and other hazards are reduced. In some cases, using fencing and other barriers can be used to reduce traffic in unwarranted areas.

Personal safety is always a concern along trails, especially in areas that are secluded or not heavily traveled. To address this concern and ensure that the user experience is a safe one, trail communities have created or facilitate patrols on trails by either law enforcement agents or volunteers. For example, the Pinellas Trail, through the Pinellas County Parks and Conservation Resources Department, has assigned a volunteer Auxiliary Ranger group that patrols the trail and provides information and light maintenance services and an extra level of safety and security. A similar group in Hernando County is recommended and could also play an ambassador role.

The trial will be designed to minimize road crossings and prioritize pedestrian and bicyclist-friendly crossings where necessary.

While lighting is not a standard trail provision, considered in areas of concern or high use. The hours of trail access are yet to be determined, but providing adequate lighting will allow users peace of mind when using the trail during hours of limited daylight. As this trail grows in popularity and is used for long-haul trips, trail lighting will be a concern.

Fire, Police and Ambulance

It is recommended that contact information for local police and emergency services be posted at all trailheads and intermittent signs throughout the trail to allow easier coordination in case of an emergency. Mile posts should be installed to facilitate emergency response teams in navigating to the affected party. Additionally, a 911 numbering program should be considered; Hillsborough County has instituted this on all its trails. A reflective 911 emblem is installed on the pavement and can be used by 911 callers to locate themselves for the police or emergency services.
Liability

Liability issues are covered under Section 375.251 of the Florida Statutes. This statute limits the liability of owners or lessees who make their land available to the public for recreational use.

Natural and Cultural Resources

Natural Resources

In keeping with the City of Brooksville’s Good Neighbor Trail and Trailhead Complex Plan, natural resources including flora and fauna that are part of the trail experience should be protected. To that end, it is recommended that efforts be made to minimize impacts on existing hardwood communities and habitats of endangered and threatened species and provide appropriate protective measures for environmentally-sensitive land and unique vegetative communities. Inspection of natural resources defined in the City of Brooksville’s Good Neighbor Trail and Trailhead Complex Plan should be completed annually to prevent and monitor invasive and exotic species.

Cultural Resources

Historic Preservation

Efforts to facilitate and provide opportunities to preserve, maintain, and document local historical sites and features are described in the Good Neighbor Trail and Trailhead Complex Plan.

Education

It is recommended that educational and recreational programs be provided to the general public and youth. Specific material with information on exotic plant invasion will detail efforts made to keep the area exotic species free. This is in keeping with the Good Neighbor Trail and Trailhead Complex Plan.

Cost Savings

Jurisdictional Sharing

Because the trail will cross City of Brooksville and Hernando County boundaries, both jurisdictions are critical players in the long-term maintenance plans. To help manage the cost of maintenance, it is recommended that the sharing of trail maintenance equipment and facilities between City and County jurisdictions be considered.

The City of Brooksville Parks and Recreation Department currently is in charge of maintenance of the Good Neighbor Trail. This maintenance includes mowing and keeping the trail clear of debris. The City already coordinates with the County for the use of certain equipment.

The maintenance of the Suncoast Trail is being transitioned to the Hernando County Public Works Division, which will care for all segments of the Good Neighbor Trail in the county.
The proposed alignments are in different areas of right-of-way ownership, so it is recommended that other agencies, such as the Department of Public Works, Streets Division, be considered as part of the maintenance strategy.

Volunteer Opportunities
Volunteers are key to a successful trail maintenance strategy. Many trails in the region have longstanding volunteer programs that supplement Parks and Recreation Department support. For example, Pinellas Trails, Inc. “exists to support and enhance the Pinellas Trail now and for future generations.” This non-profit entity exists to support the trail. Providing such opportunities for volunteer groups to patrol, maintain, and repair segments of the trail help build community and also help share the cost of supporting the trails.

Patrol benefits include:

• Increased security
• Conflict resolution
• Trail inspection
• Emergency aid
• Debris cleanup

Adopt-a-Trail Initiative
Numerous communities around the county have created programs in which individuals or groups “adopt” segments of a trail and provide maintenance services along that adopted segment. This program exists in Brooksville and is recommended for expansion.

Community Partners
Opportunities to foster community partnerships abound, and ways to engage the community as the trail grows should be considered. Other options including creating and fostering partnerships with community groups such as Boy Scouts, Girl Scouts, and Rotary International and local schools.

Events can be a great way to develop partnerships and build community. Programming the trail and related community spaces will highlight the trail and build further goodwill.