

# **APPENDIX B**

## **Advanced Project Planning Report**

# APPR

## Advanced Project Planning Report for Proposed Improvements to US 17 From Georgia State Line to SC 170 Jasper County

DRAFT

ROAD WORK  
NEXT 2 MILES



October 2007

**ADVANCED PROJECT PLANNING REPORT**  
**for**  
**Proposed Improvements to US 17 from Georgia State line to SC 170**  
**Jasper County**



Project Abstract:

The South Carolina Department of Transportation in partnership with the Low Country Council of Governments has developed this Advanced Project Planning Report (APPR) for the proposed improvements to US 17 from Georgia State Line to SC 170 in Jasper County. This APPR is a preliminary evaluation conducted within the study area to identify the potential benefits, impacts and areas of concern to the human and natural environment by the proposed roadway improvement project. The project's focus is to upgrade the SC 9 corridor in anticipation of future growth along the corridor.

_____	_____
Date of Approval	MPO/COG Planner
_____	_____
Date of Approval	MPO/COG Executive Director
_____	_____
Date of Approval	SCDOT Planner
_____	_____
Date of Approval	SCDOT Chief of Statewide Planning
_____	_____
Date of Approval	SCDOT Director of Planning

**MPO/COG/City/County Officials:**

_____	_____
Date of Approval	Signature & Title
_____	_____
Date of Approval	Signature & Title

For additional information please contact:  
 Mr. Mike Sullivan, P.E., Chief of Statewide Planning  
 S.C. Department of Transportation, P.O. Box 191, Columbia, SC 29202-0191  
 Telephone: (803) 737-4662

## INTRODUCTION

The South Carolina Department of Transportation (SCDOT), in partnership with the Lowcountry Council of Governments, has developed this Advanced Project Planning Report (APPR) for the proposed widening of US 17 from Georgia State Line to SC 170, for a total of approximately 6.6 miles, in Jasper County. The APPR is a preliminary evaluation conducted within the study area to identify the potential benefits, impacts and areas of concern to the human and natural environment by the proposed roadway improvement project.

## PURPOSE AND NEED

**Background-** US 17 is a north-south United States highway that spans the southeastern United States and is close to the Atlantic Coast for much of its length. Currently, the section of US 17 within the proposed widening, starts at Back River and ends at its intersection with SC 170.

**Project Goal-** The purpose of the project is to improve capacity and improve operations along proposed improvements.

**Current Roadway Deficiencies-** Per Bridge Maintenance the bridge over the CSX Railroad, at mile post 4.83, is both functionally and structurally obsolete.

**Funding Priority-** \$2.5 million has been identified in the STIP for the year 2007-2012.

## EXISTING FACILITY

**Roadway Descriptions-** The existing segment of US 17, from the Back River to SC 170, is a two lane paved roadway with earth shoulders for the majority of the segment. At mile post 4.83 US 17 crossed an abandoned railroad track, through a grade separated structure that that was built in 1954.

US 17, within the proposed improvement, is classified as a Principal Arterial.

**Mass Transit Accommodations-** Per Mass Transit office, Lowcountry Regional Transportation Authority (LRTA) currently contracts with the Jasper County Council on Aging and the Jasper County Disabilities and Special Needs. These two agencies provide transportation services to individuals living in Jasper County. No other form of public transportation is available.

**Cross Sections-** The existing cross section along US 17 within the proposed improvements consists of a mostly 2-lane roadway (2-12ft. lanes) with 5ft. earth shoulders. At the approach of US 17 to SC 170, US 17 widens from a two lane roadway (24ft.) to a four lane (48ft.) roadway with 99ft. median. See **Appendix E** for US 17 Highway Logmile Listing.

**Traffic Data-** The Average Daily Traffic volume (ADT) within the proposed improvements along US 17 was 14,600 vehicles per day in 2006. Based on this ADT, in 2006, the segment of US 17 between Georgia state line and SC 170 operated at a level of service D.

Based on the linear progression data, the ADT for the year 2030 is projected at approximately 25,800 vehicles per day (approximately 2.5% annual growth rate) on US 17 (between Georgia State Line and SC 170). This will result in a **level of service F** for the existing segment of US 17.

It is important to note that the projected 2030 level of service does not include the effect of the additional ADT generated due to the proposed Jasper Port.

**Crash Data-** In the past three years (2004-2006), there were a total of 109 crashes on US 17, between Georgia state line and SC 170. These crashes have resulted in 2 fatalities, 43 injuries and 64 property damage only crashes (see **Appendix E** for the break down of crash types).

The calculated crash rate (crashes per million miles of travel), which is used to evaluate road's safety record, was 1.0 crashes per million miles traveled.

**Right of Way-** No right of way plans were located for the proposed improvements; however, plans for US 17 at SC 170 intersection/interchange were located and can be found in **Appendix E**.

**Pavement Condition-** Based on the data compiled, the 2004 Average Pavement Quality Index (PQI) is 1.86 within the proposed project. This indicates that the pavement was in **very poor condition** in 2004. (See **Appendix E** for pavement data).

**Bridges/Structures-** There is a bridge (MP 4.83) over an existing abandoned railroad crossing. Per SCDOT Bridge Maintenance Section, the bridge was built in 1954 and has a sufficiency rating of 44.9. The bridge is both structurally and functionally deficient.

**Railroads-** CSX operates a railroad track at mile post 4.83 that is currently not being used. Per SCDOT Rail and Research section, CSX has advised that the subject track has not been officially abandoned and may be used if the port being proposed by Jasper County is constructed.

## **PROPOSED IMPROVEMENT**

The Lowcountry Council of Governments is considering improvements to US 17, from Georgia State Line to SC 170. The proposed improvement is to widen US 17 from the existing two lane roadway to a four lane roadway.

Since the existing bridge over the abandoned railroad track at MP 4.83 is structurally deficient and functionally obsolete, it is recommended that the bridge be replaced as part of the proposed project.

**Design Criteria-** US 17 is classified as a Principal Arterial. Based on this functional classification, US 17 should be designed so that it will provide a high operating speed and level of service. Some degree of access control is desirable to enhance mobility and should be taken into consideration during the design phase.

Due to the high number of truck traffic anticipated upon the completion of Jasper Port, it is recommended that the pavement be designed to accommodate trucks.

**Proposed Cross Section-** Due to environmental sensitivity of the area within the proposed improvements it is desirable to minimize the foot print of the proposed improvements so as to minimize impacts to the existing wildlife refuge.

Accordingly, it is recommended that a five lane section with a paved/earth median be considered as a possible improvement. It is also recommended that 16ft. outside shared lanes be provided to accommodate bicyclists. See **Appendix D** for typical cross sections.

**Proposed Rights of Way-** The proposed rights of way should be sufficient to accommodate the selected cross-section and alignment requirements, while minimizing environmental impacts to the surrounding areas.

It is important to note that the U.S. Fish and Wildlife Service (FWS) has an active land acquisition program underway and the amount of acreage owned by the Wildlife Refuge is expected to increase. The Refuge is the largest of a complex of seven separate refuges spread out over the Ogeechee, Savannah and Altamaha watersheds. US 17 is located along the Southeastern Refuge acquisition boundary and is directly adjacent to Refuge owned lands (See FWS letter in **Appendix F**). Plans are also underway for the construction of a Wildlife Refuge Visitor Welcome Center near the intersection of US 17 with SC 170 (See Visitor Center Plan in **Appendix F**). Based on FWS input, impacts to the refuge should be considered during the rights of way acquisition.

**Traffic Data-** Based on the linear progression data, the ADT for the year 2030 is projected at approximately 25,800 vehicles per day (approximately 2.5% annual growth rate) on US 17 (between Georgia State Line and SC 170). This will result in a level of service C for a four lane divided section or a five-lane section roadway.

Per Jasper County, a new container shipping terminal, which would impact US 17 within the proposed improvements, is planned in Jasper County. In its first phase of development, the terminal would have 200 acres of container yard and would create approximately 450 jobs. Based on this data, the additional estimated traffic generated due to the future Jasper port development is projected at 1500 vehicles per day. This addition to the traffic volume will have no effect on the projected 2030 level of service.

The future traffic volume impact on US 17, due to the expansion of the Jasper Port beyond the phase one, was not considered in this report.

**Future Mass Transit Considerations-** Owing to housing and employment densities for the project corridor segment under review, analysis does not at this time demonstrate a transit propensity sufficient to warrant dedicated transit guideways or transit-related TDM strategies within the corridor ROW. The widening of US 17 from the Georgia state Line to SC 170 in Jasper County could itself facilitate more efficient interstate transit service should such service be introduced in the future.

**Bicycle and Pedestrian Facilities-** a 16ft. shared lane is recommended to be incorporated into the design of the project to accommodate bicyclists. Since there are currently no major developments within the proposed improvements, no sidewalks are recommended at this time.

## **CORRIDOR ASSESSMENT OF SOCIAL, ECONOMIC AND ENVIRONMENTAL CONCERNS**

A wide buffer area (300ft., 150ft. on each side of the centerline) was selected to ensure adequate coverage for the identification of the environmental and the cultural sensitive areas.

Geographical information system (GIS) platform, aerial photos, photographic, and written data collected from site visits were utilized. (See **Appendix A, B and C**).

SCDOT, in partnership with state and federal regulatory and resource agencies, have begun sharing GIS databases to improve communication and reduce potential conflicts during the project development process. SCDOT has created four maps using this data in order to identify the existing data on human and natural resources within the study area.

The first map is the Natural Resources map for the study area. This map identifies points or areas of environmental importance. Wetlands, streams, water bodies and threatened or endangered species are the most common elements found on this map.

The second map is the Cultural Resources map for the study area. This map identifies such resources as known local landmarks, known archaeological sites, parcels of property and districts that are potentially eligible for or have been registered with the National Register of Historic Places.

The third map is the Social/Other Resources map. This map identifies areas of social and economic importance, such as key industries to an area, low income and minority population centers, and established neighborhoods. It also identifies such resources as churches, schools, and hospitals.

The fourth map is the Environmental Features map for the study area. This map identifies potentially hazardous material locations and generators of potentially or known hazardous waste. This map may also identify underground storage tank locations and business that may generate infectious wastes.

All four maps described above are located in **Appendix A**, of this report.

Below is the SCDOT Environmental Section's summary of the potential environmental impacts associated with the proposed widening of US 17 in Jasper County. Based on these recommendations, a number of studies will need to be performed in order to provide a more accurate assessment of the project's impact on the cultural and natural environment.

**Noise** – *There are number of noise receptors (residences) located along US 17 at the northern end of the study corridor. Any proposed design should take into account the potential noise impacts on these receptors.*

**Water/Wetlands** – *The study corridor encompasses a large and critical stand of palustrine and estuarine wetlands. These wetlands are adjacent to and partially within the Savannah National Wildlife Refuge. All efforts to minimize wetlands impacts and improve hydrologic flow across US 17 should be made during the design and alternative selection process.*

**Archaeological/Historical-** *No archaeological sites are located directly within the project corridor. An intensive survey of all affected upland areas should be performed to identify any archaeological sites. The project is also located within a large cultural/historical landscape associated with 18<sup>th</sup>/19<sup>th</sup> century rice agriculture. The rice fields will need to be evaluated for the National Register in order to assess the effects of the project. The project will likely have no adverse effect upon the resource.*

**Endangered Species** – *Bald Eagle nesting sites nearby. Rafinesque's Big-Eared Bat (state listed species) documented nearby.*

**Relocations** – *Relocations do not appear necessary.*

**Farmlands** – *The project will be assessed under the provisions of the Farmland Protection Policy Act of 1981.*

**USTs/Hazardous Waste** – *No known sites.*

**Potential Section 4(f) Public Properties** – *The Santee National Wildlife Refuge is located adjacent to US 17 in the northern part of the corridor. Any historic or archaeological sites are potential Section 4(f) properties.*

**Low-Income Populations-** Per 2000 U.S. Census Bureau, the average family size for Jasper County is 3.22 and the poverty level threshold for this family size is \$14,511.



Based on this data there are no families below the poverty level threshold in this study area.

Please see **Appendix F** for additional comments from Resource and Regulatory Agencies that are assisting SCDOT on the proposed improvement.

### **PROJECTED PROJECT COST (TODAY'S DOLLAR)**

<b>Preliminary Engineering</b>	<b>\$ 4,200,000</b>
<b>Rights of Way</b>	<b>\$ 1,500,000</b>
<b>Construction</b>	<b>\$20,000,000</b>
<b>Utilities</b>	<b>\$ 700,000</b>
<b><u>Engineering Contingency</u></b>	<b><u>\$ 3,800,000</u></b>
<b>Total</b>	<b>\$30,200,000</b>

### **PUBLIC INVOLVEMENT / SCOPING**

No public involvement has been initiated as of this date.

### **SUMMARY**

The widening of US 17 from Georgia State Line to SC 170 may improve the future traffic demand and prepare the area for the possible development of Jasper Port facility.

A resource impact matrix was developed for the project from all the data collected and analyzed. This color-coded matrix (see **Appendix E**) identifies the likelihood of environmental concerns that could impact the project development process for each identified option.

# **APPENDIX A**

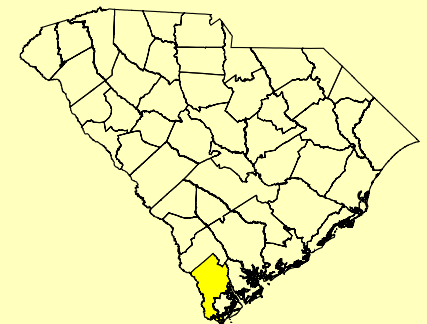
**US 17  
From Georgia State Line  
To SC 170  
Jasper County  
Location Map**

**Legend**

-  Proposed Widening
-  Local Roads
-  Rivers
-  Railroad



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October 2007*

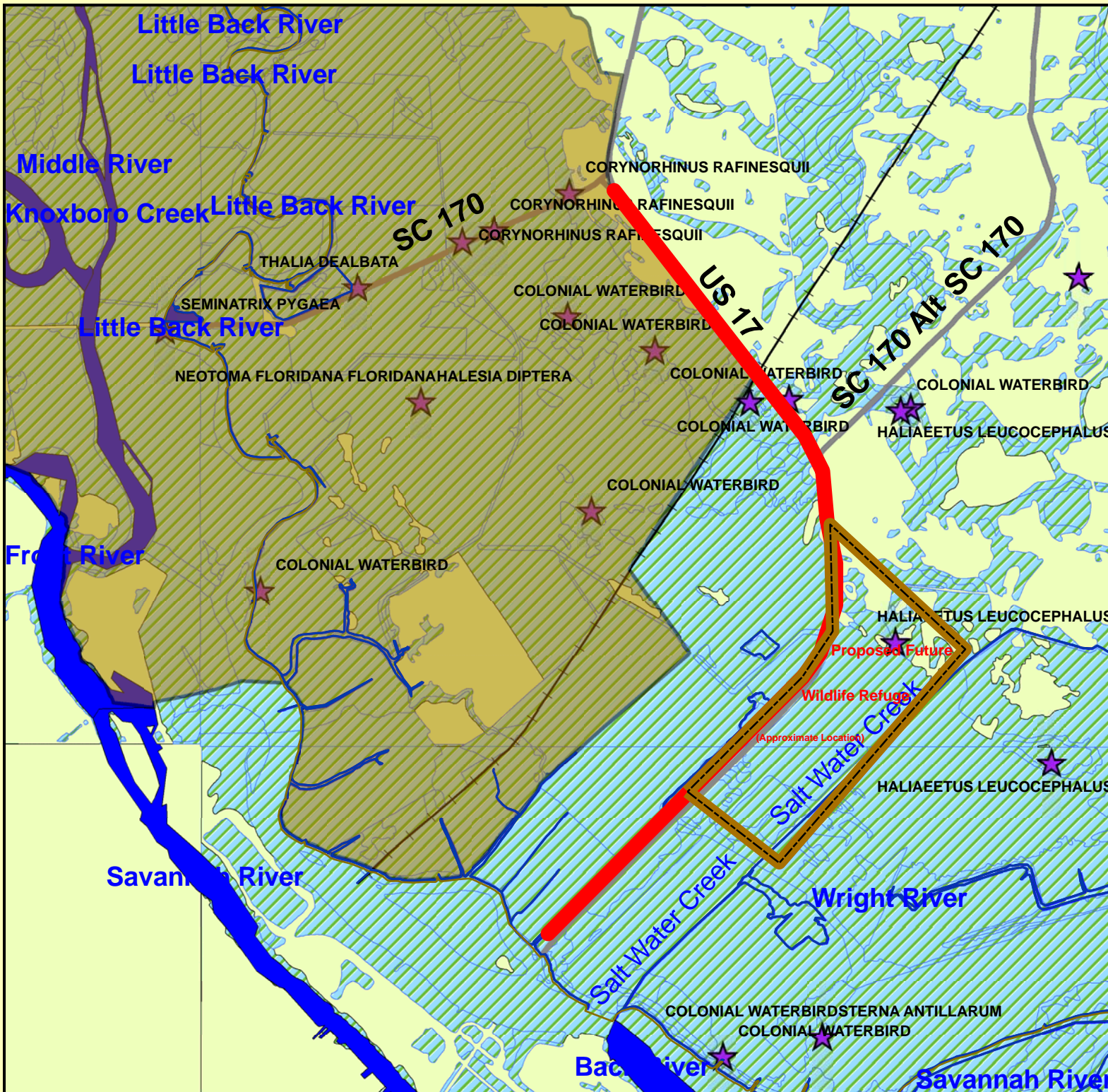


# US 17 From Georgia State Line To SC 170

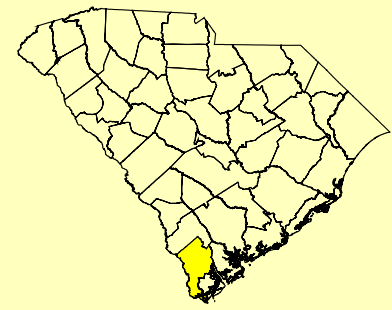
## NATURAL RESOURCES

### Legend

-  Proposed Widening
-  Local Roads
-  Rivers
-  Endangered Species
-  Railroad
-  Wildlife Refuges
-  Wetland
-  Proposed Refuge Expansion



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# US 17 From Georgia State Line To SC 170

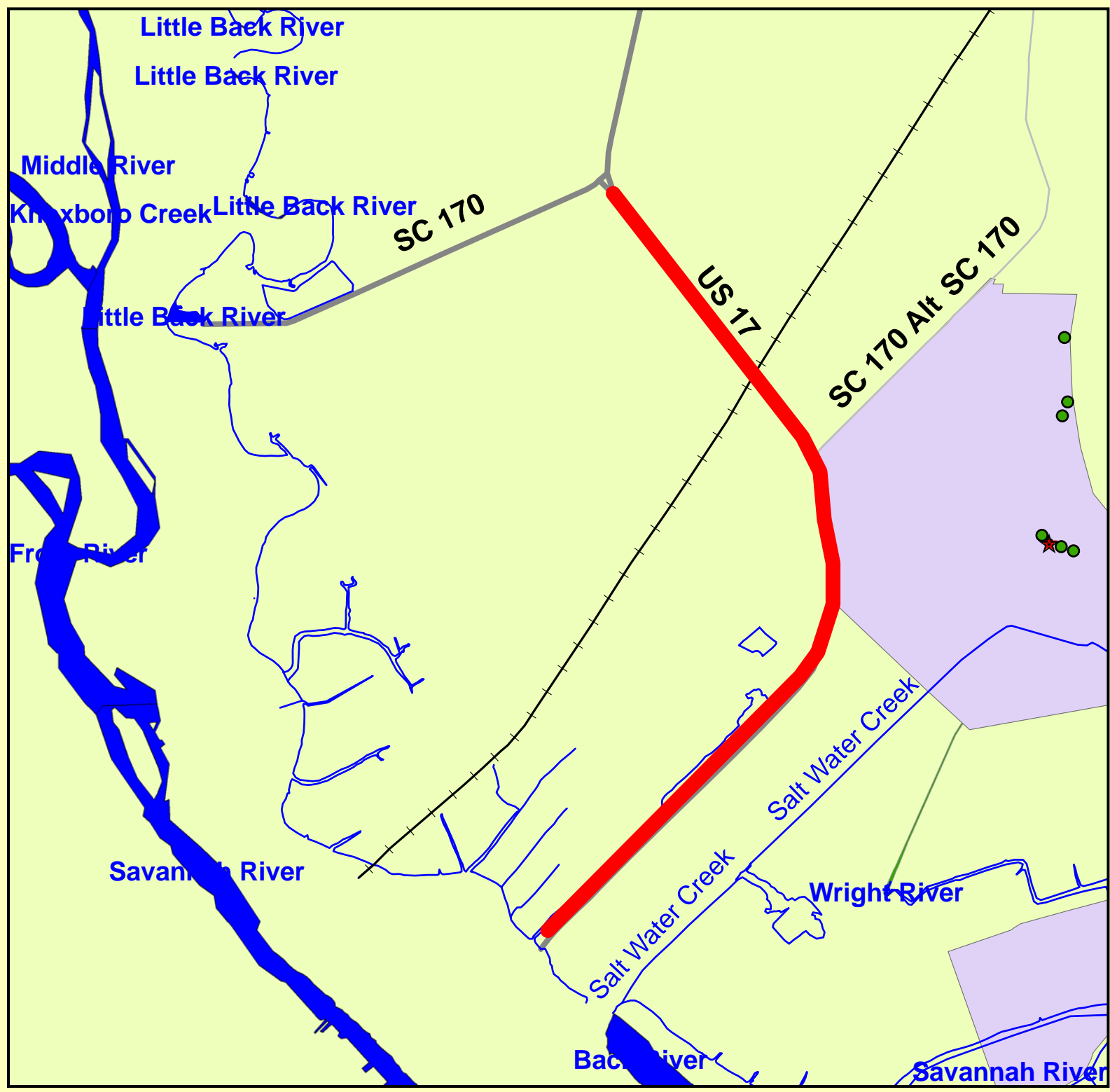
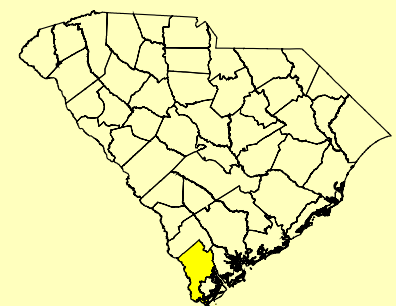
## CULTURAL RESOURCES

### Legend

- Proposed Widening
- Local Roads
- Rivers
- Historic Structures Not Eligible
- Historic Structures Significant
- Survey\_Areas







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**US 17  
From Georgia State Line  
To SC 170**

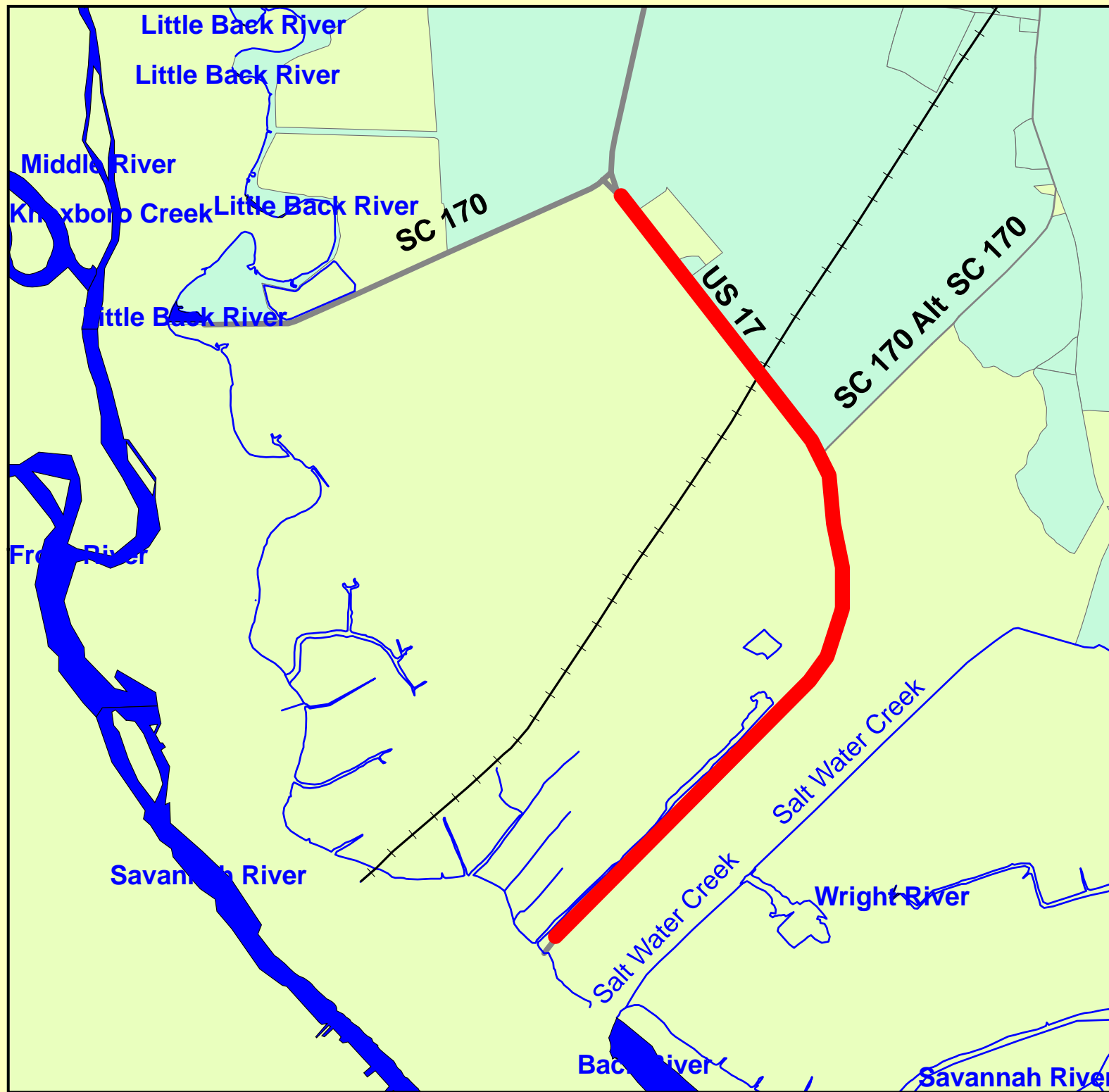
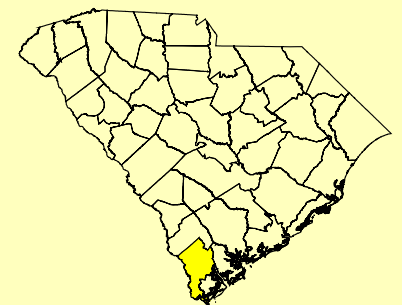
**Social/Others**

**Legend**

-  Proposed Widening
-  Local Roads
-  Rivers
-  Over 50% Minority



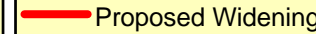
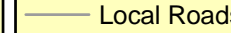



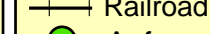



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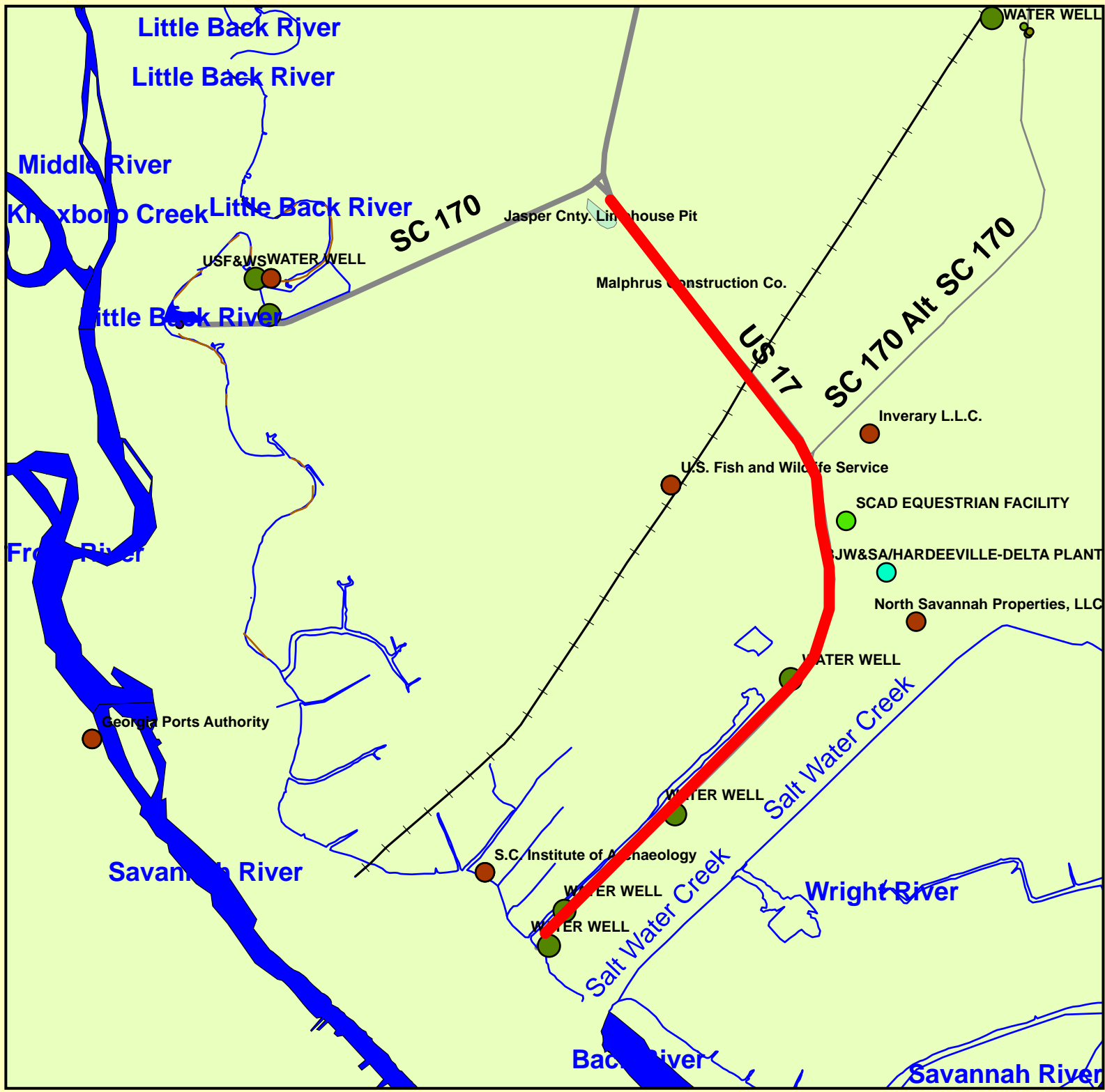


# US 17 From Georgia State Line To SC 170

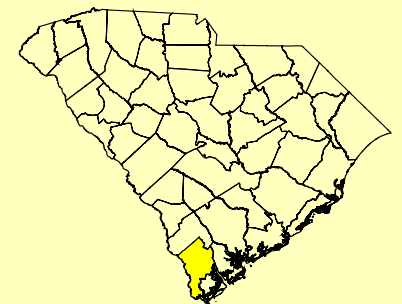
## DHEC SITES

### Legend

-  Proposed Widening
-  Local Roads
-  Rivers
-  Pub401/Water Discharge
-  Mines
-  Railroad
-  Agfac
-  Npdes
-  Pws



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October 2007



# **APPENDIX B**





Looking South on US 17 toward Georgia State Line



Looking North on US 17



Looking North on US 17



Location of Wildlife Refuge along US 17



Location of Wildlife Refuge along US 17



Location of Wildlife Refuge along US 17



Business along US 17



Equestrian Facility along US 17



Bridge over abandoned railroad



Abandoned railroad



Business along US 17



Business along US 17



Residential properties along US 17



Future wildlife refuge facility along US 17



US 17 Bridge over Back River

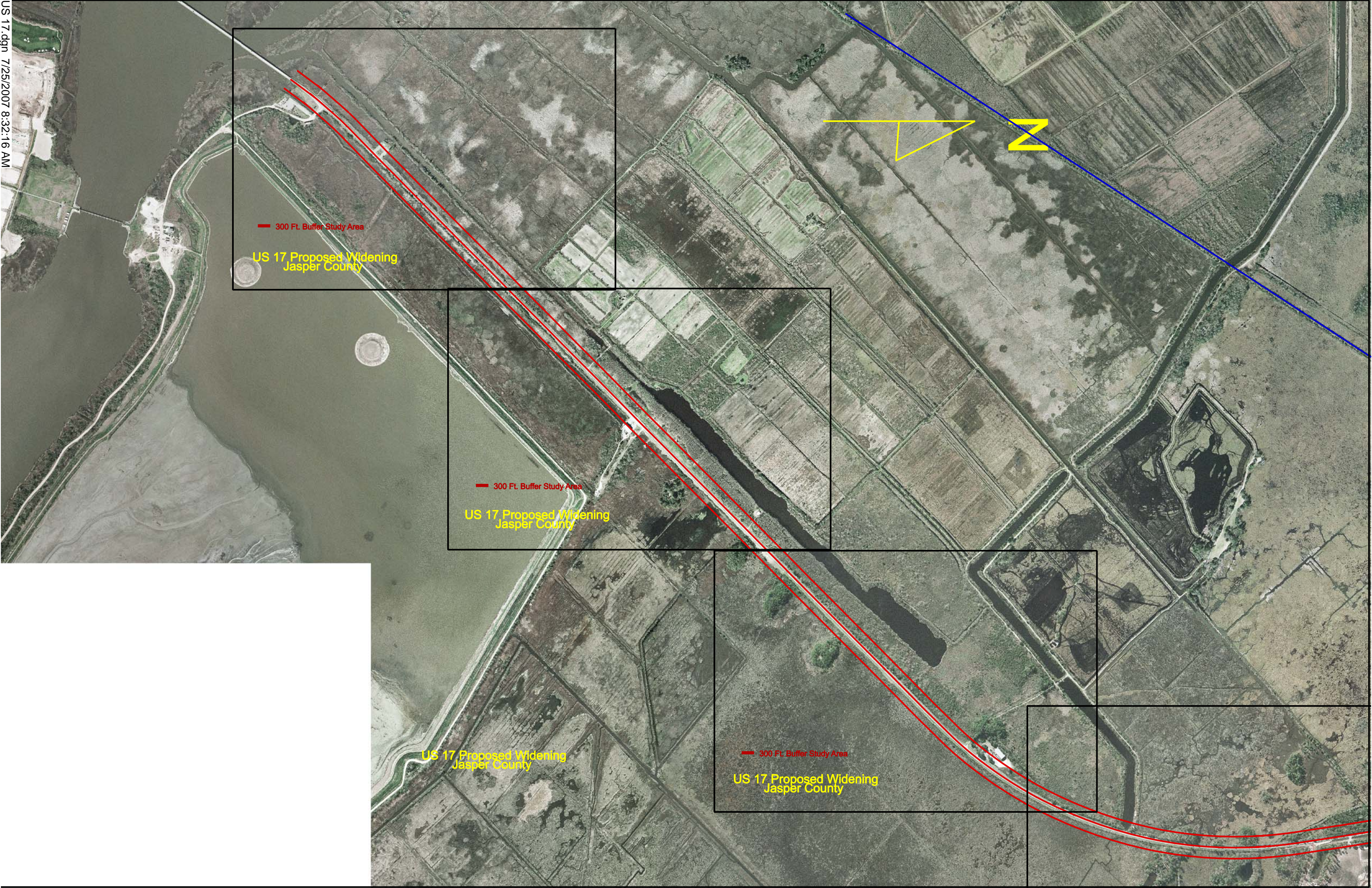
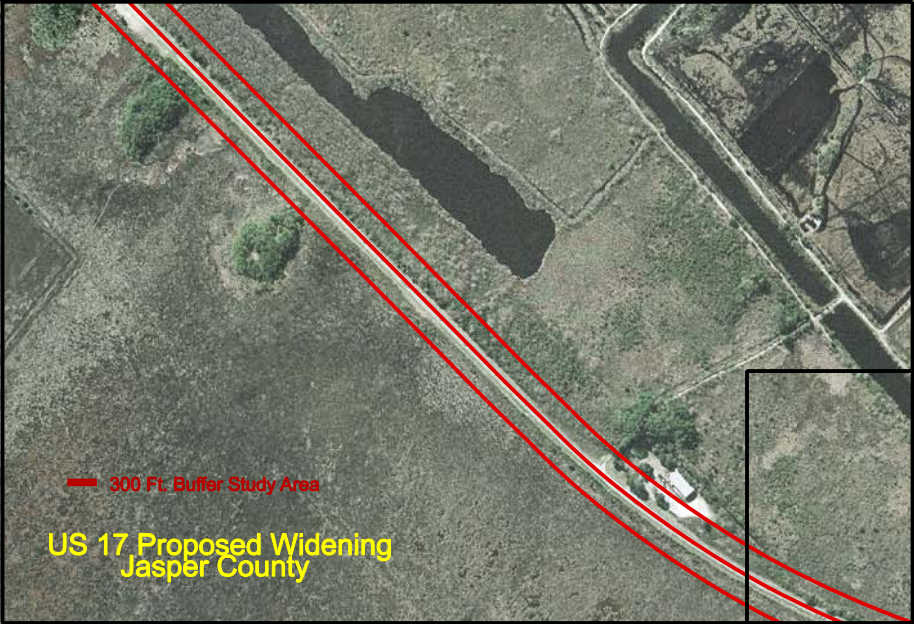
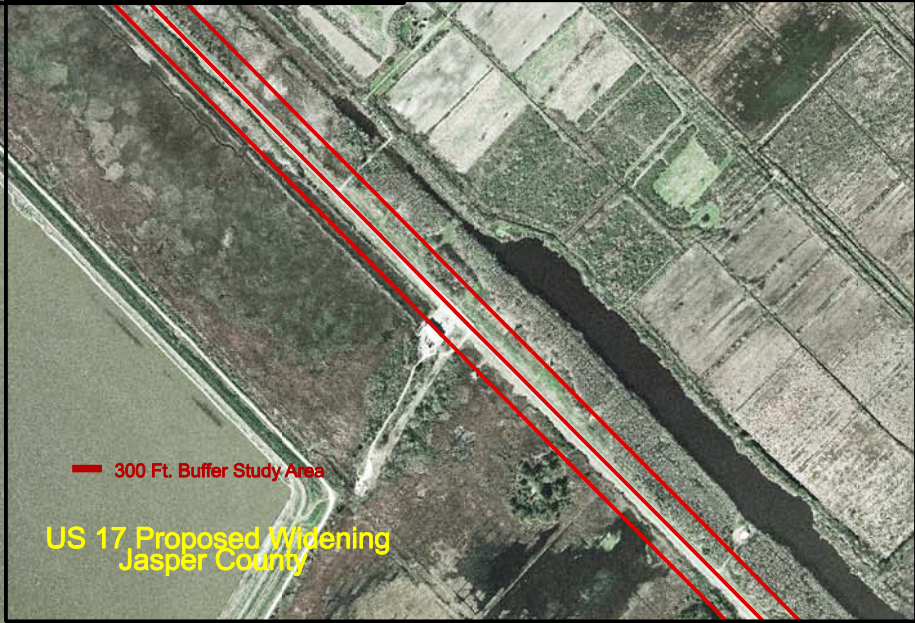


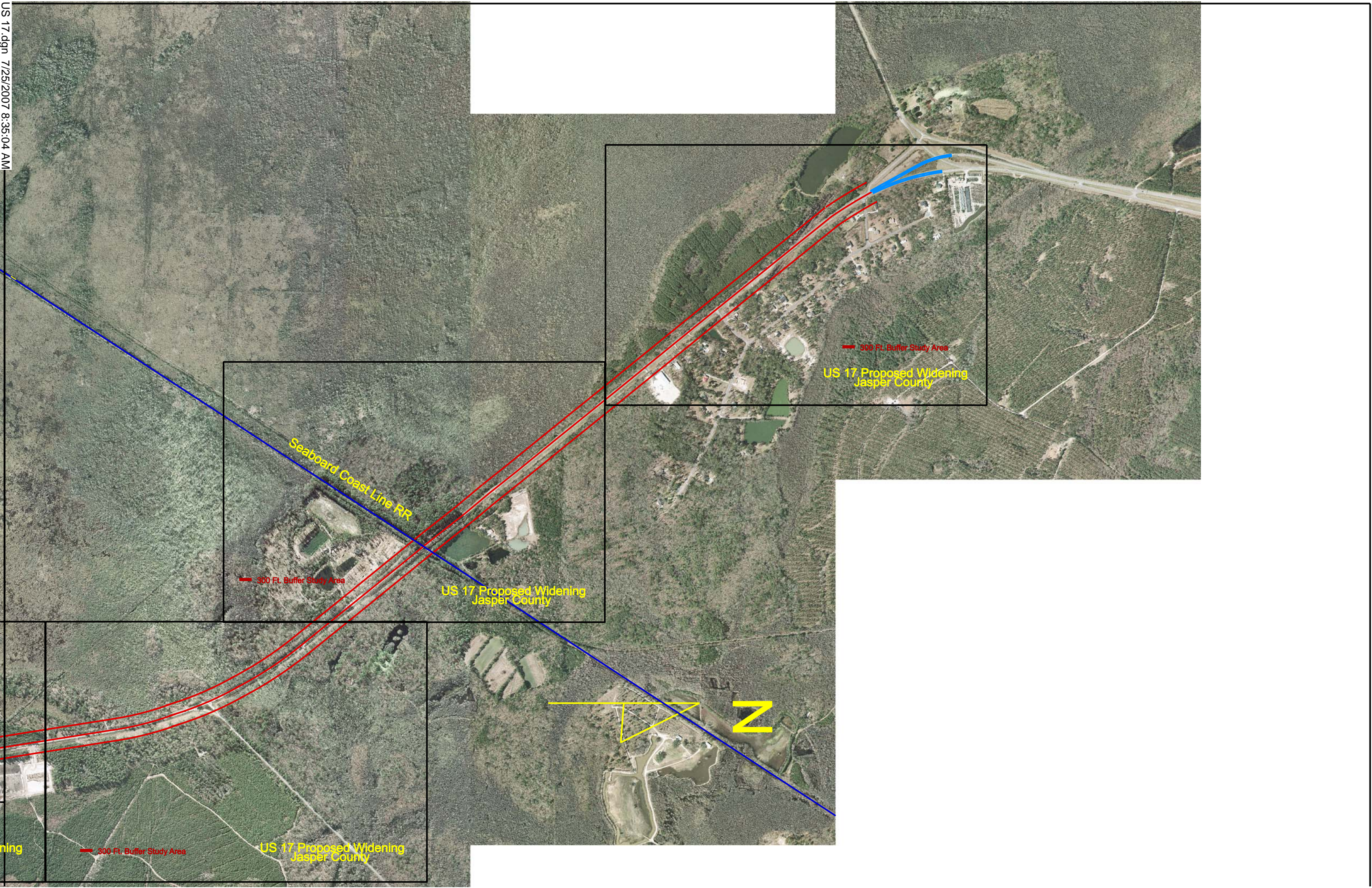
Possible location of proposed Jasper Port



US 17 at SC 170

# **APPENDIX C**





Seaboard Coast Line RR

300 Ft. Buffer Study Area

US 17 Proposed Widening Jasper County

300 Ft. Buffer Study Area

US 17 Proposed Widening Jasper County

US 17 Proposed Widening Jasper County

300 Ft. Buffer Study Area

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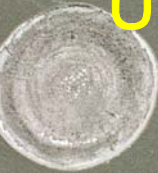
US 17 Proposed Widening Jasper County

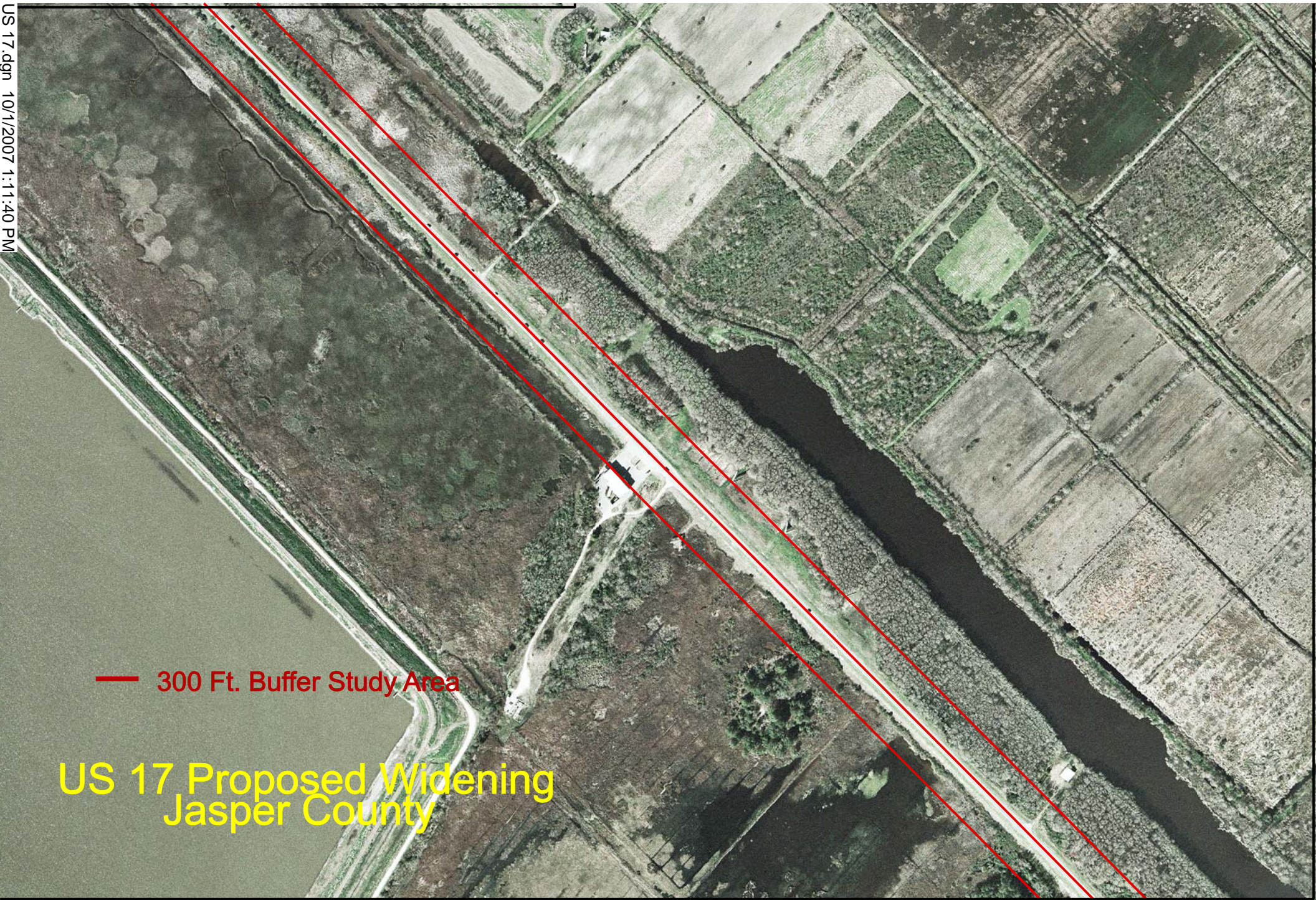
300 Ft. Buffer Study Area



— 300 Ft. Buffer Study Area

# US 17 Proposed Widening Jasper County





— 300 Ft. Buffer Study Area

US 17 Proposed Widening  
Jasper County





— 300 Ft. Buffer Study Area

# US 17 Proposed Widening Jasper County



— 300 Ft. Buffer Study Area

US 17 Proposed Widening  
Jasper County



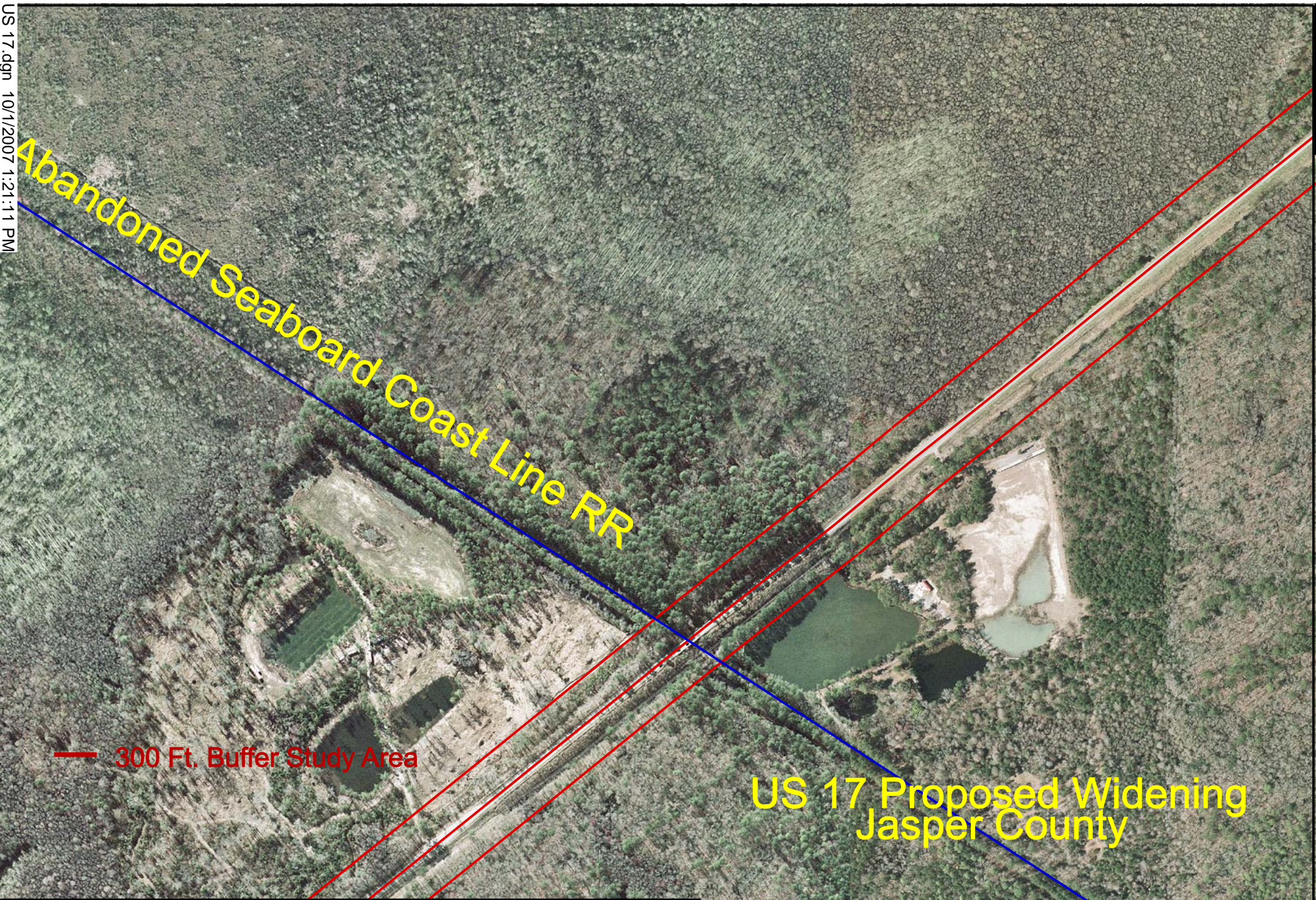
— 300 Ft. Buffer Study Area

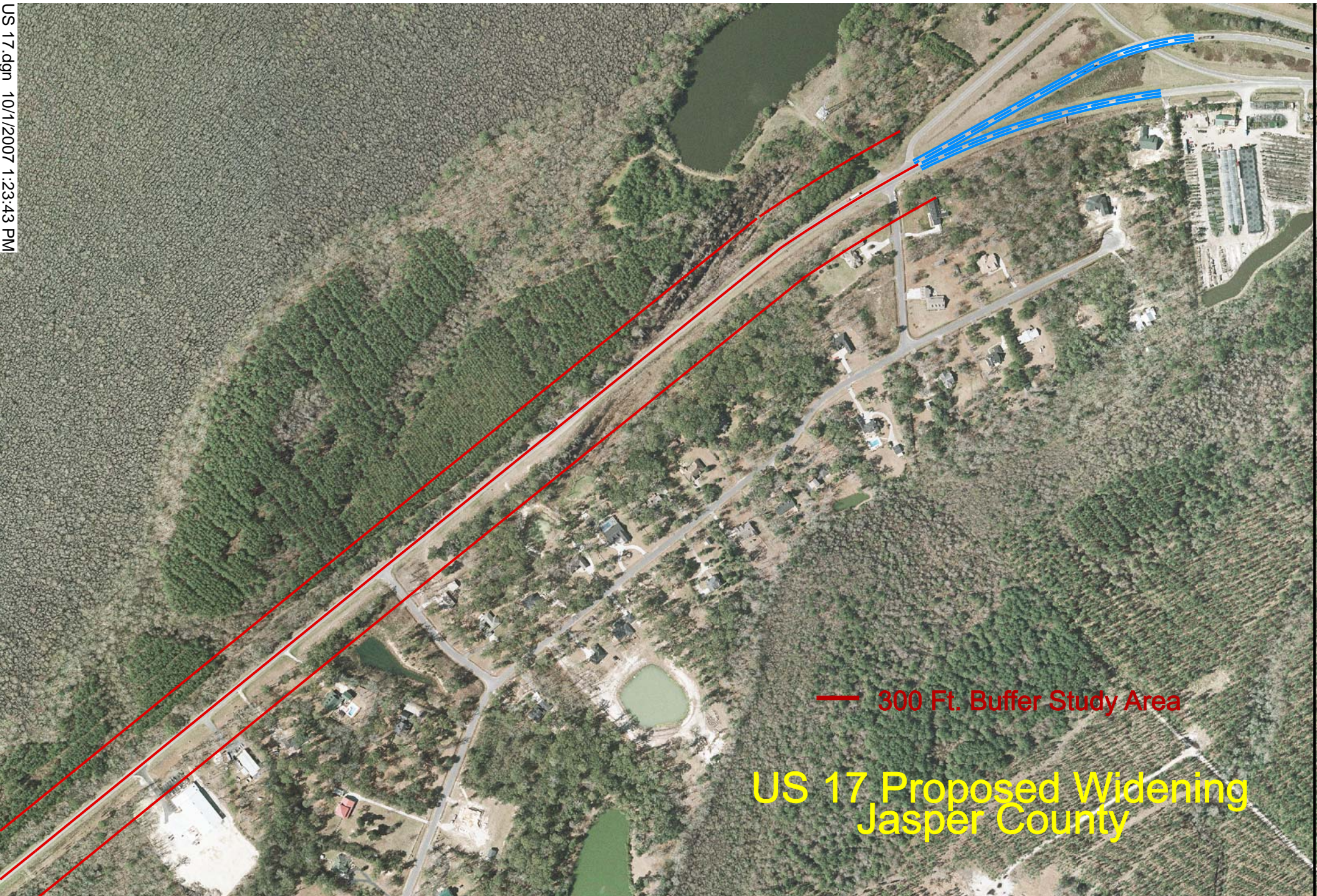
# US 17 Proposed Widening Jasper County

Abandoned Seaboard Coast Line RR

— 300 Ft. Buffer Study Area

US 17 Proposed Widening  
Jasper County

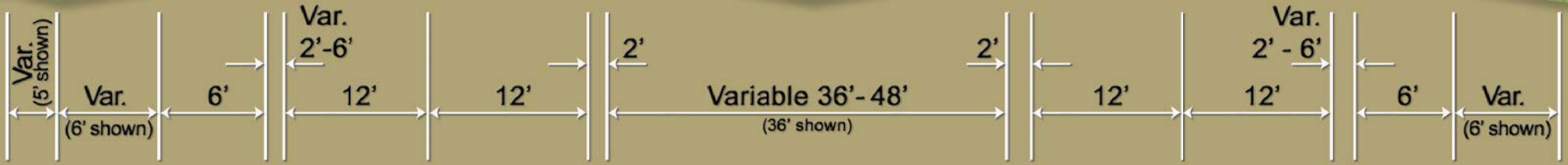
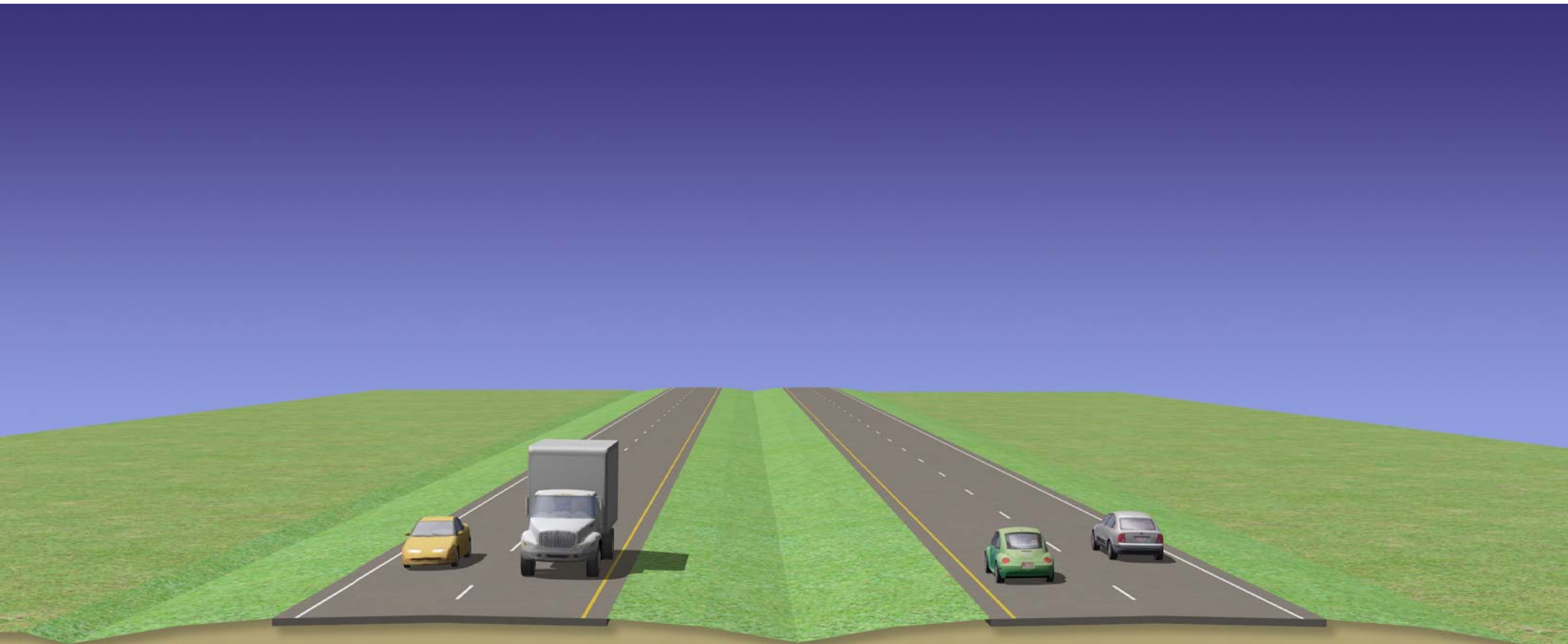


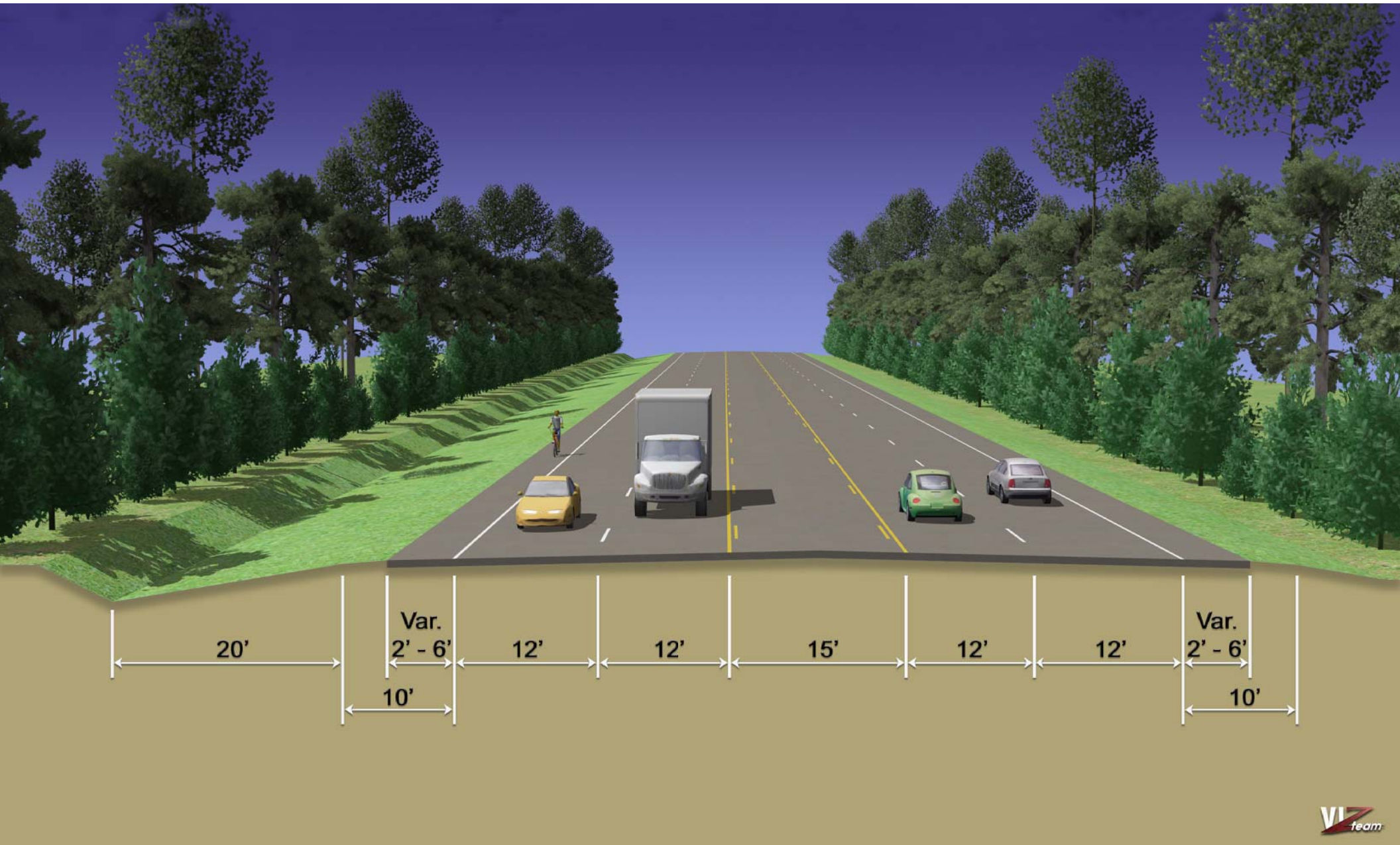


— 300 Ft. Buffer Study Area

# US 17 Proposed Widening Jasper County

# **APPENDIX D**







# **APPENDIX E**



**TO:** Nick Vakili-Rad, Office of Planning  
**FROM:** Chad C. Long, Environmental Project Manager  
**DATE:** August 30, 2007  
**SUBJECT:** Environmental Comments on the Proposed US Highway 17 Widening Project in Jasper County

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Below is a summary of the potential environmental impacts associated with the proposed widening of the US Highway 17 in Jasper County. A number of studies will need to be performed in order to provide a more accurate assessment of the project's impact on the cultural and natural environment.

**Noise** – There are number of noise receptors (residences) located along US 17 at the northern end of the study corridor. Any proposed design should take into account the potential noise impacts on these receptors.

**Water/Wetlands** – The study corridor encompasses a large and critical stand of palustrine and estuarine wetlands. These wetlands are adjacent to and partially within the Savannah National Wildlife Refuge. All efforts to minimize wetlands impacts and improve hydrologic flow across US 17 should be made during the design and alternative selection process.

**Archaeological/Historical**- No archaeological sites are located directly within the project corridor. An intensive survey of all affected upland areas should be performed to identify any archaeological sites. The project is also located within a large cultural/historical landscape associated with 18<sup>th</sup>/19<sup>th</sup> century rice agriculture. The rice fields will need to be evaluated for the National Register in order to assess the effects of the project. The project will likely have no adverse effect upon the resource.

**Endangered Species** – Bald Eagle nesting sites nearby. Rafinesque's Big-Eared Bat (state listed species) documented nearby.

**Relocations** – Relocations do not appear necessary.

**Farmlands** – The project will be assessed under the provisions of the Farmland Protection Policy Act of 1981.

**USTs/Hazardous Waste** – No known sites.

**Potential Section 4(f) Public Properties** – The Santee National Wildlife Refuge is located adjacent to US 17 in the northern part of the corridor. Any historic or archaeological sites are potential Section 4(f) properties.

\*\*The project should be extended to the existing 4-lane section of US 17 near the state lane in order to meet federal requirements for logical termini.

STAT	ROUT NO.	ROUTE LOCATION	EST. AADT	AADT YEAR	COUNTY
101	SC 170	Ga. State TO U.S. 17	4400	2006	Jasper
102	US 17	SC 170 TO S-34	9500	2006	Jasper
103	US 17	S-34 TO I-95	11500	2006	Jasper
105	US 17	I-95 TO U.S. 321	11100	2006	Jasper
107	US 17	U.S. 321 TO S.C. 46	6800	2006	Jasper
109	US 17	S.C. 46 TO S-413	5500	2006	Jasper
111	US 17	S-413 TO US 278	7100	2006	Jasper
113	US 17	US 278 TO S-169/S-210	2400	2006	Jasper
115	US 17	S-169/S-210 TO Conn. TO S-13	2600	2006	Jasper
117	US 17	S-13 TO S-29	4100	2006	Jasper
119	US 17	S-29 TO S-32/124	4700	2006	Jasper
121	US 17	S-32/124 TO S.C. 336	6700	2006	Jasper
123	US 17	U.S. 278/S.C. 336 TO S-32	9400	2006	Jasper
125	US 17	S-32 TO I-95	3100	2006	Jasper
127	US 17	I-95 TO Beaufort County Line	10100	2006	Jasper
129	US 17	Ga. State TO S.C.170 Alt.	14600	2006	Jasper
131	US 17	S.C. 170 Alt. TO SC 170	6000	2006	Jasper
133	US 278	Hampton County Line TO S-87	1800	2006	Jasper
135	US 278	S-87 TO S.C. 462	2700	2006	Jasper
137	US 278	S.C. 462 TO S.C. 462	3900	2006	Jasper
139	US 278	S.C. 462 TO S.C. 652	2200	2006	Jasper
141	US 278	S.C. 652 TO S-32	6700	2006	Jasper
143	US 278	S-32 TO U.S. 17	6400	2006	Jasper
145	SC 336	U.S. 17 TO I-95	9500	2006	Jasper
147	SC 336	I-95 To S-13	6400	2006	Jasper
151	SC 336	S-13 TO S.C. 462	4400	2006	Jasper
153	SC 462	S.C. 336 TO S-54	8100	2006	Jasper
155	SC 462	S-54 TO S.C. 170/Beaufort Co.	6700	2006	Jasper
157	US 321	U.S. 17 TO S-31	4400	2006	Jasper
159	US 321	S-31 TO S-413	4400	2006	Jasper
161	US 321	S-413 TO S-169	4100	2006	Jasper
163	US 321	S-169 TO S.C. 336/S-119	3800	2006	Jasper
165	US 321	S.C. 336/S-119 TO U.S. 601	3400	2006	Jasper
167	US 321	U.S. 601 To Hampton County Line	2700	2006	Jasper
168	US 601	U.S. 321 TO S.C. 652	1150	2006	Jasper
169	SC 3	U.S. 278 TO Hampton Co. Line	750	2006	Jasper
170	US 601	S.C. 652 TO Hampton Co. Line	1700	2006	Jasper
171	SC 46	U.S. 321 TO U.S. 17	3900	2006	Jasper
173	SC 46	U.S. 17 TO S-153	4600	2006	Jasper
175	SC 46	S-153 TO S-176	4200	2006	Jasper
177	SC 46	S-176 TO S.C. 170	3200	2006	Jasper
179	SC 46	S.C. 170 TO Beaufort Co. Line	13400	2006	Jasper
181	SC 119	Ga. State Line TO Hampton Co.	1700	2006	Jasper
183	SC 170	U.S. 17 TO S.C. 46	2000	2006	Jasper
184	SC 170	Beaufort Co. To Beaufort Co.	17300	2006	Jasper
185	SC 170 ALT	U.S. 17 ALT TO S-34	9500	2006	Jasper
187	SC 170 ALT	S-34 TO S.C. 170	10400	2006	Jasper
189	SC 336	U.S. 321 TO S-29	1950	2006	Jasper
191	SC 336	S-29 TO S-116	1700	2006	Jasper
193	SC 336	S-116 TO S-32	2500	2006	Jasper

# Highway Logmile Listing

Information includes: Roadway Physical

ROUTE	MILEPOINT	DETAILS			
<b>I-95</b>		<b>27010009500N</b>	<b>(27)</b>	<b>JASPER</b>	<b>DIST 6</b>
	29.060	STRUCTURE		CONC BR COOSAWHATCHIE RV 2 ' 300	
	29.830	S- 172	0.360	CROSSES	CONC UNDERPASS 351'
	29.830	STRUCTURE		CONC UNDERPASS 351'L	
	30.550	STRUCTURE		CONC BR 180 L TULLIFINNY RV	
	32.260	48 FT BITUMINOUS - 4 LN DIV -		64 FT EARTH MEDIAN (10 FT BIT SHO LT)	(10 FT BIT SHO RT)
	32.700	US 17	40.560	RIGHT	END US-17 OVERLAP
	33.080	48 FT CONCRETE - 4 LN DIV -		64 FT EARTH MEDIAN (10 FT BIT SHO LT)	(10 FT BIT SHO RT)
	33.080	STRUCTURE		CONC UNDERPASS	
	33.080	STRUCTURE		CONC UNDERPASS	
	33.870	RAILROAD		632443G SCL RR	
	33.870	STRUCTURE		CONC OVERPASS	
	33.890	S- 37	1.330	CROSSES	
	33.890	STRUCTURE		CONC OVERPASS	
	33.900	BOUNDARY - COUNTY		HAMPTON COUNTY LINE	
<b>US17</b>		<b>27020001700N</b>	<b>(27)</b>	<b>JASPER</b>	<b>DIST 6</b>
	0.000	28 FT BITUMINOUS - 2 LANE -		(LT)	(RT)
	0.000	BOUNDARY - STATE		GEORGIA STATE LINE	
	0.000	STRUCTURE		BEGIN BRIDGE REINF CONC 3204'L	
	0.030	RAILROAD		BLACK RIVER	
	0.050	24 FT BITUMINOUS - 2 LANE -		( 5 FT EARTH SHO LT)	( 5 FT EARTH SHO RT)
	0.050	STRUCTURE		END BRIDGE REINF CONC 3204'L	
	4.100	SC 170 ALTERNATE	0.000	RIGHT	
	4.830	RAILROAD		SCL RR	
	4.830	STRUCTURE		REIN CONC OVPASS 28'W 130'L	

# Highway Logmile Listing

Information includes: Roadway Physical

ROUTE	MILEPOINT	DETAILS				
<i>US17</i>	<i>27020001700N</i>	<i>(27)</i>	<i>JASPER</i>	<i>DIST 6</i>		
	6.120	24 FT BITUMINOUS - 2 LANE -		(10 FT EARTH SHO LT)	(10 FT EARTH SHO RT)	
	6.190	32 FT BITUMINOUS - 2 LN DIV -	8 FT BIT MEDIAN	(10 FT EARTH SHO LT)	(10 FT EARTH SHO RT)	
	6.320	44 FT BITUMINOUS - 4 LN DIV -	99 FT EARTH MEDIAN	(10 FT EARTH SHO LT)	(10 FT EARTH SHO RT)	
	6.610	48 FT BITUMINOUS - 4 LN DIV -	99 FT EARTH MEDIAN	(10 FT EARTH SHO LT)	(10 FT EARTH SHO RT)	
	6.610	SC 170	3.330 LEFT	BEGIN SC-170 OVERLAP		
	6.850	48 FT BITUMINOUS - 4 LN DIV -	68 FT EARTH MEDIAN	(10 FT EARTH SHO LT)	(10 FT EARTH SHO RT)	
	7.120	48 FT BITUMINOUS - 4 LN DIV -	99 FT EARTH MEDIAN	(10 FT EARTH SHO LT)	(10 FT EARTH SHO RT)	
	7.850	48 FT BITUMINOUS - 4 LN DIV -	58 FT EARTH MEDIAN	(10 FT EARTH SHO LT)	(10 FT EARTH SHO RT)	
	7.960	S- 85	0.000 RIGHT			
	8.070	STRUCTURE	UNDERPASS			
	8.070	RAILROAD	SCL RR			
	8.110	48 FT BITUMINOUS - 4 LN DIV -	36 FT EARTH MEDIAN	(10 FT EARTH SHO LT)	(10 FT EARTH SHO RT)	
	8.110	SC 170	4.830 RIGHT	END SC-170 OVERLAP		
	9.220	S- 34	16.820 CROSSES			
	9.920	S- 383	0.000 LEFT			
	10.540	S- 383	0.970 LEFT			
	12.150	S- 379	0.000 RIGHT			
	12.600	48 FT BITUMINOUS - 4 LN DIV -	14 FT EARTH MEDIAN	(10 FT EARTH SHO LT)	(10 FT EARTH SHO RT)	
	12.670	BOUNDARY - MUNICIPAL	HARDEEVILLE : HARDEEVILLE CITY LIMIT			
	12.710	52 FT BITUMINOUS - 4 LN DIV -	14 FT BIT MEDIAN	(CG LT)	(CG RT)	
	12.980	50 FT BITUMINOUS - 4 LN DIV -	9 FT BIT MEDIAN	(CG LT)	(CG RT)	
	13.050	I- 95	5.110 CROSSES			
	13.120	50 FT BITUMINOUS - 4 LN DIV -	14 FT BIT MEDIAN	(CG LT)	(CG RT)	
	13.320	50 FT BITUMINOUS - 4 LN DIV -	14 FT BIT MEDIAN	(CG SW LT)	(CG SW RT)	
	13.350	S- 356	0.150 LEFT			

# CRASH DATA

US-17  
Jasper County South of SC-170  
2004-2007

Year	TYPE			TOTAL	PERSONS KILLED	PERSONS INJURED
	FATAL	INJURY	PROPERTY DAMAGE ONLY			
2004	0	20	23	43	0	39
2005	2	9	20	31	2	28
2006	0	14	21	35	0	19
2007	0	4	6	10	0	7
TOTAL	2	47	70	119	2	93

## CRASH DATA

US-17  
Jasper County South of SC-170  
2004-2007

Manner of Collision	TYPE			TOTAL	PERSONS KILLED	PERSONS INJURED
	FATAL	INJURY	PROPERTY DAMAGE ONLY			
NOT COLLISION W/MVT	1	13	20	34	1	22
REAR END	0	16	22	38	0	32
HEAD-ON	0	5	2	7	0	7
ANGLE	1	11	18	30	1	25
SIDESWIPE-SAME DIRECTION	0	0	7	7	0	0
SIDSWIPE-OPPOSITE DIRECTION	0	2	0	2	0	7
BACKED INTO	0	0	1	1	0	0
<b>TOTAL</b>	<b>2</b>	<b>47</b>	<b>70</b>	<b>119</b>	<b>2</b>	<b>93</b>

## CRASH DATA

US-17  
Jasper County South of SC-170  
2004-2007

Obs	ANO	route	broute	LAT	LON	mpost	BDO
1	06100154	2720017	2760000	32055120	81053180	8888	0001
2	05092318	2720017	2760000	32060330	81052170	3	0020
3	05111399	2720017	2760000	32061810	81050950	2549	0004
4	06010690	2720017	2760000	32062060	81050710	8888	0000
5	06011545	2720017	2760000	32062060	81050710	8888	0000
6	06107823	2720017	2730170	32062060	81050700	8888	0430
7	05001963	2720017	2760000	32062100	81050720	2250	0001
8	04094858	2720017	2760000	32062110	81050690	2455	0010
9	07029794	2720017	2730170	32062110	81050650	8888	0150
10	05022676	2720017	2730170	32062290	81050450	300	0110
11	05041141	2720017	2730170	32062480	81050250	360	0005
12	04143188	2720017	2730170	32062840	81045800	541	0000
13	06145115	2720017	2730170	32062970	81045760	8888	0325
14	06028600	2720017	2760000	32062980	81045790	8888	0010
15	04074474	2720017	2730170	32062990	81045670	810	0004
16	04077829	2720017	2760000	32062990	81045670	2250	0025
17	06028952	2720017	2760000	32062990	81045790	8888	0002
18	06133667	2720017	2760000	32063020	81045820	8888	0003
19	04002861	2720017	2760000	32063030	81045680	2651	0002
20	07054770	2720017	2730170	32063090	81045890	8888	0006
21	06037165	2720017	2760000	32063110	81045740	8888	0004
22	04110076	2720017	2730170	32063120	81045590	20	0008
23	06124400	2720017	2760000	32063460	81045130	8888	0005
24	06127331	2720017	2730170	32063670	81050660	8888	0400
25	06150755	2720017	2730170	32064070	81044450	8888	0350
26	06045112	2720017	2730170	32064380	81044050	8888	0300
27	07051777	2720017	2750000	32064430	81044030	8888	0030
28	04083453	2720017	2760000	32064610	81050090	2749	0030
29	04083454	2720017	2760000	32064610	81050090	2749	0000
30	04032434	2720017	2730170	32064710	81049980	200	0210
31	04038738	2720017	2730170	32064710	81049980	260	0150
32	04047854	2720017	2760000	32064990	81049540	2250	0002
33	05126406	2720017	2730170	32065010	81049580	60	0003
34	05078930	2720017	2730170	32070410	81041500	661	0020
35	05034559	2720017	2760000	32070430	81041480	2250	0150
36	04007754	2720017	2760000	32070440	81041600	2455	0070
37	05031609	2720017	2730170	32070440	81041570	681	0320
38	06052305	2720017	2730170	32070450	81041580	8888	0300



# CRASH DATA

US-17  
Jasper County South of SC-170  
2004-2007

Obs	ANO	route	broute	LAT	LON	mpost	BDO
39	04085532	2720017	2730170	32070530	81041590	435	0002
40	06051105	2720017	2730170	32070540	81041490	8888	0003
41	05074888	2720017	2760000	32070610	81041580	0	0016
42	06053954	2720017	2760000	32071090	81042200	8888	0001
43	07041032	2720017	2760000	32071630	81040270	8888	0003
44	06121770	2720017	2730170	32071710	81040170	8888	0002
45	04019715	2720017	2730170	32072010	81041300	411	0002
46	04019716	2720017	2730170	32072010	81041300	160	0002
47	04113660	2720017	2730170	32072020	81035650	631	0000
48	04140816	2720017	2760000	32072580	81035100	2250	0015
49	04146256	2720017	2760000	32072580	81033700	2250	0020
50	06067197	2720017	2730170	32072600	81035050	8888	0160
51	04024216	2720017	2730170	32072660	81034990	681	0002
52	06124370	2720017	2730170	32073080	81034520	8888	0020
53	04095569	2720017	2760000	32074130	81033220	2250	0180
54	05135612	2720017	2730170	32074320	81033080	651	0100
55	05142360	2720017	2730170	32074320	81033080	410	0002
56	05052909	2720017	2730170	32074850	81032550	370	0040
57	04131278	2720017	2730170	32074970	81032290	2651	0100
58	05114278	2720017	2730170	32075030	81032250	250	0160
59	05082216	2720017	2730170	32075158	81032138	710	0016
60	04106004	2720017	2730170	32075170	81032090	400	0010
61	07032590	2720017	2760000	32075180	81032310	8888	0025
62	04054517	2720017	2730170	32078590	81033490	686	0001
63	04108062	2720017	2730170	32078690	81030380	280	0002
64	07033106	2720017	2760000	32078830	81033380	8888	0001
65	05072006	2720017	2730170	32080040	81031500	310	0100
66	06002186	2720017	2730170	32081050	81031990	8888	0050
67	04007757	2720017	2730170	32081380	81030850	761	0100
68	04085524	2720017	2730170	32082130	81030820	435	0000
69	05094623	2720017	2730170	32083190	81030750	415	0070
70	07019748	2720017	2730170	32083470	81030890	8888	0001
71	05157523	2720017	2730170	32084148	8103093	601	0000
72	05005089	2720017	2730170	32084750	81031090	190	0050
73	04047777	2720017	2730170	32085960	81031280	2651	0050
74	06047819	2720017	2730170	32086050	81081390	8888	0030
75	06121768	2720017	2730170	32087990	81031710	8888	0002
76	05020379	2720017	2730170	32090670	81031490	660	0000

# CRASH DATA

US-17  
Jasper County South of SC-170  
2004-2007

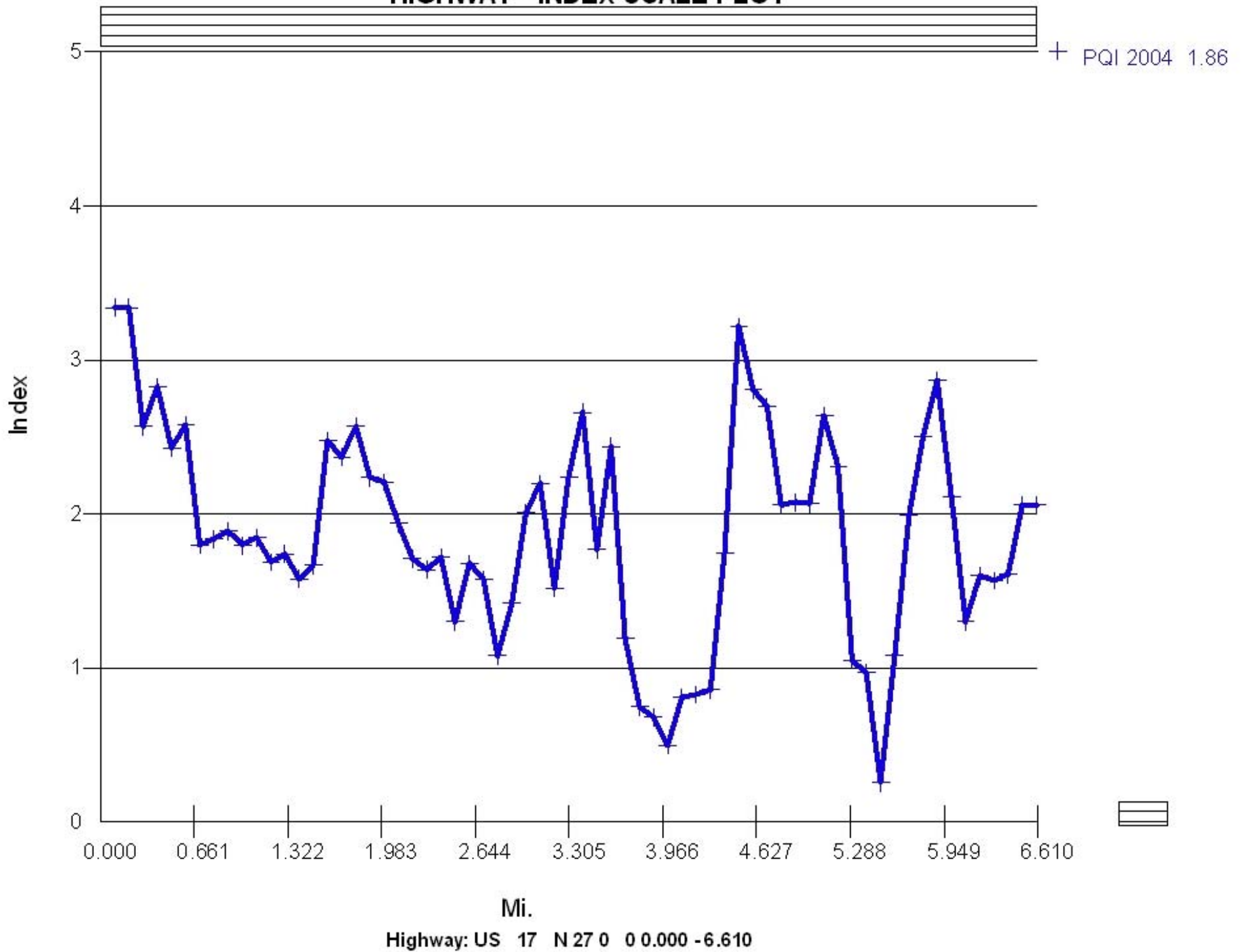
Obs	ANO	route	broute	LAT	LON	mpost	BDO
77	07020689	2720017	2730170	32090790	81031520	8888	0010
78	04109762	2720017	2730170	32091080	81031660	661	0000
79	04053206	2720017	2730170	32091090	81031680	409	0000
80	06152613	2720017	2730170	32091090	81031650	8888	0000
81	05005274	2720017	2730170	32091110	81031700	410	0000
82	06089303	2720017	2730170	32091110	81031680	8888	0015
83	05046760	2720017	2730170	32091130	81031760	666	0005
84	05145472	2720017	2730170	32091130	81031710	408	0002
85	04072434	2720017	2730170	32091170	81031710	661	0000
86	04064903	2720017	2730170	32091190	81031720	661	0000
87	04140482	2720017	2730170	32091200	81031750	418	0000
88	04085538	2720017	2730170	32091230	81031740	410	0000
89	06158169	2720017	2730170	32091240	81031730	8888	0000
90	04005401	2720017	2730170	32091260	81031730	410	0000
91	06147689	2720017	2730170	32091260	81031550	8888	0000
92	06004585	2720017	2730170	32091280	81031750	8888	0000
93	04127927	2720017	2730170	32091290	81031811	410	0001
94	05139052	2720017	2730170	32091350	81031800	410	0000
95	04051091	2720017	2730170	32091360	81031470	410	0010
96	06117024	2720017	2730170	32092000	81032220	8888	0025
97	04001422	2720017	2730170	32092130	81032590	410	0000
98	04029170	2720017	2730170	32092270	81033010	410	0035
99	05068601	2720017	2730170	32092350	81032590	961	0030
100	05125889	2720017	2730170	32092560	81032700	450	0040
101	06112254	2720017	2730170	32093000	81033310	8888	0005
102	05068997	2720017	2730170	32093040	81033210	633	0050
103	04090706	2720017	2730170	32093070	81033250	435	0050
104	04057610	2720017	2730170	32093960	81034060	490	0080
105	06045115	2720017	2730170	32094090	81034570	8888	0020
106	06100672	2720017	2730170	32095020	81035200	8888	0005
107	05101399	2720017	2730170	32100170	81040220	741	0080
108	06000452	2720017	2740438	32100690	81040630	8888	0040
109	04103658	2720017	2740438	32101750	81041680	2647	0000
110	06158166	2720017	2740438	32101980	81041860	8888	0010
111	04045083	2720017	2730170	32102100	81042020	641	0000
112	07016515	2720017	2730170	32102110	81041890	8888	0001
113	06134942	2720017	2750000	32102720	81042590	8888	0010
114	05046755	2720017	2740437	32104070	81043820	2547	0000

## CRASH DATA

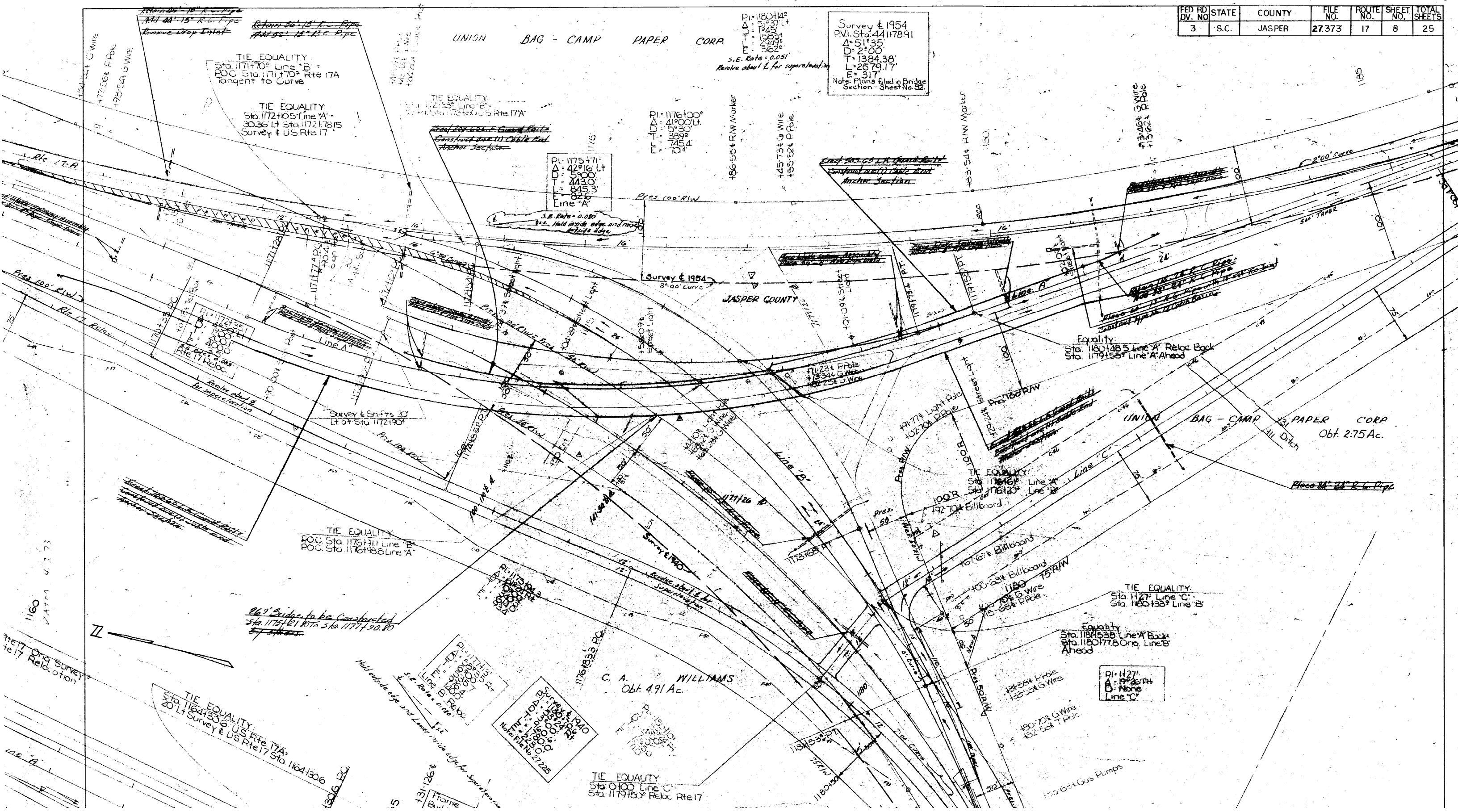
US-17  
Jasper County South of SC-170  
2004-2007

Obs	ANO	route	broute	LAT	LON	mpost	BDO
115	05153847	2720017	2730170	32104300	81043950	8888	0010
116	06152601	2720017	2730170	32104540	81044120	8888	0000
117	05127213	2720017	2730170	32104640	81044020	520	0000
118	07009509	2720017	2730170	32104990	81144380	8888	0010
119	04099883	2720017	2740379	32150 71	8104640	1089	0008

# HIGHWAY - INDEX SCALE PLOT



FED RD DIV. NO.	STATE	COUNTY	FILE NO.	ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	JASPER	27373	17	8	25



Survey & 1954  
PVI Sta. 44178.91  
Δ = 51°35'  
D = 2°00'  
T = 1384.38'  
L = 2579.17'  
E = 317'  
Note: Plans filed in Bridge Section - Sheet No. 52

PI = 1175+71.1  
Δ = 42°06' Lt  
D = 5°00'  
T = 4430.0'  
L = 845.3'  
E = 826.3'  
Line 'A'

TIE EQUALITY  
Sta. 1171+70 Line 'B' =  
POC Sta. 1171+70 Rte 17A  
Tangent to Curve

TIE EQUALITY  
Sta. 1172+05 Line 'A' =  
30.36 Lt Sta. 1172+78.15  
Survey & US Rte 17

TIE EQUALITY  
Sta. 1172+38 Line 'B' =  
Rte. Sta. 1173+50 U.S. Rte 17A

Construct box 10 Cable End  
Anchor Section

PI = 1176+00  
Δ = 41°00' Lt  
D = 5°00'  
T = 745.4'  
L = 70'

PI = 1180+14  
Δ = 51°37' Lt  
D = 2°00'  
T = 1384.38'  
L = 2579.17'  
E = 317'  
S.E. Rate = 0.051  
Revolve about 'L' for super-elevation

S.E. Rate = 0.050  
Held inside edge and raised  
outside edge

Equality  
Sta. 1180+48.5 Line 'A' Reloc Back  
Sta. 1179+55 Line 'A' Ahead

TIE EQUALITY  
POC Sta. 1176+31 Line 'B'  
POC Sta. 1176+98 Line 'A'

TIE EQUALITY  
Sta. 1127 Line 'C'  
Sta. 1180+35 Line 'B'

Equality  
Sta. 1184+53 Line 'A' Back  
Sta. 1180+77.8 Orig. Line 'B'  
Ahead

PI = 1175+10  
Δ = 42°06' Lt  
D = 5°00'  
T = 4430.0'  
L = 845.3'  
E = 826.3'  
Line 'A'

TIE EQUALITY  
Sta. 1179+150 Reloc. Rte 17

TIE EQUALITY  
Sta. 1164+30 U.S. Rte 17A  
20' Lt Survey & US Rte 17 Sta. 1164+30

26° Bridge to be Constructed  
Sta. 1178+01 to Sta. 1177+90.00  
57' spans

Hold outside edge and Land inside edge for Super-elevation

S.E.  
Frame  
Bul. 131-126

PI = 1127  
A = None  
B = None  
Line 'C'

1160  
VATM 4373

RT 17 Orig. survey  
to 17 Relocation

Line 'A'

150' Gas Pumps

100' 58' Billboard  
100' 58' Billboard  
100' 58' Billboard

100' 77' Billboard  
100' 77' Billboard

100' 77' Light Pole  
100' 77' Light Pole

100' 09' Street Light  
100' 09' Street Light

100' 09' Street Light  
100' 09' Street Light

100' 09' Street Light  
100' 09' Street Light

100' 09' Street Light  
100' 09' Street Light

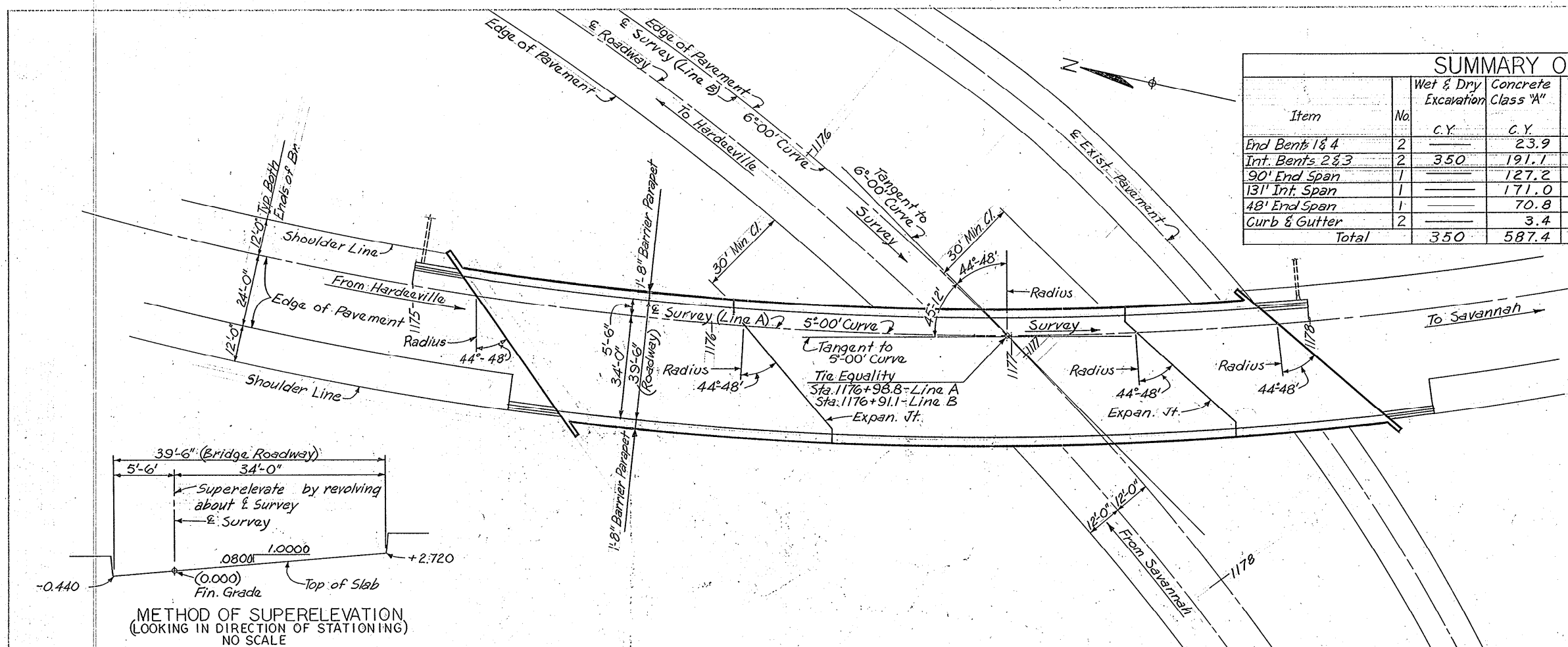
100' 09' Street Light  
100' 09' Street Light

100' 09' Street Light  
100' 09' Street Light

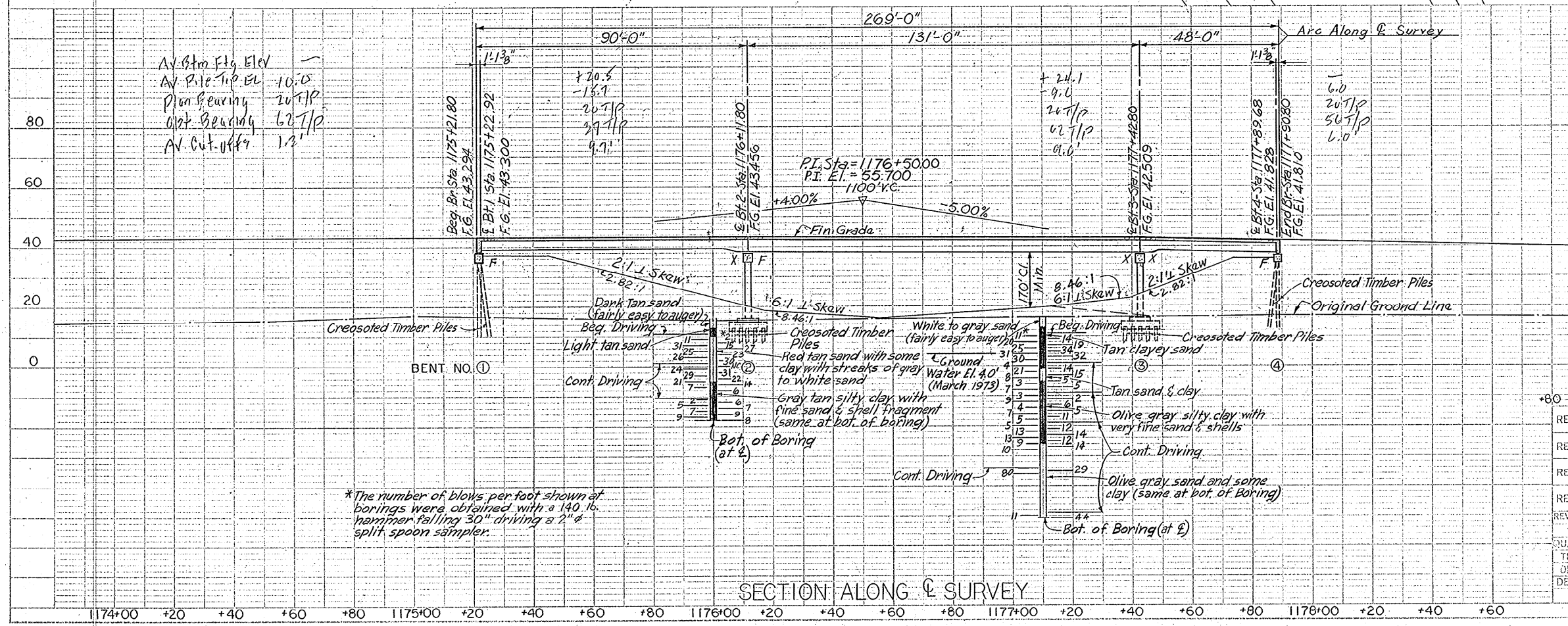
FED. RD. DIV. NO.	STATE	COUNTY	FILE NO.	ROUTE NO.	SHEET NO.	TOTAL SHEETS
3	S.C.	JASPER	27.373	17	9	25

### SUMMARY OF QUANTITIES

Item	No.	Wet & Dry Excavation	Concrete Class "A"	Reinf. Steel	Struct. Steel	Creos. Timber Piling	8" Pipe Slope Drains	Intake Spillway Assy.	Fabr. Metal Handrail
		C.Y.	C.Y.	LBS.	LBS.	L.F.	L.F.	Ea.	L.F.
End Bents 1 & 4	2		23.9	4,229		945			
Int. Bents 2 & 3	2	350	191.1	25,504		3045			
90' End Span	1		127.2	36,069	165,200				185.90
131' Int. Span	1		171.0	51,303	251,900				265.26
48' End Span	1		70.8	18,278	45,900				98.72
Curb & Gutter	2		3.4	252			110	2	
<b>Total</b>		<b>350</b>	<b>587.4</b>	<b>135,635</b>	<b>463,000</b>	<b>3,990</b>	<b>110</b>	<b>2</b>	<b>549.88</b>



<b>Line A Horizontal Curve Data:</b> P.I. Sta. = 1175+71.1 Δ = 42°16' Lt. D = 5°-00' T = 443.0' L = 845.3' E = 82.6'	<b>Line B Horizontal Curve Data:</b> P.I. Sta. = 1177+13.1 Δ = 58°35' Rt. D = 6°-00' T = 535.7' L = 976.4' E = 140.0'
--	---



**Notes:**  
 For Standard Notes see Sh. 4.  
 All Excavation shall be classified as "Wet & Dry" regardless of Elevation of Water.  
 Construct Curb & Gutter on both sides of Roadway at each end of Bridge.  
 Construct 8" Pipe Slope Drains on Left Side of Roadway only at Beg. & End of Bridge.  
 The Contractor shall pre-bore holes with a Min. diameter of 14" for End Bent Piles in order to insure penetration thru the fill. The holes shall be bored for the depth of embankment and at bent 4 they shall be bored thru the exist. pavement if it has not been removed. The cost of such boring shall be included in the Unit Price Bid for Creos. Timber Piling.

S. C. STATE HIGHWAY DEPARTMENT  
 BRIDGE DIVISION  
 COLUMBIA S. C.

### PLAN & PROFILE

FOR UNDERPASS UNDER  
 S.B. LANE OF U.S. ROUTE 17-A

REV. 1179+00    120    140    160    180    1180+00

QUAN. MCMWKH5-73    FILE NO. 27.373    COUNTY JASPER    ROUTE NO. 17    DATE 5-72

DES. ATM 5-72    APPROVED BY *[Signature]*    APPROVED BY *[Signature]*

BY CHK'D DATE    ASS'T. BRIDGE ENGINEER-DESIGN    BRIDGE ENGINEER-DESIGN

\*The number of blows per foot shown at borings were obtained with a 140 lb. hammer falling 30" driving a 2" split spoon sampler.

**PROJECT EVALUATION MATRIX**

Resource/Area of Concern		Impact	Impact Description
ENVIRONMENTAL FEATURES	UST/Hazardous Waste	U	No known sites
	Ground Water Contamination		
	Infectious Waste	U	No known sites
	Underground Storage Tanks	U	No known sites
	Water Storage		
	Others		
NATURAL RESOURCES	Wetland & Other Waters	C	Brackish, palustrine and estuarine wetlands
	Threatened & Endangered Species	P	Bald Eagle nesting sites nearby. Rafinesque's Big Eared Bat (state listed species) documented nearby.
	Flood Plains & Drainage	P	
	Water Resources & Quality	P	
	Air Quality		
	Farmland	P	The project will be assessed under the provisions of the Farmland Protection Policy Act of 1981.
	Parks	L	The Santee National Wildlife Refuge is located adjacent to US 17 in the northern part of the corridor.
CULTURAL RESOURCES	National Register	N	
	Historic Sites	P	Cultural/Historical landscape associated with 18 <sup>th</sup> /19 <sup>th</sup> century rice agriculture.
	Archeological Sites	P	An intensive survey of all affected upland areas should be performed.
	Architectural	N	
SOCIAL/OTHERS	Low Income /Minority	P	
	School/Hospitals	N	
	Churches/Cemeteries	N	
	Noise	L	
	Relocations	N	

**Impact Key:**

- P=Possible**
- L=Likely**
- C=Certain**
- N=None**
- U=Unknown**



**Notes:**

See Appendix E and F for additional comments and data.

# **APPENDIX F**





# Proposed Port Facility



-  Current Phase
-  Other Phases

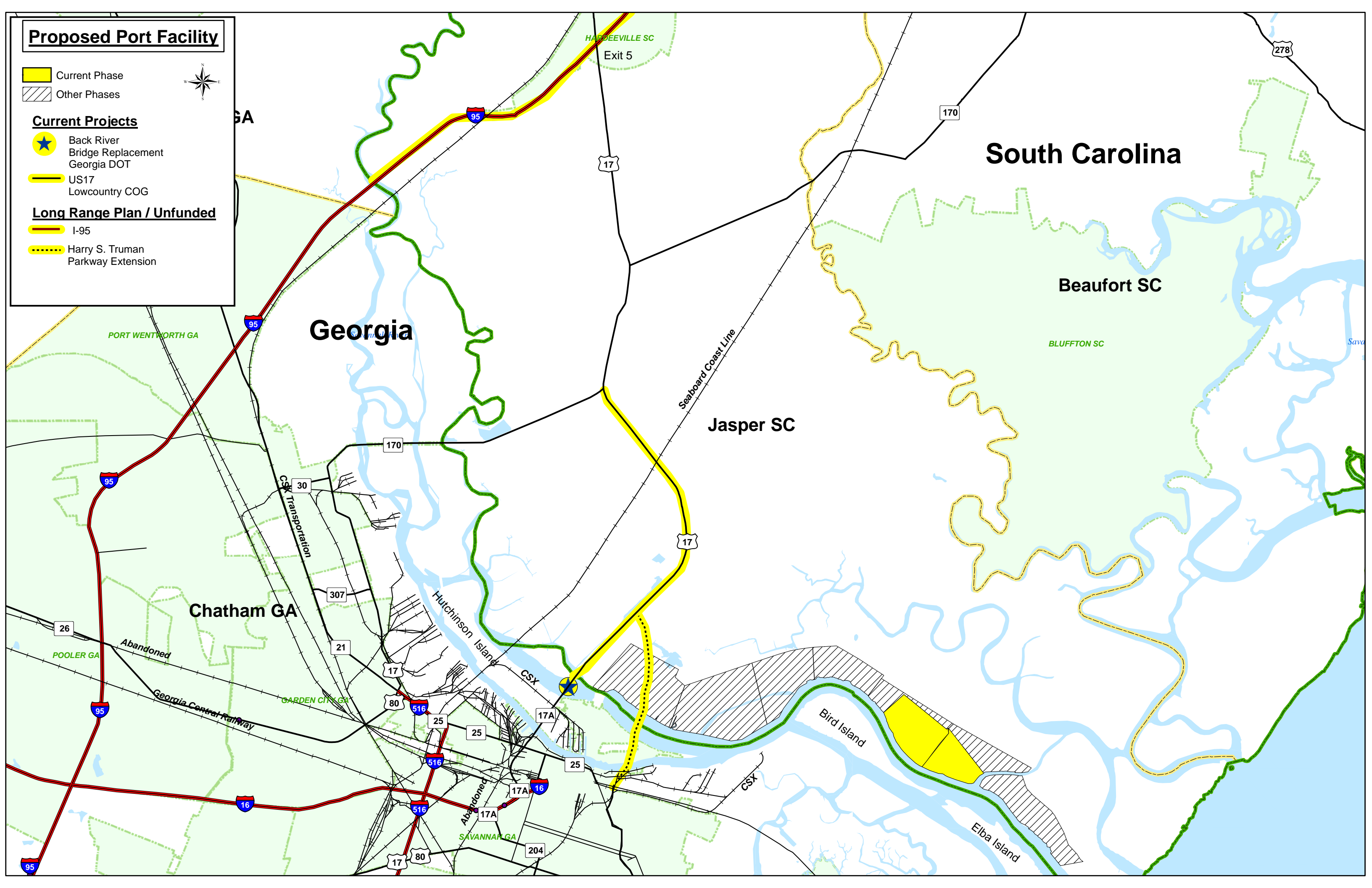


## Current Projects

-  Back River Bridge Replacement Georgia DOT
-  US17 Lowcountry COG

## Long Range Plan / Unfunded

-  I-95
-  Harry S. Truman Parkway Extension



## South Carolina Department of Archives and History

On Friday, 8/21/07, I rode the project areas for both the projects referenced in your e-mail below. I did not observe any significant above-ground (buildings, structures, landscapes, etc.) historic resources in either of the project areas. A review of our GIS information revealed a few archaeological sites within the project areas that need to be considered. Those are:

### **US 278 Extension:**

Site # 38JA0162--evaluated as "potentially not eligible"--located immediately north of Highway 278 at the intersection with I-95

### **US 17 Widening:**

Site # 38JA0173--evaluated as "potentially not eligible"

Site # 38JA0024--evaluated as "Additional work needed"

Both of these sites are located on the southern/eastern side of US 17 and are immediately adjacent to the road.

All three of these sites need further evaluation to make a clear "eligible vs. not eligible" determination. I noticed they did not turn up on the maps that were provided with the e-mail below. You might want to consult with Chad Long in SCDOT Environmental--he has the same GIS info that we do and he can show you the exact location of these sites. He may also be able to comment on the way their eligibility determinations would likely play out. Further information can also be found in the individual site forms for these sites, which are housed at the South Carolina Institute for Archaeology and Anthropology (SCIAA) on Pendleton Street adjacent to the USC campus.

Let me know if you have any questions or comments.

***David P. Kelly***

*Department of Transportation Coordinator  
National Register Survey Coordinator*

South Carolina Department of Archives and History  
8301 Parklane Road  
Columbia, SC 29223  
Phone (803) 896-6184  
Fax (803) 896-6167



# United States Department of the Interior



## FISH AND WILDLIFE SERVICE

176 Croghan Spur Road, Suite 200  
Charleston, South Carolina 29407

August 10, 2007

Mr. Nick Vakili-Rad  
S.C. Department of Transportation  
Office of Planning  
P.O. Office Box 191  
Columbia, SC 29202-0191

Re APPR, Hwy 17 Widening and US 278 Extension, Jasper County,  
FWS Log No. 42410-2007-TA-0592

Dear Mr. Vakili-Rad:

The Charleston Field office for the U.S. Fish and Wildlife Service (Service) recently attended a site visit as part of the Advance Project Planning Report (APPR) regarding two, distinct projects in Jasper County, South Carolina. The Service and other agencies met to discuss the potential widening of US Hwy 17 between SC 170 and the state line as well as the potential extension of US Hwy 278 from I-95 to US 321. This letter is to provide your office with comments on potential concerns and recommendations regarding the proposals, particularly with the potential to impact the Savannah National Wildlife Refuge (Refuge).

### US Hwy 17

The South Carolina Department of Transportation (SCDOT) is considering the addition of two lanes to a section of US Hwy 17 from the state line to SC 170. Upon completion the improved section will match the four lane section of US Hwy 17 extending northeastward to I-95. Although not clearly identified during the site visit, the Service believes the purpose of the improvements will be to accommodate future traffic demands along the corridor. During our site review, Service personnel noted extensive and critically important brackish and estuarine wetlands located on both sides of US Hwy 17. Any improvements to this section of roadway will result in potentially significant impacts through a multi-acre resource impact. Brackish and estuarine wetlands play a vital role as essential fish habitat for the majority of marine aquatic species, many of which are of commercial and recreational importance. Many avian and



mammalian species also depend on these wetland habitats during the course of their lives. While normally associated with Section 404 permitting the Service believes it is imperative that SCDOT consider all methods and opportunities to avoid and minimize during this early planning stage.

The Refuge was established in 1927 for migratory bird conservation. Currently, 46,000 acres make up the Refuge approved acquisition boundary, with over 29,000 acres of this owned by the Refuge. An active land acquisition program underway and the amount of acreage owned by the Refuge is expected to increase. The Refuge is the largest of a complex of seven separate refuges spread out over the Ogeechee, Savannah and Altamaha watersheds. US Hwy 17 is located along the southeastern Refuge acquisition boundary and is directly adjacent to Refuge owned lands. The Service is concerned that the US Hwy 17 improvement project will significantly impair the Refuge's ability to effectively manage Refuge lands and meet its objectives. Improvements to US Hwy 17 in this area may also prevent future land acquisition opportunities and subsequent management plans within the boundary.

Given the potential for the proposed improvement project to impact a significant amount of estuarine habitat and impair the Refuge's management objectives, the Service recommends SCDOT develop an Environmental Impact Statement (EIS) for this portion of US Hwy 17. We find the EIS is appropriate as it will thoroughly analyze all alternatives to the project, impacts to the surrounding environment (direct, secondary and cumulative impacts) as well as provide adequate considerations of the Refuge purpose and goals.

An EIS will also provide an initial review of potential mitigation opportunities to compensate for resource and management impacts. During the on-site review, Service personnel identified several areas where SCDOT may perform on-site mitigation. We recommend SCDOT consider the installation of multiple culverts throughout the project corridor to provide for safe wildlife passage and improve hydrologic flow across the roadway. Removal of an abandoned tidal gate, located on the Back River immediately downstream of the project, will provide significant hydrologic benefits to the estuarine environment. Additionally, we recommend SCDOT consider partnering with the Refuge in an effort to acquire an abandoned railway traversing the refuge.

### US Hwy 278 Extension

SCDOT proposes to extend US Hwy 278 from its existing intersection at I-95 to US 321 north of Hardeeville, SC. This proposal will entail a new alignment to facilitate hurricane evacuation for the growing population of Jasper and Beaufort Counties. The Service will assume the new roadway will be an extension of the existing four lane divided facility.

This project is immediately adjacent to known locations of the federally protected Red-cockaded woodpecker (RCW), *Picoides borealis*. Multiple clusters of RCWs are located north of the abandoned rail-line on a parcel of property known as the Okeetee Club Tract #2. This tract is under a Safe Harbor Agreement (SHA) with the Service and the South Carolina Department of Natural Resources (SCDNR). Service personnel provided SCDOT with the basic documentation of the SHA during the on-site field visit.

In order to avoid impacts to the SHA and RCWs the Service recommends that all future planning activities for the US Hwy 278 extension exclude potential corridors affecting the Okeetee Club Tract #2 boundaries. Further, SCDOT should perform extensive surveys for RCW's south of the existing SHA to determine if potential corridors may affect budding populations outside of the SHA.

The Service recommends a survey for any threatened and endangered (T&E) species that may occur in the project areas. Please find attached a list of T&E species that are known to or may occur in Jasper County. This list includes species of state and Federal concern. Reconnaissance efforts for the APPR must include a search for the federally listed T&E species. We also recommend SCDOT include the state listed species in its biological/ecological review. Please contact the S.C. Department of Natural Resources for further information on these species and their habitat requirements.

The Charleston Ecological Services office appreciates the opportunity to provide input at this early stage of the project's development. If you have any questions regarding our comments, please do not hesitate to contact Mark Caldwell of the Charleston ES office at (843) 727-4707 ext 215.

Sincerely,



Timothy N. Hall  
Field Supervisor

TNH/MAC

cc: Ms. Jane Griess, Refuge Complex Manager, U.S. Fish and Wildlife Service, Savannah National Wildlife Refuge, Savannah, GA

**South Carolina Distribution Records of  
Endangered, Threatened, Candidate and Species of Concern  
August, 2007**

E	Federally endangered
T	Federally threatened
P	Proposed in the Federal Register
CH	Critical Habitat
BGEPA	Federally protected under the Bald and Golden Eagle Protection Act
C	The U.S. Fish and Wildlife Service or the National Marine Fisheries Service has on file sufficient information on biological vulnerability and threat(s) to support proposals to list these species
S/A	Federally protected due to similarity of appearance to a listed species
SC	Federal Species of concern. These species are rare or limited in distribution but are not currently legally protected under the Endangered Species Act. Contact the National Marine Fisheries Service for more information on this species

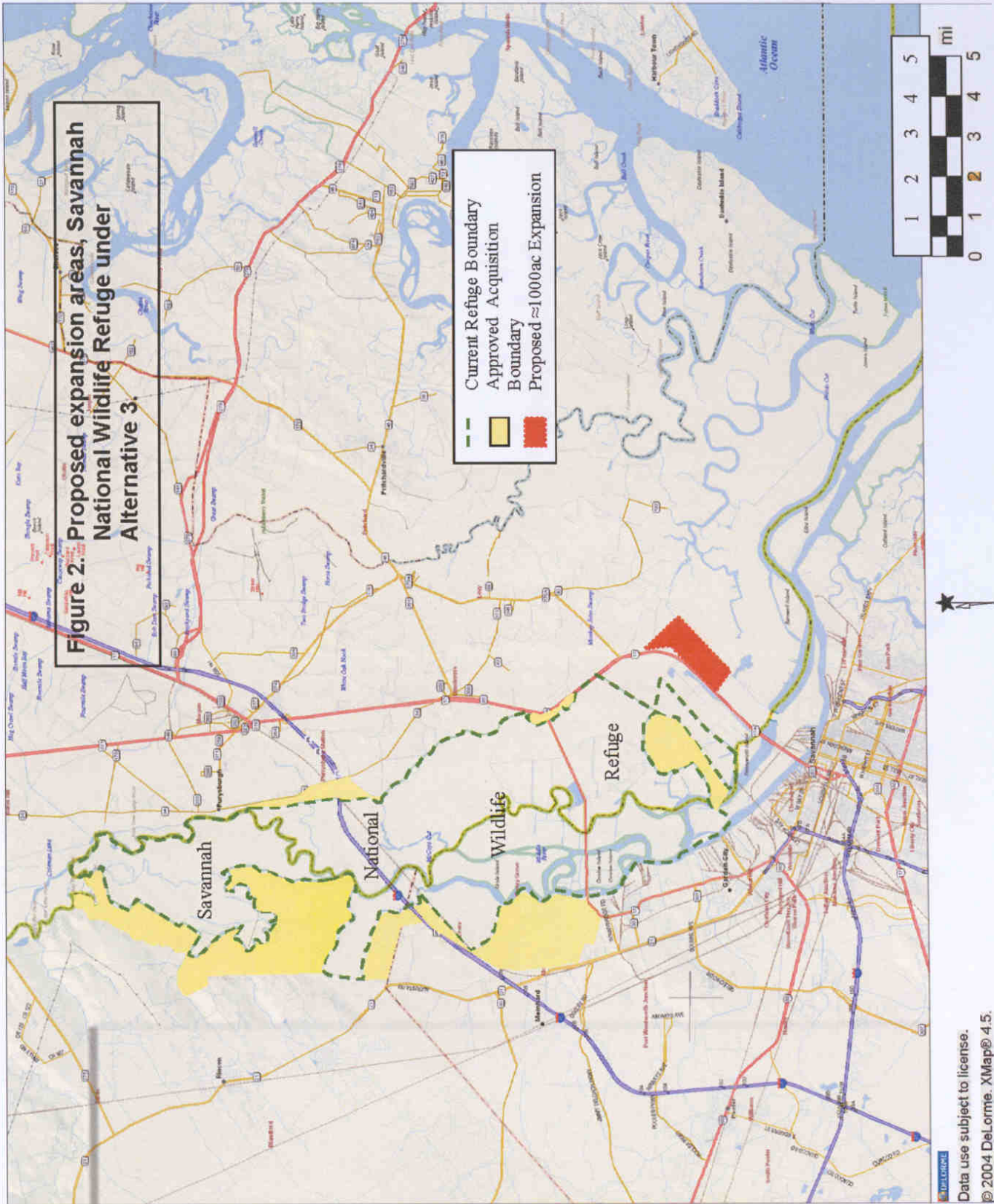
These lists should be used only as a guideline, not as the final authority. The lists include known occurrences and areas where the species has a high possibility of occurring. Records are updated continually and may be different from the following.

**Jasper County**

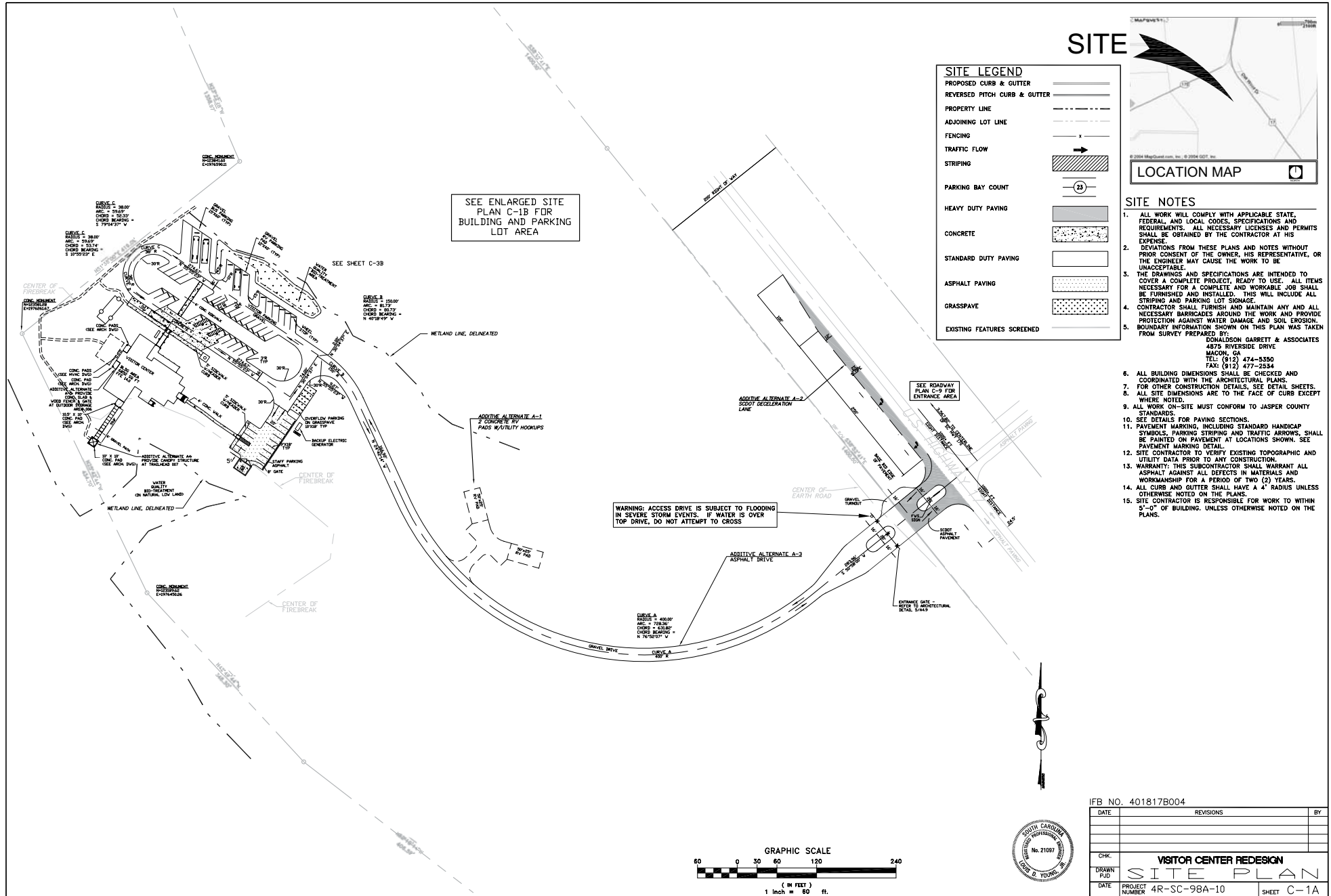
<b>Common Name</b>	<b>Scientific Name</b>	<b>Status</b>	<b>Occurrence</b>
West Indian manatee	<i>Trichechus manatus</i>	E	Known
Bald eagle	<i>Haliaeetus leucocephalus</i>	BGEPA	Known
Red-cockaded woodpecker	<i>Picoides borealis</i>	E	Known
Wood stork	<i>Mycteria americana</i>	E	Known
Piping plover	<i>Charadrius melodus</i>	T, CH	Possible
Kemp's ridley sea turtle	<i>Lepidochelys kempii*</i>	E	Known
Leatherback sea turtle	<i>Dermochelys coriacea*</i>	E	Known
Loggerhead sea turtle	<i>Caretta caretta</i>	T	Known
Green sea turtle	<i>Chelonia mydas*</i>	T	Possible
Flatwoods salamander	<i>Ambystoma cingulatum</i>	T	Known
Shortnose sturgeon	<i>Acipenser brevirostrum*</i>	E	Known
Pondberry	<i>Lindera melissifolia</i>	E	Possible
Canby's dropwort	<i>Oxypolis canbyi</i>	E	Possible
Chaff-seed	<i>Schwalbea americana</i>	E	Known
Southern Dusky Salamander	<i>Desmognathus auriculatus</i>	SC	Possible
Creeping St. Johns-wort	<i>Hypericum adpressum</i>	SC	Known
Pondspice	<i>Litsea aestivalis</i>	SC	Known

Pineland plantain	<i>Plantago sparsiflora</i>	SC	Known
Crested fringed orchid	<i>Pteroglossaspis ecristata</i>	SC	Known
Bachman's sparrow	<i>Aimophia aestivalis</i>	SC	Known
Henslow's sparrow	<i>Ammodramus henslowii</i>	SC	Known
Red knot	<i>Calidris canutus</i>	SC	Possible
Swallow-tailed kite	<i>Elanoides forficatus</i> <i>forficatus</i>	SC	Known
American kestrel	<i>Falco sparverius</i>	SC	Possible
American oystercatcher	<i>Haematopus palliatus</i>	SC	Known
Loggerhead shrike	<i>Lanius ludovicianus</i>	SC	Possible
Kirtland's Warbler	<i>Dendroica kirtlandii</i>	E	Possible
Painted bunting	<i>Passerina ciris ciris</i>	SC	Possible
Gull-billed tern	<i>Sterna nilotica</i>	SC	Known
Yellow lampmussel	<i>Lampsilis cariosa</i>	SC	Known
Bluebarred pygmy sunfish	<i>Elassoma okatie</i>	SC	Known
Tortoise, gopher (eastern pops)	<i>Gopherus polyphemus</i>	SC	Known
Southern hognose snake	<i>Heterodon simus</i>	SC	Possible
Mimic glass lizard	<i>Ophisaurus mimicus</i>	SC	Known
Northern pine snake	<i>Pituophis melanoleucus</i> <i>melanoleucus</i>	SC	Known
Florida pine snake	<i>Pituophis melanoleucus</i> <i>mugitus</i>	SC	Known
Rafinesque's big-eared bat	<i>Corynorhinus rafinesquii</i>	SC	Known

Figure 2.

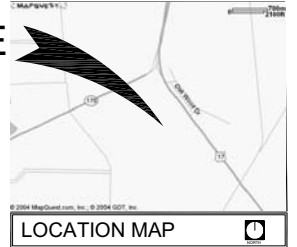






# SITE

SITE LEGEND	
PROPOSED CURB & GUTTER	
REVERSED PITCH CURB & GUTTER	
PROPERTY LINE	
ADJOINING LOT LINE	
FENCING	
TRAFFIC FLOW	
STRIPING	
PARKING BAY COUNT	
HEAVY DUTY PAVING	
CONCRETE	
STANDARD DUTY PAVING	
ASPHALT PAVING	
GRASSPAVE	
EXISTING FEATURES SCREENED	



- ### SITE NOTES
- ALL WORK WILL COMPLY WITH APPLICABLE STATE, FEDERAL, AND LOCAL CODES, SPECIFICATIONS AND REQUIREMENTS. ALL NECESSARY LICENSES AND PERMITS SHALL BE OBTAINED BY THE CONTRACTOR AT HIS EXPENSE.
  - DEVIATIONS FROM THESE PLANS AND NOTES WITHOUT PRIOR CONSENT OF THE OWNER, HIS REPRESENTATIVE, OR THE ENGINEER MAY CAUSE THE WORK TO BE UNACCEPTABLE.
  - THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO COVER A COMPLETE PROJECT, READY TO USE. ALL ITEMS NECESSARY FOR A COMPLETE AND WORKABLE JOB SHALL BE FURNISHED AND INSTALLED. THIS WILL INCLUDE ALL STRIPING AND PARKING LOT SIGNAGE.
  - CONTRACTOR SHALL FURNISH AND MAINTAIN ANY AND ALL NECESSARY BARRICADES AROUND THE WORK AND PROVIDE PROTECTION AGAINST WATER DAMAGE AND SOIL EROSION.
  - BOUNDARY INFORMATION SHOWN ON THIS PLAN WAS TAKEN FROM SURVEY PREPARED BY:  
DONALDSON GARRETT & ASSOCIATES  
4875 RIVERSIDE DRIVE  
MADISON, GA  
TEL: (912) 474-5550  
FAX: (912) 477-2534
  - ALL BUILDING DIMENSIONS SHALL BE CHECKED AND COORDINATED WITH THE ARCHITECTURAL PLANS.
  - FOR OTHER CONSTRUCTION DETAILS, SEE DETAIL SHEETS.
  - ALL SITE DIMENSIONS ARE TO THE FACE OF CURB EXCEPT WHERE NOTED.
  - ALL WORK ON-SITE MUST CONFORM TO JASPER COUNTY STANDARDS.
  - SEE DETAILS FOR PAVING SECTIONS.
  - PAVEMENT MARKING, INCLUDING STANDARD HANDICAP SYMBOLS, PARKING STRIPING AND TRAFFIC ARROWS, SHALL BE PAINTED ON PAVEMENT AT LOCATIONS SHOWN. SEE PAVEMENT MARKING DETAIL.
  - SITE CONTRACTOR TO VERIFY EXISTING TOPOGRAPHIC AND UTILITY DATA PRIOR TO ANY CONSTRUCTION.
  - WARRANTY: THIS SUBCONTRACTOR SHALL WARRANT ALL ASPHALT AGAINST ALL DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF TWO (2) YEARS.
  - ALL CURB AND GUTTER SHALL HAVE A 4' RADIUS UNLESS OTHERWISE NOTED ON THE PLANS.
  - SITE CONTRACTOR IS RESPONSIBLE FOR WORK TO WITHIN 5'-0" OF BUILDING, UNLESS OTHERWISE NOTED ON THE PLANS.

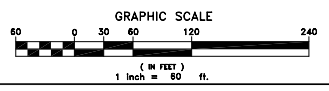
IFB NO. 401817B004

DATE	REVISIONS	BY

CHK. **VISITOR CENTER REDESIGN**

DRAWN **SITE PLAN**

DATE PROJECT NUMBER **4R-SC-98A-10** SHEET **C-1A**





REPLY TO  
ATTENTION OF

**DEPARTMENT OF THE ARMY**  
CHARLESTON DISTRICT, CORPS OF ENGINEERS  
69-A Hagood Avenue  
CHARLESTON, SOUTH CAROLINA 29403-5107

August 27, 2007

Regulatory Division

Mr. Nick Vakili Rad  
Planning Office  
South Carolina Department of Transportation  
P. O. Box 191  
Columbia, South Carolina 29202-0191

RE US 17 Widening APPR  
Jasper County

Dear Mr. Vakili Rad

This is in response to your request, on behalf of South Carolina Department of Transportation, for comments on proposed improvements to US 17 between the Georgia State Line and SC 170 in Jasper County, South Carolina. The project area is depicted on the attached location map which you provided during the early coordination for this project.

Based upon a review of the project area and the Draft Advanced Project Planning Report prepared for this project, it appears the project area may contain wetlands and/or other waters of the United States. This office encourages you to conduct a wetland delineation within the proposed project limits and to have that delineation verified by a Corps representative prior to performing any work. Please be aware that a Department of the Army permit will be required pursuant to Section 404 of the Clean Water Act if the project involves any discharges of dredged or fill material into Waters of the U.S., including wetlands.

As your project approaches the design phase, this office encourages you to incorporate design elements that will help minimize impacts to wetland resources in the project area. For example, it may be possible to lengthen existing bridges and enlarge existing culvert openings to maximize hydrologic flows and enhance passage opportunities for fish and wildlife. Widening impacts can be further minimized by horizontal alignment shifts and steepening of slopes in wetland areas. Please consider these basic engineering strategies as you develop a scope of work for future project development and design.

In future correspondence concerning this matter, please refer to SAC 2007-1904-DJR.

Your project may also need state or local assent. Prior to performing any work, you should contact the South Carolina Department of Health and Environmental Control, Bureau of Water. A copy of this letter is being forwarded to them for their information.

If you have any questions concerning this matter, please contact me at 843-329-8044 or toll free (outside of the Charleston area) at 1-866-329-8187.

Sincerely,

A handwritten signature in black ink that reads "Richard L. Darden". The signature is written in a cursive, flowing style.

Richard L. Darden, Ph.D.  
Project Manager

Copy Furnished:

South Carolina Department of Health and Environmental Control  
Bureau of Water  
2600 Bull Street  
Columbia, South Carolina 29201

BOARD:  
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Chairman  
Edwin H. Cooper, III  
Vice Chairman  
Steven G. Kisner  
Secretary



C. Earl Hunter, Commissioner

*Promoting and protecting the health of the public and the environment.*

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Glenn A. McCall  
Coleman F. Buckhouse, MD

August 6, 2007

S. C. Department of Transportation  
Attn: Nick V. Rad, P.E.  
C/O Ron Patton, Director  
Planning and Environmental  
955 Park Street  
Room 515  
P. O. Box 191  
Columbia, SC 29202-0191

Re: Advanced Project Planning for Proposed Widening of US 17 and US 278 extension in Jasper County.

Dear Mr. Rad:

The South Carolina Department of Health and Environmental Control (SCDHEC) is providing comments regarding the above project, as requested following a site visit conducted on August 2, 2007. As you are aware, SCDHEC's Bureau of Water administers applicable regulations pertaining to water quality standards and classifications, including wetland protection, in accordance with the South Carolina Pollution Control Act, the Federal Clean Water Act, the State Stormwater Management and Sediment Reduction Act, Construction in Navigable Waters Permitting, and associated regulations for all of these statutes.

The proposed US 17 project consists of widening the existing road from the Georgia state line to SC 170 in Jasper County. The project purpose is to reduce traffic congestion and improve safety. A portion of US 17 is located in the Savannah Wildlife refuge; therefore, USFWS should be consulted prior to construction. If applicable, wetland restoration opportunities should be explored if the causeway for the bridge crossing the abandoned Seaboard Cost Line railroad is removed. In addition, widening alignments that would minimize potential wetlands impacts should be considered.

The proposed extension of US 278 from US 17 to US 321 would involve construction on a new location, yet to be determined, in a broad corridor. The project purpose is to provide a hurricane evacuation route. SCDHEC recommends that an east-west route that would minimize impacts to wetlands within the corridor be selected. It is also recommended that USFWS be consulted regarding harbor protection areas within the corridor.

In order to ensure protection and maintenance of water quality standards, including wetlands functions, SCDHEC recommends efforts be made to minimize impacts to wetlands and open water areas when planning and constructing all projects. Such efforts could include lengthening existing bridges and enlarging existing culverts to improve hydrologic flows and aquatic life passage, as well as minimizing road width and utilizing 2:1 slopes in sensitive areas. SCDHEC will be able to provide more specific comments regarding these projects when more additional information is provided including a thorough description (and quantification) of the stream and wetland resources that will potentially be impacted by the proposed projects. An alternatives analysis, which addresses stream and wetland impact avoidance and minimization should be included, in addition to other factors, such as traffic volume/service, residential relocations, business relocations, and historic resource impacts. Other potential environmental impacts such as the disturbance of hazardous waste sites will need to be addressed prior to initiating this work.

The above information will be useful in making a decision regarding 401 Water Quality Certification

Page 2  
August 6, 2007  
Nick V. Rad

and a Construction in Navigable Waters Permit (if applicable) administered by this office. If required, the Water Quality Certification may be conditioned to address specific modifications and measures that may be required to further reduce wetland and water quality impacts after a review of detailed project drawings. A final mitigation plan addressing unavoidable wetland/stream impacts must be reviewed and approved by SCDHEC during the certification process.

We will be happy to attend any other pre-application meetings to facilitate the permitting process for this project. Please call me at 898-4179 if you have any questions.

Sincerely yours,



Mark Giffin, Project Manager  
Water Quality Certification, Standards, Navigable Waters  
and Wetlands Programs Section

cc: Gina Kirkland  
Region 8 EQC  
Jeff Thompson, OCRM  
Wayne Hall, SCDOT

Hi Nick,

FHWA comments on the US 17 APPR are as follows:

-When developing the NEPA the termini listed in the APPR does not meet FHWA's logical termini test. US FWS requested an EIS is completed on the proposed project. The level of NEPA documentation will be determined in PE. If possible, include the bridge sufficiency ratings on the project. Also a Section 4(f) document is needed from the proposed project due to impacts with the Wildlife Refuge. SCDOT should employ CSS to minimize impacts to the natural and human environment.

If you have any questions or comments, please advise.

Cordially,

Chetna P. Dixon  
Environmental Coordinator  
FHWA-SC Division  
1835 Assembly Street, Ste 1270  
Columbia, SC 29201

803.253.3381 (phone)  
803.253.3879 (fax)