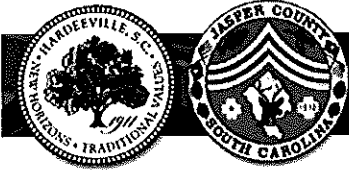




City of Hardeeville / Jasper County
Application to the
South Carolina State Transportation Infrastructure Bank
for the New Exit 3 on I-95 & Related Improvements

April 2009



City of Hardeeville/Jasper County Application to the South Carolina State Transportation Infrastructure Bank

EXECUTIVE SUMMARY

The City of Hardeeville and Jasper County are pleased to submit this application to the State Infrastructure Bank Board for funding assistance in adding a new Exit 3 on I-95 and for associated connector roads. This application will provide the board an opportunity to approve its **first rural project**. A decision to invest funds from the bank will come at a critical time when our state economy needs more and better job opportunities. Approval of this application will assist a region in the most impoverished portions of the state to move forward to materially improve the economic status of its citizens.

The project involves the following elements:

- Construction of a new exit 3 on I-95
- Construction of a connector road (Purrysburg Road) south to US 17
- Construction of a new East West Connector road north to US 321
- Intersection improvements to US 17 and US321

The City of Hardeeville, Jasper County and the Stratford Company propose to provide match consisting of the following:

- Donation of necessary rights of way for the interchange, for Purrysburg Road, and for the East/West Connector Road;
- Construction of Purrysburg Road; and,
- Acquisition of rights of way for the necessary intersections with US 17 and US 321.

The amount of funds requested from the bank is \$68.3 million while the local match is valued at \$51.6 million which equates to a **43% match**.

Significant positive economic effects that will result from this project include:

- This new access point will assist in serving the access demands of properties which will produce over **28,000 direct and induced jobs at build out**.
- Jasper County residents will see an **increase in wages from \$207 million in 2007 to \$956 million at build out**.
- **\$7 Billion in New Capital investment**.

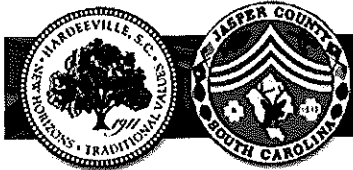


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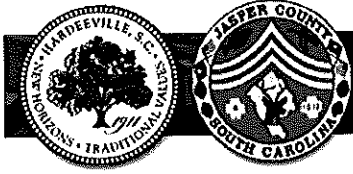
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- Appendix A: South Carolina Transportation Infrastructure Bank Financial Assistance Application Process
- Appendix B: Traffic Analysis
- Appendix C: Resolutions and Letters of Support
- Appendix D: Miley Gallo and Associates Study
- Appendix E: Road Construction Cost Estimates
- Appendix F: Letter to SCDOT
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City of Hardeeville/Jasper County Application to the South Carolina State Transportation Infrastructure Bank

INTRODUCTION

On behalf of the citizens of the City of Hardeeville and Jasper County, we are pleased to submit this application to the South Carolina State Transportation Infrastructure Bank Board to assist in funding a new Exit 3 on Interstate 95 and related infrastructure.

Beneficiaries of the project will include not only the residents of Jasper County, but also the trucking operations that will be generated by the proposed Jasper Ocean Terminal and new port facility along the Savannah River.

This application follows the format described in the Financial Assistance Application Process that was approved by the South Carolina Transportation Infrastructure Bank Board in May 2008 (see Appendix A). It includes a detailed description of the project followed by a discussion of the public benefits that will be provided by construction of the project, the financial plan agreed upon by Jasper County and the City of Hardeeville, and the proposed approach to design and construction of the project.

Acceptance of this application will give the State Infrastructure Bank the opportunity to fund the its first rural project and we are confident that the Board will review this highway improvement plan favorably and open the road to economic development in one of South Carolina's poorest counties.

PROJECT DESCRIPTION

The proposed project is located in the City of Hardeeville in Jasper County. A map showing the location of the project follows as Figure 1. Figure 2 is a schematic drawing of the proposed improvements with enlarged views of each specific improvement.

Improvements included in this application are:

- a new Exit 3 on I-95 (Figure 2, Inset 2)
- the four-laning of Purrysburg Road south from I-95 to U.S. 17 (shown in blue, Figure 2)
- an east-west connector roadway from Purrysburg Road to U.S. 321 (shown in red, Figure 2)
- intersection improvements at US321/US17 (Figure 2, Inset 1) on the northern end and at US170/US17 (Figure 2, Inset 3) on the southern end.

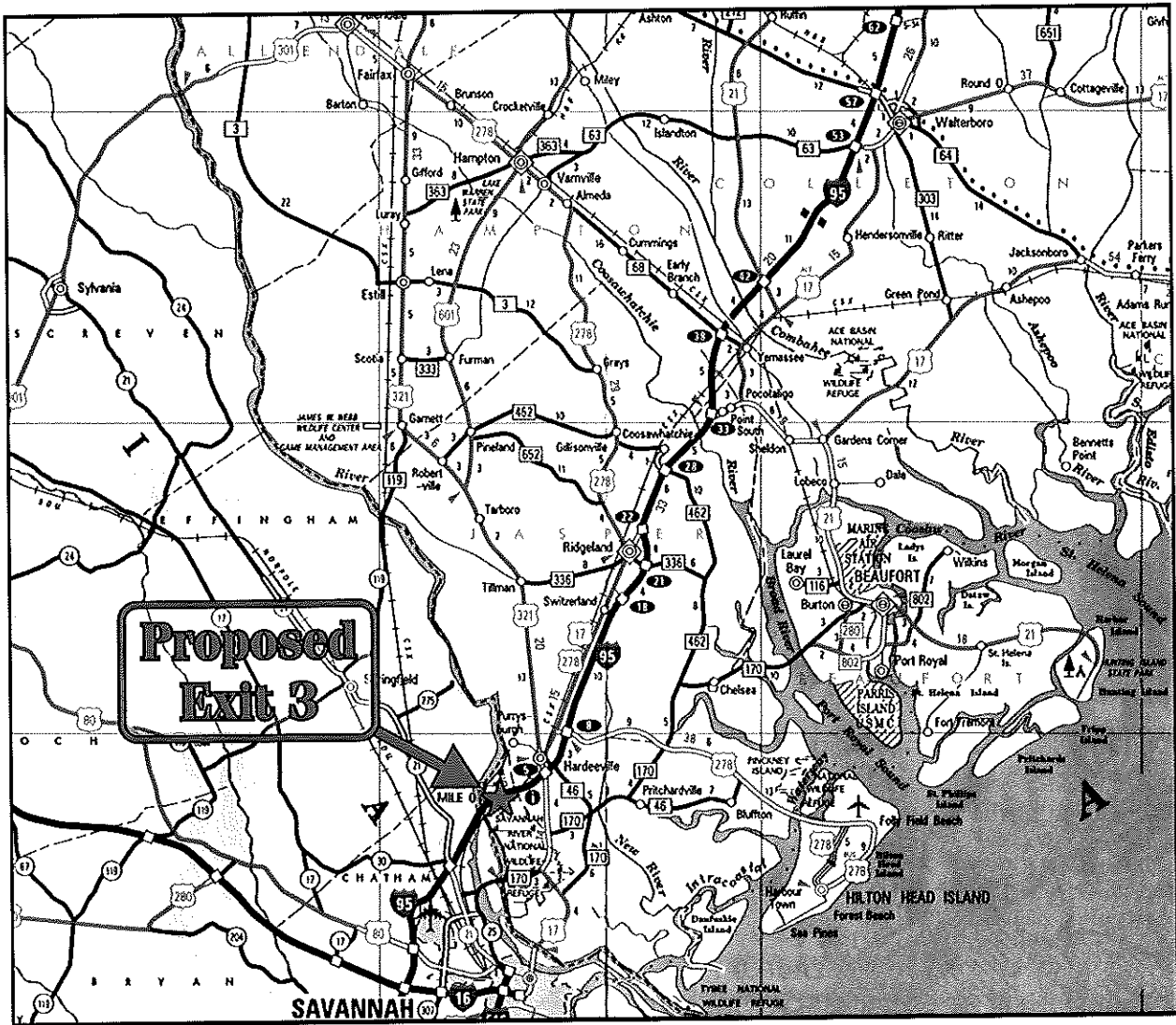
The intent of this project is to provide access to development for one of South Carolina's poorest rural counties. With the proposed development in the City of Hardeeville, the proximity of the Garden City Terminal, and the proposed Jasper Ocean Terminal, the need for access to I-95 will increase over the next 20 years. Section 1.1 of this application summarizes the forecasted increase in traffic and the effect it will have on the existing roadway system. The complete Traffic Analysis is included in Appendix B.

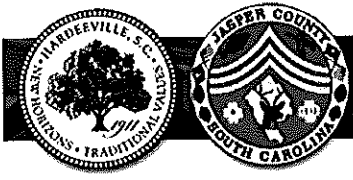


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Regionally, the project is located approximately thirteen (13) miles from Hilton Head Island, SC, and less than ten (10) miles from the South Carolina / Georgia state line, the Garden City Port in Georgia and the proposed Jasper Ocean Terminal on the Savannah River.

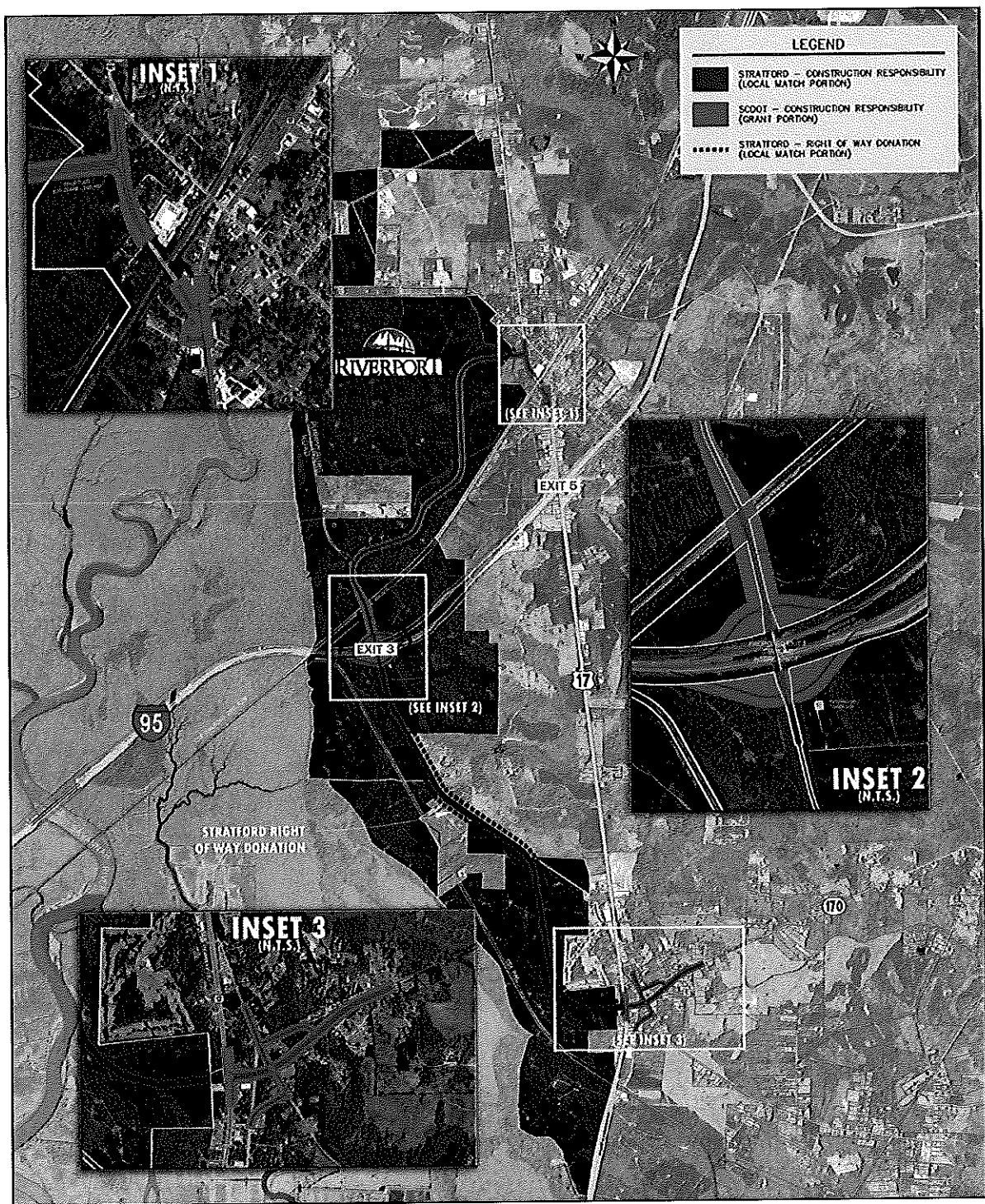
Figure 1
Project Location

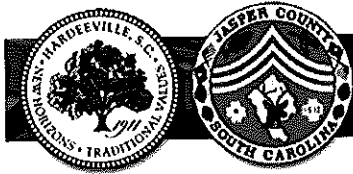




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Figure 2 Proposed Improvements

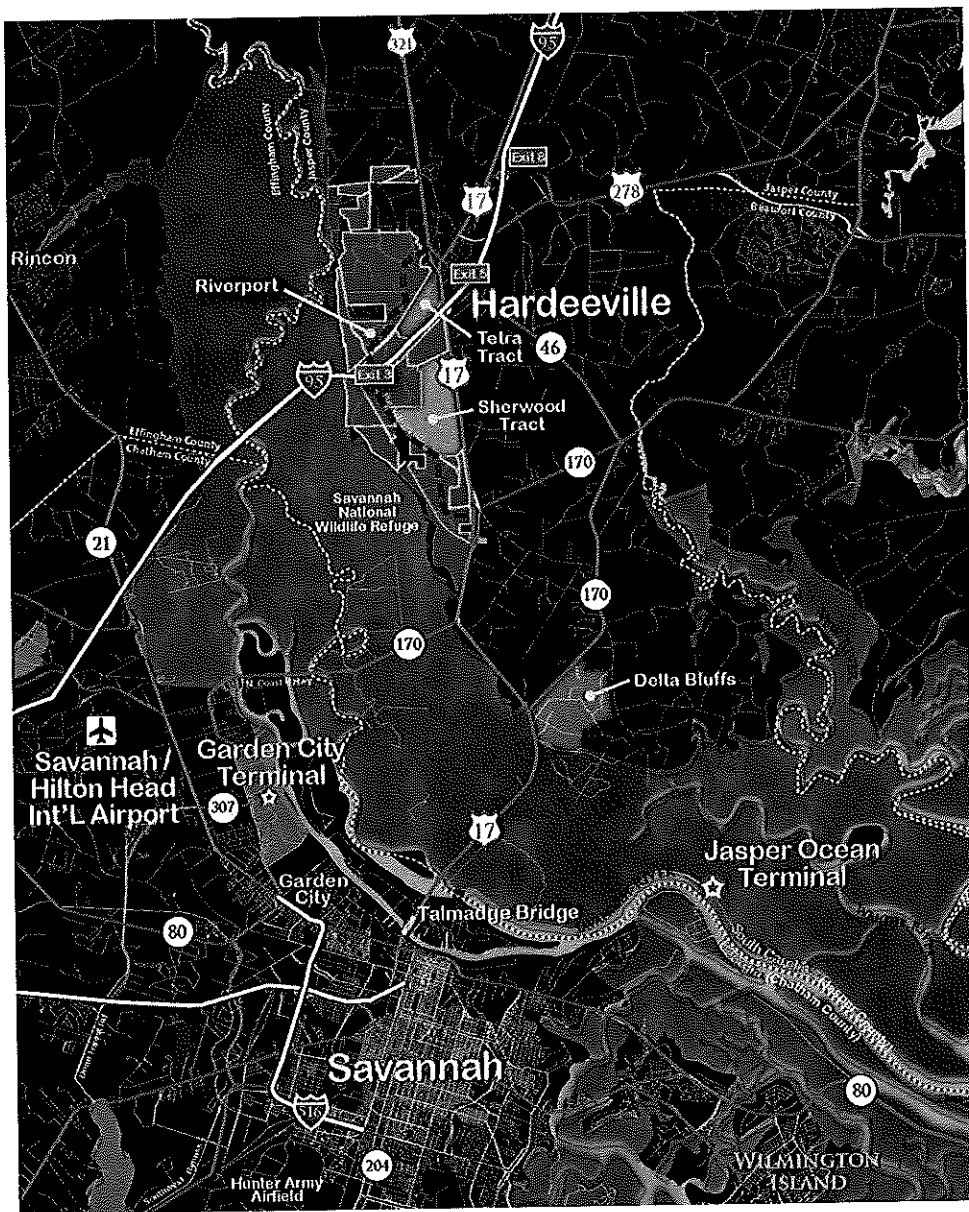




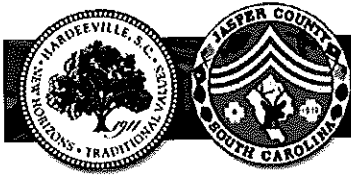
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The proposed Exit 3 project is intended to serve four major developments: RiverPort, Sherwood, Delta Bluffs, and Tetra.

Figure 3
Proposed Developments



Each of these developments has a development agreement in place; however, the ultimate development characteristic of the Tetra tract is much less clearly defined as of this date and has not been considered in the economic analysis, which is described later in this application. The remaining three tracts were analyzed to determine a reasonable absorption rate for various land-



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use types permitted under the development agreements. The projected absorption totals are shown below in Table 1.

**Table 1
Absorption (square feet, 30-year build-out)**

Development	Commercial	Office	Industrial	Residential
RiverPort	3,000,000	500,000	15,535,000	9,784
Sherwood	4,650,865	588,949	0	1,269
Delta Bluffs	3,568,290	0	0	0
Total	11,219,155	1,088,949	15,535,000	11,053

Clearly, the dominant development planned for the area is RiverPort. This tract straddles Purrysburg Road and will create the most significant traffic anticipated to use Exit 3.

RiverPort is a 5,137-acre Planned Development consisting of 3 major land uses. The northern 2,138 acres has been planned for a Mixed Use Village; the middle 1,006 acres is set up for a Commercial Village area around the planned new Interchange on I-95 at Exit 3; and finally the southern 1,328 acres have been set up as a Business Park.

The Business Park will be one of the largest logistics and industrial sites in the Southeast. Continued growth at the Port of Savannah – with specific expansion plans to accommodate the much larger Post Panamax Canal ships starting in 2014 – has the Port investing to handle 6.5 million Twenty-Foot-Equivalent Containers (TEU's) by 2018. This means the existing base of 40 million square feet of warehouse and distribution space will need to grow significantly in this market.

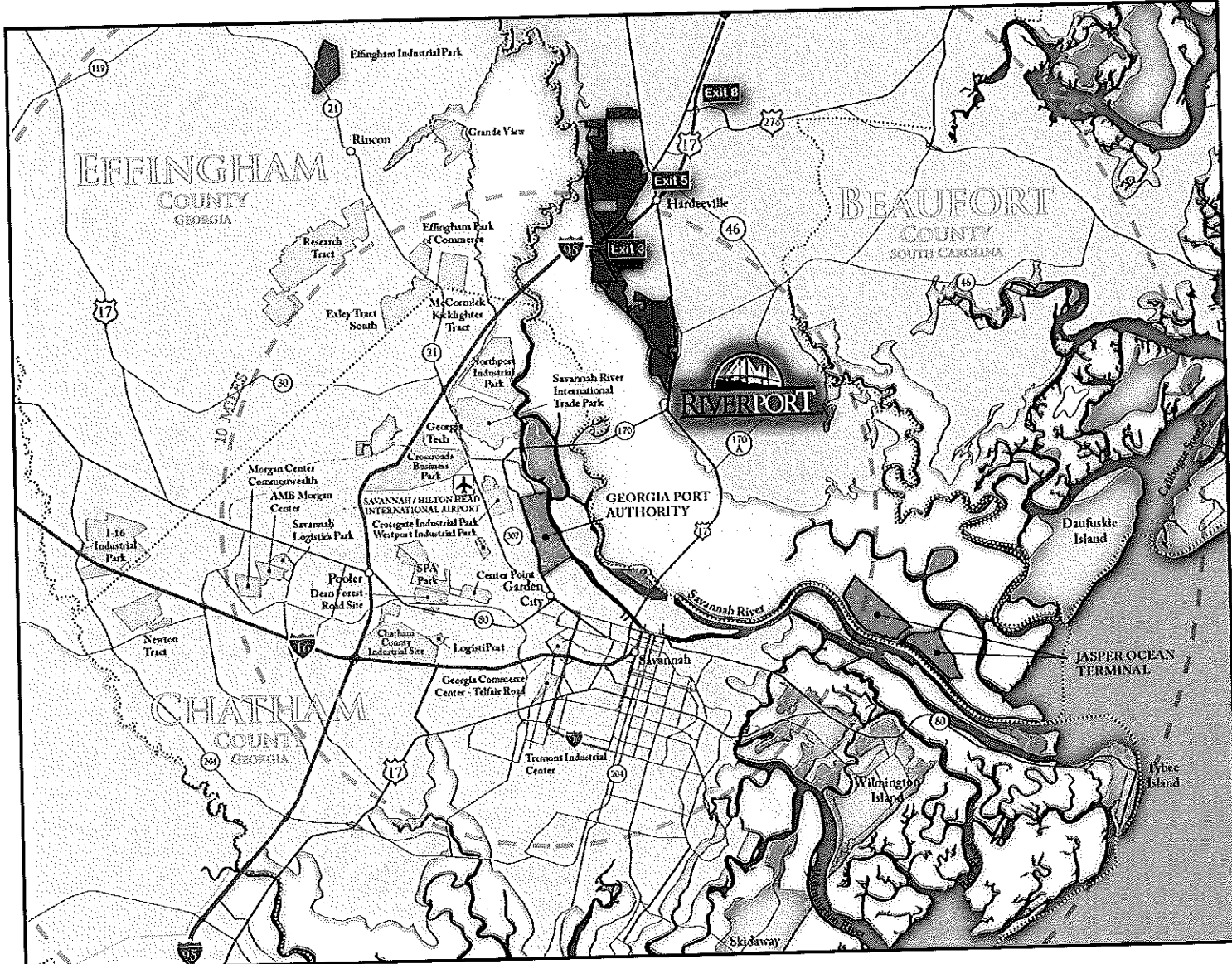
With a location just 6.5 miles from the Port and the only facility of consequence on the SC side of the river to serve the proposed Jasper Ocean Terminal, RiverPort is ideally situated to meet this growing demand. Some local experts are predicting the Greater Savannah/Hardeeville area will need to have 70 million square feet of warehouse/distribution space to serve the much-increased container traffic coming up the Savannah River versus the 40 million square feet already leased up. Capacity studies show RiverPort to be extremely well-positioned to take a good portion of this incremental demand, as the site could accommodate approximately 15 million square feet of developed space. Appeal for this location should be significant given the interest Bryan and Liberty Counties have enjoyed in their County-sponsored parks, which lie 20 and 30 miles, respectively, from the Port of Savannah.

RiverPort, along with Sherwood, Tetra, and Delta Bluffs, will contain the only industrial facilities in South Carolina that serve the existing Port of Savannah. Figure 4 depicts the existing port-related development in the state of Georgia. These 30 million square feet of development have saturated the land approaching the Georgia/South Carolina border. This figure demonstrates that the demand is clearly in the northerly direction and will serve to accelerate the development of properties in the RiverPort, Sherwood, Tetra, and Delta Bluffs tracts.



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Figure 4
State of Georgia
Existing Port-Related Development





1. PUBLIC BENEFIT

1.1 Traffic Studies

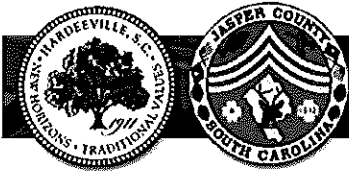
THE LPA GROUP INCORPORATED developed the traffic study that is included in this application as Appendix B. The study assessed the impact that anticipated development would have on the existing I-95 interchanges with US 17 (Exit 5) and US 278 (Exit 8) and the effect of a new interchange at Purrysburg Road (Exit 3). The source of data for existing traffic information was SCDOT. Additional planning sources were referenced to assist in developing future traffic projections.

A new interchange, located approximately at Milepost 3 on I-95, will serve a number of purposes. Primarily, it will provide a new access point to service substantial development associated with the RiverPort Tract (Figure 3). To a lesser degree the interchange will provide access to the development that will occur in conjunction with the Sherwood and ultimately the Delta tracts which are located south of I-95 along US 17 near the site of the planned Jasper Ocean Terminal. For the purpose of traffic analysis, it was assumed that the majority of traffic using Purrysburg Road will come from the RiverPort and the Sherwood tracts. No estimates were made of the traffic that might ultimately be generated by the proposed new terminal. **It should be noted that the traffic generated as a result of the RiverPort and Sherwood developments alone provide sufficient justification for the new interchange.**

The second major purpose of the new interchange is to provide relief to the existing Exit 5 interchange. This interchange is a substandard, geometric design with limited capacity and with frontage road, intersecting ramps. This configuration results in unsafe vehicle conflicts and cannot be considered adequate to service the large truck volumes which will result from the planned developments. Additionally, numerous commercial sites have been placed in all quadrants of the interchange which makes reconstruction extremely difficult and expensive.

The traffic analysis report is included as Appendix B to this application. In short, it concludes that:

- The addition of the Exit 3 interchange will shift some traffic from US 17 and the Exit 5 interchange and will be necessary to accommodate traffic generated by RiverPort and the Sherwood tracts.
- During the initial stages of RiverPort development, Purrysburg Road will be able to provide an acceptable level of service as an undivided, two-lane road.
- In a little over ten years, the roadway will exceed the capacity of the two-lane facility and must be expanded to four lanes.
- The capacity of the four-lane facility will serve the needs of the developments planned in the City of Hardeeville/Jasper County through the design year (2033).



1.2 Urgency of the Project

Jasper County and the City of Hardeeville are eager to provide access to developments that have been permitted and, with the proposed development, increase the County's property tax base. Current access is inadequate for potential development and, since commercial and industrial development is vital for jobs creation in Jasper County, it is important that access be provided. Given the limited infrastructure in place, the County will continue to be ranked among the poorest in the state. Providing jobs for the citizens of Hardeeville and Jasper County is the first priority.

1.3 Resolution from Local Governing Bodies

Resolutions from Jasper County Council and the Hardeeville City Council are included in Appendix C to this application.

Letters of support from the Town of Bluffton and the Town of Hampton are also included in Appendix C.

1.4 Certificate from the Coordinating Council for Economic Development

The certificate from the Coordinating Council for Economic Development has been requested.

In addition, an endorsement from the Joint Ocean Terminal Board of Directors is included in Appendix C.

1.5 Current and Five-Year History of Unemployment in Jasper County

The January 2009 figures from the Bureau of Labor Statistics show that South Carolina, at **10.4 percent**, has the second highest unemployment in the United States. Jasper County's unemployment for **January 2009** was at **10.1 percent**. Comparing the South Carolina December and January figures (9.3% and 10.4%, respectively) it is clear that the economic downturn is having a painful effect on the state; in one month's time unemployment increased 1.1 percent. Jasper County's unemployment rate **increased 2.0 percent** from December 2008 to January 2009. A history of unemployment in Jasper County is presented in Table 2.



Table 2
Jasper County Current and Five-Year Unemployment

Year	Unemployment Rate
2008	5.9% *
2007	4.6%
2006	4.8%
2005	5.2%
2004	5.5%
2003	5.8%

*Average unemployment through December 2008 (estimated).

Jasper County’s population¹ according to the 2000 census was 20,678. A breakdown of population follows:

White.....	8,766
Black/African American	10,895
American Indian and Alaska Native	76
Asian... ..	92
Native Hawaiian/other Pacific Islander	10
Some other race.....	700
Two or more race	139
Hispanic or Latino.....	1,190

The County’s 2007 population was 21,953 and is projected to reach approximately 29,000 by year 2030². The majority of the population continues to be Black/African American at approximately 53 percent with the White population making up about 42 percent of the total.

With over 20 percent of Jasper County’s population living in poverty, unemployment numbers do not tell the entire story. In 2007, over 27 percent of Jasper County’s children 18 years and younger were living below the poverty level. In addition, 2007 was a bleak year for capital investment. The County recorded no capital investment or jobs creation in 2007, yet pressure continued to mount on existing infrastructure because of rapid growth in residential development. The question then arises, “Where are these new people working, if not in Jasper County?” Clearly, the workforce is leaving the County to seek employment. Over 51 percent of the labor force commutes to other counties on a daily basis, with the average travel time that is one of the highest in South Carolina.

With the majority of workers commuting, primarily to Beaufort County, and with Jasper County having the third fewest road miles of any County in South Carolina, the pressure on our

¹ U.S. Census Bureau. 2000 Census data.

² U.S. Census Bureau and SC Department of Research and Statistical Services projections.



roadways continues to mount. Investment in the County is a priority; however, infrastructure must be available to attract investment.

1.51 Job Creation

The primary justification of the new Exit three interchange is its ability to service new developments which are estimated to create more than 28,000 jobs in Jasper County and the surrounding area by the 30-year build-out. Of these, approximately 3,800 jobs are created in the first 5 years and 8,100 are created in the first 10 years. At this time in the history of our state, public investment in a facility such as new Exit 3 is not only justified, but could in fact be considered as absolutely essential to the well-being of it citizens.

The City of Hardeeville and Jasper County will not be the only beneficiaries of these new jobs. The latest unemployment figures available from the U.S. Bureau of Labor Statistics are preliminary for January 2009 and show the following unemployment rates:

Hampton County	13.0 percent
Allendale County	23.4 percent
Beaufort County	8.4 percent
Colleton County	13.5 percent

Clearly, each of these counties would benefit significantly from new jobs in the region.

The analysis of the jobs created was conducted by Harry Miley, PhD, Miley Gallo & Associates, LLC, in his report, “The Economic Impact of the Proposed Highway Construction in Jasper County”. The entire report is included in Appendix D. A summary of the results of this jobs analysis is contained in Table 3 below:

**Table 3
Summary of Cumulative Jobs Created
Jasper County Road Improvements³**

Source	Year 5	Year 10	Year 30
Road Construction	1,290	0	0
Commercial, Industrial, & Residential Development Construction	953	2,150	3,514
Ongoing/Permanent	1,580	6,044	24,530
Grand Total	3,823	8,194	28,044

The number of jobs calculated is significant, but to get a perspective on just how significant these numbers are, Table 4 compares the jobs that are forecast to be created from other developments around the state:

³ “The Economic Impact of the Proposed Highway Construction in Jasper County”. Miley, Gallo & Associates, LLC. March 2009. Table 8. Page 11.

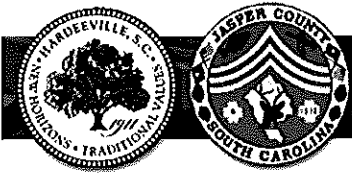


Table 4
Comparison of Jobs Created

Development	Direct Jobs	Estimated Indirect and Induced Jobs	Total Jobs
BMW (Spartanburg County) ⁴	5,400	17,650	23,050
Jafza (Orangeburg County)	3,700	1,500	5,200
Berkeley County – I-26 Interchange	9,879	8,490	18,369
Jasper County – Exit 3, I-95 Interchange	4,804	24,530	28,044

As is evident from this table, the Jasper County/City of Hardeeville total job creation exceeds all others at anticipated build-out.

Table 5 compares three major sites underway in Orangeburg, Berkeley, and Jasper counties. The table compares the size in acres of each of these developments and also compares the amount of industrial and commercial acreage included in each.

Table 5
Development Acreage

Development	Industrial & Commercial (in square feet)	Acres
Jafza (Orangeburg County)	4,130,000*	1,322
Berkeley County – I-26 Interchange	18,825,003	3,500
Jasper County – Exit 3, I-95 Interchange	27,843,104	6,965

*Currently planned

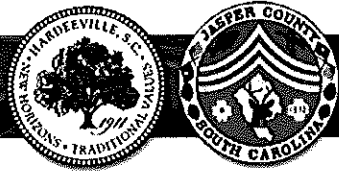
Again, the City of Hardeeville/Jasper County developments are larger in acreage and in square feet of development than all others.

1.5.2 Economic Impacts

The “The Economic Impact of the Proposed Highway Construction in Jasper County” report focuses on three phases:

- Phase 1 Road and Interchange Construction*
- Phase 2 Construction of Commercial, Industrial and Residential developments stimulated by the new roads/interchange.*
- Phase 3 Ongoing/Permanent Economic Activity of the employees and residents working and living in the area.*

⁴ “BMW in South Carolina: The Economic Impact of a Leading Sustainable Enterprise”. Douglas P. Woodward, Ph.D. and Paulo Guimaraes, Ph.D. Division of Research, Moore School of Business, University of South Carolina. Page 9.



Initially, the economic impacts to the Jasper County area will be short-term and a direct result of construction activities. However, the nature of the proposed development creates the probability of long-term impacts and capital investment. In fact, according to the economic study, **“The new road and interchange is estimated to stimulate more than \$7.1 billion in capital investment within the first 30 years.”**⁵ As construction phases out, residents and employers will move in and create on-going, permanent benefits. The economic report breaks down the on-going benefits into three tables (5, 10, and 30-year impacts)⁶. For quick review, these three tables are combined into one.

**Table 6
On-Going, Permanent Benefits
(Jasper County)**

Benefit to Jasper County	Year 5	Year 10	Year 30
New Jobs	1,580	6,044	24,530
Total Personal Income	\$61,608,857	\$235,729,796	\$956,670,000
Total Population Increase	N/A	1,380	25,492

Current project phasing anticipates completion of roadway construction in the seventh year. Therefore, the new jobs created through year 5 will have moved on to new construction elsewhere by year 10. Some of this construction may be taking place in Jasper County; however, none of these initial jobs are included past year 7.

1.6 Local Support

See section 1.7 for letters of support.

1.7 Resolutions from Municipalities, County Councils, Advisory Groups, and COG

Resolutions and letters of support from the following are included in Appendix C.

- | | |
|--------------------------|--------------------|
| City of Hardeeville | Jasper County |
| Town of Hampton | Town of Port Royal |
| City of Beaufort | Town of Bluffton |
| JOT Joint Project Office | |

1.8 Regional/Statewide Significance of the Project

Jasper County’s location is prime for development. Located approximately 30 miles from the coast, the area is ideal for residential and retail development. More importantly, its proximity to the Garden City Terminal makes it an ideal location for industrial and warehousing development.

⁵ Ibid., Page 6.

⁶ Ibid., Pages 7-8.



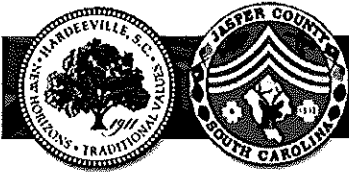
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Additionally, should the Jasper Ocean Terminal come on line (currently estimated at 2024), the project will become even more critical.

In the short term, the impacts of the project will be realized locally through employment and investment in construction of infrastructure. In the long term, this investment in infrastructure will have regional and statewide impacts as industry locates to the area and Jasper County's tax base grows. Currently, Jasper County's property tax base stands at \$113 million. With no capital investment or jobs creation in 2007, the tax base was unable to expand appreciably.

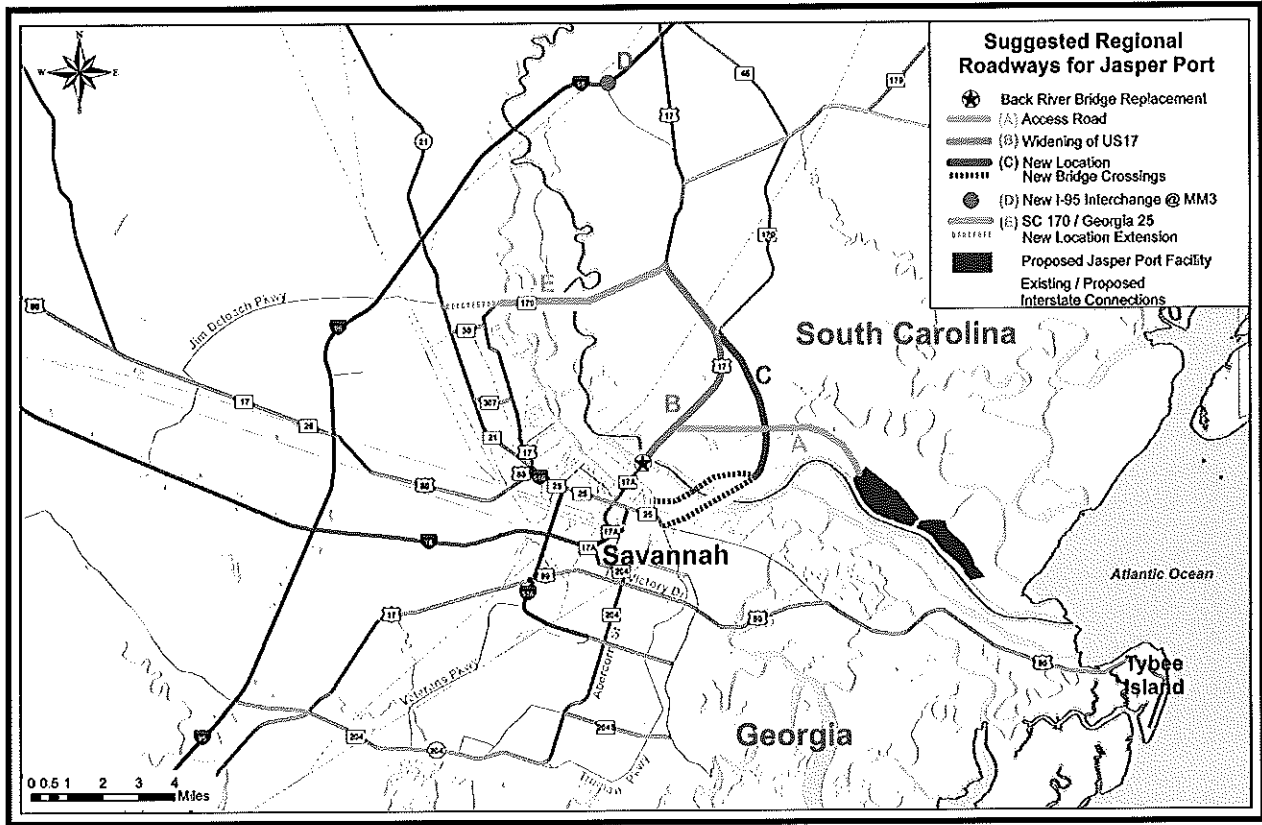
1.8.1 Consistency with Regional Plans

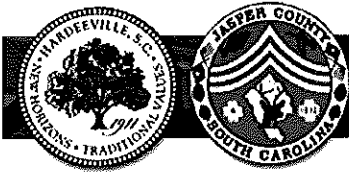
Figure 5 contains suggested Regional Roadways to service the future Jasper Port. This figure was developed by a joint task force with membership from SCDOT, the Lower Savannah COG, and the Chatham County, Georgia Urban Transportation Study. It represents the facilities considered necessary by the planning units from the three organizations to accommodate the proposed Jasper Port Facility. New Exit 3 is shown as letter "D" on the figure. It is also important to note that Purrysburg Road is shown as an upgraded interstate connection.



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Figure 5
Regional Roadways to Service the Proposed Jasper Port





2. FINANCIAL PLAN

2.1 Total Cost of the Project

Project costs were estimated by Thomas and Hutton Engineering Co. and reviewed by THE LPA GROUP INCORPORATED. We have requested a review of the cost estimates and affirmation of their accuracy from SCDOT. The designs of the New Exit 3 on I-95, the widening of Purrysburg Road, the realignment of Highway 170 and the intersection improvements to Highway 321/Highway 17, Purrysburg Road/Highway 17, and Highway 170/Highway 17 are all conceptual at this point and the following estimates are based on best engineering judgments and qualifications. The final costs of construction will be determined by the cost of labor, materials, equipment, contractor’s methods, market conditions, etc.

For convenience, the costs of the project are summarized below. Detailed project costs may be found in Appendix E.

1. Exit 3 Interchange (includes bridge over CSX Railroad)	\$48,003,040
2. East/West Connector Road to US 321	13,322,349
3. Purrysburg Road (I-95 South to US 17)	31,144,314
4. Intersection of Purrysburg Road and US 17	1,216,655
5. Hwy 170 Realignment and Hwy 170/US 17 Intersection.....	3,893,289
6. Hwy 321/US 17 Intersection.....	1,824,979
7. Right of Way Acquisition	<u>20,481,246</u>
Total Estimated Costs.....	\$119,887.871

2.2 Local Contribution

Jasper County, the City of Hardeeville, and the Stratford Company propose the following contributions:

Right of Way Contributions

Purrysburg Road South Right of Way	\$5,985,932 ⁷
Exit 3 Interchange Right of Way	\$8,551,926 ⁸
Purrysburg Road / East West Connector North Right of Way	\$2,901,755
Condemned Property for Intersection Improvements.....	\$3,041,632

Total Right of Way Contributions.....\$20,481,246

Construction Cost Contributions

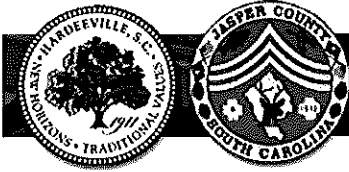
Purrysburg Road – South of I-95 (Two Lanes)	\$18,006,463
Purrysburg Road (Additional Two Lanes).....	\$13,139,851

Total Construction Cost Contributions\$31,146,314

Total Local Contribution (Right of Way and Construction).....\$51,627,560

⁷ The total amount of land needed is estimated at 130 acres. The value of the donated land is based on an appraisal by Tommy Hartnett.

⁸ Ibid.



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With total project costs at **\$119,887,871**, and the proposed local contribution of **\$51,627,560**, the percentage of local contribution is **43 percent**.

2.3 Source of Local Contribution

As described above, the local contribution consists of right-of-way donations by the City of Hardeeville, Jasper County, and the Stratford Company, as well as construction of Purrysburg Road by the Stratford Company.

2.4 Assistance Required from the SIB

Jasper County and the City of Hardeeville respectfully request assistance from the State Infrastructure Bank Board for \$68,260,311 (five-year future value). The Project breakdown (in five-year future dollars) is as follows:

Exit 3 Interchange, including new bridge over CSX RR.....	\$48,003,040
Purrysburg Road / East West Connector Road North.....	\$13,322,349
Hwy 321 and Hwy 17 Interchange Improvements	\$1,824,979
Purrysburg Road and Hwy 17 Intersection Improvements.....	\$1,216,653
Hwy 170 Realignment and Hwy 170/17 Intersection Improvements.....	<u>\$3,893,289</u>
Total Requested.....	\$68,260,311

2.5 Form of Assistance

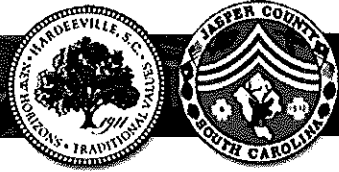
Although it is stated that the SIB will give preference to projects requesting loans, Jasper County and the City of Hardeeville are not in a position to repay a loan. With a tax base of only \$113 Million, Jasper County is one of South Carolina’s most disadvantaged counties. In 2005 only one-third (1/3) of Jasper County’s residents were required to pay state income taxes and collectively paid only \$5 Million. In addition, since 2003 the County has had one of the lowest capital investment results of any county, and, as previously stated, recorded no capital investment or new jobs in 2007⁹.

We are confident that an investment in the Project by the State Infrastructure Bank will result in an investment for the entire state of South Carolina as development is attracted to Jasper County and the County’s tax base and contributions to the state coffers increase.

2.6 Other Proposed Sources of Funding

SCDOT has agreed to contribute right-of-way from the abandoned weigh station just north of the proposed Exit 3.

⁹ South Carolina Department of Commerce.



**City of Hardeeville/Jasper County Application to the
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2.7 Disbursement Schedule

A letter has been requested from SCDOT agreeing that disbursement timeframes are accurate and reasonable. This letter is included in Appendix F.

The anticipated disbursement schedule of SIB-requested funds is as follows:

**Table 7
Proposed SIB Fund Disbursement Schedule**

Fiscal Year	Phase I (in millions)	Phase II (in millions)	Annual Total (in millions)
7/1/2009 – 6/30/2010	\$2.0		\$2.0
7/1/2010 – 6/30/2011	\$2.0		\$2.0
7/1/2011 – 6/30/2012	\$3.0		\$3.0
7/1/2012 – 6/30/2013	\$25.0	\$2.0	\$27.0
7/1/2013 – 6/30/2014	\$21.0	\$3.0	\$24.0
7/1/2014 – 6/30/2015		\$8.0	\$8.0
7/1/2015 – 6/30/2016		\$2.3	\$2.3
Total	\$53.0	\$15.3	\$68.3

2.8 Schedule of Project Revenues

Not Applicable

2.9 Useful Life of Project

All project elements will be designed to meet current SCDOT requirements. It is estimated that bridge structures will have a 50-year useful life and roadways will have a 15-year useful life.

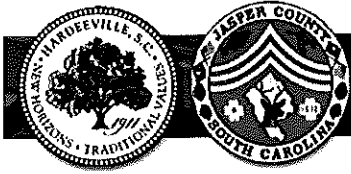
A letter has been requested from SCDOT confirming estimates of useful life (Appendix F).

2.10 Commitment to Assume Future Maintenance Requirements

A letter has been requested from SCDOT stating that the Department will accept responsibility for future maintenance of the facilities (Appendix F).

2.11 Project Priorities

The first priority for Jasper County and the City of Hardeeville is the design and construction of Exit 3 on I-95. This new exit will provide access for potential development and alternate access for vehicular traffic to/from the Garden City Terminal, Hilton Head Island, Beaufort, and other coastal destinations. In order to accommodate traffic generated by Exit 3, construction of two



City of Hardeeville/Jasper County Application to the South Carolina State Transportation Infrastructure Bank

lanes of Purrysburg Road South and the related intersections have been scheduled for design and construction during the same time as Exit 3 design and construction.

The second phase of the project will include upgrading Purrysburg Road South to four lanes and the design and construction of the East/West Connector (Purrysburg Road North) and related intersections. (Details of the phasing plan and a proposed schedule are included in Section 3.1)

Although we propose a two-phased approach to the project, both phases are important to ensure that commercial and industrial development will have the infrastructure required to achieve an acceptable level of service for the movement of traffic.

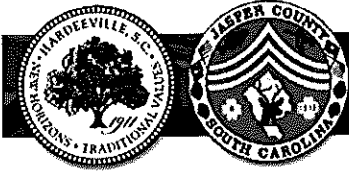
- 2.12 Impact Fees**
- 2.13 Local Accommodations Tax**
- 2.14 Local Hospitality Tax**
- 2.15 Local Sales Tax**
- 2.16 Sales Tax or Tolls**
- 2.17 User Fees**
- 2.18 Tax Increment Financing Districts**
- 2.19 Assessment Program**
- 2.20 Development Agreement Programs**

Concerning **Sections 2.12 through 2.20** and as outlined earlier in this application, Jasper County and the City of Hardeeville are extremely limited in the ability to raise revenues. With a taxable base of only \$113 million and a population of less than 21,000, the opportunities for revenue generation lie almost wholly in their ability to encourage development of available land within their jurisdiction. As a result, approaches to revenue generation such as local accommodations taxes, local hospitality taxes, local sales taxes, or tolls are not feasible. The most feasible approaches are Tax Increment Financing Districts, Assessment Programs, or Development Agreement Programs, all of which rely on developer payments. The City of Hardeeville and Jasper County have employed the Development Agreement approach. Each of the developments described earlier, (RiverPort, Sherwood, Tetra, and Delta Bluffs) have development agreements in place which require contributions to assist in financing necessary support facilities.

Development Agreements have been established with companies who are committed to Jasper County and the City of Hardeeville. In particular, the Stratford Company has committed to construct Purrysburg Road to the south of I-95. The present day value of this commitment is estimated at \$25,600,000 and projected to be valued at \$31,146,314 in five years. In addition, the Stratford Company has committed to the 133-acre right-of-way donation, valued at \$17,439,614, for Purrysburg Road, the East/West Connector, and Exit 3.

2.21 Zoning or Land Use Controls

The City of Hardeeville Tract PDD, commercial zoning, and traffic requirements of the subdivision regulations each foster the use of existing roads to connect developments. As written in the City's Municipal Zoning and Development Ordinance, interconnectivity between



City of Hardeeville/Jasper County Application to the South Carolina State Transportation Infrastructure Bank

commercial developments is strongly encouraged. As part of the application process, applicants are required to provide a Traffic Impact Assessment (TIA) that demonstrates the direct and indirect impacts the proposed development will have on the immediate site, as well as surrounding transportation networks based on proposed land use and anticipated trip generation. The Traffic Impact Assessment must provide adequate information for city staff to evaluate the development proposal and, when appropriate, recommend conditions of approval.

2.22 Discounted Cash Flows

Not Applicable

2.23. Inflation Rate Assumed

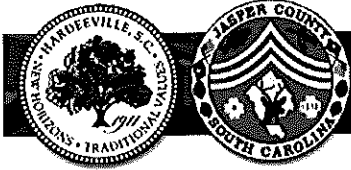
An inflation rate of 4.0 percent has been assumed for calculating future values included in cost estimates (see Appendix E).

2.24 Condemnation

Jasper County and the City of Hardeeville are willing to serve as the named party in any required condemnation proceedings.

2.25 Other Sources of Funding

A request has been submitted for funding from the American Recovery and Investment Act of 2009 (economic stimulus bill). The Low County COG has included this project in their request to SCDOT. Additionally, a request has been submitted to Congress for consideration of earmark funding as a part of the FY 2010 USDOT Appropriations Bill.



**City of Hardeeville/Jasper County Application to the
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3. PROJECT APPROACH

3.1 Project Phasing

The project will be completed in two phases, as follows:

Phase One:

- Environmental Assessment for entire project.
- Interchange Justification Report.
- Design and construction of the Exit 3 Interchange on I-95.
- Design and construction of two lanes of Purrysburg Road South by the Stratford Company.
- Design and construction of relevant intersections, including Highway 170 re-alignment and Highway 170/17 Intersection improvements.
- Land donation for the Exit 3 Interchange, Purrysburg Road South, and intersections.

Estimated costs for Phase One are:

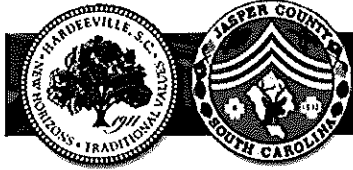
Exit 3 Interchange (not including new bridge over CSX RR)	\$38,269,817
Design and construction of two lanes of Purrysburg Road South	\$18,006,463
Highway 170 re-alignment and Highway 170/17 Intersection improvements	\$3,893,289
Purrysburg Road and Highway 17 Intersection	\$1,216,653
Right-of-Way (Exit 3 Interchange)	\$8,551,926
Right-of-Way (Purrysburg Road South)	\$2,992,966
Right-of-Way (Intersection improvements)	\$1,520,816
Total Costs – Phase One	\$74,451,930

Phase Two:

- Design and construction of the Purrysburg Road North (East/West Connector).
- Design and construction of the remaining two lanes of Purrysburg Road South by Stratford Co.
- Design and construction of relevant intersections.
- Land donation for East/West Connector, two lanes of Purrysburg Road South, and intersections.

Estimated costs for Phase Two are:

Design and construction of Purrysburg Road North (East/West Connector)	\$23,055,573
Design and construction of two additional lanes – Purrysburg Rd. South	\$13,139,851
Improvements to intersection of Highway 321 and Highway 17	\$1,824,979
Right-of-Way (East/West Connector)	\$2,901,755
Right-of-Way (Purrysburg Road South)	\$2,992,966
Right-of-Way (Intersection Improvements)	\$1,520,816
Total Costs – Phase Two	\$45,435,940



City of Hardeeville/Jasper County Application to the South Carolina State Transportation Infrastructure Bank

This phasing plan is consistent with traffic projections summarized in Section 1.1 and discussed in detail in Appendix B. These projections indicate that the two-lane facility will meet traffic needs for approximately ten years. This plan is also consistent with the RiverPort development plan which envisions initial construction of 342 acres of industrial use in the southern portion of the property beginning in the summer of 2009. Since residential development is planned for the area north of Exit 3 and is not anticipated to be in place until the later stages of build-out, construction of the East-West Connector can be phased to coincide with this portion of the development plan.

The proposed timeline for construction is presented in Figure 6.

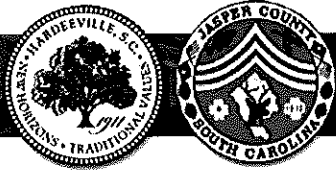


**City of Hardeeville/Jasper County Application to the
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**Figure 6
Hardeeville, New Exit 3 - Project Implementation Timeline**

Activity Description	Early Start	Early Finish	2009	2010	2011	2012	2013	2014	2015	2016
Phase I										
Interchange Justification Report (IJR)										
Report Preparation	07/15/09	11/30/09	█							
SCDOT/FHWA Review	12/01/09	01/30/10	█							
IJR Revisions & Approval	05/30/10	05/30/10		★						
Environmental Documentation										
Draft EA	07/15/09	11/30/09	█							
SCDOT/FHWA Review	12/01/09	01/30/10	█							
Final EA Revisions & Approval	02/01/10	05/30/10		█						
Design: Exit 3 Interchange, Purrysburg Rd. S. (2 lanes), Intersections (Hwy 170/Hwy 17)										
Prepare Design Plans	06/01/10	02/28/11		█						
SCDOT/FHWA Review	03/01/11	04/15/11			█					
Approval of Final Plans	05/01/11	05/01/11			★					
ROW Acquisition										
Stratford Donation	06/01/11	06/01/11			★					
Jasper County Condemnations	06/01/11	12/01/11			█					
Construction										
Advertise for Bids	12/01/11	12/02/11			★					
Award Contract	04/01/12	04/01/12				★				
Construct Project	05/01/12	12/31/14				█	█	█		

Activity Description	Early Start	Early Finish	2009	2010	2011	2012	2013	2014	2015	2016
Phase 2										
Design: Purrysburg Rd. N. (East/West Connector), Intersections, Purrysburg Rd. S. (remaining 2 lanes)										
Prepare Design Plans	11/01/12	07/31/13				█				
SCDOT/FHWA Review	08/01/13	10/01/13					█			
Approval of Final Plans	10/15/13	10/15/13					★			
ROW Acquisition										
Stratford Donation	11/01/13	11/01/13					★			
Jasper County Condemnations	10/15/13	04/30/14					█			
Construction										
Advertise for Bids	05/01/14	05/02/14						★		
Award Contract	09/01/14	09/01/14						★		
Construct Project	09/01/14	12/31/16						█	█	█



3.2 Current Status of Project

The project is currently in the conceptual phase. No design or right of way acquisition has been done. Various tracts of land have been purchased by developers interested in investing in Jasper County. These developers have committed to the construction of residential, business park, and industrial facilities which will provide valuable investment in Jasper County. On April 4, 2009, the Stratford Company announced the availability of 300 acres for warehousing and distribution or industrial development. This acreage is located in the southern portion of the RiverPort development.

3.3 Potential Obstacles

Funding for this project is the primary obstacle. As previously discussed, neither Jasper County, nor the City of Hardeeville, is in a position to fund the project. Funding assistance is critical.

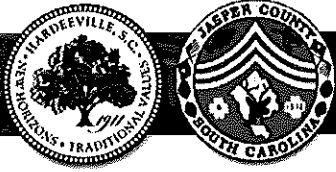
Preliminary investigations indicate that there may be some wetland impacts associated with construction of the project. The extent of the impacts will be investigated as a part of the environmental document preparation and required permitting process. It should be noted, however, that the Stratford Company is in the process of seeking a U.S. Corps of Engineers permit for the RiverPort development. As a part of these activities, Stratford has identified a potential property which could be offered as mitigation for impacts associated with proposed development. If approved by the U.S. Army Corps of Engineers, the Stratford Company may make a portion of this property available for mitigation of impacts associated with the Exit 3 project.

3.4 Responsible Entity

A letter has been sent to SCDOT requesting that they agree to assume responsibility for the items shown below. Upon approval of funding for the project by the SIB Board, the County and the City will enter into an intergovernmental Agreement with the SIB, SCDOT, and the Stratford Company formalizing all necessary commitments for funding, land donations, and liability.

- | | |
|---------------------------------------|--|
| 1. Environmental Studies..... | SCDOT |
| 2. Design of Project..... | SCDOT* |
| 3. Right of Way Acquisition | SCDOT / Stratford Company /
Jasper County |
| 4. Construction..... | SCDOT* |
| 5. Construction Management | SCDOT* |
| 6. Operation..... | SCDOT |
| 7. Maintenance..... | SCDOT |
| 8. Tort Liability and Ownership | SCDOT |
| 9. Law Enforcement | SCDPS |
| 10. Marketing | Stratford Company |

*Excluding Purrysburg Road South, which will be designed and constructed by the Stratford Company.



OTHER

Benefits to SCDOT

Construction of the new Exit 3 interchange will provide significant economic benefits to SCDOT. Existing exit 5 is functionally obsolete and would require a major investment to upgrade to current standards. Addition of the new interchange would reduce the scale of any future modifications which will become necessary as a result of added traffic from the Port of Savannah or other developments in the area. Further, the construction of Purrysburg Road will provide significant additional corridor capacity parallel to US 17 and will delay and reduce the necessity for the widening of US 17.

Hurricane Evacuation

Highway 278A is a proposed alternate parallel route to I-95 for US Hwy 278 in Beaufort and Jasper Counties. Exit 3 is contemplated to accept a connection from Hwy 278A either through Purrysburg Road or the East/West Connector road. A majority of the properties along the conceptual Hwy 278A route have acknowledged the need to provide right-of-way. The Sherwood Tract development agreement stipulates that property shall be donated for Hwy 278A. When completed, Exit 3 may be utilized as an alternate hurricane evacuation route through the connections from Purrysburg Road and the East/West Connector Road, along with Hwy 278A. Purrysburg Road will provide a connection to US Hwy 170, allowing residents of southern Beaufort and Jasper Counties a hurricane evacuation route to Exit 3.



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APPENDIX A

**SOUTH CAROLINA
TRANSPORTATION
INFRASTRUCTURE BANK**

**FINANCIAL ASSISTANCE
APPLICATION PROCESS**

MAY, 2008 (revised)



City of Hardeeville/Jasper County Application to the South Carolina State Transportation Infrastructure Bank

SOUTH CAROLINA TRANSPORTATION INFRASTRUCTURE BANK (“Bank”) Financial Assistance Application Process

(Amendments approved by the SCTIB Board in May 2008 shown in red)

ELIGIBILITY

Only *major projects* which provide a *public benefit required by the South Carolina Transportation Infrastructure Bank Act, SC Code Sections 11-43-110 et seq., (“Act”)* are eligible for financial assistance from the Bank. There are two requirements for eligibility.

1. **MAJOR PROJECTS** - Construction of or improvements to highways, including bridges, which exceed \$100 million in cost are eligible for financial assistance. This cost includes preliminary engineering, traffic and revenue studies, environmental studies, right of way acquisition, legal and financial services associated with the development of projects, construction, construction management, facilities, and other costs necessary for the project. The cost shall not include financing costs or interest on loans used for the project. While the total cost must exceed \$100 million, the financial assistance requested may be less than \$100 million. Eligible projects may also include transit facilities as defined by the Act. No minimum cost has been established for transit facilities.
2. **PUBLIC BENEFIT** – The proposed project must provide a public benefit in one or more of the following areas: enhancement of mobility and safety; promotion of economic development; or increase in the quality of life and general welfare of the public.

Once the Board of the Bank determines that a project is eligible under the Act and Board policies, it next must determine if the project qualifies for financial assistance and if so, in what form and amount and under what conditions. The Board will refer the application to its Evaluation Committee which will review and evaluate the application and issue a report to the Board on these issues.

APPLICATION FORMAT

The application must be submitted to the Bank using the following format, containing the following contents, and presented in the following order using the numerical section and subsection designations listed below. A Table of Contents with page numbers and the numerical section and subsection designations listed below is required. In all cases where information or a response is required from SCDOT, the applicant shall include a copy of the request to SCDOT for the information or response and a copy of the response from SCDOT if received prior to the application being submitted. If the SCDOT information or response is not included, the applicant must provide it immediately upon receipt from SCDOT.

DESCRIPTION OF PROJECT:

Describe the project in sufficient detail through a narrative presentation and through data so that the Board may determine the project’s scope, intent, benefits, and financing components and its



City of Hardeeville/Jasper County Application to the South Carolina State Transportation Infrastructure Bank

eligibility for financial assistance. Provide a map depicting project location with a scale of sufficient size (at least 1 inch = 2 miles) so all information on the map may be easily read and with traffic volumes and other useful data referenced thereto.

1. PUBLIC BENEFIT

30 POINTS

The proposed project must provide a public benefit in one or more of the following areas: enhancement of mobility and safety; promotion of economic development; or, increase in the quality of life and general welfare of the public. The application must identify each public benefit and explain how each is substantiated by the information in the application and rank the public benefits in the order of importance from the perspective of the applicant. Evidence to substantiate the public benefit(s) shall include but not be limited to:

- 1.1 traffic studies including current and projected traffic volume and accident data (cite source of information and if not SCDOT, state why another source was used);
- 1.2 urgency of project (why accelerating the project is critical);
- 1.3 resolution from the local governing body or bodies which make a finding, with supporting information, that the project is essential to the economic development in the area;
- 1.4 certificate that the project is essential to the economic development in the state from the Advisory Coordinating Council for Economic Development of the Department of Commerce;
- 1.5 current and five year history of unemployment data for the counties served by the project;
- 1.6 local support of the project from residents through petitions or comments at public hearings;
- 1.7 resolutions from municipalities, county councils, advisory groups, Metropolitan Planning Organizations or Councils of Government and planning documents indicating where project is on all priority lists maintained by or in possession of those entities or the applicant; and
- 1.8 if applicable, explain and substantiate why the project is of regional or statewide significance.

Such evidence should be referenced in the application and included as appendices.

2. FINANCIAL PLAN

50 POINTS

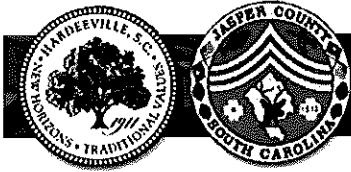
Provide a financial plan that clearly describes the funding for development, implementation, operation and maintenance of the project, including but not limited to:

- 2.1 the total cost of the project, including source(s) used to determine cost (include letter from SCDOT stating the projected cost is accurate and reasonable);
- 2.2 the amount of local contribution and the percentage of contribution to total project cost;
- 2.3 source of local contribution or loan payment (whether from a tax, non-tax or other – preference will be given to long-term non-tax sources)
- 2.4 amount of assistance requested from the Bank;
- 2.5 form of assistance requested (e.g. loan, grant, other)-- preference will be given to projects requesting loans;
- 2.6 other proposed sources of funds, include written commitment of all parties;
- 2.7 the anticipated schedule of when disbursement of funds will be required (cash flow diagram) (include letter from SCDOT indicating disbursement timeframes are accurate and reasonable);



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- 2.8 if applicable, a schedule of project revenues for local contributions or loan payments and assumptions of risks of such payments such as taxes, user fees, toll rates, etc. (cite source or method used to determine projected revenues);
- 2.9 the useful life of the project and method of determination (include from SCDOT letter verifying);
- 2.10 commitment to assume future maintenance requirements (include letter from SCDOT stating projected future maintenance costs); and
- 2.11 if more than one individual component project is included in the application, include a component project priority list and explain other contingency plans should the Board approve less than the requested financial assistance or actual project costs exceed estimated project costs, or if only one project is involved, explain how the scope of the project may be reduced if the Board approves less than the requested financial assistance or actual project costs exceed estimated project costs.
- 2.12 whether the County(s) or other political subdivisions benefited by the project has adopted any impact fee(s) to assist in financing the project (*see S.C. Code Ann. § 6-1-930*)? If the response is negative, please explain why no impact fee to assist in financing the project has been adopted.
- 2.13 whether the County(s) or other political subdivisions benefited by the project has adopted any local accommodations tax dedicated to the project to assist in its financing (*see, e.g., S.C. Code Ann. § 6-1-500 et seq., Local Accommodations Tax Act*)? If the response is negative, please explain why no such tax has been adopted.
- 2.14 whether the County(s) or other political subdivisions benefited by the project has adopted any local hospitality tax dedicated to the project to assist in its financing (*see, e.g., S.C. Code Ann. § 6-1-700 et seq., Local Hospitality Tax Act*)? If the response is negative, please explain why no such tax has been adopted.
- 2.15 whether the County(s) or other political subdivisions benefited by the project has adopted any local sales tax dedicated to the project to assist in its financing (*see, e.g., S.C. Code Ann. § 4-10-300 et seq., Capital Project Sales Tax Act*)? If the response is negative, please explain why no such tax has been adopted.
- 2.16 whether the County(s) benefited by the proposed project has adopted a sales tax or implemented any tolls dedicated to the project to assist in its financing (*see, e.g., S.C. Code Ann. § 4-37-10 et seq.*)? If the response is negative, please explain why no such tax has been adopted or no toll has been implemented.
- 2.17 whether the County(s) benefited by the proposed project has adopted any user fee dedicated to the project to assist in its financing or future maintenance (*see, e.g., S.C. Code Ann. § 6-1-300 et. seq.*)? If the response is negative, please explain why no such user fee has been adopted.
- 2.18 whether the County(s) benefited by the proposed project has implemented any Tax Increment Financing Districts to assist in financing the proposed project (*see, S.C. Code Ann. §§ 6-33-10 et seq., Tax Increment Financing and §§ 31-7-10 et seq.*). If the response is negative, please explain why no Tax Increment Finance District has been implemented.
- 2.19 whether the county(s) benefited by the proposed project has implemented an assessment program (*see, S.C. Code Ann. § 4-35-10 et seq.*)? to assist in financing the proposed project? If the response is negative, please explain why no such assessment program has been implemented.



City of Hardeeville/Jasper County Application to the South Carolina State Transportation Infrastructure Bank

- 2.20 whether the applicant (and/or other political subdivisions benefited by the project) has established any development agreement programs with developers or property owners or entered into any development or other agreements to assist in financing the project? If the response is negative, please explain why no development agreement programs have been established or such agreements entered.
- 2.21 what, if any, zoning or other land use controls has the applicant (and/or other political subdivisions benefited by the project) established to foster the use of existing roads to connect developments? If the response is negative, please explain why no such zoning or other land use controls have been established.
- 2.22 discount, to present value, any and all cash flows using a 5% discount rate to include, without limit:
 - The value of the applicant's future payments or contributions to the proposed project; and
 - The value of the any non-SIB third-party future payments or contributions to the proposed project; and
 - The value of future expenditures associated with the proposed project.
- 2.23 for purposes of cost estimates associated with the proposed project, please set forth the inflation rate assumed.
- 2.24 should condemnation be needed to complete the proposed project, is the applicant and/or other political subdivisions benefited by the project willing to serve as the named party in such condemnation proceedings? If the response is negative, please explain why the applicant and/or other political subdivisions benefited by the project are unwilling to serve in such role.
- 2.25 whether the applicant and/or other political subdivisions benefited by the proposed project has utilized or sought sources of funding other than those listed hereinabove? If the answer is affirmative, please explain the status and amount of each other source of funding. If the answer is negative, please explain why such other sources of funding have not been sought or obtained.

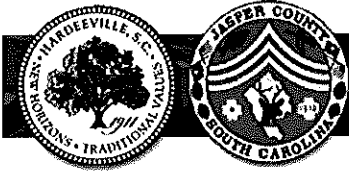
The Act requires the Board to give preference to eligible projects which have local financial support. Local financial support may include local fees, grants, tolls, private contributions, donated rights of way, local taxes or similar payments. The Board reserves the right to determine the suitability of the form of the local financial support.

3. PROJECT APPROACH

20 POINTS

Describe the expected schedule for implementing the project, including the time for completion. Identify critical assumptions or milestones for completion of the project. In this section, the application shall provide at a minimum the following:

- 3.1 a time table bar chart of events/milestones to implement phases of project (including when the facility will be open for use); include critical factor necessary for the project success (i.e. environmental approvals, permit approvals, etc.) and the status of each (include letter from SCDOT concurring with time table);
- 3.2 a complete description of the current status of the project;



City of Hardeeville/Jasper County Application to the South Carolina State Transportation Infrastructure Bank

- 3.3 a description and explanation of potential obstacles (legal issues, lack of local support, right of way costs, environmental concerns, etc.) and methods the applicant proposes be used to manage or avoid those obstacles; and
- 3.4 a clear statement of the entity (including contact name, address and telephone number) responsible for each of the following activities:
 - environmental studies, design of project, right of way acquisition,
 - construction, construction management, operation, maintenance,
 - tort liability and ownership, law enforcement, and marketing (include letters from the entities agreeing to the responsibilities).

OTHER

The Board may consider other significant factors not included in the above in determining award of financial assistance to a project.

APPLICATION SUBMITTAL AND EVALUATION

Applications should include an executive summary and list a contact person for the applicant including that person's full name, mailing and street addresses, telephone and facsimile numbers, e-mail address, and relationship to applicant.

Applications will be no longer than 50 pages, excluding appendices. Evidence of local support, studies, and other reports may be attached as appendices.

Applications should include cross-referencing rather than using repetition in explaining the project and assistance requested.

Applications shall be submitted as follows:

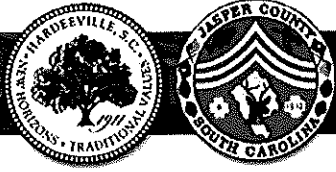
Fifteen complete copies on fifteen compact discs in Word software, (or if compact discs are not possible, 15 bound copies) mailed to the address below, and

One complete un-bound printed copy mailed to:

**South Carolina State Transportation Infrastructure Bank
P. O. Box 191
Columbia, South Carolina 29202-0191**

Each application submitted to the Board will be reviewed to determine if a project is eligible for financial assistance. Projects that are not eligible for financial assistance will be returned to the applicant with proper notification.

The Board reserves the right to request or obtain additional information about any and all applicants and applications and to return applications that do not comply with the format set forth herein, are not found to be eligible by the Board, or are filed after any deadlines established by the Board.



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EVALUATIONS OF ELIGIBLE APPLICATIONS

An Evaluation Committee of the Board will review applications determined to be eligible by the Board. The Evaluation Committee will review each application and rate its strengths and weaknesses based on prescribed evaluation criteria. The Evaluation Committee will issue a report to the Board on each application. The final decision on financial assistance on each application will be determined by the Board. The Board may place conditions on financial assistance it provides.

PRESENTATIONS

By invitation from the Board, an applicant may be given the opportunity to make a presentation to the Board. Presentations usually will occur before the Evaluation Committee reviews the applications. Further presentations may be requested to answer any questions from the Board or Evaluation Committee.

Additional Provisions Applicable to All Applications and Applicants

Projects and financial assistance approved by the Board also must be approved by the Joint Bond Review Committee of the General Assembly under the Act prior to implementation.

The Bank is not responsible for providing any additional financial assistance of any kind to a project beyond what it and the Joint Bond Committee initially approve under any circumstances regardless of the actual cost of the project.

The Board assumes no liability for and will not reimburse any costs or liabilities incurred by applicants or others, whether provided financial assistance by the Bank for the project or not, in developing, submitting or presenting applications.

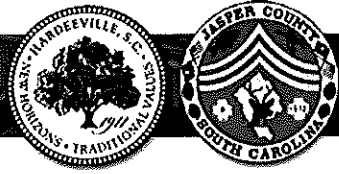


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APPENDIX B

TRAFFIC ANALYSIS

THE LPA GROUP INCORPORATED



Traffic Analysis of Need for New Interchange I-95 at Purrysburg Road

The need for a new interchange on Interstate 95 at Purrysburg Road (Exit 3) has been discussed as a means to provide additional interstate access in Jasper County to support local and regional development. The anticipated local development includes residential, industrial and commercial development, while the regional development includes the proposed Jasper Port along the Savannah River. This analysis includes a broad planning assessment of traffic generated by anticipated development on the operation of US 17 and the effect of the constructing the new interchange at Purrysburg Road on area traffic operations.

Existing and Projected Background Traffic

The existing (2007) annual average daily traffic volumes (AADT) for major roadways in the area were obtained from the South Carolina Department of Transportation (SCDOT). Opening Year Base (2013) and Design Year (2033) AADT were estimated using the an annual background growth rate of 2.5 percent cited in the *Advanced Project Planning Report for Proposed Improvements to US 17 from Georgia State Line to SC 170* (page 3 – [Traffic Data](#)).

The existing and projected operating conditions on the area roadways was assessed using SCDOT roadway functional classifications, daily capacity and level of service (LOS) criteria.

The existing and projected ADT, functional classification, capacity and LOS for roadways within the study area are summarized in Table 1. Based on these calculations, most of the area's major roadway links will operate at acceptable LOS (LOS D or better) in 2013 prior to the opening of the proposed Exit 3 at Purrysburg Road.

Development Generated Traffic

Development agreements are in place or are being prepared for a number of projects in and adjacent to the study area. A list of these projects, taken from the March 2008 City of Hardeeville Proposed Development Map, is summarized in Table 2.



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Table 1 – Existing (2007) and Projected Opening Year (2013) Base AADT and LOS

Route	Start	End	2007 Classification	Daily Capacity	2007 Volume	2007 V/C	2007 LOS	2013 AADT	2013 V/C	2013 LOS
US 17 A	State Line	SC 170A	Principal/Arterial/Undivided2	14,600	13,700	0.94	C	15,900	1.09	D
US 17 A	SC 170A	US 17	Principal/Arterial/Undivided2	14,600	5,800	0.40	A	6,700	0.46	A
US 17	State Line	US 17A	Principal/Arterial/Undivided2	14,600	4,500	0.31	A	5,200	0.36	A
US 17	US 17A	SC 170	Principal/Arterial/Undivided2	14,600	10,900	0.75	B	12,600	0.86	C
US 17	SC 170	I-95	Principal/Arterial/Undivided2	14,600	10,100	0.69	B	11,700	0.80	C
SC 170A	US 17A	Limehouse Rd	Principal/Arterial/Undivided2	14,600	8,600	0.59	B	10,000	0.68	B
SC 170A	Limehouse Rd	SC 170	Principal/Arterial/Undivided2	14,600	10,600	0.73	B	12,300	0.84	C
SC 170	US 17	SC 46	Minor/Arterial/Undivided2	10,800	2,000	0.19	A	2,300	0.21	A
SC 170	SC 46	County Line	Principal/Arterial/Undivided2	14,600	12,600	0.86	C	14,600	1.00	D
SC 46	SC 170	US 17	Minor/Arterial/Undivided2	10,800	3,300	0.31	A	3,800	0.35	A
Limehouse Rd	SC 170A	SC 170	Minor/Arterial/Undivided2	10,800	1,450	0.13	A	1,700	0.16	A
I-95	State Line	Exit 5 (US 17)	Interstate/Divided4	58,600	49,800	0.85	C	57,800	0.99	C
I-95	Exit 5 (US 17)	Exit 8 (SC 278)	Interstate/Divided4	58,600	52,200	0.89	C	60,500	1.03	D
I-95	Exit 8 (SC 278)		Interstate/Divided4	58,600	46,800	0.80	C	54,300	0.93	C
US 278	US 17	I-95	Principal/Arterial/Undivided5	33,600	6,500	0.19	A	7,500	0.22	A
US 278	I-95	John Smith Rd	Principal/Arterial/Undivided5	33,600	25,300	0.75	C	29,300	0.87	C
US 278	John Smith Rd		Principal/Arterial/Undivided4	29,200	22,000	0.75	C	25,500	0.87	C

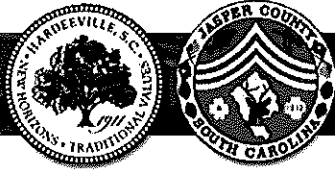


Table 2 – Area Development Acreage

Development	Acres	Residential Units	Commercial/ Industrial Acres
Riverport Tract	6,000	4,500	4,500
Sherwood Tract	1,500	3,688	1,082
Morgan Tract	2,100	6,700	500
Anderson Tract	2,950	3,888	50
Tradition	5,150	9,500	175
East Argent	7,500	12,380	1,320
Argent 2	1,020	2,084	0
Total	26,220	42,740	7,627

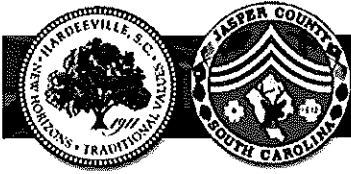
The Riverport and Sherwood Tract Projects are located west of US 17. Traffic generated by these developments will have an effect on the US 17 and future Purrysburg corridors. The other projects are located adjacent to the US 278 corridor and will not have a direct impact in these corridors. This analysis will therefore focus on the impacts of the RiverPort and Sherwood Tracts.

The Sherwood Tract is located along US 17 between I-95 and Purrysburg Road. The Riverport Tract is generally located along either side of Purrysburg Road and extends to the north side of I-95.

2013 Traffic Analysis

The opening year (2013) daily traffic generated by the Sherwood and RiverPort developments was estimated based on the current development information and Institute of Transportation Engineer's trip generation rates. The site generated traffic was distributed to the area roadways based on the distribution of existing traffic along US 17 and SC 170. The Sherwood Tracts contain residential and retail/commercial development, while the Hardeeville Tract contains residential, retail/commercial and industrial development.

The 2013 traffic generated by the Sherwood Tract was calculated as summarized in Table 3. The RiverPort Tract site generated traffic is summarized in Table 4. The traffic generation calculations are based on the land use distribution outlined in the *Market Analysis for Sherwood Village, August 2006* and adjusted based on the latest combined development projects for the combined Sherwood and RiverPort Tracts obtained from Harry Miley in January 2009 with revisions provided by Dr. Miley and Thomas & Hutton consultants in February 2009.



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Table 3 – 2013 Sherwood Tract Trip Generation

Sherwood Land Use	Planned Leasable Area	Gross Daily Trips	Pass-By Rate	Net Daily Trips	Adjusted Net Trips
Retail	1,060,342 sf	31,500	40.00%	18,900	17,100
Office		0	n/a	0	0
Residential	0 units	0	n/a	0	0
Total		31,500		18,900	17,100

Table 4 – 2013 RiverPort Tract Trip Generation

RiverPort Land Use	Planned Leasable Area	Gross Daily Trips	Pass-By Rate	Net Daily Trips	Adjusted Net Trips
Retail	53,316 sf	4,500	40.00%	2,700	2,400
Residential	0 units	0	n/a	0	0
Industrial	828,530 sf	3,400	n/a	3,400	3,400
Total		7,900		6,100	6,100

The Sherwood site generated traffic was distributed to US 17 and SC 170 based on the existing distribution of AADT on those routes. This distribution is summarized in Table 5.

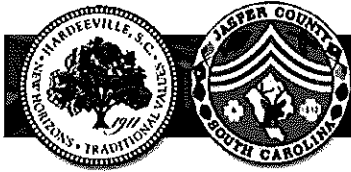
**Table 5 – Directional Distribution of Sherwood Tract Traffic
(without Purrysburg Interchange)**

Sherwood Tract Directional Distribution	2007	
	ADT	Percent
to north on US 17	17,800	30%
to south on US 17	19,200	32%
to east on SC 170	22,200	38%
Total	59,200	

The distribution of the RiverPort Tract traffic was initially distributed to the roadways assuming that the Purrysburg Road interchange *would not* be constructed. Any access from the RiverPort Tract to I-95 would have to be along the existing interchange on US 17. The distribution of the RiverPort site generated traffic is summarized in Table 6.

**Table 6 – Directional Distribution of RiverPort Tract Traffic
(without Purrysburg Interchange)**

RiverPort Tract Directional Distribution	Retail Distribution	Residential Distribution	Industrial Distribution
To south on Purrysburg Road to US 17	35%	20%	100%
To north on US 17	65%		60%
to south on US 17	35%		30%
to east on SC 170	15%		10%



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Table 7 summarizes the distributed 2013 site generated traffic along the area roadway networks while Table 8 summarizes the impact of the 2013 site generated traffic on the area roadway network (without the proposed Purrysburg Road interchange).



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Table 7 – 2013 Distributed Site Generated Traffic (No Purrysburg Road Interchange)

Route	Start	End	2013 Sherwood Retail	2013 Sherwood Residential	2013 Sherwood Office	2013 Total Sherwood Traffic	2013 RiverPort Industrial	2013 RiverPort Retail	2013 RiverPort Residential	2013 Total RiverPort Traffic	2013 Total Development Traffic
US 17 A	State Line	SC 170A	3,900	0	0	3,900	800	500	0	1,300	5,200
US 17 A	SC 170A	US 17	3,900	0	0	3,900	800	500	0	1,300	5,200
US 17	State Line	US 17A	1,300	0	0	1,300	300	200	0	500	1,800
US 17	US 17A	SC 170	5,500	0	0	5,500	1,100	700	0	1,800	7,300
US 17	SC 170	Purrysburg Rd	12,000	0	0	12,000	1,400	900	0	2,300	14,300
US 17	Purrysburg Rd	Middle of Sherwood	12,000	0	0	12,000	2,000	1,400	0	3,400	15,400
US 17	Middle of Sherwood	I-95	5,100	0	0	5,100	2,000	1,400	0	3,400	8,500
Purrysburg Rd	US 17	Middle of RiverPort	0	0	0	0	3,400	2,400	0	5,800	5,800
Purrysburg Rd	Middle of RiverPort	I-95	0	0	0	0	0	0	0	0	0

Table 8 – 2013 Network Analysis Results (No Purrysburg Road Interchange)

Route	Start	End	2013 Total Traffic	2013 V/C	2013 LOS	2013 Improved No-Build Classification	2013 Improved Capacity	2013 Improved V/C	2013 Improved LOS
US 17 A	State Line	SC 170A	21,100	1.45	F	PrincipalArterialDivided4	33,600	0.63	B
US 17 A	SC 170A	US 17	11,900	0.82	C	PrincipalArterialUndivided2	14,600	0.82	C
US 17	State Line	US 17A	7,000	0.48	A	PrincipalArterialUndivided2	14,600	0.48	A
US 17	US 17A	SC 170	19,900	1.36	F	PrincipalArterialDivided4	33,600	0.59	B
US 17	SC 170	Purrysburg Rd	26,000	1.78	F	PrincipalArterialDivided4	33,600	0.77	C
US 17	Purrysburg Rd	Middle of Sherwood	27,100	1.86	F	PrincipalArterialDivided4	33,600	0.81	C
US 17	Middle of Sherwood	I-95	20,200	1.38	F	PrincipalArterialDivided4	33,600	0.60	B
Purrysburg Rd	US 17	Middle of RiverPort	5,800	0.40	A	PrincipalArterialUndivided2	14,600	0.40	A
Purrysburg Rd	Middle of RiverPort	I-95	0	0.00	A	PrincipalArterialUndivided2	14,600	0.00	A



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Based on the projection of existing traffic and the anticipated 2013 levels of development, portions of both US 17 and US 17A will need to be widened from a 2 lane undivided principal arterial to a 4 lane divided principal arterial to provide sufficient capacity to obtain acceptable LOS.

Analysis with Proposed Purrysburg Road Interchange

An analysis of the anticipated 2013 traffic conditions after the opening of the proposed Purrysburg Road interchange was completed. The Purrysburg Road interchange will result in some shifting in the directional distribution of traffic from both the Sherwood and the RiverPort Tracts. The revised directional distributions for the Sherwood and RiverPort Tracts are summarized in Tables 9 and 10 respectively.

**Table 9 – Directional Distribution of Sherwood Tract Traffic
(with Purrysburg Interchange)**

Sherwood Tract	
Directional Distribution	Percent
To north on US 17	23%
To north on Purrysburg Road	8%
To south on US 17	32%
To south on Purrysburg Road	8%
To east on SC 170	38%

**Table 10 – Directional Distribution of RiverPort Tract Traffic
(with Purrysburg Interchange)**

RiverPort Tract Directional Distribution	Retail Distribution	Residential Distribution	Industrial Distribution
To south on Purrysburg Road to US 17	35%	20%	30%
To north on Purrysburg Road to I-95	65%		60%
To east on SC 170	15%		10%

The distributed traffic is shown in Table 11. Table 12 summarizes the results of the network analysis.

The results show that the addition of the Purrysburg Interchange will shift some traffic from US 17 and the existing US 17 interchange on I-95, but that improvements will still be necessary along US 17 and US 17A to accommodate the Sherwood Traffic. The analysis also shows that the addition of the proposed Purrysburg Road interchange will shift traffic from the RiverPort development away from the circuitous route to access the existing US 17 interchange, with sufficient reserve capacity to accommodate future development within the tract. It will still be necessary to improve portions of US 17A and US 17, but it is projected that there will be slightly less traffic along US 17 once the proposed interchange opens.



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During the initial stages of the RiverPort development, Purrysburg Road will be able to provide acceptable LOS as an undivided two lane roadway. As development increases, improvements will be required along Purrysburg road to accommodate the additional traffic.



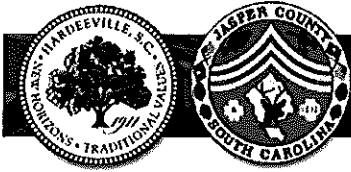
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Table 11 – 2013 Distributed Site Generated Traffic (with Purrysburg Road Interchange)

Route	Start	End	2013 Sherwood Retail	2013 Sherwood Residential	2013 Sherwood Office	2013 Total Sherwood Traffic	2013 RiverPort Industrial	2013 RiverPort Retail	2013 RiverPort Residential	2013 Total RiverPort Traffic	2013 Total Development Traffic
US 17 A	State Line	SC 170A	3,900	0	0	3,900	800	400	0	1,200	5,100
US 17 A	SC 170A	US 17	3,900	0	0	3,900	800	400	0	1,200	5,100
US 17	State Line	US 17A	1,300	0	0	1,300	300	100	0	400	1,700
US 17	US 17A	SC 170	4,200	0	0	4,200	1,000	500	0	1,500	5,700
US 17	SC 170	Purrysburg Rd	10,600	0	0	10,600	0	0	0	0	10,600
US 17	Purrysburg Rd	Middle of Sherwood	10,600	0	0	10,600	0	0	0	0	10,600
US 17	Middle of Sherwood	I-95	3,900	0	0	3,900	0	0	0	0	3,900
Purrysburg Rd	US 17	Middle of RiverPort	1,390	0	0	1,390	1,360	840	0	2,200	3,590
Purrysburg Rd	Middle of RiverPort	I-95	1,290	0	0	1,290	2,040	1,560	0	3,600	4,890

Table 12 – 2013 Network Analysis Results (with Purrysburg Road Interchange)

Route	Start	End	2013 Total Traffic	2013 V/C	2013 LOS	2013 Improved Build Classification	2013 Improved Capacity	2013 Improved V/C	2013 Improved LOS
US 17 A	State Line	SC 170A	21,000	1.44	F	Principal/Arterial/Divided4	33,600	0.63	B
US 17 A	SC 170A	US 17	11,800	0.81	C	Principal/Arterial/Undivided2	14,600	0.81	C
US 17	State Line	US 17A	6,900	0.47	A	Principal/Arterial/Undivided2	14,600	0.47	A
US 17	US 17A	SC 170	18,300	1.25	E	Principal/Arterial/Divided4	33,600	0.54	B
US 17	SC 170	Purrysburg Rd	22,300	1.53	F	Principal/Arterial/Divided4	33,600	0.66	B
US 17	Purrysburg Rd	Middle of Sherwood	22,300	1.53	F	Principal/Arterial/Divided4	33,600	0.66	B
US 17	Middle of Sherwood	I-95	15,600	1.07	D	Principal/Arterial/Undivided2	14,600	1.07	D
Purrysburg Rd	US 17	Middle of RiverPort	3,590	0.25	A	Principal/Arterial/Undivided2	14,600	0.25	A
Purrysburg Rd	Middle of RiverPort	I-95	4,890	0.33	A	Principal/Arterial/Undivided2	14,600	0.33	A



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2033 Traffic Analysis

The anticipated 2033 conditions were analyzed without any of the development traffic by projecting the 2007 traffic to the 2033 design year to identify other network improvements that would be needed to accommodate the growth of existing traffic. The design year was chosen as the 20th year after the opening of the Purrysburg Road interchange. Table 15 summarizes the analysis of the 2033 base network.

The projected 2033 development totals for the Sherwood and RiverPort tracts are summarized in Tables 13 and 14 respectively. The traffic generation calculations are based on the land use distribution outlined in the *Market Analysis for Sherwood Village, August 2006* and adjusted based on the latest combined development projects for the combined Sherwood and RiverPort Tracts obtained from Harry Miley in January 2009 with revisions provided by Dr. Miley and Thomas & Hutton consultants in February 2009.

Table 13 – 2013 Sherwood Tract Trip Generation

Sherwood Land Use	Planned Leasable Area	Gross Daily Trips	Pass-By Rate	Net Daily Trips	Adjusted Net Trips
Retail	6,976,000 sf	107,200	40.00%	64,300	54,800
Office	373,000 sf	3,700	n/a	3,700	3,700
Residential	2,441 units	19,700	n/a	19,700	19,700
Total		130,600		87,700	78,200

Table 14 – 2013 RiverPort Tract Trip Generation

RiverPort Land Use	Planned Leasable Area	Gross Daily Trips	Pass-By Rate	Net Daily Trips	Adjusted Net Trips
Retail	2,254,524 sf	51,500	40.00%	30,900	26,400
Residential	2,552 units	20,500	n/a	20,500	20,500
Industrial	7,332,510 sf	36,400	n/a	36,400	36,400
Total		108,400		87,800	83,300

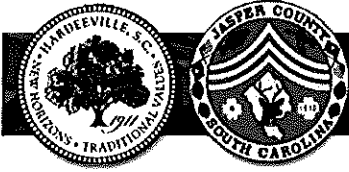
Table 17 summarizes the distributed 2033 site generated traffic along the area roadway networks while Table 18 summarizes the impact of the 2033 site generated traffic on the area roadway network (including the proposed Purrysburg Road interchange).



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Table 16 –Projected Design Year (2033) Base AADT and LOS

Route	Start	End	2013 Improved Build Classification	Daily Capacity	2033 Base Volume	2033 V/C	2033 LOS	2033 Improved Base Classification	Daily Capacity	Revised 2033 V/C	2030 LOS
US 17 A	State Line	SC 170A	PrincipalArterialDivided4	33,600	26,000	0.77	C	PrincipalArterialDivided4	33,600	1.09	D
US 17 A	SC 170A	US 17	PrincipalArterialUndivided2	14,600	11,000	0.75	C	PrincipalArterialUndivided2	14,600	0.75	C
US 17	State Line	US 17A	PrincipalArterialUndivided2	14,600	8,600	0.59	B	PrincipalArterialUndivided2	14,600	0.36	A
US 17	US 17A	SC 170	PrincipalArterialDivided4	33,600	20,700	0.62	B	PrincipalArterialDivided4	33,600	0.86	C
US 17	SC 170	I-95	PrincipalArterialUndivided2	14,600	19,200	1.32	E	PrincipalArterialDivided4	33,600	0.57	B
SC 170A	US 17A	Limehouse Rd	PrincipalArterialUndivided2	14,600	16,300	1.12	D	PrincipalArterialUndivided2	14,600	0.68	B
SC 170A	Limehouse Rd	SC 170	PrincipalArterialUndivided2	14,600	20,100	1.38	F	PrincipalArterialDivided4	33,600	0.60	B
SC 170	US 17	SC 46	MinorArterialUndivided2	10,800	3,800	0.35	A	MinorArterialUndivided2	10,800	0.21	A
SC 170	SC 46	County Line	PrincipalArterialUndivided2	14,600	23,900	1.64	F	PrincipalArterialDivided4	33,600	0.71	B
SC 46	SC 170	US 17	MinorArterialUndivided2	10,800	6,300	0.58	B	MinorArterialUndivided2	10,800	0.35	A
Limehouse Rd	SC 170A	SC 170	MinorArterialUndivided2	10,800	2,800	0.26	A	MinorArterialUndivided2	10,800	0.16	A
I-95	State Line	Exit 5 (US 17)	InterstateDivided4	58,600	94,600	1.61	F	InterstateDivided6	87,900	1.08	C
I-95	Exit 5 (US 17)	Exit 8 (SC 278)	InterstateDivided4	58,600	99,200	1.69	F	InterstateDivided6	87,900	1.13	D
I-95	Exit 8 (SC 278)		InterstateDivided4	58,600	88,900	1.52	F	InterstateDivided6	87,900	1.01	D
US 278	US 17	I-95	PrincipalArterialUndivided5	33,600	12,400	0.37	A	PrincipalArterialUndivided5	33,600	0.37	A
US 278	I-95	John Smith Rd	PrincipalArterialUndivided5	33,600	48,100	1.43	F	PrincipalArterialUndivided6	50,400	0.95	C
US 278	John Smith Rd		PrincipalArterialUndivided4	29,200	41,800	1.43	F	PrincipalArterialUndivided6	50,400	0.83	C



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Table 16 shows the background growth in traffic between the 2013 opening year and the 2033 design year would require that additional improvements be made to key routes within the study area in order to provide acceptable LOS even if neither the RiverPort or Sherwood tracts are developed. The most significant of these improvements include widening US 17 near the I-95 interchange and widening I-95 to provide three lanes in each direction.

The improvements shown in the column labeled "2033 Improved Base Classification" constitute the base network condition for analyzing the impacts of the site traffic that is projected to be generated by the Sherwood and RiverPort development tracts.

Table 17 shows the projected 2033 development generated traffic of the Sherwood and RiverPort tracts on the adjacent study area roadway network. Table 18 shows the impact on the traffic on the roadway LOS.



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Table 17 – 2033 Distributed Site Generated Traffic (with Purrysburg Road Interchange)

Route	Start	End	2033 Sherwood Retail	2033 Sherwood Residential	2033 Sherwood Office	2033 Total Sherwood Traffic	2033 RiverPort Industrial	2033 RiverPort Retail	2033 RiverPort Residential	2033 Total RiverPort Traffic	2033 Total Development Traffic
US 17 A	State Line	SC 170A	12,400	4,500	800	17,700	6,200	4,000	0	10,200	27,900
US 17 A	SC 170A	US 17	12,400	4,500	800	17,700	6,200	4,000	0	10,200	27,900
US 17	State Line	US 17A	4,100	1,500	300	5,900	2,000	1,300	0	3,300	9,200
US 17	US 17A	SC 170	13,300	4,800	900	19,000	8,200	5,300	0	13,500	32,500
US 17	SC 170	Purrysburg Rd	33,900	12,200	2,300	48,400	0	0	0	0	48,400
US 17	Purrysburg Rd	Middle of Sherwood	33,900	12,200	2,300	48,400	0	0	0	0	48,400
US 17	Middle of Sherwood	I-95	12,400	4,400	800	17,600	0	0	0	0	17,600
Purrysburg Rd	US 17	Middle of RiverPort	4,440	1,600	300	6,340	10,920	9,240	0	20,160	26,500
Purrysburg Rd	Middle of RiverPort	I-95	4,120	1,480	280	5,880	16,380	17,160	4,100	37,640	43,520

Table 18 – 2033 Network Analysis Results (with Purrysburg Road Interchange)

Route	Start	End	2033 Improved Base Classification	2033 Base Capacity	2033 Total Traffic	2033 V/C	2033 LOS	2033 Improved Final Classification	2033 Final Capacity	Final 2033 V/C	Final 2033 LOS
US 17 A	State Line	SC 170A	PrincipalArterialDivided4	33,600	53,900	1.60	F	PrincipalArterialDivided6	50,400	1.07	D
US 17 A	SC 170A	US 17	PrincipalArterialUndivided2	14,600	38,900	2.66	F	PrincipalArterialDivided4	33,600	1.16	E
US 17	State Line	US 17A	PrincipalArterialUndivided2	14,600	17,800	1.22	E	PrincipalArterialDivided4	33,600	0.53	B
US 17	US 17A	SC 170	PrincipalArterialDivided4	33,600	53,200	1.58	F	PrincipalArterialDivided6	50,400	1.06	D
US 17	SC 170	Purrysburg Rd	PrincipalArterialDivided4	33,600	67,600	2.01	F	PrincipalArterial8	67,200	1.01	D
US 17	Purrysburg Rd	Middle of Sherwood	PrincipalArterialDivided4	33,600	67,600	2.01	F	PrincipalArterial8	67,200	1.01	D
US 17	Middle of Sherwood	I-95	PrincipalArterialDivided4	33,600	36,800	1.10	D	PrincipalArterialDivided4	33,600	1.10	D
Purrysburg Rd	US 17	Middle of RiverPort	PrincipalArterialUndivided2	14,600	26,500	1.82	F	PrincipalArterialDivided4	33,600	0.79	C
Purrysburg Rd	Middle of RiverPort	I-95	PrincipalArterialUndivided2	14,600	43,520	2.98	F	PrincipalArterialDivided6	50,400	0.86	C



**City of Hardeeville/Jasper County Application to the
South Carolina State Transportation Infrastructure Bank**

The results show that the proposed development of the Sherwood and RiverPort tracts will increase traffic on the adjacent roadway network. US 17 will require substantial widening between SC 170 and the I-95 interchange due to the traffic generated primarily by the Sherwood tract. The addition of the Purrysburg Interchange will continue to relieve the US 17 interchange with I-95. Purrysburg Road will be able to accommodate traffic at an acceptable LOS using four lanes through the design year.

Timing of Purrysburg Road Improvements

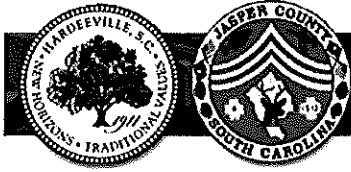
Additional analyses were performed to determine the approximate time frames in which improvements will be required to be in place along Purrysburg Road in order to accommodate the projected development generated traffic. This analysis was performed by estimating the annual level of development project to occur on the Sherwood and RiverPort tracts and distributing the traffic onto Purrysburg Road. The volume-capacity ratio for each year was estimated for the appropriate roadway classification.

For this analysis, Purrysburg Road between I-95 and US 17 continued to be considered as divided into two separate links at a point representing the middle of the RiverPort development. The approximate years in which the sections transition from LOS D to LOS E and from LOS E to LOS F for each of the roadway classifications were then identified. Table 19 summarizes the approximate timing of the needed improvements.

Table 19 – Timing of Purrysburg Road Improvements

Purrysburg Rd from US 17 to Middle of RiverPort	Year of change from LOS D to LOS E	Year of change from LOS E to LOS F
PrincipalArterialUndivided2	2024	2027
PrincipalArterialDivided4	n/a	n/a
PrincipalArterialDivided6	n/a	n/a
Purrysburg Rd from Middle of RiverPort to I-95	Year of change from LOS D to LOS E	Year of change from LOS E to LOS F
PrincipalArterialUndivided2	2020	2021
PrincipalArterialDivided4	2030	2035
PrincipalArterialDivided6	n/a	n/a

The analysis shows that Purrysburg Road will need to be improved from a two lane to four lane road by 2021 between I-95 and the center of the RiverPort Development and between 2024 and 2027 for the remaining portion of Purrysburg Road to US 17. Through the 2033 design year, Purrysburg Road between the middle of the RiverPort development and US 17 will likely not need to be widened beyond a four lane road.



City of Hardeeville/Jasper County Application to the
South Carolina State Transportation Infrastructure Bank

APPENDIX C

RESOLUTIONS AND LETTERS OF SUPPORT

Jasper Ocean Terminal

Joint project office

March 31, 2009

Mayor Bronco Bostick
City of Hardeeville
205 East Main Street
P. O. Box 609
Hardeeville, SC 29927

Re: City of Hardeeville State Infrastructure Bank Application for Exit 3, I-95

Dear Mayor Bostick:

On behalf of the Jasper Ocean Terminal Joint Project Office Board of Directors I would like to offer our endorsement in full support of your efforts to secure funds from the South Carolina State Infrastructure Bank for the creation of the new Exit 3 on Interstate 95. As you will be quick to agree, our region is badly in need of job creation, wages and economic development. We, like you, believe that this new major exit will open up substantial amounts of prime industrial property which is ripe for development. Most importantly, it will give our citizens new employment opportunities which will significantly improve our region's quality of life.

As you are aware, the Joint Project Office is working diligently to lay the foundation for development and construction of the Jasper Ocean Terminal. We are firmly convinced that South Carolina, Georgia and, indeed, the entire southeastern region will benefit greatly from the development of the Jasper Port because of the major contribution it will make to trade and commerce. We also believe that it can become a substantial economic engine which will create major financial impacts and economic opportunities throughout our area. Exit 3 falls right in line with the recommendations of the Bi-State Report on the infrastructure transportation needs for the Jasper Terminal. We believe that the realization of this vital part of the necessary road infrastructure for the Jasper Terminal will provide a tremendous boost to making the Port a reality.



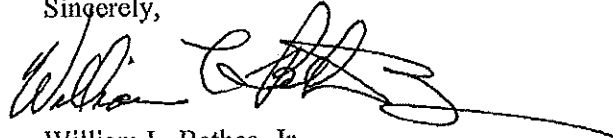
P.O. Box 1687

Savannah, Georgia 31402

Mayor Bronco Bostick
Page 2
March 31, 2009

Mayor Bostick, please keep us informed as to the status of the application and know that the Joint Project Office whole heartedly supports your efforts.

Singerely,

A handwritten signature in black ink, appearing to read 'William L. Bethea, Jr.', with a long horizontal line extending to the right.

William L. Bethea, Jr.
Chairman
Jasper Ocean Terminal Joint Project Office
Board of Directors

WLBjr:js

\\Bostick Mayor Bronco, City of Hardeeville (1)

Copy

Lisa Sulka
Mayor

Fred Hamilton Jr.
Mayor Pro Tempore



Council Members
Charles Wetmore
Oliver Brown
Allyne Mitchell

W.D. Workman III
Town Manager

Sandra Lunceford
Town Clerk

March 31, 2009

Kevin Griffin, City Manager
City of Hardeeville
P.O. Box 609
Hardeeville, SC 29927

Dear Mr. Griffin:

Exit 3 on I-95 would be a huge economic boom to Bluffton and southern Beaufort County, and I hope Hardeeville is successful in causing its construction. This new exit will open up thousands of acres of prime industrial property ripe for development, improve our region's quality of life, and most importantly provide our citizens new employment opportunities.

Specifically, the new Exit 3 would give our citizens better jobs at better wages by capturing port-related warehousing and distribution opportunities from the Garden City Terminal in Savannah. Then, for the long term, we all want to see the Jasper Ocean Terminal built as soon as possible so that both South Carolina and Georgia benefit economically. Exit 3 falls right in line with the recommendations of the bi-state report on the transportation infrastructure needs for the new terminal, and will help expedite the process.

Please keep us informed as to the status of your application to the state infrastructure bank, and know that the Town of Bluffton supports this endeavor.

Sincerely,

Bill Workman
Town Manager

20 Bridge Street P.O. Box 386 Bluffton, South Carolina 29910

Telephone (843) 706-4500 Fax (843) 757-6720



Town of Hampton

608 FIRST STREET, WEST
HAMPTON, SOUTH CAROLINA 29924

COUNCIL

JIMMY BILKA
CHARLES M. BOYLES, JR.
JAMES W. HAGOOD
ANNA SUE RIVERS

JOHN B. RHODEN, JR., MAYOR
TELEPHONE: (803) 943-2951
FAX.: (803) 943-2182
EMAIL: townofhampton@embarqmail.com

Mayor Bronco Bostick
City of Hardeeville
205 East Main Street
P. O. Box 609
Hardeeville, SC 29927

RE: Hardeeville State Infrastructure Bank Application for Exit 3

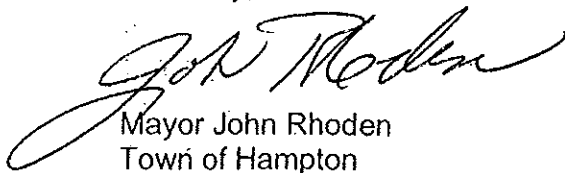
Dear Mayor Bostick,

On behalf of the Hampton Town Council, I would like to offer our endorsement and full support of your efforts to land funds for the creation of the new Interstate 95 Exit 3 from the South Carolina State Infrastructure Bank. Our region is in need of job creation, wages and economic development. This new exit will open up 1000s of acres of prime industrial property ripe for development, improve our region's quality of life, and most importantly give our citizens new employment opportunities.

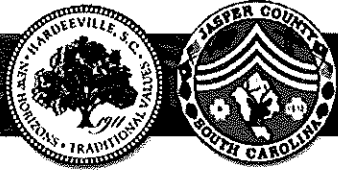
As unemployment continues to rise, our rural counties in the Palmetto State are hurting the most and the new Exit 3 would help give our citizens better jobs at better wages by capturing port-related warehousing and distribution opportunities from the Garden City Terminal. Then for the long term, we all want to see the Jasper Ocean Terminal built as soon as possible so that both South Carolina and Georgia receive the benefits as a result. Exit 3 falls right in line with the recommendations of the bi-state report on the transportation infrastructure needs for the new terminal, and will help expedite the process.

Please keep us informed as to the status of the application and know that the Town of Hampton is backing your efforts 100%.

Sincerely,



Mayor John Rhoden
Town of Hampton



City of Hardeeville/Jasper County Application to the
South Carolina State Transportation Infrastructure Bank

APPENDIX D

**ECONOMIC IMPACT
OF THE
PROPOSED HIGHWAY
CONSTRUCTION
IN
JASPER COUNTY**

Miley, Gallo, and Associates

**The Economic Impact
Of the Proposed New
Interchange at I-95
And Extension of Purrysburg Road
in Jasper County**

**Prepared
for**

**The City of Hardeeville
&
Jasper County**

Prepared by

Miley, Gallo & Associates, LLC

Columbia, SC Research Triangle Park, NC



March 2009

**THE ECONOMIC IMPACT OF THE
PROPOSED HIGHWAY CONSTRUCTION
IN JASPER COUNTY**

INTRODUCTION

This report evaluates the economic impacts to Jasper County and the surrounding area from the proposed new interchange on I-95 and the extension of Purrysburg Road in Jasper County. This analysis is intended to provide Jasper County, the State Infrastructure Bank and others an estimate of the level of economic activity and jobs that will be stimulated by the construction of these new highway improvements over a 30-year period. These benefits are estimated to occur within the Jasper County area during the construction of the new roads and resulting capital investment in commercial, industrial and residential facilities as well as the on-going permanent economic benefits to the area once the road improvements are completed.

These impacts are outlined in this report in three distinct but related phases:

- Phase 1 Road and Interchange Construction (Table 1)*

- Phase 2 Construction of Commercial, Industrial and Residential
Developments stimulated by the new roads/interchange
(Tables 2-4)*

- Phase 3 Ongoing/Permanent Economic Activity of the employees and
Residents working and living in the area
(Tables 5-7)*

ROAD PROJECT DESCRIPTION

The \$99.5 million of new road construction will include the construction of a new interchange at mile-marker 3 on I-95 and improvements to approximately 12 miles of Purrysburg Road in Jasper County. A more detailed description of these road construction projects is provided in the accompanying report by LPA.



**THE ECONOMIC IMPACT OF THE
PROPOSED HIGHWAY CONSTRUCTION
IN JASPER COUNTY**

ECONOMIC IMPACTS TO THE JASPER COUNTY ECONOMY

The \$99.5 million in new road construction will have far reaching impacts on Jasper County and the surrounding area. These impacts will be due to three primary factors. The first and most immediate impacts to the area will be the impacts from the construction of the road improvements. The \$99.5 million of road construction will take several years to complete and will have a multiplied impact on the region.

A second and much larger factor will be the new economic activity that will be attracted to the area due to the new interchange and road improvements. The new interchange and road extension will open up new opportunities for the construction of new commercial, office, industrial and residential development due to the improved access and increased traffic. The Jasper County area will realize substantial economic impacts during the construction phase of the new commercial, residential and other types of investment that will occur once the road improvements are completed. Most of these impacts will generally occur during the time of the actual construction activity (which is estimated to continue throughout the forecast period).

However, the greatest economic impacts to the area will be from the permanent economic activity in the area due to the new jobs and new residents that will be employed in the new commercial, office and industrial investments that will have followed the road construction.

The economic benefits from the construction of the new interchange and roads are outlined in this section of the report. This analysis utilizes impact models generated by the IMPLAN modeling system.¹ IMPLAN is a nationally recognized system of local economic models that are specifically designed to represent local economies such as the Jasper County. The IMPLAN models are modifications of the national input-output models developed by the Bureau of Economic Analysis, US Department of Commerce. The IMPLAN models incorporate the most recent data available and are generally 2007 unless otherwise noted². The estimates are based on constant dollars and assume no inflation during the project's buildout. This assumption applies to all estimates in this analysis, including: property values, incomes, sales, construction materials, etc. The assumption of constant dollars assumes revenues and costs will increase at similar rates during the buildout period and afterwards.

**THE ECONOMIC IMPACT OF THE
PROPOSED HIGHWAY CONSTRUCTION
IN JASPER COUNTY**

BENEFITS FROM THE ROAD CONSTRUCTION

The construction of the new interchange and new roads will have positive economic impacts on the Jasper County area. These benefits will be relatively short-term since the construction of the facility will be incremental and there will be ongoing construction for six to seven years. The benefits reported in this section outline the impacts from the initial construction estimated to be approximately \$99.5 million to the Jasper County area. (The road construction is expected to be completed in two phases. However, since the two phases are consecutive and ongoing during the road construction period, the economic impacts of the two phases are presented as one impact to the local economy in this report.)

Table 1 Economic Impacts From Jasper County Road Improvements Road Construction Impacts				
	<u>Direct</u>	<u>Indirect</u>	<u>Induced</u>	<u>Total*</u>
Output	\$99,500,000	\$19,621,384	\$19,491,682	\$138,613,066
Labor Income	\$37,017,180	\$7,377,186	\$6,140,575	\$50,534,941
Jobs	920	176	194	1,290
* Totals may not equal sum of components due to rounding.				



**THE ECONOMIC IMPACT OF THE
PROPOSED HIGHWAY CONSTRUCTION
IN JASPER COUNTY**

The initial road construction will result in a direct investment of approximately \$99.5 million. This direct investment and the related impacts are outlined in Table 1 above. As the construction dollars are spent and re-spent in the Jasper County area, additional economic activity is created for those companies and individuals that supply goods and services to the construction of the facility. The recipients of this income will spend this income on other goods and services.

Each time, some of the purchases will be for goods and services inside Jasper County and the surrounding counties and some will be for goods and services from outside the area (referred to as "leakages"). The well-known "multiplier effect" estimates the aggregate amount of local buying and selling that occurs.

The multipliers used in this analysis estimate three components of total change within the local area:

- * *Direct effects* represent the initial change in the industry in question.
- * *Indirect effects* are changes in inter-industry transactions as supplying industries respond to increased demands from the directly affected industries.
- * *Induced effects* reflect changes in local spending that result from income changes in the directly and indirectly affected industry sectors.

This cycle of spending continues until leakages from the region (spending on goods and services outside the area) stop the cycle. Due to these multiplier effects, the initial, direct investment results in indirect and induced impacts of many more dollars.

For example, as seen in Table 1, the compounding effects of the multiplier cause the initial direct investment of \$99.5 million in construction spending to result in an indirect impact of \$19.6 million and an induced impact of \$19.5 million for a total increase in output of \$138.6 million in the Jasper County area. It is estimated that there will be as many as 920 new jobs directly created in the greater Jasper County area from the road projects' construction. In addition to these direct jobs, another 370 jobs are estimated to be created as indirect and induced effects of the construction activity for a total of 1,290 new jobs in Jasper County and the surrounding area during the construction of the new interchange and new roads.

**THE ECONOMIC IMPACT OF THE
PROPOSED HIGHWAY CONSTRUCTION
IN JASPER COUNTY**

Labor income is another important indicator of economic activity. As seen in Table 1, the compounding effects of the multiplier cause the road construction activity to result in a direct impact on labor income of \$37.0 million dollars. This will be multiplied throughout the region and result in indirect and induced impacts of another \$13.5 million in labor income for a total increase of in labor income in the region of \$50.5 million.

BENEFITS FROM THE NEWLY GENERATED ECONOMIC ACTIVITY

The section above outlined the direct and indirect impacts from the \$99.5 million in new road construction on the Jasper County area. These benefits will be relatively short-term since the construction of the roads will be completed within about five years. The benefits reported in this section outline the impacts from the economic activity that will result from the new economic development opportunities that will be stimulated by the new interchange, road construction and the new traffic they will foster.

As stated above, this second and much larger factor will be the new economic activity that will be attracted to the area due to the new interchange and road improvements. The new interchange and road extension will open up new demand for new commercial, office, industrial and residential development due to the improved access and increased traffic. This new economic activity will impact the Jasper County area in two phases – a *construction phase* and a *permanent/ongoing phase*.

This section outlines the impacts on Jasper County area during the construction phase of the new commercial, residential and other types of investment that will occur once the road improvements are completed. Most of these impacts will generally occur during the time of the actual construction activity (which is estimated to continue throughout the forecast period). These impacts are assumed to occur during a 30-year period. They will last much longer than that but the 30-year period is consistent with most of the developments authorized by the City of Hardeeville and Jasper County. Impacts are shown for selected years at five-year intervals.



**THE ECONOMIC IMPACT OF THE
PROPOSED HIGHWAY CONSTRUCTION
IN JASPER COUNTY**

The new road and interchange is estimated to stimulate more than \$7.1 billion in capital investment within the first 30 years. Approximately \$5.1 billion of this investment is expected to be in non-residential investment such as commercial, office and industrial uses. Another \$2.0 billion of residential investment is anticipated to occur during this same 30-year period. Like the road construction spending, the construction of the new capital will have direct and indirect impacts on Jasper County and the surrounding area.

Tables 2-4 outline the estimated impacts on the Jasper County and surrounding economy in the 5th, 10th and 30th years. For example, as seen in Table 2, in the fifth year after the road improvements are completed, it is estimated that there will be direct construction investment of over \$78.8 million. As the construction dollars are spent and re-spent in the Jasper County area, additional economic activity is created for those companies and individuals that supply goods and services to the construction of the facility. The recipients of this income will spend this income on other goods and services. The compounding effects of the multiplier cause the initial direct investment of \$78.8 million in construction spending to result in an indirect impact of \$14.4 million and an induced impact of \$14.5 million for a total increase in output of almost \$105.7 million in the Jasper County area.

It is estimated that there will be as many as 690 new jobs directly created in the greater Jasper County area from the development projects' construction in the fifth year. In addition to these direct jobs, another 263 jobs are estimated to be created as indirect and induced effects of the construction activity for a total of 953 new jobs in Jasper County and the surrounding area during the construction of the new development projects.

As seen in Table 2, the compounding effects of the multiplier cause the projects' construction activity to result in a direct impact on labor income of \$27.7 million dollars in the fifth year. This will be multiplied throughout the region and result in indirect and induced impacts of another \$9.8 million in labor income for a total increase of in labor income in the region of \$37.5 million in the fifth year.

**THE ECONOMIC IMPACT OF THE
PROPOSED HIGHWAY CONSTRUCTION
IN JASPER COUNTY**

Table 2 Economic Impacts From New Development Construction Impacts Year 5				
	<u>Direct</u>	<u>Indirect</u>	<u>Induced</u>	<u>Total*</u>
Output	\$78,818,600	\$14,424,123	\$14,454,874	\$107,697,597
Labor Income	\$27,728,280	\$5,201,011	\$4,553,804	\$37,483,095
Jobs	690	119	144	953
* Totals may not equal sum of components due to rounding.				

As seen in Table 3, the new construction activity will generate more than \$177 million in new output in the 10th year. There will be accompanying direct job growth of about 1,521 direct jobs in the 10th year with indirect and induced job creation resulting in a total 2,150 new jobs created by the 10th year.

Table 3 Economic Impacts From New Development Construction Impacts Year 10				
	<u>Direct</u>	<u>Indirect</u>	<u>Induced</u>	<u>Total*</u>
Output	\$177,109,002	\$35,549,354	\$32,471,331	\$245,129,687
Labor Income	\$61,128,523	\$12,852,166	\$10,229,637	\$84,210,326
Jobs	1,521	306	323	2,150
* Totals may not equal sum of components due to rounding.				

**THE ECONOMIC IMPACT OF THE
PROPOSED HIGHWAY CONSTRUCTION
IN JASPER COUNTY**

The buildout of the development projects is anticipated to continue to generate new economic activity for the next 30 years. As seen in Table 4, the total output in the 30th year is estimated to be more than \$423 million and generate almost \$75 million in total labor income. There will be accompanying job growth of about 2,359 direct jobs in the 10th year with indirect and induced job creation resulting in a total over 3,500 new jobs created by the 30th year.

Table 4 Economic Impacts From New Development Construction Impacts Year 30				
	<u>Direct</u>	<u>Indirect</u>	<u>Induced</u>	<u>Total*</u>
Output	\$302,103,024	\$68,577,433	\$52,521,803	\$423,202,260
Labor Income	\$53,278,174	\$12,569,901	\$9,103,962	\$74,952,037
Jobs	2,359	632	523	3,514
* Totals may not equal sum of components due to rounding.				

Ongoing-Permanent Benefits From The New Economic Activity

In addition to the benefits from the construction activity stimulated by the new roads, once the development projects are constructed, the Jasper County area will experience ongoing, permanent benefits from economic activity generated by the residents and employees of the new commercial and industrial businesses attracted to the area. As with the construction impacts, these permanent impacts are shown at five-year intervals.

As seen in Table 5, it is estimated that in the fifth year there will be 1,580 new jobs created in area. Approximately 1,200 of these jobs will be created in Jasper County. Together these employees will earn almost \$61 million in personal income per year. These benefits will begin to occur immediately once the development projects start to be operational and will continue for the entire 30-year period.

**THE ECONOMIC IMPACT OF THE
PROPOSED HIGHWAY CONSTRUCTION
IN JASPER COUNTY**

**Table 5
Ongoing Economic Impacts
From Jasper County Road Improvements
Year 5**

New Jobs	1,580
Total Personal Income	\$61,608,857
Total Population	NA*
* Residential Projects start in 6th year	

As seen in Tables 6 and 7, these impacts continue to grow in magnitude over the 30-year period.

**Table 6
Ongoing Economic Impacts
From Jasper County Road Improvements
Year 10**

New Jobs	6,044
Total Personal Income	\$235,729,796
Total Population	1,380

**THE ECONOMIC IMPACT OF THE
PROPOSED HIGHWAY CONSTRUCTION
IN JASPER COUNTY**

For example, as seen in Table 7, it is estimated that in the 30th year there will be almost 25,000 new residents in Jasper County. There will also be over 24,500 new jobs created in the region. More than 18,000 of these jobs will be created in Jasper County with the remainder in the surrounding counties. Together these employees will earn over \$956 million in personal income per year.

**Table 7
Ongoing Economic Impacts
From Jasper County Road Improvements
Year 30**

New Jobs	24,530
Total Personal Income	\$956,670,000
Total Population	25,492

SUMMARY

This report evaluates the economic impacts to Jasper County and the surrounding area from the proposed new interchange on I-95 and the extension of Purrysburg Road in Jasper County. This analysis is intended to provide Jasper County, the State Infrastructure Bank and others an estimate of the level of economic activity and jobs that will be stimulated by the construction of these new highway improvements over a 30-year period. These benefits are estimated to occur within the Jasper County area during the construction of the new roads and resulting capital investment in commercial, industrial and residential facilities as well as the on-going permanent economic benefits to the area once the road improvements are completed.

**THE ECONOMIC IMPACT OF THE
PROPOSED HIGHWAY CONSTRUCTION
IN JASPER COUNTY**

These impacts are outlined in this report in three distinct but related phases:

- Phase 1 Road and Interchange Construction*
- Phase 2 Construction of Commercial, Industrial and Residential
 Developments stimulated by the new roads/interchange*
- Phase 3 Ongoing/Permanent Economic Activity of the employees and
 Residents working and living in the area*

It is clear from this analysis that the new road and Interstate interchange will have substantial positive economic benefits to Jasper County and the surrounding area. Table 8 summarizes the cumulative job creation impacts from resulting from these three phases of impacts. The impacts will occur every year but are presented here for selected years in five year intervals.

As seen in Table 8, the road construction and the resulting economic activity it is expected to stimulate in the Jasper County area will result in substantial job creation. For example, within the first five years it is estimated that there will be over 3,800 jobs created in the area. By the 10th year, it is estimated that there will be over 8,100 new jobs created in Jasper County and the surrounding area. And as the projects near their respective buildout stages in 30 years, it is estimated that there will be over 28,000 new jobs created in Jasper County and the surrounding area.

Table 8 Cumulative Job Creation From Jasper County Road Improvements			
	Year 5	Year 10	Year 30
<u>Source of Economic Impact</u>			
Road Construction*	1,290	0	0
Commercial, Industrial & Residential Development Construction	953	2,150	3,514
Ongoing/Permanent	1,580	6,044	24,530
Grand Total Job Creation**	3,823	8,194	28,044
* Road construction completed in 7th year			
** Totals may not equal sum of components due to rounding.			

**THE ECONOMIC IMPACT OF THE
PROPOSED HIGHWAY CONSTRUCTION
IN JASPER COUNTY**

Notes:

¹ IMPLAN is regional modeling system developed by MIG, Inc., Stillwater, MN.

² The latest data available for the IMPLAN modeling system are for the 2007 calendar year. However, the final dollar impacts estimated in this analysis reflect 2008 prices.

THE ECONOMIC IMPACT OF THE PROPOSED HIGHWAY CONSTRUCTION IN JASPER COUNTY

METHODOLOGY

This study estimates the economic impacts on Jasper County of the proposed construction of a new interchange on I-95 at mile marker “3” and the extension of Purrysburg Road. The impact methodology used in this study is the IMPLAN regional input-output modeling system developed by MIG, Inc. of Stillwater, Minnesota. The most recent data available was used in this analysis – 2007 data. No inflation is incorporated in this analysis.

IMPLAN was developed by MIG, Inc. as a cost-effective means to develop regional input-output models. The IMPLAN accounts closely follow the accounting conventions used in the “Input-Output Study of the US Economy” by the Bureau of Economic Analysis (1980) and the rectangular format recommended by the United Nations.

The IMPLAN Input-Output Model mathematically describes commodity flows from producers to intermediate and final consumers. Purchases for final use (final demand) drive the model. Industries producing goods and services for final demand also purchase goods and services from other producers. These other producers, in turn, purchase goods and services. This buying of goods and services (indirect purchases) continues. Leakages from the region eventually stop the cycle.

The IMPLAN input-output model mathematically derives the indirect and induced effects. The resulting multipliers describe the change in output for every regional industry caused by a one-dollar change in final demand for any given industry. The notion of a multiplier rests upon the difference between the initial effect of a change in final demand and the total effects of that change. Total effects are the direct effects plus indirect effects, plus induced effects. Direct effects are the production changes associated with initial final demand changes. Indirect effects are production changes in backward-linked industries caused by the changing input needs of directly effected industries. Induced effects result from the household expenditures from the directly or indirectly generated labor income.

In essence, the multipliers estimated by this methodology represent the consecutive rounds of buying and selling that ripple through an economy. To produce one dollar of new product, employees must be hired and paid. The wages paid to these workers will then be spent on goods and services, such as food, gasoline, clothes, housing, etc. within the region and outside the region. As these cents are spent, they become income to the recipient, and the spending continues over and over again. The induced effect is the cumulative amount of spending.

THE ECONOMIC IMPACT OF THE PROPOSED HIGHWAY CONSTRUCTION IN JASPER COUNTY

The economic activity of the project also requires intermediate inputs to be purchased such as electricity, raw materials, transportation services, labor etc. These expenditures become income to the recipient and pay for the purchases of raw materials, labor, etc. They, in turn, are then spent over and over again in the economy. Purchases made from outside the region are considered “leakages” from the economy. The consecutive rounds of selling goods and services continues until these leakages from the region end the cycle. The indirect effect is the cumulative amount of such spending.

The IMPLAN databases consist of two major parts: national-level matrices and tables and economic and physical data at the county and/or state level. The national matrices are used with regional data to create a regional model.

The following national-level matrices are included with each IMPLAN database.

1. The *National Absorption Table* is a coefficient form of the National Use Table derived by dividing each element of the Use Table by the respective industry’s total dollar output. The resulting Absorption Table shows how an industry spends each dollar of outlay on goods and services to produce a dollar of output. Each column is an industry’s production function reflecting the proportions of commodities used to produce one dollar of output.
2. The *National Byproducts Table* is a coefficient form of the National Make Table derived by dividing each element by the Make Table row (industry) totals. Each industry can produce more than one commodity. The Byproducts Tables shows what percentage of an industry’s total output each commodity represents.
3. Deflators are used to adjust values from one time period to another.
4. Margins split a purchaser price into the appropriate producer values.

The local economic data in an IMPLAN database include Industry Output, Employment, Value Added and Final Demands. The value-added components are employee compensation, proprietors’ income, other property type income, and indirect business taxes. The final demands components in the initial Final Demands Table are personal consumption expenditures, state and local education and non-education purchases, federal military and non-military purchases, inventory purchases and capital formation. Regional data is applied to the national matrices to create a set of regional accounts.

THE ECONOMIC IMPACT OF THE PROPOSED HIGHWAY CONSTRUCTION IN JASPER COUNTY

THE STUDY AREA

The economic impacts of the road construction will extend throughout Jasper County as well as the surrounding counties. Given the close proximity of the surrounding counties, the study area used in this analysis includes the following four counties; Jasper, Beaufort, Hampton and Colleton. Factors of production such as labor, materials and capital freely flow between and across these county lines. For example, today's workforce is very mobile with many workers traveling 25-50 miles to work everyday. It is reasonable to assume that the vast majority of the economic impacts of the road construction would occur in these four counties.

The study area is relatively large in terms of square miles, comprising of about 2,858 square miles. The total population in the area in 2007 was a little over 229,000 people. Total employment in the five-county area was approximately 133,178 in 2007. The average household income was \$85,667 in 2007.

THE PROPOSED DEVELOPMENTS

The proposed developments included in this study are based on existing development agreements that the City of Hardeeville has approved as of December 2008. They include the Hardeeville Tract, the Sherwood Tract and the Delta Bluff development. They comprise an estimated 11,083 residential units, approximately 15.5 million square feet of industrial space and approximately 900,000 square feet of commercial/office/warehouse square feet. Absorption rates of 30 years are assumed for the three projects. The Delta project is assumed to come on line in the 6th year and the Sherwood track is assumed to come on line in the 10th year after completion of the new interchange. No inflation is incorporated in this analysis. No appreciation in real estate values is assumed in this analysis.

**THE ECONOMIC IMPACT OF THE
PROPOSED HIGHWAY CONSTRUCTION IN JASPER COUNTY**

GENERAL LIMITING CONDITIONS

This economic impact analysis is not a budget or forecasting document and is not intended to depict a definitive course of action. Moreover, economic impact analysis is not designed as a space or facility-planning document. Many assumptions underlying fiscal and economic impact analyses are based on policy decisions which, if modified, would affect the overall results.

This study is based on estimates, assumptions and other information developed by Miley, Gallo & Associates, LLC from its independent research effort, consultations with the client and its representatives, and primary and secondary sources. We have utilized sources that are deemed to be reliable but cannot guarantee their accuracy. Moreover, estimates and analysis are based on trends and assumptions and, therefore, there will usually be differences between projected and actual results because events and circumstances frequently do not occur as expected, and those differences may be material. No responsibility is assumed for inaccuracies in reporting by the client, the client's agent and representatives or any other data source used in preparing this study.

This report is based on information that was current as of March 2009, and Miley, Gallo & Associates, LLC has not undertaken any update of its research effort since that date. We have no obligation, unless subsequently engaged, to update this report or revise this analysis as presented due to events or conditions occurring after the date of this report.

Possession of this study does not carry with it the right of publication thereof or to use the name of "Miley, Gallo & Associates, LLC" in any manner without first obtaining the prior written consent of Miley, Gallo & Associates, LLC. No abstracting, excerpting or summarization of this study may be made without first obtaining the prior written consent of Miley, Gallo & Associates, LLC. This report is not to be used in conjunction with any public or private offering of securities or other similar purpose. This study may not be used for purposes other than that for which it is prepared or for which prior written consent has first been obtained from Miley, Gallo & Associates, LLC.

This study is qualified in its entirety by, and should be considered in light of, these limitations, conditions and considerations.

**THE ECONOMIC IMPACT OF THE
PROPOSED HIGHWAY CONSTRUCTION IN JASPER COUNTY**

MILEY, GALLO & ASSOCIATES, LLC

Miley, Gallo & Associates is one of the Southeast's leading economic and financial consulting firms. The firm specializes in economic impact analyses, fiscal impact analyses, feasibility reports, impact fee studies and benefit/cost modeling. Our clients include national and prominent local real estate developers, school districts, local governments, regional development agencies, and other private sector development firms. Miley, Gallo & Associates partners appear regularly before decision-makers at all levels of government and understand the values, needs and desires of the clients they represent. With offices located in Research Triangle Park, North Carolina and Columbia, South Carolina, the firm is well positioned to provide clients with hands-on service for projects throughout the entire Southeast region.

Miley, Gallo & Associates appreciates that every research project is unique and deserves a custom solution. Public policy decisions are not made overnight, and we excel at providing advice and counsel along the way. We represent our clients. Our business plan is simple: we focus on exceeding our client's expectations and building long-term relationships.

The roots of Miley, Gallo & Associates, LLC can be traced to 1993 when Harry W. Miley, Jr. Ph. D. founded Miley & Associates, Inc. After several years of successful client collaborations, Lucy L. Gallo and Dr. Harry Miley decided to leverage the depth of their experience in the accounting, finance and economic aspects of real estate transactions to form Miley, Gallo & Associates, LLC. The Company is an economic and financial consulting firm providing a range of analytical services to public and private sector clients. Miley, Gallo & Associates conducts fiscal and economic impact analyses of proposed new developments and has extensive experience in assisting clients with their economic development and community revitalization projects.



City of Hardeeville/Jasper County Application to the
South Carolina State Transportation Infrastructure Bank

APPENDIX E

ROAD CONSTRUCTION COST ESTIMATES



**City of Hardeeville/Jasper County Application to the
South Carolina State Transportation Infrastructure Bank**

Summary of Costs

Item	Description	Present-Day Value	Future Value (5 years)
1	Exit 3 Interchange (Includes new bridge over CSX RR)	\$ 39,455,000	\$ 48,003,040
2	Purrysburg Road/East West Connector Road North	\$ 10,950,000	\$ 13,322,349
3	Hwy 321 and Hwy 17 Intersection Improvements	\$ 1,500,000	\$ 1,824,979
4	Purrysburg Road and Hwy 17 Intersection Improvements	\$ 1,000,000	\$ 1,216,653
5	Hwy 170 Re-alignment and Hwy 170/17 Intersection Improvements	\$ 3,200,000	\$ 3,893,289
TOTAL \$		56,105,000	\$ 68,260,311

SIB "Grant" amount (57%)

Item	Description	Present-Day Value	Future Value (5 years)
PROPERTY DONATIONS			
1	Purrysburg Road South ROW	\$ 4,920,000	\$ 5,985,932
2	Exit 3 Interchange	\$ 7,029,060	\$ 8,551,926
3	Purrysburg Road/East West Connector Road North ROW	\$ 2,385,031	\$ 2,901,755
4	Condemned Property Donations for Intersection Improvements	\$ 2,500,000	\$ 3,041,632
Subtotal \$		16,834,091	\$ 20,481,246
CONSTRUCTION COSTS			
1	Purrysburg Road - South of I-95 (2 Lanes)	\$ 14,800,000	\$ 18,006,463
2	Purrysburg Road (Additional 2 Lanes)	\$ 10,800,000	\$ 13,139,851
Subtotal \$		25,600,000	\$ 31,146,314
TOTAL \$		42,434,091	\$ 51,627,560

County/City/Stratford "Local Match" amount (43%)

TOTAL SIB "Grant" Amount \$ 56,105,000 \$ 68,260,311
TOTAL Stratford/County/City "Local Match" Amount \$ 42,434,091 \$ 51,627,560
TOTAL Amount \$ 98,539,091 \$ 119,887,871

Local Match Percentage 43%



City of Hardeeville/Jasper County Application to the South Carolina State Transportation Infrastructure Bank

EARTHWORK, PAVING AND GRADING - FOR IMPROVEMENTS TO PURRYSBURG ROAD/EAST WEST CONNECTOR ROAD NORTH

ITEM	DESCRIPTION	QUANTITY	UNITS	UNIT PRICE	TOTAL
1	MOBILIZATION	1	LS	\$ 40,500.00	\$ 40,500.00
2	CLEARING (R/W TO R/W)	53.31	AC	\$ 5,000.00	\$ 266,550.00
3	BASE COURSE (10 IN.)	89,621	SY	\$ 20.00	\$ 1,792,420.00
4	BINDER SURFACE (2.25 IN.)	89,621	SY	\$ 13.00	\$ 1,165,073.00
5	WEARING SURFACE (1.75 IN.)	93,754	SY	\$ 10.00	\$ 937,540.00
6	PRIME COAT	89,621	SY	\$ 0.70	\$ 62,734.70
7	TACK COAT	93,754	SY	\$ 0.70	\$ 65,627.80
8	4" CONDUIT	2600	LF	\$ 8.00	\$ 20,800.00
9	6" CONDUIT	2600	LF	\$ 12.00	\$ 31,200.00
10	STRIPING	1	LS	\$ 160,000.00	\$ 160,000.00
11	EROSION CONTROL	1	LS	\$ 225,000.00	\$ 225,000.00
12	ROADWAY GRADING	288,021	SY	\$ 5.00	\$ 1,440,105.00
13	GRASSING	70,176	SY	\$ 0.70	\$ 49,123.20
14	REMOVE UNSUITABLE (MUCK)	66,357	CY	\$ 7.00	\$ 464,499.00
15	SELECT FILL FOR ROAD	132,716	CY	\$ 17.00	\$ 2,256,172.00
SUB-TOTAL EARTHWORK, PAVING AND GRADING					\$ 8,977,344.70

DRAINAGE SYSTEM

ITEM	DESCRIPTION	QUANTITY	UNITS	UNIT PRICE	TOTAL
1	BOX CULVERT	4	LS	\$ 75,925.00	\$ 303,700.00
2	24" RCP DRAINAGE PIPE	1,678	LF	\$ 50.00	\$ 83,900.00
3	24" F.E.S.	34	EA	\$ 1,500.00	\$ 51,000.00
4	STONE BACKFILL	130	EA	\$ 56.00	\$ 7,280.00
5	SAND BACKFILL	260	EA	\$ 25.00	\$ 6,500.00
SUB-TOTAL DRAINAGE SYSTEM					\$ 449,380.00
10% CONTINGENCY					\$ 912,602.47
10% ENGINEERING, PLANNING, AND SURVEYING					\$ 912,602.47
TOTAL: PURRYSBURG ROAD/EAST WEST CONNECTOR ROAD NORTH IMPROVEMENTS					\$ 10,951,229.64
COST PER MILE					\$ 3,508,646.39
COST PER LINEAR FOOT					\$ 664.52

**Purrysburg Road / East-West
Connector Road North**

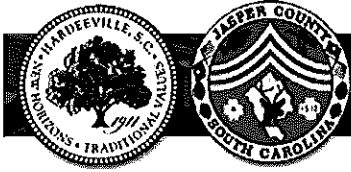


City of Hardeeville/Jasper County Application to the South Carolina State Transportation Infrastructure Bank

Intersection Improvements: Hwy 321 & Hwy 17

EARTHWORK, PAVING AND GRADING - FOR IMPROVEMENTS TO THE INTERSECTION OF HWY 321 & HWY 17

ITEM	DESCRIPTION	QUANTITY	UNITS	UNIT PRICE	TOTAL
1	MOBILIZATION	1	LS	\$ 50,000.00	\$ 50,000.00
2	PAVEMENT DEMOLITION	2375	SY	\$ 80.00	\$ 190,000.00
3	ISLAND DEMOLITION	1540	SY	\$ 50.00	\$ 77,000.00
4	CURB DEMOLITION	1570	LF	\$ 70.00	\$ 109,900.00
5	CLEARING (RW TO RW)	1.00	AC	\$ 25,000.00	\$ 25,000.00
6	BASE COURSE (10 IN.)	2,070	SY	\$ 25.00	\$ 51,750.00
7	BINDER SURFACE (2.25 IN.)	2,070	SY	\$ 15.00	\$ 31,050.00
8	WEARING SURFACE (1.75 IN.)	2,070	SY	\$ 12.00	\$ 24,840.00
9	PRIME COAT	2,070	SY	\$ 0.70	\$ 1,449.00
10	TACK COAT	2,070	SY	\$ 0.70	\$ 1,449.00
11	STRIPING	1	LS	\$ 50,000.00	\$ 50,000.00
12	EROSION CONTROL	1	LS	\$ 50,000.00	\$ 50,000.00
13	TRAFFIC CONTROL	1	LS	\$ 30,000.00	\$ 30,000.00
14	ROADWAY GRADING	4,375	SY	\$ 85.00	\$ 371,875.00
15	GRASSING	1,850	SY	\$ 2.00	\$ 3,700.00
SUB-TOTAL EARTHWORK, PAVING AND GRADING					\$ 1,068,013.00
20% CONTINGENCY					\$ 213,602.60
20% ENGINEERING, PLANNING, AND SURVEYING					\$ 213,602.60
TOTAL: HWY 321 & HWY 17 INTERSECTION IMPROVEMENTS					\$ 1,495,218.20



City of Hardeeville/Jasper County Application to the South Carolina State Transportation Infrastructure Bank

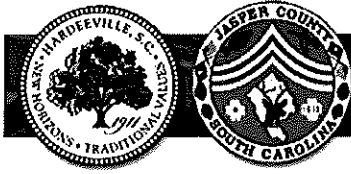
Intersection Improvements: Purrysburg Road & Hwy 17

EARTHWORK, PAVING AND GRADING - FOR IMPROVEMENTS TO THE INTERSECTION OF PURRYSBURG RD AND HWY 17

ITEM	DESCRIPTION	QUANTITY	UNITS	UNIT PRICE	TOTAL
1	MOBILIZATION	1	LS	\$ 10,000.00	\$ 10,000.00
2	CLEARING (RW TO RW)	4.00	AC	\$ 4,000.00	\$ 16,000.00
3	BASE COURSE (10 IN.)	9,960	SY	\$ 19.00	\$ 189,240.00
4	BINDER SURFACE (2.25 IN.)	9,960	SY	\$ 11.00	\$ 109,560.00
5	WEARING SURFACE (1.75 IN.)	9,960	SY	\$ 9.00	\$ 89,640.00
6	PRIME COAT	9,960	SY	\$ 0.45	\$ 4,482.00
7	TACK COAT	9,960	SY	\$ 0.45	\$ 4,482.00
8	STRIPING	1	LS	\$ 18,900.00	\$ 18,900.00
9	EROSION CONTROL	1	LS	\$ 30,450.00	\$ 30,450.00
10	ROADWAY GRADING	8,956	SY	\$ 3.00	\$ 26,868.00
11	GRASSING	8,956	SY	\$ 0.65	\$ 5,821.40
12	REMOVE UNSUITABLE FROM EXISTING DIRT ROAD (MUCK)	6,640	CY	\$ 6.00	\$ 39,840.00
13	SELECT FILL FOR ROAD	13,280	CY	\$ 15.00	\$ 199,200.00
SUB-TOTAL EARTHWORK, PAVING AND GRADING					\$ 744,483.40

DRAINAGE SYSTEM

ITEM	DESCRIPTION	QUANTITY	UNITS	UNIT PRICE	TOTAL
1	24" RCP DRAINAGE PIPE	200	LF	\$ 50.00	\$ 10,000.00
2	24" F.E.S.	2	EA	\$ 1,500.00	\$ 3,000.00
3	6" SGD (PERFORATED W/ STONE AND FILTER FABRIC)	1,640	LF	\$ 15.00	\$ 24,600.00
4	STONE BACKFILL	20	CY	\$ 56.00	\$ 1,120.00
5	SAND BACKFILL	30	CY	\$ 25.00	\$ 750.00
SUB-TOTAL DRAINAGE SYSTEM					\$ 39,470.00
10% CONTINGENCY					\$ 78,395.34
10% ENGINEERING, PLANNING, AND SURVEYING					\$ 78,395.34
TOTAL: PURRYSBURG RD & HWY 17 INTERSECTION					\$ 940,744.08



City of Hardeeville/Jasper County Application to the South Carolina State Transportation Infrastructure Bank

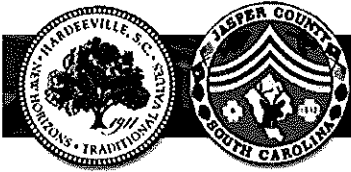
Hwy 170 Realignment and Intersection Improvements to Hwy 170 & Hwy 17

EARTHWORK, PAVING AND GRADING - FOR HWY 170 RE-ALIGNMENT AND HWY 170/17 INTERSECTION IMPROVEMENTS

ITEM	DESCRIPTION	QUANTITY	UNITS	UNIT PRICE	TOTAL
1	MOBILIZATION	1	LS	\$ 40,500.00	\$ 40,500.00
2	PAVEMENT DEMOLITION	37,000	SY	\$ 7.00	\$ 259,000.00
3	CLEARING (R/W TO R/W)	4.57	AC	\$ 8,000.00	\$ 36,560.00
4	BASE COURSE (10 IN.)	20,000	SY	\$ 25.00	\$ 500,000.00
5	BINDER SURFACE (2.25 IN.)	20,000	SY	\$ 15.00	\$ 300,000.00
6	WEARING SURFACE (1.75 IN.)	20,000	SY	\$ 12.00	\$ 240,000.00
7	PRIME COAT	20,000	SY	\$ 0.70	\$ 14,000.00
8	TACK COAT	20,000	SY	\$ 0.70	\$ 14,000.00
9	STRIPING	1	LS	\$ 50,000.00	\$ 50,000.00
10	EROSION CONTROL	1	LS	\$ 80,000.00	\$ 80,000.00
11	ROADWAY GRADING	46,356	SY	\$ 6.00	\$ 278,136.00
12	GRASSING	46,356	SY	\$ 0.70	\$ 32,449.20
13	REMOVE UNSUITABLE (MUCK)	13,333	CY	\$ 9.00	\$ 119,997.00
14	SELECT FILL FOR ROAD	26,667	CY	\$ 15.00	\$ 400,005.00
SUB-TOTAL EARTHWORK, PAVING AND GRADING					\$ 2,364,647.20

DRAINAGE SYSTEM

ITEM	DESCRIPTION	QUANTITY	UNITS	UNIT PRICE	TOTAL
1	24" RCP DRAINAGE PIPE	800	LF	\$ 50.00	\$ 40,000.00
2	24" F.E.S.	10	EA	\$ 2,500.00	\$ 25,000.00
3	STONE BACKFILL	200	CY	\$ 56.00	\$ 11,200.00
4	SAND BACKFILL	400	CY	\$ 30.00	\$ 12,000.00
SUB-TOTAL DRAINAGE SYSTEM					\$ 88,200.00
20% CONTINGENCY					\$ 490,569.44
10% ENGINEERING, PLANNING, AND SURVEYING					\$ 245,284.72
TOTAL: HWY 170 RE-ALIGNMENT AND HWY 170/17 INTERSECTION IMPROVEMENTS					\$ 3,188,701.36



City of Hardeeville/Jasper County Application to the South Carolina State Transportation Infrastructure Bank

Purrysburg Road South of I-95 (Two Lanes)

EARTHWORK, PAVING, GRADING AND DRAINAGE - FOR IMPROVEMENTS TO PURRYSBURG ROAD - SOUTH OF I-95 (2 LANES)

ITEM	DESCRIPTION	QUANTITY	UNITS	UNIT PRICE	TOTAL
1	MOBILIZATION	1	LS	\$ 40,500.00	\$ 40,500.00
2	CLEARING FOR REMAINDER OF 150' RW	22.04	AC	\$ 8,000.00	\$ 176,320.00
3	BASE COURSE (10 IN.)	56,450	SY	\$ 25.00	\$ 1,411,250.00
4	BINDER SURFACE (2.25 IN.)	56,450	SY	\$ 16.00	\$ 903,200.00
5	WEARING SURFACE (1.75 IN.)	56,450	SY	\$ 16.00	\$ 903,200.00
6	PRIME COAT	56,450	SY	\$ 0.70	\$ 39,515.00
7	TACK COAT	56,450	SY	\$ 0.70	\$ 39,515.00
8	24" STANDARD CURB AND GUTTER	20,508	LF	\$ 20.00	\$ 410,160.00
9	4" CONDUIT	1250	LF	\$ 8.00	\$ 10,000.00
10	6" CONDUIT	1250	LF	\$ 12.00	\$ 15,000.00
11	EROSION CONTROL	1	LS	\$ 300,000.00	\$ 300,000.00
12	ROADWAY GRADING	213,311	SY	\$ 7.00	\$ 1,493,177.00
13	GRASSING	156,861	SY	\$ 0.70	\$ 109,802.70
14	REMOVE UNSUITABLE (MUCK)	71,104	CY	\$ 9.00	\$ 639,936.00
15	SELECT FILL FOR ROAD	142,208	CY	\$ 17.00	\$ 2,417,536.00
16	CURB INLETS	50	EA	\$ 4,000.00	\$ 200,000.00
17	24" RCP DRAINAGE PIPE	3,750	LF	\$ 50.00	\$ 187,500.00
18	24" F.E.S.	50	EA	\$ 2,500.00	\$ 125,000.00
19	OUTFALL LAGOON/DITCHING	1	LS	\$ 750,000.00	\$ 750,000.00
20	6" SGD (PERFORATED W/ STONE AND FILTER FABRIC)	20,508	LF	\$ 20.00	\$ 410,160.00
21	STONE BACKFILL	280	CY	\$ 56.00	\$ 15,680.00
22	SAND BACKFILL	560	CY	\$ 30.00	\$ 16,800.00
23	TRAFFIC CONTROL	1	LS	\$ 704,000.00	\$ 704,000.00
24	4" WHITE SOLID LINE THERMOPLASTIC	19198	LF	\$ 0.60	\$ 11,518.80
25	4" YELLOW SOLID LINE THERMOPLASTIC	19198	LF	\$ 0.60	\$ 11,518.80
26	24" WHITE SOLID LINE 125 MIL	160	LF	\$ 6.50	\$ 1,040.00
27	WHITE SINGLE ARROWS TYPE 2	12	EA	\$ 75.00	\$ 900.00
28	YELLOW PAVEMENT MARKERS BI-DIR.	240	EA	\$ 6.50	\$ 1,560.00
29	PERMANENT SIGNING	1	LS	\$ 5,000.00	\$ 5,000.00
SUB-TOTAL EARTHWORK, PAVING, GRADING AND DRAINAGE					\$ 11,349,789.30
20% CONTINGENCY					\$ 2,269,957.86
10% ENGINEERING, PLANNING, PERMITTING, LEGAL AND SURVEYING					\$ 1,134,978.93
TOTAL: PURRYSBURG ROAD - SOUTH OF I-95 (2 LANES)					\$ 14,754,726.09
COST PER MILE					\$ 4,057,972.38
COST PER LINEAR FOOT					\$ 768.56

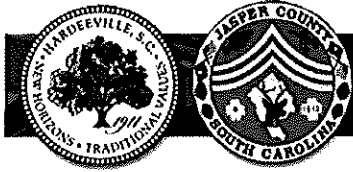


City of Hardeeville/Jasper County Application to the South Carolina State Transportation Infrastructure Bank

Purrysburg Road South of I-95 (Additional Two Lanes)

EARTHWORK, PAVING, GRADING AND DRAINAGE- FOR IMPROVEMENTS TO PURRYSBURG ROAD SOUTH OF I-95 (ADDITIONAL 2 LANES)

ITEM	DESCRIPTION	QUANTITY	UNITS	UNIT PRICE	TOTAL
1	MOBILIZATION	1	LS	\$ 40,500.00	\$ 40,500.00
2	BASE COURSE (10 IN.)	55,461	SY	\$ 25.00	\$ 1,386,525.00
3	BINDER SURFACE (2.25 IN.)	55,461	SY	\$ 16.00	\$ 887,376.00
4	WEARING SURFACE (1.75 IN.)	55,461	SY	\$ 16.00	\$ 887,376.00
5	PRIME COAT	55,461	SY	\$ 0.70	\$ 38,822.70
6	TACK COAT	55,461	SY	\$ 0.70	\$ 38,822.70
7	24" STANDARD CURB AND GUTTER	19,198	LF	\$ 20.00	\$ 383,960.00
8	4" CONDUIT	1250	LF	\$ 8.00	\$ 10,000.00
9	6" CONDUIT	1250	LF	\$ 12.00	\$ 15,000.00
10	EROSION CONTROL	1	LS	\$ 350,000.00	\$ 350,000.00
11	ROADWAY GRADING	106,656	SY	\$ 7.00	\$ 746,592.00
12	GRASSING	51,195	SY	\$ 0.70	\$ 35,836.50
13	REMOVE UNSUITABLE (MUCK)	36,974	CY	\$ 9.00	\$ 332,766.00
14	SELECT FILL FOR ROAD	73,948	CY	\$ 17.00	\$ 1,257,116.00
15	CURB INLETS	50	EA	\$ 4,000.00	\$ 200,000.00
16	24" RCP DRAINAGE PIPE	3,750	LF	\$ 50.00	\$ 187,500.00
17	24" F.E.S.	50	EA	\$ 2,500.00	\$ 125,000.00
18	OUTFALL LAGOONS/DITCHING	1	LS	\$ 250,000.00	\$ 250,000.00
19	6" SGD (PERFORATED W/ STONE AND FILTER FABRIC)	19,198	LF	\$ 20.00	\$ 383,960.00
20	STONE BACKFILL	280	CY	\$ 56.00	\$ 15,680.00
21	SAND BACKFILL	560	CY	\$ 30.00	\$ 16,800.00
22	TRAFFIC CONTROL	1	LS	\$ 672,000.00	\$ 672,000.00
23	4" WHITE SOLID LINE THERMOPLASTIC	19198	LF	\$ 0.60	\$ 11,518.80
24	4" YELLOW SOLID LINE THERMOPLASTIC	19198	LF	\$ 0.60	\$ 11,518.80
25	24" WHITE SOLID LINE 125 MIL	160	LF	\$ 6.50	\$ 1,040.00
26	WHITE SINGLE ARROWS TYPE 2	12	EA	\$ 75.00	\$ 900.00
27	YELLOW PAVEMENT MARKERS BI-DIR.	240	EA	\$ 6.50	\$ 1,560.00
28	PERMANENT SIGNING	1	LS	\$ 5,000.00	\$ 5,000.00
SUB-TOTAL EARTHWORK, PAVING, GRADING AND DRAINAGE					\$ 8,293,170.50
20% CONTINGENCY					\$ 1,658,634.10
10% ENGINEERING, PLANNING, PERMITTING, LEGAL AND SURVEYING					\$ 829,317.05
TOTAL: PURRYSBURG ROAD SOUTH OF I-95 (ADDITIONAL 2 LANES)					\$ 10,781,121.65
COST PER MILE					\$ 2,965,117.32
COST PER LINEAR FOOT					\$ 561.58



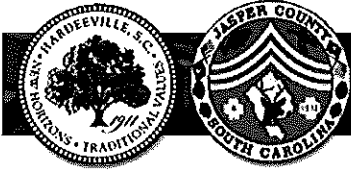
**City of Hardeeville/Jasper County Application to the
South Carolina State Transportation Infrastructure Bank**

Right of Way Donations

PURRYSBURG SOUTH (RIGHT OF WAY)	
	<u>PARCEL SIZE (ACRE)</u>
	32.1
	8.3
	2.5
	0.6
	8.4
	2.3
	-2.5
	-2.5
TOTAL	49.2
PRESENT VALUE	\$100,000.00 PER ACRE
TOTAL VALUE	\$4,920,000.00

EXIT 3 INTERCHANGE	
	<u>PARCEL SIZE (ACRE)</u>
	8.5
	7.8
	8.4
	8.9
TOTAL	33.6
PRESENT VALUE	\$209,225.00 PER ACRE
TOTAL VALUE	\$7,029,960.00

PURRYSBURG NORTH	
	<u>PARCEL SIZE (ACRE)</u>
	2.6
	48
	50.6
PRESENT VALUE	\$47,135.00 PER ACRE
TOTAL VALUE	\$2,385,031.00



City of Hardeeville/Jasper County Application to the
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APPENDIX F

LETTER TO SCDOT



Jasper County
in association with
The City of Hardeeville



April 15, 2009

Mr. Tony Chapman
Deputy Secretary for Engineering
South Carolina Department of Transportation
955 Park Street
PO Box 191
Columbia, SC 29202-0191

Dear Mr. Chapman:

Enclosed for your review are 5 copies of an application to the State Infrastructure Bank (SIB) for assistance in funding of a proposed new interchange at approximately milepost 3 on I-95.

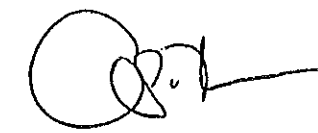
In compliance with the requirements of the "South Carolina Infrastructure Bank ("Bank") Financial Assistance Application Process," dated May 2008, we request your comments on the following:

1. The accuracy and reasonableness of the estimated costs of the project;
2. The accuracy and reasonableness of the proposed disbursement timeframes;
3. The useful life forecasts for the project;
4. SCDOT willingness to assume future maintenance requirements for the project and projected cost therefore;
5. SCDOT comment on the timetable for the project;
6. SCDOT willingness to assume responsibility for the preconstruction and construction activities associated with development of the project.

Thank you for your assistance. We look forward to receipt of your comments.

Sincerely,


Kevin Griffin
City Manager
City of Hardeeville

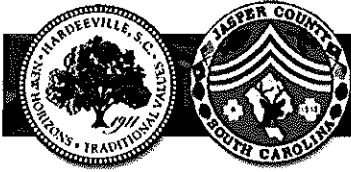

Andrew P. Fulghum
County Administrator
Jasper County



City of Hardeeville/Jasper County Application to the
South Carolina State Transportation Infrastructure Bank

APPENDIX G

I-95 and US 17 INTERCHANGE CRASH ANALYSIS

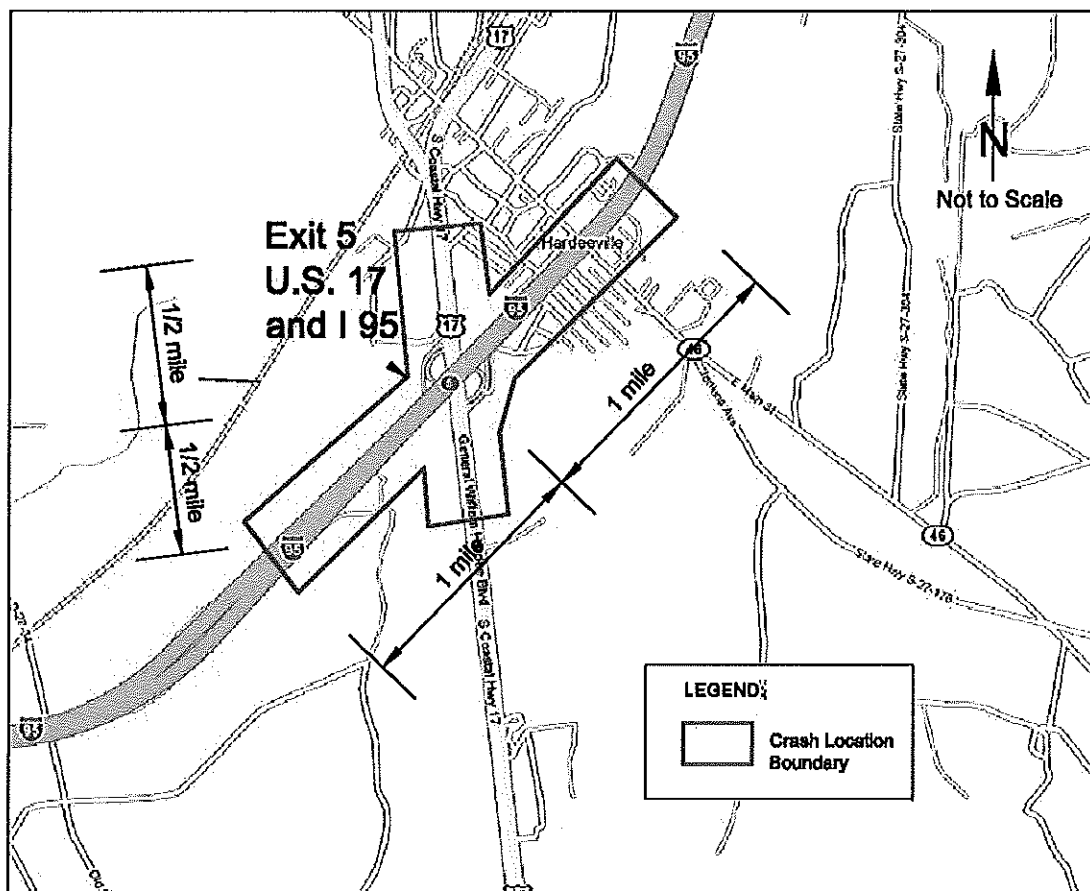


I-95 and US-17 Interchange Crash Analysis

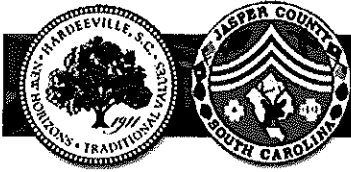
March 24, 2009

A safety and economic loss analysis was conducted at the US 17 interchange with Interstate 95 (exit # 5) in Jasper County, South Carolina utilizing historic crash data. Historic crash data for the most recent six year period (2003 to 2008) was provided by *Office of Highway Safety, South Carolina Department of Public Safety*. The location map of the study interchange is shown in **Figure 1**.

Figure 1: Study Interchange Location Map



I-95 travels diagonally along northeast-southwest through a predominantly rural area at the study location. I-95 is a four-lane facility divided by wide grass median. A speed limit of 70 mph is posted on the mainline I-95 at the study location. Independence Boulevard (US 278, exit # 8) is the adjacent interchange and is located approximately three miles north of the study interchange. GA 21 (exit # 109), located in Chatham County, Georgia is approximately nine miles south from the study interchange.



City of Hardeeville/Jasper County Application to the South Carolina State Transportation Infrastructure Bank

US 17 travels north-south through a predominantly rural area at the study location. US 17 is a five-lane undivided facility with a continuous center lane dedicated for the turning vehicle. Various types of businesses such as restaurants, gas stations with convenient stores and service stations are located on both sides of US 17 near the interchange.

The crash data was examined to determine the frequency and type of crashes that had occurred during the six year analysis period. Economic loss analysis was also performed for each year.

Interchange Crash Total

Table 1 depicts the total crashes that occurred at the interchange between January 1, 2003 to December 31, 2008.

Table 1: Total Number of Crashes

Year	I-95	US-17	Total
2003	46	14	60
2004	62	17	79
2005	80	23	103
2006	82	21	103
2007	66	19	85
2008	71	17	88
Total	407	111	518

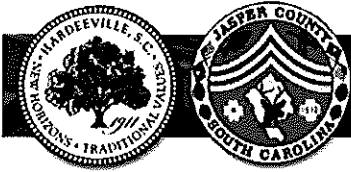
A total of 518 crashes occurred in the six year period at the study interchange. Most of the crashes (407, 79%) took place on I-95. Two consecutive years (2005 and 2006) experienced the highest combined total of crashes with 103 crashes in each year (20% of the total).

Segment Actual Crash Rate (ACR)

The Actual Crash Rate (ACR) for both the I-95 and US 17 segments were calculated using the procedure outlined in the *Highway Safety Improvement Program Guideline (HSIPG)*. A mathematical formula was used to calculate the segment ACR per 100 million vehicles miles (100 MVM).

$$ACR = \frac{\text{Number of Crashes} \times 100,000,000}{365 \times \text{AADT} \times \text{Segment Length}}$$

The ACR provides the ratio of the number of crashes that occurred annually at a specific location for each 100 million entering vehicles for the specific segment length.



City of Hardeeville/Jasper County Application to the South Carolina State Transportation Infrastructure Bank

The crashes on I-95 that occurred within one mile on either side of the study interchange were considered for this analysis. For US 17, the analysis was performed for a half mile on both sides of the interchange. **Table 2** depicts the segment ACR for each study year. The study year Average Annual Daily Traffic (AADT) for both I-95 and US 17 were obtained from the SCDOT website.

Table 2: Segment Actual Crash Rate

Year	AADT (vpd)	Total Number of Crashes	Actual Crash Rate (per 100 MVM)
I-95 Segment			
2003	47,000	46	134.07
2004	49,900	62	170.02
2005	49,500	80	221.39
2006	50,200	82	223.76
2007	51,000	66	177.28
2008	48,500	71	200.54
Average Crash Rate			187.84
US-17			
2003	10,200	14	376.04
2004	10,200	17	456.62
2005	10,400	23	605.90
2006	10,700	21	537.70
2007	11,000	19	473.23
2008	11,400	17	408.56
Average Crash Rate			476.34

Based on the SCDOT guideline, the statewide average actual crash rate is 267.10 crashes per 100 million vehicle miles (MVM).

The ACR on US 17 segment exceeds the statewide average for all study years (2003 to 2008). Year 2005 shows the highest actual crash rate on US 17 among all the six year period with a value of 605.90 crashes per 100 MVM. The primary reason behind this high 2005 ACR is due to two factors; (a) highest number of crashes (23) and (b) the low daily volume (AADT 10,400).

The ACR on I-95 for the entire study period remained within the statewide threshold. The average rate on I-95 segment was calculated as 187.84 crashes per 100 MVM.

I-95 Freeway Crash Statistics

The interchange crashes that occurred during the six year period were grouped by fatality, injuries, property damage, lighting and pavement condition. Detailed crash statistics along I-95 are summarized in **Table 3**.



City of Hardeeville/Jasper County Application to the South Carolina State Transportation Infrastructure Bank

Table 3: Crash Statistics along I-95 Freeway

Year	Number of Crashes	Fatal Crashes (Number of Fatalities)	Injury Crashes (Number of Injuries)	Property Damage Crashes	Lighting Day (Night)	Pavement Condition Dry (Wet)
2003	46	2 (2)	8 (11)	36	29 (17)	38 (8)
2004	62	3 (3)	8 (27)	51	40 (22)	43 (19)
2005	80	4 (4)	17 (43)	59	57 (23)	55 (25)
2006	82	0 (0)	13 (24)	69	58 (24)	55 (27)
2007	66	0 (0)	10 (16)	56	45 (21)	43 (23)
2008	71	0 (0)	10 (14)	61	44 (27)	41 (30)
Total	407	9 (9)	66 (135)	332	273 (134)	275 (132)
Average	67.8	1.5 (1.5)	11.0 (22.5)	55.3	45.5 (22.3)	45.8 (22.0)

A total of 407 crashes occurred at study interchange in the six year period, with an average of 68 crashes per year. There were a total of nine fatal crashes with nine fatalities, 66 injury crashes (an average rate of 11.0 injury crashes per year) that resulted in a total of 135 people sustaining injuries (an average rate of 22.5 injuries per year). A total of 332 crashes resulted in property damage (an average rate of 55.3 property damage crashes per year). Two hundred and seventy three crashes occurred during daylight hours (an average rate of 45.5 per year) and 134 crashes occurred during hours of darkness (an average rate of 22.3 per year). A considerable amount of crashes (67%) occurred during daylight. The majority of the crashes (275 crashes - about 67%) occurred on dry pavement and the remaining crashes (132 crashes - about 33%) occurred on wet pavement.

Fatal Crashes on I-95

A total of nine (9) fatal crashes occurred in consecutive years (2003-2005). No fatal crashes have occurred between 2006 and 2008.

The first fatal crash occurred during the analysis period on October 4, 2003 at 2:50 AM at a location approximately 530 feet south of the interchange. According to the crash report, the driver fell asleep at time of the crash. The crash occurred at night with dry pavement conditions. In this fatal crash, one person was killed.

The second fatal crash occurred on October 17, 2003 at 6:50 PM at a location about 320 feet south of the interchange. Based on the crash report, a driver made an improper lane change and one person was killed. The weather was clear and the pavement was dry during the crash.



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The third fatal crash occurred on April 25, 2004 at 5:40 PM at a location about 100 feet north of the interchange. Based on the crash report, the driver ran off the road and the vehicle overturned. One person was killed during this crash. The weather was clear and the pavement was dry during the crash.

The fourth fatal crash occurred on May 11, 2004 at 3:15 PM at a location about 320 feet north of the interchange. Based on the crash report, the driver lost control and overturned due to tire problems. The crash occurred on a rainy day and one person was killed at this incident.

The fifth fatal crash occurred on November 29, 2004 at 7:13 AM at a location about 275 feet north of the interchange. According to the crash report, the driver fell asleep and overturned. The crash occurred at daylight in dry pavement conditions. In this fatal crash, one person was killed.

The sixth fatal crash occurred on March 24, 2005 at 4:01 AM at a location about 1,350 feet north of the interchange. According to the crash report, the driver fell asleep and ran off the road and hit a tree. The crash occurred at night on dry pavement and one person was killed.

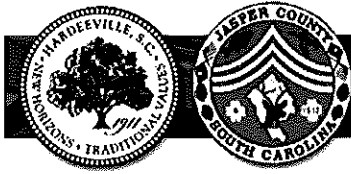
The seventh fatal crash occurred on February 27, 2005 at 4:10 AM at a location about 3,175 feet south of the interchange. According to the crash report, the driver fell asleep and ran off the road and hit a tree. The crash occurred at night on a rainy day with wet pavement conditions. One person was killed.

The eighth fatal crash occurred on May 31, 2005 at 4:15 PM at the interchange. The crash report documents that the driver was driving over the posted speed limit and hit a guard rail. The crash occurred on a rainy day with wet pavement conditions. One person was killed at this incident.

The ninth fatal crash occurred on November 5, 2005 at 10:45 AM at a location about one mile north of the interchange. Based on the crash report, the driver lost control and overturned due to tire problems. The crash occurred in clear and dry conditions and one person was killed.

I-95 Freeway Crash Types

Table 4 summarizes crashes by type along I-95 freeway. The highest recorded crash type was related to the speed of the vehicles, *Too Fast for Conditions* (106 crashes, 26% of all crashes) followed by *Improper Lane Usage/Change* (46 crashes, 11% of all crashes). A total of 42 crashes (10% of all crashes) occurred due to driver *Distraction/Inattention*. A combined total of 49 crashes (12% of total) occurred due to driver *Fatigue/Asleep* and the vehicle *Ran off the Road*.



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Table 4: Crash Type along I-95 Freeway

Crash Type	Year						Total	Average	Percent (%)
	2003	2004	2005	2006	2007	2008			
Too Fast for Conditions	10	18	21	15	20	22	106	18	26%
Improper Lane Usage/Change	6	5	8	11	9	7	46	8	11%
Distracted/Inattention	6	6	7	10	4	9	42	7	10%
Tires/Wheels/Debris	5	4	7	4	5	6	31	5	8%
Run off Road	2	5	9	3	5	1	25	4	6%
Fatigue/Asleep	1	3	8	4	2	6	24	4	6%
Followed too closely	0	6	2	9	2	2	21	4	5%
Overcorrecting/Over-steering	1	1	2	4	2	6	16	3	4%
Other Improper Action (Driver)	0	1	0	6	3	0	10	2	2%
Failed to Yield ROW	2	1	3	2	1	1	10	2	2%
Under the Influence	0	1	0	0	0	1	2	0	0%
Improper Turn	0	0	1	0	0	1	2	0	0%
Unknown	1	4	3	2	2	1	13	2	3%
Other	12	7	9	12	11	8	59	10	14%
Total	46	62	80	82	66	71	407		

A combined total of 59 crashes (17% of the total) occurred due to *Other* crash types. *Other* crash types include, *Weather Conditions* (20 crashes, 5% of total), *Swerving to Avoid Object* (9 crashes, 2% of total), *Animal in Road* (7 crashes, 2% of total), *Cargo* (7 crashes, 2% of total), *Vehicle Defect* (6 crashes, 1% of total), *Aggressive Driving* (2 crashes, less than 1% of total), *Obstruction in Roadway* (2 crashes, less than 1% of total), *Other Roadway Factor* (2 crashes, less than 1% of total). There was only one crash for the entire study period for each of the following crash types, *Medical Related*, *Non-Motorist Inattentive*, *Truck Coupling*, *Unknown Vehicle Defect*, *Vision Obscured*, and *Wrong Side/Wrong Way*.



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US 17 Crash Statistics

The crashes occurred during the six year period is grouped by fatality, injuries, property damage, lighting and pavement condition. The crashes that occurred at a distance half-mile along US 17 on both sides of the interchange is considered for this analysis. Detailed crash statistics along US 17 are summarized in **Table 5**.

Table 5: Crash Statistics along US 17

Year	Number of Crashes	Fatal Crashes (Number of Fatalities)	Injury Crashes (Number of Injuries)	Property Damage Crashes	Lighting Day (Night)	Pavement Condition Dry (Wet)
2003	14	0 (0)	3 (6)	11	9 (5)	13 (1)
2004	17	0 (0)	5 (8)	12	11 (6)	12 (5)
2005	23	0 (0)	6 (11)	17	20 (3)	17 (6)
2006	21	0 (0)	6 (9)	15	15 (6)	19 (2)
2007	19	0 (0)	7 (7)	12	14 (5)	13 (6)
2008	17	0 (0)	3 (9)	14	8 (9)	14 (3)
Total	111	0 (0)	30 (50)	81	77 (34)	88 (23)
Average	18.5	0 (0)	5.0 (8.3)	13.5	12.8 (5.7)	14.7 (3.8)

A total of 111 crashes occurred at study interchange in the six year period, with an approximate average of 19 crashes per year. There were no fatal accidents, 30 injury crashes (an average rate of 5.0 injury crashes per year) that resulted in a total of 50 people sustaining injuries (an average rate of 8.3 injuries per year). A total of 81 crashes resulted in property damage (an average rate of 13.5 property damage crashes per year). Seventy seven crashes occurred during daylight hours (an average rate of 12.8 per year) and 34 crashes occurred during hours of darkness (an average rate of 5.7 per year). A considerable amount of crashes (69%) occurred during daylight. The majority of the crashes (88 - about 79%) occurred on dry pavement and the remaining crashes (23 - about 21%) occurred on wet pavement.

US 17 Crash Types

Table 6 summarizes crashes by type along US-17 at the study interchange. The highest recorded crash type was *Failed to yield ROW* crash type (44 crashes, 40% of all crashes) followed by *Improper lane Usage/Change* (17 crashes, 15% of all crashes). A total of nine crashes each (8% of all crashes) occurred due to two crash types, *Distraction/Inattention* and *Too Fast for Conditions*. Seven crashes (6% of the total) occurred due to drivers making an *Improper Turn* along US 17.

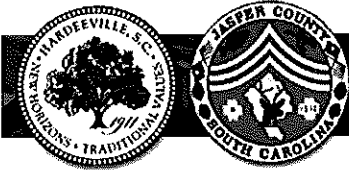


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Table 6: Crash Type along US 17

Crash Type	Year						Total	Average	Percent (%)
	2003	2004	2005	2006	2007	2008			
Too Fast for Conditions	1	1	5	1	1	0	9	2	8%
Improper Lane Usage/Change	2	5	1	4	5	0	17	3	15%
Distracted/Inattention	3	0	2	2	0	2	9	2	8%
Tires/Wheels/Debris	0	0	0	0	0	0	0	0	0%
Run off Road	1	0	0	0	0	0	1	0	1%
Fatigue/Asleep	0	0	1	0	0	0	1	0	1%
Followed too closely	0	0	0	0	0	0	0	0	0%
Overcorrecting/Over-steering	0	0	0	0	1	0	1	0	1%
Other Improper Action (Driver)	0	1	0	1	0	1	3	1	3%
Failed to Yield ROW	4	8	10	7	9	6	44	7	40%
Under the Influence	0	0	0	0	1	2	3	1	3%
Improper Turn	2	0	0	3	1	1	7	1	6%
Unknown	1	1	2	0	0	2	6	1	5%
Other	0	1	2	3	1	3	10	2	9%
Total	14	17	23	21	19	17	111		

A combined total of 10 crashes (9% of the total) occurred due to *Other* crash types. *Other* crash types incorporate *Weather Conditions* (3 crashes, 3% of total), *Swerving to Avoid Object* (2 crashes, 2% of total), *Animal in Road* (3 crashes, 3% of total). There was only one crash (1% of total) for the entire study period for each of the following crash types, *Unknown Vehicle Defect* and *Vision Obscured*.



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Economic Loss Analysis

Economic loss analyses were conducted for the combined total of all crashes occurred at the study interchange and for each individual year of the study period. The costs associated with the crashes were obtained from the *Federal Highway Administration (FHWA)* document, *Intersection Safety Action Plan, June 2006*. Different costs are assigned for each fatality or an injury or property damage accident. The costs for each of the individual categories were adopted on February 12, 2002. The original costs are shown as follows in 2002 dollar amount:

- Fatality: \$3,000,000
- Serious Injury: \$209,000
- None Serious Injury: \$42,000
- Possible Injury: \$22,000
- Property Damage: 2,300

The crash data received from the *South Carolina Department of Highway Safety* does not include any specific information about the type of injury crashes (i.e. serious or non-serious). Therefore an average cost of \$91,000 for each injury crash was used to perform the economic loss analysis. **Table 7** shows detail economic analysis.

Table 7: Economic Loss Analysis

Year	Fatal		Injury		Property Damage		Total Loss (2002\$)	Total Loss (2009\$)
	Number	Fatal Cost (2002\$)	Number	Average Injury Cost* (2002\$)	Number	Property Damage Cost (2002\$)		
2003	2	\$6,000,000	11	\$1,001,000	47	\$108,100	\$7,109,100	\$7,820,010
2004	3	\$9,000,000	13	\$1,183,000	63	\$144,900	\$10,327,900	\$11,360,690
2005	4	\$12,000,000	23	\$2,093,000	76	\$174,800	\$14,267,800	\$15,694,580
2006	0	\$0	19	\$1,729,000	84	\$193,200	\$1,922,200	\$2,114,420
2007	0	\$0	17	\$1,547,000	68	\$156,400	\$1,703,400	\$1,873,740
2008	0	\$0	13	\$1,183,000	75	\$172,500	\$1,355,500	\$1,491,050
Total	9	\$27,000,000	96	\$8,736,000	413	\$949,900	\$36,685,900	\$40,354,490
Average							\$6.1M/year	\$6.7M/year

Note: Costs are obtained from FHWA's Intersection Safety Action Plan, June 2006

* Average cost of serious, non-serious and possible injuries

The total economic loss calculated during the six year period is approximately \$37 million with an average economic loss of \$6.1 million per year (2002 dollars).

A conservative inflation rate value of 1.5 percent per year was applied on the 2002 dollar amount to obtain the present value of the total economic loss. The 2009 present



City of Hardeeville/Jasper County Application to the South Carolina State Transportation Infrastructure Bank

value of total economic loss is approximately \$40 million. The average annual economic cost is about \$6.7 million (2009 dollars).

Graphical Presentation

The total number of crashes, fatalities and the total economic loss as of the 2009 dollar amount are shown graphically in **Figure 2** at the study interchange. The data is presented for each individual year of the study period.

Figure 2: Crash Data Summary Table at the Study Interchange

