

# Orange Beach Transit Feasibility Study

*March 2017*



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# **1.0 Executive Summary**



## EXECUTIVE SUMMARY

The Orange Beach Transit Feasibility Study explores potential transit service options within the City of Orange Beach, Alabama and the immediate surrounding communities. The service options presented in the study are the result of a collaborative effort between the consultant team, stakeholders, and the public. The service options were then critically analyzed to determine potential ridership, headway, and costs. Finally, a potential implementation scenario was provided to demonstrate project funding possibilities. The results of the study are presented in this report.

### Study Background and Process

Several prior studies have identified a need for a transit system in the Orange Beach area. Therefore, Baldwin County, Baldwin Regional Area Transit System (BRATS), the cities of Orange Beach and Gulf Shores, and the Florida-Alabama Transportation Planning Organization (FL-AL TPO) collectively developed a scope of services. This transit system would primarily provide seasonal benefits to visitors, residents, and would support local businesses. The West Florida Regional Planning Council (WFRPC) commissioned Atkins to complete the study. The study was funded through FTA 5307 urbanized area formula funds. More information regarding the study background and process can be found in Section 2. Introduction.

### Public Outreach Summary

An online public outreach survey was prepared and administered by the public outreach sub-consultant, BowStern. The survey elicited 2,149 total responses from those who identified either as residents, visitors, individuals seeking information about visiting, or were just interested in Alabama's Gulf Coast communities. Overall, respondents favored the use of transit as an option for meeting their transportation needs in the study area, and were generally willing to ride a regularly scheduled system. Further details about the public outreach process and in results are in Section 3. Public Outreach.

### Existing Transportation System

The existing Baldwin County transportation system was reviewed to provide context for the transit feasibility study. Included in the transportation system review was an overview of the current public transportation system, the Baldwin Regional Area Transit System (BRATS) and an overview of the trail system. The existing transportation review is in Section 4.

## Tourism

The tourism industry is a vital component of the Orange Beach economy, leading to tourists being a major source of the new beach service riders. Therefore, information about Orange Beach tourism was included in the study. The tourism section included information from the Summer 2014 Profile of Visitors and information from the Alabama Gulf Coast Convention and Visitors Bureau (AGCCVB). The Orange Beach tourism industry was profiled in Section 5.

## Service Options Summary

The service options are presented in Section 6, and are summarized in this section.

### *Service Characteristics*

The results of the study identified the following specifics regarding service options:

- Type: Deviated fixed-route service.
- When: Seasonal service between mid-May and mid-September (132 days), 7 days per week.
- Hours: Ten (10) hours each day, starting at 2 PM and the last bus starting its route at 11 PM.
- Phases: Three phases implemented over a five year period. The three phases incorporate service along the beach, service to the Wharf, and service to the Canal Road East District.

### *Implementation Schedule*

The three phases are proposed to be implemented via the schedule displayed in Table 1.1.

Table 1.1 Service Implementation Schedule

Year 1 (2018)	Phase 1 - Beach Route
Year 2 (2019)	Phase 1 - Beach Route
Year 3 (2020)	Phase 2 - Wharf Loop
Year 4 (2021)	Phase 2 - Wharf Loop
Year 5 (2022)	Phase 3 - Extended Loop

### *Phase One*

The Phase 1 “Beach Route” is a down and back, east-west service from The Hangout area to the east side of the Perdido Pass Bridge, providing service on both sides of Perdido Beach Boulevard (AL 182) along the coast. A map of the Beach Route is displayed in Figure 1.1.

### *Phase Two*

The Phase Two “Wharf Loop” is a contra-flow loop providing service to the beach and The Wharf, utilizing Perdido Beach Boulevard (AL 182), Gulf Shores Parkway (AL 59), Canal Road (AL 180), and AL 161. Once implemented, Phase Two would replace Phase One as Phase Two also provides beach service within the loop. A map of Phase Two is displayed in Figure 1.2.

### *Phase Three*

The Phase Three “Extended Loop” adds a deviation to the Phase Two loop providing service to the Canal Road East District. A map of Phase Three is displayed in Figure 1.3.

Figure 1.1 Proposed Phase 1

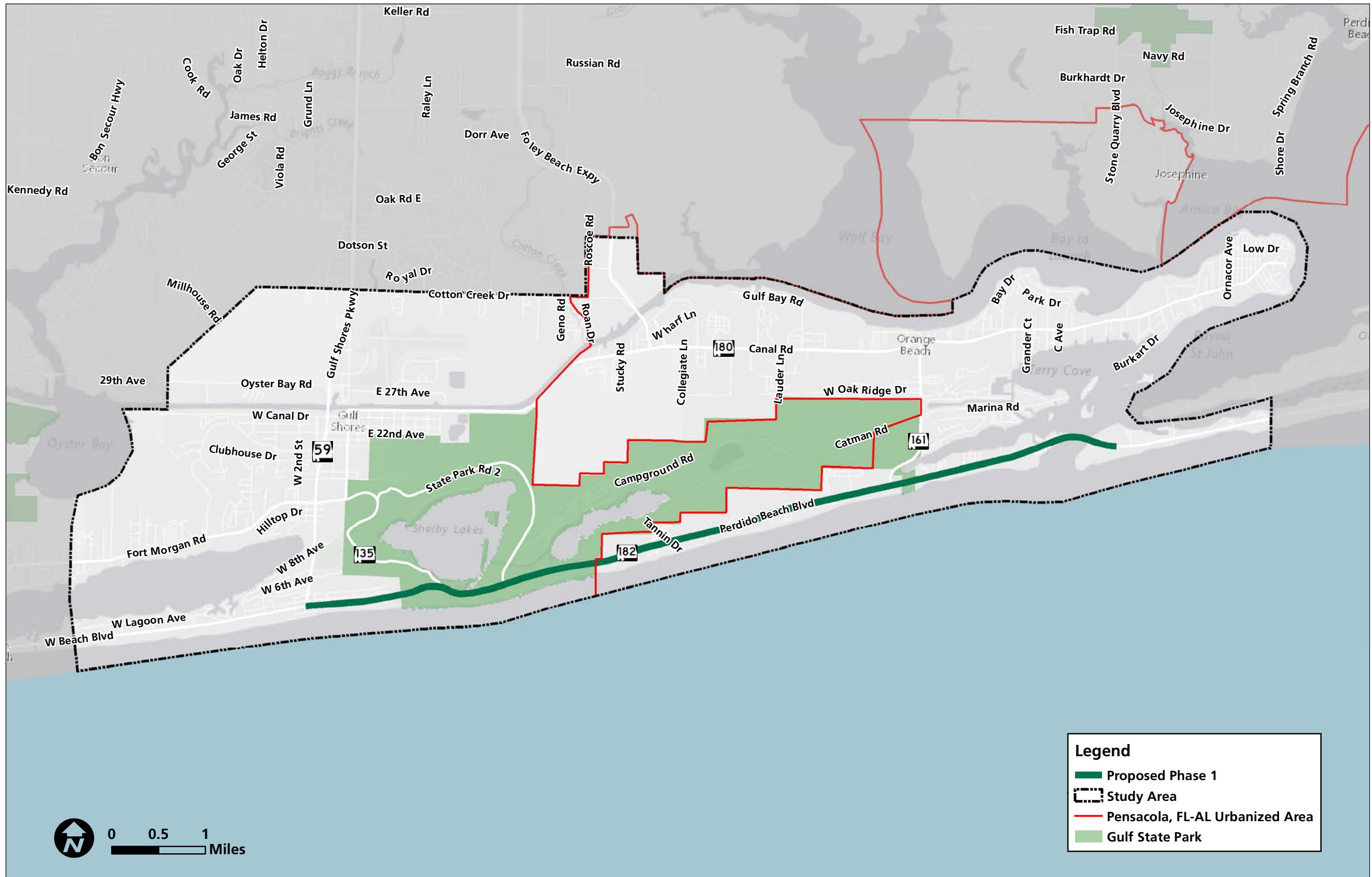




Figure 1.2 Proposed Phase 2

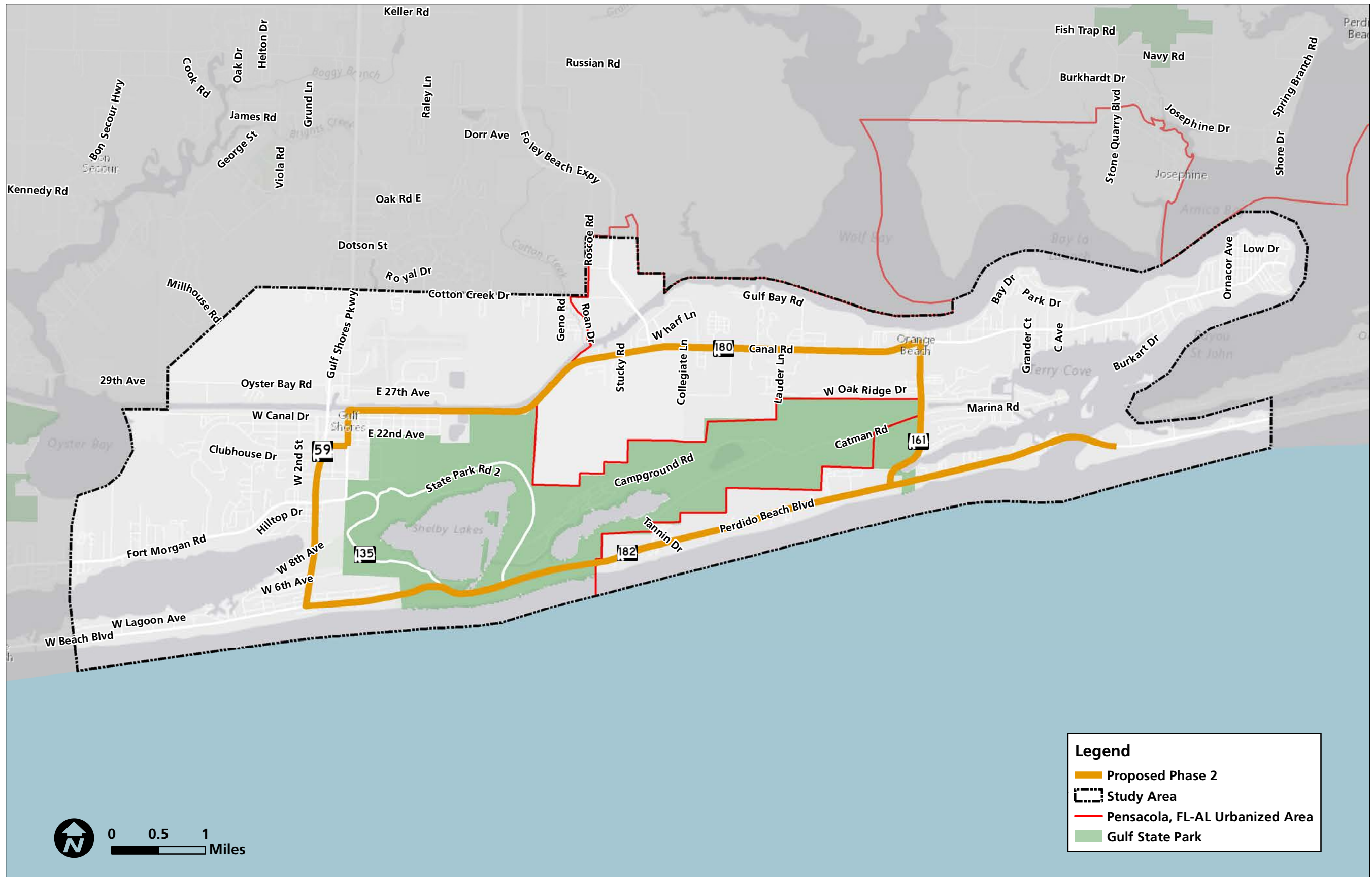
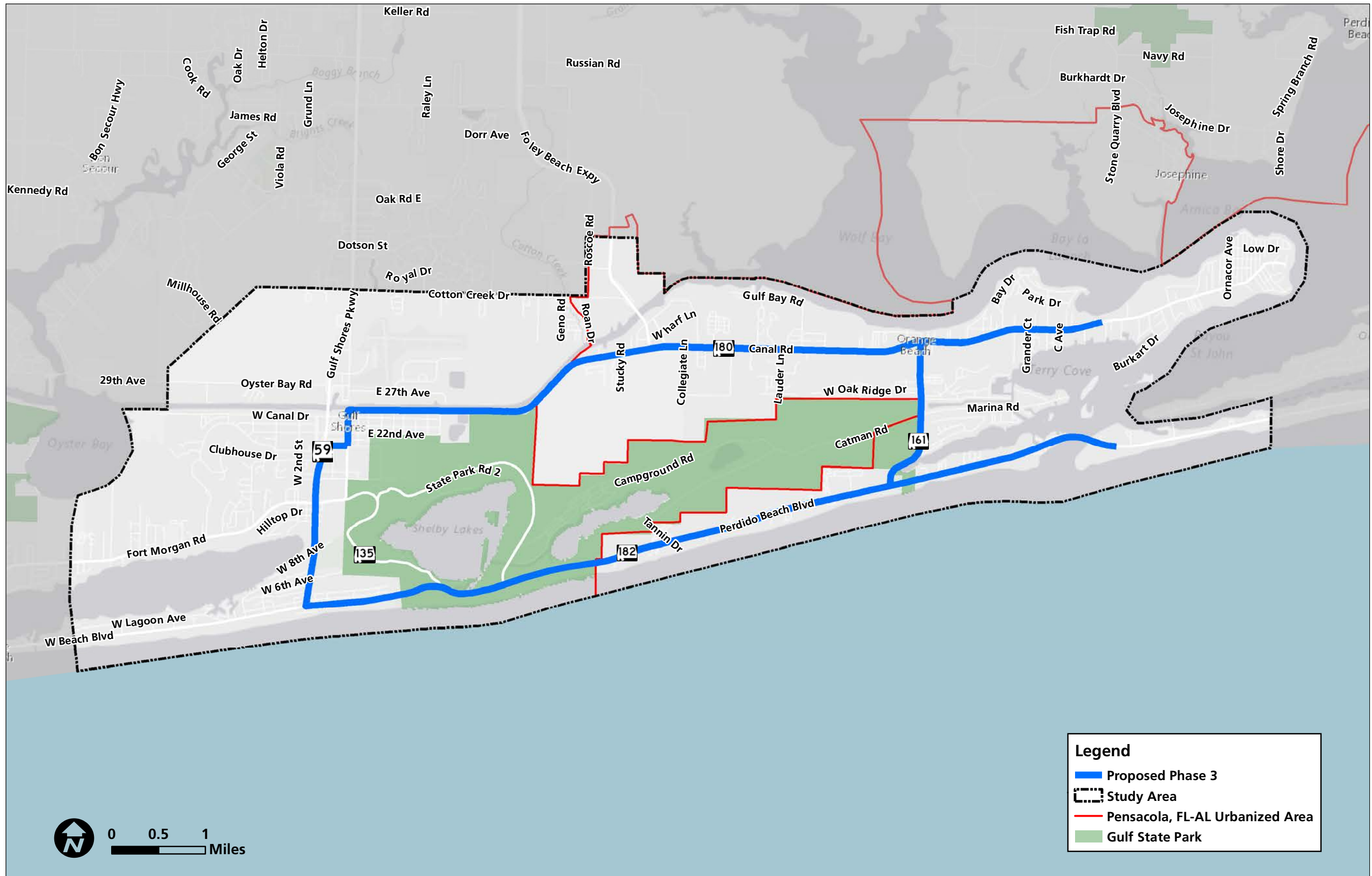




Figure 1.3 Proposed Phase 3



5 Year System Overview

Table 1.2 provides the service option scenarios for the full five-year implementation for the two, four, and six bus options.

Table 1.2 Five Year Total System Summary

Scenario	Total Ridership	Total Vehicle Trips	Total Revenue Miles	Total System Cost	System Cost Per Year
2 Bus	238,978	12,672	269,808	\$2,328,828	\$465,766
4 Bus	336,948	20,064	444,576	\$3,492,323	\$698,465
6 Bus	414,446	21,082	619,344	\$4,516,808	\$903,362

Potential Revenue Sources

Section 7 of the report provides a funding strategy for the transit system. The funding strategy includes potential farebox recovery scenarios, potential federal investment, and the total unmet need. The funding strategy for the five-year implementation of the system is summarized in Table 1.3.

Table 1.3 Potential Five Year Revenue Sources

Scenario	Federal	Farebox	Total Revenue	Total System Cost	Unmet Need
2 Bus	\$387,385	\$286,774	\$674,159	\$2,328,828	\$1,654,669
Percent	17%	12%	29%		
4 Bus	\$387,385	\$404,338	\$791,723	\$3,492,323	\$2,700,600
Percent	11%	12%	23%		
6 Bus	\$387,385	\$497,335	\$884,720	\$4,516,808	\$3,632,089
Percent	9%	11%	20%		

## Feasibility Evaluation

Section 8 of the report presents a critical evaluation of the service options. The analysis breaks down each scenario to determine the costs per individual rider, costs per trip, costs per revenue mile, and the unmet funding needs. The results of the analysis are displayed in Table 1.4.

Table 1.4 Feasibility Evaluation

Scenario	Cost/ Rider	Cost/ Trip	Cost/ Mile	Cost/Year	Total System Cost	Total Revenue	Avg. Revenue/ Year	Total Unmet Need	Unmet Need/ Year
2 Bus	\$9.74	\$183.78	\$8.63	\$465,766	\$2,328,828	\$674,159	\$134,832	\$1,654,669	\$330,934
4 Bus	\$10.36	\$174.06	\$7.86	\$698,465	\$3,492,323	\$791,723	\$158,345	\$2,700,600	\$540,120
6 Bus	\$10.90	\$214.25	\$7.29	\$903,362	\$4,516,808	\$884,720	\$176,944	\$3,632,088	\$726,418

## Steps for Success

Section 9 of the report presents six steps for success for implementing a successful transit system. One of the steps is to implement a marketing program. Example marketing programs from Escambia County and Panama City are included.

## **2.0 Introduction**



## INTRODUCTION

### Study Overview

Baldwin County, Baldwin Regional Area Transit System (BRATS), Orange Beach, Gulf Shores, Escambia County, Escambia County Area Transit (ECAT) and the Florida-Alabama Transportation Planning Organization (FL-AL TPO) collectively developed a scope of services for an assessment of transit needs in Orange Beach, Alabama, and surrounding areas. Atkins, the general transportation planning services consultant to the West Florida Regional Planning Council (WFRPC), was commissioned to complete the study. This feasibility study was undertaken to achieve the goals and initiatives outlined in the Escambia County Transit Development Plan (TDP), but also the needs and aspirations of Baldwin County residents and visitors. The Transit Feasibility Study was funded with the Alabama portion of the Pensacola, FL-AL Urbanized Area (UZA) FTA 5307 urbanized area formula funds administered by Escambia County, Florida, as the designated recipient.

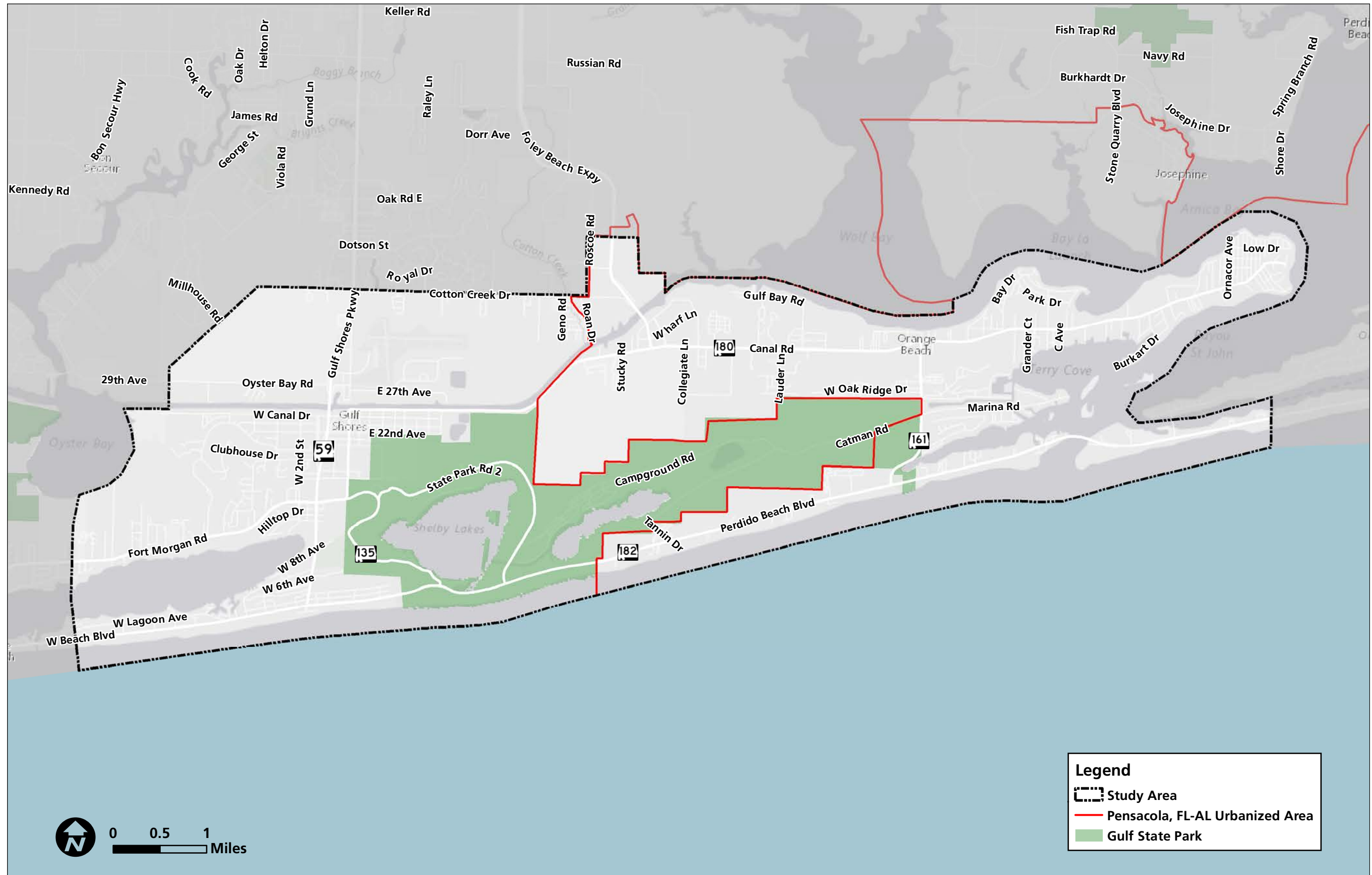
### Study Purpose

This feasibility study reviews the results of potentially implementing a transit system within Orange Beach and the surrounding communities. The study engaged a Technical Review Team of local transit advocates, regional planners, city officials, county officials, and staff members to review and direct efforts during the study. During this process, it was determined that the study would review the likelihood of general support for an inclusive transit system for the community, and the study should evaluate expectations as to cost, efficiency of use, and potential ridership. Additionally, previous similar studies have shown a willingness to pursue transit in South Baldwin County and have set out goals and recommendations for transit.

### Study Area

The project study area was determined in collaboration with members of the Technical Review Team during a series of meetings. A map of the study area is displayed in Figure 2.1.

Figure 2.1 Study Area





## Review of Previous Studies

A review of relevant related plans and documents was completed during the study to determine previous statements of policy or guidance related to transit, multimodal transportation facilities, and transportation design. The previous studies that were reviewed are summarized in this section.

### *Orange Beach Horizons 20/20 Transportation Priorities and Recommendations*

The Orange Beach Horizon's 20/20 Plan was the result of an effort involving residents and City officials to set priorities and make recommendations for environment, quality of life, zoning and land use, and transportation. The implementation of a beach trolley and the development of a park and ride system were included among the long-term recommendations of the plan.

(Source: Community Preservation and Growth Management Plan, 2007, South Alabama Regional Planning Commission, p. 68.)

### *City of Orange Beach Transportation Master Plan Update, June 2007*

The June 2007 Carter & Burgess Transportation Master Plan Update noted the congestion on local streets and arterial roads, and roadway and multimodal facility's needs. Items related to transit or transit supportive facilities include an examination of area transit needs and opportunities, specifically regarding travel to and from employment by coastal workers in Orange Beach. The Master Plan update also included the future option of providing shuttle service to the beach from the Wharf and Bama Bayou developments.

(Source: City of Orange Beach Transportation Master Plan Update, June 2007, Carter & Burgess, p. 2-6)

### *South Baldwin County Transit Plan for the Cities of Foley, Gulf Shores, and Orange Beach, 2008*

The South Baldwin County Transit Plan was prepared for the South Alabama Regional Planning Commission was completed in 2008. The Plan reviewed substantially the same elements as this Orange Beach Transit Feasibility Study. It is, therefore, an essential reference document that guided and informed the development of this feasibility study. The important difference in the previous study is that it reviewed a wider service region and with different goals, and the current study could be considered an update and reconsideration of the recommendations made in the South Baldwin Plan, principally in a study area south of the Intracoastal Waterway.

(Source: South Baldwin County Transit Plan for the Cities of Foley, Gulf Shores, and Orange Beach, 2008)



## **3.0 Public Outreach**



## PUBLIC OUTREACH

An online public outreach survey was prepared and administered by the public outreach sub-consultant, BowStern. The survey elicited 2,149 total responses from those who identified either as residents, visitors, individuals seeking information about visiting, or were just interested in Alabama's Gulf Coast beach communities. The outreach survey was titled "Help Pave the Way: Alabama's Gulf Coast Transit Survey", and could be found online at [www.gulfcoasttransit.com](http://www.gulfcoasttransit.com).

The public outreach survey investigated whether survey respondents currently have transportation difficulties within the study area, evaluated the willingness of choice riders to use transit, and explored the types of transit service the respondents would favor. Overall, respondents favored the use of transit as an option for meeting their transportation needs in the study area and general willingness to ride a regularly scheduled system.

The following provides a brief summary of the survey results:

- About half of the survey respondents were full-time residents of Orange Beach or the surrounding area. The remainder tended to be weekend visitors during the fall, spring, and summer.
- The top three Orange Beach travel destinations are The Wharf, the Beach District, and the Canal Road West District.
- The top three activities the survey respondents reached using a personal vehicle were going to the beach, dining, and shopping.
- About half of the respondents indicated that they had trouble finding parking in Orange Beach, while the other half did not.
- A large majority of the respondents had a vehicle available to them, and they typically travel with additional people in the vehicle.
- More than half of the respondents indicated that they would be likely to use a public transportation service in and around Orange Beach if it was available to them.
- The top three public transportation service characteristics identified were stop locations, low cost, and convenient service hours.

- The preferred times and days of the week for potential public transportation were Friday and Saturday evenings from 6 PM to 10 PM. The least preferred times and days were Monday, Tuesday, and Wednesday late night/early morning service from 10 PM to 6 AM.
- More than half of the respondents indicated that they were willing to pay from \$.50 to \$2.00 for a transit service ride.
- The top two reasons people did not believe public transportation was a viable option for them were: 1) They did not want to be reliant on the transit schedule, and 2) They had large items to transport.

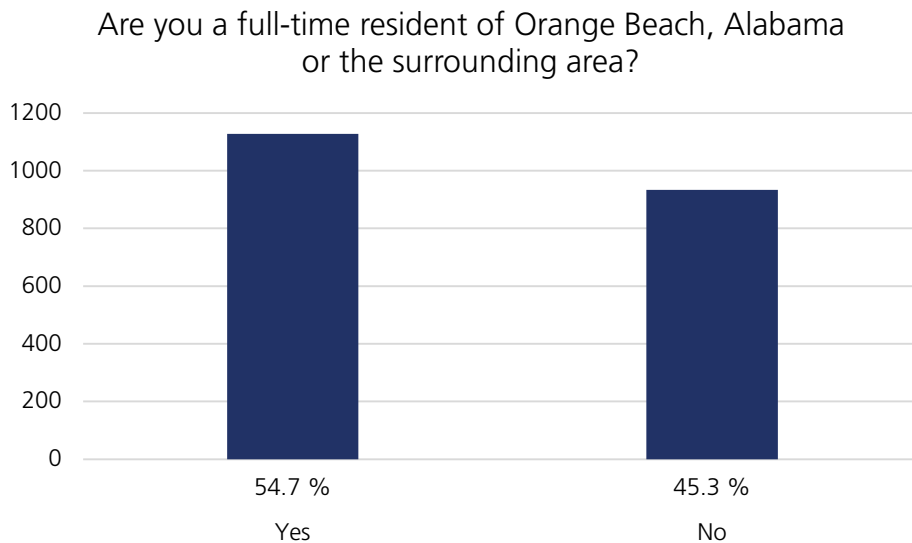
## Survey Respondent Characteristics

The respondent characteristics topic included residency and survey-taker location, seasonal visits, travel destinations, and general transportation needs.

### *Orange Beach Residency*

The survey asked the respondents if they were a full-time resident of Orange Beach, Alabama or the surrounding area. Slightly more than half of the respondents (55%) indicated that they were a full-time resident of Orange Beach or the surrounding area. Slightly less than half of the respondents (45%) indicated that they were not full-time residents of Orange Beach or the surrounding area. Figure 3.1 depicts the results of the residency question.

Figure 3.1 Orange Beach Residency Responses

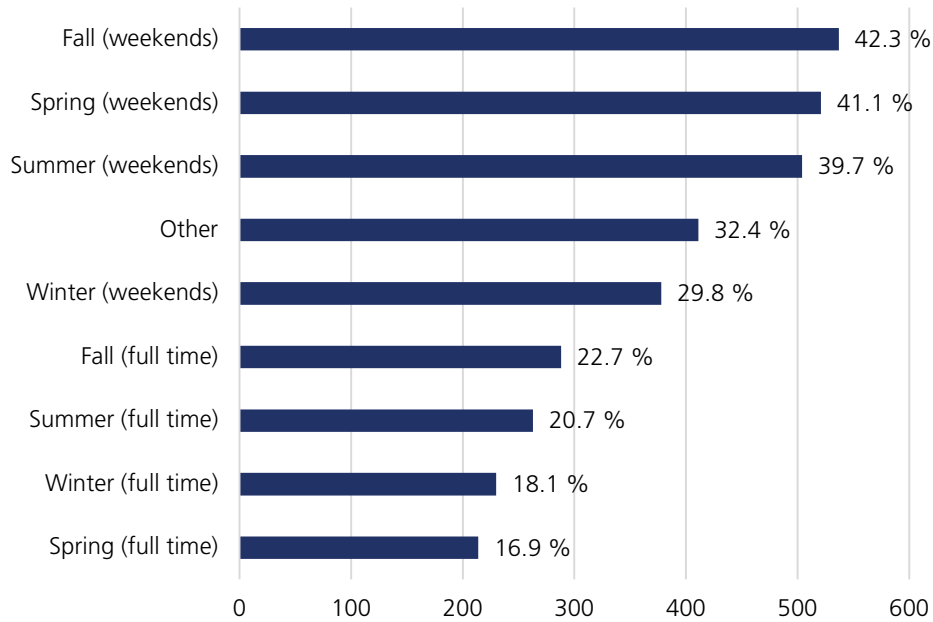


Seasonal Visits

The respondents who indicated that they were not a full-time resident of Orange Beach or the surrounding area were asked the follow-up question of which season or times they most often visited the area. This was a “check all that apply” question. The responses are summarized in Figure 3.2. Approximately 40% of the respondents indicated that they tend to visit over the weekends during the fall, spring, and summer seasons. Nearly thirty percent indicated that they visited the area over the weekends during winter. Approximately 16% to 23% of the respondents indicated that they would stay in the area full time during the fall, summer, winter, or spring seasons.

Figure 3.2 Seasonal Visit Responses

If you are not a full-time resident of Orange Beach, Alabama or the surrounding area, during which of the following season/times are you most often in this area?  
(Check all that apply)



Overall Survey Respondent Location

Figure 3.3 and Figure 3.4 visualize the locations of the survey takers by zip code and number of responses. As illustrated, the majority of the survey takers were located in the Orange Beach area. The second most common location of survey takers was in Birmingham, Alabama.

Figure 3.3 Heat Map of Survey Response Locations

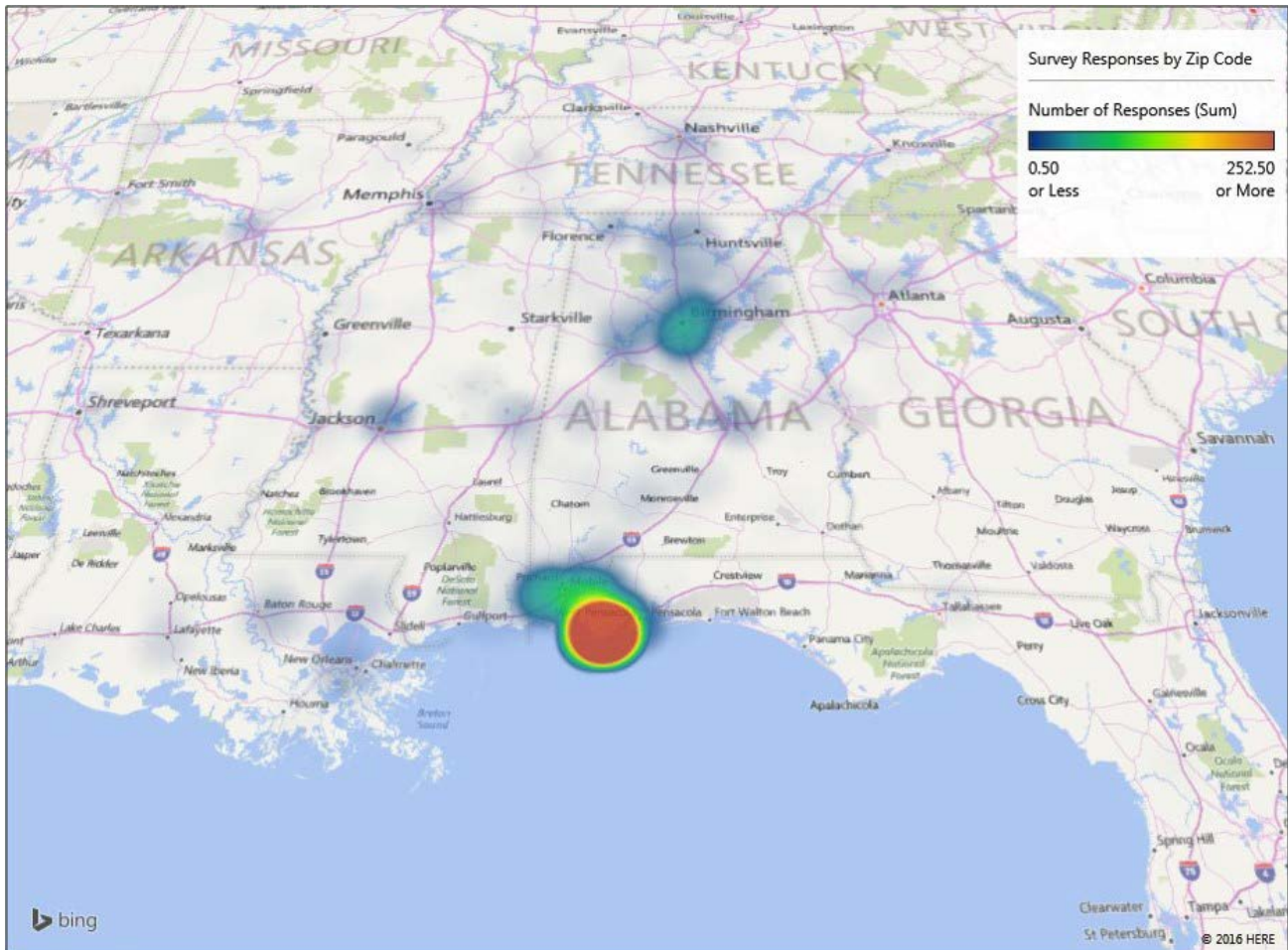
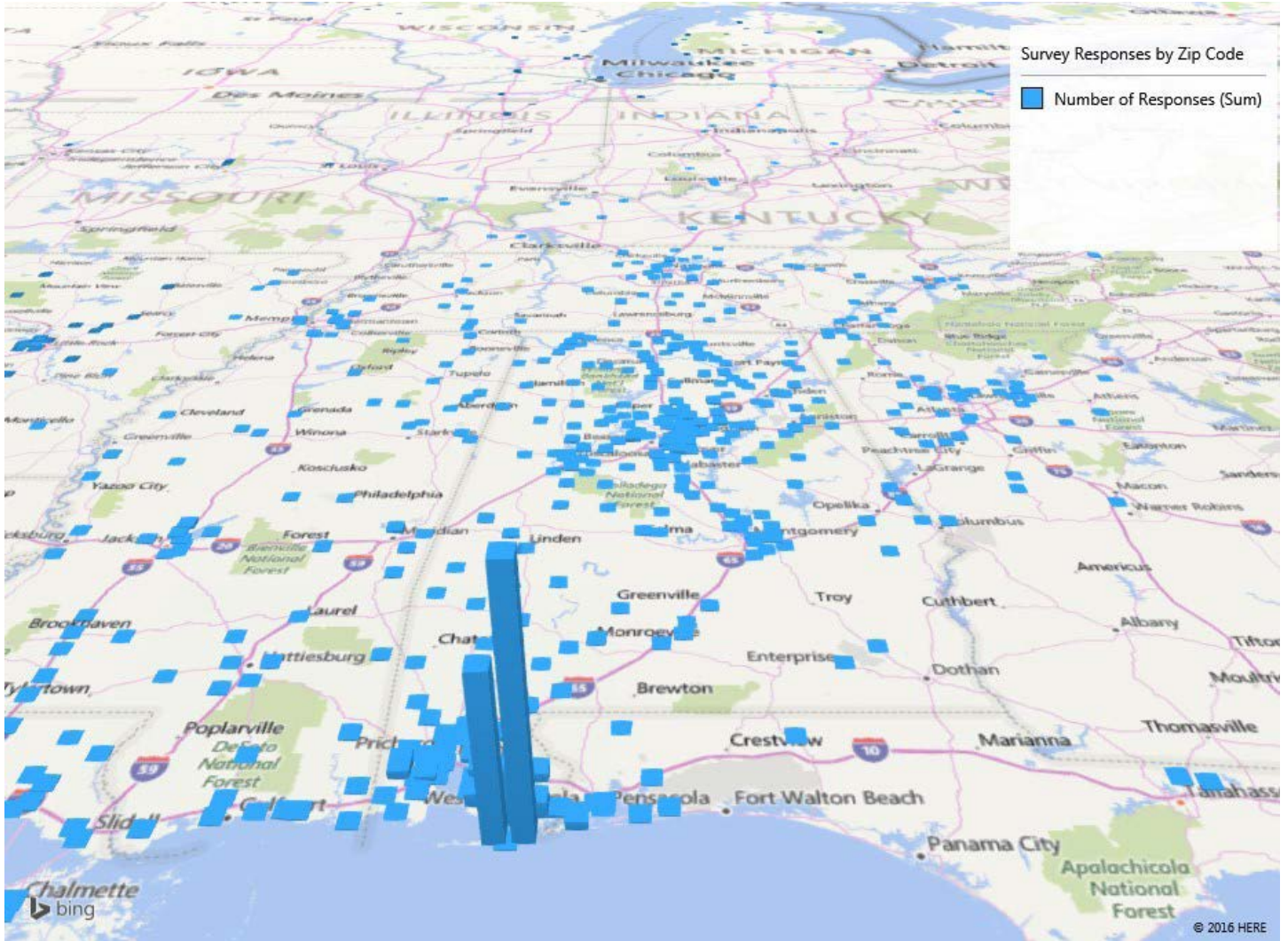




Figure 3.4 Bar Graph of Survey Response Locations

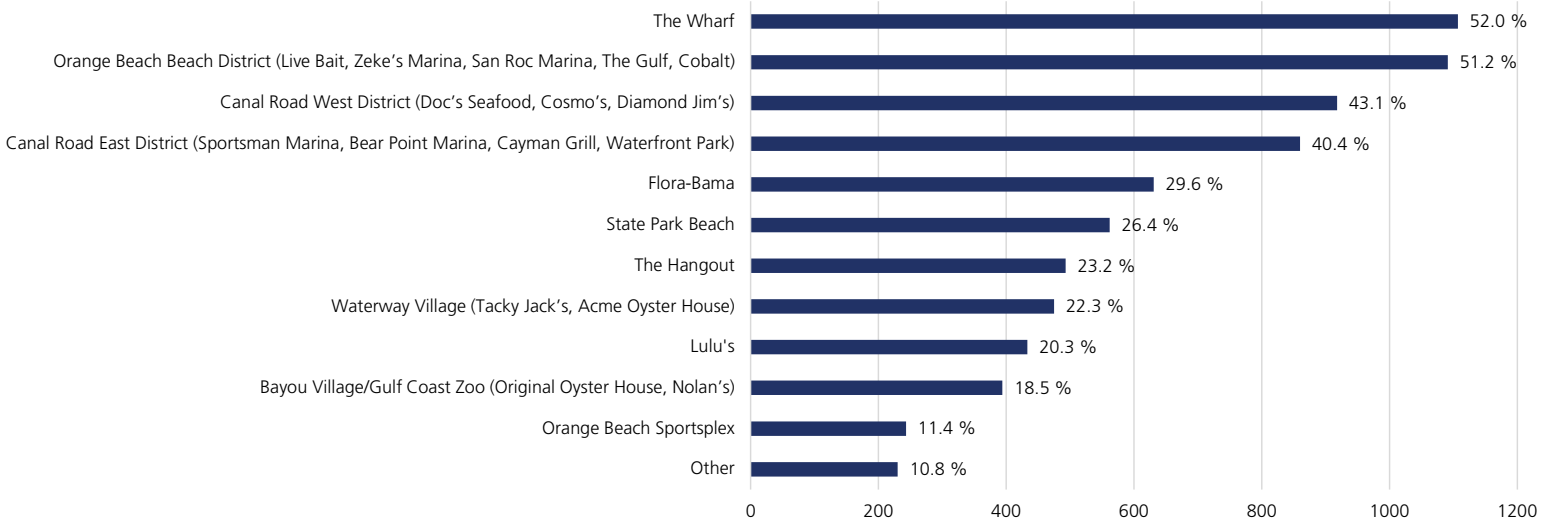


Travel Destinations

The next question in the survey asked the respondents “which areas of Alabama’s Gulf Coast do you most often travel to for recreation and leisure”. The respondents were instructed to select their top three locations. The two most frequent responses were The Wharf (52%) and the Beach District of Orange Beach (Live Bait, Zeke’s Marina, San Roc Marina, The Gulf, Cobalt), with 51% of the responses. The two least frequently selected locations were the Bayou Village/Gulf Coast Zoo (Original Oyster House, Nolan’s) with 18.5%, and the Orange Beach Sportsplex (11%). The full list of responses is displayed in Figure 3.5.

Figure 3.5 Travel Destinations

To which areas of Alabama’s Gulf Coast do you most often travel to for leisure and recreation? (Select your top 3 locations.)





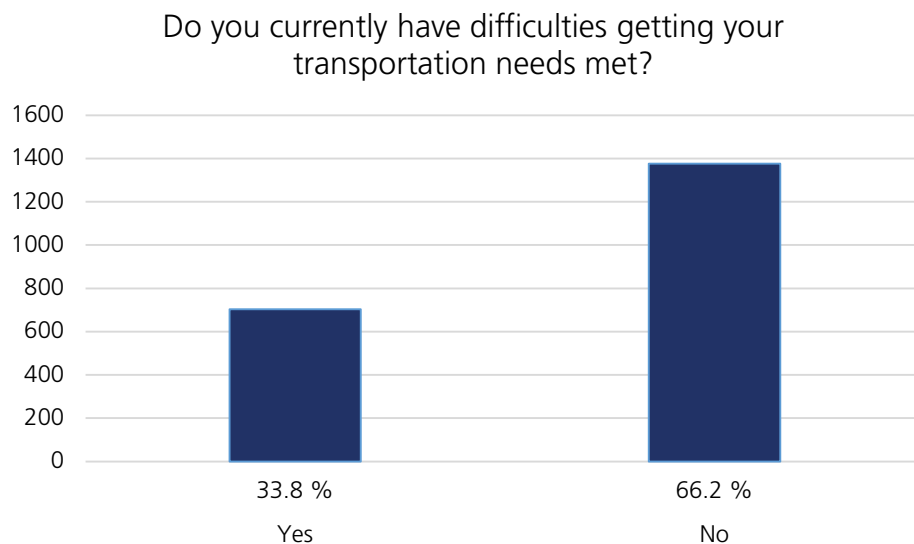
## General Transportation Questions

Topics in the general transportation category include transportation needs, activities reached via personal vehicles, parking difficulties in Orange Beach, personal vehicle availability, and number of people typically traveling in a personal vehicle.

### *Transportation Needs*

The survey polled the respondents on whether they had difficulties meeting their transportation needs while in the area. Slightly more than 66% of the respondents indicated they did not have difficulties, and 34% indicated that they did have difficulties meeting their transportation needs. The results are summarized in Figure 3.6.

Figure 3.6 Transportation Needs



*Activities Reached Via Personal Vehicle*

Another survey question asked the respondents, “What are the major activities you usually use a personal vehicle to participate in?” The respondents were instructed to choose three activities. The three most common responses were Dining (89%), Shopping (72%), and visiting the Beach (61%). The two least common responses were Water Sports (kayaking, boating, etc.) with 18% and Biking (12%). The results are summarized in Figure 3.7.

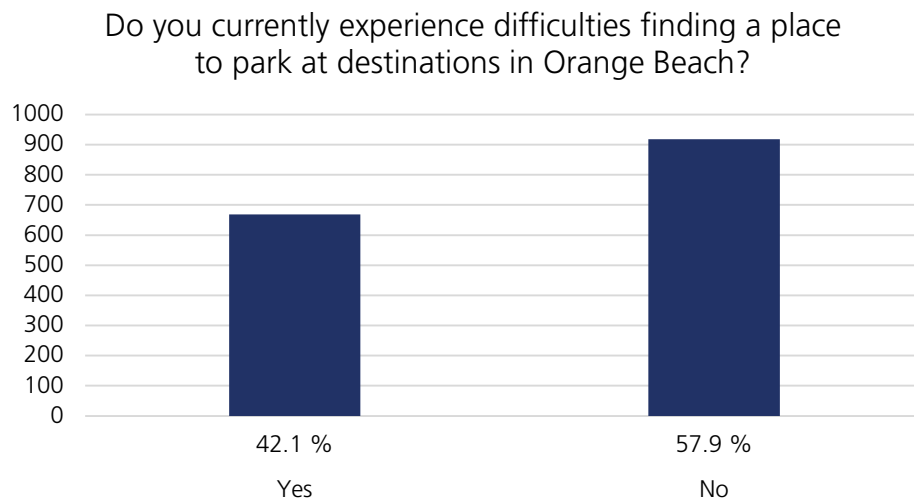
Figure 3.7 Activities Reached Via Personal Vehicle



*Parking Difficulties*

Another question asked the survey-takers if they were experiencing difficulties in finding parking at destinations in Orange Beach. Almost 58% of the survey-takers indicated No, they were not experiencing parking difficulties. Approximately 42% of the survey-takers indicated that they did experience difficulties finding parking. The results are displayed in Figure 3.8.

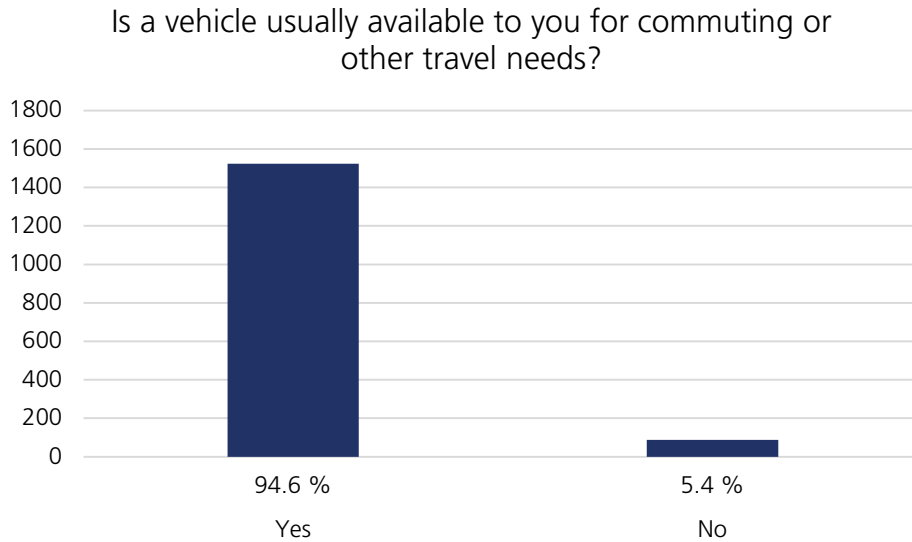
Figure 3.8 Parking Difficulties



*Vehicle Availability*

Additionally, the survey asked the respondents if there was usually a vehicle available to them for their commuting or other travel needs. Most of the applicants (95%) selected Yes, they did usually have a vehicle available. Few respondents (5%) indicated they did not usually have a vehicle available. The results are displayed in Figure 3.9.

Figure 3.9 Vehicle Availability

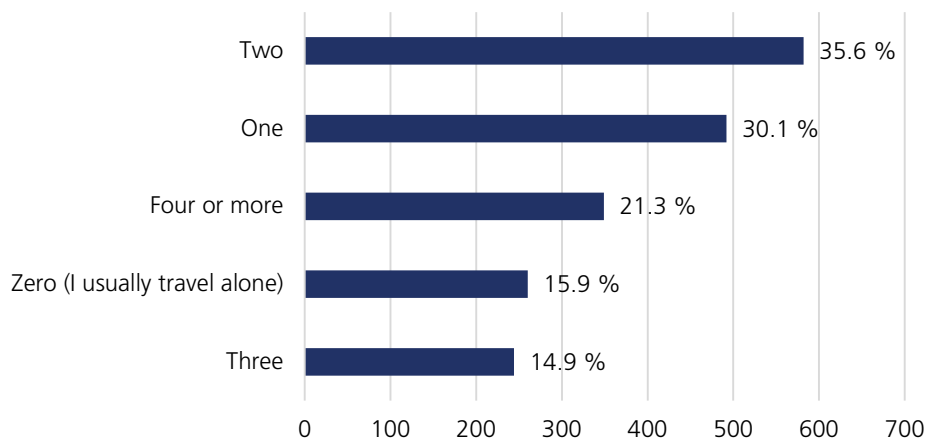


*Number of People Traveling in Car*

The survey also asked of the respondents, “If you use a car to get around, how many people do you usually travel with?” The majority of the respondents (66%) specified that they typically travel with one or two people. Nearly 16% of the respondents indicated that they usually travel alone. Approximately thirty-six percent of the respondents indicated that they tend to travel with three or more people. Figure 3.10 summarizes the results.

Figure 3.10 Number of People Traveling in Car

If you use a car to get around, how many people do you usually travel with?



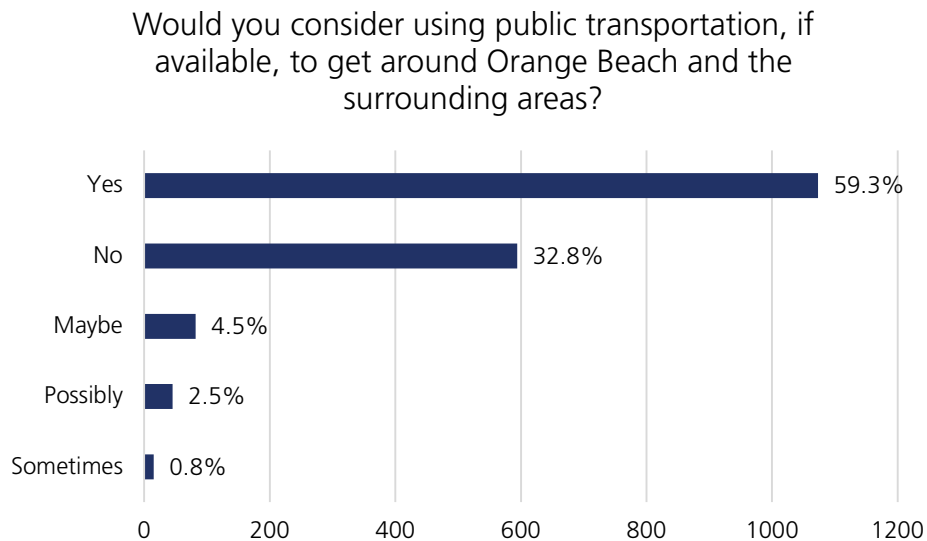
## Public Transportation Questions

The public transportation question topics include preferred days and times for public transportation, potential use of public transportation, reasons for not choosing public transportation, and how much the respondents were willing to pay for a public transportation service.

*Would you consider using public transportation if it was available?*

The questionnaire asked the respondents if they would consider using public transportation, if available, to get around Orange Beach and the surrounding areas. Nearly 60% of the respondents indicated Yes, they would consider public transportation if available. Approximately one-third of the respondents replied No. Approximately 8% of the respondents replied Maybe, Possibly, or Sometimes. The results are displayed in Figure 3.11.

Figure 3.11 Public Transportation Use

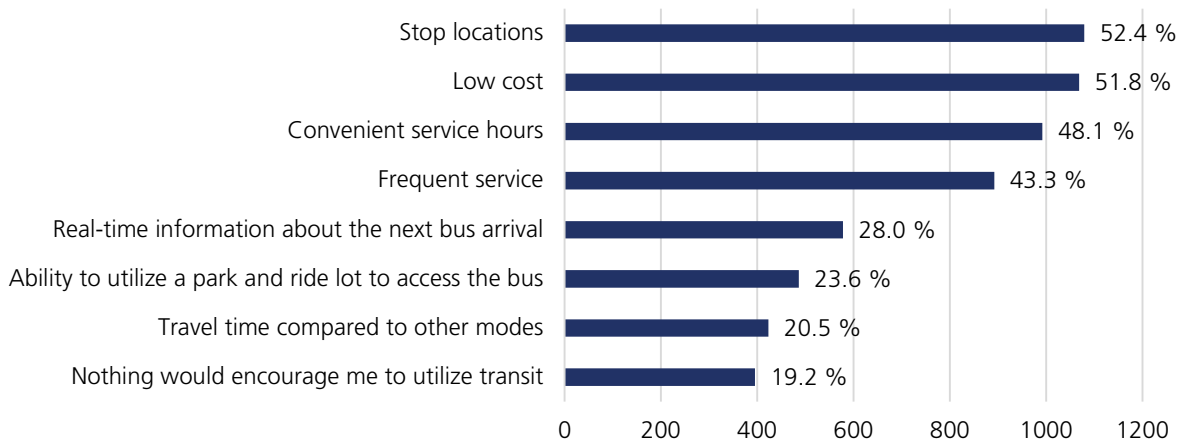


*Public Transportation Characteristics*

The survey polled the respondents on which service characteristics were most important to them for their non-work travel needs. The respondents could select their top three. The three most selected results were Stop Locations (52%), Low Cost (52%), and Convenient Service Hours (48%). The two least selected results were Travel Time Compared to Other Modes (21%) and Nothing Would Encourage Me to Utilize Transit (19%). The results are summarized in Figure 3.12.

Figure 3.12 Public Transportation Characteristics

If public transportation were available for your non-work travel needs, what service characteristics would be most important to you?  
(Choose 3)

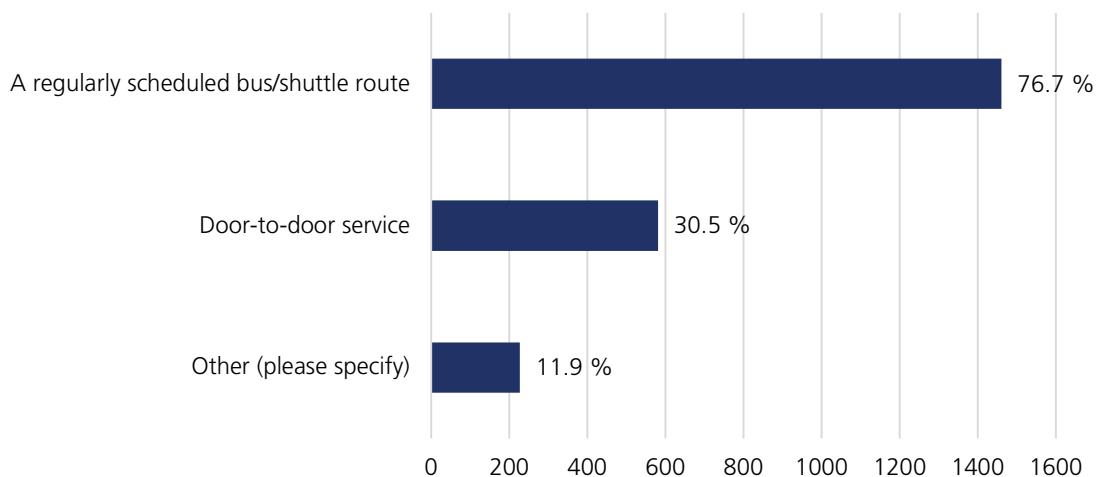


*Transit Service Type*

Another question on the survey asked the survey takers what type of transit service they would consider using. The majority of the survey takers (77%) responded that they would consider using a Regularly Scheduled Bus/Shuttle Route. Almost 31% indicated they would consider using a Door-to-Door Service, and 12% selected Other. The results are displayed in Figure 3.13.

Figure 3.13 Transit Service Type

What type of transit service would you consider using?

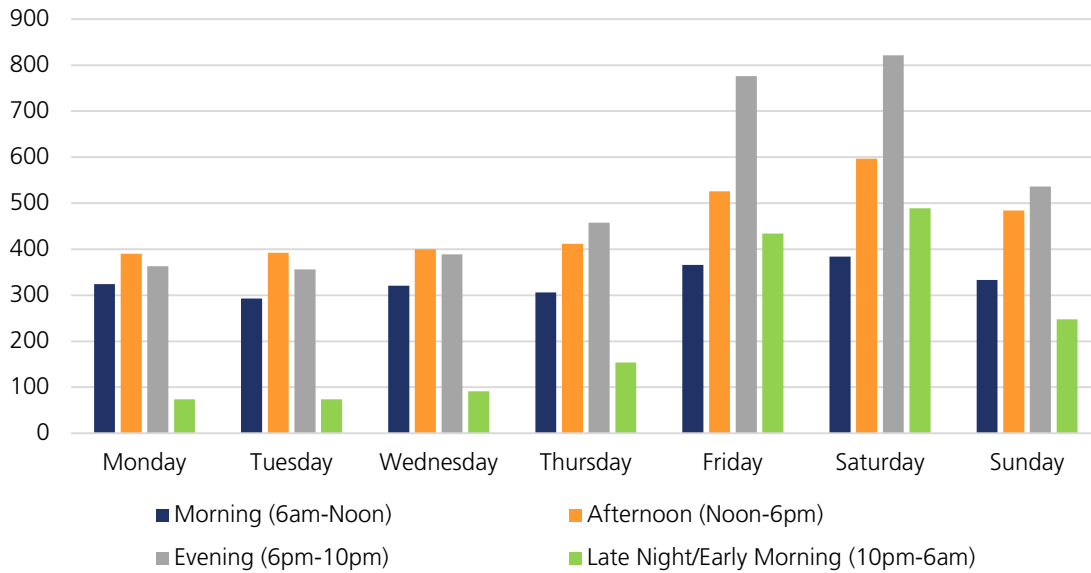


*Preferred Days and Times for Public Transportation Use*

The survey polled the respondents on which days of the week and times of the day they feel they would most likely use public transportation. As displayed in Figure 3.14, the two most frequent responses were Friday and Saturday Evening (6 PM – 10 PM) service. The least frequent responses were Monday, Tuesday, and Wednesday Late Night/Early Morning Service (10 PM – 6 AM).

Figure 3.14 Preferred Days and Times for Public Transportation Use

What days of the week and times of day do you feel you would most likely use public transportation

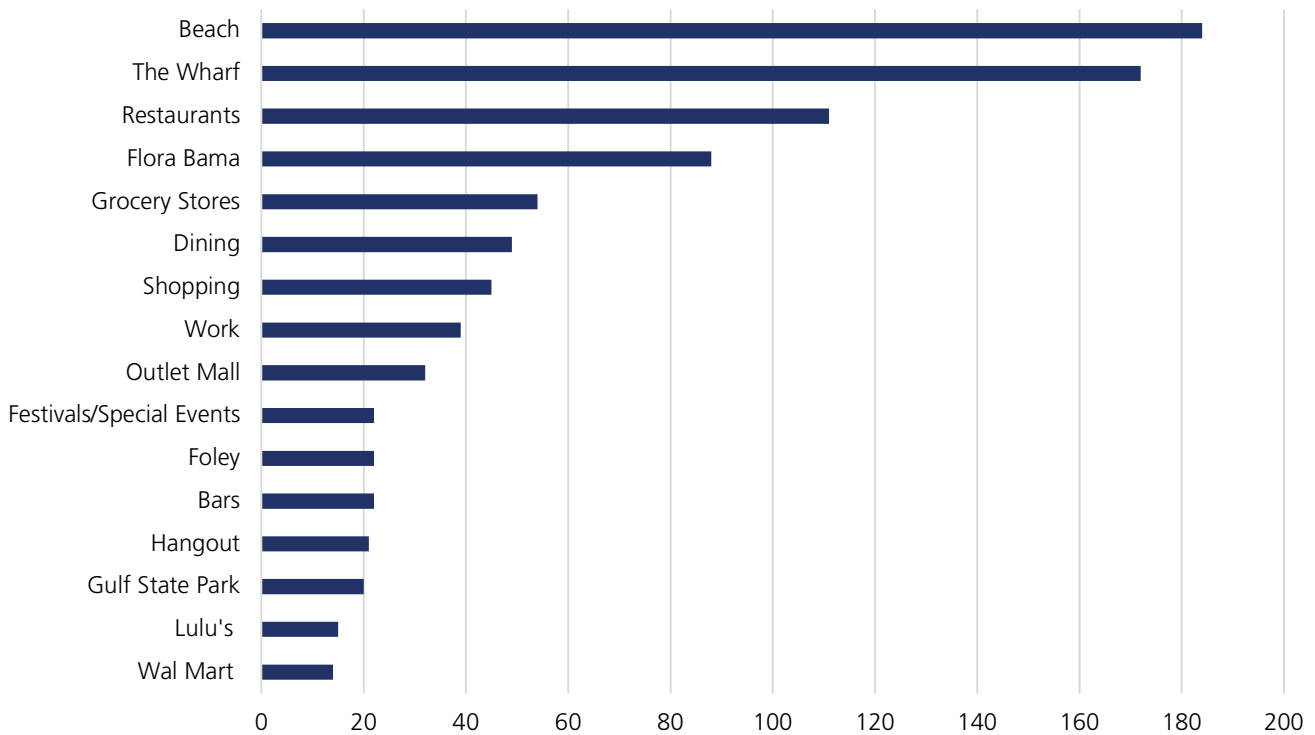


*Public Transportation Destinations*

Another question asked the respondents on potential public transportation destinations. As displayed in Figure 3.15, the majority of the respondents selected the Beach, The Wharf, or Restaurants as their ideal destinations. The least frequent destinations were Gulf State Park, Lulu's, and Wal-Mart.

Figure 3.15 Public Transportation Destinations

If public transportation were available, where are some of the places you would use public transportation to get to?

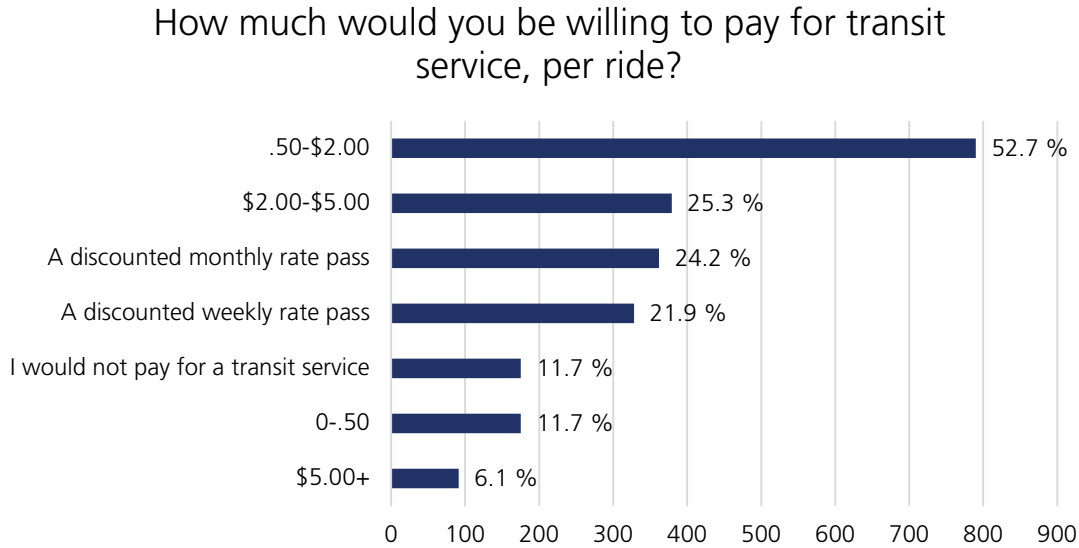




*Transit Service Cost Per Ride*

The survey asked the respondents how much they would be willing to pay for transit service per ride. Slightly more than half of the respondents (52.7%) indicated that they would be willing to pay between \$.50 and \$2.00 per ride. Just over 25% of the respondents specified that they would be willing to pay between \$2 and \$5 per ride. There was some interest (24%) in a discounted monthly rate pass, or a discounted weekly rate pass (22%). The least selected amount the respondents were willing to pay was \$5 of more per ride (6%). The results are summarized in Figure 3.16.

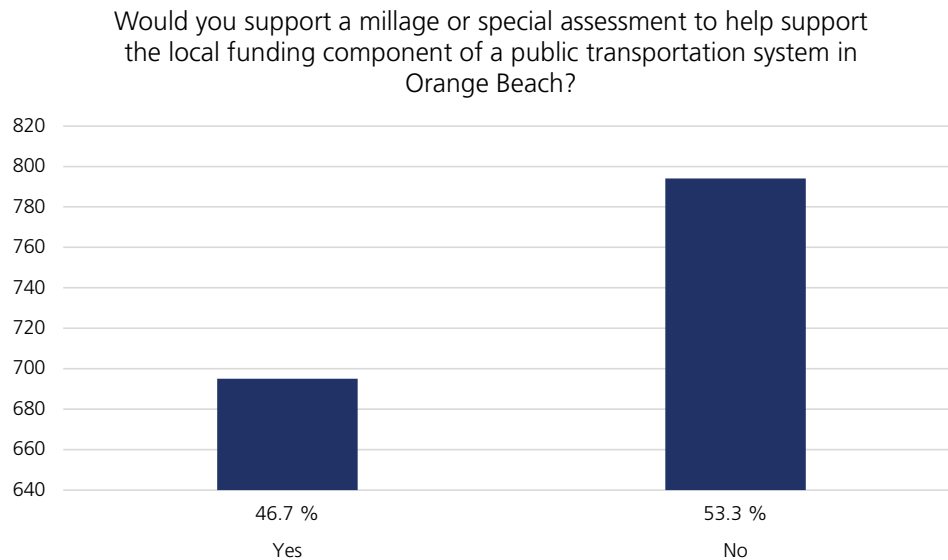
Figure 3.16 Transit Service Cost Per Ride



*Public Transportation Local Funding*

Another question asked if the respondents would support a millage or special assessment to help support the local funding component of the public transportation system. Just over 53% of the responded selected No, and 47% selected Yes. The results are displayed in Figure 3.17.

Figure 3.17 Public Transportation Local Funding

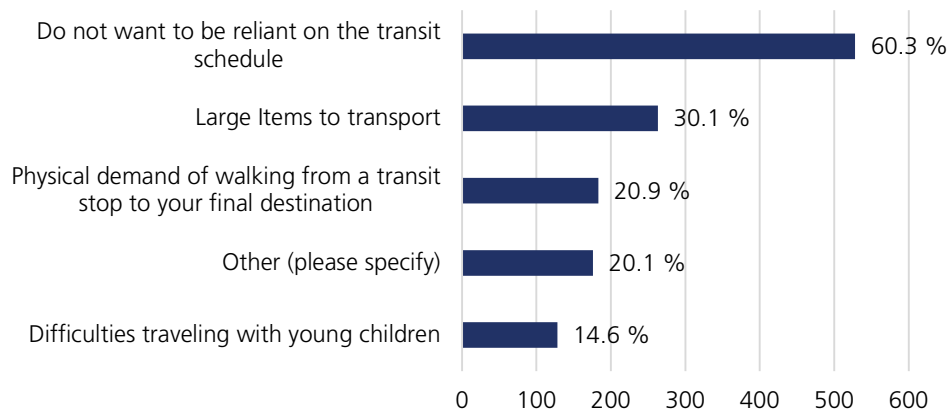


*Reasons for Not Choosing Public Transportation*

The survey polled the respondents on what some of the reasons were why they did not believe that public transportation was a viable option for them. The most frequent response was that they did Not Want to be Reliant on the Transit Schedule (60%). The second most frequent response was that they had Large Items to Transport (30%). The least common answer was Difficulties Traveling with Young Children (15%). The results are summarized in Figure 3.18.

**Figure 3.18 Reasons for Not Choosing Public Transportation**

If you do not believe public transportation is a viable transportation option for you, what are some of the reasons?



## **4.0 Existing Public Transportation**



## EXISTING PUBLIC TRANSPORTATION

As part of a transit feasibility study, it is important to take note of the existing transportation system of the surrounding area to provide context for a new system. This section provides the existing conditions of the public transportation system and how it is performing.

The existing public transportation system in place to serve the needs of the citizens of Baldwin County is called the Baldwin Regional Area Transit System (BRATS). BRATS does not currently provide a fixed-route scheduled service within the study area. The purpose of an existing transportation service evaluation is to provide context for potential transit service targeting the tourist populations within Orange Beach and Gulf Shores. This section provides an overview of BRATS, a performance and projections analysis, and a peer analysis.

### BRATS Overview

BRATS was initially established in 1985 through an identified need for public transportation by the Baldwin County Commission. In 2016, the BRATS transit system had a fleet of 53 vehicles to transport individuals to daily appointments, to shop, buy groceries or just visit with friends and neighbors. Funding for BRATS is provided by the Baldwin County Commission, and the Federal Transportation Administration through the Alabama Department of Transportation.

Currently, BRATS offers Dial-A-Ride, commuter routes, and health care routes which include kidney dialysis treatments, physical therapy, cancer treatments, and routine doctor visits. In addition, BRATS has contracted with several local Social Service Agencies to provide transportation to individuals with mental and physical disabilities as well as connecting citizens to local educational facilities. The commuter routes have been coordinated with local businesses including Plantation Resort, Tanger Outlet Center and various fast food restaurants to support the Ride to Work program. BRATS also coordinates its Bayline commuter route with The Wave Transit System of Mobile to connect the communities of Baldwin and Mobile counties. A transfer facility is centrally located in Baldwin County in Robertsdale which allows a pulse release of vehicles to provide balanced service to all four corners of the County. A network of demand response service including eight (8) city zone routes, deviated fixed routes, and express routes are servicing hospitality/ tourism industry, the government, and education sectors.

*BRATS Performance Analysis and Projections*

A performance analysis was conducted on the existing BRATS service to provide insight on the operations and feasibility of the current system from 2014 to 2016. The analysis was five-fold including an evaluation of demand, supply, budget and balance, performance, and effectiveness measures.

To summarize the performance analysis, BRATS is a fairly efficient system designed to maximize the service with available funding. For example, though service hours were slightly reduced in 2016, the number of trips delivered rose. The service has projected to increase in demand while the supply is expected to decrease by 1%. BRATS also had favorable results in effectiveness with a projected decrease in failures by nearly 23%. The performance measures are further detailed in the following subsections.

*Demand*

The demand performance analysis compared the total trips and the service hours per trip from FY 14/15 to FY 15/16. As displayed in Table 4.1, total trips increased by approximately 23%. However, the service hours per trip decreased by 4%.

*Supply*

Table 4.1 BRATS Demand Performance Analysis

Demand		Q1 Oct-Dec	Q2 Jan-Mar	Q3 Apr-Jun	Q4 Jul-Sep	Annual
FY 14/15	Total Trips	97,456	80,235	63,674	89,844	331,209
	Service Hours/Trip	9,743	9,351	9,797	8,601	37,492
FY 15/16	Total Trips	136,404	107,317	84,369	77,970	406,060
	Service Hours/Trip	9,283	8,857	8,729	9,032	35,901
% Change	Total Trips	40%	34%	32%	-13%	23%
	Service Hours/Trip	-5%	-5%	-11%	5%	-4%

Data up to date as of 12/2016  
Source: INTD, BRATS

The supply analysis evaluated the vehicle hours, vehicle miles, and service miles per passenger from FY 14/15 to FY 15/16. As depicted in Table 4.2, there was an approximate 1% decrease in vehicle hours, and a 1% decrease in vehicle miles and service miles per passenger from FY 14/15 to FY 15/16.

*Budget and Balance*

Table 4.2 BRATS Supply Analysis

Supply		Q1 Oct-Dec	Q2 Jan-Mar	Q3 Apr - Jun	Q4 Jul - Sep	Total
FY 14/15	Vehicle Hours	18,460	18,527	18,943	17,148	73,078
	Vehicle Miles	286,798	279,169	278,509	250,005	1,094,481
	Service Miles/ Passenger	192,461	188,212	189,204	171,478	741,355
FY 15/16	Vehicle Hours	18,225	18,037	17,669	18,062	71,993
	Vehicle Miles	274,478	275,430	270,025	281,585	1,081,518
	Service Miles/ Passenger	185,267	185,005	181,387	178,725	730,384
% Change	Vehicle Hours	-1%	-3%	-7%	5%	-1%
	Vehicle Miles	-4%	-1%	-3%	13%	-1%
	Service Miles/ Passenger	-4%	-2%	-4%	4%	-1%

Data up to date as of 12/2016  
Source: INTD, BRATS

When evaluating the budget and balance of the BRATS system, the total costs of operations and administration were considered, along with overall revenue. As displayed in Table 4.3 BRATS Budget/Balance Performance, the operating costs remained about the same from FY 14/15 to FY 15/16, with an increase of approximately 3%. Administrative costs increased by 13%. However, revenue also increased by 8% which will provide some relief from the increased administrative costs.



Performance

Table 4.3 BRATS Budget/Balance Performance

Budget/Balance		Q1 Oct-Dec	Q2 Jan-Mar	Q3 Apr - Jun	Q4 Jul - Sep	Total
FY 14/15	Operating Cost	\$562,224	\$451,254	\$544,718	\$500,430	\$2,058,626
	Admin Cost	\$150,531	\$99,858	\$98,643	\$160,628	\$509,660
	Total Cost	\$712,756	\$551,112	\$643,361	\$661,057	\$2,568,286
	Revenue	\$257,385	\$206,859	\$232,318	\$158,805	\$855,367
FY 15/16	Operating Cost	\$555,941	\$459,673	\$537,414	\$564,503	\$2,117,531
	Admin Cost	\$157,301	\$137,290	\$118,800	\$161,889	\$575,280
	Total Cost	\$713,242	\$596,963	\$656,214	\$726,392	\$2,692,811
	Revenue	\$289,378	\$249,152	\$203,130	\$182,615	\$924,275
% Change	Operating Cost	-1%	2%	-1%	13%	3%
	Admin Cost	4%	37%	20%	1%	13%
	Total Cost	0%	8%	-1%	10%	5%
	Revenue	12%	20%	-13%	15%	8%

\* Based on trend projections  
 Data up to date as of 12/2016  
 Source: INTD

Overall, based on the selected performance indicators, the BRATS is performing efficiently. The performance indicators evaluated were productivity, hourly and mileage utilization, passenger miles per trip, cost per trip and hour, and operations recovery. The results are displayed in Table 4.4 BRATS Performance Analysis. To summarize, productivity increased by 32% from FY 14/15 to FY 15/16, with an operations recovery of 6%. Passenger miles per trip have increased by 6% while cost per trip have decreased by 11%. The mileage and hourly utilization have remained relatively constant between the two years.

*Effectiveness*

Table 4.4 BRATS Performance Analysis

Performance		Q1 Oct-Dec	Q2 Jan-Mar	Q3 Apr - Jun	Q4 Jul - Sep	Average
FY 14/15	Productivity	5.28	4.33	3.36	5.24	4.55
	Hourly Utilization	0.53	0.5	0.52	0.5	0.51
	Mileage Utilization	0.67	0.67	0.68	0.69	0.68
	Passenger Miles/Trip	1.97	2.35	2.97	1.91	2.30
	Cost Per Trip	\$7.31	\$6.87	\$10.10	\$7.36	\$7.91
	Cost Per Hour	\$38.61	\$29.75	\$33.96	\$38.55	\$35.22
	Operations Recovery	45.80%	45.80%	42.60%	31.70%	41.50%
FY 15/16	Productivity	7.97	6.52	4.74	4.39	5.91
	Hourly Utilization	0.51	0.49	0.51	0.51	0.51
	Mileage Utilization	0.67	0.67	0.68	0.68	0.68
	Passenger Miles/Trip	1.28	1.57	4.37	2.78	2.50
	Cost Per Trip	\$5.23	\$5.56	\$7.54	\$9.32	\$6.91
	Cost Per Hour	\$41.67	\$36.29	\$36.01	\$40.22	\$38.55
	Operations Recovery	52.10%	54.20%	37.80%	32.35%	44%
% Change	Productivity	51%	51%	41%	-16%	32%
	Hourly Utilization	-4%	-2%	-2%	2%	-1%
	Mileage Utilization	0%	0%	0%	-1%	0%
	Passenger Miles/Trip	-35%	-33%	47%	46%	6%
	Cost Per Trip	-28%	-19%	-25%	27%	-11%
	Cost Per Hour	8%	22%	6%	4%	10%
	Operations Recovery	14%	18%	-11%	2%	6%

Data up to date as of 12/2016  
Source: INTD

The final performance measure evaluated was effectiveness. Effectiveness was demonstrated through miles per gallon, fleet vehicles, seats available, and breakdowns. Projections were calculated in December 2016. The results are presented in Table 4.5. The miles per gallon have remained constant with a 0% change. The fleet vehicles and number of seats available are projected to increase by an average of 9%. Finally, the failures are projected to decrease by 23%, which is a tremendous improvement and very reassuring to the fragile ridership that is often being transported.

### Peer System Analysis

Table 4.5 BRATS Effectiveness Analysis

Effectiveness		Q1 Oct-Dec	Q2 Jan-Mar	Q3 Apr - Jun	Q4 Jul - Sep	Average
FY 14/15	Miles Per Gallon	7.7	7.7	7.7	7.7	7.7
	Fleet Vehicles	51	49	49	49	49.5
	Seats Available	983	924	924	924	939
	Failures	1	3	3	6	3.25
FY 15/16	Miles Per Gallon	7.7	7.7	7.7*	7.7*	7.7*
	Fleet Vehicles	53	53	53*	53*	53*
	Seats Available	1023	1023	1023*	1023*	1023*
	Failures	3	1	3*	3*	2.5*
% Change	Miles Per Gallon	0%	0%	0%*	0%*	0%*
	Fleet Vehicles	4%	8%	8%*	8%*	7%*
	Seats Available	4%	11%	11%*	11%*	9%*
	Failures	200%	-67%	0%*	-50%*	-23%*

\* Based on trend projections  
Data up to date as of 12/2016  
Source: INTD, BRATS

A financial peer analysis allows for the identification of strengths and weaknesses of transportation systems based on performance measures. An analysis of similar public transportation systems was performed as an aspect of determining the potential feasibility of a system in Orange Beach. This section presents the chosen peers and peer selection methodology. The peer analysis utilized 2014 National Transit Database (NTD) data through the Florida Transit Information System (FTIS). This peer analysis consist of three elements: 1) Peer Selection and General Indicator Results, 2) General Service Comparison, and 3) Peer Financial Comparisons.

*Peer Selection and General Indicator Results*

The peer selection was conducted using the built-in Peer Analysis function of the Integrated National Transit Database (INTD). The three peers were based on the Peer Analysis function using the general peer indicators, size of the system, and system type. The selected peer systems were Manatee, Florida, St. Lucie, Florida and Wiregrass, Alabama. The general peer indicators for each system are displayed in Table 4.6. To summarize the results of the general peer indicators, BRATS delivered twice as many trips as any of the peer agencies, and had the second lowest cost per trip (\$7.88) of the peer group.

Table 4.6 Peer Selection and Results, 2014

General Peer Indicators	Baldwin County	Manatee, FL	St. Lucie	Wiregrass, AL
Service Type	Demand Response	Motorbus (MB)	Motorbus (MB)	Demand Response
Service Area Population	210,000	322,833	283,866	90,000
Service Area Square Miles	2,027	743	572	600
Density	104	434	496	150
Passenger Trips	325,004	1,824,120	186,093	101,131
Vehicle Hours	72,041	89,506	22,743	40,969
Total Operating Expense	\$2,561,867	\$8,056,800	\$1,544,934	\$1,398,838
Vehicles Fleet	49	30	39	18
Cost per Trip	\$7.88	\$4.42	\$8.30	\$13.83
Cost per Hour	\$35.56	\$90.01	\$67.93	\$34.14

Data up to date as of 12/2016  
 Source: INTD, FTIS, BRATS

*Peer General Service Comparisons*

Beyond general indicators among the peer group, other service characteristics were compared to provide a glimpse of the type of service that is anticipated for Orange Beach. Only Florida peers were chosen for the general service comparisons. Service characteristics examined were average headway, operating hours per day, and peak vehicles. The results are displayed in Table 4.7 Peer General Service Comparisons. The average peak vehicles among the Florida systems was 25.8 vehicles, the average operating hours per day was 14.4, and the average headway was nearly 47 minutes. Similar characteristics are expected for an Orange Beach service.

Table 4.7 Peer General Service Comparisons

Florida Systems	Service Type	Headway	Hours/Day	Peak Vehicles
Escambia County	Fixed-Route, Purchased	41.4 mins	14.2	31
Panama City	Deviated Fixed Route	60 mins	14.5	11
COA St. Lucie	Demand Response	44.5 mins	11	8
Sarasota	Mixed Service	41.8 mins	18	53
Average	-	46.9 mins	14.4	25.8

Source: INTD, FTIS

*Peer Financial Comparisons*

Specific financial characteristics were also compared amongst the Florida group of peers in order to set a baseline for the future financial outlook of a potential Orange Beach service. The financial characteristics examined were average fare, cost per revenue mile, and cost per revenue hour. The results are summarized in Table 4.8. For 2014, the average fare among the peers and the State of Florida was \$0.95, the average cost per revenue was \$5.81, and the average cost per revenue hour was \$84.41.

Table 4.8 Florida Peer Financial Comparisons

Florida Systems	Service Type	Average Fare	Cost/Revenue Mile	Cost/Revenue Hour
Florida Average	-	\$1.02	\$7.73	\$112.45
Escambia County	Fixed-Route, Purchased	\$1.21	\$6.02	\$88.69
Panama City	Deviated Fixed Route	\$0.83	\$4.24	\$54.00
COA St. Lucie	Demand Response	\$0.98	\$5.44	\$80.66
Sarasota	Mixed Service	\$0.73	\$5.64	\$86.23
Average	-	\$0.95	\$5.81	\$84.41

Source: INTD, FTIS, Florida 2015 Transit Handbook

## **5.0 Tourism**



## TOURISM

Tourism is a fundamental aspect of the Orange Beach economy. As such, an evaluation of the trends of the local tourism industry is an important component of a transit feasibility analysis. This section summarizes the characteristics and trends of the travelers who visit Orange Beach, Alabama and the surrounding area using data from a study titled Summer 2014 Profile of Visitors Staying Overnight and in Paid Accommodations. This section also presents destination growth rates from 2014 to 2015 using data provided by the Alabama Gulf Coast Convention and Visitors Bureau (AGCCVB).

To summarize the travelers to the area, the average summer visitor is male in his low forties traveling with his family. They are likely traveling from a southern State, specifically Alabama, Mississippi, or Louisiana on vacation to visit the beach. To summarize the destination growth rates, the overall rates for hotel and condo growth have decreased from 2014 to 2015. However, the taxable retail and lodging sales have increased from 2014 to 2015.

### Summer 2014 Profile of Visitors

A tourism study was commissioned by the Gulf Shores and Orange Beach Tourism Council in order to profile the visitors of the Gulf Shores and Orange Beach Area. The data for the study was collected monthly from June 2014 through May 2015 of travelers 18 years of age and older. This section summarizes the results of paper-based surveys of visitors to Gulf Shores, Orange Beach, or Fort Morgan during the summer season of June, July, and August 2014. A synopsis of the survey results is as follows:

- Generally Traveling From: Alabama, Louisiana, and Mississippi
- Average Travel Party: About five people
- Average Household Income: \$92,500
- Marital Status: 72% Married
- Traveling With Children: 51% travel with children
- Top Reasons for Visiting: Beautiful beaches and scenery
- Most Common Activities: Going to the beach, dining out, relaxing, swimming

- Most Popular Attractions: Gulf State Park, Tanger Outlets, The Wharf
- Mode of Travel to Area: 98% drive
- Average Spending: \$3,400/party per trip or \$166/person per day
- Average Length of Paid Overnight Stays: 5 nights

*General Traveler Characteristics*

Of the respondents of the survey, the average summer visitor is in their early forties, is married, and earns an annual household income of slightly more than \$90,000. Table 5.1 displays the general characteristics.

Table 5.1 General Characteristics of Summer Visitors

Gender	
Male	41%
Female	59%
Average Age	
Average Age	43
Marital Status	
Married	72%
Single	19%
Other	9%
Average Household Income	
Average Annual Household Income	\$92,500

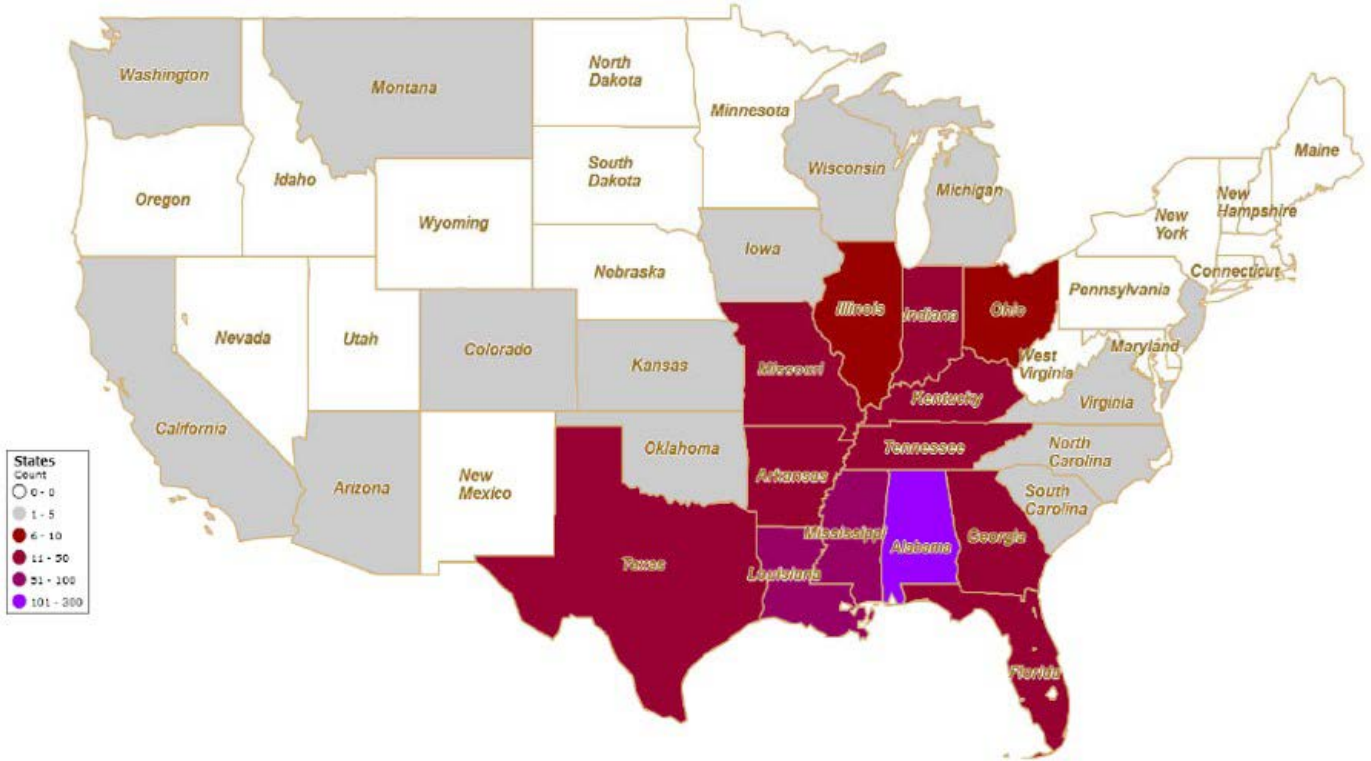
Source: Summer 2014 Profile of Visitors



Visitor Origin

Figure 5.1 displays the origin locations of visitors to the Orange Beach area. As depicted, the top three origin locations are Alabama, Mississippi, and Louisiana.

Figure 5.1 Summer Visitor Origin



Source: Summer 2014 Profile of Visitors

Travel Spending

On average, a travel party spends approximately \$3,400 on their stay. Food and lodging comprise 56% of their travel spending. A further breakdown of typical travel spending is depicted in Table 5.2.

Figure 5.2 Travel Spending

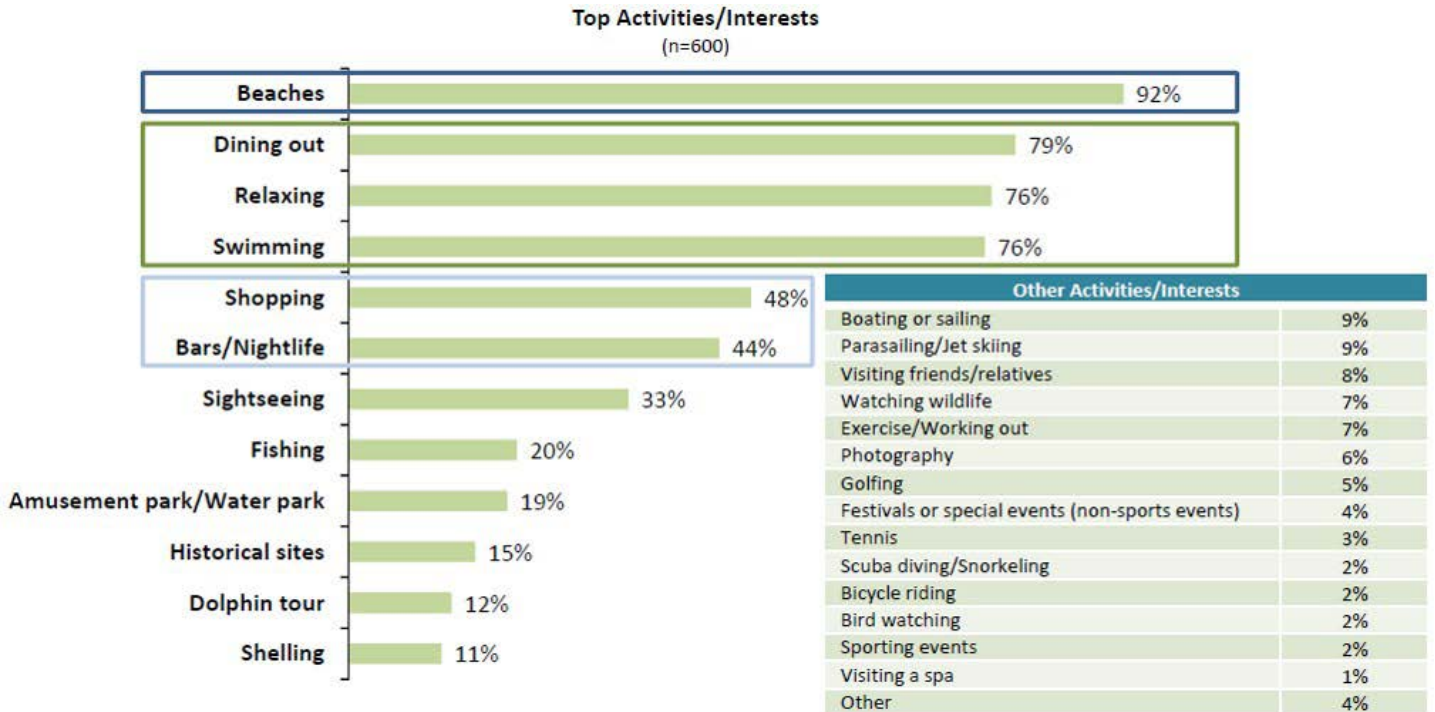
Average Trip Spending per Travel Party	% of Spending	
Lodging and Accommodations	\$1,011	30%
Food and Beverages	\$866	26%
Shopping	\$592	18%
Recreation or Entertainment	\$473	14%
Miscellaneous	\$413	12%
Total	\$3,355	100%

Source: Summer 2014 Profile of Visitors

Popular Travel Activities and Interests

Question 18 of the Summer 2014 Profile of Visitors survey asked the respondents to select which activities or interests they enjoy while visiting the area. The most common response was Beaches (92%). The next three popular responses were Dining Out (79%), Relaxing (76%), and Swimming (76%). The two least common responses were Dolphin Tour (12%), and Shelling (11%). The results are summarized in Figure 5.2 Popular Travel Activities and Interests.

Figure 5.2 Popular Activities and Interests



Source: Summer 2014 Profile of Visitors

*Travel Party Size and Composition*

Table 5.3 Average Travel Party Size and Table 5.4 display the travel party size and composition. The average travel party size is 4.6, with a 3.2 average number of adults and a 1.4 average number of children. Sixty-one percent of travel parties indicated that they are traveling as a family.

Figure 5.3 Average Travel Party Size

Average Travel Party Size	4.6
Average Number of Adults in Travel Party	3.2
Average Number of Children in Travel Party	1.4

Source: Summer 2014 Profile of Visitors

Figure 5.4 Average Party Composition

As a Family	61%
As a Couple	24%
With Friends	11%
By Yourself	6%
With Business Associates	1%
With a Tour Group or Sports Team	1%
Other	< .5%

Source: Summer 2014 Profile of Visitors

## Accommodations Inventory

Table 5.5 displays the accommodations inventory as of December 2014

Figure 5.5 Accommodations Inventory

Type	December 2014	Proposed	Total
Condos	8,466	117	8,583
Hotel/Motels	1,162	149	1,311
Total	9,628	266	1,582

Source: Summer 2014 Profile of Visitors

## Destination Growth Indicators

This section summarizes destination growth indicators for Gulf Shores and Orange Beach tourism. The growth rate indicators include occupancy, rates, and revenues for hotels and condos, taxable retail sales, and taxable lodging rentals. To summarize, the hotel growth rate decreased from 2014 to 2015 by an average of 13% for all three indicators. The condo growth rate decreased by an average of nearly 3% for all three indicators. However, the taxable retail and lodging growth indicators experienced positive growth from 2014 to 2015, by an average of 11%.

### *Hotel and Condo Growth Indicators*

A review of occupancy, rates, and revenues for hotels and condos provides insight on the local tourism industry. Table 5.6 displays hotel and condo growth indicators for the Gulf Shores and Orange Beach area, as provided by the Alabama Gulf Coast Convention and Visitors Bureau (AGCCVB).

### *Hotel Growth*

From 2014 to 2015, there is a decreasing trend for the hotel and condo growth indicators. The hotel occupancy rate and average daily rate decreased by 11% and 9%, respectively. The largest decrease was the hotel revenue per available room, which decreased by 19% from 2014 to 2015, from revenues of \$141.05 per available room to \$114.61.

### *Condo Growth*

Condos also experienced a negative growth rate from 2014 to 2015, although not as negatively as the hotel growth rate. The condo occupancy rate decreased by 9.5%, and the condo revenue per available unit decreased by nearly 5%. However, the condo average daily rate increased by 5% from 2014 to 2015, from \$192.93 to \$203.25.

Figure 5.6 Hotel and Condo Growth Indicators

Type	2014	2015	% Change
Hotel Occupancy Rate	77.7%	69.1%	-11%
Hotel Average Daily Rate	\$181.49	\$165.74	-8.7%
Hotel Revenue Per Available Room	\$141.05	\$114.61	-18.7%
Condo Occupancy Rate	63.2%	57.3%	-9.5%
Condo Average Daily Rate	\$192.93	\$203.25	5.3%
Condo Revenue Per Available Unit	\$122.02	\$116.40	-4.6%

Source: Summer 2014 Profile of Visitors

*Taxable Retail Sales and Lodging Rentals*

The consideration of the growth patterns of taxable retail sales and lodging rentals are an additional measure of destination growth indicators. Table 5.7 displays the taxable retail sales and taxable lodging rentals for July 2014 and July 2015, as provided by the AGCCBV. Overall, taxable retail and lodging sales have seen a positive growth rate from 2014 to 2015. July retail sales increased by 5.5%, and the overall year to date (YTD) sales increased by 9.3%. July lodging sales experienced a greater increase of sales of 11.4% for the month of July, and an overall YTD increase of 12.7%.

Figure 5.7 Taxable Retail Sales and Lodging Rentals

Taxable Sales	July 2014	July 2015	% Change	YTD FY 2014	YTD FY 2015	% Change
Retail Sales	\$112,658,376	\$118,898,753	5.5%	\$513,149,247	\$560,628,866	9.3%
Lodging Sales	\$91,543,425	\$101,956,590	11.4%	\$284,096,076	\$320,242,230	12.7%

Source: Summer 2014 Profile of Visitors

## **6.0 Service Options**



## SERVICE OPTIONS

The final designs of the service options were the result of an interactive process between the Technical Review Team, the stakeholders, the public, and the consultant. This section details the service options for the Orange Beach transit system.

The service options are summarized as follows:

- Type: Deviated fixed-route service.
- When: Seasonal service between mid-May and mid-September (132 days), 7 days per week
- Hours: Ten (10) hours each day, starting at 2PM and the last bus starting its route at 11PM.
- Phases: Three phases implemented over a five year period. The three phases are summarized below, and the system map is displayed in Figure 6.1.
  1. Phase One: “Beach Route” is a down-and-back route along the coast providing service to the beach.
  2. Phase Two: “Wharf Loop” is a contra-flow loop providing service to the beach and The Wharf. Phase Two would replace Phase One when implemented.
  3. Phase Three: “Extended Loop” adds a deviation to the Phase Two loop providing service to the Canal Road East District.
- Implementation: The phases are proposed to be implemented over a five year period. Phase 1 will be implemented for Years 1 and 2 (2018 and 2019), Phase 2 implemented in Years 3 and 4 (2020 and 2021), and Phase 3 implemented in Year 5 (2022). Table 6.1 displays the service implementation schedule.

Figure 6.1 Phase Implementation

Year 1 (2018)	Phase 1 - Beach Route
Year 2 (2019)	Phase 1 - Beach Route
Year 3 (2020)	Phase 2 - Wharf Loop
Year 4 (2021)	Phase 2 - Wharf Loop
Year 5 (2022)	Phase 3 - Extended Loop

The service options are described in further detail in this section for two, four, and six bus scenarios. Further information regarding the service options and service costs can be found in the Appendix. Potential revenue sources are presented in Section 7, and a feasibility evaluation is detailed in Section 8. Figure 6.1 illustrates the proposed system at build-out.



Figure 6.1 Proposed Route System



## Phases

The service options consist of three phases. A map and description of each phase is included in each phase subsection. A summary table for each phase is included for two, four, and six bus scenarios over a five year period. The elements in the summary tables are defined as follows:

- Buses – The number of buses proposed for the route. There are two, four, and six bus scenarios. For a two bus scenario, it is assumed that there is one bus running in each direction. For the four bus scenario, it is assumed that two buses are operating in each direction. For the six bus scenario, three buses are operating in each direction. It should be noted that two buses are assumed in Phase 1 for all three scenarios.
- Headway – Headway is defined as the average interval of time between buses moving in the same direction on the same route. Headway can also be considered the typical wait time between buses.
- Daily Ridership – Daily ridership is the estimated number of persons riding the bus each day.
- Total Ridership – Total estimate ridership for the years specified.
- Service Cost – The total service cost. It includes operating costs, administrative and depreciation costs, and capital costs.
- Cost Per Rider – The cost of the service divided by the total ridership yields the cost per rider if the service.

Further detail on how the headway, ridership, and service costs were determined can be found in the Appendix.

### *Phase 1 (Beach Route)*

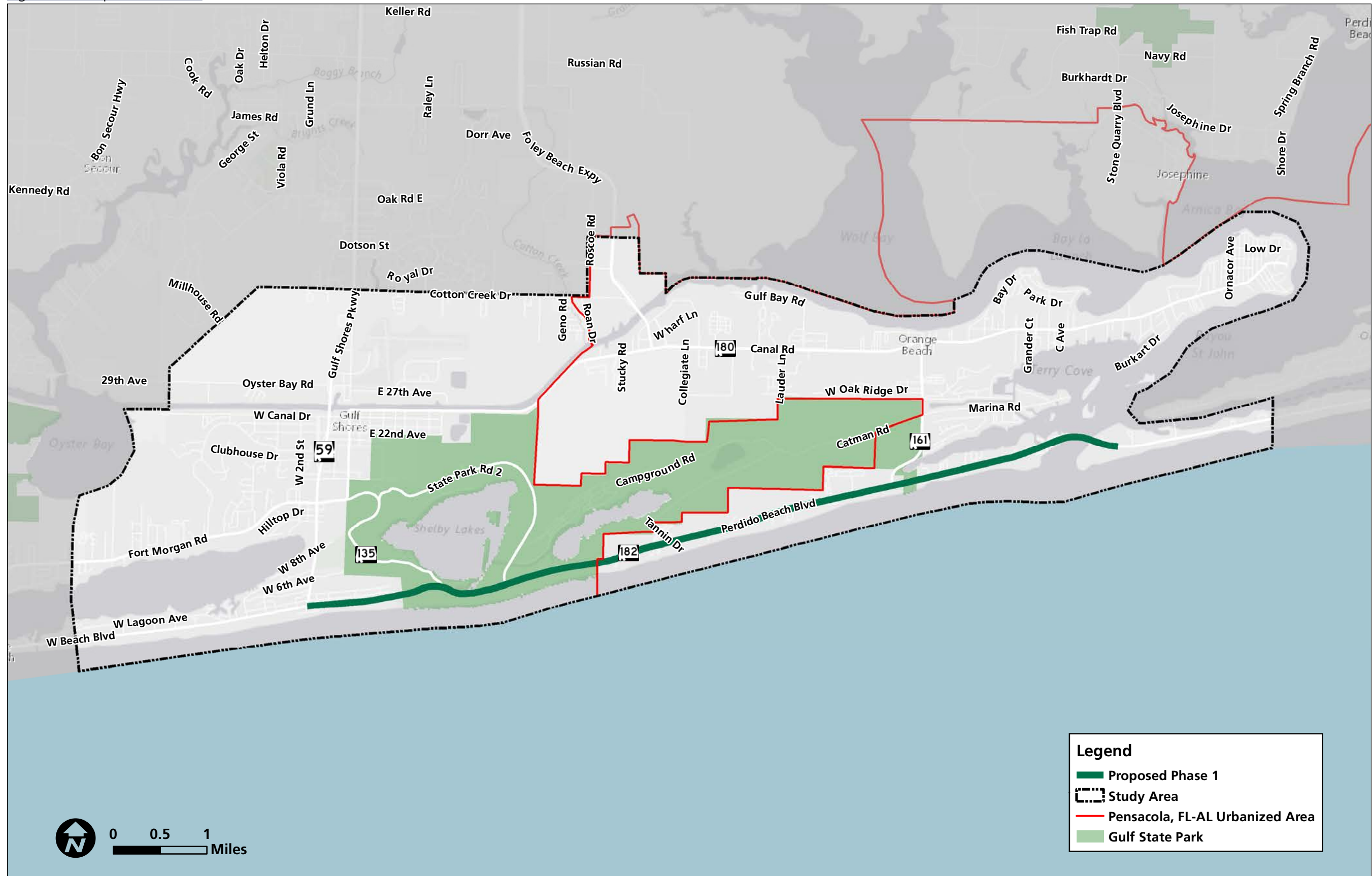
The Phase 1 “Beach Route” is a down and back, east-west service from The Hangout area to east of the Perdido Pass Bridge, providing service on both sides of Perdido Beach Boulevard (AL 182) along the coast. A map of the Beach Route is displayed in Figure 6.2. The Phase 1 Beach Route is proposed to be implemented in Years 1 and 2 (2018 and 2019). Table 6.2 displays a summary of the Beach Route option.

Two buses are assumed to operate on this route with approximately 30 minute headways. The Phase 1 Beach Route would have around 460 daily riders, totaling approximately 121,366 riders for Years 1 and 2 of service. The total two year cost of service for this route is estimated to be \$685,157, equating to a \$5.65 cost per rider for Phase 1.

Figure 6.2 Phase 1 Beach Summary (Years 1 and 2)

Buses	Headway	Daily Ridership	Implementation Years: 1 & 2 (2018 – 2019) Total		
			Ridership	Total Service Cost	Cost Per Rider
2	30 minutes	460	121,366	\$685,157	\$5.65

Figure 6.2 Proposed Phase 1



*Phase 2 (Wharf Loop)*

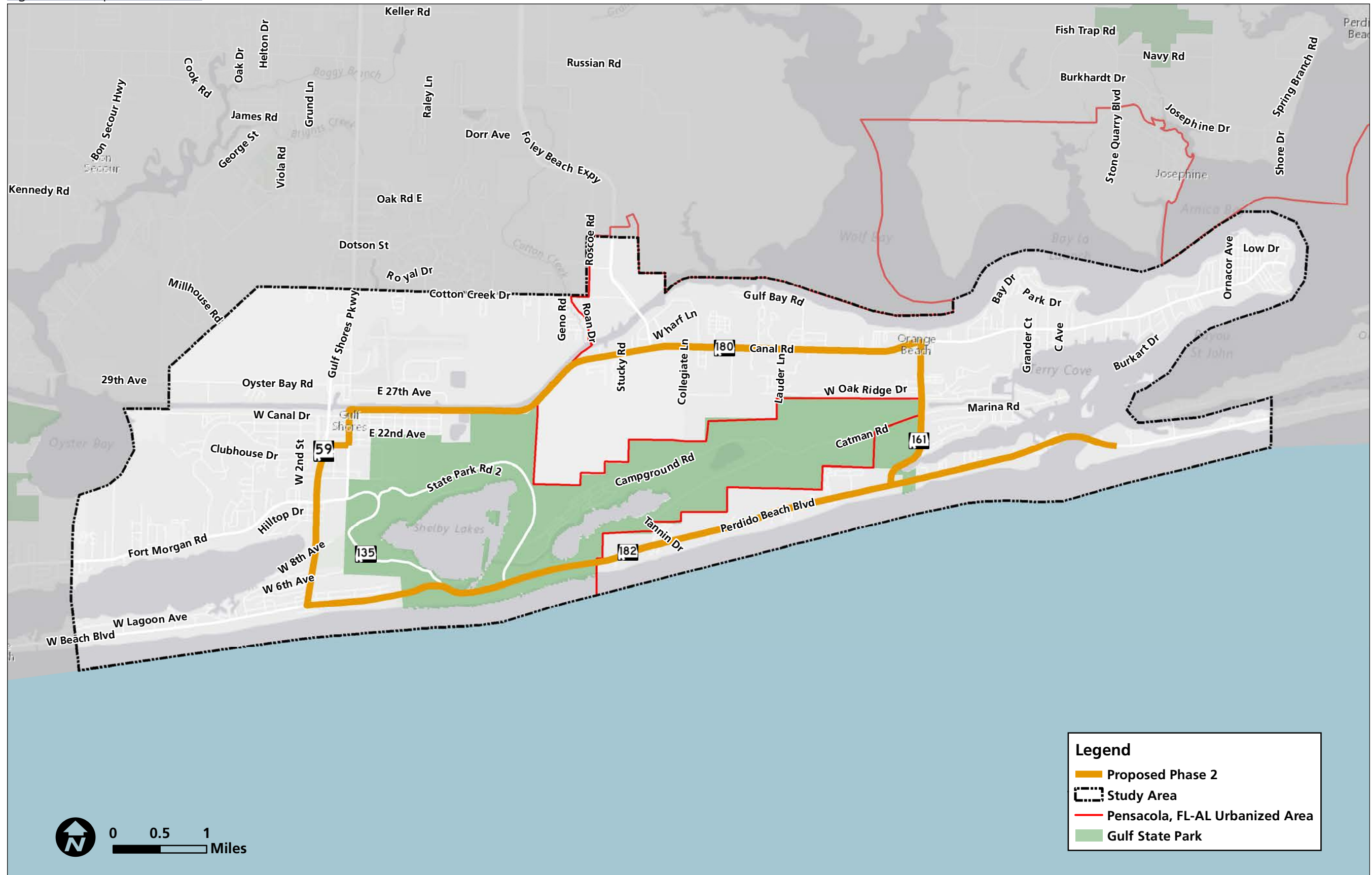
The Phase Two “Wharf Loop” is a contra-flow loop providing service to the beach and The Wharf. Once implemented, Phase Two would replace Phase One as Phase Two also provides beach service within the loop. A map of Phase Two is displayed in Figure 6.3. Phase Two is proposed to be implemented in Years 3 and 4 (2020 – 2021). Table 6.3 displays the route summary information for two, four, and six bus scenarios.

Figure 6.3 Phase 2 Wharf Loop (Years 3 and 4)

Buses	Headway	Daily Ridership	Implementation Years: 3 & 4 (2020 – 2021) Total		
			Ridership	Total Service Cost	Cost Per Rider
2	60 minutes	306	80,784	\$1,119,872	\$13.86
4	30 minutes	562	148,262	\$1,881,817	\$12.69
6	20 minutes	765	201,960	\$2,643,762	\$13.09



Figure 6.3 Proposed Phase 2



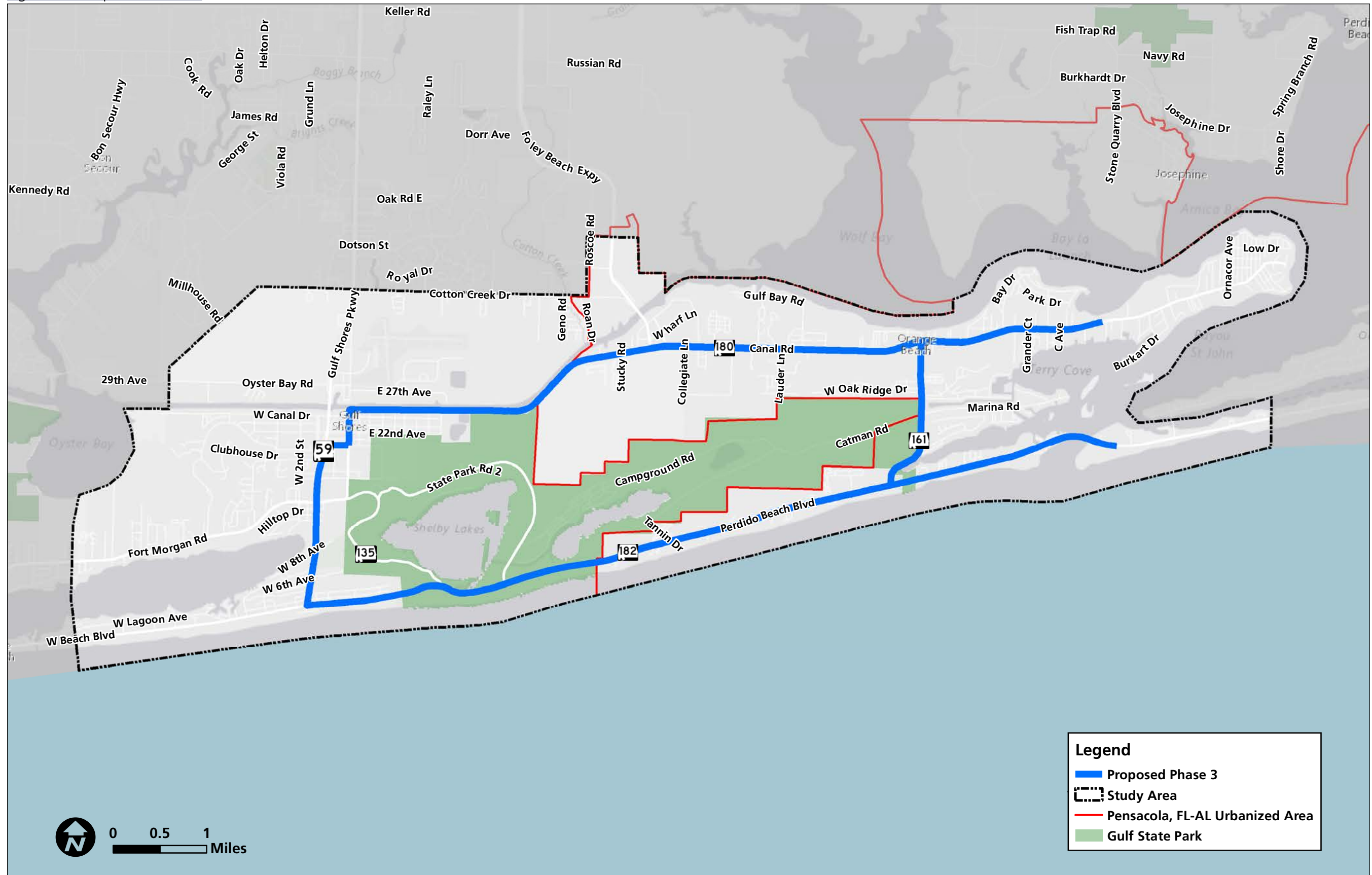
*Phase 3 (Extended Loop)*

The Phase Three “Extended Loop” adds a deviation to the Phase Two loop providing service to the Canal Road East District. A map of Phase Three is displayed in Figure 6.4. Phase Three is proposed to be implemented in Year 5 (2022). Table 6.4 displays the route summary information for two, four, and six bus scenarios.

Figure 6.4 Phase 3 Extended Loop (Year 5)

Buses	Headway	Daily Ridership	Implementation Year: 5 (2022) Total		
			Ridership	Total Service Cost	Cost Per Rider
2	75 minutes	279	36,828	\$523,798	\$14.22
4	37 minutes	510	67,320	\$922,235	\$13.70
6	25 minutes	690	91,120	\$1,185,075	\$13.01

Figure 6.4 Proposed Phase 3



## System Summary at Build-Out

Table 6.5 provides the service options scenarios for the full five-year implementation for the two, four, and six bus options.

Figure 6.5 Five Year System Summary

Scenario	Total Ridership	Total Vehicle Trips	Total Revenue Miles	Total System Cost	System Cost Per Year
2 Bus	238,978	12,672	269,808	\$2,328,828	\$465,766
4 Bus	336,948	20,064	444,576	\$3,492,323	\$698,465
6 Bus	414,446	21,082	619,344	\$4,516,808	\$903,362



## **7.0 Potential Revenue Sources**



## POTENTIAL REVENUE SOURCES

This section provides an example funding strategy for the transit system. The funding strategy includes potential farebox recovery scenarios, potential local investment, and potential federal investment.

### Description of Revenue Sources

The potential revenue sources are divided into two categories, federal and non-federal sources.

#### *Federal Revenue*

There are a number of federal programs which offer funding opportunities for transit services. For the purposes of this study, two federal programs were identified as prospective funding sources through collaboration with the Technical Review Team. The two identified programs are the Urbanized Area Grants (5307), and the Formula Grants for Rural Areas (5311) through the Federal Transit Administration (FTA). These two programs are further detailed below. Based on direction from the Technical Review Team, an assumption of federal funding sources of \$387,385 was utilized for the revenue scenarios presented in Table 7.1.

#### *Urbanized Area Formula Grants (5307)*

The 5307 program makes federal resources available to urbanized areas for transportation-related planning. An urbanized area is an incorporated area with a population of 50,000 or more that is designated as such by the U.S Department of Commerce, Bureau of the Census. Funding is made available to designated recipients that are public bodies with legal authority to receive and dispense federal funds. Historically, Baldwin County has received between \$50,000 and \$60,000 in 5307 grants.

Examples of eligible activities for 5307 grant funding include the following:

- Planning, engineering, design and evaluation of transit projects and other technical transportation-related studies
- Capital investments in bus and bus-related activities
- All preventative maintenance
- Mobility management costs
- Operating assistance (if less than 200,000 population)

The federal share of the 5307 grants are detailed as follows:

- May not exceed 80% of the net project cost for capital expenditures
- May be 90% for the cost of vehicle-related equipment attributable to compliance with ADA and the Clean Air Act
- May not exceed 50% of the net project cost of operating assistance

#### *Formula Grants for Rural Areas (5311)*

The Formula Grants for Rural Areas program provides capital, planning, and operating assistance to states to support public transportation in rural areas. Eligible activities for 5311 funds include planning, capital, operating, job access and reverse commute projects, and the acquisition of public transportation services.

The federal share may be applied as follows:

- 80% for capital projects
- 50% for operating assistance
- 80% for ADA non-fixed route paratransit service

#### *Non-Federal Revenue Sources*

The non-federal revenue sources are listed and summarized as follows:

- Farebox – Farebox revenue is the revenue made from bus ticket sales. The farebox revenue assumption for this study is based on a \$3 day pass for riders taking approximately 2.5 trips per day on average.
- Bus and Shelter Ads – Bus and shelter ad revenue includes income from selling bus and shelter ad space.
- Local Business Contributions – Local business contributions include those contributions from business such as bars, restaurants, and shops to support the transit service.
- Concessions – Concessions include sales from vending machines and similar enterprises that may be a source of revenue for the transit system.
- Unmet Need – The unmet need or other identified revenue sources is the remainder of the total system costs that have not been covered by federal or non-federal revenue sources.

## Five Year Revenue Summaries

Table 7.1 presents the five year revenue scenarios for the two, four, and six bus implementation scenarios.

Figure 7.1 Five Year Total Revenue Summary

Scenario	Federal	Farebox	Total Revenue	Total System Cost	Unmet Need
2 Bus	\$387,385	\$286,774	\$674,159	\$2,328,828	\$1,654,669
Percent	17%	12%	29%		
4 Bus	\$387,385	\$404,338	\$791,723	\$3,492,323	\$2,700,600
Percent	11%	12%	23%		
6 Bus	\$387,385	\$497,335	\$884,720	\$4,516,808	\$3,632,089
Percent	9%	11%	20%		

# **8.0 Feasibility Evaluation**



## FEASIBILITY EVALUATION

The feasibility evaluation presents a critical analysis of the potential service options. The analysis breaks down each scenario to determine the costs per individual rider, costs per trip, costs per revenue mile, and the unmet funding needs. The results of the analysis are displayed in Table 8.1. The items in the table are defined below.

- **Cost/Rider:** Approximately how much the service costs for each rider on the bus. The figure is determined by dividing the total revenue by the number of riders for the scenario.
- **Cost/Trip:** Approximately how much it costs for each trip the bus takes. The cost per trip is determined by dividing the total system cost by the total number of trips.
- **Cost/Mile:** Cost per revenue mile is determined by dividing the total system cost by the total revenue miles for the scenario.
- **Cost/Year:** Average total cost per year of the service. It is determined by dividing the total system by five, as the service is proposed for five years.
- **Total System Cost:** Total cost of the system including operating costs, administration and depreciation costs, and capital costs.
- **Total Revenue and Average Revenue/Year:** Total potential revenue for the initial five years and the average revenue income per year. Revenue was based on conservative assumptions directed by the Technical Review Team. Notably, federal revenue source was limited to \$387,385 for the five year period.
- **Total Unmet Need and Unmet Need/Year:** The unfunded costs of the system. The unfunded costs can potentially be covered by local government subsidies.

Figure 8.1 Feasibility Evaluation

Scenario	Cost/ Rider	Cost/ Trip	Cost/ Mile	Cost/ Year	Total System Cost	Total Revenue	Avg. Revenue/ Year	Total Unmet Need	Unmet Need/ Year
2 Bus	\$9.74	\$183.78	\$8.63	\$465,766	\$2,328,828	\$674,159	\$134,832	\$1,654,669	\$330,934
4 Bus	\$10.36	\$174.06	\$7.86	\$698,465	\$3,492,323	\$791,723	\$158,345	\$2,700,600	\$540,120
6 Bus	\$10.90	\$214.25	\$7.29	\$903,362	\$4,516,808	\$884,720	\$176,944	\$3,632,088	\$726,418

## **9.0 Steps for Success**



# STEPS FOR SUCCESS

The biggest hurdle with public transportation is funding the service. As such, the goal should be to position the project with preliminary phases that can be expanded as new funding partners are added. However, new transit projects are likely to fail if they do not grow beyond the initial start-up phase. Consequently, it is important to identify the project's full potential in the initial stages in order to appeal to a broader market of users and supporters. Figure 9.1 displays the principles which should be considered throughout the start-up period.

Figure 9.1 Start-Up Principals

## Existing Assets

- Take full advantage of existing assets

## Other Multi-Modal Opportunities

- Recognize multi-modal opportunities other than public bus service

## Information Technology

- Ensure technology is available to provide real-time information to tourists

## Marketing

- Invest in a professional marketing program

## Rolling Investment Plan

- Create a rolling investment plan that is triggered by achievable milestones

## Business Group Supporters

- Unite a core business group of supporters who will benefit directly from the transit service. Have them serve as special advisors to the process with a focus on the training of investments

## Marketing Plan Examples

Marketing of the system, including potentially advertising on the vehicles, will be an essential component of a successful startup of the beach circulator, and subsequent phases. The following section present two approaches to marketing transit, including one local example in Escambia County, Florida, and one beach bus program initiated by Bay County, Florida, in Panama City Beach.

### *Escambia County Area Transit (ECAT)*

Creativity and excitement are essential parts of marketing and advertising. Great concepts and enticing language draws in the target market. The marketing campaign for ECAT is summarized as follows:

- A four phase marketing campaign over a one year period to encourage Pensacola residents and visitors to “fall in love with ECAT”
- The marketing outreach included online advertising, social media, eblasts, a dedicated website, and traditional public relations efforts
- The goals of the campaign were to showcase ECAT’s amenities, raise public perception of ECAT, and garner impressions throughout the Pensacola community.
- The four phases are described as follows:
  1. The Break-Up: Break up with your car
  2. Find Your Match
  3. Healthy Relationships
  4. Fall in Love with ECAT

### *Panama City Beach Bus: Promotional Marketing Campaign*

The Panama City Beach Bus “Wave to Ride” marketing campaign is summarized in this section. This campaign was created for the Bay Town Trolley (BTT).

- Continued funding for the beach route was contingent on the BTT demonstrating demand for the service through increased ridership.
- The objectives of the marketing campaign were to: 1) Brand the beach route via a new logo, 2) Garner impressions through major print, broadcast, and television outlets, 3) Demonstrate a ridership of 15,200 during the pilot period, and 4) Get 50% of target hotels and businesses to participate in promotions of the beach service.
- The objectives were implemented by:

- Creating a new logo using community themes
  - Providing hotels and businesses with posters and flyers
  - Partnering with local visitor center to publicize the bus via their web page
  - Providing hotels with Beach Bus magnets for in-room fridges
  - Recording a news segment about the route
  - Advertising on the outside of the buses via a dynamic bus wrap
  - Providing detailed beach information at existing bus stops
- As a result, ridership surpassed expectations, totaling 33,522 rides
  - Budget: Creative design services (\$6,200), publicity coordination (\$4,500), production of bus wrap (\$5,000)
  - Clear messaging about the availability of the service, how to use it, and where and when the system will run were essential to the success of the Beach Bus pilot program. During the first year of the program, the system showed great success.

# Appendix

## Revenue Calculations

BRATS Baseline Rates w/ Inflation Through 2018		
Year	Base Rate/Mile	Base Rate/Hour
2013*	\$3.18*	\$64.82
2014	\$3.28	\$66.76
2015	\$3.37	\$68.77
2016	\$3.47	\$70.83
2017	\$3.58	\$72.96
2018	\$3.69	\$75.14

\* Base rate as per 2013 NTD records. Years 2014 through 2018 compounded 3% per year to account for inflation.

Projected Travel Times by Phase (Revenue Time)						
Segment	Distance (mi)	Travel Time (no stops)	One-Way Travel Time (min)	Number of Regular Stops	Average Speed (mph)	Dwell Time (sec)
Phase 1	18.0	38.00	53.83	38	20.1	25
Phase 2*	22.5	40.00	56.58	35	23.9	25
Phase 3*	26.5	49.00	67.67	40	23.5	25

\* Includes 2 minutes dwell time at The Wharf

Revenue Costs							
Segment	Revenue Miles	Cost in Revenue Mile @\$3.69	Revenue Hours	Cost in Revenue Hr @\$75.14	Stops	Avg. MPH	Dwell Time (sec)
Phase 1	18.0	\$66.36	0.90	\$67.42	38	20.1	25
Phase 2	22.5	\$82.95	0.94	\$70.87	35	23.9	25
Phase 3	26.5	\$97.69	1.13	\$84.75	40	23.5	25

Annual Revenue Miles					
2 Bus Scenario		4 Bus Scenario		6 Bus Scenario	
Phase 1	47,520	Phase 1	47,520	Phase 1	47,520
Phase 2	59,400	Phase 2	118,800	Phase 2	178,200
Phase 3	55,968	Phase 3	111,936	Phase 3	167,904

### Seasonal Costs Driven by Headway

2 Bus Scenario						
Phase	Headway (min)	Buses	Trips/Day	Seasonal Trips	Inflation Adjusted Daily Cost	Seasonal Cost (132 Days)
Phase 1	30	2	20	2640	\$1,327	\$175,182
Phase 2	60	2	20	2640	\$1,758	\$232,116
Phase 3	75	2	16	2112	\$1,751	\$231,085
*Includes 2 minutes of dwell time at The Wharf						

4 Bus Scenario						
Phase	Headway (min)	Buses	Trips/Day	Seasonal Trips	Inflation Adjusted Daily Cost	Seasonal Cost (132 Days)
Phase 1	30	2	20	2640	\$1,327	\$175,182
Phase 2	30	4	40	5280	\$3,517	\$464,233
Phase 3	37	4	32	4224	\$3,501	\$462,169
*Includes 2 minutes of dwell time at The Wharf						

6 Bus Scenario						
Phase	Headway (min)	Buses	Trips/Day	Seasonal Trips	Inflation Adjusted Daily Cost	Seasonal Cost (132 Days)
Phase 1	30	2	20	2640	\$1,327	\$175,182
Phase 2	20	6	60	7920	\$5,275	\$696,349
Phase 3	25	6	48	6336	\$5,252	\$693,254
*Includes 2 minutes of dwell time at The Wharf						

Capital Costs

2 Bus Scenario							
Capital Expenditure	Amount	2018	2019	2020	2021	2022	Years 1-5
30' LTV	0	-	-	-	-	-	\$0.00
Spare	1	-	\$112,551	-	-	-	\$112,551
Bike Racks on Buses	6	\$11,255	\$2,814	-	-	-	\$14,069
The Wharf Satellite hub	1	-	-	\$41,734	-	-	\$41,734
Shelters	12	\$54,024	\$27,012	\$27,823	\$28,657	\$29,517	\$167,033
Bike-to-Bus Hubs	2	-	\$20,259	-	\$21,493	-	\$41,752
Stops	10	-	\$18,008	\$9,274	\$9,552	-	\$36,835
Flags	15	-	\$5,065	\$2,608	\$3,582	-	\$11,255
Advertising	Annual	\$10,000	\$5,000	\$10,000	\$5,000	\$5,000	\$35,000
Promotion	Annual	\$20,000	\$10,000	\$20,000	\$10,000	\$5,000	\$65,000
Software & Equip	Annual	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$50,000
Preventive Maintenance	5%	\$6,674	\$6,875	\$16,455	\$16,949	\$17,417	\$64,370
5 year period	-	\$111,954	\$217,584	\$137,894	\$105,234	\$66,934	\$639,599

4 Bus Scenario							
Capital Expenditure	Amount	2018	2019	2020	2021	2022	Years 1-5
30' LTV	2	-	-	\$231,855	-	-	\$231,855
Spare	2	-	\$112,551	-	-	\$122,987	\$235,538
Bike Racks on Buses	12	\$11,255	\$5,628	\$11,593	-	\$6,149	\$34,625
The Wharf Satellite hub	1	-	-	\$41,734	-	-	\$41,734
Shelters	12	\$54,024	\$27,012	\$27,823	\$28,657	\$29,517	\$167,033
Bike-to-Bus Hubs	2	-	\$20,259	-	\$21,493	-	\$41,752
Stops	10	-	\$18,008	\$9,274	\$9,552	-	\$36,835
Flags	15	-	\$5,065	\$2,608	\$3,582	-	\$11,255
Advertising	Annual	\$10,000	\$5,000	\$10,000	\$5,000	\$5,000	\$35,000
Promotion	Annual	\$20,000	\$10,000	\$20,000	\$10,000	\$5,000	\$65,000
Software & Equip	Annual	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$50,000
Preventive Maintenance	5%	\$6,674	\$6,875	\$25,829	\$26,604	\$27,322	\$93,305
5 year period	-	\$111,954	\$220,397	\$390,716	\$114,889	\$205,976	\$1,043,932

6 Bus Scenario							
Capital Expenditure	Amount	2018	2019	2020	2021	2022	Years 1-5
30' LTV	4	-	-	\$463,710	-	-	\$463,710
Spare	2	-	\$112,551	-	-	\$115,927	\$228,478
Bike Racks on Buses	16	\$11,255	\$5,628	\$23,185	-	\$6,149	\$46,217
The Wharf Satellite hub	1	-	-	\$41,734	-	-	\$41,734
Shelters	12	\$54,024	\$27,012	\$27,823	\$28,657	\$29,517	\$167,033
Bike-to-Bus Hubs	2	-	\$20,259	-	\$21,493	-	\$41,752
Stops	10	-	\$18,008	\$9,274	\$9,552	-	\$36,835
Flags	15	-	\$5,065	\$2,608	\$3,582	-	\$11,255
Advertising	Annual	\$10,000	\$5,000	\$10,000	\$5,000	\$5,000	\$35,000
Promotion	Annual	\$20,000	\$10,000	\$20,000	\$10,000	\$5,000	\$65,000
Software & Equip	Annual	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$50,000
Preventive Maintenance	5%	\$6,674	\$6,875	\$35,204	\$36,260	\$37,227	\$122,239
5 year period	-	\$111,954	\$220,397	\$643,538	\$124,545	\$208,820	\$1,309,254

Ridership

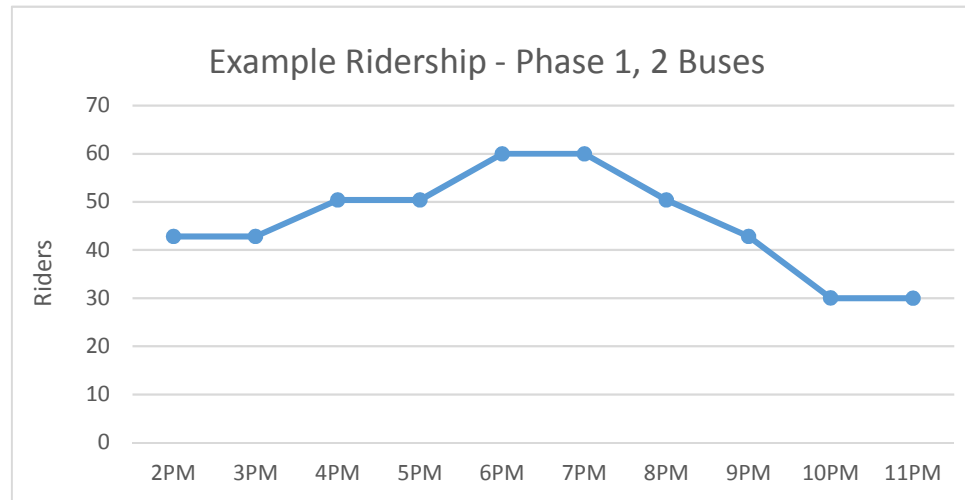
Ridership: 2 Bus Scenario																	
Phase	Type/ Headway	Buses	Total Passengers	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Total Daily Ridership	Total Daily Fares	Total Seasonal Ridership	Total Seasonal Fares
Phase 1	30' LTV	2	LOAD	36%	36%	42%	42%	50%	50%	42%	36%	25%	25%	460	\$552	60,683	\$72,820
	30 min		30 PAX	43	43	50	50	60	60	50	43	30	30				
Phase 1 - Service For First Two Years (Years 1 and 2)																	\$145,639
Phase 2	30' LTV	2	LOAD	45%	55%	55%	55%	65%	65%	55%	45%	40%	30%	306	\$367	40,392	\$48,470
	60 min		30 PAX	27	33	33	33	39	39	33	27	24	18				
Phase 2 - Service for Two Tears (Years 3 and 4)																	\$96,941
Phase 3	30' LTV	2	LOAD	40%	50%	50%	50%	60%	60%	50%	40%	40%	25%	279	\$335	36,828	\$44,194
	75 min		30 PAX	24	30	30	30	36	36	30	24	24	15				
Phase 3 - service for one year (Year 5)																	\$44,194
First 5 years of farebox revenue																	\$286,774
<p>Fare Assumption: Only \$3 daily pass available. Passengers will make on average 2.5 trips each day.</p> <p>LTV Definition: Light Transit Vehicle (30 passenger)</p> <p>Load Assumptions: Passenger loads decrease due to increased headway on loop in fifth year, but are partially offset by service to new areas.</p>																	

Ridership: 4 Bus Scenario																	
Phase	Type/ Headway	Buses	Total Passengers	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Total Daily Ridership	Total Daily Fares	Total Seasonal Ridership	Total Seasonal Fares
Phase 1	30' LTV	2	LOAD	36%	36%	42%	42%	50%	50%	42%	36%	25%	25%	460	\$552	60,683	\$72,820
	30 min		30 PAX	43	43	50	50	60	60	50	43	30	30				
Phase 1 - Service For First Two Years (Years 1 and 2)																	\$145,639
Phase 2	30' LTV	4	LOAD	44%	50%	50%	50%	60%	60%	50%	44%	35%	25%	562	\$674	74,131	\$88,957
	30 min		30 PAX	53	60	60	60	72	72	60	53	42	30				
Phase 2 - Service for Two Tears (Years 3 and 4)																	\$177,915
Phase 3	30' LTV	4	LOAD	40%	45%	45%	45%	55%	55%	45%	40%	30%	25%	510	\$612	67,320	\$80,784
	37 min		30 PAX	48	54	54	54	66	66	54	48	36	30				
Phase 3 - service for one year (Year 5)																	\$80,784
First 5 years of farebox revenue																	\$404,338
<p>Fare Assumption: Only \$3 daily pass available. Passengers will make on average 2.5 trips each day.</p> <p>LTV Definition: Light Transit Vehicle (30 passenger)</p> <p>Load Assumptions: Passenger loads decrease due to increased headway on loop in fifth year, but are partially offset by service to new areas.</p>																	



## Ridership

Ridership: 6 Bus Scenario																	
Phase	Type/ Headway	Buses	Total Passengers	2PM	3PM	4PM	5PM	6PM	7PM	8PM	9PM	10PM	11PM	Total Daily Ridership	Total Daily Fares	Total Seasonal Ridership	Total Seasonal Fares
Phase 1	30' LTV	2	LOAD	36%	36%	42%	42%	50%	50%	42%	36%	25%	25%	460	\$552	60,683	\$72,820
	30 min		30 PAX	43	43	50	50	60	60	50	43	30	30				
	Phase 1 - Service For First Two Years (Years 1 and 2)																
Phase 2	30' LTV	6	LOAD	40%	45%	45%	45%	55%	55%	45%	40%	30%	25%	765	\$918	100,980	\$121,176
	30 min		30 PAX	72	81	81	81	99	99	81	72	54	45				
	Phase 2 - Service for Two Tears (Years 3 and 4)																
Phase 3	30' LTV	6	LOAD	35%	40%	45%	45%	50%	50%	40%	35%	25%	20%	690	\$828	91,120	\$109,344
	37 min		30 PAX	63	72	80	80	90	90	72	63	45	35				
	Phase 3 - service for one year (Year 5)																
First 5 years of farebox revenue																	\$497,335
<p>Fare Assumption: Only \$3 daily pass available. Passengers will make on average 2.5 trips each day.</p> <p>LTV Definition: Light Transit Vehicle (30 passenger)</p> <p>Load Assumptions: Passenger loads decrease due to increased headway on loop in fifth year, but are partially offset by service to new areas</p>																	



## 2 Bus Service Costs

Administration and Depreciation					
Phase	Year 1	Year 2	Year 3	Year 4	Year 5
Phase 1	\$41,693	\$42,944	\$44,232	\$45,559	\$46,926
Phase 2			\$58,558	\$60,315	
Phase 3					\$61,598
5 Year Period Totals					\$401,827

Operating Costs					
Phase	Year 1	Year 2	Year 3	Year 4	Year 5
Phase 1	\$133,489	\$137,493	\$141,618	\$145,867	\$150,243
Phase 2			\$187,485	\$193,109	
Phase 3					\$198,097
5 Year Period Totals					\$1,287,402

Capital Costs					
Phase	Year 1	Year 2	Year 3	Year 4	Year 5
Phase 1	\$111,954	\$217,584	\$28,228	\$20,974	\$18,709
Phase 2			\$109,667	\$84,259	
Phase 3					\$48,225
5 Year Period Totals					\$639,599

Cost Summary					
Phase	Year 1	Year 2	Year 3	Year 4	Year 5
Phase 1	\$287,136	\$398,021	\$214,078	\$212,401	\$215,877
Phase 2			\$355,710	\$337,684	
Phase 3					\$307,921
5 Year Period Totals					\$2,328,828

#### 4 Bus Service Costs

Administration and Depreciation					
Phase	Year 1	Year 2	Year 3	Year 4	Year 5
Phase 1	\$41,693	\$42,944	\$44,232	\$45,559	\$46,926
Phase 2			\$117,117	\$120,630	
Phase 3					\$123,196
5 Year Period Totals					\$582,298

Operating Costs					
Phase	Year 1	Year 2	Year 3	Year 4	Year 5
Phase 1	\$133,489	\$137,493	\$141,618	\$145,867	\$150,243
Phase 2			\$374,970	\$386,219	
Phase 3					\$396,195
5 Year Period Totals					\$1,866,093

Capital Costs					
Phase	Year 1	Year 2	Year 3	Year 4	Year 5
Phase 1	\$111,954	\$220,397	\$32,915	\$25,802	\$23,661
Phase 2			\$357,801	\$89,087	
Phase 3					\$182,315
5 Year Period Totals					\$1,043,932

Cost Summary					
Phase	Year 1	Year 2	Year 3	Year 4	Year 5
Phase 1	\$287,136	\$400,835	\$218,765	\$217,228	\$220,830
Phase 2			\$849,888	\$595,936	
Phase 3					\$701,705
5 Year Period Totals					\$3,492,323

## 6 Bus Service Costs

Administration and Depreciation					
Phase	Year 1	Year 2	Year 3	Year 4	Year 5
Phase 1	\$41,693	\$42,944	\$44,232	\$45,559	\$46,926
Phase 2			\$175,675	\$180,945	
Phase 3					\$184,794
5 Year Period Totals					\$762,769

Operating Costs					
Phase	Year 1	Year 2	Year 3	Year 4	Year 5
Phase 1	\$133,489	\$137,493	\$141,618	\$145,867	\$150,243
Phase 2			\$562,455	\$579,328	
Phase 3					\$594,292
5 Year Period Totals					\$2,444,785

Capital Costs					
Phase	Year 1	Year 2	Year 3	Year 4	Year 5
Phase 1	\$111,954	\$220,397	\$37,602	\$30,630	\$28,613
Phase 2			\$605,936	\$93,915	
Phase 3					\$180,207
5 Year Period Totals					\$1,309,254

Cost Summary					
Phase	Year 1	Year 2	Year 3	Year 4	Year 5
Phase 1	\$287,136	\$400,835	\$223,452	\$222,056	\$225,782
Phase 2			\$1,344,066	\$854,188	
Phase 3					\$959,293
5 Year Period Totals					\$4,516,808