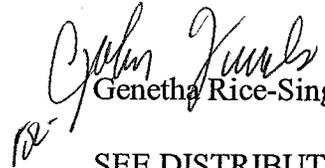


DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

**FILE** P. I. No. 222170-, Jefferson County **OFFICE** Preconstruction  
EDS00-0045-00(32)  
US 1/SR 4 Widening **DATE** January 18, 2008

**FROM**  Genetha Rice-Singleton, Assistant Director of Preconstruction  
**TO** SEE DISTRIBUTION

**SUBJECT** APPROVED REVISED PROJECT CONCEPT REPORT

Attached for your files is the approval for subject project.

Attachment

DISTRIBUTION:

Brian Summers  
Glenn Bowman  
Ken Thompson  
Michael Henry  
Keith Golden  
Angela Alexander  
Paul Liles  
Tony Collins  
George Brewer  
BOARD MEMBER

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

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**INTERDEPARTMENTAL CORRESPONDENCE**

**FILE** *EDS00-0045-00(032)*  
*EDS-545(32)*, Jefferson County      **OFFICE** Environment/Location  
PI # 222170

**DATE** September 26, 2007

**FROM** *GB/KET*  
Glenn Bowman, P.E., State Environmental/Location Engineer

**TO** Genetha Rice-Singleton, Assistant Director of Preconstruction

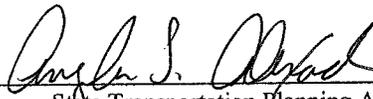
**SUBJECT** **Revised Project Concept Report – US 1/SR 4 Improvements**

Attached is the original copy of the revised Concept Report for your further handling for approval in accordance with the Plan Development Process (PDP).

For EDS-545(32), the proposed changes to the approved concept would be revisions to the typical section, design speed, and right-of-way. The approved typical section is proposed to be revised to minimize social impacts, and to improve continuity and maintain consistency. The approved right of way and design speed would be revised due to the proposed revision in the typical section.

This project is part of the Department's Governor's Road Improvement Program (GRIP). This project is not shown in the State Transportation Improvement Plan (STIP) because PE, ROW, and CST are outside the three year range of the STIP. This project will be added to the STIP when appropriate.

**DATE** 10/3/07

  
\_\_\_\_\_  
State Transportation Planning Administrator

*Distribution:*

Brian Summers – State Project Review Engineer  
Keith Golden – State Traffic Safety and Design Engineer  
Angela T. Alexander – State Transportation Planning Administrator  
Jamie Simpson – State Transportation Financial Management Administrator  
Babs Abubakari – State Consultant Design Engineer  
Tony Collins - Tennille District Engineer

# REVISED PROJECT CONCEPT REPORT

## EDS-545(32) – JEFFERSON CO.

**Need and Purpose:** US 1/SR 4 is the major north-south corridor in southeast Georgia. The proposed project, EDS-545(32) would widen and reconstruct US 1/SR 4 from CR 138/Mennonite Church Road to SR 88 in Wrens. The existing roadway is reaching capacity and improvements would be required to maintain an acceptable level of service. Improvements would also eliminate congestion, enhance the traffic flow, and increase capacity while improving the operational characteristics and the safety along US 1/SR 4.

The US 1/SR 4 Improvements are part of the Governor's Road Improvement Program (GRIP). GRIP was initiated in the 1980's to address the importance of stimulating economic growth via an improved transportation network. It identified a system of economic development highways that consist of existing primary routes, plus additional truck connector routes. The system would place 98 percent of the state's population within 20 miles of a multi-lane highway. It would provide access for oversized trucks to cities having populations between 2,000 people and 5,000 people. Among the many benefits of such a system, areas lagging in growth would be provided greater opportunities to attract industry, business and jobs.

**Project Location:** EDS-545(32) would be located along US 1/SR 4 and would begin at milepost 20.36 and end at milepost 27.00 in Jefferson County.

**Description of the approved concept:** The approved concept for EDS-545(32) in Jefferson County is proposed to widen and reconstruct US 1/SR 4 from CR 138/Mennonite Church Road to SR 88. The project would begin at CR 138/Mennonite Church Road and would proceed north with widening on the east side consisting of 4 lanes with a 44-foot median. East side widening would continue north approximately 800 feet, then proceed on new location west of existing US 1/SR 4 to avoid two eligible historic resources and a cemetery. The alignment would intersect CR 126/Lakes Williams Road approximately 700 feet west of existing US 1/SR 4 and return to east side widening on the existing roadway just north of CR 127/Turner Brown Road. East side widening would continue to just north of Big Creek, shift to west side widening, and continue north, to just south of CR 329/Campground Road. The existing bridge at Big Creek is proposed to be replaced under project BRST-043-1(58). Widening would then shift to the east side and proceed north to approximately 0.2 miles south of the southern intersection of CR 129/Hoyt Braswell Road. Continuing north, the proposed median would taper to minimize displacements and east side widening would continue to approximately 0.3 miles north of the southern intersection of CR 129/Hoyt Braswell Road. At this point, the typical section would be 4 lanes with a 14-foot flush median and widening would transition to symmetrical widening. Symmetrical widening would continue north to the northern intersection of CR 129/Hoyt Braswell Road, where curb & gutter would be utilized for approximately 0.2 miles north to the project's end at SR 88 in Wrens. Existing right-of-way along US 1/SR 4 varies from 130 feet to 140 feet. The proposed right-of-way would vary from 131 feet to 250 feet for the length of the project. The speed design would vary from 45 mph to 65 mph, and access would be by permit. It is recommended that the posted 45 mph speed limit be extended approximately 1 mile south of the Wrens south city limits to accommodate the change in typical section. The total length of the project would be approximately 6.7 miles.

**PDP Classification:** Major/Construction on existing roadway.

Full Oversight ( )                      Exempt (X)                      SF ( )                      Other ( )

**Functional Classification:** Rural Principal Arterial

**U. S. Route Number(s):** 001

**State Route Number(s):** 04

**Traffic (AADT) as shown in the approved concept:**

Current Traffic		Design Traffic	
Year: 2010	ADT: 10,500	Year: 2030	ADT: 16,600

**Proposed features to be revised:**

**Typical Section:** The approved typical section for a portion of the project is proposed to be revised to minimize social impacts, to improve continuity, and to maintain roadway consistency.

**Design Speed:** The approved design speed would be revised for the portions of the project that would be revising the typical section.

**Right-of-Way:** The approved right-of-way (widening project) would be revised for the portions of the project that would be revising the typical section.

**Revised feature(s) to be approved:**

**Typical Section:** The project would proceed as explained in the Description of the approved concept above until approximately 0.6 miles south of the southern intersection of CR 129/Hoyt Braswell Road. Continuing north, the proposed transition from a 4 lane, 44-foot grassed median rural typical section to a 4 lane, 14-foot flush median typical section to minimize displacements, and east side widening holding the existing lanes would continue to just south of the southern intersection of CR 129/Hoyt Braswell Road. At this point, the 4 lane, 14-foot flush median typical section would transition to symmetrical widening. Symmetrical widening would continue north to the project's end at SR 88 in Wrens. The project length would be approximately 6.7 miles.

**Design Speed:** The design speed would be 45 mph for the section proposed as a 14 foot rural typical section with a flush median and 65 mph for the section proposed as a 44-foot rural typical section with a grassed median.

**Continued - Revised feature(s) to be approved:**

**Right-of-Way:** Because of the proposed changes in the concept alignment, the proposed right-of-way would vary from 145 feet to 220 feet for the changes described under Typical Section above.

**Updated traffic data (AADT):**

Current Traffic		Design Traffic	
Year: 2011	AADT: 9,400 – 14,900	Year: 2031	AADT: 13,500 – 21,500

**Programmed/Schedule:**

P.E. FY 2002 R/W LR Construction LR

**Revised Cost Estimates:**

Construction cost, including E&C:	\$ 24,879,000.00
Right-of-way:	\$ 2,375,000.00
Utilities:	\$ 389,800.00

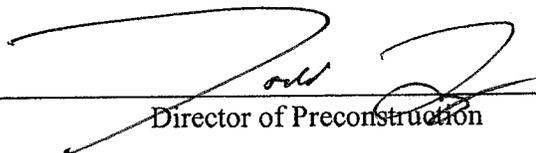
Is the project located in a Non-attainment area?        Yes   X   No

**Recommendation:** It is recommended that the proposed revisions to this concept be approved for implementation.

GB/DRP/EKP

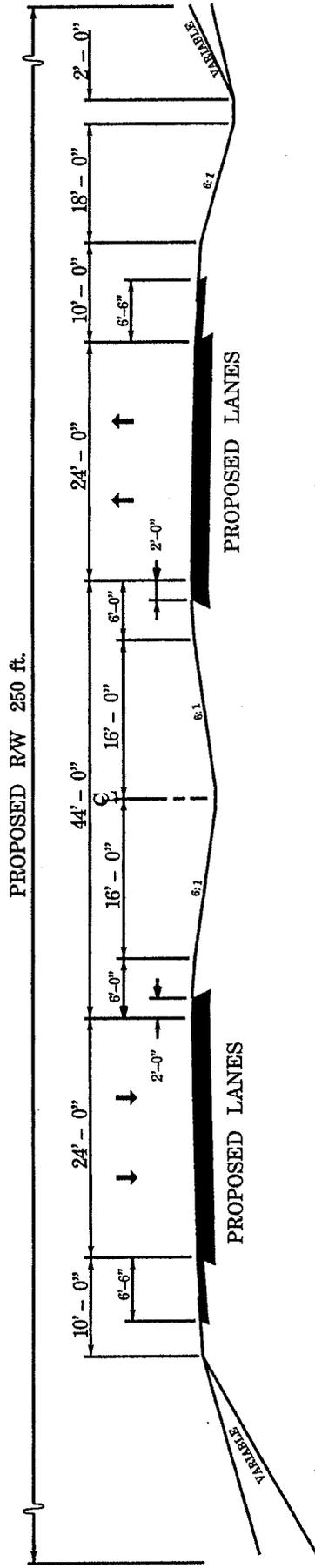
**Attachments:**

Sketch Map  
Typical Sections  
Cost Estimates

Concur:   
Director of Preconstruction

Approve:   
Chief Engineer





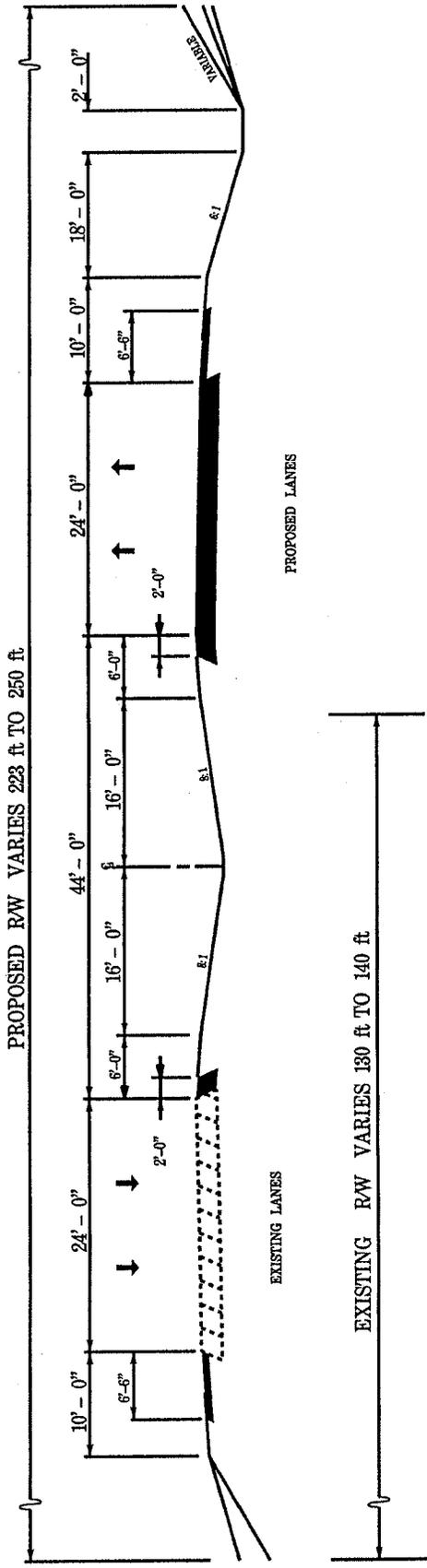
# EDS-545(32) JEFFERSON COUNTY

## US 1 IMPROVEMENTS

### NEW LOCATION

From 0.1 mile north of CR 138  
to just north of CR 127

NOT TO SCALE

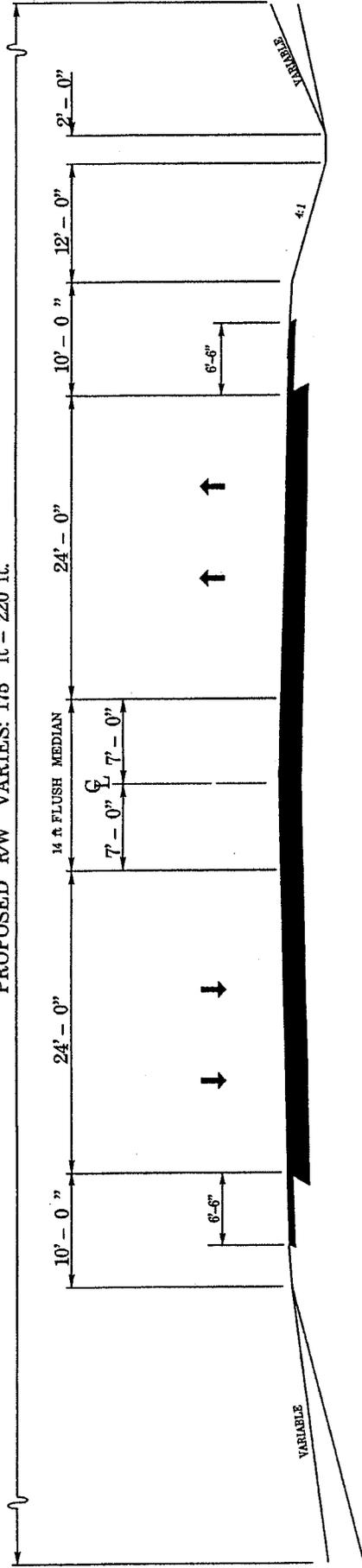


# EDS-545(32) JEFFERSON COUNTY US 1 IMPROVEMENTS

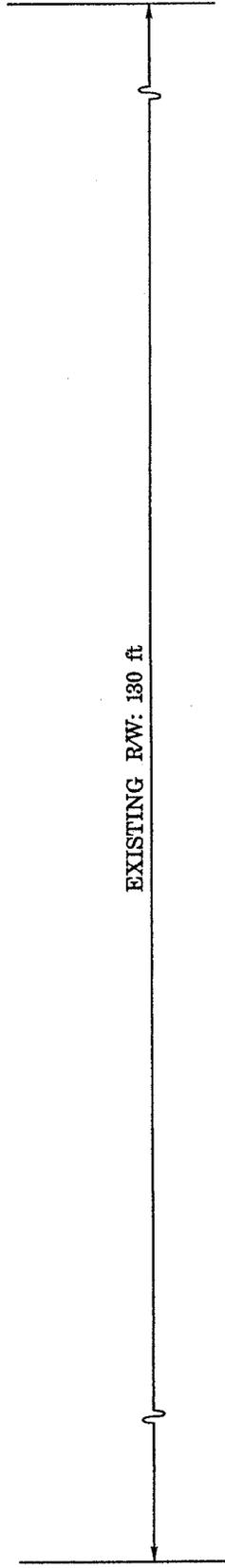
- 1) From CR 138 to 0.1 mile north of CR 138
- 2) From just north of CR 127 to 0.2 mile south of CR 129 South

NOT TO SCALE

PROPOSED R/W VARIES: 175 ft - 220 ft.



EXISTING R/W: 130 ft



# EDS-545(32) JEFFERSON COUNTY US 1 IMPROVEMENTS

From 0.2 mile south of CR 129 South  
to SR 88

NOT TO SCALE

# CONCEPT COST ESTIMATE

Office of Environment/Location

August 23, 2007 2:22 PM

County(s)

PI Number  Project Number

Project Name  Project Length  Miles

### Project Description

### Existing Roadway

### Comments

### TRAFFIC:

Current Design Year  Daily Volume (AADT)   
Future Design Year  Daily Volume (AADT)

Concept Estimate  Feasibility Estimate

### Typical Section(s) Used in Estimate

### Typical Section Length

<input type="text" value="Rural New Location: 4-Lanes with 44 ft Divided Median"/>	<input type="text" value="1.60"/> Miles
<input type="text" value="Rural Widening: 2 To 4-Lanes with 44 ft Divided Median"/>	<input type="text" value="3.90"/> Miles
<input type="text" value="Rural Widening: 2 To 4-Lanes with 14 ft Flush Median"/>	<input type="text" value="1.20 - 3.90"/> Miles
<input type="text"/>	<input type="text"/> Miles
<input type="text"/>	<input type="text"/> Miles
<input type="text"/>	<input type="text"/> Miles

Prepared By

**MAJOR STRUCTURES**

*Note! All distances are in feet*

**Bridges: Stream Crossings & Grade Separations**

NO	LOCATION	QTY	CROSSING TYPE	WIDTH	LENGTH	UNIT COST	TOTAL
1	Big Creek at MP 22.70	1	Stream-New	41.30	107.0	80.00	354,000
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							

**Bridge Culverts**

NO	LOCATION	TYPE / W x H / FILL	LENGTH	UNIT COST	TOTAL
1					
2					
3					
4					
5					
6					
7					
8					

**Walls**

NO	LOCATION	TYPE	HEIGHT	LENGTH	UNIT COST	TOTAL
1						
2						
3						
4						
5						
6						

MAJOR STRUCTURES SUBTOTAL \$ 354,000

**Typical Section**

Rural New Location: 4-Lanes with 44 ft Divided Median

Typical Section Length  Miles

Right-of-Way Width  Feet

**GRADING AND DRAINAGE**

- 1. EARTHWORK
  - a. Unclassified Excavation Soil
  - b. Unclassified Excavation Rock
  - c. Borrow Excavation
- 2. MINOR DRAINAGE

QUANTITY	UNIT COST	TOTAL
267,300 CY	7.36	1,967,000
29,700 CY	15.00	446,000
1.60 MI	101,000	162,000
<b>GRADING AND DRAINAGE SUBTOTAL</b>		<b>\$2,575,000</b>

**BASE AND PAVING**

- 1. GRADED AGGREGATE BASE
- 2. ASPHALT PAVING
  - a. Asph Conc 9.5 mm Superpave
  - b. Asph Conc 19 mm Superpave
  - c. Asph Conc 25 mm Superpave
  - d. Bituminous Tack Coat
- 3. CONCRETE PAVING
  - a. Curb and Gutter
  - b. Miscellaneous
- 4. OTHER PAVING

THICKNESS and SPREAD RATE	QUANTITY	UNIT COST	TOTAL
10"	34,631 TN	24.69	855,000
1 1/2" (165 LB/SY)	5,034 TN	85.00	428,000
3" (330 LB/SY)	10,156 TN	90.00	914,000
4" (440 LB/SY)	12,528 TN	80.00	1,002,000
	7,373 GL	2.30	17,000
	1.60 MI	42,000	67,000
			328,000
<b>BASE AND PAVING SUBTOTAL</b>			<b>\$3,611,000</b>

**LUMP ITEMS**

- 1. TRAFFIC CONTROL
- 2. CLEARING AND GRUBBING
- 3. EROSION CONTROL
- 4. SIGNING & MARKING
- 5. MISCELLANEOUS

QUANTITY	UNIT COST	TOTAL
1.60 MI	41,000	66,000
48.48 AC	25,000	1,212,000
1.60 MI	177,002	283,000
1.60 MI	19,321	31,000
1.60 MI	96,000	154,000
<b>LUMP ITEM SUBTOTAL</b>		<b>\$1,746,000</b>

**MISCELLANEOUS PROJECT ITEMS**

- 1. GUARDRAIL
- 2. GUARDRAIL ANCHORS
- 3. DETOURS
- 4. SPECIAL FEATURES

QUANTITY	UNIT COST	TOTAL
800 LF	19.95	16,000
8 EA	691.40	6,000
	300,000	
<b>MISCELLANEOUS SUBTOTAL</b>		<b>\$22,000</b>

**Typical Section**

Rural Widening: 2 To 4-Lanes with 44 ft Divided Median

Typical Section Length  Miles

Right-of-Way Width  Feet

**GRADING AND DRAINAGE**

- 1. EARTHWORK
  - a. Unclassified Excavation Soil
  - b. Unclassified Excavation Rock
  - c. Borrow Excavation
- 2. MINOR DRAINAGE

QUANTITY		UNIT COST	TOTAL
149,000	CY	7.36	1,097,000
16,550	CY	15.00	248,000
	CY		
3.90	MI	100,927	394,000
<b>GRADING AND DRAINAGE SUBTOTAL</b>			<b>\$1,739,000</b>

**BASE AND PAVING**

- 1. GRADED AGGREGATE BASE
- 2. ASPHALT PAVING
  - a. Asph Conc 9.5 mm Superpave
  - b. Asph Conc 19 mm Superpave
  - c. Asph Conc 25 mm Superpave
  - d. Bituminous Tack Coat
- 3. CONCRETE PAVING
  - a. Curb and Gutter
  - b. Miscellaneous
- 4. OTHER PAVING

THICKNESS and SPREAD RATE	QUANTITY		UNIT COST	TOTAL
10"	44,975	TN	24.69	1,110,000
1 1/2" (165 LB/SY)	8,180	TN	85.00	695,000
3" (330 LB/SY)	13,448	TN	90.00	1,210,000
4" (440 LB/SY)	16,215	TN	80.00	1,297,000
	10,066	GL	2.30	23,000
		LF		
	3.90	MI	28,410	111,000
				445,000
<b>BASE AND PAVING SUBTOTAL</b>				<b>\$4,891,000</b>

**LUMP ITEMS**

- 1. TRAFFIC CONTROL
- 2. CLEARING AND GRUBBING
- 3. EROSION CONTROL
- 4. SIGNING & MARKING
- 5. MISCELLANEOUS

QUANTITY	UNIT COST	TOTAL
3.90	MI	88,000
118.18	AC	25,000
3.90	MI	139,527
3.90	MI	17,594
3.90	MI	110,500
<b>LUMP ITEM SUBTOTAL</b>		<b>\$4,342,000</b>

**Typical Section**

Rural Widening: 2 To 4-Lanes with 14 ft Flush Median

Typical Section Length  Miles

Right-of-Way Width  Feet

**GRADING AND DRAINAGE**

- 1. EARTHWORK
  - a. Unclassified Excavation Soil
  - b. Unclassified Excavation Rock
  - c. Borrow Excavation
- 2. MINOR DRAINAGE

QUANTITY	UNIT COST	TOTAL
41,700 CY	7.36	307,000
4,630 CY	15.00	69,000
	CY	
1.20 MI	60,363	72,000
<b>GRADING AND DRAINAGE SUBTOTAL</b>		<b>\$448,000</b>

**BASE AND PAVING**

- 1. GRADED AGGREGATE BASE
- 2. ASPHALT PAVING
  - a. Asph Conc 9.5 mm Superpave
  - b. Asph Conc 19 mm Superpave
  - c. Asph Conc 25 mm Superpave
  - d. Bituminous Tack Coat
- 3. CONCRETE PAVING
  - a. Curb and Gutter
  - b. Miscellaneous
- 4. OTHER PAVING

THICKNESS and SPREAD RATE	QUANTITY	UNIT COST	TOTAL
10"	19,262 TN	24.69	476,000
1 1/2" (165 LB/SY)	4,356 TN	85.00	370,000
3" (330 LB/SY)	5,977 TN	90.00	538,000
4" (440 LB/SY)	6,055 TN	80.00	484,000
	4,359 GL	2.30	10,000
	LF		
	1.20 MI	8,824	11,000
<b>BASE AND PAVING SUBTOTAL</b>			<b>\$2,078,000</b>

**LUMP ITEMS**

- 1. TRAFFIC CONTROL
- 2. CLEARING AND GRUBBING
- 3. EROSION CONTROL
- 4. SIGNING & MARKING
- 5. MISCELLANEOUS

QUANTITY	UNIT COST	TOTAL
1.20 MI	59,304	71,000
21.82 AC	25,000	545,000
1.20 MI	84,867	102,000
1.20 MI	27,666	33,000
1.20 MI	49,624	60,000
<b>LUMP ITEM SUBTOTAL</b>		<b>\$811,000</b>

## ESTIMATE SUMMARY

<b>TYPICAL SECTION</b>	<b>COST (per mile)</b>
1. Rural New Location: 4-Lanes with 44 ft Divided Median	\$ 4,958,000
2. Rural Widening: 2 To 4-Lanes with 44 ft Divided Median	\$ 2,813,000
3. Rural Widening: 2 To 4-Lanes with 14 ft Flush Median	\$ 2,781,000
<b>PROJECT COST</b>	
<b>A. MAJOR STRUCTURES</b>	<b>\$ 354,000</b>
<b>B. GRADING AND DRAINAGE</b>	<b>\$ 4,762,000</b>
<b>C. BASE AND PAVING</b>	<b>\$ 10,580,000</b>
<b>D. LUMP ITEMS</b>	<b>\$ 6,899,000</b>
<b>E. MISCELLANEOUS</b>	<b>\$ 22,000</b>
<b>SUBTOTAL CONSTRUCTION COST</b>	<b>\$ 22,617,000</b>
<b>ENGINEERING &amp; CONTINGENCIES (10%)</b>	<b>\$ 2,262,000</b>
<b>INFLATION</b> <u>2</u> yr(s) @ <u>    </u> % per yr	<b>\$ -</b>
<b>GRAND TOTAL CONSTRUCTION COST</b>	<b>\$ 24,879,000</b>

# Preliminary Right of Way Cost Estimate

**Date:** February 20, 2007  
**Project:** EDS 545 (32) Jefferson  
**Existing/Required R/W:** Varies/Varies  
**Project Termini:** U. S. 1 / S. R. 4 From North of C. R. 138 / Mennonite Church Rd. to S. R. 88  
**Project Description:** Widening and reconstruction of U. S. 1 / S. R. 4

**P.I. Number:** 222170  
**No. Parcels:** 71

**Land:**

Commercial / Industrial  
 2.08 Ac. @ \$44,000 / Ac. = \$ 91,520  
  
 Residential  
 1.96 Ac. @ \$6,650 / Ac. = \$ 13,034  
  
 Agricultural  
 104.9 Ac. @ \$2,200 / Ac. = \$230,780

\$ 335,334

**Improvements:**

3 businesses, 1 mobile homes, curbing, paving, signs, fencing and site improvements  
 \$ 166,000

**Relocation:**

3 Commercial @ \$ 25,000 / parcel = \$ 75,000  
 1 Residential @ \$ 40,000 / parcel = \$ 40,000

\$115,000

**Damages:**

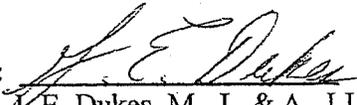
Proximity - 5 Parcels \$ 71,500  
 Cost To Cure - 1 Parcel \$ 25,000

\$ 96,500

\$ 712,834

Net Cost		\$	712,834
Scheduling Contingency	55 %	\$	392,059
Adm/Court Cost	60 %	\$	662,936
Inflation Factor	40 %	\$	<u>707,132</u>
		\$	2,374,961

**Total Cost \$ 2,375,000**

Prepared By:   
 J. E. Dukes, M., J., & A., LLC

Approved:   
 GDOT R/W

# Jefferson County Land Sales

<u>Highest &amp; Best Use</u>	<u>Size (acres)</u>	<u>Value/ac</u>	<u>Sales price</u>
Residential	1.55 Acres	\$ 6,500	\$ 10,000
	3.96 Acres	\$ 6,650	\$ 26,334
	3.29 Acres	\$ 5,583	\$ 18,368
Agricultural	48.44 Acres	\$ 2,043	\$ 98,990
	124.25 Acres	\$ 2,250	\$ 279,563
	80 Acres	\$ 2,200	\$ 176,000
	597.08 Acres	\$ 2,093	\$1,250,000
Commercial/Industrial	2.00 Acres	\$ 10,000	\$ 20,000
	2.31 Acres	\$ 54,110	\$ 125,000
	1.03 Acres	\$ 33,980	\$ 35,000
	0.25 Acres	\$ 44,000	\$ 11,000

PROJECT#		COUNTY		UTILITY COST ESTIMATE		PROJECT DESCRIPTION		LAYOUT DATE	
EDS-545 (32)		Jefferson		S.R.4 / U.S.1 from C.R.138 North to S.R.88 / Fall Line Freeway		222170		24-Jan-07	
PRIVATE UTILITY QUANTITIES	PUBLIC UTILITY QUANTITIES	UNITS	ITEM DESCRIPTION	UNIT PRICE	PRIVATE UTILITY COST	PUBLIC UTILITY COST			
			<b>POWER</b> <i>Georgia Power Company</i>	\$\$\$\$\$\$					
			This owner's facilities are located within the existing Right of Way throughout the project limits and should not be eligible for reimbursement. Information for this estimate was gathered during an on-site inspection.						
				<b>SUB - TOTAL</b>					
			<b>POWER</b> <i>Jerriferson Energy Cooperative</i>						
24		Each	Relocate Distribution Power Poles	\$3,500.00	\$84,000.00				
			This owner also has facilities located within the existing Right of Way throughout the project limits that should not be eligible for reimbursement. Information for this estimate was taken from plans provided by Roy Chambers with Jefferson Energy Cooperative.						
				<b>SUB - TOTAL</b>					
			<b>WATER</b> <i>City of Wrens</i>						
	350	Lin Ft	Relocate Water Main - 2" P.V.C.	\$12.00		\$4,200.00			
	5420	Lin Ft	Relocate Water Main - 6" P.V.C.	\$18.00		\$97,560.00			
	500	Lin Ft	Relocate Water Main - 8" P.V.C.	\$21.00		\$10,500.00			
	2	Each	Relocate Fire Hydrant	\$1,700.00		\$3,400.00			
	1	Lump	Service, Tie-ins, etc.	\$11,566.00		\$11,566.00			
			These facilities are located within the existing Right of Way throughout the project limits and should not be eligible for reimbursement. Information for this estimate was taken from plans provided by the City of Wrens.						
				<b>SUB - TOTAL</b>					
				<b>SUB - TOTAL</b>		\$127,226.00			
			<b>TELEPHONE</b> <i>BellSouth Telecommunications, Inc.</i>						
			This owner's facilities are located within the existing Right of Way throughout the project limits and should not be eligible for reimbursement. Information for this estimate was taken from plans provided by Warren Geitgey with BellSouth Telecommunications, Inc.						
				<b>SUB - TOTAL</b>					



