

## Transit Element

### Introduction

Transit is an integral component of the transportation network for many residents of the BCD region. A significant number of local citizens rely on transit to access jobs, medical care, needed services, and all other aspects of daily life. As the region's population continues to grow, convenient and reliable transit service will become an even greater necessity. The purpose of this element of the Long Range Transportation Plan is to identify transit strategies that will enhance mobility options, ease congestion, and mitigate transportation costs for all residents of the region, including those who have no other transportation options as well as those who have other mobility choices.

Transit is reliant upon a complete transportation system to operate effectively. Appropriate roads and highways must be suitable for bus traffic, sidewalks, and other pedestrian features that provide adequate access to transit stops. Thus, transit cannot be considered in isolation. The strategies that will be developed as part of the long-range transit vision will be supportive of improvements to the total transportation system.

Existing transit services in the BCD region are summarized below. Following this summary is a synopsis of previous and current transit planning efforts in the region, an overall assessment of transit needs, and a discussion of the future outlook for public transportation.

### Existing Transit Services

Transit services are provided by two agencies in the BCD region: the Charleston Area Regional Transportation Authority (CARTA) and TriCounty Link (also known as the Berkeley-Charleston-Dorchester Regional Transportation Management Association (RTMA)). Since 2004, with the addition of transportation sales tax revenues and private sector funding partnerships, transit services have expanded and ridership has increased drastically. CARTA provides fixed-route and paratransit (demand-response) services in the urban core of Charleston, North Charleston, and the immediately surrounding areas. TriCounty Link provides deviated fixed-route and demand-response services to residents of the outlying rural areas. In addition to the two public transit operators, a number of local human service agencies provide transportation services geared specifically to their clients. Many private transportation and taxicab companies offer personalized transportation services as well. Intercity transit services are available through Greyhound and Amtrak. Coordination efforts have been facilitated to enable efficiency and connectivity of transit providers as well as various modes of travel, as presented in the BCDCOG Human Service Transportation Coordination Plan.

### CARTA

As the urban public transit provider, CARTA serves as the primary means of transportation for many local residents. CARTA's services include a network of fixed routes, commuter express routes, complementary paratransit service (Tel-A-Ride), and the Downtown Area Shuttle trolleys (DASH). CARTA caters to the diverse transportation needs of the citizens of the CHATS area, such as those of commuters, students, cyclists, the elderly or disabled, and visitors to the area. Providing transit services to nearly 650,000 residents, CARTA has one of the largest service areas of Southeastern transit providers. Additionally, CARTA has experienced annual ridership in excess of four million trips provided.



CARTA was established in 1997, when the agency assumed responsibility for transit services that were formerly operated by South Carolina Electric and Gas (SCE&G). As part of the transition agreement, SCE&G provided funds sufficient to support transit operations for approximately 7 years. At the end of the 7-year period, a new local funding source must be identified to support operations and provide matching monies for federal grants.

### Funding:

In the past, CARTA has lacked the funding necessary to sufficiently serve the transit needs of Charleston-North Charleston-Summerville Metropolitan Area citizens. In November 2004, nearly 60% of Charleston County voters approved a ½-cent increase in the county sales tax in which proceeds are dedicated to roadway and bridge improvements, green space acquisition, and transit operations. This appropriation has enabled CARTA the financial security necessary to maintain and enhance existing services. Additionally, a federal apportionment of nearly five million dollars per the *American Recovery and Reinvestment Act* in 2009 and an annual apportionment from Federal Transit Administration (FTA) Section 5307 program have given CARTA the financial capacity to improve and sustain services. In fact, the allocation of federal funding through the *American Recovery and Reinvestment Act* (ARRA) has permitted CARTA to replace eleven percent of its aging bus fleet, improve the Leeds Avenue Maintenance Facility, and install 25 additional bus shelters throughout its service area. A comprehensive approach to service delivery that includes funding resources, strategic partnerships, targeted marketing, and service adjustments has enabled CARTA to boast record ridership for the second consecutive year. In 2009, Charleston County Half-Cent Sales Tax revenue accounted for nearly 40% of CARTA's administrative and operating revenues exceeding federal appropriations, which accounted for nearly 30%, passes and farebox

revenues accounted for nearly 20%, partnerships with local agencies and SCDOT grant monies accounted for the remaining 10%.

Partnerships with the College of Charleston, City of Charleston, the Medical University of South Carolina, Roper Hospital, the Citadel, Charleston County School District, and Trident Technical College have also contributed to sustained increases in ridership. CARTA has participated in many ongoing marketing efforts and initiatives to educate citizens of its services and the many benefits of transit.

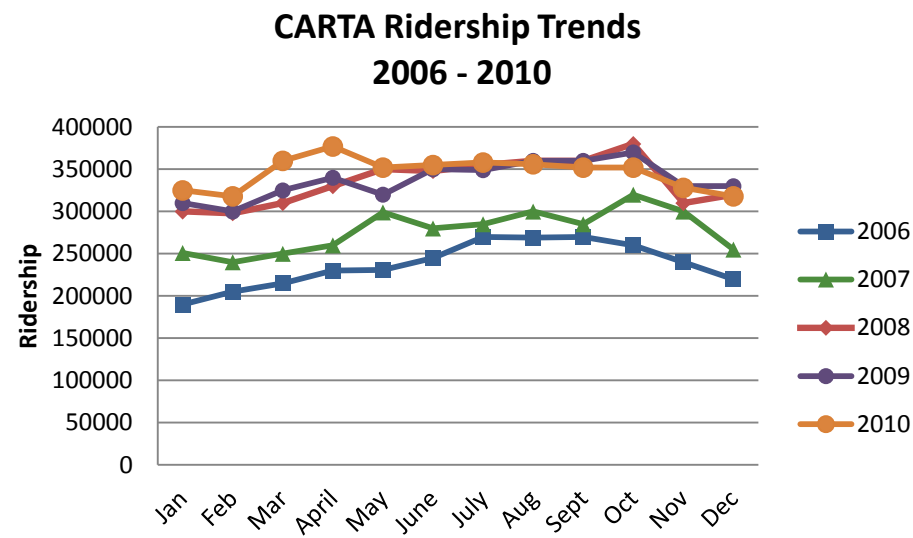
CARTA is developing a vehicle replacement plan, in which the establishment of a Capital Replacement Investment Fund will be recommended. This will allow the 20% local match requirement to federally fund vehicle replacements be held in reserve to avoid the fiscal strain associated with vehicle replacement. Despite ARRA funding to replace its fleet, the replacement of additional buses will be necessary over the next five years and will require substantial funding. For instance, the cost to replace one bus with all of the required components (fare tower, security camera, etc.) exceeds \$400,000 in 2010 dollars. Because vehicle replacement consists of a significant portion of CARTA's budget, the Vehicle Replacement Program was developed to stagger vehicle purchases over the five-year planning horizon. Similar to the Capital Replacement Investment Fund, CARTA intends to initiate an operating reserve fund, where three months of operating expenses will be held in reserve to provide financial security in the case of a sudden decline in revenues.

### Services:

CARTA currently operates twenty-five routes with six park and ride facilities. With increased residential and commercial development, expansion of services and facilities is needed to sufficiently meet the transportation needs of traveling public. Conversely, future growth of the region and land use planning must coordinate with transit service planning. Services are provided Monday through Saturday and as late as 11:00pm on certain routes. DASH services and certain fixed-route services are available on Sundays. CARTA Express Service caters to peak hour commuters and has displayed increasing ridership since its inception in 2007. Currently, CARTA maintains two express routes: North Charleston to James Island and West Ashley Mount Pleasant. Monthly ridership of Express Services exceeds 30,000 riders who opt to utilize transit over their personal automobile. This represents a new trend in CARTA, with over 70 percent of Express Service passenger households possessing more than one vehicle. Sustaining ridership trends and efficiency of Express services is fundamental to ensure a sustainable transportation system. In fact, the expansion of Express services has been proposed for the Dorchester Road corridor to Downtown Charleston to accommodate the increased travel demand associated with regional commuting patterns. This new route will service employment node in North Charleston and the recently completed park and ride facility at the North Charleston Regional Intermodal Transportation Center. Furthermore, the success of these services will provide the basis for the designation of fixed guideway transit corridors. CARTA Express Service was implemented through the *New CARTA Plan*, which was adopted in 2005. Additionally, all CARTA buses are equipped with bike racks to provide that intermodal connection for cyclists. Furthermore, CARTA is focusing on customer service, as indicated in the *CARTA Transit Action Plan FY 11-12*, to equip the new bus shelters

planned for construction throughout the CHATS Area with automatic vehicle location (AVL) software to inform passengers with *real-time* arrival information.

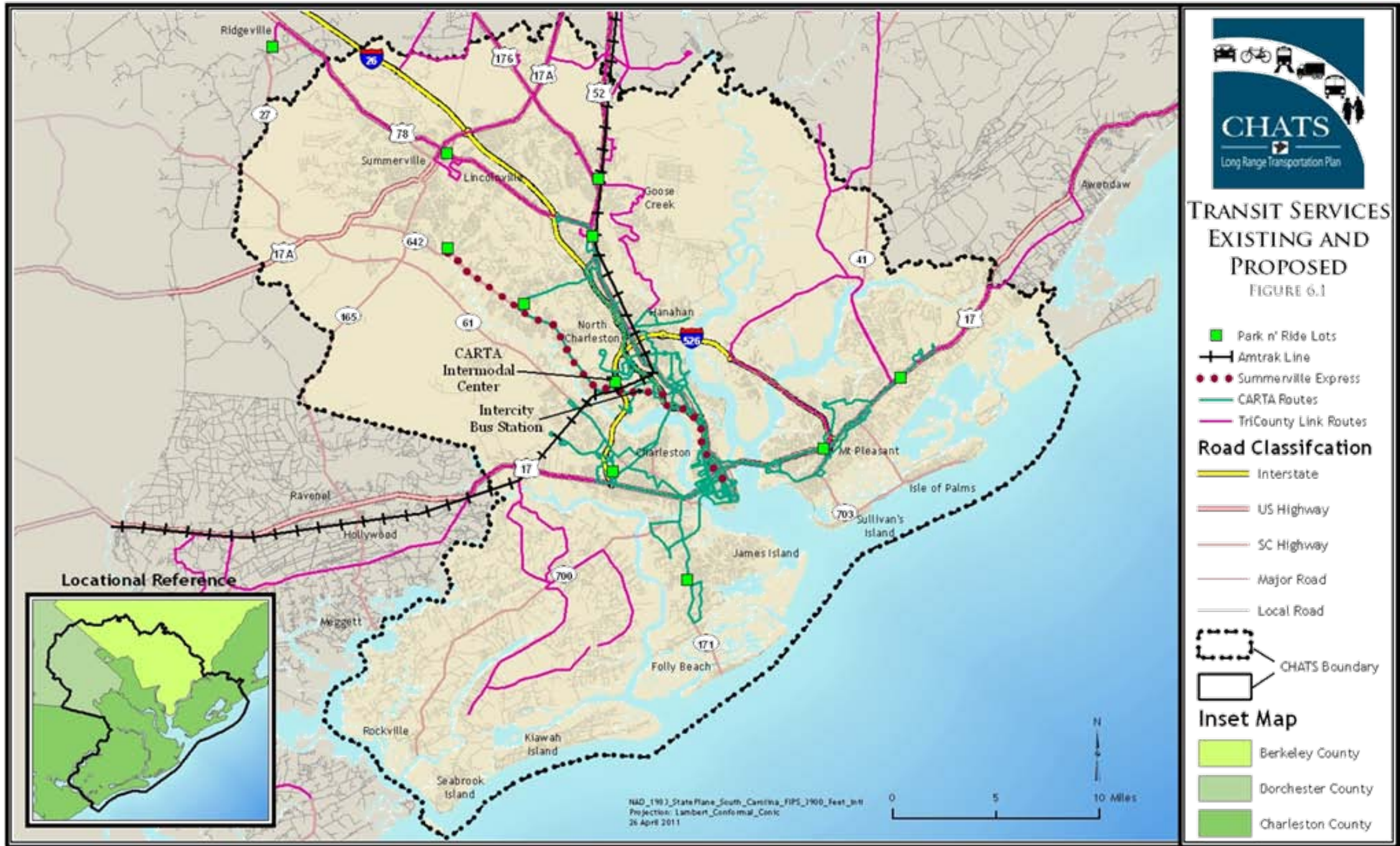
**Figure 6.1** illustrates the fixed routes that serve the CHATS planning area. In totality, CARTA ridership has steadily increased since 2005. More specifically, it has increased by nearly 200 percent. However, increases in ridership create new pressures on CARTA to expand services as certain routes reach capacity. CARTA must continuously strive to maintain the existing level of service but also devise efficient and innovative methods to accommodate future growth. For example, DASH service has experienced a significant increase in ridership (over 78,000 passengers per month) by partnering with the City of Charleston, the Charleston Visitors' Bureau, and the State Ports Authority. This partnership allowed the DASH service to operate fare-free starting in late 2010. It is this type of partnership and creative marketing that will allow CARTA to expand and reach new markets. The graph below, **Figure 6.2**, displays CARTA's ridership trends from 2006 to 2010.



**Figure 6.2: CARTA Ridership Trends 2006-2010**  
Source: CARTA

One of the ways in which CARTA intends to accommodate future transportation needs is by advancing the development of the North Charleston Regional Intermodal Transportation Center near the intersection of Dorchester Road and Montague Avenue. This 30-acre site was purchased through funding from FTA Section 5309, *New Capital Investments*. This intermodal transportation center will accommodate CARTA and TriCounty Link transit services, Greyhound, Amtrak, taxi, and, prospectively, fixed-guideway transit services. Due to its proximity to Interstate 526 and the Charleston International Airport, this site is ideal for intermodal exchange. As of 2010, the installation of utilities and lighting, landscaping, and the construction of a park and ride lot consisting of 225 parking bays has been completed. The park and ride facility will not be utilized by transit patrons until the Dorchester Road Express Route is instituted. Aside from services associated with transit, this multistory building will house a variety of commercial uses including retail, restaurant, and office opportunities. Funding for this project will result from federal programs as well as public-private partnerships.





### TriCounty Link

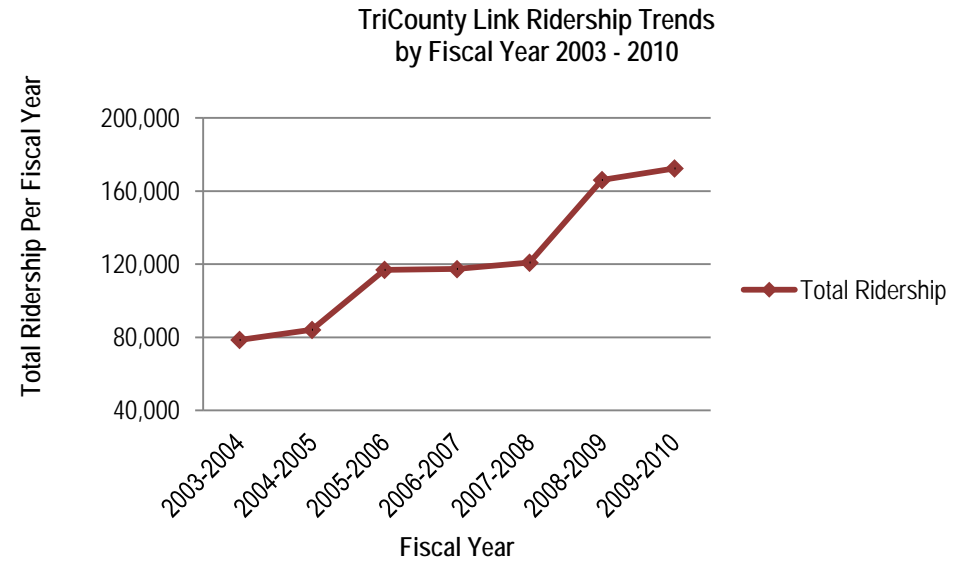
TriCounty Link legally the Berkeley-Charleston-Dorchester Regional Transportation Management Association (RTMA) prior to September 2007, provides rural transit service throughout the BCD region, serving both the general public through scheduled routes and demand-response services, as well as agencies and employers through contract operations for their clients. Established in 1996, TriCounty Link focuses on transporting customers who reside in rural areas to employment opportunities and services. Through coordinated transfer points with CARTA, customers can travel into the urbanized area, providing these citizens with a more economical method of travel. Because of the rural service area, TriCounty Link is characterized by longer trip lengths and more specialized services than are typically provided in an urban setting.

#### Services:

TriCounty Link currently provides nine deviated fixed routes, four *Commuter Solutions* routes, and ten contract routes throughout the region as well as Medicaid services in Dorchester and Berkeley Counties. . TriCounty Link maintains eight park and ride locations that provide free parking. Each TriCounty Link bus is equipped with bike racks to cater to the transportation needs of cyclists. A transfer agreement with CARTA allows patrons to transfer in between transit providers at no additional charge. In fact, in 2008, the institution of three additional commuter routes providing a terminus at the CARTA bus stop at the Otranto Super K-Mart enable commuters from Ridgeville, Summerville, Goose Creek, and Moncks Corner to connect with CARTA services. The Mount Pleasant K-Mart Park and Ride provides transfer opportunities as well. Additionally, TriCounty Link provides free Link-to-Lunch services in Moncks Corner through a partnership with Santee Cooper. TriCounty Link continuously strives to maximize efficiency of its services while providing rural residents with easy accessibility throughout the BCD region. In late 2009, a Commuter Solution route was extended to residents of Bonneau, St. Stephen, and Pineville.

In 2009, TriCounty Link’s ridership consisted of nearly 170,000 individuals, a number that is only expected to increase in the future. The expansion of services to Wadmalaw and Kiawah Islands as well as the existing services on Edisto Island is anticipated for the future. Lastly, as of July 2010, TriCounty Link, through a partnership with Santee Cooper, was able to equip four commuter buses with wireless internet capabilities; TriCounty Link plans to equip additional buses with such capabilities in the future. The routes equipped with these services consist of the Moncks Corner-Summerville and North Charleston-Moncks Corner Commuter Solutions routes. The intent of this installation is to boost ridership and revenues as well as change the image of public transit. TriCounty Link is the first public transit provider in the state to provide wireless internet capabilities. TriCounty Link’s strides in accommodating the transportation needs of rural BCD residents enabled it to boast an increase in ridership exceeding 40 percent from June 2009 to July 2010, with the most significant increases occurring in the Commuter Solutions routes. However, ridership on Dorchester County routes has declined during this time period; TriCounty Link is investigating more efficient and effective methods of providing public transit to this area. South Carolina Department of Transportation (SCDOT) designated TriCounty Link as the *best rural public transportation provider*

of 2010 and the *best transit provider of 2008*. Finally, TriCounty Link plans to expand service through public-private or public-public partnerships as opportunities arise or as funding allocations allow. The graph below, **Figure 6.3**, displays TriCounty Link’s ridership trends from 2003 to 2010.



**Figure 6.3 TriCounty Link Ridership Trends 2003-2010**  
Source: TriCounty Link

#### Funding:

The low-density character of the rural areas of the BCD region presents fiscal challenges for rural transit providers. To assist in these expenses, TriCounty Link obtains funding through a number of federal programs through the Federal Transit Administration via such programs as Section 5309 - *Transit Capital Investment*, 5311-*Formula Grants for Other Than Urbanized Areas*, 5316 - *Job Access and Reverse Commute*, 5317 - *New Freedom Program*, and indirectly through Section 5310 - *Transportation for Elderly Person and Persons with Disabilities*. . Additionally, through Title XIX of the *Social Security Act*, funding is distributed to transit providers for the transportation of Medicaid recipients to non-emergency medical services. Medicaid funding for Berkeley and Dorchester Counties comprised nearly 26% of TriCounty Link’s administrative and operating revenues during the 2010 fiscal year. Additionally, with over one million dollars appropriated per the *American Reinvestment and Recovery Act (ARRA) of 2009*, TriCounty Link is able to update its aging facility and purchase 14 14-passenger buses and two 32-passenger buses. To obtain local revenues, TriCounty Link maintains contractual agreements with local businesses. An example is

the ongoing partnership with Santee Cooper that has enabled TriCounty Link to enhance and maintain services in Berkeley County. TriCounty Link plans to establish similar partnerships in Dorchester County to expand services. TriCounty Link also obtains revenues from fares and advertising income. Additionally, Charleston County has allocated half-cent sales tax revenue toward TriCounty Link operations. This appropriation has enabled the extension of services to residents of Mt. Pleasant, Awendaw, McClellanville, and Johns Island.



Source: [www.ridetricountylink.com](http://www.ridetricountylink.com)

**Figure 6.1** illustrates TriCounty Link routes serving the CHATS study area.

TriCounty Link has achieved a sustained increase in ridership since 2003, as illustrated in Figure 6.3; TriCounty Link Ridership Trends 2003-2010. In fact, TriCounty Link has experienced an increase in ridership of nearly 120% since 2003. These gains result from increased coordination with local human service agencies as well as the enhancement of existing services in Charleston County through the appropriation of half-cent sales tax funding, federal funding, and the establishment of partnerships.

#### *Other Transit Providers*

TriCounty Link contracts with a number of agencies in Berkeley and Dorchester Counties to provide transportation services for their clients; however, in Charleston County, many of the human service agencies work through the broker system established to deliver Title XIX (Medicaid) transportation for eligible clients in Charleston County for transportation to health care facilities. A number of other agencies also provide transportation specifically for their clients, using agency-operated vehicles. This type of service is generally funded by agency programs, and is not open to the general public.

In addition, a significant number of private transportation companies, including taxicab companies, operate in the BCD region. These companies provide specialized services for individuals and groups.

#### *Intercity Transit Services*

Intercity bus services in the BCD region are provided by Greyhound and by I 95 Coach, while intercity rail services are operated by Amtrak. Greyhound's regional bus terminal is located on Dorchester Road in North Charleston, and provides service to points north, south, and west. Another Greyhound terminal is located in Summerville. I-95 Coach provides daily express bus service from locations in North Charleston (Wal-Mart on Rivers Ave) and Summerville (McDonalds at US 17A and Interstate 26) to a location in New York's City, NY. The region's Amtrak station is located in North Charleston, and is served by Amtrak's *Palmetto* and *Silver Meteor* lines.

### *Transit Planning Efforts*

#### *Previous Long Range Transportation Plan*

The previous CHATS Long Range Transportation Plan included a transit element that was completed in 2005. The transit element contained three major components:

1. *The Planning Framework*, which included information on transit needs, based on socioeconomic analysis, an operational analysis, and market research
2. *The Strategic Plan*, which described issues and opportunities regarding overall transit policy
3. *The Long Range Transit Plan*, which detailed proposed service improvements

At the time of this previous effort, limited funding was available to public transit providers thus, services and ridership were in decline. The previous plan supported the goals of the *New CARTA Plan* by including options for expanding existing regional transit services and facilities, enabling an integration of various modes of travel, developing innovative funding strategies, and enabling coordination among the rural and urban transit providers, The *New CARTA Plan*, adopted in 2005 in response to funding and service reductions in 2004, devised methodologies to restore and improve existing services by instituting: CARTA Express Service, CARTA At Night, additional fixed routes, and the designation of paratransit zones. The expansion of services purported in the *2005 New CARTA Plan* and coordination efforts between TriCounty Link and CARTA have been implemented; however, further coordination among transit providers as well as integration among varying modes of travel is necessary to further a sustainable and economically efficient transportation system. Lastly, the plan referred regional coordination of transit service and land use planning decisions to coordinate and develop transit services in the CHATS region. To advance this objective, the BCDCOG will undertake a feasibility study in 2011 to identify the opportunities and barriers.

### *Commuter Rail Service*

Commuter rail is a service that operates on existing freight rail lines, catering to intraregional commuters traveling to and from work during the peak commuter hour. Historically, these transit services provided a means of transportation for residents of the suburbs into the central business district. In fact, the first regularly scheduled passenger service in the United States operated between Charleston and Augusta (1833). More recently, as cities continue to expand, the use of commuter rail has been implemented across the country to avoid the mitigate highway congestion. In 1990, BCDCOG conducted a study of potential commuter rail corridors in the Charleston Urban Area. Two primary corridors were evaluated, both radiating from downtown Charleston:

- Charleston – Summerville
- Charleston – Goose Creek – Moncks Corner

This study included only very preliminary analyses, and recommended that investigations that are more detailed be conducted. The analysis concluded that commuter rail service was not warranted at the time of the study; however, with sustained residential and commercial development contributing to increased travel demands on our roadways, a commuter rail service could be viable in the Charleston – Summerville corridor as well as the Charleston – Goose Creek corridor. The 1990 Study concluded that the following actions be taken: a detailed feasibility analysis of these corridors, preservation of the right-of-way as well as locations suitable for train stations, and advance the use of the Charleston Visitors' and Transportation Center as a rail terminus.

In the spring of 2006, a preliminary feasibility study of commuter rail in the CHATS Area was completed as recommended in the 2030 Long Range Transportation Plan, public interest, and increasing travel demand in these corridors. This study specifically analyzed the corridor stretching from the peninsula to the Town of Summerville along existing Norfolk Southern rail lines. According to land-use data collected for study, the population in areas along the corridor is predicted to increase by approximately 45,000 by 2025, concluding that a commuter rail service could potentially be successful in the Charleston/Summerville corridor in the future. The 2006 study initiated the planning framework that continues to guide policy decisions to date.

The 2006 Feasibility Study outlined nine recommendations for implementation of Commuter Rail in the CHATS Area; as of June 2010, three of these recommendations have been completed and the remaining recommendations are in progress. The recommendations that have been successfully completed are as follows;

- Implement and ensure effective marketing of the CARTA Express Service as success of this transit service will provide the impetus for commuter rail.
- Strengthen partnerships with stakeholders in the region who have an interest in rail and other forms of transit. The CHATS Commuter Rail Committee and the I-26 Corridor

Committee have been created as a cooperative means to coordinate these efforts with land use planning.

- Establish a regional Rail Transit Advisory Committee that collaborates on coordinating land use and commuter rail planning and facilitate transit-oriented developments. The CHATS Commuter Rail Committee and the I-26 Corridor Committee have been created to facilitate regional coordinated land use and commuter rail planning efforts.

The recommendations that are currently in progress are as follows:

- Thorough land use data collection and forecasting for the commuter rail corridor. This research is compiled by the BCDCOG pursuant to the 2035 Long Range Transportation Plan.
- Perform mode split modeling and ridership estimates. The estimation tool and base year have been completed.
- Initiate coordination with rail operations who own the rail alignments within the corridor to establish track-sharing agreements.
- Perform a capacity analysis of rail lines and existing roadway infrastructure.
- Further capital investment analysis. This is a component of the Phase II Commuter Rail Feasibility Study, which was initiated in 2008.
- Expand service potential to Goose Creek and Moncks Corner per the CSX rail line. This is a component of the Phase II Commuter Rail Feasibility Study

Additionally, the proposed North Charleston Regional Intermodal Transportation Center is consistent with these plans. This facility will provide a park-n-ride facility, along with a transfer point for intermodal connections, where the routes will converge. CARTA and TriCounty Link will provide feeder transit services to places of employment that are not immediately accessible by the commuter rail line. Additional potential terminal locations proposed in the 2006 study include the former South Carolina Railroad Terminal, now currently the Charleston Visitors' and Transportation Center, located just south of Mary Street on the Charleston Peninsula. This terminal will provide immediate access to the commercial corridors of King and Meeting Streets as well as several economic generators including the College of Charleston, the Medical University of South Carolina, and Charleston School of Law via CARTA's DASH services. The potential Summerville Terminal, located between Main Street and Berlin Myers Parkway or potentially north of downtown, is easily accessible given its proximity to downtown and arterials. Infill development and revitalization of Upper King, Noisette and the Navy Yard, as well as the Neck Area, contribute to increased commercial and residential development, compliment commuter rail plans, reinforcing the need and feasibility of this transit service.

A second corridor was evaluated in phase II of the Commuter Rail Feasibility Study that investigates the potential for commuter rail along the Highway 52 corridor stretching to Moncks Corner and Goose Creek along existing CSX rail lines. Like the Phase I study, analysis of population and employment trends, growth and development patterns, the availability of right-of-way, travel patterns

and demand, as well as roadway capacity is necessary to assess the suitability of commuter rail along this corridor. Additionally, this study will investigate the suitability of proposed stations, including parking availability, amenities offered, and cost of construction. An inventory of grade crossings and the condition of rail lines, an evaluation of necessary line improvements, as well as a capacity analysis of the rail lines has been completed. As of July 2010, an analysis of the capital investment necessary to facilitate this initiative is in progress. Further analysis of the suitability and cost of proposed passenger stations, rolling stock estimation, funding opportunities, as well as modal split modeling and ridership estimates remains to be completed.

Lastly, the BCDCOG completed the Application to the State Transportation Infrastructure Bank (SIB) in October 2008 for funding for commuter rail. Although the application was determined to be eligible for funding under the SIB guidelines, no funding has yet been appropriated.

## Current Transit Planning Efforts

### CARTA Transit Action Plan FY 2011-2015

CARTA prepares a transit action plan every five years. The transit action plan is an annually updated business plan that involves an assessment of current services and infrastructure, designation and prioritization of near-term action items that reflect current strengths, weaknesses, and opportunities, as well as the development of the program of projects. As the goals outlined in the former transit action plan, the *New CARTA Plan*, have been attained, it is time to devise a new plan that recognizes the current transit needs and opportunities in the region. The proposed *CARTA Transit Action Plan; Fiscal Year 2011-2015* is primarily focused on maintaining existing service; the uncertainty associated with the current economic climate limits CARTA's ability to commence large-scale expansions without new sources of funding. In fact, CARTA intends no net increase or decrease in services. However, maintaining the existing level of service can present a fiscal challenge without locally generated funding. The projected administrative, operational, and debt service costs associated with maintaining the existing level of service for the next five years exceeds \$100 million. CARTA intends to generate local funding through four goals: maximizing efficiency of resources, increasing local revenues, building community support, and planning for future investments. Additionally, CARTA outlined 20 prioritized objectives to facilitate the four aforementioned goals. *High priority* indicates the objectives that are necessary to maintain the existing level of service as well as promote fiscal efficiency and sustainability. *Medium priority* indicates the objectives that will contribute to the facilitation of near-term enhancements; near-term enhancements are defined as those that require little investment but generate a high level of return. *Low priority* indicates the longer-term objectives that require a great deal of investment and necessitate higher risk premiums. Prioritized objectives of the CARTA Transit Action Plan are enumerated below:

### CARTA Transit Action Plan; FY 2011-2015

	Objective	Prioritization
1	Maintain the existing level of service	High
<b>Maximize Efficiency</b>		
2	Build Upon Most Successful Services	Low
3	Discontinue Underperforming Services	High
4	Install Automatic Vehicle Location System	Medium
5	Reassess Service on Peninsula	Medium
6	Establish Operating Reserve Fund	Medium
7	Replacement Program	
<b>Plan For Future Development</b>		
8	Advance Implementation of Intermodal Center	High
9	Continue to Build Capital Replacement Fund	High
10	Create an "Enhanced Bus" Service on Rivers Avenue	Low
11	Prepare for New Service Opportunities	Medium
12	Continue Planning for Future Major Investments	High
<b>Increase Revenue</b>		
13	Seek Increased Advertising Revenues	High
14	Consider Concessions at SuperStop	Medium
15	Build Partnerships with Local Hotels and Attractions	Medium
16	Local Dedicated Funding	
<b>Build Support</b>		
17	Provide Additional Transit Amenities	Medium
18	Enhance System's Online Presence	High
19	Develop a Focus on Sustainability	Medium
20	Increase Community Involvement	Medium

Source: CARTA Transit Action Plan FY 11-15

Additionally, CARTA intends to extend services to areas that are currently underserved; these areas include the following:

- Dorchester Road; Implementation of the Express Service route to attract commuters from the Summerville Area.



- Daniel Island; The anticipated classification as an urbanized area per the 2010 Census would necessitate its inclusion into CARTA's service area.
- Mount Pleasant; Services remain limited despite sustained growth.
- Other areas that continuously petition for CARTA services such as Folly Beach.

Transit service is an effective strategy in addressing traffic congestion, air quality deterioration, and achieving growth management goals promulgated in comprehensive land use plans. The LRTP seeks to synthesize these goals into a regional vision that address the mobility needs of the region while maintaining quality of life and equitable service for all users. One initiative being explored by CARTA is to build on the success of high performing services by increase the level of service to existing customer and attract new ones by implementing an *enhanced bus* service. This concept would complement Route 10 on Rivers Avenue, which accounts for 25% of total system ridership, servicing nearly 35 passengers an hour. This route is not only significant fiscally but also to the many passengers that rely on its services; thus, CARTA intends to enhance services through the following: increase frequency of bus service, incorporate stylized buses that provide additional passenger comfort, coordinate traffic signals, improve amenities, implement unique branding and marketing of new *enhanced services*, and enhance pedestrian access to bus stops. Building on the success of an *enhanced bus* services on route ten will provide the underlying support for a fixed guideway transit service, such as commuter rail or bus rapid transit (BRT).

CARTA intends to make incremental progress in support of major transportation improvements including bus rapid transit (BRT) or commuter rail through continued enhancement of existing services and implementation of the Dorchester Road Express Route. CARTA is also involved, as a stakeholder, in the evaluation of the feasibility of commuter rail in the CHATS Area.

## High Speed Rail in South Carolina

### Federal Policy Framework

The American Reauthorization and Reinvestment Act (ARRA) of 2009 presented a renewed interest in high-speed rail in pursuit of advancing the interconnected, livable communities initiative. Through this bill, \$8 billion was allocated to states through the 2012 fiscal year for the improvement and advancement of intercity high-speed rail services with \$1.3 billion of these funds allocated specifically to Amtrak. Aimed at near-term economic recovery, this act established the basis for longer-term improvements that promote economic viability and competitiveness. Subsequently, the Passenger Rail Investment and Improvement Act of 2008 aimed specifically at improving existing intercity rail services and designating corridors through inter-state coordination. In April of 2009, the Federal Railroad Administration (FRA), a branch of the United States Department of Transportation (DOT) that is committed to advancing a national intercity rail network, completed the High Speed Rail Strategic Plan, which delineated the goals, challenges, and benefits of implementing intercity high-speed rail. With previous legislation and planning efforts providing the policy framework, FRA developed the High-Speed Intercity Passenger Rail (HSIPR) program in June 2009,

which strives to facilitate intercity rail by providing funding for infrastructural and capital improvements as well as multimodal connections. Furthermore, the FY 2010 DOT Appropriations Act allocated \$2.5 billion to the HSIPR program for service development programs, individual projects, planning projects, and multi-state coordination with a 20% local match requirement.

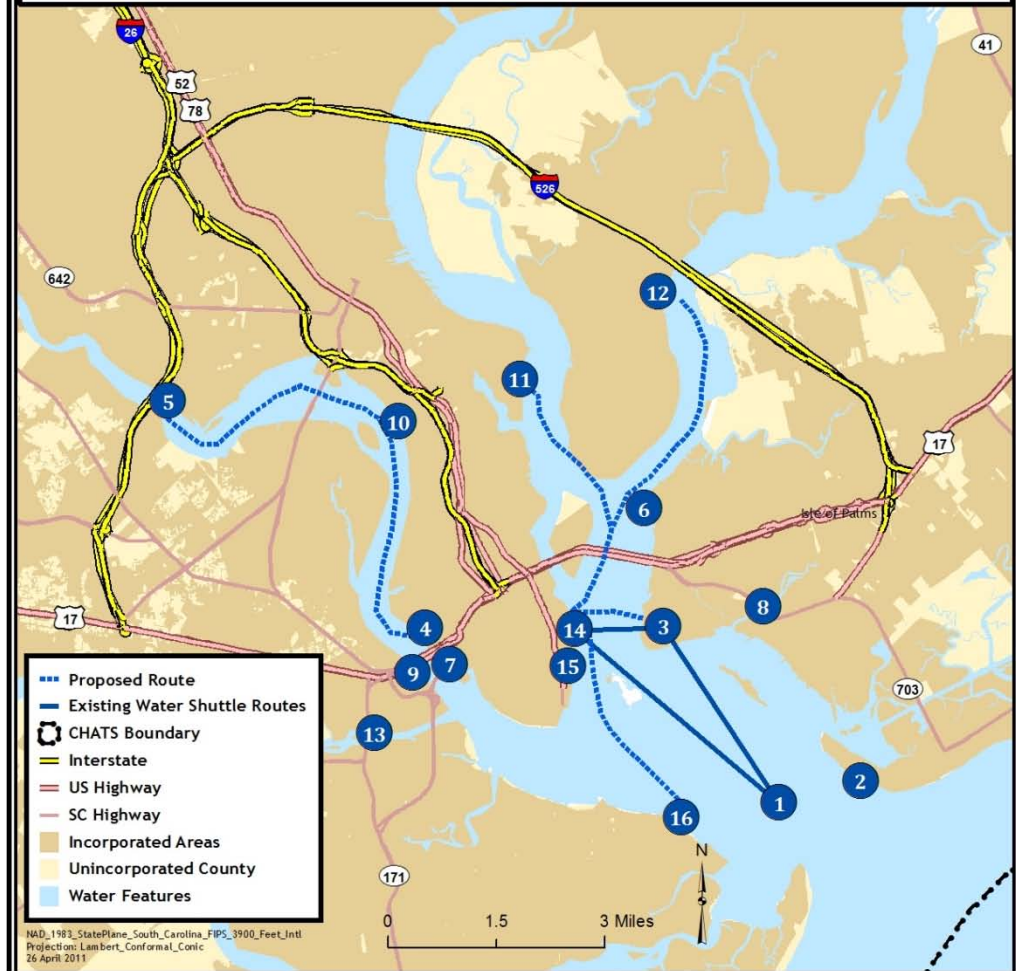
A coalition has been formed among transportation leaders of Southeastern states, including Alabama, Tennessee, Virginia, North Carolina, Georgia, Florida, and South Carolina to facilitate a high speed, interconnected, intercity rail service. Two federally designated high-speed rail corridors within South Carolina are as follows: 1) Raleigh, NC – Spartanburg/Greenville, SC – Atlanta, GA 2) Raleigh, NC – Columbia, SC -Savannah, GA. Neither route passes through the BCD area. The South Carolina Department of Transportation is participating in these efforts and continues to study intercity passenger rail connections within South Carolina. As of May 2010, CHATS supports the designation of an East Corridor under HSIPR to serve the CHATS Area. The East Corridor would provide daily intercity rail services between leading tourism destinations, Myrtle Beach and Charleston. Additionally, the North Charleston Amtrak station accounts for over 30% of all boardings and alightings in the state. The proposed North Charleston Regional Intermodal Center will provide the new terminus for Amtrak as the existing station becomes functionally obsolete; thus, the advancement of the intermodal center is essential not only in facilitating high speed rail in the CHATS Area but also in maintaining and increasing Charleston-bound rail passengers and intercity connections to the region.

### Water Shuttle Service

A water shuttle or ferry has historically been part of the surface transportation system in this coastal region. Road and place names throughout the region still commemorate old ferry locations – including Clements Ferry, Bees Ferry, Givhans Ferry, Mathis Ferry, Murray's Ferry, Nelson Ferry, and Parkers Ferry. Over time, the construction of bridges and other means of transportation have meant most ferries are no longer in operation.

However, an interest has grown in recent years in reviving water shuttle service, particularly in the Charleston Harbor. A water shuttle in the Charleston Harbor would not only provide an alternative, cost-effective form of transportation to the increasingly congested bridges in the area, but also could be an attractive means of travel for tourists and visitors. This would allow them to enjoy a scenic ride between points of interest, without having to get in their cars. Furthermore, it would enhance the existing mass transit system as well as pedestrian and cyclist facilities, with potential connections on both sides, including the DASH service in downtown Charleston.

**CHARLESTON HARBOR WATER SHUTTLE & POTENTIAL LANDING SITES**  
FIGURE 6.2



ID	NAME
1	Fort Sumter National Monument
2	Fort Moultrie National Monument
3	Patriots Point Museum
4	Brittlebank Park & Pier
5	County Farm
6	Remley's Point
7	City Marina
8	Shem Creek Marina
9	Ripley Light Marina
10	Dolphin Cove Marina
11	Navy Base Marina
12	Daniel Island
13	Wappoo Cut
14	Charleston Maritime Center
15	Union Pier Terminal
16	Ft. Johnson Rd. Terminal

Currently, two water shuttle providers offer sightseeing services within the Charleston Harbor, including a shuttle service to Fort Sumter from both Patriots Point Marina and the Charleston Maritime Center as well as a fixed route service in between the Charleston Maritime Center and Patriots Point Marina. The subsequent map, **Figure 6.4**, displays existing water shuttle services and potential landing sites for an expansion of these services. These landing sites provide access to various locations throughout Charleston’s urbanized core as well as James Island, Daniel Island and Mt. Pleasant. These potential landing sites involve the following: the Union Pier Passenger Terminal, Shem Creek Marina, Remley’s Point Marina, Daniel Island Marina, Ripley Light Marina, and the Charleston City Marina. Nine of these 15 landing sites provide an immediate nexus to transit services or bicycle facilities enabling access to additional destinations. Five, not including Fort Sumter, are within one mile of these multimodal opportunities. For the implementation of water shuttle services and efficient use of landing sites, multimodal transportation planning should be coordinated with plans for water shuttle services. Four water-borne ferry routes have been included in as candidate projects and were evaluated in the CHATS Travel Demand Forecasting Model. The results can be found in environmental screening chapter of this document. *Figure 6.4: Charleston Harbor Water Shuttle and Potential Landing Points*

**Recommendations:**

- Work with the current private operator and the National Park Service to develop a detailed implementation plan for the initial phase of the expansion of existing Charleston Harbor water shuttle services to enable transit services and become a component of the regional transportation system.
- Identify a lead agency for the water shuttle operation.
- Work to reduce and/or eliminate docking fees for boats, to make the service more financially feasible.
- Coordinate bus service – including stops, transfer points, and schedules – with water shuttle service, to maximize the accessibility for both residents and visitors.
- Identify “park and ride” locations for water shuttle passengers at all key departure points.
- Investigate funding opportunities for needed facilities and improvements. A potential source may be the Federal Highway Administration’s Ferry Boat Discretionary Program. Authorized under ISTEA and TEA-21, this program provides funding for ferryboats and ferryboat terminals where there is significant public benefit and/or ownership. The National Park Service has also indicated they may have some funding available, at least for planning purposes.

### *Trident Smart Ride Program & Mobility Management*

The Trident Smart Ride Program of the BCD Council of Governments provides information, resources, and tools to help residents, employees, and students make good choices about how to get around the region. The program is a low-cost strategy that returns large benefits in congestion management, maintenance of our air quality, affordable housing, and the overall livability of the region. A major focus of the program is to work with employers in the region to reduce commuting cost to their employee, educate the workforce on their travel options, and minimize transportation cost and availability as a barrier for workforce development. Through the Trident Rideshare Program, services offered encompass a coordinated menu of tools, education, information, partnership development, and activities that promote a multimodal transportation system.

*Trident Rideshare* [www.tridentrideshare.com](http://www.tridentrideshare.com) is a free, web-based, rideshare matching software that commuters can use to find individuals that may be interested in carpooling, sharing taxicabs, or taking bicycle commute trip together. Ridesharing can present a cost effective, alternative to driving alone. In this manner, the BCDCOG has expanded the definition of transit. To remain relevant to regional travel demands and need of commuters, the program deploys a broad range of travel options to commuters that the traditional transit vehicle cannot serve. Semi-public options, such as vanpool have been added to the transit repertoire in a BCDCOG-led effort to ‘think outside the bus,’ offering flexible services to meet the needs of employees and employers. This range of options helps extend the reach of transit services and offer a dynamic, scalable spectrum of options for the traveling public.

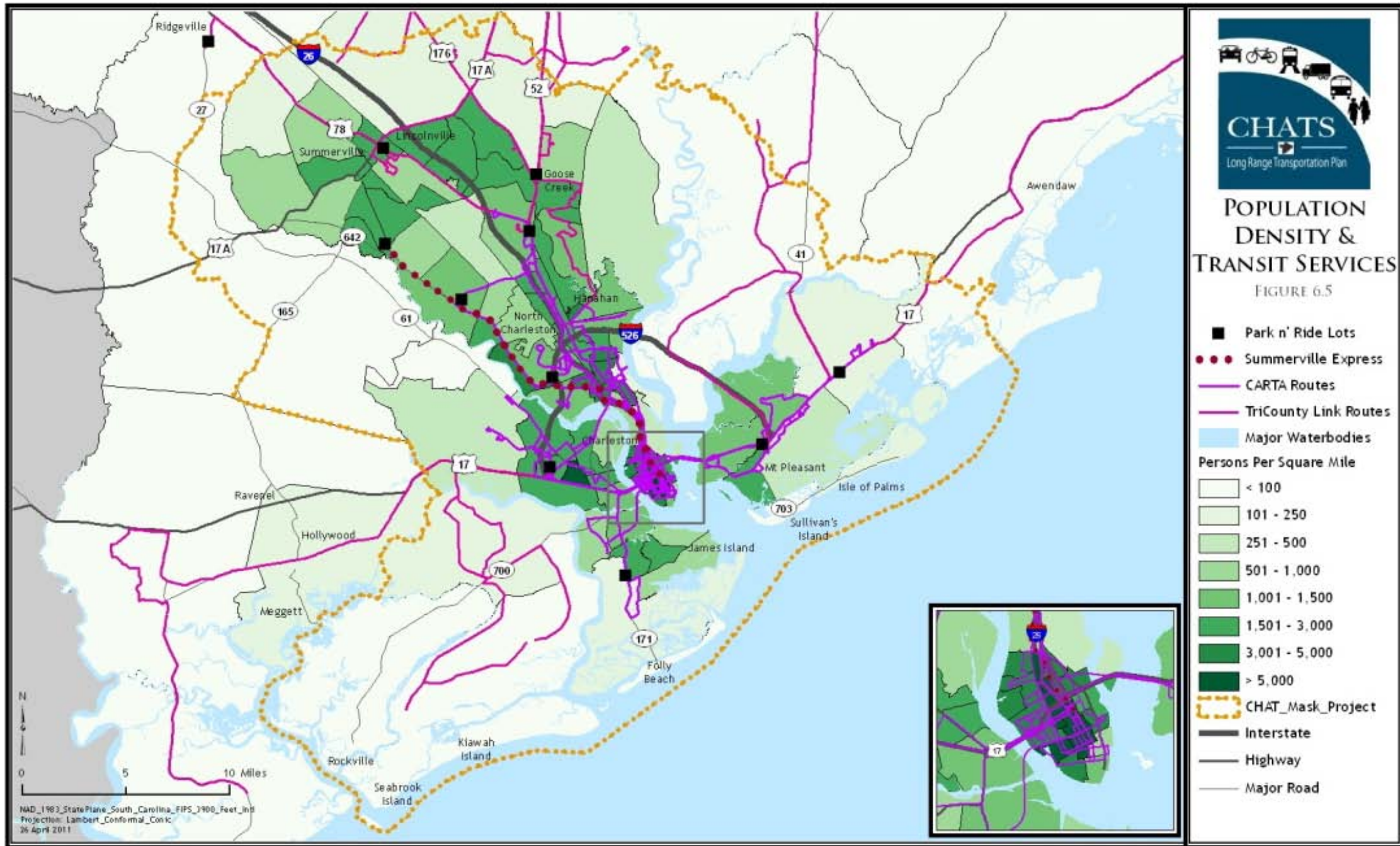
### *Transit Environment*

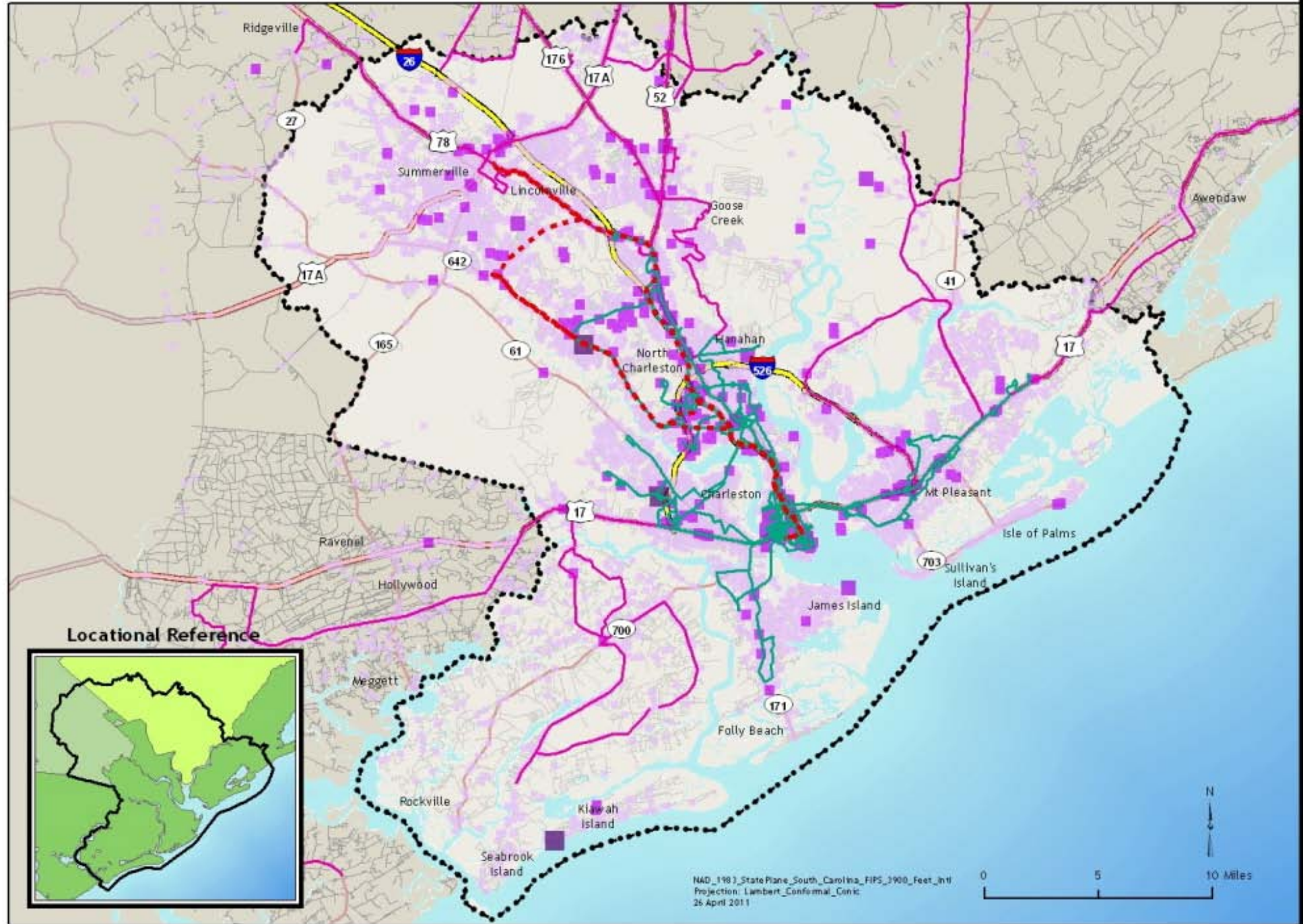
The success of transit is determined by a variety of factors, including the demographic characteristics of the areas that are served. **Figures 6.5** and **6.6** illustrate the population density per the 2000 Census and 2008 employment density, respectively, of the study area as it relates to transit routes. The transit routes shown on these two figures include both existing and proposed CARTA and TriCounty Link services. As evidenced by Figure 6.1, the interconnected regional transit system provides many rural communities in Berkeley and Charleston counties access into the urbanized area. However, areas, such as Daniel Island, are expected to contain the densities necessary for urban classification anticipated the 2010 Census data, an expansion of transit services and facilities is necessary to meet the transportation needs of this community. Additionally, due to sustained growth since 2000, many areas, especially those extending from the CHATS area, will show higher population densities in the 2010 Census and additional route options may be necessary to adequately serve these residents. Despite the successes of both CARTA and TriCounty Link, Dorchester County residents have limited access to services when, according to 2000 Census data, over 40 percent of employed residents work in Charleston County, a trend that is most likely to persist. Furthermore, additional route options to and within the islands and within Mt. Pleasant would strengthen the regional transit network, providing residents with additional access to employment centers within the urbanized core. Additionally, increased route options to the islands provided on a seasonal basis could promote the tourism industry within these locales.

**Figure 6.6** displays the spatial distribution of employers and transit services. As evidenced by the map, existing transit services provide access to many employment centers by offering services along major arterials, throughout the CHATS area, and within cluster economies that extend to rural locales. In fact, CARTA scored the highest in the State in a study, which reviewed the effectiveness of a transit system in linking people to employment performed by the Brookings Institute. However, limited transit services to the islands, such as Kiawah and within James Island, prohibit access to significant employment centers including the economic cluster of Kiawah Island, which contains over 1,000 employees and the newly established industrial corridor in North Charleston. For those individuals that do not reside in close proximity to these employment centers, more transit connectivity with existing transit services within these locales and neighboring towns may present a more economical and sustainable source of transportation.

The primary role of transit is to create complete transportation system for a region, connecting residential and employment areas and offering the most cost effective use of public funding for transportation. The importance of coordinated land use and transportation planning is evidenced by Figures 6.5 and 6.6. In pursuing any future fixed guideway transit modes, it will be required that transit supportive density be planned for proposed transit corridors.







### EMPLOYMENT DENSITY & TRANSIT SERVICES

- FIGURE 6.6**
- Proposed Services
  - CARTA Routes
  - TriCounty Link Routes
- Employment Center**  
**Number of Employees**
- 1,001 - 4,000
  - 501 - 1,000
  - 101 - 500
  - 0 - 100
- Road Classification**
- Interstate
  - US Highway
  - SC Highway
  - Major Road
  - Local Road
- CHATS Boundary**
- Inset Map**
- Berkeley County
  - Dorchester County
  - Charleston County



NAD\_1983\_StatePlane\_South\_Carolina\_FIPS\_3900\_Feet\_Intl  
Projection: Lambert\_Conformal\_Conic  
26 April 2011

## Identified Needs

### *Vision for Transit*

The overall vision for transit remains similar to the vision described in the previous long range plan. The primary goal is to enable transit to be a viable transportation option for citizens throughout the region. With CARTA and TriCounty Link's implementation of various commuter routes, more choice riders are utilizing services. Commuter routes and park and ride locations cater to the needs of peak-hour commuters; local and fixed route opportunities continue to meet the transportation needs of the transit dependent. To address future mobility needs and promote a sustainable transportation system, transit must continue to serve the needs of the transit-dependent population, while continuing to offer a competitive alternative to the automobile for "choice" customers.

### *Perceptions of Transit*

Historically, the overall perception of transit in the region is that it is designed strictly for people who do not have other transportation options and it is not customer-friendly or reliable. In a survey conducted prior to 2005, respondents indicated that overall transit services were "poor" and that they would be more likely utilize transit if more routes, shorter headways, park-and-ride lots, and more information were available. Since 2005, CARTA and TriCounty Link have successfully enhanced services and incorporated commuter amenities to better accommodate the variety of transportation demands of the BCD region, steadily increasing ridership, and change the perception of transit. In fact, a CARTA on-board bus survey conducted in the spring of 2009 revealed that a variety of individuals were utilizing transit, illustrating that service enhancements successfully meeting the diverse transportation needs of the BCD region.

Furthermore, both CARTA and TriCounty Link have detailed websites that provide information regarding fares, route schedules, park and ride locations, and transfer opportunities. CARTA and TriCounty Link have extended their marketing reach by participating in such initiatives as, "Dump the Pump Day", which involved support from many BCD municipalities and transit authorities provided many incentives to passengers, such as free travel and prize drawings, to raise support of the many benefits of utilizing public transit. TriCounty Link's mascot, Linky, has been instrumental in garnering public support; in less than a year since his introduction, he has participated in numerous public events including: the Martin Luther King Day Parade, Earth Day Celebration, Black Expo, Flowertown Festival, National Transportation Week, and Buist Academy's Field Day. Additionally, TriCounty Link has partnered with Charleston County Department of Education to teach John's Island elementary and middle school students how to utilize public transit services within their area. In the summer of 2010, TriCounty Link equipped their buses with wireless internet capabilities, further enhancing the perception of transit by providing an appealing alternative to the automobile.

### *Issues to be Addressed*

Through initial public outreach, as well as through discussions with CARTA and the CHATS Study Team a number of transit-related issues were identified as being important to the future of transit in the region. These issues were categorized as follows:

- Institutional issues
- Service issues
- Funding issues

#### Institutional Issues

- Although positive enhancements have improved the perception of transit, continued efforts are necessary to obtain further community support.
- Despite added transfer opportunities and coordination of route schedules, the physical and institutional boundaries between transit providers need to be continuously addressed as the region grows and services expand.

#### Service Issues

- Services should be developed that are attractive to choice riders, while still serving the needs of the transit-dependent riders.
- The relationship between parking, driving, and transit should be examined.
- Rail corridors should be preserved for future rail service.
- Explore the potential for streetcar service within the peninsula.
- Implement transit supportive land use and include the needs of transit users in site design
- Identify corridors to implement fixed guideway transit services and align comprehensive land use plan to transit supportive land use patterns
- The role of the Downtown Charleston Visitor Center as a transit hub should be examined.
- Improved signage and transit amenities (e.g., bus shelters) are needed.
- Technology and Intelligent Transportation Systems (ITS) strategies should be incorporated into transit services.
- Transit security should be addressed.

#### Funding Issues

- Although Charleston County voters have approved a sales tax referendum that would create a dedicated source of transit revenue, transit funding issues for service outside of Charleston County need to be addressed.
- The positive economic development impact due to transit needs to be actively publicized in the local community.
- Although sales tax revenue and federal funding help fund transit operations, rail or another major investment in the future would likely require public-private partnerships, additional funding, or a separate referendum to raise additional revenue,

## Future Outlook

### Strategies to Enhance Transit

Transit is an important component of the transportation network in the CHATS area. Residents, employees, and visitors benefit greatly from transit services, and an opportunity exists to increase the role of transit in the region. Over the coming years, the primary goal for transit will be to enhance services to increase attractiveness and more fully integrate services into the multimodal transportation framework of the region.

Recommended strategies related to public transportation are described below in the following categories:

1. Existing service enhancements
2. Facilities, equipment, and amenities
3. New modes and technologies
4. Institutional and funding strategies

The first three categories discuss planning, operational, and capital aspects of transit improvements in the region, and the fourth category addresses policy strategies that should be implemented to address the needs that have been identified.

#### Existing Service Enhancements

- A. Continue to enhance commuter service from outlying areas* — Charleston serves as a regional tourism, employment, and medical hub. Transit opportunities available to communities on the fringe of the urban area and downtown Charleston have increased significantly over the past five years. Fixed route services are available to rural communities throughout the BCD region. Two bus stops permit transfer opportunities between TriCounty Link and CARTA, enabling rural residents increased access and mobility to the urbanized sections of the CHATS Area. However, enhancement of regional transit services through additional transfer and rural route opportunities is necessary to sustain the increasing demand of transit services as the region grows. Vanpools, which can be developed through Trident Ride Share, may be another way to provide connections to areas that do not have the population base to support fixed-route services.
- B. Continue to expand service oriented to special generators* — the fare-free DASH trolleys in downtown Charleston have been popular with tourists and residents alike. Since 2005, CARTA has extended shuttle services to the College of Charleston, the Medical University of South Carolina, Trident Technical College, and Charleston School of Law. Furthermore, CARTA provides services to shopping centers, a variety of tourist attractions, the Charleston International Airport, and the Port of Charleston Passenger Terminal. Additionally, TriCounty Link provides services specifically tailored to key employment sites, such as Santee Cooper in Moncks Corner, and Link to Lunch services. TriCounty Link plans to extend contractual agreements with local businesses within Berkeley and Dorchester Counties. Maintaining services to these markets and

building relationships with employers is critical in ensuring economic vitality. These connections, in conjunction with transfer opportunities between transit providers, have enabled many residents accessibility to key economic centers.

- C. Expand community-based services in low-density areas* — the study area continues to develop rapidly; however, because much of the development continues to be low-density in nature, Transit providers will continue to encounter fiscal difficulties in providing fixed-route transit services. In these outlying areas, CARTA and TriCounty Link should examine opportunities for expanded demand-response options or “hybrid” service models such as point-deviation or route-deviation services. These community-based services could provide additional connectivity among residential areas and nearby commercial, employment, and service centers. In addition, such services could also connect to existing or future fixed routes. Furthermore, increased coordination between land use and transportation planning is fundamental in ensuring development patterns, which will support transit feasibility. Isolated and fragmented development patterns present fiscal obstacles for transit. In a number of cases, vanpools, carpools, and other innovative transit services can serve these areas.
- D. Implement Intelligent Transportation Systems (ITS) enhancements at major transit stops and investigate the potential of designated rights-of-way for fixed guideway service* — Intelligent transportation systems strategies, such as signal preemption to allow buses to quickly proceed through traffic signals as well as passenger information technologies that inform customers when the next bus will be arriving, are cost-effective ways to increase the efficiency and attractiveness of the transit system. As stated in the *CARTA Transit Action Plan, FY 11-15*, CARTA intends to incorporate automatic vehicle location (AVL) software in the 25 shelters that are planned for construction. Furthermore, the designation of right-of-way for bus rapid transit services would enable increased efficiency and contribute to lower headways in heavily congested areas. Strategies to assist buses in traveling through congested corridors help transit to gain a competitive edge on private automobiles and providing real-time travel information to customers makes transit more accessible to passengers who may not be regular transit users. These and other ITS enhancements should be evaluated for specific applications in the region.

#### Facilities, Equipment, and Amenities

- A. Complete the North Charleston Regional Intermodal Center* — Pursuant to the establishment of a dedicated funding source, such as public-private partnerships, plans for constructing this facility should proceed. This facility will serve as a vital hub linking local, regional, and intercity transit services. . Furthermore, funding for the implementation of the Summerville CARTA Express Route on Dorchester Road should be secured, as it will serve the site. Additionally, the completion of the North Charleston Regional Intermodal Center and the success of the express route may provide the impetus for a fixed guideway service.
- B. Examine the role of the Transit Oriented Development (TOD) as a transit hub to support nodal land use plans* — Recent development proposals have discussed transit oriented design that can serve hubs for transit service. As CARTA expands its services, an opportunity exists to require site plans to be transit supportive. A nodal system throughout the region, with passenger information services and other amenities, would be beneficial to the entire system. Potential

solutions for establishing a Transit node, perhaps as part of Ingleside Plantation, East Edisto, and Goose Creek Downtown District should be examined.

- C. *Provide transit amenities throughout the region* — Transit amenities, including bus shelters, enhanced signage, and traveler information systems can enhance the attractiveness, comfort, and safety of the transit system. CARTA and TriCounty Link should work with local governments and the business community to provide these types of amenities at critical locations in the region. Due to the acquisition of ARRA funding, CARTA is preparing to construct 25 additional bus shelters at high-demand locations.
- E. *Further coordination opportunities between CARTA and TriCounty Link* — although transfer opportunities are provided between TriCounty Link and CARTA, continued coordination is necessary to ensure a connected regional transit network as services expand and the region grows. A feasibility study to explore the potential for consolidating the two systems will be undertaken in 2012 to further this strategy.
- F. *Stronger coordination of land use and transportation planning* — it is critical that local planning officials coordinate their land use planning and transportation planning to ensure the feasibility as well as availability of transit services. Coordinated land use-transportation project, like Our Region, Our Plan are underway to define these relationships.

#### New Modes and Technologies

- A. *Develop dedicated park-and-ride facilities* — The CARTA Plan includes a series of park-and-ride lots to serve express routes. CARTA will soon be working to identify specific locations for these facilities. These parking facilities would be located primarily on the fringes of the service area, and would enable commuters to leave their vehicles at a safe location and use transit for the remainder of their trip. These facilities should be developed using shared-use agreements with owners of existing parking lots as a first step. If demand warrants, CARTA could construct dedicated facilities for transit patrons.
- B. *Study the potential implementation of fixed guideway service* — The Region has expressed an interest in investigating the feasibility of such a mode to connect major generators and attractions in the region. Due to increasing development on major corridors, there may be an opportunity to use high-capacity transit to provide important transportation links. Because a fixed guideway service requires the acquisition or dedication of new rights-of-way as well as the construction of new guideway, coordinated and concerted efforts among varying stakeholders as well as state and federal officials, similar to the efforts of the Neck Area Master Plan, are necessary to facilitate land use that will support the locally preferred service. In the Neck Area Master Plan, studies will involve an analysis of trends, market demands, and the capacity of the existing transportation system serving the core area of the region. This study provides the framework for maximizing existing transportation infrastructure while recognizing the transportation needs of existing neighborhoods as well as those generated by proposed developments. Similarly, planning for these types of service light rail should be coordinated with existing and future redevelopment plans, as well as the examination of the future role of the Visitors' Reception and Transportation Center. This type of transit project has the potential to serve as a catalyst for further (and more intensive) downtown redevelopment, and would be an attraction in itself.

- C. *Continue discussions and preserve rail corridor capacity for potential commuter rail service* — as studies have illustrated, commuter rail can be an economically viable transportation option for commuters. As the region continues to grow, it is important that rail corridor capacity be preserved for future service. Without available rail capacity in place, it will be much more difficult to implement additional commuter rail services once the necessary levels and types of development have been attained.
- D. *Examine critical corridors for Bus Rapid Transit (BRT) opportunities* — Although some areas of the region may not yet have the population or development patterns necessary to support commuter rail, bus rapid transit should be explored as an alternative implementation of a higher-capacity transit service. Due to the success of CARTA's Route 10 services on Rivers Avenue, CARTA, as delineated in the *CARTA Action Plan FY 2011-2015*, is planning to incorporate *Enhanced Services*, which embody elements of bus rapid transit. This is the first step in implementing bus rapid transit services in the CHATS Area. The feasibility of bus rapid transit services should be explored as an interim strategy to provide a high level of transit service without the expense of exclusive right of way.
- E. *Explore potential water shuttle connections* — Public water shuttle services have been studied in the region, but currently, water shuttles are primarily used for sightseeing purposes. However, as the region continues to grow, opportunities may exist to provide water shuttle services as part of the public transit framework, potentially connecting points in downtown Charleston to Mt. Pleasant, Daniel Island, James Island, North Charleston, and other emerging areas. This concept should continue to be monitored in future years. If ferry service is to be provided, it is critical to have a supporting bus transit service in place to connect ferry terminals to regional destinations.

#### Institutional and Funding Strategies

- A. *Maintain a comprehensive marketing program* — for transit to truly become a mode of choice in the region, convenient services must be available, and the public must know that such services are available. According to the *CARTA Transit Action Plan FY 11-15*, CARTA intends to take advantage of federal funding opportunities for the incorporation of green technologies to enhance its public perception. CARTA recognizes the marketability of green technologies and plans to create a "sustainability" marketing plan. Furthermore, TriCounty Link and CARTA have been involved in the "Dump the Pump" initiative as well as various additional community functions and marketing strategies to engage and educate the public of the many benefits of transit. Both TriCounty Link and CARTA emphasize the potential savings that would accrue upon utilizing transit over the private automobile. However, despite these efforts, it is appropriate that both CARTA and TriCounty Link maintain comprehensive marketing campaigns. Such campaigns should be targeted to existing as well as potential customers and focus on potential "niche" markets including downtown employees, college students, commuters, and visitors. It is recommended that creative marketing strategies be explored, like trading advertising space, partnerships, and coordinating with the BCDCOG Mobility Management Program.
- B. *Actively participate in promoting transit-supportive land use* — CARTA should work closely with local jurisdictions to make sure that transit service is considered in future development projects. Potential exists for large-scale development and redevelopment in



the region, and the proposal review process should include an assessment of provisions to support transit use, such as passenger waiting facilities (i.e., shelters), pedestrian access to transit, adequate street design for transit vehicles, and in larger developments, dedicated transit facilities.

- C. *Pursue local funding outside of Charleston County* — Although the proceeds from a dedicated sales tax has been identified as a local funding source in Charleston County, no significant sources of local funds have been identified to support transit service outside of Charleston County. Although the level of transit service outside of Charleston County may not require a dedicated tax, the regional transit providers should continue to work with local jurisdictions to identify potential sources of funding to support current and expanded transit operations.
- D. *Enhance security as needed* — Recent years, the importance of transit security has increased dramatically. CARTA and TriCounty Link should take necessary steps to make sure that its operations are safe for residents, employees, and visitors that rely on transit.

### Projected Revenues

Transit systems rely on a combination of federal, state, and local funding sources, along with farebox revenues and other miscellaneous sources, to cover operating and capital expenses. A brief description of primary transit funding sources is given below.

	2010-2015 (Short Range)	2016 – 2025 (Medium-Range)	2026 – 2035 (Long-Range)
Total Revenue Available	\$146 Million	\$304.7 Million	\$451 Million
Existing Service: Operating Expense	\$143.7 Million	\$299 Million	\$442.7 Million
Existing Service: Capital Expense (Vehicle Replacement and Enhancements)	\$14.5 Million	\$19.9 Million	\$29 Million
Amount Available for New Projects (Planning, Operating, and Capital)	-12.2 Million	-14.2 Million	-20.7 Million

### Federal Sources

- *Federal Transit Administration (FTA) Section 5303 Grant* — This annual grant is a formula-based program that funds transit planning activities in metropolitan areas. As the Metropolitan Planning Organization for the region, CHATS is the recipient of these monies.

These funds can be used for projects that fit within the “cooperative, continuous, and comprehensive” framework for metropolitan planning. The federal share for these activities is 80%, with a 20% local match requirement.

- *FTA Section 5307 Grant* — This grant is provided to urbanized areas throughout the country on a formula basis, and is used primarily for capital and planning projects. These funds are used to reimburse 80% of eligible costs, with a local match requirement of 20%. However, FTA’s definition of “capital” includes maintenance costs; thus, all maintenance costs are eligible expenses for reimbursement under this program. Because maintenance activities are usually included under a transit system’s “operations” budget, this funding source is actually used to meet capital, operating, and planning needs. All capital expenses are eligible for Section 5307 assistance, as are technical assistance (planning) project costs. As the designated recipient, CARTA receives these funds directly from FTA.
- *FTA Section 5309 Grant* — This grant is provided to fund capital projects, including fleet replacements and construction of new facilities. Operating assistance is not an eligible use of these monies. For larger systems, Section 5309 funds are available to fund large-scale capital investments such as light rail, commuter rail, and bus rapid transit. These grants are provided to specific systems for specific projects through Congressional “earmarks.” Assistance for bus-related projects is typically provided with a 20% local match requirement, but due to intense project competition, major investments (i.e., “New Starts”) require a larger local match to be favorably considered for funding. Because these funds are not guaranteed for all systems, potential revenues are not included in the baseline projection of transit revenues in the BCD region.
- *FTA Section 5310 Grant* — This grant provides private non-profit and public agencies with financial assistance for the necessitation of safe, efficient, and coordinated transportation services for elderly and disabled individuals that would otherwise be unavailable. Agencies that are eligible for funding through Section 5310 must be certified by the state to coordinate services for the elderly and disabled and verify that no non-profit entities are readily available to provide the aforementioned transportation services. The minimum local match requirement for 5310 funding is 11.47% of the project cost. *South Carolina Department of Transportation (SCDOT) administers the state-managed portions of FTA 5310 funding and appropriates a share to Berkeley Citizens, Inc., a non-profit human service organization that provides support, various services, and training to elderly and disabled individuals. Furthermore, Berkeley Citizens, Inc. contracts with TriCounty Link to provide transportation services to their clients.*
- *FTA Section 5311 Grant* — This grant is used to support capital, operating, and administrative needs of transit systems serving non-urbanized (less than 50,000 population) areas. These funds are distributed to states on a formula basis, and states then redistribute funds to eligible providers. TriCounty Link receives a portion of South Carolina’s allocation of Section 5311 monies. The maximum federal share for capital projects funded

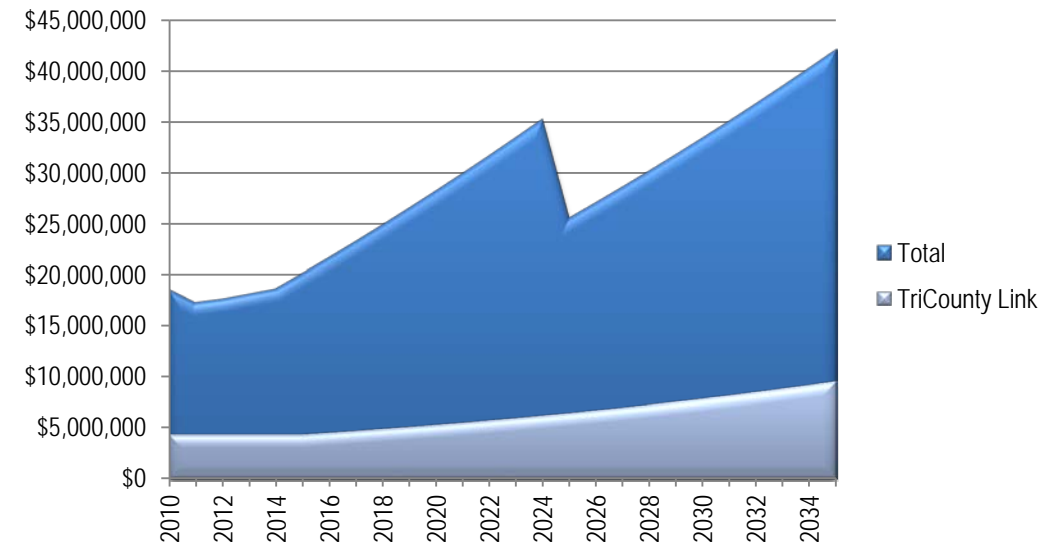
under this program is 80% (with a 20% local match), while operating assistance projects can be funded up to a maximum of 50% federal participation (with a 50% local match).

- FTA Section 5316 Grant — This grant is used to support the capital, planning, and operating expenses necessary to provide for the transportation of low income individuals to and from jobs and work-related activities. As many jobs are located in suburban areas, this grant assists in providing additional mobility to those individuals that dwell in rural or urban areas. South Carolina Department of Transportation (SCDOT) administers the state-managed portions of FTA 5316 funding. TriCounty Link and CHATS receive an annual appropriation of this funding. The Federal share for capital expenses may not exceed 80% (with a 20% local match); however, federal shares can be as high as 90% if funding is used to provide bicycle access to mass transit facilities or to purchase equipment required by the Clean Air Act Amendments of 1990 (CAAA) or the Americans With Disabilities Act of 1990 (ADA). The federal share for operating, administrative, and management costs may not exceed 50% (with a 50% local match).
- FTA Section 5317 — This grant is used to support the capital and operating expenses for additional public transit opportunities for individuals with disabilities than what is required in the Americans With Disabilities Act of 1990 (ADA). South Carolina Department of Transportation (SCDOT) administers the state-managed portions of FTA 5317 funding. TriCounty Link receives an annual appropriation of this funding. The Federal share for capital expenses may not exceed 80% (with a 20% local match) and the federal share for operating, administrative, and management costs may not exceed 50% (with a 50% local match).
- American Recovery and Reinvestment Act (ARRA) of 2009 — As a response to economic recession, the ARRA provided funding for infrastructural and capital improvements for transit authorities to necessitate sustainable transportation systems and generate jobs. The ARRA allocated over eight billion dollars to FTA sections 5307, 5311, and 5309 grant programs for capital improvements. Additionally, ARRA enabled both CARTA and TriCounty Link to upgrade aging facilities and purchase new buses.

State Sources

- State Mass Transit Fund (SMTF) — These monies are administered by the South Carolina Department of Transportation (SCDOT) and are distributed to transit agencies across the

Figure 6.7  
Transit Revenue Projections



state based on formula allocations. These funds are provided by a set-aside of 1/8 of 16 cents per gallon from the state’s fuel tax receipts. This grant is intended primarily to serve as matching money for other (i.e. federal) grants. The amount of SMTF money available to transit systems has remained relatively stable in recent years. SCDOT has recommended the allocation of nearly one million dollars in SMTF funds for CARTA and TriCounty Link for the 2010 – 2011 fiscal year.

Local Sources

- Sales Tax Revenue — In November 2004, voters in Charleston County passed a referendum establishing a dedicated ½-cent sales tax for transportation projects. A portion (18%) of the receipts is earmarked to maintaining and expanding transit services in the county. No other major source of local funds has been identified.

The establishment of a local funding source is critical because federal monies cannot be utilized without a local match, and federal monies are not eligible to pay for many operations costs, such as fuel and salaries. These expenses must be paid with non-federal funds.

Farebox Revenue/Other Sources

- Farebox Revenue — Passenger fares and receipts from pass sales are an important part of the overall revenue stream, but like all other transit systems in the country, fares alone cannot pay for the total costs of operating the CARTA and TriCounty Link systems.

- *Other Sources* — In addition to farebox revenue, transit systems often benefit from other revenue streams, such as contracts with various agencies for transportation service, advertising revenue, and other sources. A significant portion of TriCounty Link’s costs are covered through service contracts (which can be used for local matching funds), and CARTA as well as TriCounty Link obtain revenues from on-board advertising opportunities.

Based on these funding sources, **Figure 6.7** illustrates projected annual transit revenues over the long-term planning horizon. A high degree of uncertainty exists in forecasting the amount of funding that may be available in future years. Therefore, the projections shown are conservative, assuming only a slight increase over time in the federal and state revenues that are available. **Figure 6.8** further illustrates the future funding uncertainty as the Charleston County Transportation Sales Tax Ordinance has a sunset clause that in 2025.

Projections for local funds are based on the receipt of a portion of the revenues (beginning in 2006) resulting from Charleston County’s ½-cent sales tax for transportation projects. Receipts from the sales tax should be available to CARTA in late 2005, but some of the initial receipts will be used for debt service. It should be noted that the long-term chart does not include projected revenues for TriCounty Link, since a substantial portion of TriCounty Link’s service is provided to customers living outside the urbanized area boundary.

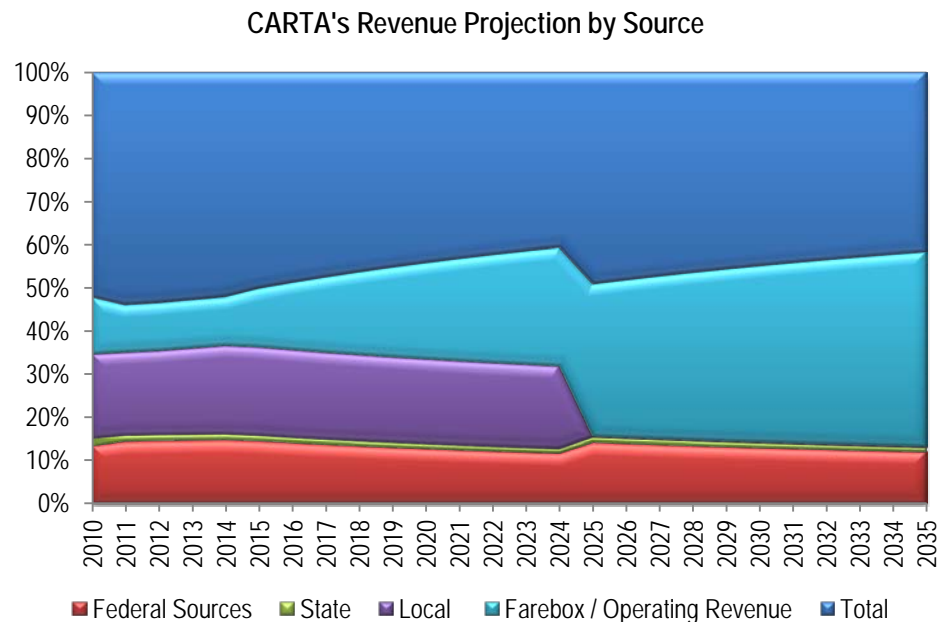


Figure 6.8

**Table 6.1** displays total revenues in short-, medium-, and long-range terms of the planning period. As noted above, these projections are intended to be conservative, and are based on existing sources only. “Unfunded needs” for transit will require additional funding sources that have not yet been identified.

### Fiscally Constrained Program

Based on the projected revenues described above, a fiscally-constrained program was developed for the short-range, medium-range, and long-range elements of the planning period using 2010 fiscal year performance for both CARTA and TriCounty Link. Operating costs for CARTA were estimated based on the implementation of the “*CARTA Transit Action Plan FY 11-15*” which describes strategies for service maintenance and improvement. The estimated average annual operating costs for full implementation of the “*CARTA Transit Action Plan FY 11-15*” is nearly \$20 million in 2010 dollars. Capital costs are estimated based on prioritization of vehicle replacement as enumerated in the CARTA Action Plan FY 11-15, the status of the fleet as of 2010, and the *useful life* of each vehicle type as defined by the Federal Transit Administration (FTA). The useful life determination indicates the amount of time in which a vehicle should be retired to ensure an adequate return on federal investment. Vehicles are expected to remain in service for their useful life and the Federal Government maintains a financial interest until that time. Projected vehicle replacement costs for CARTA’s DASH service were not included in this assessment; as such, information is contingent upon the Peninsula Transit Study, which will delineate the future of this service. The funds remaining after these expenditures are available to address the planning, operating, and capital strategies described earlier in this section.

Note that due to projected cost escalations, the amount of funding available for new projects decreases gradually in future years, and in the long-term, additional revenues will be needed to sustain existing operations (with no funds available for new projects). The primary reason for this deficit is that costs are projected to increase, but the local sales tax that will provide the primary source of operating funds is capped with regard to the total receipts that can be collected. These amounts are illustrated in **Table 6.1**.