TRANSIT IMPLEMENTATION STUDY

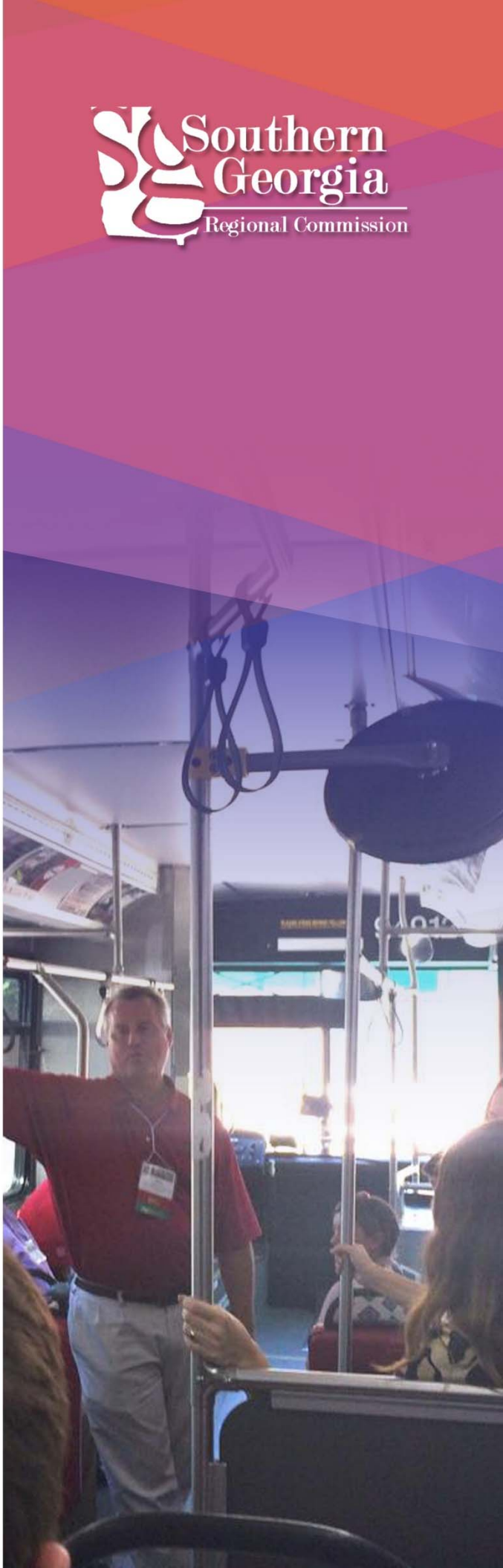
June 2016

Prepared for

Southern Georgia Regional Commission

Prepared by

Tindale Oliver



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SECTION 1: INTRODUCTION

Background and Purpose

The Valdosta-Lowndes County community has been talking about transit for several years. In 2006, the MPO conducted its first Transit Feasibility Study, but, to date, a fixed-route system has not been implemented in the local area. The primary goal of this study is to identify an innovative implementation plan that minimizes local funds needed to support day-to-day operations of a transit system for the local community and to assist the MPO in determining a mechanism to pay for the service.

At present, the local area is supported by MIDS Transportation, Inc. (MIDS), a demand-response service serving all members of the community. The service is available weekdays and is funded with federal and local funds. In addition to the MIDS service, the South Georgia Regional Commission (SGRC) is operating a free temporary pilot shuttle service funded through the Georgia Department of Human Services (DHS) Coordinated Transportation using §5317 New Freedom funds. The pilot provides two fixed-route shuttle routes operating from Monday through Saturday.

The study area includes all of Lowndes County, with a particular focus on the Urbanized Area, as shown in Map 1-1.

Note on Terminology

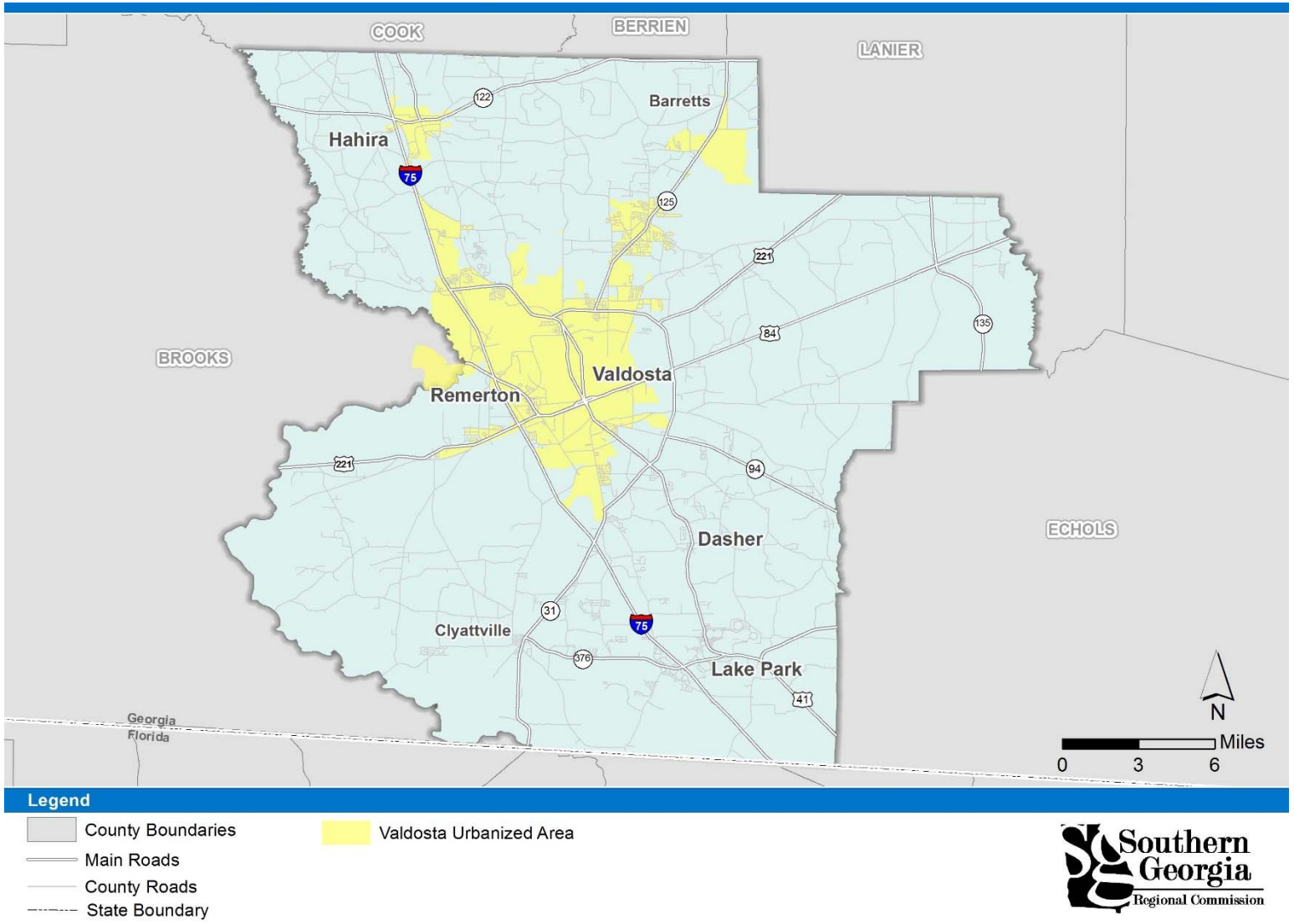
At the time of report production, collaborations between transit agencies and ridesourcing services (e.g., Uber, Lyft, etc.) were in their infancy. It appears that there are vast opportunities for collaboration between these services, but at this time, these collaborations are very much in the experimental phase. As with any developmental process, the language and vocabulary used for these services are also evolving. The term “mass transit” typically is not defined to include ridesourcing services, but for the purposes of this report, it should be noted that references to transit are inclusive of both the traditional modes (e.g., bus) and the newly-emerging mode, ridesourcing.

Report Structure

The document is organized into six major sections, including this introduction. The five remaining sections are as follows:

- Section 2, Existing Conditions
- Section 3, Public Involvement
- Section 4, Goals and Objectives
- Section 5, Alternatives
- Section 6, Recommendations

Map 1-1 Study Area



SECTION 2:
EXISTING CONDITIONS

This section provides an overview of the existing conditions in the Valdosta-Lowndes County MPO service area. First, a review was conducted of prior studies and reports that impact the environment in which transit services would operate. In addition, a review of the current transit services being offered in the local community is provided.

Plan Review

The following plan review was conducted to review previous related efforts on this topic. Conclusions that can be drawn from the plan review include the following:

- Significant efforts have been made in the past to implement transit. It is important that this study identify a means to truly meet the needs of the community and identify a funding source and champion to make it happen.
- The community has shown an interest in improving connectivity generally by improving pedestrian, bicycle, and transit infrastructure and services.
- It is anticipated that transit demand will be higher in Valdosta than in Lowndes County generally.

Given previous efforts, the MPO has indicated that this study needs to find an innovative solution to the transportation needs of the Valdosta-Lowndes County community. Previous traditional solutions have not been successfully implemented to date.

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Table 2-1 Plan Review

Plan/Program/Study Reviewed	Plan/Program Details			Plan/Program Overview	Key Considerations for the Situation Appraisal
	Geographic Applicability	Most Recent Update	Responsible Agency		
Transit Feasibility Study	Lowndes County	2006	Valdosta-Lowndes MPO	Determines need and demand for transit in greater Lowndes area and provides service alternatives and recommendations to MPO	• Highest potential transit zones found concentrated in Valdosta. • Most feasible service is fixed-route transit service using hub-and-spoke model, with downtown Valdosta as hub.
Valdosta-Lowndes Bicycle and Pedestrian Master Plan	Lowndes County	2007	Valdosta-Lowndes MPO	Plan that primarily promotes bicycle and pedestrian safety for Lowndes County and surrounding areas	• Established goal to improve connections between logical destinations and walkable areas (Goal B). • Goal of revising local regulations to require pedestrian infrastructure and accessibility also established (Goal E). • Recommends multiple land development code modifications to improve design and increase likelihood of desired outcomes of plan.
Greater Lowndes 2030 Comprehensive Plan	Lowndes County	2009	Lowndes County	Planning document for Lowndes County and cities of Valdosta, Hahira, Lake Park, Dasher, and Remerton to guide development, land use decisions, preservation, and transportation improvements	• Goal to promote efficient use of infrastructure and transportation facilities to ensure communities anticipated growth established. • Goal to encourage coordination of land use and transportation planning to support sustainable economic development, protection of natural resources, and provision of adequate and affordable housing established. • Update to be completed in October 2016
Transit Development and Implementation Plan for Valdosta Urbanized Area	City of Valdosta	2009	Valdosta-Lowndes MPO	Outlines proposed transit service options and concepts for Valdosta Urbanized Area transit implementation	• Fixed-route service with five routes and transit center located on Pendleton Drive between Valdosta State University north campus and South Georgia Medical Center.
Transit Development and Implementation Plan for Valdosta Urbanized Area: Service Delivery Options	City of Valdosta	2009	Valdosta-Lowndes MPO	Provides overview of key elements associated with managing a transit system and presents options for how City can govern and deliver the transit service	• Three basic areas of responsibility applicable to Valdosta system: 1) Finance and Administration, 2) Planning and Marketing, 3) Operations; should be coordinated by a transit manager. • Recommends city-based governance system. • MPO variant of Municipal Department governance selected to oversee transit service, and turnkey operating model will be used.
Downtown Valdosta Master Plan	City of Valdosta	2010	City of Valdosta	Establishes a vision for downtown sustainability and growth	• Mobility issues addressed in plan. • Enhancing walkable design of downtown street system. • Increasing accessibility to parking. • Mitigating effects of truck circulation.
Human Services Transportation Plan	State	2011	Georgia Dept. of Transportation/ Georgia Dept. of Human Resources	Coordination of two state agencies to identify transportation needs of individuals with disabilities, older adults, and people with low incomes and to provide strategies for meeting these needs	• Goal to improve accessibility and mobility for transportation disadvantaged target groups is established for region including Lowndes County • Plan also identified goal to increase local interest and involvement in public transit programs

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Table 2-1 Plan Review (cont.)

Plan/Program/Study Reviewed	Plan/Program Details			Plan/Program Overview	Key Considerations for the Situation Appraisal
	Geographic Applicability	Most Recent Update	Responsible Agency		
Public Transportation Funding Plan	Lowndes County	2011	Valdosta-Lowndes MPO	Funding plan for construction and operation of Valdosta-Lowndes County Transit System project	• Concludes recommended hotel/motel and alcohol tax and Transportation Investment Act of 2010 are sufficient to fund transit project. Project can be built, operated, and maintained with 20-year sales tax measure with updated cost information.
Valdosta-Lowndes 2030 Long Range Transportation Plan: Report of Accomplishments	Lowndes County	2013	Valdosta-Lowndes MPO	Assesses Goals and Objectives from 2030 LRTP	• MPO completed transit study for urban fixed-route service in Valdosta Urban area (Goal 3); funding source not identified.
A Common Community Vision for Greater Lowndes County	Lowndes County	2014	Valdosta-Lowndes MPO	Reviews more than 20 local planning efforts that occurred between 2013 and 2015 to identify common visions and goals for community	• Goal established (Goal 3) to develop basic transportation and utility infrastructure (roads, public transit, etc.) that promotes economic development and private sector investment. • Goal 18 established to provide regional connectivity to global economic opportunities through an efficient, safe, accessible, and affordable multi-modal transportation system.
2040 Transportation Vision Plan	Valdosta Urbanized Area	2015	Valdosta-Lowndes MPO	Vision for transportation infrastructure investment for Valdosta Metropolitan Region for next 25 years	• Strategy to provide affordable and accessible multi-modal transportation system established. • Public input reveals a significant level of interest in a multi-modal transportation system in Valdosta and in Lowndes County.
A Common Community Vision for Greater Lowndes County: Report of Accomplishments	Lowndes County	2015	Southern Georgia Regional Commission	One-year report highlighting accomplishments toward achieving Common Community Vision	• City of Valdosta and Lowndes County made efforts to maintain and upgrade roadways (Goal 3). • Several organizations working to continue to keep Valdosta's regional transportation opportunities competitive (Goal 18).
Report on Key Indicators for Establishing Environmental Justice (EJ) in Transportation Planning in Lowndes County	Lowndes County	2015	Valdosta-Lowndes MPO/Valdosta State University	Examines EJ indicators (minority, older-adult, low-income, non-English-speaking populations; vehicle access; educational attainment, single-mother households) throughout Lowndes County to find areas with significant overlap of disadvantaged populations	• Report concludes that census tracts 105, 108, and 110 in Lowndes County exhibit high concentrations of disadvantaged populations and will need to be sought out for public involvement process to ensure fair participation and inclusion.
Valdosta-Lowndes MPO Participation Plan	Lowndes County	2015	Valdosta-Lowndes MPO	Outlines how MPO will engage public in transportation planning process	• Strategies include raising public awareness through newsletters and other media, providing public with opportunities for involvement through public meetings and surveys. • Special outreach and accessible public meetings will occur in traditionally underserved communities.
Valdosta State University Master Plan	Valdosta State University	2015	Valdosta State University	Provides detailed guidelines for physical development of campus	• Campus shuttle system is only regular transit service in Valdosta. • Two shuttle routes run Monday–Friday until 11 PM, night shuttle operates seven days a week. • Plan seeks to enhance quality of pedestrian, bicycle, automobile, shuttle circulation between Main Campus and other parts of VSU.

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Current Transit Service

At present, there are two transit options provided in Valdosta: MIDS demand-response service and two new pilot shuttles.

MIDS Demand-Response Service

At present, Lowndes County operates MIDS, a demand-response service serving all members of the community. It operates Monday through Friday from 7:30 AM to 5:30 PM in Lowndes County and the surrounding areas.

The service is funded through Federal Transit Administration (FTA) Formula Grant funds for Non-Urbanized Areas. The operating budget for FY 2016 was $553,000, with an estimated $55,000 in fare revenue. The operating budget minus fare revenue was funded equally through federal and local funds (i.e., purchase of service revenue). No State funds were used for operating purposes. The average operating cost per one-way passenger trip was calculated to be approximately $14 (based on fully-allocated operating costs for FY 2017 in the Lowndes County 5311 Program Application). MIDS provides more than 39,000 one-way trips per year to the local Valdosta-Lowndes County community.

Due to the Valdosta-Lowndes County area no longer being considered rural under federal guidelines, the community budget for the MIDS service will be only $333,000 for operating in FY 2017.

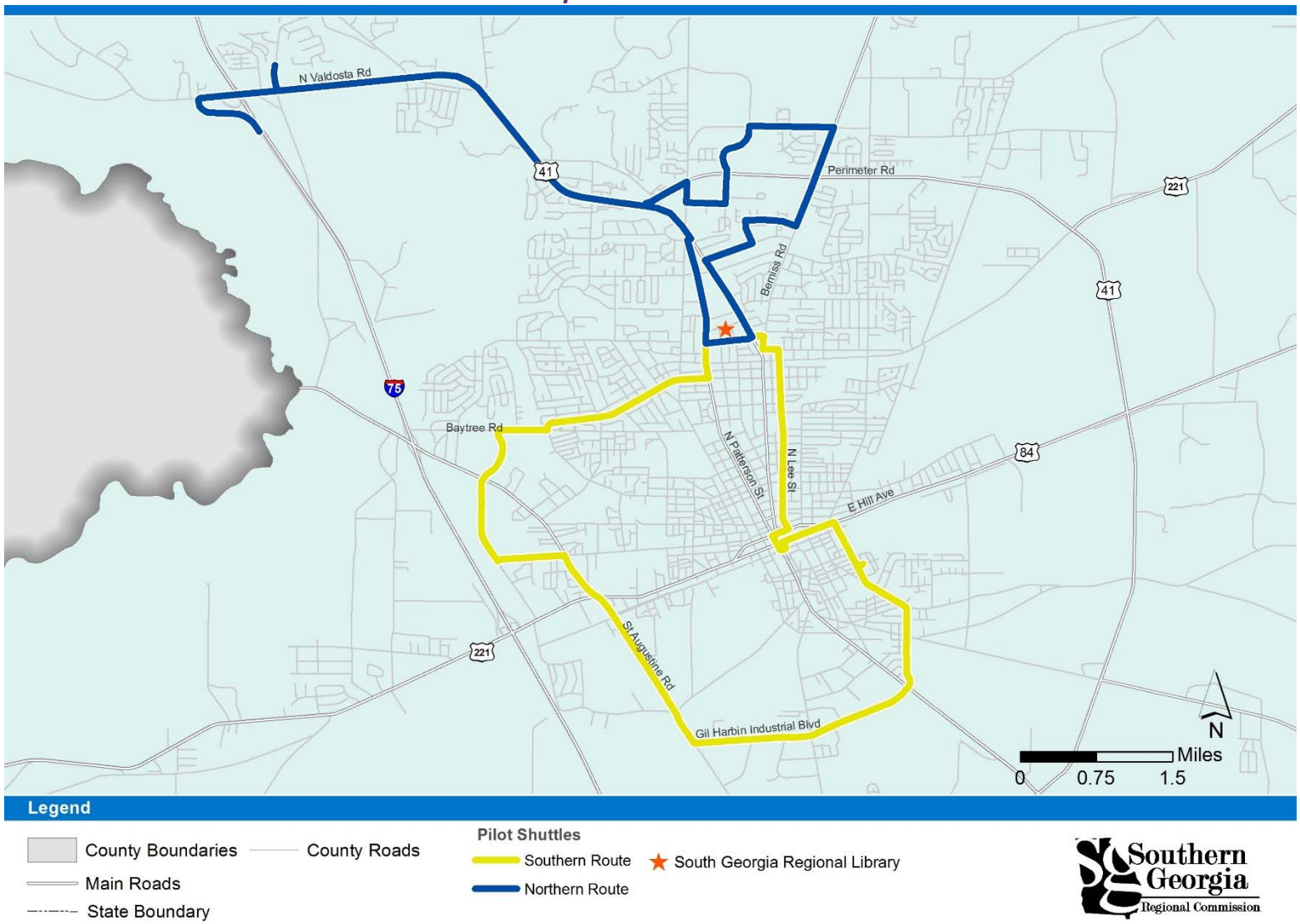
Of the 39,000 trips provided in FY 2015, approximately 29 percent of trips provided were for employment purposes and 20 percent were for educational purposes. Other trip purposes included 21 percent for medical purposes, 14 percent for social/recreational, 10 percent for nutritional purposes, and six percent for shopping/personal purposes.

Pilot Shuttles

In addition to the MIDS service, the SGRC operates a free temporary pilot shuttle service that provides two fixed-route shuttle routes operating from 7:00 AM to 6:00 PM Monday through Friday. On Saturdays, the shuttle provides service from 8:00 AM to 5:00 PM. The first route began operations in October 2015 and serves downtown Valdosta, the Ora Lee West Housing Development, the Mildred M Hunter Community Center, and other locations. In March 2016, a second route was added to serve the Veterans Affairs Clinic, eLead/Fresh Beginnings, Wiregrass Georgia Technical College, Walmart, Publix, and Azalea Towers. The two routes meet at the South Georgia Regional Library to facilitate transfers. Both shuttle routes are shown in Map 2-1.

Ridership on the shuttles has steadily increased since inception. The average daily ridership on Southern Route increased between November 2015 and April 2016 by more than 100 percent. Table 2-2 shows the ridership growth that has occurred on the Southern Route between November 2015 and April 2016. Map 2-2 shows the ridership by stop location on Southern Route. Popular origins and destinations in order of greatest number of boardings and alightings were the Mildred M Hunter Community Center, the intersection of Lee and Ann Streets (Ora Lee West Community Center), the South Georgia Regional Library, and Walmart. Map 2-3 shows the total ridership for March and April 2016 on the Northern Route. Ridership is strongest at the SGMC Library and Azalea Towers.

Map 2-1 Pilot Shuttles



Map 2-2 Ridership on Southern Route

Map 2-3 Ridership on Northern Route

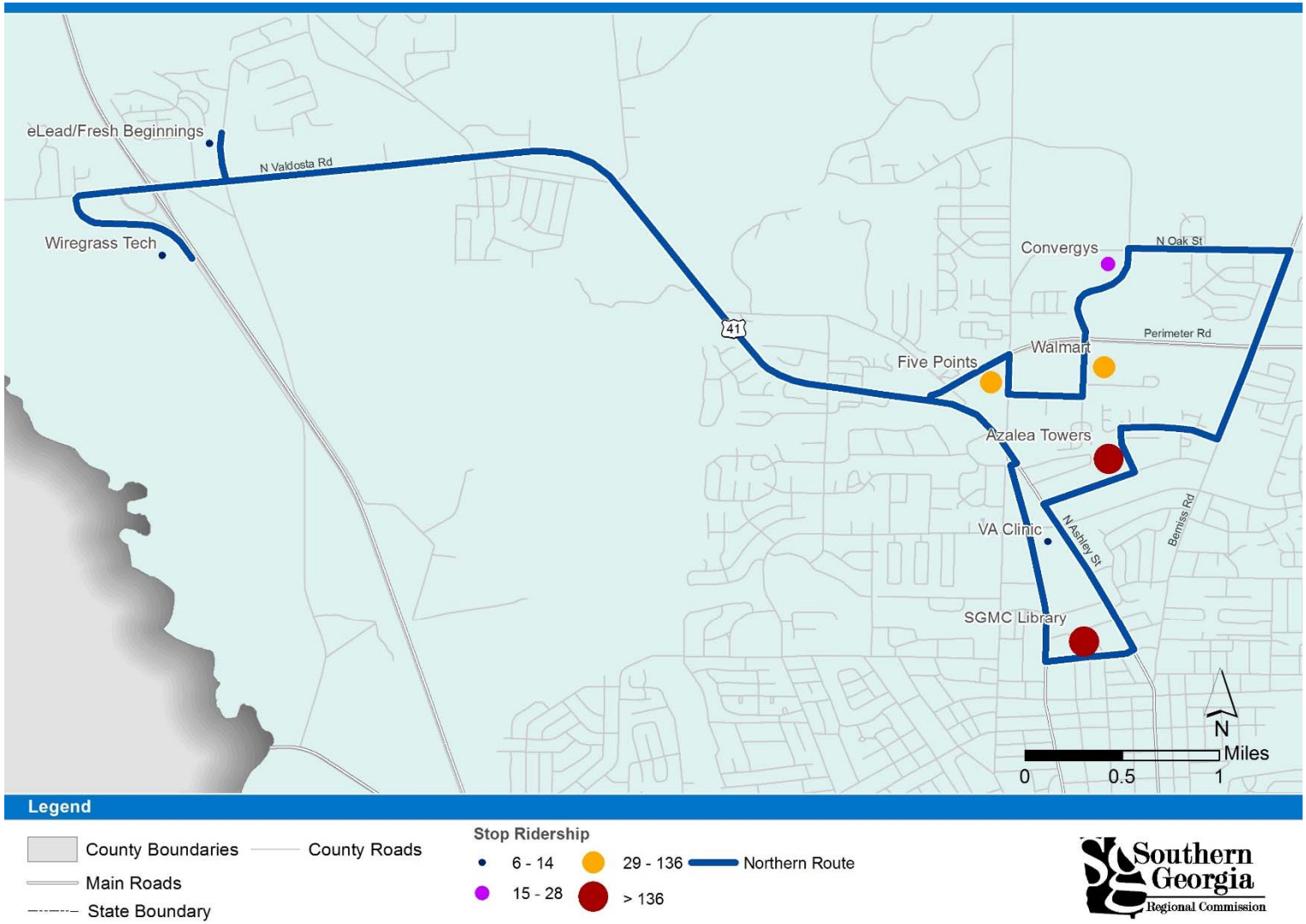


Table 2-2 Pilot Shuttle Ridership, Southern Route

Month	Average Daily Ridership	Percent Change
April 2016	21.73	36.2%
March 2016	15.96	6.8%
February 2016	14.94	10.7%
January 2016	13.50	7.3%
December 2015	12.58	17.9%
November 2015	10.67	

Source: South Georgia Regional Commission

Traditional Transit Market

The traditional transit market refers to population segments that historically have a higher propensity to use transit or depend on transit for their transportation needs. For some individuals, their ability to drive is greatly diminished with age, and they must rely on others for their transportation needs. Likewise, younger persons not yet of driving age but who need to travel to school, employment, or for leisure may rely more on public transportation. For lower-income households, transportation costs are particularly burdensome, as a greater proportion of income is used for transportation-related expenses than it is for higher-income households. Households with restricted income, particularly those with no private vehicle, are more likely to rely on public transportation for travel. Therefore, traditional transit users include older adults, youth, and households that are low-income and/or have zero vehicles.

A Transit Orientation Index (TOI) assists in identifying areas of the community where a traditional transit market exists, that is, residents who are more likely to use transit. To create the TOI, five-year demographic data estimates from the 2013 American Community Survey (ACS) were analyzed at the census block group level (the most detailed level of data available from ACS) for the following demographic and economic variables:

- Population age 65 and over (older adults)
- Population under age 15 (youth)
- Population living below the poverty level ($25,000 or less annual income for a four-person household)
- Households with no vehicles available (zero-vehicle households)

The ACS data layers were overlaid to develop a composite ranking for each census block group of “Very High,” “High,” “Medium,” and “Low,” with respect to the level of transit orientation. The areas that ranked “Very High” reflect a very high transit orientation, i.e., a high proportion of transit-dependent populations, and those ranked “Low” indicate much lower proportions of transit-dependent populations.

Block groups with population densities of fewer than 100 people per square mile were automatically considered to have "Low" transit orientation due to the low-density nature of the block group. Although the members of a block group may individually have characteristics suggesting they are more likely to use transit, block groups with low densities generally cannot support fixed-route transit operations and, therefore, were not included in the areas considered to have high transit orientation.

Map 2-4 displays the TOI analysis. When developing a transit system, it will be important to consider these areas in particular for service. Within Valdosta and the surrounding area, two clusters of census block groups stand out as having "Very High" and "High" transit orientation. These areas are labeled on Map 2-4 and further described below:

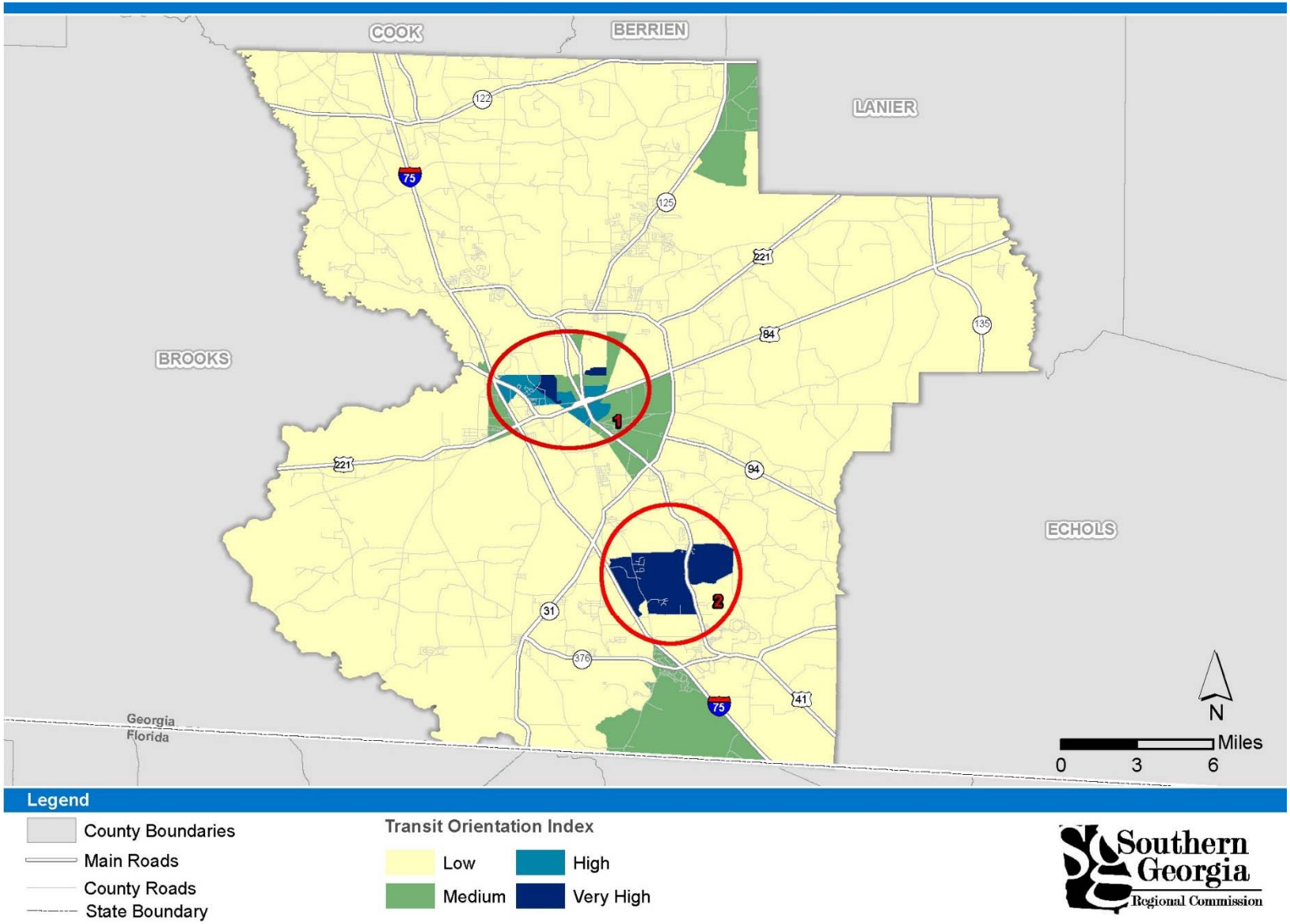
- *Cluster 1* – This cluster of census block groups is in Valdosta and consists of six block groups with "High" transit orientation and two block groups with "Very High" transit orientation. Most of the block groups reflect a high prevalence of below-poverty-level households and zero-vehicle households, and the "Very High" block groups also reflect a high prevalence of youth.
- *Cluster 2* – This large block group is in a rural part of the southeast portion of the county. The block group ranks "Very High" in terms of transit orientation. Of the 899 people living in this block group, 31 percent are age 60 or older.

Although factors such as distance from the core, limited resources, relative magnitude of population, and travel patterns may lead to a decision against service in these areas, they should be considered for service. If not served by the initial transit system, it may be necessary to include them in future expansion of the system.

Discretionary Transit Market

A discretionary transit market refers to potential riders living or working in higher-density areas of Lowndes County who may choose to use transit, if available, as a commuting or transportation alternative. A Density Threshold Assessment (DTA) was conducted based on industry-standard relationships between transit levels and dwelling unit/employment densities to identify the areas of the study area that are currently experiencing or are projected to experience transit-supportive residential and employee density levels in the future. Both existing (2016) and future (2040) dwelling unit and employment socioeconomic data obtained from the Valdosta-Lowndes County MPO were used to conduct the DTA. The geographic unit in which the model data are analyzed and presented is a Traffic Analysis Zone (TAZ).

Map 2-4 Transit Orientation Index



Three density thresholds were developed to indicate whether an area contains sufficient density to sustain some level of fixed-route transit operations:

- Minimum – reflects minimum dwelling unit or employment densities to consider basic fixed-route transit services (i.e., local fixed-route bus service).
- High – reflects increased dwelling unit or employment densities that may be able to support higher levels of transit investment (i.e., increased frequencies, express bus) than areas meeting only the minimum density threshold.
- Very High – reflects very high dwelling unit or employment densities that may be able to support higher levels of transit investment (i.e., premium transit services, etc.) than areas meeting the minimum or high density thresholds.

Table 2-2 presents the dwelling unit and employment density thresholds associated with each threshold of transit investment.

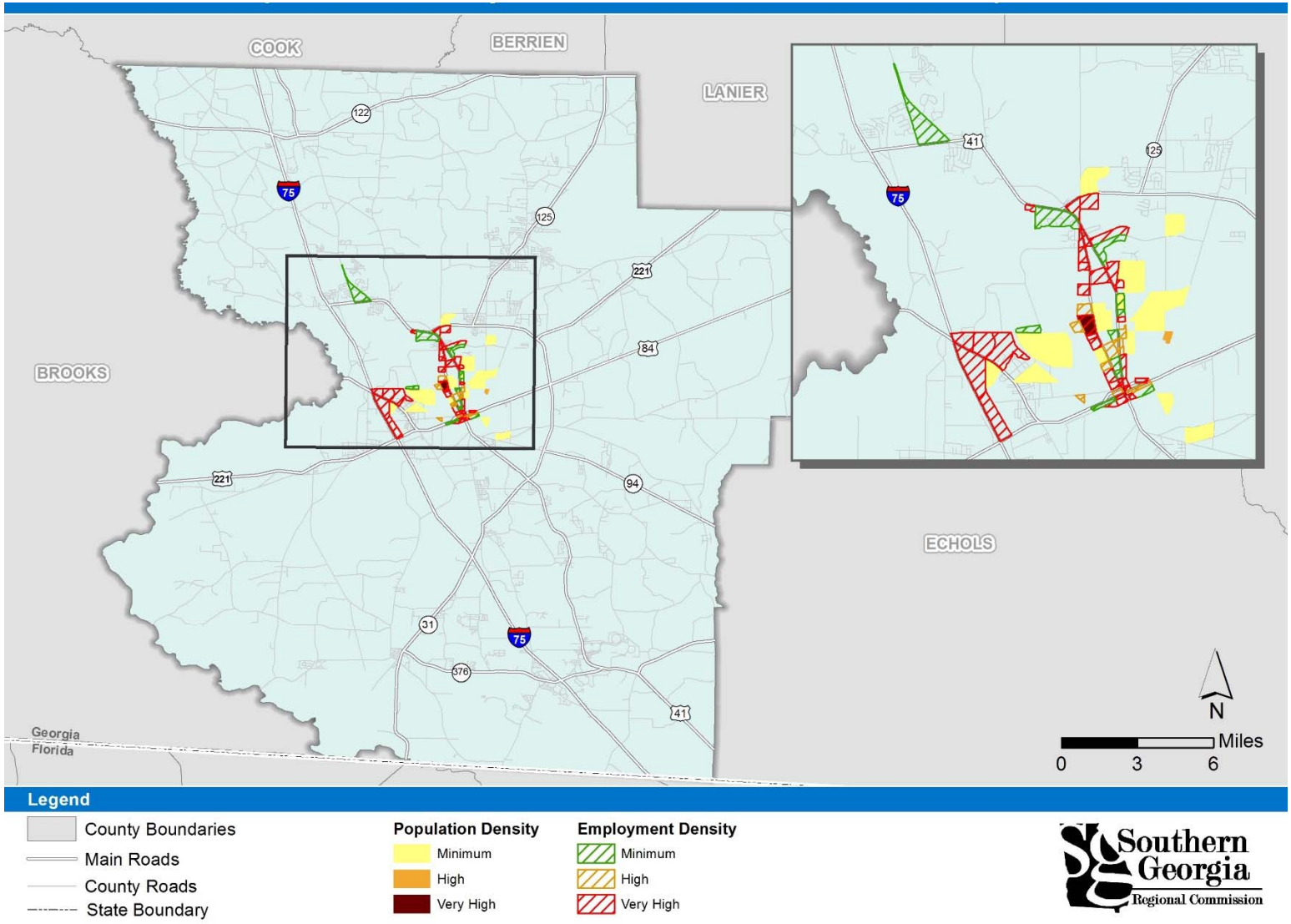
Table 2-3 Transit Service Density

Transit Investment	Population Density Threshold	Employment Density Threshold
Minimum	3–5 dwelling units/acre	4 employees/acre
High	6–7 dwelling units/acre	5–6 employees/acre
Very High	≥8 dwelling units/acre	≥7 employees/acre

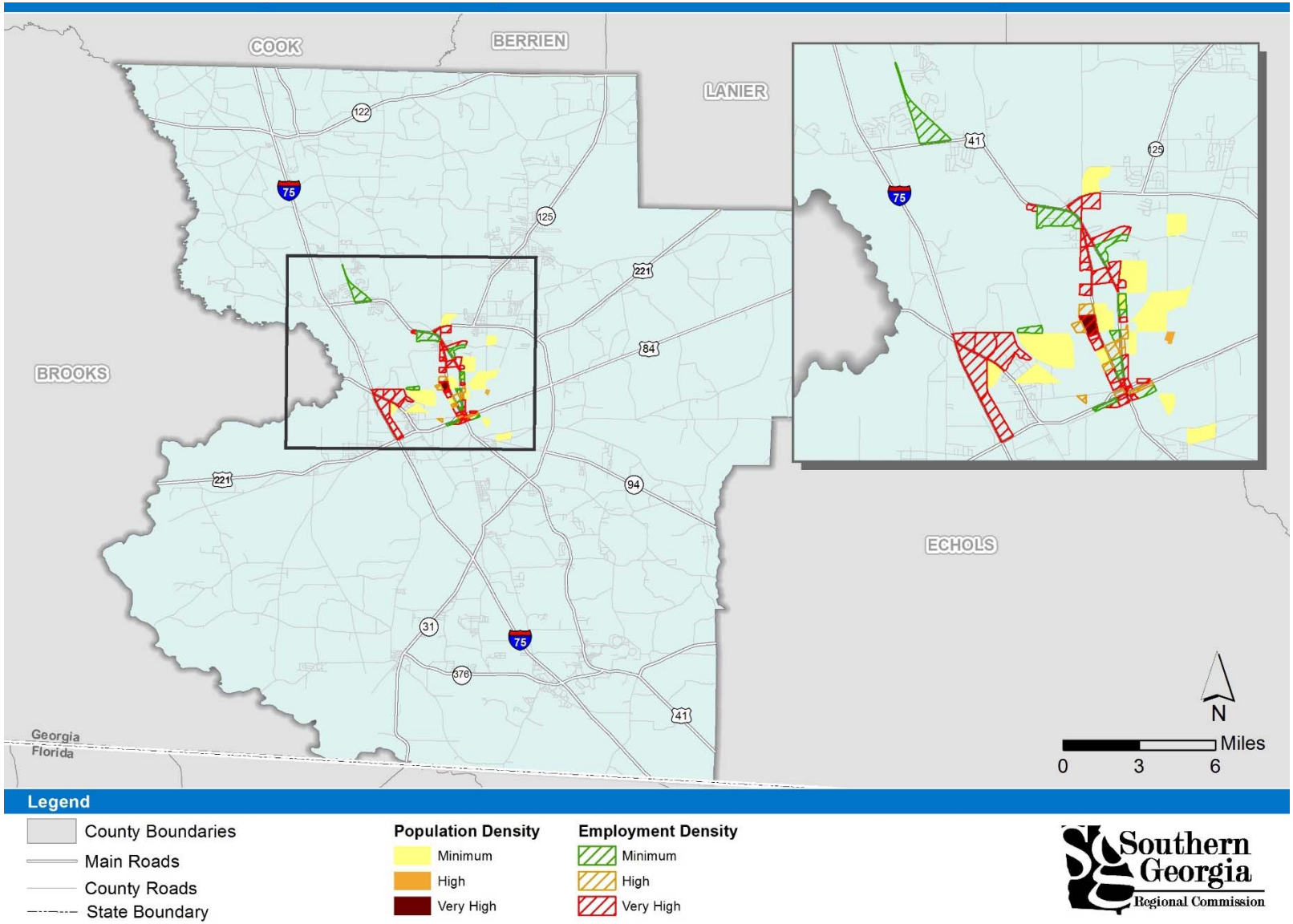
Sources: TRB, National Research Council, TCRP Report 16, Volume 1 (1996), *Transit and Land Use Form,* November 2002, MTC Resolution 3434, TOD Policy for Regional Transit Expansion Projects; TCRP Report 165, *Transit Capacity and Quality of Service Manual*, Third Edition (2013); based on a review of research on the relationship between transit technology and employment densities.

Maps 2-5 and 2-6 illustrate the results of 2016 and 2040 DTA analyses conducted for Lowndes County, identifying areas within the Valdosta Urbanized Area that could support different levels of transit investment based on existing and projected dwelling unit and employment densities. As shown in these maps, significant increases in residential or employment densities between now and 2040 are not expected. For both timeframes, population densities are very high in the vicinity of Valdosta State University and minimal population densities are found elsewhere. The majority of the employment densities are very high east of I-75/north of US 221 at the Valdosta Mall and surrounding retail stores and shopping centers in this area. Other areas of very high and high employment densities are within downtown Valdosta and north along the major commercial corridors of North Patterson Street and the US 41 Business Route.

Map 2-5 Density Threshold Assessment (2016)



Map 2-6 Density Threshold Analysis (2040)



Activity Centers

With the assistance of Valdosta-Lowndes County MPO staff and community stakeholders, activity centers around the community were identified. Activity centers included origins (locations where people begin their trips) and destinations (locations where people end their trips). Activity centers are identified in Map 2-3 for Lowndes County and Map 2-4 for Valdosta.

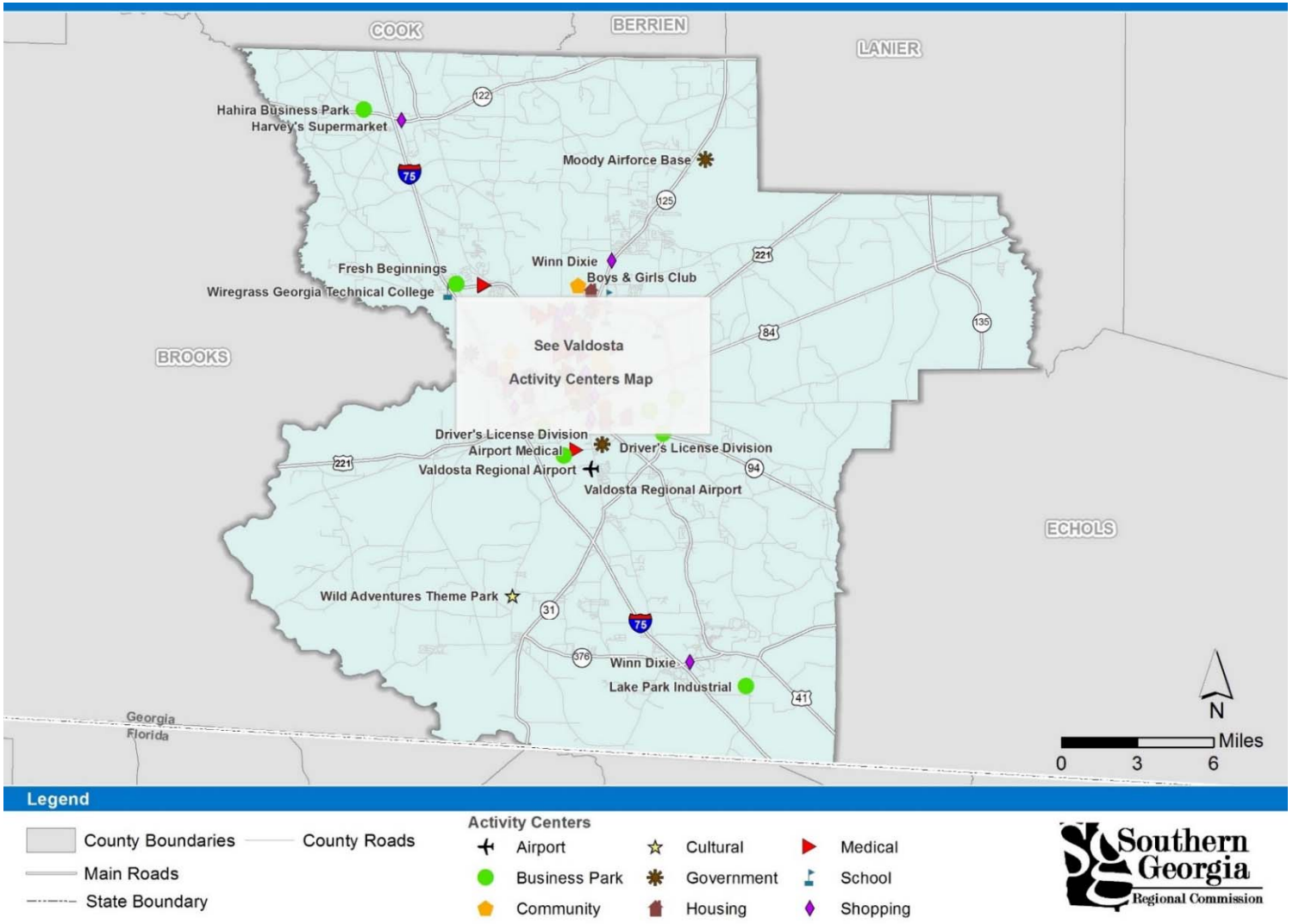
The identification of activity centers assists in transit planning activities, as transit services are designed to serve these origins and destinations. To further assist with this analysis, activity centers were grouped into three categories: Neighborhood, Community, and Regional. These groupings were based on area of influence for the activity center. For example, a business park draws people from a greater area than a grocery store. In our analysis, a business park would be categorized as a Community activity center, whereas a grocery store would be categorized as a Neighborhood activity center.

Based on these categories, buffers were drawn around each activity center—a ¼-mile buffer for the Neighborhood activity centers, a ½-mile buffer for the Community activity centers, and the entire county boundary for the regional activity centers. The relative populations served for each activity center was calculated and scaled on Map 2-5.

The following activity centers are described in greater detail as they are larger institutions that require a more in-depth understanding in order to serve them.

- **Valdosta State University (VSU):** Focusing on undergraduate degree programs, VSU has approximately 11,500 students. Majors include business, education, communication, English, health professions, history, library science, math, and mechanic and repair technology, psychology, public administration, social sciences, and visual and performing arts. The campus is divided into two parts with the majority of offerings and administration buildings on the main campus and Business and Nursing on the northern campus.
- **Wiregrass Georgia Technical College**: Specializing in Associate's degrees, Wiregrass Georgia Technical College has approximately 5,000 students, about half of which are full-time. Degree programs include automobile repair, business and management, communications, homeland security, paralegal, culinary services, visual and performing arts, and health care professions. Classes are in longer blocks, ranging from 2–8 hours, and include morning (8:00 AM to noon), afternoon (1:00–5:00 pm), and evening (5:00–10:00 PM).
- **South Georgia Medical Center (SGMC)**: Boasting the South Georgia Health System's largest and most advanced hospital, SGMC offers services related to strokes, cancer, pregnancy, heart attacks, and physical/occupational therapies. The hospital has more than 400 beds, more than 300 affiliated physicians, and 2,600 employees and admits more than 17,000 patients per year.

Map 2-7 Lowndes County Activity Centers



Map 2-8 City of Valdosta Area Activity Centers

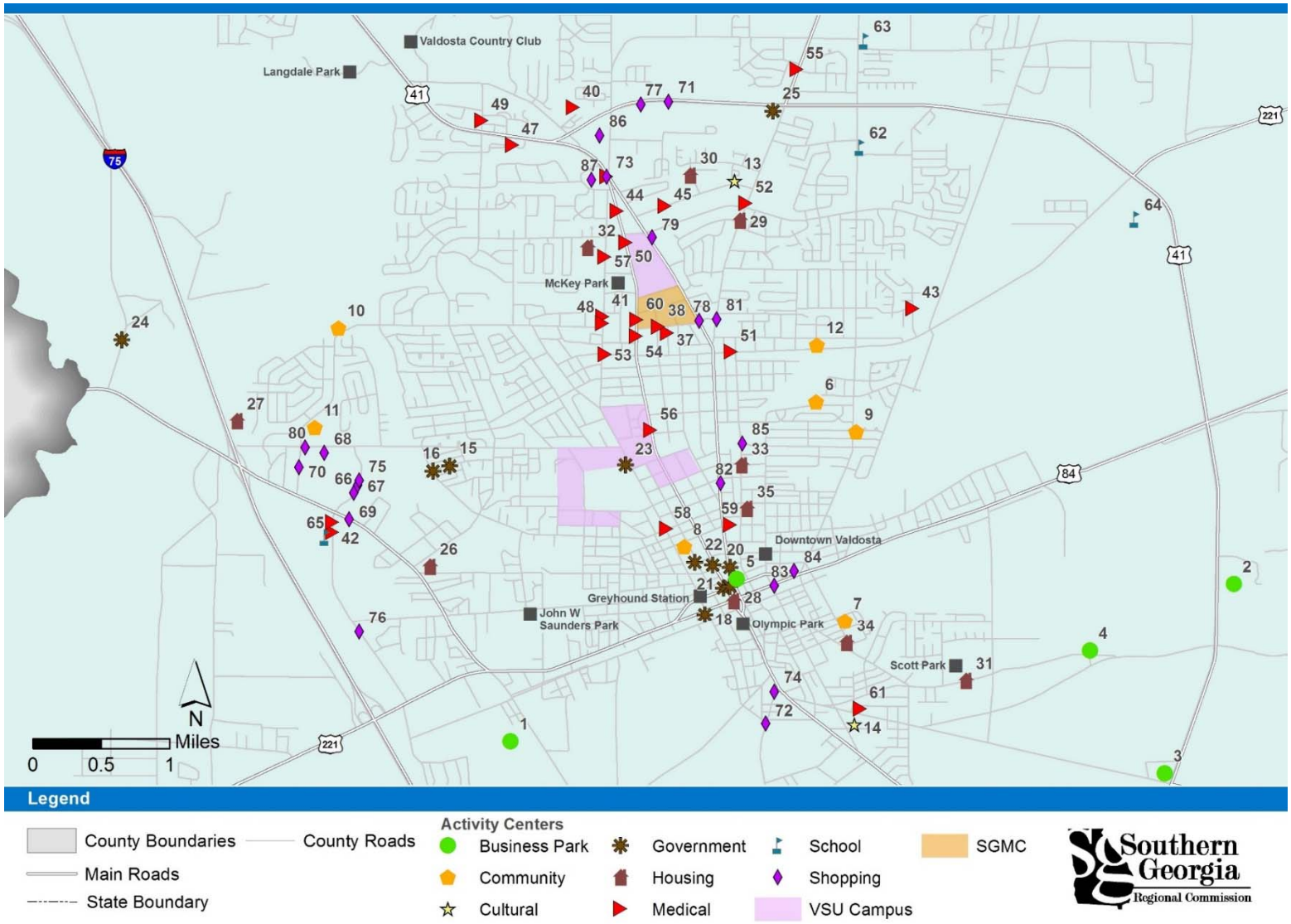
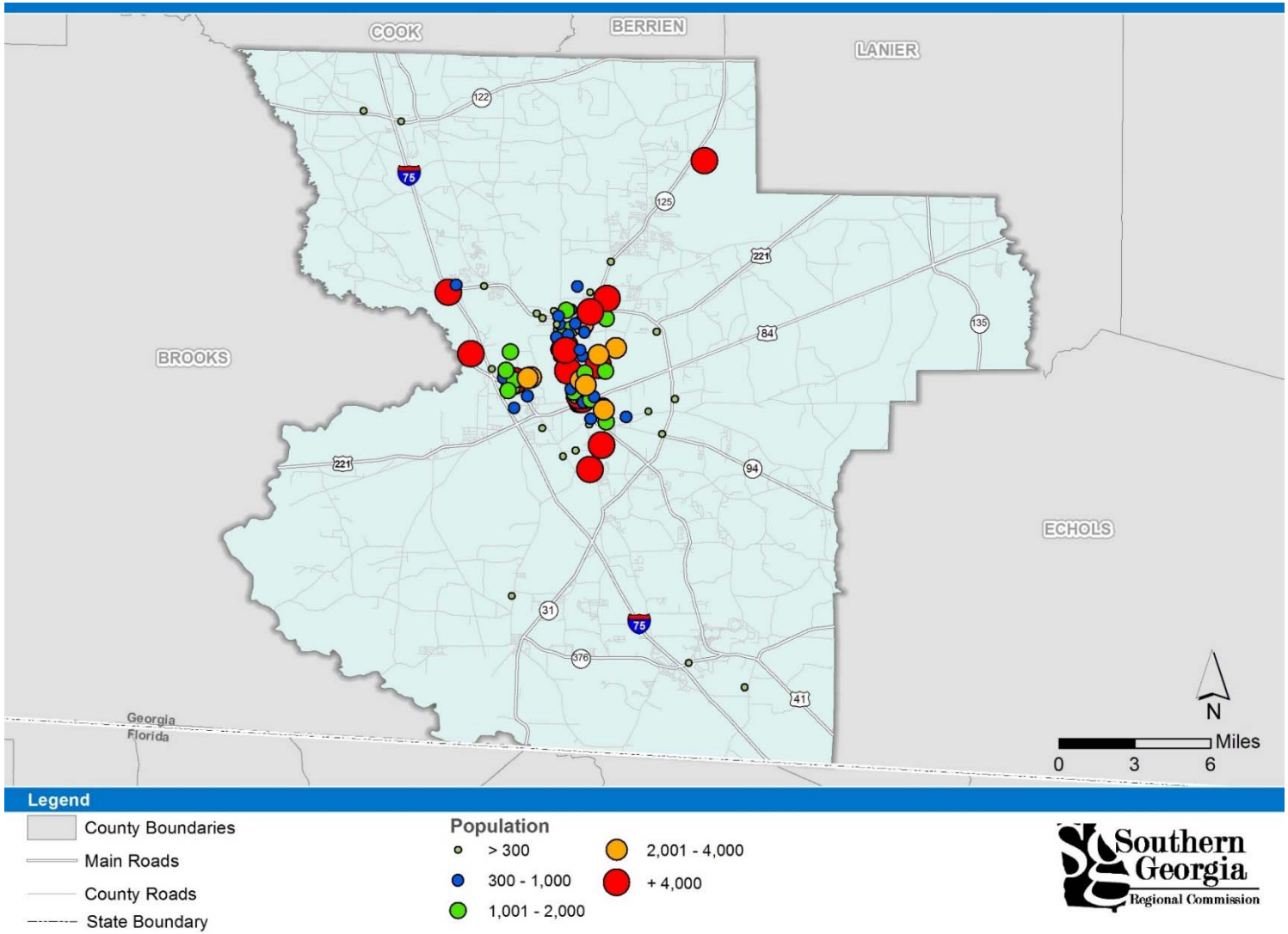


Table 2-4 Activity Center List

Activity Center Type	Map ID	Name
Business Park	1	Westside Business Park
	2	Perimeter East Industrial Park
	3	Miller Business Park
	4	Bassford Business Park
	5	Azalea West Business Park
Community	6	Vallotton Park
	7	Mildred M Hunter Community Center
	8	Boys & Girls Club
	9	Woodlawn Senior Center
	10	YMCA - Gornto
	11	Wood Valley Community Center
	12	Valdosta Senior Community Center
Cultural	13	South Georgia Regional Library (Future Location)
	14	Southside Library
Government	15	City of Remerton
	16	Remerton City Municipal Court
	17	Lowndes County Probate Court
	18	Valdosta City Municipal Court
	19	Superior Court Clerk
	20	Lowndes County Clerk
	21	US District Court Clerk
	22	Valdosta Police Department
	23	University Police
	24	Valdosta State Prison
	25	Social Security Admin
Housing	26	Blanton Commons
	27	The Grove
	28	Ashley House Apts
	29	Ashton Meadows
	30	Azalea Towers
	31	Brittandy Woods Apartments
	32	Langdale Place
	33	Valdosta Housing Authority
	34	Hudson-Dockett Homes
	35	Leila Ellis Center
Medical	36	Healthsource Medical Clinic
	37	Medical Center Pharmacy
	38	Choice Family Medicine
	39	AppleCare Valdosta
	40	Greystone Medical Clinic
	41	Valdosta Specialty Clinic
	42	Medmax Medical Center
	43	GreenLeaf Mental Clinic
	44	SGMC Medical Clinic

Activity Center Type	Map ID	Name
Medical	45	South Georgia Medical Associates
	46	Valdosta Community Outpatient Clinic
	47	Parrott Medical Clinic
	48	Valdosta Family Medicine
	49	Valdosta Medical Clinic
	50	VA Valdosta Clinic
	51	Valdosta Women's Health Center
	52	Comprehensive Women's Health
	53	Options Now Pregnancy Center
	54	Azalea Women's Center
	55	Valdosta Health and Wellness Clinic
	56	Family Works Counseling
	57	North Oak Ambulatory Surgery Center
	58	Rite Aid
	59	Medicine Shoppe
	60	Lowndes County Health Dept
	61	SGMC Healthcare South
School	62	Valdosta High School
	63	Georgia Military College
	64	Future High School (2018)
	65	Lowndes HS
	66	Promenade Shopping Plaza
Shopping	67	Valdosta Mall
	68	Sugar Creek Plaza
	69	Publix Supermarket
	70	Valdosta Mall Corner
	71	Publix Supermarket
	72	Winn Dixie
	73	Winn Dixie
	74	Save-A-Lot
	75	Target
	76	Walmart
	77	Walmart
	78	CVS
	79	Walgreens
	80	Walgreens
	81	Piggly Wiggly (coming soon)
	82	Salvation Army
	83	South GA Pecan Co
	84	Family Dollar
	85	IGA
	86	Boot Barn
	87	Bealls Outlet

Map 2-9 Activity Center Area of Influence



Current Transportation Options

The Valdosta-Lowndes County community has limited options for transportation other than the private automobile. The area benefits from a demand-response service operated by MIDS. Any resident may use MIDS by making a reservation at least 24 hours in advance. Passengers pay a $3.00 one-way fare for any trip up to 10 miles; after 10 miles, passengers pay $0.50 per mile. Service is offered weekdays from 7:30 AM to 5:30 PM. Passengers travel in 15-passenger vans with professional drivers. Currently, funding for MIDS is subsidized by FTA §5311 funds, which provide funding for capital, operating, and administrative uses in rural areas. FTA §5310 funds are used to fund MIDS trips for older adults age 60 and older. Other funding sources coming through the Department of Human Services also support the MIDS service.

In addition to MIDS, VSU operates two free transit shuttles that provide service between its two campuses. The shuttles run from 7:30 AM to 11:00 PM Monday through Friday. In addition, the Blazer Night Shuttle (requires student ID) operates from 11:00 PM to 3:00 AM Monday through Sunday. On Thursdays, the service goes to the Valdosta Mall and Walmart twice in the afternoon.

In addition to these services, a few private taxi providers operate in the community. At present, no ridesourcing companies operate in the Valdosta-Lowndes County community.

Economic Impact of Transit

An understanding of the general economic benefits of transit service implementation is important for assessing the need for transit in Valdosta. This section provides a general overview of the potential economic impacts of transit organized by the following broad categories:

- Economic growth
- Safety
- Environmental benefits

Transit also creates connections between the community and grocery stores, medical services, banking, shopping, and other services that improve the quality of life and increase economic activity.

The following discussion focuses on the economic impacts of traditional transit services, as those are well-documented and studied. To the extent that other options such as ridesourcing services support the use of transit, those services also provide economic impacts for communities.

Economic Growth

Investments in public transit affect economic growth through investment impacts, travel reliability, and cost and time savings. Economic growth occurs as a result of increases in wages and spending, improved access to jobs, re-allocation of household resources from transportation to other goods and services, and increased business productivity. Of course, economic growth potential is proportionate to investment such that a smaller investment leads to less economic growth. For the level of investment

likely to be made in a small urban area such as the Valdosta-Lowndes County community, the economic development potential will be smaller than a larger area such as Atlanta.

Investment Impacts

Investment in transit generates short- and long-term job growth in the community through capital investments and ongoing operations and maintenance spending. Capital investments create short-term jobs as bus shelters and maintenance facilities are built. In contrast, public transit operations investments impact economic growth over the long term, as these jobs and supply purchases are ongoing over the life of the system.

Direct effects of capital investment in public transportation are the spending on new equipment and wages of construction workers during system start-up. The direct effects of capital purchases and construction jobs are likely to be limited in the Valdosta region, because the vehicles will likely be manufactured elsewhere and the proposed system will not require stations or large park-and-ride lots. However, capital funds expended on storage and maintenance facilities needed for the proposed transit service would provide some short-term construction jobs.

Supplies purchased to operate and repair vehicles and wages of transit system workers are direct effects of operations and maintenance investments in public transit. Direct effects of ongoing operations and maintenance jobs, such as drivers, maintenance workers, and administrative and management staff as well as purchases of supplies, will likely be limited due to the size of the system.

Indirect effects of an investment in public transit are the jobs in supplier industries that flow from both capital and ongoing purchases that support system operations and maintenance. Examples of capital investments include vehicles, shelters, and parking facilities. Examples of supplies for ongoing operations and maintenance are fuel, tires, and replacement parts.

Finally, the induced effects of transit investment contribute to additional regional business growth, as spending by construction and public transit operations workers can lead to further retail sales at area businesses.

Travel Reliability

Public transit services can increase transportation system reliability for all users by reducing roadway congestion. For workers with older vehicles prone to breakdowns or no vehicle at all, transit provides a reliable way to get to work and can help to fill jobs employers have long advertised and reduce overall unemployment. Combined, these two factors provide economic benefits by increasing predictability of worker and freight arrivals, which allows businesses to increase productivity through just-in-time manufacturing and inventory systems.

Cost and Time Savings

Traffic congestion acts as a tax on businesses and households by increasing the cost of travel in terms of both money and time. According to the latest *Urban Mobility Scorecard* from the Texas A&M Transportation Institute (TTI), congestion in the Valdosta urban area cost commuters $29 million in 2014

and 1.2 million hours of delay.[1] Individually, congestion costs each commuter $351 and 15 hours of delay per year.

The American Public Transit Association (APTA) states that households using public transportation save $8,000 per year on average, which includes both fuel and vehicle ownership cost savings. At a national level, TTI estimates public transit services saved $16.8 billion in congestion costs and 796 million hours of delay in 2010.[2] Transit systems can further reduce delay and travel time by increasing frequency of bus arrivals therefore providing short travel times and flexibility in time of departure.

Businesses and households receive economic benefits from travel cost and time savings provided by public transit improvements. Key benefits to businesses include lower delivery and shipping costs due to travel time savings, access to broader labor markets with more diverse skills, and expanded customer markets. These savings can be reinvested to grow the business and increase local economic activity. For households, monetary savings from reduced congestion and vehicle ownership costs provide additional discretionary funds that can lead to growth in the local economy.

Safety

Motor vehicle crashes impose substantial economic costs on society. According to the National Highway Traffic Safety Administration (NHTSA), the nationwide economic cost of crashes in 2010 was $242 billion,[3] with each fatality having a lifetime economic cost of $1.4 million. Economic costs include repairs to damaged vehicles and property, court and legal fees, congestion costs, medical bills, and lost productivity due to injury.

To compare the relative safety of private automobiles and transit bus service, the total and injury crash rates per million passenger miles traveled (PMT), as well as the fatal crash rate per 100 million PMT, were calculated using information from the U.S. Department of Transportation (DOT) Bureau of Transportation Statistics and the Federal Transit Administration (FTA) National Transit Database. As shown in Table 2-5, the total and fatal crash rates for transit buses are lower than for private automobiles. In contrast, the injury crash rate for transit buses is slightly higher than that for private automobiles because there are often multiple injuries per incident.

[1] Schrank, D., Eisele, B., Lomax, T., & Bak, J. (2015). *2015 Urban Mobility Scorecard*. College Station, TX: Texas A&M Transportation Institute and INRIX.

[2] Schrank, D., Lomax, T., & Eisele, B. (2011). *TTI 2011 Urban Mobility Report* College Station, TX: Texas Transportation Institute.

[3] Blincoe, L. J., Miller, T. R., Zaloshnja, E., & Lawrence, B. A. (2015). *The Economic and Societal Impact of Motor Vehicle Crashes, 2010. (Revised)* (Report No. DOT HS 812 013). Washington, DC: National Highway Traffic Safety Administration.

Table 2-5 National Crash Rates by Mode (2006)

Mode of Transportation	Crash Rate (per Million PMT)	Injury Crash Rate (per Million PMT)	Fatal Crash Rate (per 100 Million PMT)
Passenger Cars, Motorcycles, and Light Trucks	1.79	0.56	0.82
Transit Buses	0.47	0.66	0.55

PMT = Passenger Miles Traveled

Sources: US DOT Bureau of Transportation Statistics; FTA National Transit Database

Cost savings due to the lower total and fatal crash rates of transit buses compared to private automobiles are partially offset by the slightly higher injury crash rate of transit buses. However, a net reduction in costs due to the overall increase safety of transit buses results in lower costs for all transportation system users.

Environmental

Although bus transit is generally more energy-efficient than single-occupancy vehicles, environmental benefits are higher as vehicle loads increase. A key direct economic benefit is reduced fuel consumption, and pollution reduction benefits the community at large. According to APTA, nationwide, 4.2 billion gallons of gasoline and 37 million metric tons of carbon dioxide are saved annually because of public transit.

As cities and regions grow larger, minimizing emissions becomes more critical, as being out of compliance with air pollution requirements can halt federal funding for transportation projects. For a small system such as the one proposed for Valdosta, impacts on air pollution will initially be limited; however, as the Urbanized Area continues to expand, reducing single occupancy vehicles will contribute to better air quality.

Peer Review

Peer Community Review

A peer community review was conducted for the Valdosta Urbanized Area. The primary objectives of the community peer review were as follows:

- Identify communities in and out of Georgia that are comparable to the Valdosta Urbanized Area on a number of selected key transit supportive variables
- Review the type of primary public transit option provided by the peer community, including fixed-route or demand-response service

The peer community review conducted for the Valdosta Urbanized Area, including methodology used and the results are summarized below.

Methodology

Data from the 2010–2014 ACS were analyzed for communities in and out of Georgia. To be considered as a peer community, a candidate must meet one or more of the following four criteria:

- **Population (5% ±)** – communities that were within five percent of Valdosta's Urbanized Area population were sampled.
- **Size of Urbanized Area (5% ±)** – communities that were within five percent of Valdosta's size in square miles were sampled.
- **Population Density (5% ±)** – communities with population densities within five percent of Valdosta were sampled. Population density represents the number of inhabitants per square mile.
- **Public University** – communities with a public university were sampled. If communities met any of the other three characteristics but did not have a public university, they were automatically excluded from the analysis.

Peer Community Review Summary

Tables 2-6, 2-7, 2-8, and 2-9 and Figure 2-1 present the peer review results for the communities selected using the criteria previously summarized. As shown, these peers represent communities that have similar characteristics to the Valdosta Urbanized Area in population, size of Urbanized Area, population density, and the presence of a public university. The findings indicate that all of these communities provide some level of fixed-route bus transit; Valdosta is the only community that does not provide a fixed-route bus transit service at this time.

Although Valdosta does not operate a permanent fixed-route transit service, it did begin a pilot fixed-route shuttle service in October 2015. Data for the shuttle were not included in the peer review analysis, as it was not operating in the timeframe covered in the review. Whereas this peer review does not demonstrate that Valdosta needs to implement a transit system immediately, it does suggest the need to explore the possibility of providing public transit to better serve the Valdosta urban area population. It also provides an understanding of the level of investment the community should consider as compared to other communities.

As shown in Table 2-8, Valdosta's peer communities provide an average of 1.4 million passenger trips per year and spend an average of $5.7 million per year on operating costs.

For demand response, the peer systems provide an understanding of the investment made in other communities. As is typical, the average cost per trip for demand-response service is significantly higher than the average cost per trip on fixed-route service.

Table 2-6 Peer Community Comparison

Peer Community	Population	Size (sq mi)	Population Density	Public University Present?	Fixed-Route System?
Valdosta, GA	77,995	56.5	1,380	Yes	No
Athens, GA	129,884	99.4	1,307	Yes	Yes
Wichita Falls, TX	97,669	54.1	1,805	Yes	Yes
Lima, OH	72,901	54.0	1,350	Yes	Yes
Albany, GA	95,307	71.9	1,326	Yes	Yes

Source: 2010-2014 American Community Survey and online data

Table 2-7 Peer Community Transit Agencies

Peer Community	Fixed-Route System?	Transit Agency
Valdosta, GA	No	-
Athens, GA	Yes	Athens Transit System
Wichita Falls, TX	Yes	Wichita Falls Transit System
Lima, OH	Yes	Lima/Allen County Regional Transit Authority
Albany, GA	Yes	Albany Transit System

Table 2-8 Annual Peer Performance Indicators (Fixed Route, 2014)

Peer	Passenger Trips	Revenue Hours	Operating Costs	Trips per Hour	Cost per Trip
Athens Transit System	1,642,202	65,426	$5.3 M	25.10	$3.21
Wichita Falls Transit	453,206	35,161	$1.8 M	12.89	$4.00
Lima Allen County Regional Transit	292,207	26,572	$2.3 M	11.00	$7.99
Albany Transit System	1,036,749	35,164	$2.3 M	29.48	$2.23
Average	856,091	40,581	$2.9 M	19.62	$4.36

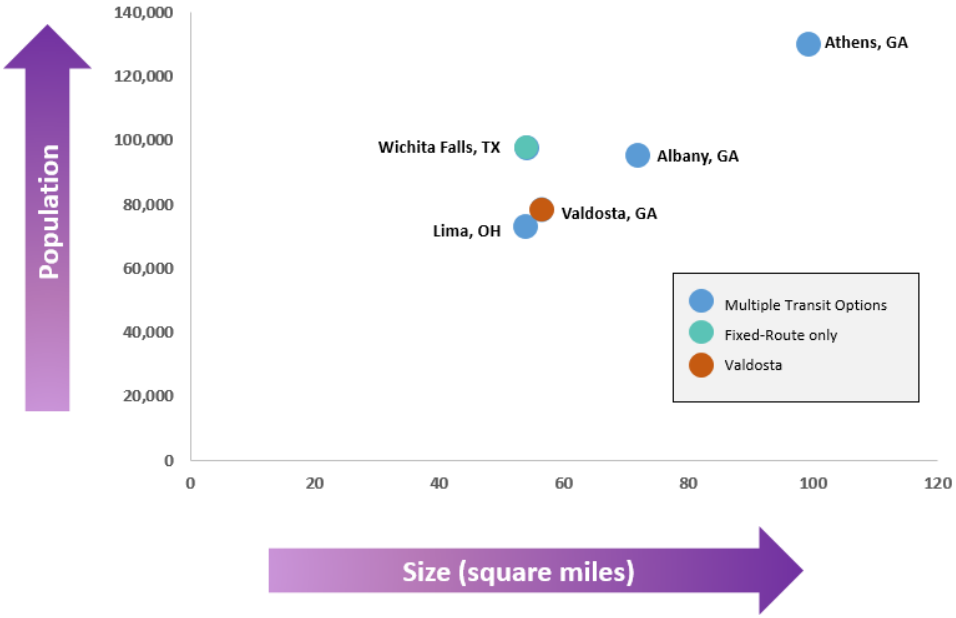
Source: National Transit Database (NTD)

Table 2-9 Annual Peer Performance Indicators (Demand Response, 2014)

Peer	Passenger Trips	Revenue Hours	Operating Costs	Trips per Hour	Cost per Trip
MIDS (Lowndes County)	35,506	21,097	$485,427	1.68	$13.85
Athens Transit System	7,271	5,572	$408,893	1.30	$56.24
Lima Allen County Regional Transit	109,078	24,098	$1,000,000	4.53	$9.39
Albany Transit System	13,931	6,875	$376,175	2.03	$27.00
Average	41,447	14,411	$567,624	2.39	$26.62

Source: MIDS data are from SGRC; all other data are from the National Transit Database (NTD).

Figure 2-1 Peer Community Comparison



Needs Assessment

Based on the data collected, the following conclusions were drawn:

- The conversation concerning the need for transit is not new to Lowndes County. The community has studied transit in the past, but has yet to select an option that has been successfully implemented.
- As compared with the rest of Lowndes County, Valdosta has a higher concentration of individuals with characteristics proven to increase the likelihood that they would use and benefit from a transit system.

- The activity centers in the local area that are most likely to generate transit demand are located within the Urbanized Area and, generally, in Valdosta.
- There are economic benefits to operating a transit system, including direct and indirect effects of spending on transit, savings accrued from a reduction in congestion, and increased safety of traveling in transit vehicles versus personal automobiles.
- Although investment levels may vary, communities that are similar to the Valdosta-Lowndes County community, in and out of Georgia, are offering fixed-route transit and demand-response services to their citizens.
- Fixed-route transit service can provide a significant reduction and, therefore, cost efficiency in the cost per trip over cost per trip for demand-response services.
- The Valdosta-Lowndes County community has made a recent preliminary investment in transit services by offering the pilot shuttle.
- These conclusions suggest that the Valdosta-Lowndes County community should investigate a transit option that would improve mobility options for its citizens as well as be financially feasible for the community.

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SECTION 3:
PUBLIC INVOLVEMENT

Building off of the Valdosta-Lowndes County MPO Participation Plan, a public involvement strategy was developed to gather input for this study. The strategy was developed to ensure equitable input from all sectors of the community as well as to make effective use of limited resources.

Public Involvement Plan

Prior to beginning the study, a Public Involvement Plan (PIP) was prepared. The PIP included strategies to engage stakeholders and the public in the development process and was developed to conform to the Valdosta-Lowndes County MPO Participation Plan. A full copy of the plan can be found in Appendix A.

Stakeholder Engagement

Stakeholders are defined as those individuals who represent a larger group of individuals who have a vested interest in transportation issues in the Valdosta-Lowndes County community. To engage stakeholders, five small group meetings were held on February 2, 2016, at the Valdosta-Lowndes County MPO offices. Table 3-1 provides a list of the individuals who participated in the stakeholder interviews and the organizations they represent. For the ease of conversation, the stakeholders were organized into five groups based on their areas of expertise, as noted in Table 3-1. A copy of the stakeholder interview questions and full summaries of each stakeholder interview can be found in Appendix B.

Following are the conclusions to be drawn from the stakeholder conversation; each group offered different perspectives on the same issue:

- There is general agreement that transit is needed in the community, but there is a belief that the community may not be ready to make financial resources available for it.
- There is concern about identifying a feasible funding source, especially one that seems fair to those in areas that would not have transit service.
- The perception is that transit service is needed in Valdosta, but not in the rest of Lowndes County.
- Some participants felt that the lack of transit in the local community did not affect business development, and others felt it prevented larger businesses from being interested in the area. Although differing in their understanding of the effect on businesses, participants generally agreed that the lack of transit may present a barrier to employment for individuals.
- Participants generally agreed that partnerships among local government and other organizations such as Valdosta State University or Moody Air Force Base should be explored to provide and fund services.
- Individuals who are transportation disadvantaged in the community need reliable service at all hours of the day and to many different destinations, such as medical services, human services,

soup kitchens, food banks, post offices, etc. They may also need service to employment that either begins early in the day or ends later in the evening.

- There is an interest to attract and retain younger people in the Valdosta-Lowndes County community.

Table 3-1 Stakeholder List

Stakeholder Group	Name	Organization
City of Valdosta	Larry Hanson	Valdosta City Manager
	John Gayle	Valdosta Mayor
Community	Gretchen Quarterman	Lowndes Area Knowledge Exchange
	Vanassa Flucas	Neighborhood Development Director, City of Valdosta
	Mark Stalbin	Housing Authority Director
	Sandra Tuley	Citizen Advocate, Valdosta City Council
	Vivian Miller-Cody	Valdosta City Council
Economic Development	Penelope Schmidt	Wiregrass Georgia Technical College
	Bill Tillman	Wiregrass Georgia Technical College
	Bill Bryan	Moody Air Force Base
	Laura Love	South Georgia Medical Center
	Stan Crance	Valdosta-Lowndes County Development Authority
Lowndes County	Joe Pritchard	Lowndes County Manager
	Jason Davenport	Lowndes County Planner
	Bill Slaughter	Lowndes County Commission Chairman
Valdosta State University	Arian Bryant	Valdosta State University
	Shannon McGee	Valdosta State University
	Ray Sable	Valdosta State University
	Philip Allen	Valdosta State University

Each participant in the stakeholder group discussions was asked to distribute study information to their constituents. In particular, a link to the online survey was distributed via various electronic newsletters. (For more information about the survey, see the Public Engagement section.)

Public Engagement

To enhance the information gathered through stakeholder engagement activities, general outreach to the public was undertaken. The primary instrument for gathering public feedback was a survey, and an electronic data collection system was used to collect the responses. A copy of the survey instrument is provided in Appendix C. Because the survey was tailored depending on certain responses, participants answered between 14 and 21 questions. Overall, 512 surveys were completed between February 1 and April 5, 2016. The survey was distributed through the following means:

- The survey link was uploaded to the Valdosta-Lowndes County MPO webpage at www.sgrc.us.

- Various stakeholders distributed the survey link to their constituents via electronic newsletters and webpages.
- Several print and online newspaper articles ran a link to the survey.

As shown in Figure 3-1, more than 85 percent of respondents felt there was definitely or somewhat a need for transit in the Valdosta community; fewer than 10 percent did not feel there was a need at all for transit. Almost 80 percent indicated that they would support spending local money on public transit.

Figure 3-2 shows that almost 15 percent of respondents oppose spending local money on public transit. The full survey results can be found in Appendix D.

Figure 3-1 Do you feel there is a need for public transit service in the Valdosta Area?

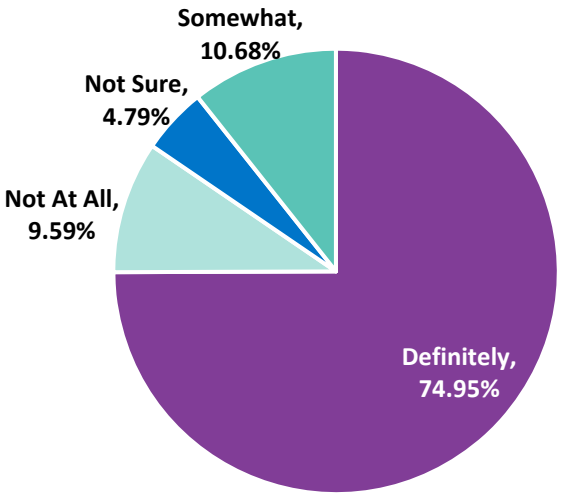
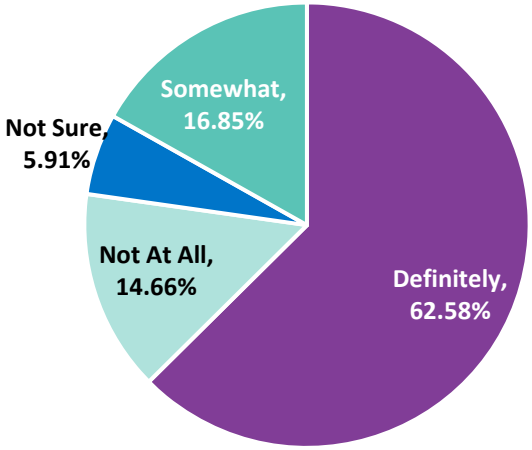


Figure 3-2 Would you support spending local money on public transit?



Media

Press releases led to several articles being published that highlighted the study and noted the availability of a public survey. In addition, the initiation of shuttle service assisted in generating media attention. WALB Channel 10 carried a written and video story on the study, and the *Valdosta Daily Times* also carried stories with links to the survey. In addition, students taking Sociology 7100: Urban and Community Life at VSU produced a video in Spring 2016 concerning the need for public transportation in the Valdosta community. When asked about the need for public transportation, Valdosta Mayor John Gayle stated: "Well, yes, I think we have a need … as has been told before, we are the only metropolitan city in Georgia that does not have a [public] transportation system."

Environmental Justice Analysis

To determine the Environmental Justice (EJ) areas within Lowndes County, five socioeconomic variables from the U.S. Census Bureau's American Community Survey (ACS) were analyzed:

- Percent of minority population – those who do not identify as Caucasian.
- Percent of households without vehicle access– those that do not have access to a vehicle.
- Percent of population below the poverty line – as determined by the U.S. Census Bureau based on the analysis of income accrued over a 12-month period.
- Percent of population age 65 and over
- Percent of population that does not speak English – those who identified as speaking English "less than very well."

Census tracts in which these characteristics had a percentage higher than the county average were identified as EJ tracts. The tracts were then further analyzed to see how many overlapping EJ indicators

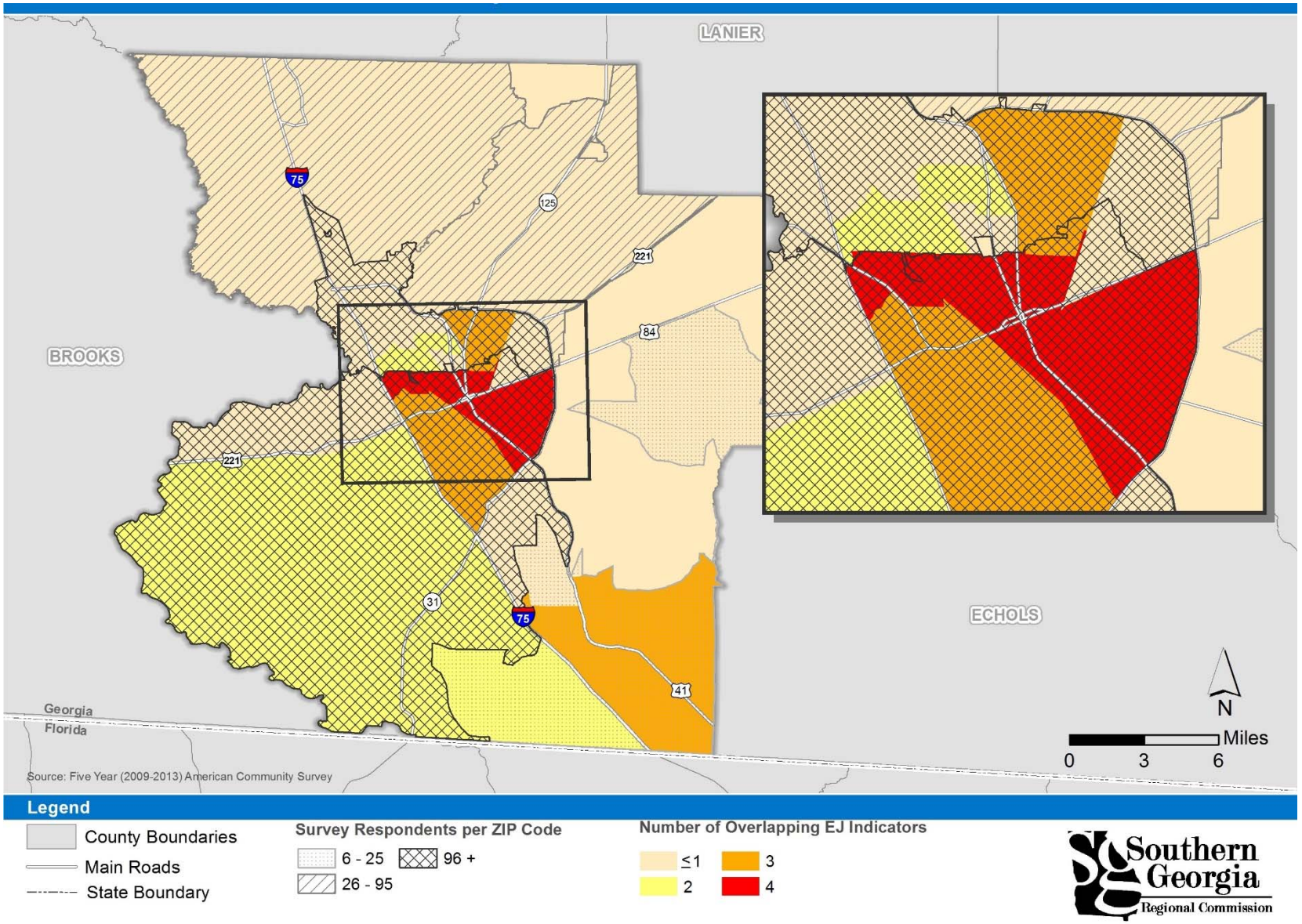
were present. Census tracts with multiple overlapping EJ indicators were considered areas of high concern and were separately tracked to ensure public involvement, as Environmental Justice requires that EJ populations be engaged to obtain their feedback on the need for new or expanded transit services. Map 3-1 shows how many people per ZIP code took the survey in relation to the EJ tracts. Survey respondents were located throughout Lowndes County and response rates were generally good in EJ areas.

Conclusions from Public Input

From the stakeholder interviews, survey analysis, and Environmental Justice analysis, the following conclusions were drawn regarding the public involvement efforts:

- Stakeholders agreed there is a need for transit in the Valdosta community.
- Overall, stakeholders would like to see a non-fixed route service that is low in cost and has a wide range of connectivity throughout Lowndes County.
- A majority of survey respondents indicated that the Valdosta community needed transit service and that they were willing to fund it with local money.
- The EJ populations were adequately represented in the study's public outreach process.

Map 3-1 Environmental Justice Survey Coverage



SECTION 4:
GOALS AND OBJECTIVES

Setting clear goals and objectives is a critical foundation for any successful planning effort and should stem from values inherent in the community's vision for the future. Therefore, goals and objectives for the implementation of transit service were developed using input from a number of sources, including the local plans/policies reviewed in Section 2 and public outreach activities, such as stakeholder interviews and the public survey. From these sources, the following themes (not presented in priority order) were identified from which to formulate the preliminary goals and objectives for this Transit Implementation Plan.

1. Location/efficiency (e.g., serve and connect activity centers, corridors, places of interest, etc.).
2. Connectivity between the transit system and other modes of transportation.
3. Transit service for all—serve transit-dependent and choice riders and provide flexible hours.
4. Maximization of partnerships and exploration of resources.
5. Relationship of transit to economic development.
6. Acknowledgment of changing trends (in both transportation and land use) to attract millennials/younger employment base
7. Transit technologies (real-time arrival, etc.)to maximize system usage)

From these themes, three goals were established, each supported by several objectives that support the Greater Lowndes County Common Community Vision. The remainder of this section presents the goals and objectives developed for this Transit Implementation Plan.

Goals and Objectives

In 2014, the Valdosta-Lowndes County MPO published the Greater Lowndes County Common Community Vision, establishing a unified vision for the region to guide the wide-range of local planning efforts governing the growth and development of the community. The goals and objectives for this Transit Implementation Plan work to further support the Common Community Vision provided below; italicized text has been added to provide more focus to the intent of this study. From there, the three goals and supporting objectives developed for this study are presented.

A Common Community Vision for Public Transportation: A resilient *public transportation system and* community in which partnerships and coordination promote regional success in economic development, education, infrastructure, and a high quality of life.

Goal 1: Develop an efficient, connected, and accessible public transportation system serving key points of employment and interest throughout our community.

Goal 1 Objectives:

- Serve all major regional and community activity centers and major transportation corridors.
- Develop one or more major transit activity centers where transit users intersect.

- Coordinate with local and regional planning efforts to maximize transit services consistent with the Common Community Vision.

Goal 2: Develop an effective public transit system that will meet the needs of the existing and growing population.

Goal 2 Objectives:

- Provide transit service for all, including transit dependent riders, "choice" riders, youth, older adults, students, and visitors.
- Allow transit passengers of all capabilities to safely access transit facilities.
- Provide service hours that meet the needs of persons with alternative employment schedules.
- Provide a dynamic system that responds to changes in community demographics and needs over time.
- Employ technologies to make transit service easier to use and attractive to all users.
- Support transit-friendly land use patterns that maximize the viability of the transit system.

Goal 3: Create a fiscally-sustainable public transportation system that strengthens the local economy.

Goal 3 Objectives:

- Enhance the cost-effectiveness of transit service by minimizing the cost per passenger, maximizing travel time savings, and attracting new transit passengers.
- Implement a dedicated funding source to fund transit services.
- Foster partnerships between local governments and key community stakeholders during planning and implementation stages to maximize the success of the system and strengthen private sector investment.
- Use the transit system as a catalyst to spur additional new development that reinforces the Downtown Valdosta, South Georgia Medical Center, Valdosta State University, and Moody Air Force Base as key economic engines within the community.

SECTION 5: ALTERNATIVES

In this section, alternative transit configurations are explored to determine which might be best for the Valdosta-Lowndes County community.

Definition of Alternatives

Six primary alternatives were identified for comparison. They are described in detail below.

Alternative 1: Fixed Routes plus Complementary Paratransit – Under Alternative 1, the five routes displayed on Map 5-1 would operate as fixed-route service with set operating schedules and time points. Each route is displayed separately in Maps 5-2 through 5-6 and described in more detail in the next section. As required by FTA, complementary paratransit service would also be offered under this alternative. Alternative 1 provides the most intense service option, but it is also the most expensive option.

Alternative 2: Deviated Routes – Under Alternative 2 (Map 5-7), the five routes indicated in Alternative 1 would operate as deviated routes. Deviated routes operate on a fixed path and follow a set schedule, but they can deviate up to a fixed distance (e.g., ¾ miles) from the route if a rider makes a request. The number of deviations can be limited per trip (e.g., 3 deviations per trip) to ensure schedule adherence. Under FTA requirements, transit operators do not have to provide complementary paratransit service for deviated routes. This alternative offers a less expensive option than Alternative 1 as there is no paratransit component.

Alternative 3: Fixed Routes plus Deviated Routes – Alternative 3 (Map 5-8) offers a combination of services. It includes two fixed routes: the Ashley Street Route and the Shopping Route. These two routes provide regular service to destinations of interest in the community. In addition to the fixed-route service, two deviated routes would be offered in the areas of the Valdosta State Route and the Mildred Hunter Route. The fixed routes would have complementary paratransit service provided in the service area. This alternative would also include limited run service (e.g., 4 times per day) to Wiregrass Georgia Technical College.

Alternative 4: Ridesourcing – Under Alternative 4 (Map 5-9), a ridesourcing arrangement with a ridesourcing company or companies would be created to provide transportation opportunities for the community. This option would involve a subsidy for ridesourcing trips that begin and/or end within a particular zone. Currently, there are several different models for setting up a locally subsidized ridesourcing program (see the Ridesourcing Arrangements section for more information), but, for this alternative, it is recommended to follow the PSTA model (see section on Ridesourcing Arrangements) where the local share per trip is capped at a particular dollar amount (e.g., $3.00 per trip). This alternative offers the local community the most flexibility in terms of funding because the local community can determine its exact spending level prior to implementation.

Alternative 5: Fixed Route plus Ridesourcing – Alternative 5 (Map 5-10) provides a combination of fixed-route service and ridesourcing options to assist with transportation during the first and last mile. The Ashley Street and Shopping routes, described in the next section, would operate on a regular

schedule with ridesourcing providing connectivity for first and last mile portions of a trip. For Alternative 5, it is recommended that the Shopping route (Map 5-11) add a piece of the Mildred Hunter route to its alignment. See Map 5-7 for the recommended alignment. Paratransit service would be required for the fixed route portion of the service. The ridesourcing subsidy would be offered for any trip that originated or terminated at a bus stop and would have the same stipulations as Alternative 4.

Alternative 6: Status Quo – The final alternative is to provide transit service at its current level. Currently, individuals needing a ride may make a reservation at least 24 hours in advance with MIDS. Passengers pay a $3.00 fare for any trip up to 10 miles; after 10 miles, passengers pay $0.50 per mile. Service is offered weekdays from 7:30 AM to 5:30 PM. (Note: Due to the Valdosta-Lowndes County community's shift from rural to urban, MIDS services will be severely limited within the Urbanized Area beginning July 1, 2016, unless an alternative funding source is identified.)

Fixed Routes

The fixed routes were designed to connect and allow for passengers to transfer around the Lowndes County Courthouse in downtown Valdosta. The buses can circulate around Courthouse Square at the end of their route to return to their route. Turn-by-turn directions can be found in Appendix E.

Ashley Street Route: At 9 miles long, this route, shown in blue on Map 5-1 and 5-2, is designed to provide access to older adult housing and retail activities including connection to downtown Valdosta. The route serves the older adult housing in the area to the South of the Boot Barn. This route serves the following activity centers:

- Boot Barn
- Piggly Wiggly (coming soon)
- Salvation Army Store
- Social Security Administration
- Valdosta Senior Community Center

Shopping Route: This route, shown in purple on Map 5-1 and 5-3, is designed to provide access to the Valdosta Mall, Walmart, and other retail institutions. It is 12 miles long, has one school zone, and crosses the railroad tracks twice. For the purposes of Alternative 5, this route would be extended to include a piece of the Mildred Hunter route. See Map 5-7 for the alignment. This route serves the following activity centers:

- Valdosta Mall
- Wal-Mart (Norman Drive)
- South Georgia Pecan Company
- Lowndes High School
- Blanton Commons Apartments

Valdosta State Route: This route, shown in orange on Map 5-1 and 5-4, is designed to serve the community, VSU, and the South Georgia Medical Center (SGMC). The route will circulate into downtown Valdosta as well as out to the Valdosta Mall. It has two school zones and crosses the railroad tracks twice. This route serves the following activity centers:

- VSU
- South Georgia Medical Center
- YMCA
- Wood Valley Community Center
- Boys and Girls Club of Valdosta, GA

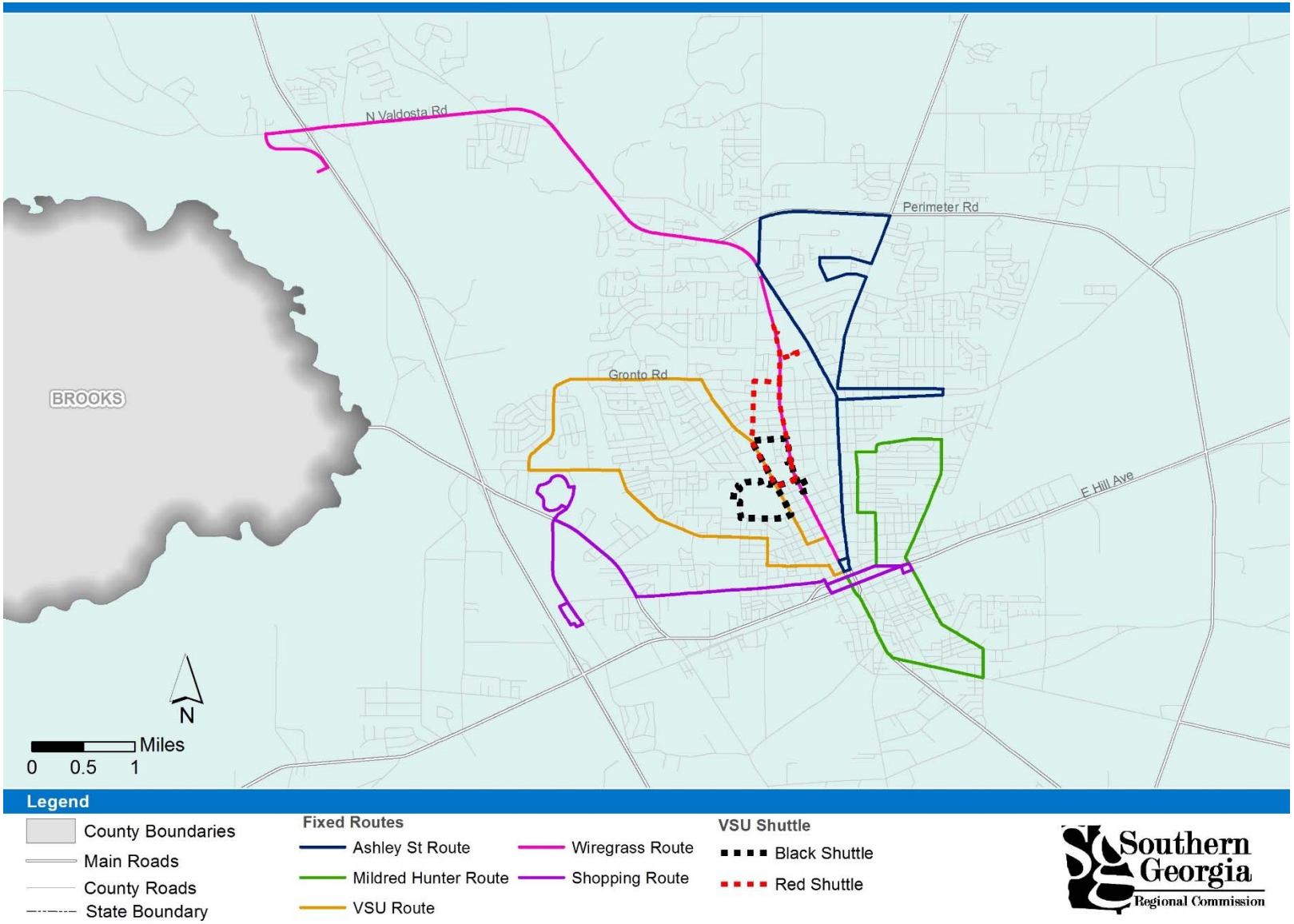
Mildred Hunter Route: This route, shown in green on Map 5-1 and 5-5, is designed to serve the residential areas surrounding the Mildred H. Hunter Community Center and connect residents to the other routes via Courthouse Square in downtown Valdosta. This is the shortest route, at approximately 7 miles in length. It has six railroad crossing and travels through one school zone. This route serves the following activity centers:

- Hudson-Dockett Homes
- Mildred H. Hunter Community Center
- Vallotton Youth Complex and Park
- Family Dollar
- Salvation Army
- IGA (access across Vallotton Park)
- Leila Ellis Community Center

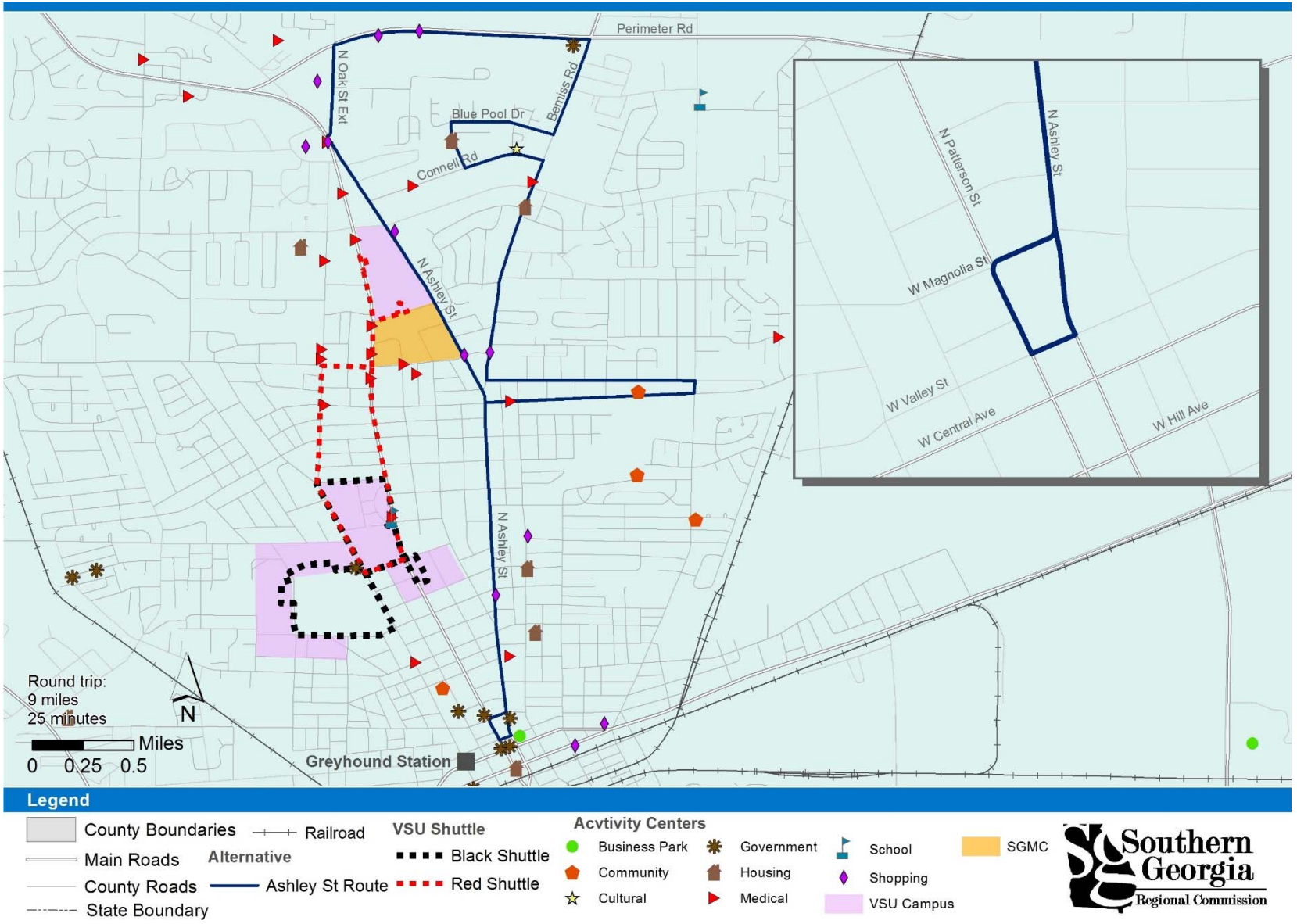
Wiregrass Route: This route, shown in pink on Map 5-1 and 5-6, is designed to provide access to Wiregrass Georgia Technical College. At 17 miles, it is the longest route and passes through long stretches toward the northern end that are not likely to produce ridership. It travels through one school zone. Running this as an express route that serves only the route in the morning and evening may be an option to curb costs. This route serves the following activity centers:

- Wiregrass Georgia Technical College
- Winn Dixie (Five Points)
- Bealls
- Valdosta State University
- eLead/Fresh Beginnings

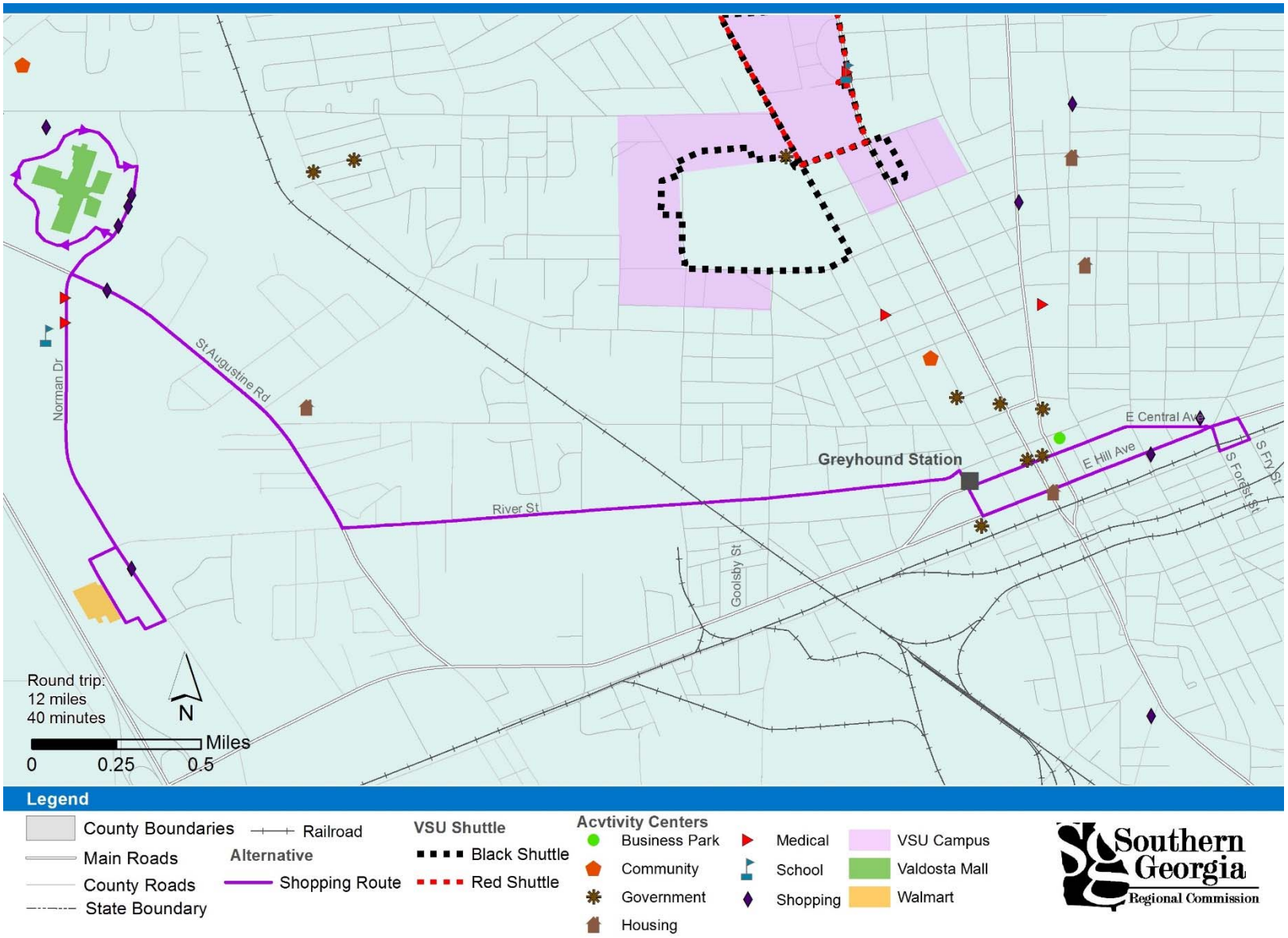
Map 5-1: Alternative 1 – Fixed-Route plus Complementary Paratransit



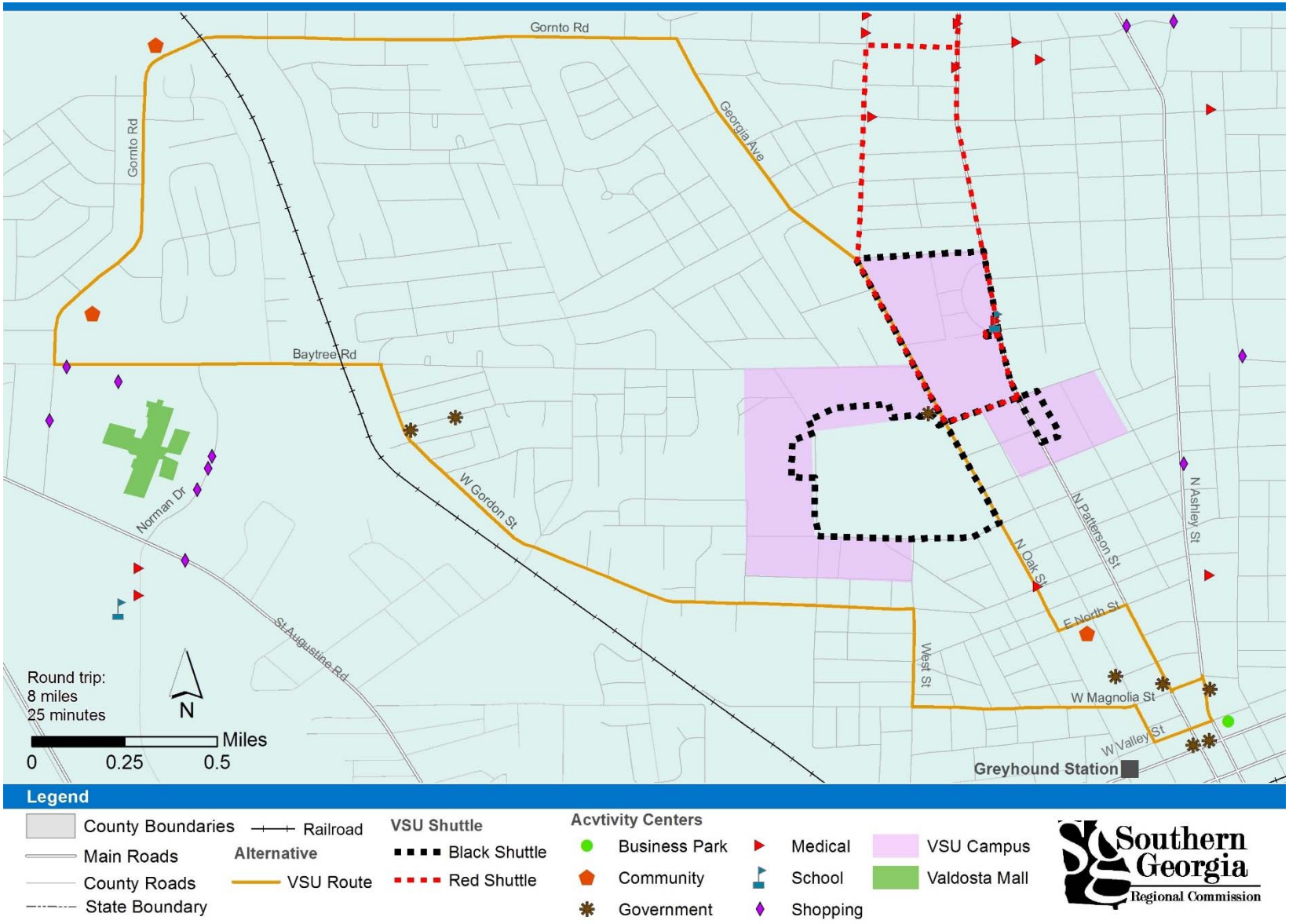
Map 5-2: Ashley Street Route



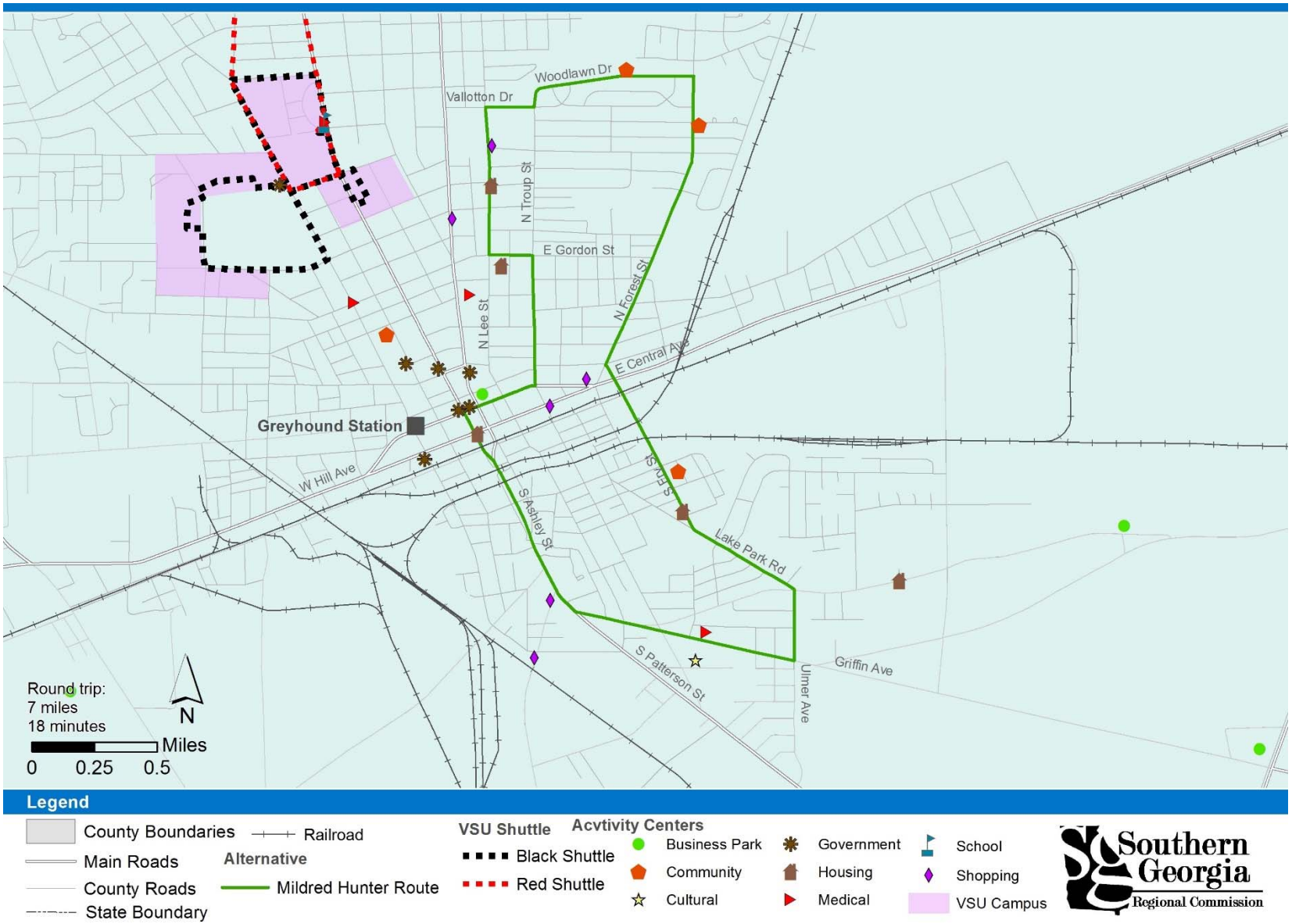
Map 5-3: Shopping Route



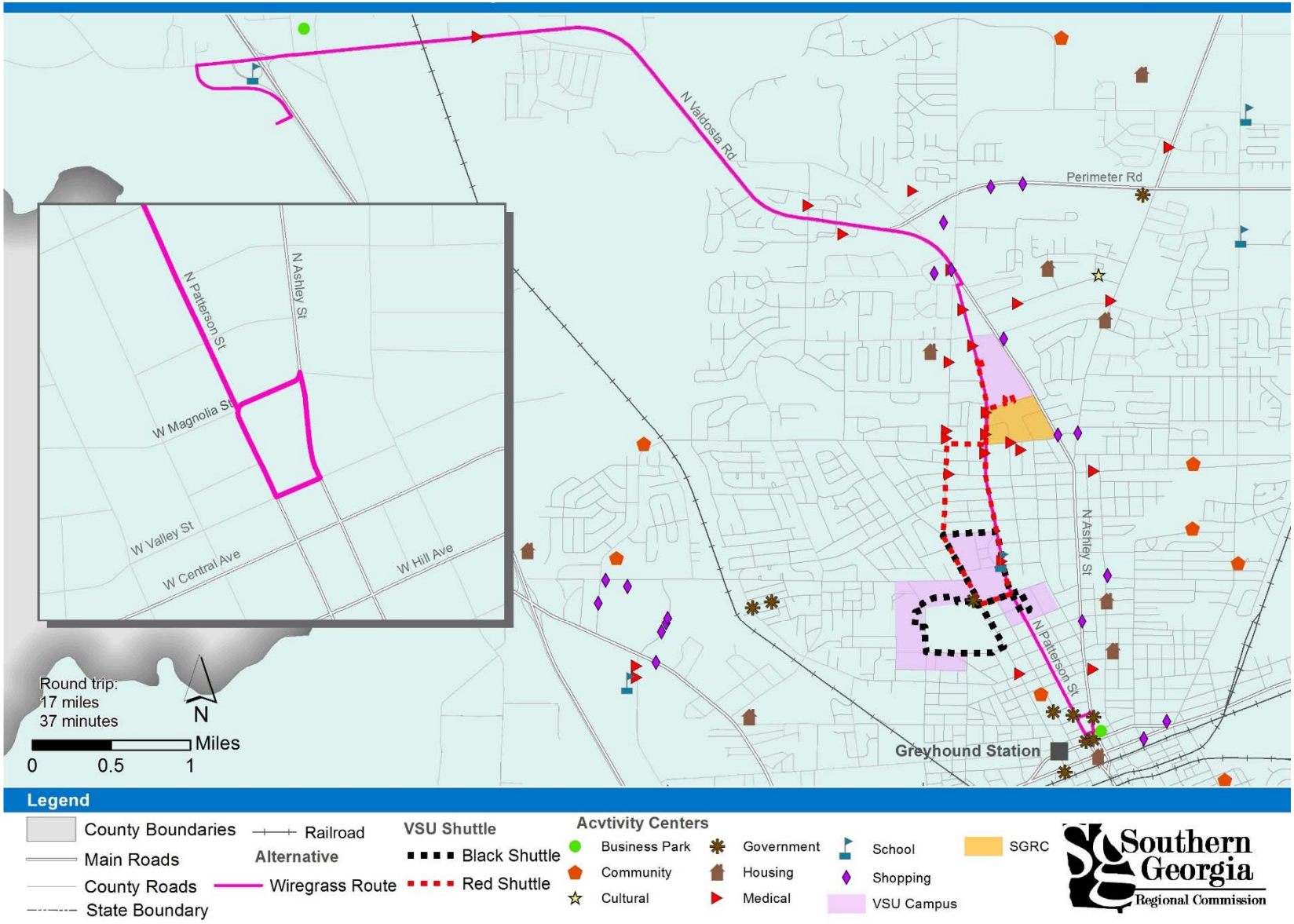
Map 5-4: Valdosta State Route



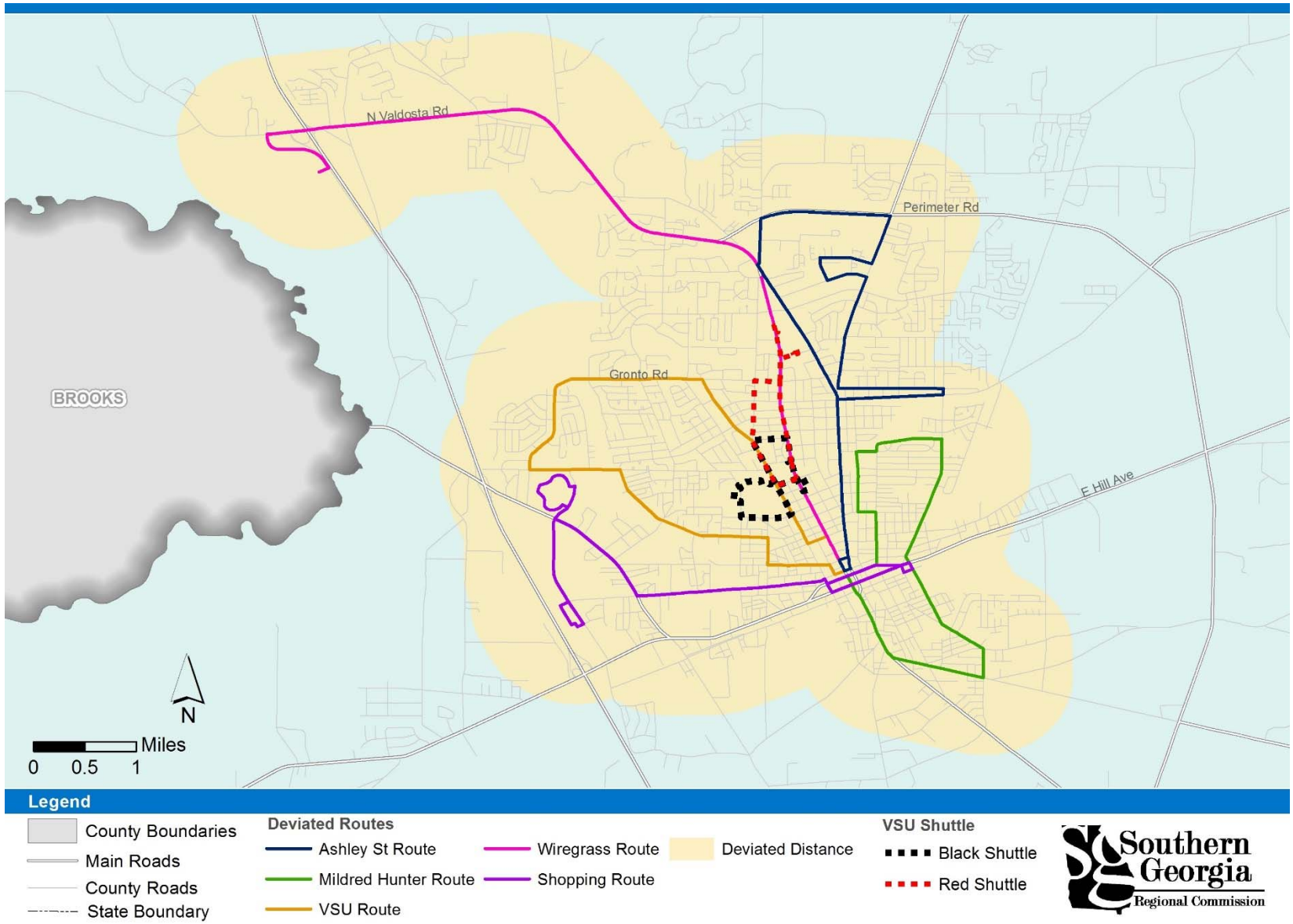
Map 5-5: Mildred Hunter Route



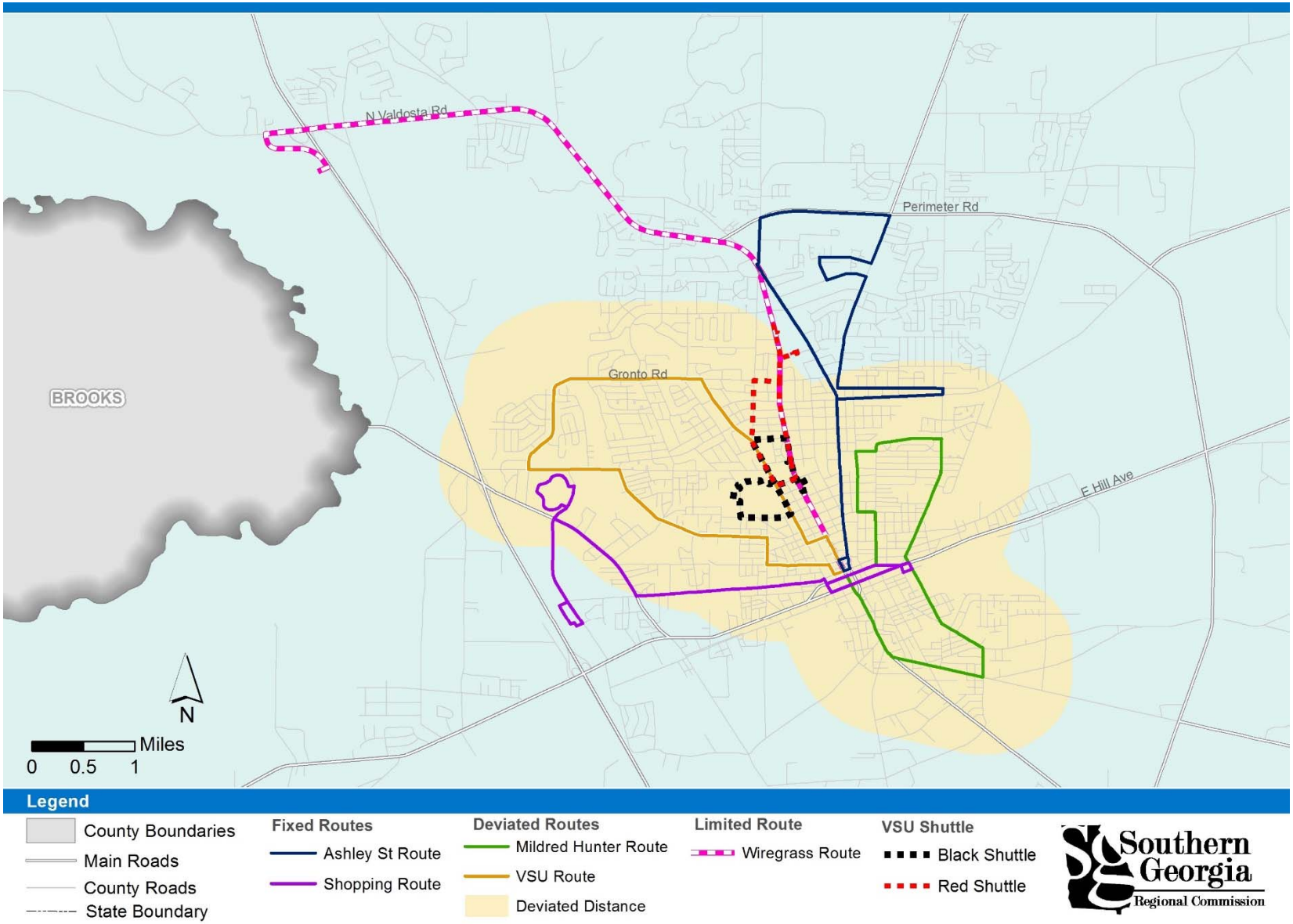
Map 5-6: Wiregrass Route



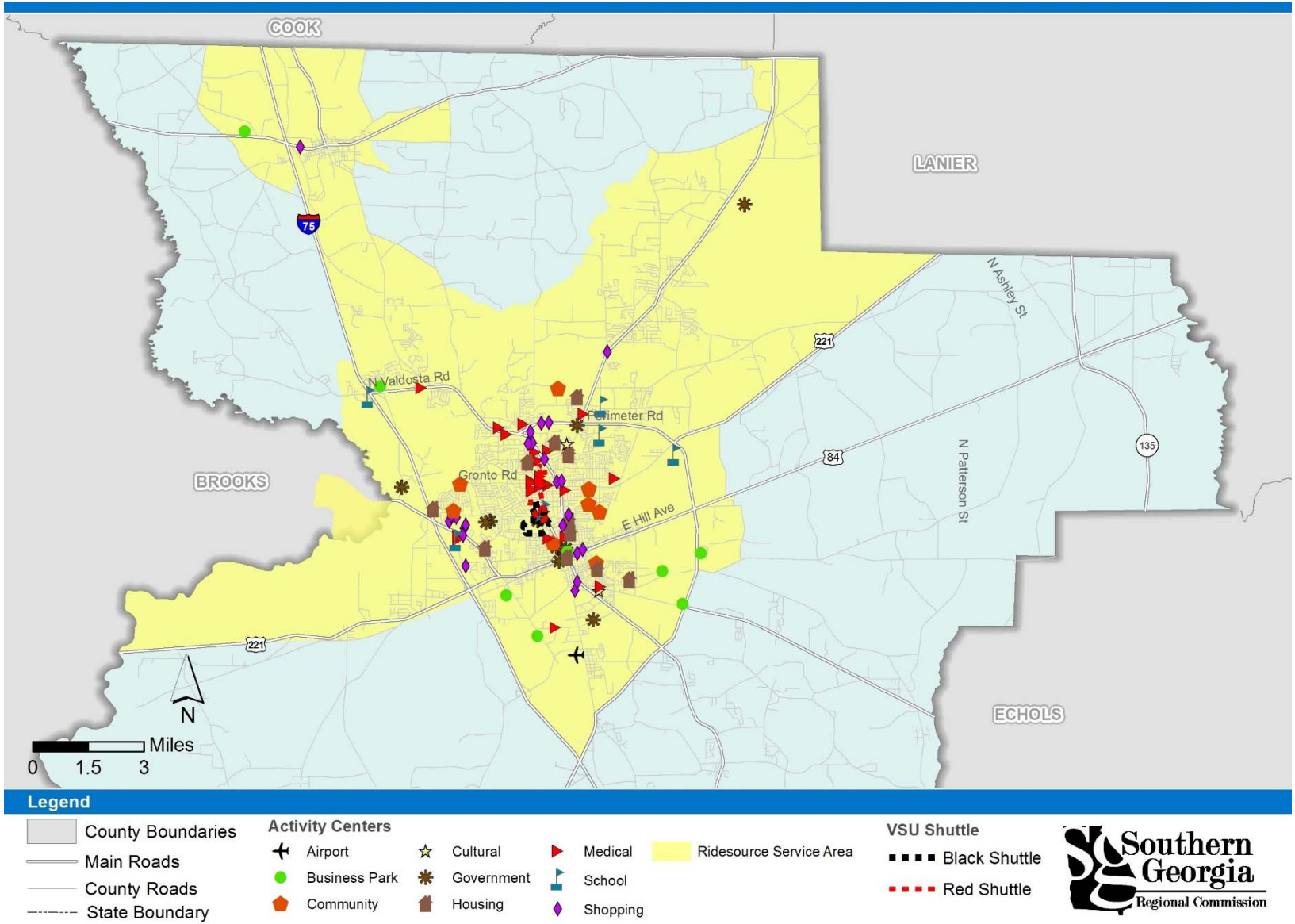
Map 5-7: Alternative 2 – Deviated Routes



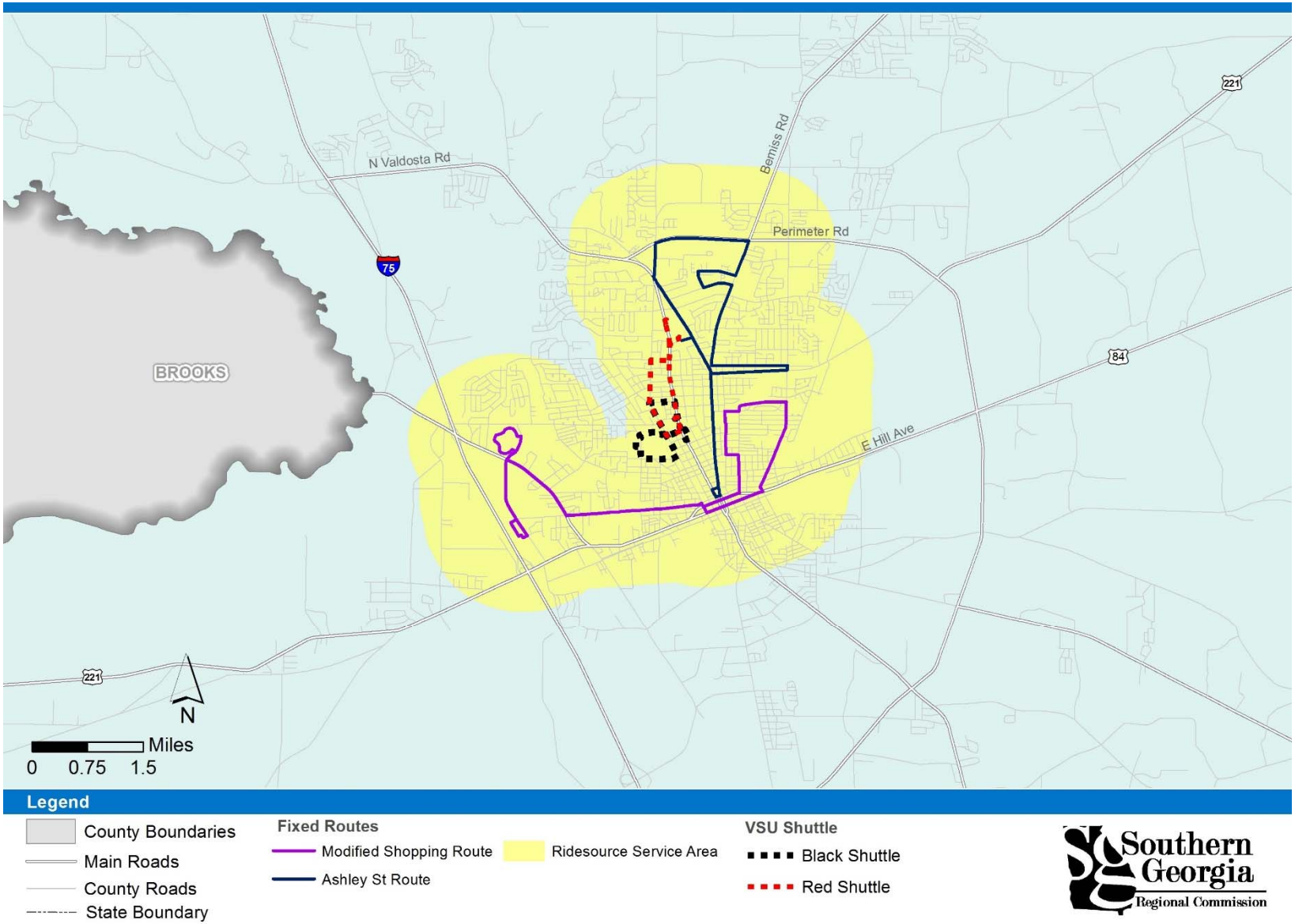
Map 5-8: Alternative 3 – Fixed Routes plus Deviated Routes



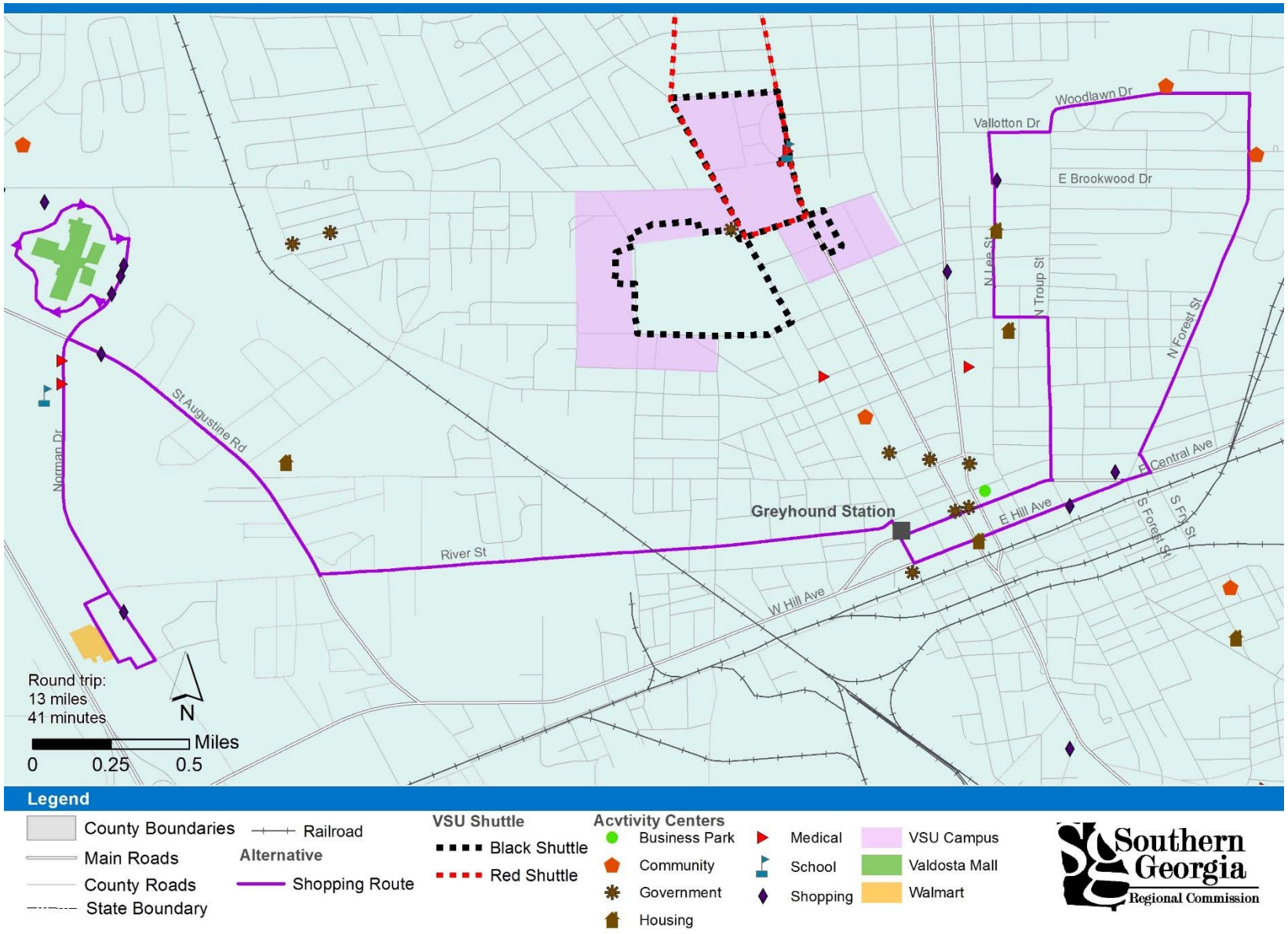
Map 5-9: Alternative 4 – Ridesourcing



Map 5-10: Alternative 5 – Fixed Routes plus Ridesourcing



Map 5-11 Shopping Route (Alternative 5)



Ridesourcing Arrangements

The following case studies provide an overview of how three local governments are providing transportation services through ridesourcing companies such as Uber or Lyft. These arrangements are new and, in many ways, experimental at this point. For Altamonte Springs, it was about providing a mobility option with the hope that it helped to manage congestion in the city's core. For Hillsborough and Pinellas counties, it was about providing first mile/last mile connectivity to pre-existing transit services.

It should be noted that the legality of ridesourcing has been challenged in many communities. For the most part, these challenges are based in claims that the ridesourcing companies are not following the same rules and regulations as taxicab operators. These legal battles have resulted in some communities determining that these types of services are illegal; in other communities, agreements between local governments and ridesourcing companies have been reached to allow for their operation.

At the time of report production, there was no clear indication that the Valdosta-Lowndes County community would or would not allow ridesourcing companies to operate as these services have not yet been attempted in this area. A legal interpretation of the Valdosta municipal code (Chapter 102 Vehicles for Hire) and the State of Georgia Code (Title 40 Motor Vehicles and Traffic, Chapter 1 Identification and Regulation, Article 3 Motor Carriers, Part 4 Ride Share Network Services and Transportation Referral Services) would be needed although it should be noted that ridesourcing companies such as Uber and Lyft are currently operating under Georgia law.

Altamonte Springs, Florida

A suburb of Orlando, Florida, Altamonte Springs was the first city to subsidize Uber rides in March 2016. The city's leaders hope that use of the ridesourcing subsidy will reduce traffic and increase transit ridership. The City has budgeted $500,000 to cover 20 percent of Uber trips that begin or end within the city limit. To encourage transit use, the subsidy increases to 25 percent if the trip originates or terminates at a SunRail station and is entirely within the city limits. The passenger discount is provided directly through the Uber mobile application by entering a promotional code.
The City had previously attempted an Uber-like service operated by the local bus provider (LYNX), but it was unsuccessful due to delays and expense. Remaining funds (i.e., $300,000) from that endeavor coupled with donations from private businesses are being used to fund the project. Thus far, the project has met with positive response, although data are not yet available. The City does not anticipate issues with the continuation of funding because they have dedicated transportation funds from gas taxes and a special taxing district to support transportation and transit.

Hillsborough County, Florida

In March 2016, Hillsborough Transit Authority (HART) contracted with Transdev to provide first mile and last mile connectivity through a ridesourcing-style service as a complement to existing transit service. Actual service does not begin until Fall 2016. Passengers pay $3.00, and HART covers the rest of the trip cost based on a contracted rate schedule (i.e., up to $7.00).

The service is offered to passengers in pre-identified zones in which transit service is limited and there is a large population base, including a larger suburb of Tampa and the area around the University of South Florida. Each zone is a three-mile area, and trips must originate or terminate at a transit stop or transit center. No trip can exceed three miles.

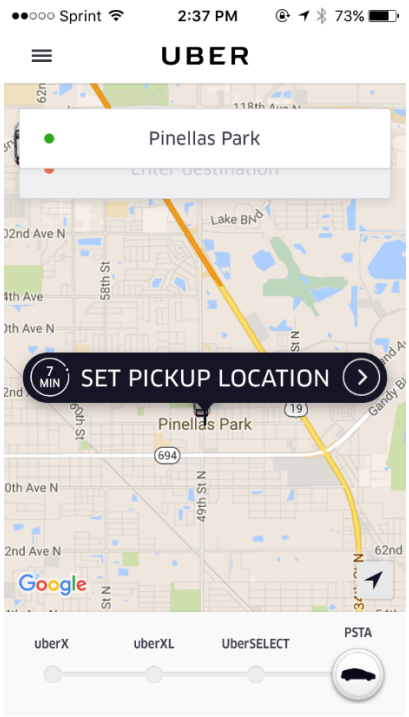
The contractor must provide the reservation service, which includes a call center and mobile application, and ADA-accessible vehicles (27 percent of fleet is ADA accessible). Passengers can choose the next-available vehicle or schedule a trip in advance. Drivers must comply with drug tests, background checks, driving record checks, and passenger rating. The first year of the contract is set at $833,322. Money for the contract was provided through a grant from the Florida Department of Transportation.

Pinellas County, Florida

In February 2016, Pinellas Suncoast Transit Authority (PSTA) announced its partnership with Uber and United Taxi to provide first mile and last mile service. The service, called Direct Connect, allows passengers in three zones the opportunity to use this service to connect to designated transit stops. PSTA is contracted to pay half of the fare, up to $3.00. If the fare is greater than $6.00, PSTA pays $3.00 and the passenger pays the remainder. Direct Connect passengers are subject to surge pricing. Passengers can reserve a ride through a mobile application or by calling a reservation desk. The service is available six days per week from 7:00 AM to 7:00 PM. PSTA is using this ridesourcing service to replace more expensive, unproductive deviated bus service. PSTA has budgeted $40,000 for the six-month pilot.

Uber uses geo-fencing to identify if a passenger is inside of the zone. A button was added to its app so passengers can easily determine if they are eligible for this option and select it. Uber will not provide origin and destination data to PSTA, but United Taxi will. It should be noted that PSTA requested to submit mileage to the National Transit Database from the ridesourced portion of these trips, but FTA denied the request to date; PSTA is petitioning that decision.

Figure 5-1 Uber Screenshot



Evaluation of Alternatives

To set the stage for the alternatives analysis, it is important to understand transit efficiency in the context of this study and the transit operating environment in the Valdosta Urbanized Area. The approach to transit efficiency is summarized as follows:

- Elected officials and citizens in the community want to be assured that funding is being used as efficiently as possible to provide public services, including the provision of public transit services in the community.

- Although door-to-door paratransit services are necessary and critical to providing mobility to the transportation disadvantaged population, this type of service is usually the most inefficient form of public transit service; however, it will be needed by many in the region.
- For smaller transit systems, increasing transit efficiency does not typically translate to a reduction in the total investment in transit. Rather, it typically means that increasing the investment in public transit will lead to increased productivity and a reduced cost per trip provided on the system as a whole.

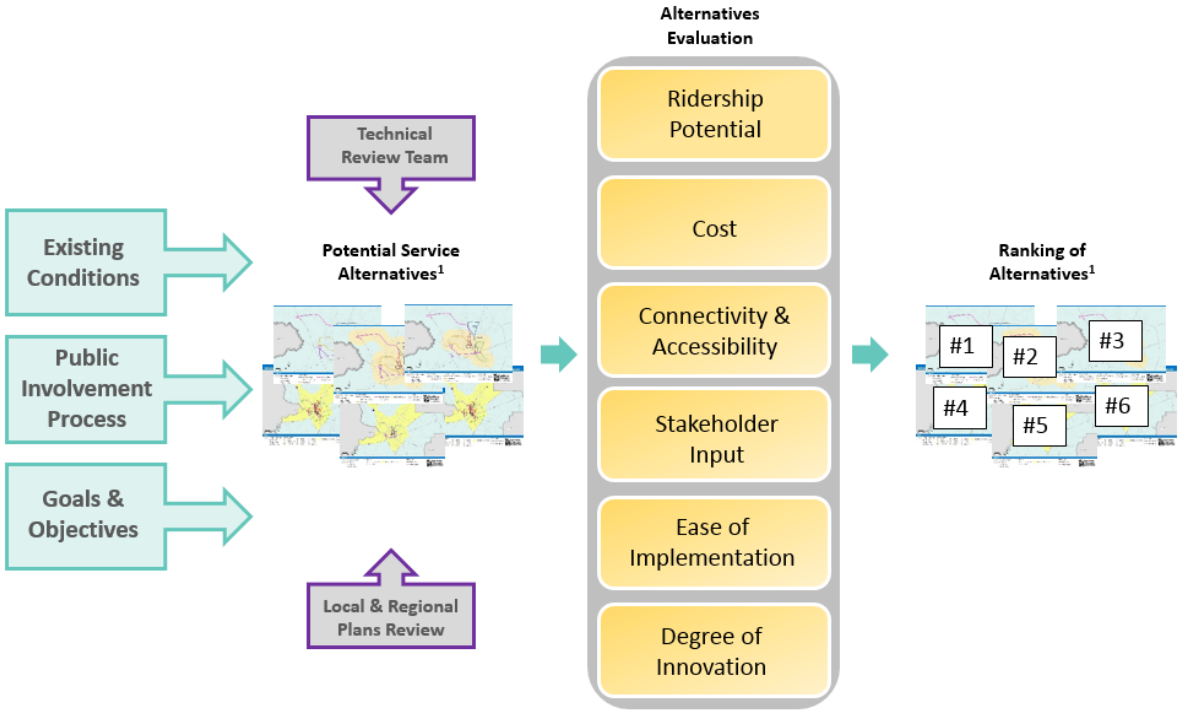
This discussion of transit efficiency is intended to provide a framework for decision makers to develop reasonable expectations for public transit in smaller communities. Transit efficiency does not necessarily mean that spending less on public transit is the answer. A broader view of public transit may suggest the need to increase transit investment, enhance productivity, and enhance the quality of life for residents and visitors in our communities.

When developing the alternative evaluation criteria, the transit efficiency approach discussed above and the goals and objectives discussed in Section 4 were taken into consideration. The evaluation methodology and results are discussed below.

Evaluation Methodology

A methodology was developed to evaluate the transit alternatives presented previously in this report. The evaluation is based on planning-level analysis and professional judgment. Figure 5-2 provides an illustrative view of the process.

Figure 5-2 Alternatives Evaluation Process



[1] For illustration purposes only. See list of alternatives summarized previously.

Step One

The first step in the evaluation was to narrow down the number of alternatives before moving into a more comprehensive evaluation process. Alternative 2 – Deviated Routes and Alternative 3 – Fixed Routes plus Deviated Routes were removed from consideration due to their deviated-route component. Although deviated routes offer the opportunity to provide curb-to-curb service, they decrease the transit operator's ability to maintain a schedule and, therefore, impact rider reliability. It was also noted that at least one transit agency is experimenting with replacing deviated service with ridesourcing and that perhaps the industry is moving away from deviated routes in favor of ridesourcing.

Step Two

The evaluation was run on four of the six alternatives previously presented. Six evaluation categories were identified for determining criteria for the evaluation:

- Ridership Potential
- Cost
- Connectivity & Accessibility
- Public Input
- Ease of Implementation
- Degree of Innovation

Ridership Potential – This criterion for evaluating the ridership potential for the alternatives focuses on demographic indicators. Two demographic indicator-based criteria were used to analyze the two major types of transit markets: the traditional market and the discretionary market:

- *Traditional Market* – As described in Section 2, a traditional transit market refers to existing population segments that historically have had a higher propensity to use transit and/or dependent on public transit for their transportation needs. For the alternatives evaluation, the proportion of each service area operating within a "High" or "Very High" TOI area was calculated.
- *Discretionary Market* – As described in Section 2, a discretionary transit market refers to potential riders living in higher-density areas of the study area that may choose to use transit as a commuting or transportation alternative. The proportion of each alternative meeting at least "Minimum" dwelling unit or employment density threshold in the 2016 DTA was calculated.

Using the coverage for potential traditional and discretionary riders, an assessment of an alternatives ridership potential was undertaken. The higher the percentage of coverage of traditional and discretionary markets, then the higher the ridership potential score received.

Cost – To facilitate a comparative evaluation of alternatives, this criterion looks at the projected operating cost per trip for each alternative. A simple process, rooted in professional judgment and available data, for projecting costs was used with regard to the four alternatives. The cost per trip for fixed-route service was based on the peer data previously presented. The cost per trip for paratransit service was based on current costs, and cost per trip for ridesourcing was based on the assumption that local policy would cap the trip subsidy at $3.00 per trip.

Connectivity & Accessibility – This criterion categorizes activity centers based on the need for connectivity and measures the ability of the potential alternatives to enhance mobility within the study area. The basic component of this criterion is how well the alternative increases accessibility of residents to various activity centers located throughout the area. The analysis assesses accessibility both in terms of actually providing service to the activity center, but also the range of times the alternative provides service. For instance, fixed-route service may serve an alternative, but only during operating hours, whereas ridesourcing might serve that same alternative 24 hours per day. Therefore, the greater the alternative's ability to connect to activity centers whether in terms of proximity or time, the greater the score in the evaluation process.

Stakeholder Input – In looking at the feedback from stakeholders during their small group meetings, certain service characteristics and community needs were understood. The alternatives were rated based on their ability to meet the needs expressed by stakeholders. Overall, stakeholders indicated an interest in a low-cost solution that provided a wide range of connectivity throughout the community. The greater the alternative's ability to meet the desired outcomes of the stakeholders, the greater the score in the evaluation process.

Ease of Implementation – This criterion is based on the ease of implementation from the perspective of the local government. The more an alternative relies on the private sector for implementation, the easier it is for the local government to implement. To the extent that a private entity offers a turnkey service to a community, the easier it is to implement. In this analysis, the ridesourcing alternatives scored higher than fixed-route alternatives because they appear to be easier to implement for a local government, although this assumes that ridesourcing operations are legal in a local community. (See the Ridesourcing Arrangements section for a greater discussion about legality.) For this criterion, the greater the ease of implementation, the greater the rating.

Degree of Innovation – The more an alternative relies on technology, the higher the degree of innovation. The greater the degree of innovation within an alternative, the higher the score in this evaluation criterion.

The four remaining conceptual alternatives were evaluated under each of the six criteria. Each criterion was given a rating of Very High, High, Medium, Low, or Very Low. The criterion is presented such that higher is always on the better range of the scale (e.g., lower cost is a higher rating).

Evaluation Results

Table 5-1 reflects the scoring for each criterion. The evaluation scores Alternative 4 – Ridesourcing and Alternative 5 – Fixed Route plus Ridesourcing higher than Alternative 1 – Fixed Route plus Complementary Paratransit and Alternative 6 – Status Quo. The ridesourcing alternatives offered a greater degree of ridership potential and connectivity such that they ranked higher than the fixed-route and status quo options.

Table 5-1 Alternatives Evaluation Summary

Alternative	Ridership Potential	Cost	Connectivity & Accessibility	Public Input	Ease of Implementation	Degree of Innovation
1 Fixed Routes Plus Complementary Paratransit						
4 Ridesourcing						
5 Fixed Route Plus Ridesourcing						
6 Status Quo						

Very High (Good) High Medium Low Very Low (Bad)

Based on the results displayed in Table 5-1, it is recommended to further explore Alternative 4 – Ridesourcing and Alternative 5 – Fixed Route plus Ridesourcing. Chapter 6 provides further ridership and cost projections as well as a discussion on funding.

SECTION 6: RECOMMENDATIONS

The following chapter provides recommendations for the implementation of the recommended alternative based on ridership and cost estimates. It also provides information on best practices when implementing a new transit system.

Recommended Alternative

Based on the analysis in Chapter 5, Alternative 4 Ridesourcing and Alternative 5 Fixed Route Plus Ridesourcing were both recommended for further exploration for the Valdosta-Lowndes County community. Given the success of the current fixed-route pilot shuttles and the desire for an option with a lower cost per trip expense, Alternative 5 is recommended as the preferred alternative for the Valdosta-Lowndes County community in the longer term. In the short-term, due to the ease of implementation and reduced overall costs, the community could implement Alterative 4 and transition into Alternative 5 as funding is secured. The phasing approach allows the community to build a ridership base and serve its residents sooner while planning for the longer term approach.

Given the recommendation to ultimately implement Alternative 5, the following section provides ridership and cost projections as well as a discussion on funding options for this alternative.

Ridership Estimates

To estimate potential ridership on the recommended alternative, a spreadsheet model incorporating data at the zonal level for Valdosta and Lowndes County was used for the fixed routes. For the ridesourcing component of the recommended alternative, estimates are based on the current ridership for MIDS demand response service with an additional percent increase to account for the improved convenience of the service. The estimation methodology and results are described as follows.

For the recommended alternative, geographic information system (GIS) software was used to calculate total existing population within one quarter mile of the fixed routes, because stops are assumed to be spaced a quarter mile apart. To develop a range of ridership estimates for the system, the total population within one quarter mile along each route was then multiplied by a higher and lower projected transit mode share. The Albany, Georgia, mode share of 1.85 percent was used as the projected higher transit mode share because it was the highest of the three peer communities with existing systems closest to the recommended alternative in terms of fleet size.[4] Wichita Falls, Texas, was the peer community with the lowest mode share of 0.72 percent, so that was used for the low ridership estimate.

[4] Buses operated in peak service by the three peer communities most similar to Valdosta: Wichita Falls, TX: 9 buses; Albany, GA: 7 buses; Lima, OH: 6 buses

Estimated ridership ranged from 120 unlinked trips per day for the low scenario to 340 for the high scenario. Unlinked trips per vehicle revenue hour ranged from 4 using the low ridership estimate to 9 for the high estimate. In comparison, productivity for the peer communities ranged from a low of 11 unlinked trips per vehicle revenue hour in Lima, Ohio, to a high of 29 unlinked trips per hour in Albany, Georgia. Wichita Falls, Texas, experienced 13 unlinked trips per revenue hour and the larger systems in the Georgia cities of Savannah and Athens had 20 and 25 unlinked trips per hour, respectively. Using the peer communities as a guideline, it is anticipated that the recommended fixed route service in Valdosta can achieve the ridership estimates. Additionally, based on the preliminary operating plan with one hour headways, 15-passenger cutaway vehicles will have sufficient capacity to serve the anticipated demand.

Table 6-1 Unlinked Trips per Day and per Revenue Hour

Peer Community	Number of Fixed Routes	Unlinked Trips per Day	Unlinked Trips per Revenue Hour
Valdosta, GA (projected)	2	120 - 340	4 - 9
Wichita Falls, TX	7	1,476	13
Lima, OH	8	952	11
Albany, GA	10	3,377	29

Source: National Transit Database

By way of comparison, the projected ridership indicated in Table 6-1 was compared to the current ridership on the two pilot shuttles recently implemented. The first shuttle, the Southern Route, was introduced at the end of November 2015 and average daily ridership increased steadily, doubling by April 2016. During April 2016, the Southern Route averaged almost 22 daily unlinked trips with a high of 41 unlinked trips. In the middle of March 2016, a second shuttle, the Northern Route, began service. During April, the number of average daily unlinked trips was 8 with a high of 14 unlinked trips. As a rule of thumb, transit service is typically not considered to be operating in a steady-state until its third year of operation so it is expected that the pilot shuttle figures are very preliminary in nature and, therefore, the maximum potential demand is unknown. However, the success of the existing shuttle service indicates at least some level of demand for regularly scheduled fixed-route service in Valdosta.

Because very few existing transit services have implemented a ridesourcing strategy and there are no ridesourcing companies currently operating in the community, data for estimating potential ridership is limited. To estimate a range of potential ridership on the ridesourcing component of the recommended alternative, the current weekday ridership on the MIDS system was increased by 10 percent to calculate a low estimate and 25 percent for a high estimate. Increases were applied because the increased convenience of on-demand service without the need to reserve 24 hours in advance is likely to spur demand. Between 170 and 195 unlinked trips per day are estimated to use the ridesourcing service. Table 6-2 provides projections of unlinked trip per day for the service which range between 290 and 535 per day.

Table 6-2 Alternative 5: Projected Unlinked Trips

	Unlinked Trips per Day	Unlinked Trips per Year
Fixed-Route Service	120 - 340	31,600 - 89,400
Ridesourcing	170 - 195	44,700 - 51,300
Total	290 - 535	76,300 - 140,700

Cost Estimates

Planning level capital and operating cost estimates were prepared to provide an order of magnitude basis for evaluating the recommended alternative against the study goals and objectives. This section provides a brief overview of the methodology used to estimate costs and presents the results in tabular format.

Methodology

Both the capital and operating costs are based on a preliminary operating plan for the recommended service. The hours of service, headways, number of stops, length of each route,[5] and the average speed on the route[6] were used to estimate the number of vehicles required for each route, the revenue miles of service, and revenue hours of service.

Capital Cost Estimates

The capital cost estimates were based on the number of vehicles required to implement the preliminary operating plan for the recommended alternative and are shown in Table 6-3. Additionally, new bus shelters with ADA compliant pads were assumed to be required at the Downtown Valdosta and Valdosta Mall stops. No capital costs are anticipated for the ridesourcing component of the recommended service, as the private partners are assumed to provide the vehicles.

The number of vehicles required for each route is based on a headway of 60 minutes, with service along the route in both directions. A higher service frequency would require more vehicles and increase costs proportionally. Based on the ridership estimates, vehicles were assumed to be 15-passenger cutaway vans with wheelchair lifts.

It is assumed in the capital cost analysis that a maintenance facility would need to be built. It is possible that the local community could contract maintenance services with another agency, such as a public works department, in order to reduce this capital expense.

[5] Calculated using geographic information systems (GIS)
[6] Based on driving the recommended routes in the field

Table 6-3 Alternative 5: Estimated Capital Costs by Route

Capital Improvements	Ashley Street Route	Modified Shopping Route	Alternative 5 Total
Number of New Shelters	1	1	2
Cost per Shelter[1]	$50,000	$50,000	$50,000
Subtotal Shelters	$50,000	$50,000	$100,000
Total Vehicles in Peak Service	2	2	4
Spare Vehicles[2]	-	-	1
Cost per Vehicle[3]	$60,000	$60,000	$60,000
Subtotal Vehicles	$120,000	$120,000	$300,000
Maintenance Facility[4]	-	-	$1,000,000
Total Capital Cost Estimate	$170,000	$170,000	$1,400,000

Source: VHB

[1]Shelter cost estimates are based on recent experience in Cherokee and Henry counties. The estimate includes installation of the shelter, trash can, bench, and ADA-compliant pad.

[2]It is assumed both recommended routes will be implemented at the same time, however, upon implementation of either recommended route, one spare vehicle will be required.

[3]Vehicle cost estimates are based on recent experience with the purchase of a 15-passenger vehicle for Henry County.

[4]Maintenance facility cost estimates are for planning purposes.

Operating Cost Estimates

A range of operating costs was estimated for Alternative 5. The low end of the range was calculated by multiplying the $55.00 hourly cost of the existing shuttle service by projected annual vehicle revenue hours. For the high end of the range, these estimates were increased by 15 percent to $63.25 per hour as a contingency to account for costs unknown at this time, but that may be discovered as the operating plan is refined and service is implemented.

Projected annual vehicle revenue hours are based on the recommended service with the following characteristics:

- Headways of 60 minutes on weekdays and Saturdays;
- Service from 7:00 AM to 6:00 PM on weekdays;
- Service from 8:00 AM to 5:00 PM on Saturdays;
- No service on Sundays;
- No service on 11 holidays.

In comparison to the peer communities, the current hourly cost of the existing shuttle service is lower than four of the five transit agencies. The lower end of hourly operating costs in Valdosta is close to Wichita Falls, Texas, which reported operating costs per hour of $51.22 for fixed route service, and the high end of the range is slightly lower than Albany, Georgia, which reported costs of $65.62. The other three peer cities had substantially higher costs per hour, ranging from $80.68 in Athens, Georgia, to $87.86 in Lima, Ohio, and $91.95 in Savannah, Georgia.

Table 6-2 displays the projected annual vehicle revenue miles and hours as well as estimated operating costs for the Alternative 5 fixed routes.

Table 6-4 Alternative 5: Estimated Annual Operating Costs by Route

Route Name	Annual Vehicle Revenue Miles	Annual Vehicle Revenue Hours	Annual Operating Cost Estimate
Ashley Street Route	92,000	6,500	$360,000 - $410,000
Modified Shopping Route	105,000	6,500	$360,000 - $410,000
Alternative 5 Total	197,000	13,000	$720,000 - $820,000

For the ridesourcing part of the recommended alternative, operating costs are ultimately a policy matter because Valdosta and Lowndes County can set a maximum subsidy per trip amount and riders will pay the remaining portion of the fare. Based on a review of local governments participating in ridesourcing partnerships in Florida, subsidies are provided for individual trips and capped through an annual budgeted amount or a per trip basis. The City of Altamonte Springs, a suburb of Orlando, Florida has a set annual budget of $500,000 and subsidizes 20 percent of the cost of trips beginning or ending in the city. In contrast, Pinellas County, Florida provides a subsidy of up to $3.00 per trip and Hillsborough County, Florida offers up to $7.00 per trip.

Combining the ridership estimates for the ridesourcing component of the recommended alternative with a $3.00 per trip subsidy results in annual operating costs of $129,000 to $146,000. Using a higher subsidy of $7.00 per trip results in expenditures of $300,000 to $340,000 per year. These ridesourcing cost estimates are intended to provide an idea of how much such a service could cost, the exact amount of a subsidy, if any, is up to Valdosta and Lowndes County decision makers.

The fixed-route service requires complementary paratransit service to be instituted as well. It is recommended that the ridesourcing component of this option can serve as the paratransit option for many riders. For those that require more assistance due to cognitive, developmental, or physical disabilities, service could still be provided through a contract with MIDS, Inc. The average cost of demand response service among the peers is 20 percent of the fixed route operating cost. It is presumed that the operating cost for paratransit will be lower than average given the ridesourcing option in this alternative. In Table 6-5, it is assumed to be 10 percent of the fixed route operating cost.

Total annual operating costs are displayed in Table 6-5. The operating costs range from $921,000 to $1,242,000 per year. Assuming a 50 percent match from FTA funds, this works out to between $23.00 and $30.00 per year for each household in the city of Valdosta.

Table 6-5 Alternative 5: Projected Annual Operating Costs

	Projected Annual Operating Costs
Fixed-Route Service	$720,000 - $820,000
Ridesourcing	$129,000 - $340,000
Complimentary Paratransit	$72,000 - 82,000
Total	$921,000 - $1,242,000

Revenue Estimates

Currently, demand response service in Valdosta and Lowndes County is being financially supported through County funds (i.e., purchase of service revenue) and FTA grants in the form of section 5311 funds. As new services are introduced within the Valdosta Urbanized Area, a wider array of funding sources will need to be accessed to support capital and operational investments to improve transportation services. This section describes potential new funding sources and is organized into federal, state, and local funding categories as well as partnerships.

Federal Funding

Recent growth in multiple Georgia Counties, including Lowndes County reflected in the population numbers from the 2010 U.S. Census, has resulted in an expansion of Urbanized Area boundaries throughout the state. This expansion of Urbanized Areas has affected eligibility for operating assistance through the FTA Section 5311 program. The FTA Section 5311 program provides funding to states for the purpose of supporting public transportation in rural areas. These funds are apportioned to states based on the non-urbanized population of the state and land area. The state is then responsible for allocating these funds to eligible sub recipients. In Georgia, these funds are allocated by the Georgia Department of Transportation (GDOT) Intermodal Division, which determines the formulas, eligibility, and awards.

Recently, FTA began to take the U.S. 2010 Census figures into account and, therefore, some Urbanized Area boundaries were extended. This resulted in some Georgia counties, including Lowndes County, transitioning from the rural to urban categorization and no longer eligible for the full amount of operating assistance previously received through the Section 5311 program. Lowndes County operates its system mostly with funds from the Section 5311 program and service contracts with agencies such as the Department of Human Services (DHS), local senior centers, and other agencies serving the disabled and/or elderly. Lowndes County provides limited local funding for these services, typically just enough to match the Section 5311 award. Under the GDOT Section 5311 formula, Lowndes County is in danger of losing most, even all, of their funding for operating assistance.

To provide support for these transit agencies now serving Urbanized Areas, GDOT has developed new formulas to provide them with partial operating assistance awards. These new formulas are described in Table 6-6. For formulas A-E, whichever formula yields the most revenue is the formula used to provide funding to the county, plus a bonus (formula F) is available if the agency can show it is serving a population with a higher than average proportion of elderly and/or low income persons.

Section 5311 operating assistance awards require a 50 percent local match. This match typically comes from a combination of local funds and various contracted services, including local senior centers, training centers, and local DHS affiliate agencies. These contracts identify a cost that the agency will pay per trip provided. While this contracted price is typically higher than the public fare, it does not usually cover the complete cost of each trip. Agencies that provide trips mostly to contracted agencies can minimize their local match for the Section 5311 operating assistance.

Table 6-6 GDOT Funding Formulas

5311 Funding Formulas	Description
A. **Percentage of Rural Trips compared to Urban trips**	This formula multiplies the FY2015 award by the percentage of trips that are rural to rural, urban to rural, or rural to urban. FY 2015 is used because that is the last year that agencies were provided a 100% award.
B. **Percent of rural population compared to urban population**	This formula multiplies the FY2015 award by the percentage of the county population residing in rural areas. FY 2015 is used because that is the last year that agencies were provided a 100% award.
C. **Fully-allocated cost per trip**	This formula uses the fully-allocated cost per trip multiplied by the number of eligible trips (rural to rural, rural to urban, and urban to rural). The fully allocated cost is based on FY 2014 total actual expenses, the latest year where all reimbursements were completed.
D. **Fully-allocated cost per system miles**	This formula uses the fully-allocated cost per system mile multiplied by the number of miles for eligible trips (rural to rural, rural to urban, and urban to rural). The fully allocated cost is based on FY 2014 total actual expenses, the latest year where all reimbursements were completed.
E. **Fully-allocated cost per rural service hours**	This formula uses the fully-allocated cost per hour multiplied by the number of hours for eligible trips (rural to rural, rural to urban, and urban to rural). The fully allocated cost is based on FY 2014 total actual expenses.
F. **Percentage of population above the poverty level and elderly population in services area.**	Finally, systems receive a bonus if they can show that they are serving an area where the percentage of the population who is considered elderly and/or low income is greater than the state average. An additional $5,000 will be awarded for percentage points above state average for these two demographics.

Reducing the total award from the Section 5311 program for agencies in newly Urbanized Areas such as Lowndes County can leave a significant operating funding shortfall, especially where it makes up 40 to 50 percent of the annual operating budget. One way to make up this shortfall is by using operating assistance through the FTA Section 5307 Urbanized Area Formula Grant program. Section 5307 funds are apportioned to transit agencies annually and are typically reserved for preventative maintenance and capital expenditures; however, there is an exception for small agencies to use a portion of this award for operating assistance.

Section 5307 operating assistance requires a 50 percent match and stipulates that the agency must provide fixed route services and have been reporting those services to the National Transit Database (NTD) for three years to be eligible. If an agency is eligible, the formula for the operating assistance award is equal to the following:

$$5307\ Operating\ Assistance = \left(\frac{Local\ Agency\ VRH}{Total\ Region\ VRH}\right) * \$\ Region\ Apportionment * (50\%\ or\ 75\%)$$

This formula is based on vehicle revenue hours (VRH), therefore the more service an agency provides within the urban area, the more it can use of its 5307 apportionment towards operating costs. The limitations are based on the size of the system. For agencies who operate 75-100 buses during peak fixed service, they may use up to 50 percent of their apportionment based on VRH, and if fewer than 75 buses are used in peak fixed services, this increases to 75 percent.

It is important to note that this operating assistance is not an additional 5307 apportionment, it represents the *portion of* Section 5307 apportionment that can be used for operating assistance. What makes this funding situation difficult is that to be eligible for Section 5307 operating assistance, agencies must have been providing and reporting fixed services for three years. The key to assisting agencies in bridging this funding gap between losing Section 5311 and becoming eligible for Section 5307 operating assistance is identifying additional funding sources as well as areas where costs can be reduced to make the system affordable in both the short- and long-terms.

Lowndes County is in the unique position of knowing that this reduction in Section 5311 award will not occur until FY 2017, providing time to complete this study and begin implementing recommendations before funding eligibility changes and have a plan in place to address projected transit operation costs.

Surface Transportation Program (STP)

The federal Surface Transportation Program (STP) is a flexible funding program, authorized under the FAST Act, that may be used (as capital funding) for public transportation capital improvements, car and vanpool projects, fringe and corridor parking facilities, bicycle and pedestrian facilities, and intercity or intra-city bus terminals and bus facilities. Funds can also be used for surface transportation planning, transit research and development, transit safety improvements, and environmental analysis.

Federal STP funds are distributed by population and programmatic categories within states. Some funds are specifically designated for metropolitan planning areas with populations in the range of 50,000-200,000. About half of STP funds may be used anywhere within the State.

The Valdosta-Lowndes County community could potentially access STP funding to purchase rolling stock and construct bus shelters and a transfer facility. A 20 percent local match is required.

State Funding

The Georgia DOT serves as a primary grant recipient for administering FTA funds, such as sections 5307 and 5311 for areas with a population less than 200,000. As such, the Georgia DOT administers the FTA

Table 3-A allocation for the Valdosta-Lowndes MPO, which is approximately $1 million in 2016. At present, Lowndes County has approximately three years of Table 3 allocations in reserve.

Historically, the Georgia Department of Transportation (DOT) and other state agencies have only provided limited funding for transit. In 2012, the most recent year data was available, Georgia DOT provided approximately $3 million in public transit funding statewide. While Georgia DOT does not provide operating assistance for transit, they have in the past provided a 10 percent match for capital purchases.

Local Funding

A number of potential local funding sources exist to cover the required local 50 percent share of operations costs and 20 percent share of capital costs required by federal funding programs. This section provides an overview of common local funding mechanisms.

Special Purpose Local Option Sales Tax (SPLOST)

Lowndes County and its municipalities currently have a SPLOST in place that runs through December 31, 2019. Because the SPLOST project list is approved in advance, there is no opportunity to fund the transit system through the current SPLOST. However, purchases of vehicles and other capital improvements for the transit system could be included on future SPLOST project lists.

Historically, the SPLOST in Lowndes County has provided revenues of approximately $20 million per year, of which approximately 40 percent, or $8 million has been dedicated to transportation projects including road, street, and bridge improvements and equipment.

Transportation Funding Act (TFA) and Transportation Special Purpose Local Option Sales Tax (T-SPLOST)

In May 2015, the Georgia State Legislature passed the TFA of 2015 (i.e., HB 170) to generate an estimated increase of $1 billion in revenues for transportation annually using a combination of sales (gasoline and diesel) tax provisions at the state level, hotel/motel fees, and heavy vehicle impact fees. While the Georgia DOT is currently in the process of identifying the allocation of these funds for transportation purposes, it is anticipated that the majority of these funds will be directed to critically needed infrastructure maintenance and rehabilitation projects for roads and bridges.

The TFA 2015 also allows a county-level Transportation Special Purpose Local Option Sales Tax (TSPLOST) to be shared between cities and a county that do not already participate in a regional TSPLOST, and allows a fractional percentage (up to 1 percent) levy for a period of up to five years. At least 30 percent of TSPLOST revenues must be used on projects identified in the Statewide Strategic Transportation Plan (SSTP). Funds raised may be used for transportation purposes defined in the bill as roads, bridges, public transit, rails, airports, buses, and seaports and all accompanying infrastructure and services necessary to provide access to these transportation facilities. This means that operating and other noncapital expenses are an eligible use of funds for transportation purposes under the county-level TSPLOST program.

Lowndes County and its municipalities are eligible for a referendum because they currently have a special purpose local option sales tax (SPLOST) but are not part of a regional TSPLOST. An anticipated $10 - $20 million per year in revenues could be generated, depending on the amount of tax (i.e., half-penny versus full-penny) approved by the voters. Unlike the SPLOST, aside from a small portion remitted to the state as an administration fee, all revenues from a TSPLOST must be spent on transportation projects. Should a TSPLOST referendum be placed on the ballot and approved by voters, this funding source has the potential to meet capital needs as well as provide a local operating match of $360,000 to $410,000 per year for transit services.

Fares

Fares collected when riders use the transit service are often a significant source of local funding for transit systems. The decision to charge a fare and how much is a policy matter, which would be decided by the Valdosta-Lowndes County community and partner jurisdictions and agencies. Assuming a per-trip fare of $1.00 and using the low and high ridership estimates discussed previously, fare revenues could be between $54,000 and $100,000 annually.

Based on operating cost estimates and fare revenue projections, fares could cover between 7 and 14 percent of the cost to operate the fixed routes. The current transit service, operated by MIDS, has a goal of recovering 10 percent of operating costs through fares. This is at the low end of the peers, but in line with Lima, Ohio, where fares currently cover 7 percent of fixed route operating costs. At the high end in Albany and Athens, Georgia, fares cover 23 percent of fixed route operating costs.

Partnerships

Numerous opportunities exist for partnerships with local businesses and organizations to assist in defraying the operating cost of transit service. While partnerships can provide an additional revenue stream, it is anticipated that this revenue source would provide only a small percentage of the total annual operating costs.

Local businesses that stand to benefit from increased access to labor markets and customers may consider contributing to transit funding. For example, the City of Altamonte Springs, Florida, was successful in soliciting donations from private businesses to assist in funding a portion of their ridesourcing service.

Valdosta State University (VSU) is an organization that could benefit from improved transit service and may be open to a partnership. For example, a more robust local transit system could reduce the need for parking on campus, saving VSU capital and maintenance costs associated with parking structures and lots, or allowing the university to redevelop underutilized parking facilities for classrooms, laboratory space, or other academic purposes. In partnering with VSU, there may also be an opportunity to report trips on the internal VSU transit system to NTD, and therefore count those trips in the Section 5307 funding formula.

An example of an existing transit system with a university as a partner is Chapel Hill Transit in North Carolina. The University of North Carolina (UNC), City of Chapel Hill, and the Town of Carrboro are financial partners and contribute to the local match based on a formula that takes population into

account. Currently, UNC Chapel Hill funds their portion of the local match through a student transportation fee.

Revenues from partnerships depend on the terms negotiated between the transit service provider and the partners and are unknown at this time. As the system proceeds towards implementation and partners sign on to provide funding, these contracts can be negotiated.

Financial Plan

Transit system capital improvements generally require a 20 percent local match. As such, based on the capital cost estimates for the recommended alternative presented previously, the Valdosta-Lowndes County local match amount is $280,000. This amount could be substantially lower if an existing maintenance facility owned by the city or county has excess capacity that could be used for servicing the transit vehicles. In that case, the required local match would be $80,000 for vehicles and shelters.

Because the recommended alternative qualifies as a small system, Valdosta-Lowndes County will only need to match 50 percent of operating costs. For the fixed route and paratransit service, the local match required will be between $369,000 to $451,000. Because ridesourcing is such a new service, sources of Federal matching funds have not been established. Based on this it is assumed Valdosta-Lowndes County will provide 100 percent of ridesourcing funds, the total Valdosta-Lowndes local match for the total system is estimated at $525,000 to $791,000 annually.

While a number of funding sources were described in the Local Funding section of this report, it is ultimately up to elected officials and other decision makers to identify and allocate the local funds required for the match. Fare revenues and partnerships with local businesses or Valdosta State University could potentially provide a portion of the local match, however, the exact amount of fares or partnerships is unknown at this time.

Implementation Plan

Implementing transit service requires time to secure funding and vehicles plus develop operating and marketing plans. Tables 6-7 and 6-8 provide guidelines for implementation of both the ridesourcing and fixed route systems. The timeline also suggests the responsible party for each task. Some tasks can run concurrently such that the total implementation timeframe does not have to be the sum of the timeline.

Table 6-7 Ridesourcing Implementation Plan

Key Task	Timeline (Months to Complete)	Responsible Entity	Notes
Develop request for proposal (RFP) for ridesourcing contractor	2 months	Valdosta - Lowndes MPO	The scope of the RFP could include ADA services as well as traditional ridesourcing services.
Release RFP	2-3 months	Valdosta - Lowndes MPO	
Select ridesourcing contractor	2 months	Valdosta - Lowndes MPO	
Negotiate performance measures and reporting structures	2 months	Valdosta - Lowndes MPO/Ridesourcing Contractor	Performance measures may be developed prior to RFP release if the scope of work is very specific. If it is broader in order to encourage innovative responses, then performance measures will be developed after a successful proposer is identified.
Develop and implement marketing plan	1 month prior to beginning service	Valdosta - Lowndes MPO/Ridesourcing Contractor	
Implement service	1-4 months	Ridesourcing Contractor	A shorter timeframe is required if the ridesourcing company is already operating in the community.
	4-8 months		A longer timeframe is required if the ridesourcing company is not already operating in the community.

Note: Tasks may run concurrently to reduce overall implementation time.

Table 6-8 Fixed Route Implementation Plan

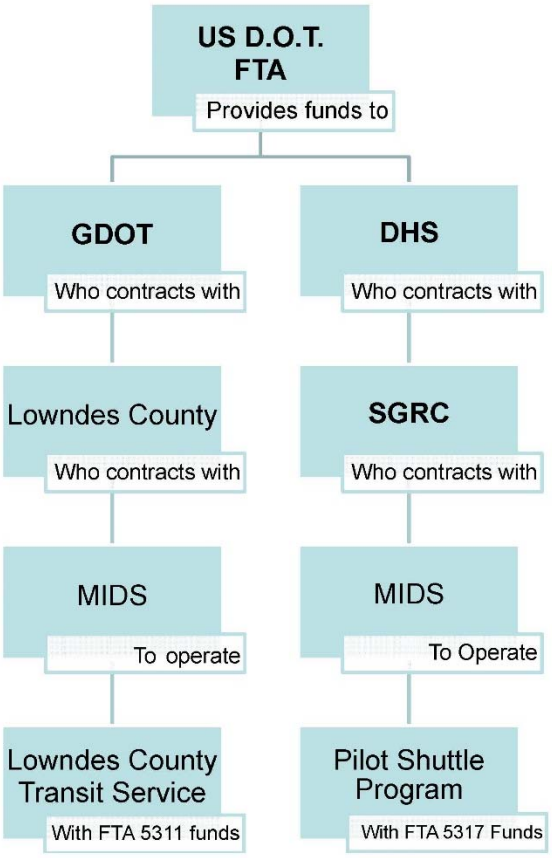
Key Task	Timeline	Responsible Entity
Approve recommended alternative		Lowndes County Board of Commissioners
Determine staffing needs	4-6 months	Lowndes County MPO
Secure funding for buses, finalize financial plan for operations (including National Transit Database reporting)	1-12 months	Lowndes County MPO/Board of Commissioners
Finalize branding	3-6 months	Lowndes County MPO
Order buses	18-20 months prior to beginning service	Lowndes County MPO
Determine maintenance plan	12 months prior to beginning service	Lowndes County MPO
Secure funding for other transit infra-structure (stops, shelters, etc.)	1-6 months	Lowndes County MPO
Finalize and integrate fare structure	8 months prior to beginning service	Lowndes County MPO
Finalize service plan	8 months prior to beginning service	Lowndes County MPO
Determine if changes to ridesourcing operations are needed	3 months prior to beginning service	Lowndes County MPO
Implement marketing plan	6 months prior to beginning service	Lowndes County MPO
Receive, inspect, and test buses	2 months prior to beginning service	Lowndes County MPO
Prepare buses for service	1-2 months after receipt of buses	Lowndes County MPO
Design/print schedules	1 month prior to beginning service	Lowndes County MPO
Implement changes to ridesourcing operations	1 month prior to beginning service	Lowndes County MPO
Launch service		Lowndes County MPO

Note: Tasks may run concurrently to reduce overall implementation time.

Governance

Today, Lowndes County, through the Lowndes County Board of Commissioners and the County Manager, acts as the program administrator with Lowndes County Transit System functioning as a department of the county government with separate recordkeeping. Lowndes County provides service through a third-party operator, MIDS. MIDS has the Department of Human Services and Medicaid contracts for Lowndes County through the Southern Georgia Regional Commission and Logisticare Solutions, LLC, respectively. Figure 6-x provides a graphic to describe the current funding structure.

Figure 6-1 – Current Lowndes County Governance Structure

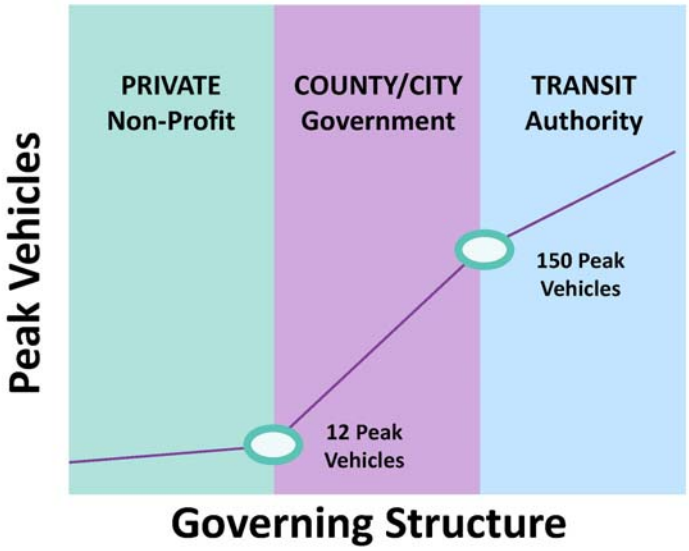


While the community has a current governance structure in place for transit, implementation of the recommended alternative offers an excellent opportunity to review the current structure and determine if it is appropriate for a new set of transit offerings.

The Board of Commissioners should determine what governance structure is appropriate to support the administration, management, and oversight of the area's transit services. Governance options are structured to meet the organizational demands of transit services for the area. Consequently, it will be important to the development of a governance structure to ensure inclusion and participation by all benefiting jurisdictions.

To assist in the decision making, the following information is provided regarding governance models for transit systems. Depending on the jurisdiction, governance models can range from private non-profit (e.g., Council on Aging), county/city government, to transit authority. A 2011 review of Florida transit systems showed that the size of the system (i.e., number of buses in service during peak periods) often correlates to the governance structure employed. In fact, as the system grows, the governance model tends to evolve with it. Figure 6-2 displays the results of this Florida transit agency review. As shown, the smaller systems tend to be governed and managed by a non-profit entity. The mid-sized systems are operated as a county or city department while the large systems evolve into their own authority.

Figure 6-2 – Governance Structure versus Peak Vehicles



Note: Transit service may be directly operated or contracted under each of the governance structures.

It is a matter of policy which governance structure is employed, but given that the community currently has a governance system with a county department overseeing operations, it would be logical to continue this structure, especially if the system anticipates growth.

It is important to note that In addition to the governance model employed, transit service can be directly operated by the governing agency or through a contracted provider. Often, smaller transit agencies can benefit from the economies of scale offered by contracted providers. Currently in the Valdosta-Lowndes County community it is a contracted service operated by MIDS.

Other Considerations

The following section provides a number of other items to consider when implementing a new transit service.

Champions

In order to successfully implement a transit service in the Valdosta-Lowndes County community, a champion needs to be identified. A champion is an individual, group of individuals, or an organization, who promote transit in the community. A champion continuously makes decision makers aware of the need for public transportation and provides education around the issue. They seek media coverage of the issue. They secure support for a community investment from local business, social service, religious, and other community leaders. They also assist in finding funding partners. In other words, they ensure that progress is steadily made on the implementation of a transit service. Without a champion, it can be very difficult to ensure that transit is implemented.

Ridesourcing Best Practices

The Valdosta-Lowndes County community must also learn from other communities experience with ridesourcing. As a rapidly evolving area, it can be difficult and require a community to be bold and innovating in their approach. In developing a relationship with a ridesourcing firm, there are a few best practices that can be helpful. First, the local agency could benefit from negotiating a piggyback clause into their contract. A piggybacking clause would allow other agencies in Georgia to benefit from the same terms and conditions in the Valdosta-Lowndes County contract. By entering into an agreement with a piggybacking clause, the local community may be able to enter into a more competitive agreement with a ridesourcing company.

It is also important that the contract with the ridesourcing company includes a marketing requirement. In the Pinellas County case study provided earlier in this document, PSTA negotiated an agreement that ensured that the ridesourcing company provided marketing support for the new service. The ridesourcing company sent text messages to its current customers in the affected area announcing its service. The company also dispatched a representative to talk to current PSTA customers at its transit facility being served by the ridesourcing company.

Next Steps

The Valdosta-Lowndes County community has a number of big decisions to be made in order to implement transit. The key next steps are listed below.

- Identify champions
- Determine a local funding source
- Review the current governance structure and make adjustments
- Proceed to implementation plan