Revised Transportation Study

Richland County On-Call Services - Task Order #3

CPS 10060

Submitted to:

Richland County
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Prepared By:

PB
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1.0 INTRODUCTION

In May 2007 Richland County commissioned a study to analyze the County's transportation system, identify needs, develop projects and explore funding options. The study was completed, and a final report submitted to Richland County in May 2008. The purpose of this report is to evaluate and update the information provided in that prior study. Therefore, this report is structured to provide a good understanding of the earlier study, updated assumptions, and findings from the current study. The chapters in this report are arranged as follows:

- Chapter 2 summarizes the findings and recommendations from the earlier study.
- Chapter 3 outlines the process and methodology used in the current study.
- Chapter 4 provides findings and recommendations.
- List of approved projects and improvements are included as an Appendix.

2.0 SUMMARY OF PRIOR STUDY

In October 2006, Richland County Council established by ordinance the Richland County Transportation Study Commission (Ordinance Number 091-061HR). The 39-member Commission included three standing subcommittees: Greenways and Pedestrian Modes, Vehicular Traffic Improvements/Roads, and Public Transit. This chapter briefly summarizes key points and highlights from the earlier study.

2.1 Prior Study Purpose and Goal

The Richland County Transportation Study's principal goal was to define transportation issues within the County and develop alternatives for creating a coordinated intermodal transportation plan. The study focused on correcting problem areas and increasing the existing transportation system's overall efficiency, accessibility, and level of service (LOS) in the short term. It also included developing recommendations to coordinate land use and transportation planning initiatives for 2025 and beyond. The study's objectives included:

- Analyze existing status of transportation system in the County, including local funding sources.

- Identify transportation needs for the next 25 years and develop a comprehensive list of projects and order-of-magnitude cost.

- Assist Richland County decision-makers in understanding potential transportation funding options, magnitudes, and challenges as they consider and select candidate sources for further analysis.

- Provide an understanding of likely sources of new local revenue to fund projects.

2.2 Existing Transportation System

By analyzing the transportation network's existing conditions in its three major areas (bicycle/pedestrian/greenways, the public transportation system, and road improvements) existing and anticipated deficiencies in Richland County's transportation system were identified. The existing conditions were documented in Technical Memorandum No. 1, and served as the basis for developing alternatives and solutions.

The earlier study reported that Richland County has existing transportation problems. Traffic congestion, a lack of safe bicycle accommodations, crumbling or non-existent sidewalks, and a public transportation system in crisis were concerns for everyone who lived, worked and/or visited Richland County. The Central Midlands Council of Governments (CMCOG) stated in a 2005 report that "funding for roads and public transportation has not kept up with the growth in traffic and population in the Central Midlands region.[1]" Existing conditions show that the County is underserved in its major transportation focus areas. There is a shortage of facilities for pedestrian and bicyclists, a lack of transit services and funding for mass transit and significant congestion on major roadways.

2.2.1 Roadway

In the face of substantial growth, Richland County has struggled to keep pace in maintaining an efficient LOS on its roadways to handle the large volume of traffic moving about the County on an average day. This is evident on roads in every sub-area of the County, such as Broad River Road, Hardscrabble Road, Two Notch Road, and Garners Ferry Road.

The regional traffic model, which was used in the study, indicates that there are approximately 2 million daily trips in the study area. These trips result in 15 million vehicle miles of travel (VMT) and 387,000 vehicle hours of travel (VHT) per day. Of the daily VMT, almost half (45 percent) is operating under congested conditions.

2.2.2 Transit

The most pressing public transit issue facing Richland County is Central Midlands Regional Transit Authority (CMRTA) operations. To strengthen CMRTA's role in the County's transportation system, it will be necessary to improve the current operating LOS and explore funding strategies for leveraging available funding and increasing ridership and routes.

All CMRTA routes in Richland County operate at LOS "C", "D" or "E" on weekdays with about half (12 routes) providing some early evening service (LOS "C"). Seven routes (32 percent) operate at LOS "E" with service provided only during peak periods and limited midday service[1]. Saturday service is similar to weekday CMRTA operations with slightly more than half of the 18 routes operating at LOS "C" and a third of the routes at LOS "E". CMRTA operates only eight routes on Sundays, with service provided at LOS "D" (38 percent) and "E" (62 percent).

In terms of frequency of service, 60 to 63 percent of CMRTA routes during weekdays (peak and off-peak periods are operating at LOS "E". During the weekends, frequency-related LOS on the majority of the routes is at LOS "E" or "F".

2.2.3 Other Modes

Other modes include bicycle, pedestrian, and greenways. With only eight miles of designated bike lanes (along four major roadways) within the County, the cycling infrastructure is grossly inadequate. In addition, the existing bike facilities fail to promote connectivity and linkages between existing population centers and trail systems. Not only is there is a lack in the number of bike lanes serving the County, but amenities that enhance the cycling experience are nearly non-existent. With no amenities to promote use (i.e., bicycle parking, lockers, and shower facilities), there are no real incentives for users to bike to work in Richland County. However, recent efforts by the South Carolina Department of Transportation (SCDOT), Richland County and the City of Columbia look promising to the bicycle and pedestrian community.

SCDOT started a "new initiative" in 2002 to establish partnerships to provide more facilities for bicycling and walking in South Carolina and held the first-ever Bicycle and Pedestrian Accommodations Conference in December of that year. In 2003 SCDOT approved Engineering Directive No. 22 affirming that "*bicycling and walking accommodations should be a routine part of planning, design, construction and operating activities, and will be*

[1] Level of Service (LOS) based on Transportation Research Board's *Transit Capacity and Quality of Service Manual (TCQSM)* methodology. Operational LOS is based on span of service and frequency of service.

included in the everyday operations of its transportation system". SCDOT dedicated $2.5 million from the state's Transportation Enhancement fund to provide paved shoulders on bicycle tour routes in that year.

Local policies and programs include initiatives from the City of Columbia, Richland County and the regional planning agencies. In the City of Columbia, the Mayor announced on May 18, 2005 an initiative to be designated as a "Bicycle Friendly City" by 2009 through the League of American Bicyclists, and the City has established a committee/task force to achieve this goal. In Richland County, the *Town and Country Plan* encourages non-motorized linkages in new development. The County also has a greenway study underway. In March 2006, the CMCOG adopted the Bike and Pedestrian Pathways Plan for the Columbia Area Transportation Study (COATS) area. Since 2006, CMCOG has adopted the "Model Policy Guidelines for Bicycle - Pedestrian Circulation", and COATS hired a principal transportation planner who is responsible for bike and pedestrian planning in the region.

2.3 Transportation Funding

The majority of Richland County's roadway infrastructure is supported through Federal and State allocation of fuel tax, vehicle registration and carrier fees. Although other counties in the State have used roadway tolls and various forms of local tax options, there is currently no such funding in Richland County. The study concluded that the lack of current transportation funding has the following consequences for the quality of life of Richland County residents:

- Two primary local roadway programs in Richland County are "Dirt Road Paving" and "Local Road Re-Surfacing" programs. Projects in these programs are re-prioritized on a four-year basis and approximately $2.4 million per year is allocated between the two programs. Based on current funding levels, it will take over 100 years to re-surface every County-maintained road and over 150 years to pave all County-maintained roads.

- Without a dedicated source of local funding, public transit service in Richland County may be reduced or eliminated as soon as 2009.

- The lack of funding for pedestrian and bicycle facilities has resulted in only eight miles of dedicated bicycle lanes in Richland County and construction of few sidewalks along County roads.

The lack of local funding also hinders the urban area's ability to match Federal and State funding that is available to enhance transportation infrastructure.

2.4 Alternative Funding Options

As part of the study, alternative funding options were evaluated to bridge the funding gap identified earlier. Although a wide range of funding options were studied, most of them were not applicable to Richland County. Richland County and the Transportation Study Commission identified the local option sales tax as the best option for further investigation based on its flexibility, experience and ease of implementation in other South Carolina counties and the potential to generate the most revenue.

2.5 Prior Study Outcome

The various funding options were evaluated in terms of reliability, revenue potential, acceptability to County residents and the County Council and ability to be implemented immediately.

2.5.1 Recommendation

Based on the analysis of various funding options, their revenue potential, reliability, and public acceptability, Richland County and the Transportation Study Commission recommended the Local Option Transportation Sales Tax (LOTST) as follows:

- Implement a one percent Local Option Transportation Sales Tax (LOTST) for an initial period of eight years. There are three versions of the sales tax (General Local Option Sales Tax, Local Option Capital Projects Sales Tax, and Local Option Transportation Sales Tax). The Capital Projects Tax is limited in its use, has a seven-year term, and the proceeds from the tax cannot be used for transit operations. Only the Local Option Transportation Sales Tax allows the flexibility of up to 25 years and its proceeds may be used for transit operations.

- There is an existing one percent local option sales tax in Richland County used for property tax relief; the LOTST initiative only requires voter approval and no changes in state legislation.

- Of the many funding options explored, LOTST has the potential to generate the most revenue, $521.48 million over the eight year period. Of the total revenue ($521.48 million in eight years), three percent ($15.64 million) is set aside to cover the cost of program administration. The remaining ninety-seven percent of the revenue ($505.84 million) would be distributed, 60 percent for roadways, 25 percent for transit, and 15 percent for pedestrian/bicycle/greenway improvements.

- The County would continue to explore other funding sources to complement the one percent LOTST program, including state and federal earmarks, revenue bonds and the State Infrastructure Bank (SIB) as funding becomes available.

2.5.2 Outcome

Upon adoption of the plan by the TSC Executive Committee, the plan was presented to Richland County Council. Upon review of the plan by County Council, there was not enough support from the Council Members to include it on the November 2008 referendum.

3.0 CURRENT STUDY

The current study was authorized by Richland County under the On-Call Services Contract as Task Order #3 on December 21, 2009.

3.1 Study Purpose and Goal

The purpose of the current study is to update the project cost and revenue numbers presented in the prior study as discussed in Chapter 2. The goal is to estimate realistic project cost and revenue forecasts based on existing economic conditions and develop a 25-year comprehensive transportation plan. The scope of services for the current study is as follows:

- Review the original project cost and revenue forecasts as presented in the Richland County Transportation Study. This will include review of existing funding sources and also the study-recommended "local option transportation sales tax".
- Work with Richland County and SCDOT to obtain latest sales tax information and local construction cost information to update the cost and revenue estimates.
- Estimate revenue streams over a 25-year period, including a range of low-medium-high forecasts through sensitivity analysis of tax rates.
- Update and provide project cost information in current dollars.
- Assist Richland County to prioritize projects and develop construction timelines to match revenue forecasts over the 25-year period.

3.2 Key Changes From Prior Study

Since the completion of the prior study in May 2008, significant changes in the economy have greatly impacted the construction industry. This study examines the estimation of project cost and revenue based on factors that would impact the short-term (next five years) forecast and an average factor for a longer-term (beyond five years) forecast. The following sections detail the key factors and their impacts.

3.2.1 Project Cost Escalation Factors

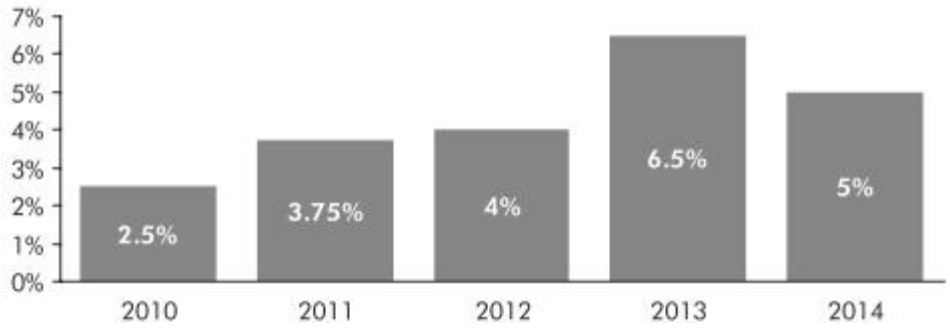
South Carolina experienced a 41 percent drop in construction spending (infrastructure/ public works) between 2008 and 2009[2]. However, this trend is forecasted to reverse during 2010. Not only has construction spending gone down, but also the industry is seeing lower construction bid costs. For example, recent bids for project letting in South Carolina came in 10 percent to 15 percent lower than what was estimated couple of years ago.

Parson Brinckerhoff's (PB) economic forecast team also looked at present and future conditions of construction costs based on available data for the region. The analysis indicated that construction prices have come down since 2008 for a variety of reasons. Lower oil prices between 2008 and 2009 helped to decrease asphalt cost thus driving down construction cost. At the same time, the sluggish economy increased competition within the

[2] Southeast Construction magazine, January 2010, http://southeast.construction.com/features/2010/0101/SouthCarolinaConstruction.asp – accessed January 14, 2010.

construction industry driving down bid prices and profit margins. Also, the slow infusion of stimulus funding did little to help prop up construction prices between 2008 and 2009. However, it is predicted that these low prices experienced in 2008 and 2009 is not sustainable. Moody's *Economy.com* anticipates crude oil prices to increase and insert upward pressure on asphalt prices. This change combined with increased public sector spending under the stimulus program and higher private sector spending in the economic recovery will lead to higher construction costs. Based on PB's analysis, there will be a gradual escalation in construction cost in the next five years before it settles back to normal for the long term (**Figure 1**). Accordingly, this study looks at project cost escalation using detailed, short-term escalation factors as well as a longer-term average cost escalation factors based on historical Engineering News Record (ENR) cost index factor.

Figure 1: PB Five-Year Construction Cost Forecast [3]



3.2.2 Revenue Escalation Factors

This study uses average inflation as represented by the Consumer Price Index (CPI) to estimate future year revenue stream. Historical CPI data was used to develop short-term (five years) and long-term (10 years) running averages. These factors are applied to existing sales tax revenue to estimate future year revenue.

3.2.3 Sensitivity Analysis

The previous study only looked at a one percent transportation sales tax. This study examined one percent and one-half percent transportation sales tax. Various growth scenarios were examined to gauge the sensitivity of forecasts and develop two extreme ends of the potential revenue spectrum. An optimistic scenario included a higher-than-average growth factor and a higher initial revenue estimate. The worst case scenario assumed lower-than-expected initial revenue, economy recovery extending longer than expected, and a lower average growth rate.

3.2.4 Project Prioritization

During the prior study, individual projects were ranked based on various technical criteria as well as inputs from the study sub-committees and public meetings. These projects were

[3] EFR January 2010, Volume 3 Issue 2. Parsons Brinckerhoff, http://www.pbworld.com/news_events/publications/efr/ - accessed on February 24, 2010

grouped into 'high", "medium", and "long-term" priority projects. In this study, as suggested by Richland County, prioritization of projects was not altered from the prior study.

3.2.5 Transit Projects

Soon after the completion of the prior study in May 2008, the Central Midlands Regional Transit Authority (CMRTA) initiated a comprehensive transit study for Richland County which was completed in February 2010. The CMRTA's study provided detailed analysis of service needs and recommended various transit improvement scenarios. The CMRTA Board was provided with four different transit development scenarios which included maintaining a status quo to increasing service frequencies to adding new routes to serve new areas. The CMRTA Board of Directors approved the recommendation that would provide the best service which could be implemented immediately at a reasonable cost and could be built upon within a short time period.

3.3 Project Needs and Cost Updates

This study used the project list from the prior study as a starting point. The project list was revised by removing projects that have been or will be funded using the stimulus funds and other funding sources. Because these projects were taken out of the list, new projects were added. Therefore, the final list of projects only includes those projects that would be funded through the transportation sales tax revenue. Based on the analysis of recent cost trends (as discussed above), total project cost were approximately 10 percent lower than what was estimated in the prior study.

3.3.1 Roadway Projects

The roadway needs include programs to improve the transportation/land use connection, funding for county-wide programs (local road re-surfacing and dirt road paving) and site-specific projects. The site-specific projects include arterial/secondary road widening, intersection upgrades, special projects, and interchange improvements. **Table 1** shows the cost estimates by priority needs for a total roadway program of $1.29 billion for 25 years.

Table 1: 25-Year Roadway Funding Needs

Improvement Types	(Amount in Millions of 2010 Dollars)			
	High Priority	Medium Priority	Long-term Priority	Total
Interchange Improvements	50.40	70.9	51.7	$ 173.0
Intersection Improvements	46.90	12.5	10.3	$ 69.7
Countywide Programs	28.60	45	51.9	$ 125.5
Special Projects	97.50	10.6	11.3	$ 119.4
Widening Projects	248.50	267.8	286.5	$ 802.8
Total Needs from Transportation Sales Tax	**$ 471.9**	**$ 406.8**	**$ 411.7**	**$1,290.4**

3.3.2 Transit

Public transit improvements recommended for Richland County include recommendations from the CMRTA study which was completed in February 2010 and approved by the board during the February 16, 2010 meeting. The CMRTA study identified transit's short-term (high-priority), medium-term (medium-priority), and long-term (lower-priority) needs, including the continuation of current transit operations, both fixed route and paratransit service for disabled residents. Transit service to Richland County citizens would be significantly improved by re-designing existing routes and identifying new routes to maximize service and patronage. The transit service area would be expanded to serve more transit-dependent County residents while the daily hours of bus operation would be extended. Service enhancements include reductions in the time that passengers would have to wait for a bus and improved bus stop signage, hard surface waiting areas, trash cans, benches and shelters. New buses would be purchased for expanded and new services in addition to the acquisition of replacement buses.

Table 2 shows the cost as approved by the CMRTA Board earlier this year. The CMRTA costs include 15 years of transit improvements for the five different scenarios analyzed during the study. The last column in the table shows the funding gap or the local share of the revenue for the five scenarios. The CMRTA Board has assumed that the Local Option Transportation Sales Tax would provide the local mach to fill-in the funding gap.

Table 2: 15-Year Transit Funding Needs, CMRTA Study

CMRTA 15-year Funding Scenarios	(Millions of Year of Expenditure Dollars)				
	Total Cost	Funding Sources			
		Federal	State	Other	Local
Scenario 1	$236.36	$66.18	$7.27	$42.19	$120.73
Scenario 1b	$252.99	$68.90	$7.27	$45.01	$131.82
Scenario 2	$385.95	$94.95	$7.27	$68.33	$215.41
Scenario 3	$485.22	$121.01	$7.27	$84.61	$272.34
Scenario 4	$527.63	$122.12	$7.27	$93.54	$304.70

NOTE:

1. *Central Midlands Regional Transit Authority (CMRTA) Study as approved by the CMRTA Board on February 2010. Costs in the table only include 15-year of funding needs as identified in the CMRTA study.*
2. *"Other" sources include fare box revenue and miscellaneous sources.*
3. *"Local" sources refer to the Local Option Transportation Sales Tax Revenue.*

3.3.3 Other Modes

Other modes include bicycle, pedestrian facilities, and greenways. **Table 3** provides a summary of costs for the prioritized bicycle, pedestrian, and greenway projects by priority. The 25-year total cost estimate for all projects is $314.5 million dollars. The cost to complete all higher-priority projects is $56.5 million. This would provide a wide range of facility improvements to all the planning areas within the County.

Table 3: 25-Year Funding Needs for Other Modes

Other Modes	(Amount in Millions of 2010 Dollars)			
	High Priority	Medium Priority	Long-term Priority	Total
Bikeways	$20.07	$45.68	$118.31	$ 184.1
Greenways	$7.08	$40.28	$8.21	$ 55.6
Pedestrian Facilities	$29.31	$25.46	$20.00	$ 74.8
Total Needs from Transportation Sales Tax	**$ 56.5**	**$ 111.4**	**$ 146.5**	**$ 314.5**

Table 4 shows that there is almost $2.0 billion in transportation funding needs for the next 25 years. In terms of priority, high priority projects account for 47 percent, medium priority account for 25 percent and long-term priority accounts for the remaining 28 percent of total project needs. In terms of modes, roadway improvement needs account for the majority of the funding, 63 percent of the total needs. Transit needs account for 21 percent and other modes account for the remaining 16 percent of the total 25-year needs (see **Figure 2**).

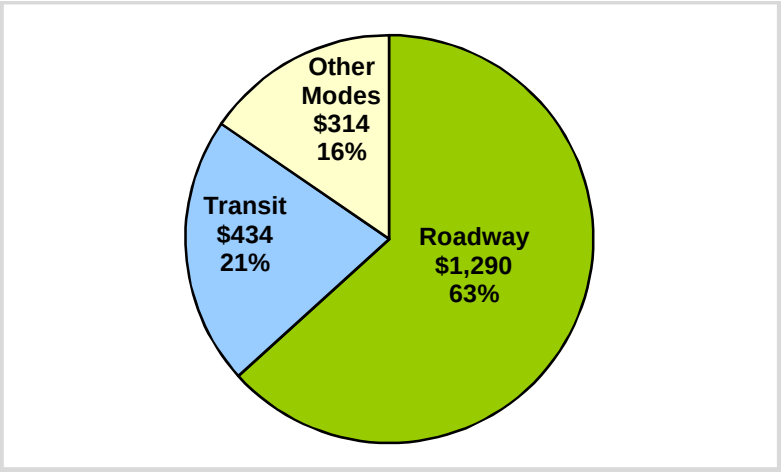
Table 4: Estimated 25-Year Transportation Funding Needs

Transportation Modes	(Amount in Millions of 2010 Dollars)			
	High Priority	Medium Priority	Long-term Priority	Total
Roadway	$471.9	$406.8	$411.7	$1,290.4
Transit	$434.80	0	0	$ 434.8
Other Modes	$56.5	$111.4	$146.5	$ 314.4
Total Needs from Transportation Sales Tax	**$ 963.2**	**$ 518.2**	**$ 558.2**	**$2,039.6**

NOTE:

1. *Transit needs in this table represent total 25-year need which includes the 15-year needs as identified in the CMRTA study plus the 10 additional years.*
2. *Other Modes includes bicycle, pedestrian, greenways*

Figure 2: 25-Year Funding Needs (Millions of 2010 Dollars**)**



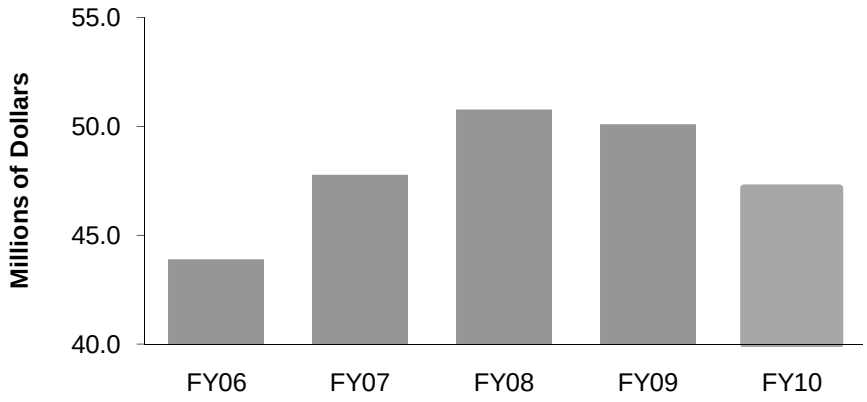
3.4 Revenue Updates

The earlier study looked at alternative sources of transportation funding at the local level. Based on the analysis of the various funding alternatives, the Transportation Study Commission and Richland County recommended exploring the local option transportation sales tax because of its revenue potential, flexibility, and experience in South Carolina, including the local option sales tax in Richland County[4]. The following discussion and revenue estimates are based on the prior study's recommendation of exploring the revenue potential from implementing the local option transportation sales tax.

As noted in earlier sections of this report, slower than normal economic growth has impacted the state and Richland County. A combination of high unemployment rates and lower personal income has impacted sales and tax collections in Richland County. **Figure 3** shows actual collections from a one percent local option sales tax in Richland County. Although the local option sales tax collection was increasing between FY06 and FY08, it decreased in FY09. Based on collection data received through January 2010 (year-to-date collection of $24.7 million), it is estimated the FY10 collections (estimated at $47 million) will be lower than in recent years. As the economy turns around, it is expected that the collections will gradually increase to be in-line with long-term growth.

[4] Transportation Study Commission, Richland On The Move, Technical Memorandum No. 7, Final Documentation, May 2008

Figure 3: Local Option Sales Tax Collection [5]



In this study various assumptions and growth scenarios were considered to forecast a range of potential revenue streams. Key assumptions and scenarios that were evaluated in forecasting the future transportation sales tax revenues include:

- The first full year of transportation sales tax revenue collection is assumed for 2012 to allow time for the referendum process plus the administrative and system setup time to implement and manage the program.

- Initial revenue in 2012 is estimated at $50.0 million, representing an approximate annual growth of 2.6 percent.

- Historical inflation rates (CPI) were used to develop a minimum growth scenario (annual growth of 2.6 to 2.9 percent) and maximum growth rates (annual growth of 2.9 to 3.02 percent).

- A historical and forecast of gross state product (GSP) was used to gauge the broader trend in the economy[6]. GSP is estimated to grow at an average annual rate of 4.5 percent over the long run.

- The estimates incorporate population growth trends based on population forecast data from the State Budget and Control Board. Population growth in Richland County is almost flat, 0.80 percent per year over the next 25 years (2010 through 2035)[7].

- For the higher end of an optimistic revenue forecast, it was assumed that initial tax collection would be higher than expected and also used the higher inflation growth

[5] Actual collections as reported by Richland County.

[6] Global Insight, an independent economic data vendor provided the gross state product (GSP) data. The gross state product measures the economic growth of the state and it is a good indication of generalized demand in sales..

[7] Estimate based on information from SC Budget and Control Board, South Carolina Community Profiles, http://www.sccommunityprofiles.org/census/proj0035.php - accessed 7/15/2010.

rates. For the worst case scenario, it was assumed that initial tax collection would be lower than expected, used the lower of the inflation growth rates, and assumed that the economy will continue to be sluggish for a couple of years before starting to recover around 2014.

Figure 4 shows the total revenue estimates for the optimistic (green line) and the worst case (red line) scenarios. The green area indicates the range of potential revenues based on the various assumptions. It is to be noted that the magnitude of variances in the forecast is greater in later years as compared to early years indicating the impact of compounding growth rates and future uncertainties.

Figure 4: Revenue Estimates

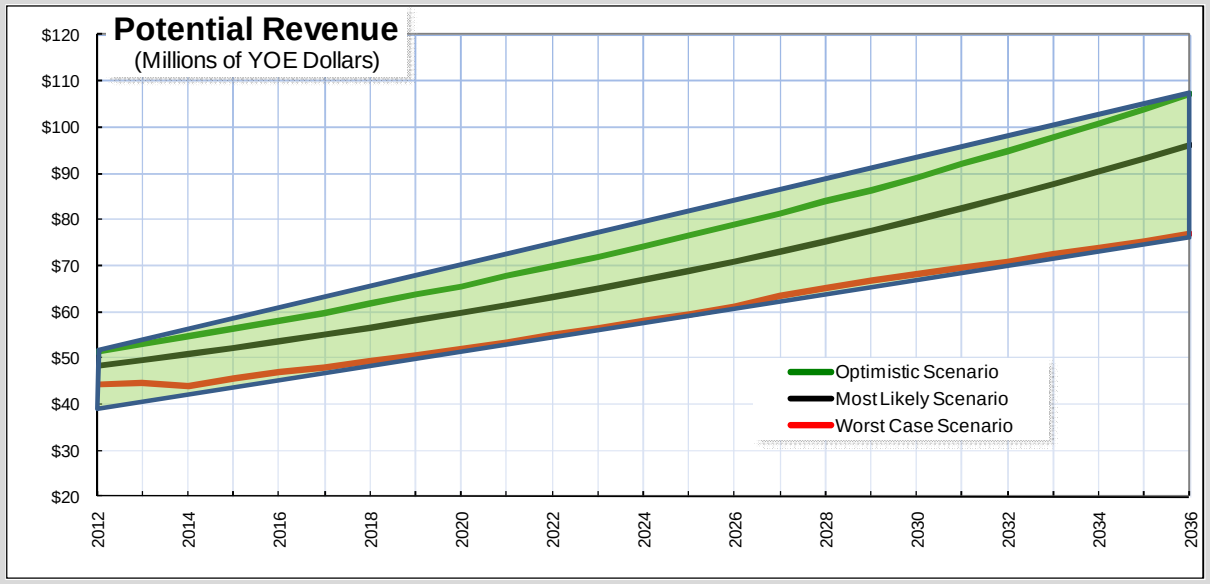


Table 5 shows the range of potential revenue from the local option transportation sales tax for 25 years using both a one-cent and half-cent options under the worst and best scenarios. The table shows the net revenue that is available for projects. Of the total transportation sales tax collection, 3 percent is allocated for administrative and program management cost, including system setup, collection efforts, and managing the entire program. Therefore, the revenue shown in **Table 5** is based on the 97 percent of the transportation sales tax collection which is available for projects. Looking at the worst case and optimistic forecast scenario, it is estimated that transportation sales tax in Richland County could range between $1.06 to $1.17 billion ($1.56 to $1.84 billion YOE) dollars for projects over the 25-year period.

Table 5: 25-Year Revenue Potential

Forecast Scenario	One-Cent Transportation Sales Tax	
	(Millions of 2010 Dollars)	(Millions of YOE Dollars)
Worst Case	$1,060	$1,558
Optimistic	$1,171	$1,843
Most Likely	$1,116	$1,669

NOTE:
1. *Revenue potential includes net revenue available for projects. It excludes the three percent set aside for administrative and program management cost.*

3.5 Project Phasing

In looking at future costs and revenue, phasing of projects (when a project is built and how long it takes to build) plays a critical role due to the impact of inflation over the 25-year time frame. For example, **Table 6** shows that at the current time (2010) there is enough revenue to build one project. If that project is postponed for 10 years there will be a deficit, and if it is postponed for 20 years, the deficit would be even larger. The key point is that it is cheaper to build projects sooner than later.

Table 6: Example of Current versus YOE Dollars

Transportation Modes	Current YR 2010	(Future YOE Dollars)	
		2020	2030
Cost of project X	$500,000	$646,314	$835,444
Revenue	$500,000	$671,958	$903,056
Difference	**none**	**($25,644)**	**($67,612)**

NOTE:
1. *Revenue is estimated to grow at a slower rate than cost of the project. Therefore, the longer the project is postponed, the more it is going to cost.*

This study compares the cost and revenue in 2010 dollars as well as Year-Of-Expenditure (YOE) dollars as shown in **Table 7**. As discussed earlier, the CMRTA study was done for a 15-year horizon. However, to be consistent with the current study, an additional ten years of transit needs were included to the 15-year CMRTA cost estimates. Accordingly, **Table 7** includes cost for all modes for the 25-year analysis period.

In order to calculate cost in YOE dollars, project phasing is essential. For the purpose of this analysis, it is assumed that the roadway, bicycle, pedestrian, and greenway project costs are equally spread over the 25-year period. However, transit project costs are phased-in as recommended in the CMRTA study in the amount approved by the County Council. Based on these assumptions, project needs increase from $2.0 billion (2010 dollars) to $3.5 billion and the most likely revenue estimates increase from $1.12 billion (2010 dollars) to $1.67 billion.

Table 7: 25-Year Transportation Needs Outlook

Transportation Modes	(Amount in Millions of Dollars)	
	YR 2010	YOE
Roadway	$1,290.40	$2,260.83
Transit	$434.80	$688.50
Other Modes	$314.50	$561.53
Total Needs	**$2,039.70**	**$3,510.9**
Estimated Revenue (most likely scenario)	**$1,116**	**$1,669**
Funding Gap	**($923.7)**	**($1,841.9)**

NOTE:
1. *Transit cost includes 15-year CMRTA plan plus the additional 10-years of needs*
2. *Revenue allocation excludes 3 percent set aside for administrative and program management cost*
3. *Other Modes includes bicycle, pedestrian, greenways*

It shows that Richland County has $2.0 billion ($3.5 billion in YOE dollars) of total project needs for the next 25 years. It is evident that the estimated transportation sales tax revenue stream will not be able to cover 25-year project needs.

3.6 Project Cost and Revenue Analysis

For the analysis of both costs and revenues, this study looked at the most likely revenue generation scenario. The most likely scenario assumes a conservative short-term growth rate (average of 2.6 percent per year) and a higher annual growth rate (3.1 percent) towards the end of the period. This results in an average annual growth rate of 2.8 percent over the 25-year period. Based on this growth trend and initial revenue of $46 million, the one percent local option transportation sales tax is expected to generate a total of $1.67 billion over 25 years.

Table 7 showed that even under the most likely revenue scenario, all 25-year project needs cannot be met. Therefore, various scenarios for revenue allocation were evaluated to estimate how much transportation sales tax revenue each mode would receive and how many of the projects could be accommodated. **Table 8** shows the resulting revenue allocation and its impact on projects:

- If the transportation sales tax revenue was evenly allocated based on individual mode's project needs, it would cover 48 percent of each of the three modes.

- If allocation was based on funding total transit needs first, roadway and other project needs would suffer. Under this scenario, transit would get 52 percent of the revenue which would fund 100 percent of the transit needs. This would result in roadway getting 41 percent of the revenue which would fund 38 percent of roadway

needs and bike/pedestrian/greenway getting 7 percent of the revenue which would only fund 20 percent of its needs.

- If revenue allocation was based on prior study revenue allocation (60 percent roadway, 25 percent transit, 15 percent bike/pedestrian/greenway), it would fund 44 percent of roadway, 61 percent of transit, and 45 percent of bike/pedestrian/greenway project needs. This allocation would not be able cover transit needs as approved by the CMRTA Board on February 16, 2010.

- Based on the above revenue allocation results, County Council recommended using 61 percent ($627.4 million) for roadways, 33 percent ($337.1 million) for transit, and 6 percent ($58.5 million) for bike/pedestrian/greenway. This allocation ensures that all of the high priority project needs are funded, including CMRTA-recommended transit needs.

Table 8: 25-Year Revenue Allocation Scenario

Revenue Allocation Scenario Based on	Percent Allocation			Revenue in Millions 2010 Dollars YOE Dollars		
	Roadway	Transit	Other	Roadway	Transit	Other
Project Needs	63	21	16	$644.5 $1,075	$214.8 $327	$163.7 $267
Full Transit Needs	52	41	7	$532.0 $868	$419.4 $688	$71.6 $113
Prior Study Recommendation	60	25	15	$613.8 $1,001	$255.7 $417	$153.5 $251
Council Recommendation	**61**	**33**	**6**	**$627.4 $1,018**	**$337.1 $551**	**$58.5 $100**

NOTE:
1. *Revenue allocation excludes 3 percent set aside for administrative and program management cost.*
2. *Other category includes bicycle, pedestrian, greenways*

4.0 STUDY FINDINGS

The preceding chapters discussed the 25-year project needs, assumptions, and key factors affecting project cost and revenue potential. This section summarizes these findings.

- Project costs from a previous study were revised to reflect current economic conditions (i.e. lower construction bids as a result of competition among contractors for limited number of projects). Current year costs were converted to future year costs (Year-Of-Expenditure dollars) by using ENR regional cost index factors. Construction costs were lower by 10 percent from what was estimated in the earlier study. This resulted in a total project need of $2.0 billion ($3.5 billion in Year-Of-Expenditure dollars) over the 25-year period.

- Given the estimated costs of project needs, it was evident that a one-half percent transportation sales tax would not generate enough revenue. This transportation sales tax would not be able to fund transit needs as recommended by CMRTA and the high priority projects. As recommended by the Richland County Council, a one percent transportation sales tax was considered in the study. Based on current economic conditions and local option sales tax collections to date this year, it is estimated that a one percent transportation sales tax would generate $46 million in 2010.

- Transportation sales tax revenue was converted to future year revenue (Year-Of-Expenditure) based on forecasts of various economic factors. The study looked at sensitivity of various growth scenarios and recommends using a “most-likely” growth scenario. This scenario assumes conservative short-term growth (average of 2.6 percent per year) and higher annual growth rate (3.1 percent) towards the end of the 25 years which results in an annual growth rate of 2.8 percent over the entire period.

- The study also assumes that 3 percent of the revenue generated would be set aside to cover administrative and program management costs. Therefore, 97 percent of the transportation sales tax revenue is considered as being available for projects. This is estimated to generate a total of $1.12 billion ($1.67 billion in Year-Of-Expenditure dollars) available for projects in the next 25 years.

- **Figure 5** shows the Council-recommended revenue allocation of 61 percent, 33 percent, 6 percent between roadway, transit, and other modes respectively in 2010 Dollars as well as YOE Dollars. The completed analysis shows that a one percent transportation sales tax would generate enough revenue to fund all of the high-priority project needs identified for the next 25 years.

- **Figure** 6 shows the annual allocation by mode. It should be noted that transit needs start low and over time increase indicating system expansion and higher operating and maintenance cost. Thus, revenue allocation between the three modes will not be consistent on an annual basis. However, over the 25-year period, percent of revenue allocation equates to 61, 33, and 6 percent between roadway, transit, bike/pedestrian/greenways, respectively as recommended by the Council.

Figure 5: 25-Year Revenue Allocation

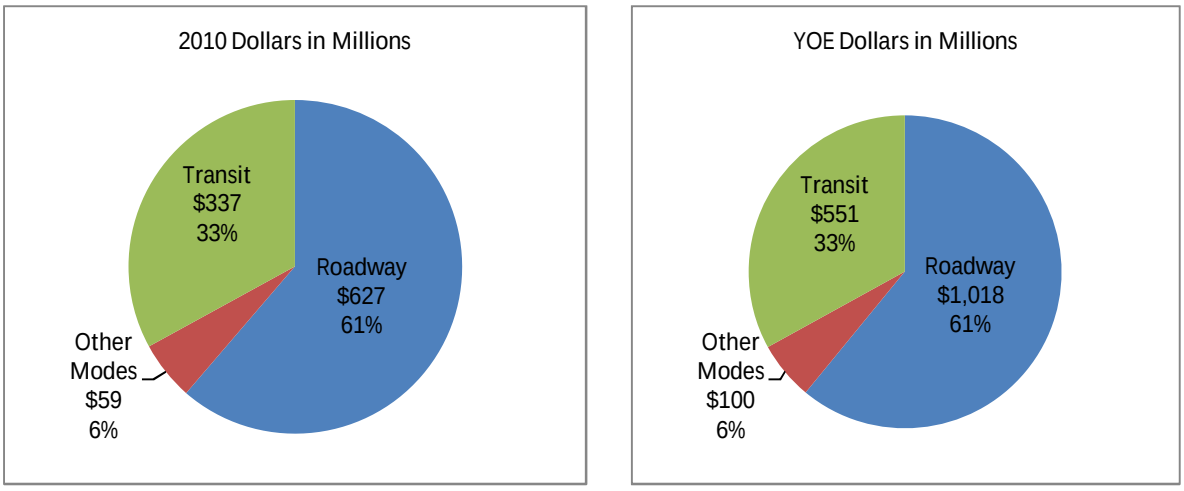
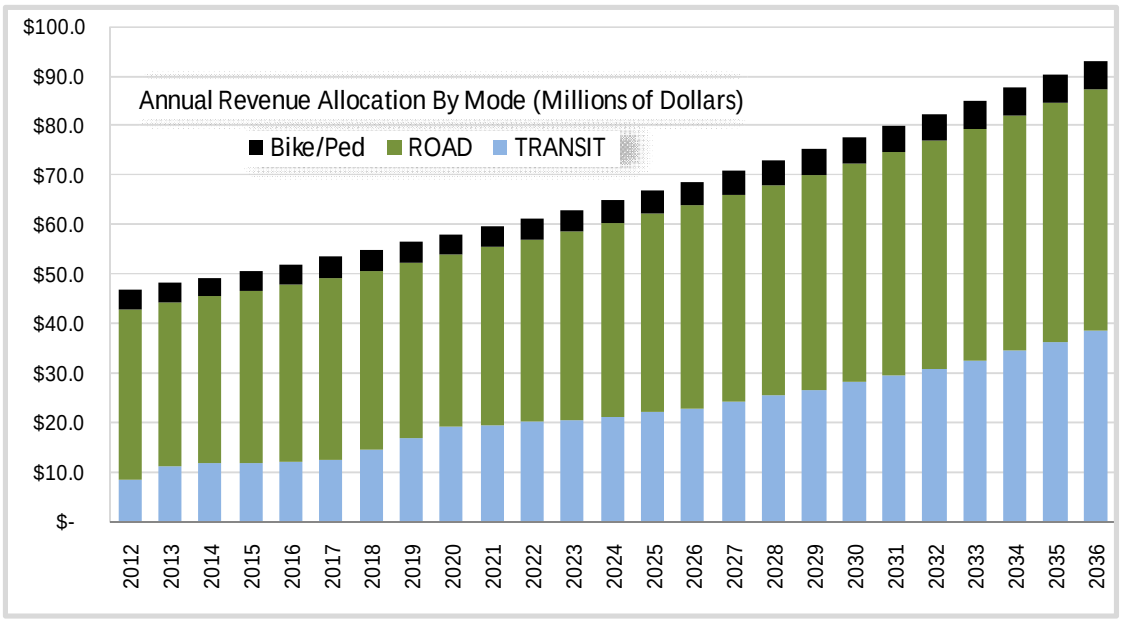


Figure 6: Annual Revenue Allocation By Mode (Millions of YOE Dollars**)**



- Although it was not part of this study, it is recommended that the County explore alternative financing mechanisms, i.e. use a portion of the future transportation sales tax revenue stream to issue bonds. Since projects could be built faster, more projects could be built because it would be cheaper. However, there are additional fees associated with issuing bonds that would need to be considered. The feasibility of issuing bonds would depend on the economic environment, quality and reliability of revenue estimates and the County's credit capacity with bond rating agencies. Although this step would require detailed analysis beyond the scope of this study, it is an option that should be pursued, especially because the Council approved up to $200M in bonds for these projects during the third reading of the transportation sales tax ordinance.

Appendix A

High Priority Roadway Projects

Type	Project Name	Begin Location (Highway1)	End Location (Highway2)	2010 Cost
Widening	Pineview Rd	Bluff Rd	Garners Ferry Rd	$ 18,000,000
Widening	Atlas Rd	Bluff Rd	Garners Ferry Rd	$ 17,400,000
Widening	Clemson Rd	Old Clemson Rd	Sparkleberry Crossing Rd	23,100,000
Widening	Lower Richland Blvd	Rabbit Run Rd	Garners Ferry Rd	5,900,000
Widening	Hardscrabble Rd	Clemson Rd	Lake Carolina Blvd	28,800,000
Widening	Blythewood Rd	Syrup Mill Rd	I-77	7,600,000
Widening	Broad River Rd	Royal Tower Rd	I-26 (Exit 97)	28,700,000
Intersection	North Main St. and Fairfield Rd.	North Main St.	Fairfield Rd.	5,100,000
Intersection	Clemson Rd. and Rhame Rd./North Springs Rd.	Clemson Rd.	Rhame Rd./North Springs Rd.	3,400,000
Intersection	Farrow Rd. and Pisgah Church Rd.	Farrow Rd.	Pisgah Church Rd.	3,500,000
Intersection	Wilson Blvd. and Pisgah Church Rd.	Wilson Blvd.	Pisgah Church Rd.	3,500,000
Intersection	North Main St. and Monticello Rd.	North Main St.	Monticello Rd.	5,100,000
Intersection	Broad River Rd. and Rushmore Rd.	Broad River Rd.	Rushmore Rd.	3,600,000
Intersection	Wilson Blvd. and Killian Rd.	Wilson Blvd.	Killian Rd.	2,600,000
Intersection	Garners Ferry Rd. and Harmon Rd.	Garners Ferry Rd.	Harmon Rd.	2,600,000
Intersection	Clemson Rd. and Sparkleberry Ln. (to Mallet Hill Rd.)	Clemson Rd.	Sparkleberry Ln. (to Mallet Hill Rd.)	5,100,000
Intersection	Lake Murray Blvd. and Kinley Rd.	Lake Murray Blvd.	Kinley Rd.	1,000,000
Intersection	North Springs Rd. and Risdon Way	North Springs Rd.	Risdon Way	1,700,000
Intersection	Summit Pkwy and Summit Ridge Rd.	Summit Pkwy	Summit Ridge Rd.	500,000
Special	Shop Road Extension	na	na	9,800,000
Special	Assembly Street RR Grade Separation	na	na	24,200,000
Interchange	I-20 / Broad River Rd.	na	na	9,800,000
Program	Access Management & Complete Streets Initiatives	na	na	100,000
Program	County-Wide Corridor Improvement Plan	na	na	200,000
Program	County-Wide Thoroughfare Plan	na	na	200,000
Program	County-Wide HOV Lane Study	na	na	200,000
Program	Local Road Resurfacing Program	na	na	18,000,000
Program	Dirt Road Paving Program	na	na	9,000,000
Program	Intelligent Transportation System	na	na	900,000
Widening	Hardscrabble Rd	Farrow Rd	Clemson Rd	35,600,000
Widening	Shop Rd	I-77	George Rogers Blvd	33,200,000
Widening	Polo Rd	Mallet Hill Rd	Two Notch Rd	12,500,000
Widening	Bluff Rd	I-77	Rosewood Dr	16,700,000
Widening	Blythewood Rd	Winnsboro Rd	Syrup Mill Rd	21,000,000
Intersection	Hardscrabble Rd. and Kelly Mill Rd./Rimer Pond Rd.	Hardscrabble Rd.	Kelly Mill Rd./Rimer Pond Rd.	2,900,000
Intersection	Bull St. and Elmwood Ave.	Bull St.	Elmwood Ave.	1,800,000
Intersection	Screaming Eagle Rd. and Percival Rd.	Screaming Eagle Rd.	Percival Rd.	1,000,000
Intersection	Kennerly Rd. and Coogler Rd./Steeple Ridge Rd.	Kennerly Rd.	Coogler Rd./Steeple Ridge Rd.	1,700,000
Intersection	North Springs Rd. and Harrington Rd.	North Springs Rd.	Harrington Rd.	1,800,000
Special	Shop Road Extension	na	na	59,100,000
Special	Kelly Mill Rd.	na	na	4,400,000
Interchange	I-20 / Broad River Rd.	na	na	40,600,000
Total High Priority Roadway Projects				471,900,000

High Priority Roadway Projects

Type	Project Name	Begin Location (Highway1)	End Location (Highway2)	2010 Cost
Projects Included in High Priority List: No Costs Associated				
Special	Study of Outer Beltway	na	na	-
Program	Preservation of Existing Right-of-Way	na	na	-
Program	Extension of Existing Roads	na	na	-
Program	Reservation of Road Connections	na	na	-
Program	Transfer of Development Rights	na	na	-
Program	Capital Improvements Plan	na	na	-
Program	Traffic Mitigation Plans	na	na	-
Program	Demand Management	na	na	-
Program	Establish the Position of Director of Transportation	na	na	-
Program	Update the County Zoning Ordinance	na	na	-
Program	Encourage Transit Oriented Development	na	na	-
Program	Encourage Traditional Neighborhood Development	na	na	-
MODIFICATIONS TO HIGH PRIORITY LIST				
Special	Assembly Street RR Grade Separation	na	na	24,200,000
Special	Innovista	na	na	50,000,000
Special	Zoo	na	na	4,000,000
Widening	Spears Creek Church Rd	Two Notch Rd	Percival Rd	26,600,000
Special	Neighborhood Improvement Transportation Projects	County wide	County wide	63,000,000
Intersection	North Main St. and Fairfield Rd.	North Main St.	Fairfield Rd.	5,100,000
Special	Commerce Drive Improvements	Royster Street	Jim Hamilton Boulevard	5,000,000
Widening	North Main Street (Phases IA2 & III; II & IV)	Anthony Avenue	Fuller Avenue	36,200,000
Widening	Ridgewood/North Main Extension (Columbia portion)	Dixie Avenue	North Main Street	-
Total Roadway Projects Including Modifications				**627,400,000**

Appendix B

High Priority Bike, Pedestrian, Greenway Projects

Type	LOCATION	Highway Name 1	Highway Name 2	2010 Cost
Intersection	Broad River Rd and Bush River Rd			$ 90,000
Intersection	Huger St and Gervais St			$ 90,000
Intersection	Elmwood Ave and Park St			$ 90,000
Intersection	Main St and Elmwood Ave			$ 90,000
Intersection	Elmwood Ave and Bull St			$ 90,000
Intersection	Gervais St and Millwood Ave			$ 90,000
Intersection	Garners Ferry Rd and Atlas Rd			$ -
Intersection	Garners Ferry Rd and Hallbrook Dr/Pineview Rd			$ -
Intersection	Two Notch Rd and Alpine Rd			$ 90,000
Intersection	Two Notch Rd and Maingate Dr/Windsor Lake Blvd			$ 90,000
Intersection	Two Notch Rd and Polo Rd			$ -
Intersection	Two Notch Rd and Brickyard Rd			$ 90,000
Intersection	Two Notch Rd and Sparkleberry Ln			$ 90,000
Intersection	Blossom St and Saluda Ave			$ 90,000
Intersection	Devine St and Harden St/Santee Ave			$ 90,000
Intersection	Two Notch Rd and Decker Blvd/Parklane Rd			$ 90,000
Intersection	Polo Rd and Mallet Hill Rd			$ -
Intersection	Huger St and Blossom St			$ 90,000
Intersection	Huger St and Greene St			$ 90,000
Intersection	Huger St and Lady St			$ 90,000
Intersection	Assembly St and Greene St			$ 90,000
Intersection	Assembly St and Pendleton St			$ 90,000
Intersection	Assembly St and Gervais St			$ 90,000
Intersection	Assembly St and Washington St			$ 90,000
Intersection	Assembly St and Laurel St			$ 90,000
Intersection	Assembly St and Calhoun St			$ 90,000
Intersection	Main St and Taylor St			$ 90,000
Intersection	Main St and Blanding St			$ 90,000
Intersection	Main St and Laurel St			$ 90,000
Intersection	Main St and Calhoun St			$ 90,000
Intersection	Rosewood Dr and Marion St			$ 90,000
Intersection	Rosewood Dr and Pickens St			$ 90,000
Intersection	Rosewood Dr and Harden St			$ 90,000
Intersection	Rosewood Dr and Holly St			$ 90,000
Intersection	Rosewood Dr and Ott Rd			$ 90,000
Intersection	Rosewood Dr and Kilbourne Rd			$ 90,000
Intersection	Rosewood Dr and Beltline Blvd			$ 90,000
Intersection	Garners Ferry Rd and Old Woodlands Rd			$ 90,000
Intersection	Devine St and Fort Jackson Blvd			$ 90,000
Intersection	Harden St and Gervais St			$ 90,000
Greenways	Dutchman Blvd Connector			$ 81,580
Greenways	Columbia Mall Greenway			$ 502,884
Greenways	Polo/Windsor Lake Connector			$ 298,994
Greenways	Gills Creek North Greenway			$ 267,293
	(Continued on next page)			

High Priority Bike, Pedestrian, Greenway Projects

Type	LOCATION	Highway Name 1	Highway Name 2	2010 Cost
Greenways	Woodbury/Old Leesburg Connector			$ 90,127
Greenways	Crane Creek			$ 1,195,694
Greenways	Crane Creek			$ 356,979
Greenways	Crane Creek			$ 615,684
Greenways	Smith/Rocky Branch			$ 334,387
Greenways	Smith/Rocky Branch			$ 1,097,592
Greenways	Smith/Rocky Branch			$ 698,829
Greenways	Three Rivers Greenway Extension			$ 123,394
Greenways	Three Rivers Greenway Extension			$ 455,493
Greenways	Three Rivers Greenway Extension			$ 273,673
Greenways	Lincoln Tunnel Greenway			$ 692,328
Sidewalk	Assembly St	Whaley St	Beltline Blvd	$ 1,728,231
Sidewalk	Clemson Rd	Longtown Rd	Two Notch Rd	$ 2,127,879
Sidewalk	Colonial Dr	Harden St	Academy St	$ 911,434
Sidewalk	Columbiana Dr	Lexington County Line	Lake Murray Blvd	$ 437,645
Sidewalk	Broad River Rd	Greystone Blvd	Broad River Bridge	$ 99,646
Sidewalk	Blossom St	Williams St	Huger St	$ 37,408
Sidewalk	Gervais St	450' west of Gist St	Gist St	$ 7,774
Sidewalk	Broad River Rd	Broad River Bridge (West End)	Broad River Bridge (East End)	$ 1,880,623
Sidewalk	Alpine Rd	Two Notch Rd	Percival Rd	$ 1,036,867
Sidewalk	Blythewood Rd	I-77	Main St	$ 172,441
Sidewalk	Broad River Rd	Harbison Blvd	Bush River Rd	$ 2,167,525
Sidewalk	Superior St	Whaley St	Airport Blvd	$ 700,968
Sidewalk	Leesburg Rd	Garners Ferry Rd	Semmes Rd	$ 1,731,805
Sidewalk	Polo Rd	Two Notch Rd	Mallet Hill Rd	$ -
Sidewalk	Two Notch Rd	Alpine Rd	Spears Creek Church Rd	$ 2,433,157
Sidewalk	Bluff Rd	Rosewood Dr	Beltline Blvd	$ -
Sidewalk	Gervais St	Gist St	Huger St	$ 75,690
Sidewalk	Huger St	Blossom St	Gervais St	$ 231,175
Sidewalk	Broad River Rd	I-26	Harbison Blvd	$ 2,249,478
Sidewalk	Park St	Gervais St	Senate St	$ 153,513
Sidewalk	Polo Rd	Mallet Hill Rd	Alpine Rd	$ 367,583
Sidewalk	Clemson Rd	Two Notch Rd	Percival Rd	$ 508,255
Sidewalk	Atlas Rd	Fountain Lake Way	Garners Ferry R	$ -
Sidewalk	Bratton St	King St	Maple St	$ 347,941
Sidewalk	Calhoun St	Gadsden St	Wayne St	$ 82,256
Sidewalk	Fort Jackson Blvd	Wildcat Rd	I-77	$ 309,189
Sidewalk	Franklin St	Sumter St	Bull St	$ 707,026
Sidewalk	Grand St	Shealy St	Hydrick St	$ 643,159
Sidewalk	Jefferson St	Sumter St	Bull St	$ 343,118
Sidewalk	Laurel St	Gadsden St	Pulaski St	$ 323,160
Sidewalk	Lincoln St	Heyward St	Whaley St	$ 178,628
Sidewalk	Lyon St	Gervais St	Washington St	$ 175,524
Sidewalk	Magnolia St	Two Notch Rd	Pinehurst Rd	$ 745,613
Sidewalk	Maple St	Kirby St	Gervais St	$ 119,251
Sidewalk	Mildred Ave	Westwood Ave	Duke Ave	$ 136,382
Sidewalk	Royster St	Mitchell St	Superior St	$ 85,821
Sidewalk	School House Rd	Two Notch Rd	Ervin St	$ 434,594
	(Continued on next page)			

High Priority Bike, Pedestrian, Greenway Projects

Type	LOCATION	Highway Name 1	Highway Name 2	2010 Cost
Sidewalk	Senate St	Gladden St	Kings St	$ 428,607
Sidewalk	Shandon St	Wilmot St	Wheat St	$ 161,164
Sidewalk	Tryon St	Catawba St	Heyward St	$ 319,002
Sidewalk	Wayne St	Calhoun St	Laurel St	$ 330,145
Sidewalk	Wildwood Ave	Monticello Rd	Ridgewood Ave	$ 238,004
Sidewalk	Wiley St	Superior St	Edisto Ave	$ 252,806
Sidewalk	Windover St	Two Notch Rd	Belvedere Dr	$ 169,147
Sidewalk	Shandon St	Rosewood Dr	Heyward St	$ 241,663
Sidewalk	Broad River Rd	Royal Tower Rd	Woodrow St	$ -
Sidewalk	Broad River Rd	Lake Murray Blvd	Western Ln	$ -
Sidewalk	Lower Richland Blvd	Rabbit Run Rd	Garners Ferry Rd	$ 234,069
Sidewalk	Harrison Road	Harrison Rd	Harrison Rd	$ 600,000
Bikeways	Broad River Rd	Greystone Blvd	Broad River Bridge	$ 289,216
Bikeways	Harden St	Devine St	Rosewood Dr	$ 628,194
Bikeways	Senate St	Sumter St	Laurens St	$ 417,016
Bikeways	Trenholm Rd	South of Dent Middle School	Decker Blvd	$ 111,715
Bikeways	Two Notch Rd	Beltline Blvd	Parkland Rd	$ 2,195,224
Bikeways	Broad River Rd	Broad River Bridge (West End)	Broad River Bridge (East End)	$ 16,187
Bikeways	Hampton St	Pickens St	Harden St	$ 29,057
Bikeways	Pendleton St	Lincoln St	Marion St	$ 29,040
Bikeways	Pickens St/Washington St/Wayne St	Hampton St (west)	Hampton St (east)	$ 62,692
Bikeways	Shop Rd	George Rogers Blvd	Northway Rd	$ -
Bikeways	Sumter St	Washington St	Senate St	$ 17,697
Bikeways	Beltline Blvd/Devine St	Rosewood Dr	Chateau Dr	$ 24,158
Bikeways	Beltline Blvd	Forest Dr	Valley Rd	$ 1,101
Bikeways	Beltline Blvd/Colonial Dr/Farrow Rd	Harden St	Academy St	$ 6,636
Bikeways	Catawba St/Tryon St/Whaley St/Williams St	Church St	Blossom St	$ 5,547
Bikeways	Bonham Rd/Devereaux Rd/Heathwood Cir/Kilbourne Rd/Rickenbaker Rd/Sweetbriar Rd	Blossom St	Fort Jackson Blvd	$ 21,691
Bikeways	Chester St/Elmwood Ave/Wayne St	Hampton St	Park St	$ 12,094
Bikeways	Clement Rd/Duke Ave/River Dr	Main St	Monticello Rd	$ 30,427
Bikeways	College St/Laurens St/Oak St/Taylor St	Greene St	Elmwood Ave	$ 16,331
Bikeways	Edgefield St/Park St	Calhoun St	River Dr	$ 16,464
Bikeways	Gervais St/Gladden St/Hagood Ave/Page St/Senate St/Trenholm Rd/Webster St	Millwood Ave	Beltline Blvd	$ 22,913
Bikeways	Heyward St/Marion St/Superior St	Whaley St	Wiley St	$ 9,748
Bikeways	Sumter St	Blossom St	Wheat St	$ 249,694
Bikeways	Huger St/Lady St/Park St	Gervais St (east)	Gervais St (west)	$ 7,295
Bikeways	Lincoln St	Blossom St	Lady St	$ 439,133
Bikeways	Ott Rd	Jim Hamilton Blvd	Blossom St	$ 17,872
Bikeways	Saluda Ave	Wheat St	Greene St	$ 3,934
Bikeways	Wheat St	Sumter St	Assembly St	$ 120,072
Bikeways	Wheat St	Harden St	King St	$ 4,351
Bikeways	Bluff Rd	Berea Rd	Beltline Blvd	$ -
Bikeways	Shop Rd	Northway Rd	Beltline Blvd	$ -
	(continued on next page)			

High Priority Bike, Pedestrian, Greenway Projects

Type	LOCATION	Highway Name 1	Highway Name 2	2010 Cost
Bikeways	Blossom St	Williams St	Huger St	$ 37,408
Bikeways	Gervais St	450' west of Gist St	Gist St	$ 15,549
Bikeways	Assembly St	Blossom St	Rosewood Dr	$ 25,654
Bikeways	Beltline Blvd	Rosewood Dr	Devine St	$ 23,418
Bikeways	Broad River Rd	Bush River Rd	Greystone Blvd	$ 34,749
Bikeways	Broad River Rd	Harbison Blvd	Bush River Rd	$ 294,355
Bikeways	Calhoun St	Wayne St	Harden St	$ 80,934
Bikeways	Decker Blvd/Parklane Rd/Two Notch Rd	Two Notch Rd	Percival Rd	$ 118,890
Bikeways	Fort Jackson Blvd	Devine St	Newell Rd	$ 77,206
Bikeways	Garners Ferry Rd	Rosewood Dr	True St	$ 61,257
Bikeways	Gervais St	Park St	Millwood Ave	$ 83,763
Bikeways	Greene St	Assembly St	350' west of Lincoln St	$ 17,772
Bikeways	Main St	Pendleton St	Whaley St	$ 45,662
Bikeways	Oneil Ct	Decker Blvd	Parklane Rd	$ 78,536
Bikeways	Rosewood Dr	Bluff Rd	Garners Ferry Rd	$ 193,581
Bikeways	Bluff Rd	Rosewood Dr	Berea Rd	$ -
Bikeways	Colonial Dr	Bull St	Slighs Ave	$ 355,887
Bikeways	Holt Dr/Superior St	Wiley St	Airport Blvd	$ 408,235
Bikeways	Leesburg Rd	Garners Ferry Rd	Semmes Rd	$ 234,463
Bikeways	Wilson Blvd	I-77	Farrow Rd	$ -
Bikeways	Gervais St	Gist St	Huger St	$ 75,690
Bikeways	Huger St	Blossom St	Gervais St	$ 231,175
Bikeways	Shop Rd	Beltline Blvd	Pineview Dr	$ 591,491
Bikeways	Blossom St	Assembly St	Sumter St	$ 77,743
Bikeways	Bull St	Elmwood Ave	Victoria St	$ 18,533
Bikeways	Main St	Elmwood Ave	Sunset Dr	$ 69,342
Bikeways	Elmwood Ave	Wayne St	Proposed Greenway Connector	$ 3,893
Bikeways	Main St	Calhoun St	Elmwood Ave	$ 1,025
Bikeways	Dutchman Blvd	Broad River Rd	Lake Murray Blvd	$ 103,798
Bikeways	Columbiana Dr	Lake Murray Blvd	Lexington County Line	$ 642,960
Bikeways	Broad River Rd/Lake Murray Blvd	I-26	Harbison Blvd	$ 14,282
Bikeways	Dutch Fork Rd	Bickley Rd	Rauch Meetze Rd	$ -
Bikeways	Broad River Rd	Woodrow St	I-26 (Exit 97)	$ -
Bikeways	Dutch Fork Rd	Broad River Rd	Bickley Rd	$ -
Bikeways	Blythewood Rd	Winnsboro Rd	Main St	$ 362,273
Bikeways	Clemson Rd	Longtown Rd	Brook Hollow Dr	$ 989,195
Bikeways	Clemson Rd	Summit Pky	Percival Rd	$ 1,477,321
Bikeways	Alpine Rd	Two Notch Rd	Percival Rd	$ 1,382,490
Bikeways	Hardscrabble Rd	Farrow Rd	Lee Rd	$ -
Bikeways	Polo Rd	Two Notch Rd	640' south of Mallet Hill Rd	$ 968,268
Bikeways	Clemson Rd	Brook Hollow Dr	Summit Pky	$ 106,774
Bikeways	Two Notch Rd	Alpine Rd	Spears Creek Church Rd	$ 330,737
Bikeways	Hardscrabble Rd	Lee Rd	Lake Carolina Blvd	$ -
Bikeways	Pineview Rd	Bluff Rd	Garners Ferry Rd	$ -
Bikeways	Atlas Rd	Bluff Rd	Garners Ferry Rd	$ -
Bikeways	Pickens St	Washington St	Rosewood Dr	$ 1,063,557
Bikeways	College St	Lincoln St	Sumter St	$ 253,087
Bikeways	Assembly St	Blossom St	Rosewood Dr	$ 621,346
	(continued on next page)			

High Priority Bike, Pedestrian, Greenway Projects

Type	LOCATION	Highway Name 1	Highway Name 2	2010 Cost
Bikeways	Greene St	Assembly St	Bull St	$ 246,364
Bikeways	Bull St/Henderson St/Rice St	Wheat St	Heyward St	$ 5,991
Bikeways	Greene St	Bull St	Saluda Ave	$ 323,326
Bikeways	Catawba St	Sumter St	Lincoln St	$ 225,131
Bikeways	Blossom St	Huger St	Assembly St	$ 2,357,391
Bikeways	Whaley St	Lincoln St	Pickens St	$ 394,378
Bikeways	Whaley St	Lincoln St	Church St	$ 132,828
Bikeways	Craig Rd	Harrison Rd	Covenant Rd	$ 6,684
Bikeways	Broad River Rd	Royal Tower Rd	Woodrow St	$ -
Bikeways	Broad River Rd	Lake Murray Blvd	Western Ln	$ -
Total High Priority Bike, Ped, Greenway Projects				$ 57,060,191
MODIFICATIONS TO THE HIGH PRIORITY LIST				
Sidewalk	Koon	Malinda Road	Farmview Street	$92,890.98
Sidewalk	Pelham	Gills Creek Parkway	Garners Ferry Road	$346,773.70
Sidewalk	Pinehurst	Harrison Road	Forest Drive	$352,561.30
Sidewalk	Prospect	Wilmot Avenue	Yale	$137,937.80
Sidewalk	Sunset	Elmhurst Road	River Drive	$364,522.34
Sidewalk	Veterans	Garners Ferry Road	Wormwood Drive	$171,602.34
Sidewalk	Veterans	Coachmaker Road	Coatsdale Road	$45,914.96
Intersection	Main St and Taylor St			$ 90,000
Total Bike, Ped, Greenway Projects Including Modifications				$58,482,394.12

Appendix C

Development and expansion of Transit system was based on the following goals:

Near Term Plan: 1-3 Years

Focuses on Reliability

- Provides additional schedule recovery /layover time on routes to improve on-time performance
- Schedules on key corridor routes are timed (pulsed) to minimize passenger wait-times at the Downtown Transfer Center
- Eliminates worst-performing routes and route segments in the transit system
- Provides minor improvements in service area coverage and connectivity across service area
- New service monitoring and data collection procedures will be put in place
- Administrative functions will be reorganized to improve accountability and oversight

Short Range Plan: 4-9 Years

Focuses on Connectivity with 75% Growth in Local Service

- Service is reorganized and reflects a "blend" of routes (radial routes, cross-town routes, community fixed routes (circulators that link to main-line routes), community flex routes (call-a-bus/route deviation), limited-stop and express routes)
- Cross-town service is expanded to provide travel opportunities without requiring a transfer at the Downtown Transfer Center
- New suburban transfer hubs are put in place to facilitate transfers between radial and cross-town routes
- Provides minimum 30-minute service frequencies in key travel corridors
- Evening and weekend service is expanded, including service frequencies and area coverage
- New express route services are implemented with park-and-ride lots (these will be uniquely branded and promoted)
- Introduction of community "flex" routes that provide on-demand neighborhood service
- Initiate/coordinate rideshare/carpool and vanpool programs which are also known as Transportation Demand Management Programs.

Long Range Plan: 10-15

Focuses on Accessibility 150% Growth in Local Service

- More than doubles the number of buses serving the community and expands the service area to provide access to public transit to approximately 90% of the population of Richland County.
- Provides new service in suburban communities that currently have no transit service
- Additional suburban transfer hubs are put in place
- Continued expansion of service into the evenings and expansion of routes that operate on the weekends
- Implementation of downtown circulator loop service
- Provides minimum 15-minute service frequencies in the peak periods in key travel corridors
- Introduction of new express route services and new park-and-ride lots into neighboring counties
- Continued expansion of community "flex" routes
- Expansion of rideshare/carpool and vanpool programs in neighboring counties