

D.O.T. 66

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE P. I. No. 522200-, Toombs County **OFFICE** Preconstruction
EDS-545(26)
SR 4/US 1 Bypass - City of Lyons **DATE** May 1, 2006

FROM *Margaret B. Pirkle*
Margaret B. Pirkle, P.E., Assistant Director of Preconstruction

TO SEE DISTRIBUTION

SUBJECT APPROVED REVISED PROJECT CONCEPT REPORT

Attached for your files is the approval for subject project.

MBP/cj

Attachment

DISTRIBUTION:

Brian Summers
Harvey Keepler
Ken Thompson
Jamie Simpson
Michael Henry
Keith Golden
Joe Palladi (file copy)
Babs Abubakari
Glenn Durrence
BOARD MEMBER

1000

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENTAL CORRESPONDENCE

FILE EDS-545(26), Toombs County **OFFICE** Environment/Location
PI # 522200

DATE April 13, 2006

FROM 
Harvey D. Keepler, State Environmental/Location Engineer

TO Meg Pirkle, 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(26), the proposed changes to the approved concept would be revisions to the alignment, typical section, design speed, project termini, and right-of-way. The approved alignment would be revised to avoid eligible historical resources and to reduce displacements in the City of Lyons. The typical section, design speed, project termini and right-of-way would be revised due to the change in the horizontal alignment.

The revised concept as presented herein and submitted for approval is consistent with that which is included in the State Transportation Improvement Program (STIP).

DATE 4/19/06


State Transportation Planning Administrator

Distribution:

Brian Summers – State Project Review Engineer
Keith Golden – State Traffic Safety and Design Engineer
Joe Palladi – State Transportation Planning Administrator
Jamie Simpson – State Transportation Financial Management Administrator
Babs Abubakari – State Consultant Design Engineer
Glenn Durrence – Jesup District Engineer
Paul Liles – State Bridge & Structural Design Engineer

REVISED PROJECT CONCEPT REPORT

EDS-545(26) –TOOMBS CO.

Need and Purpose: US 1/SR 4 is the major north-south corridor in southeast Georgia. The proposed project EDS-545(26) would bypass the city of Lyons to the north on new location. The bypass would help to decrease congestion, and enhance the traffic flow in and around the city of Lyons.

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(26) would begin approximately where existing US 1/SR 4 crosses the south City limits of Lyons, and would end approximately where US 1/SR 4 crosses the north City limits of Lyons. The project would begin at milepost 17.8 and end at milepost 20.9 in Toombs County. The length of the proposed project would be 3.2 miles.

Description of the approved concept: The approved concept for EDS-545(26) in Toombs County proposes a one-way pair along the existing roadway through the city of Lyons. The design speed would be 45 mph on the proposed new location and 35 to 45 mph on the proposed one-way pair sections. From the project's beginning, existing US 1/SR 4 would be widened to a four lane facility with a 14-foot flush median and open ditch drainage for 0.3 miles north. From this point to CS 566/Wilson Avenue, existing US 1/SR 4 would be widened to a four lane facility with a 14-foot flush median on curb and gutter. At CS 566/Wilson Avenue, the one-way pair alignment would begin. Existing US 1/SR 4 would be utilized for the northbound traffic and southbound traffic would be routed along CS 505/Washington Street. Existing US 1/SR 4 would be striped for one-way traffic. Proposed construction for CS 505/Washington Street would provide two 15-foot lanes and 10-foot shoulders on curb and gutter within the existing 50-feet of right-of-way. Minor reconstruction on Washington Street would improve the vertical alignment and would be striped for one-way traffic. The one-way pair alignment would end approximately at CS 555/McBride Avenue, where US 1/SR 4 would transition to a four lane facility with a 14-foot flush median and open ditches, and continue north to the end of the project approximately at the north city limits of Lyons.

PDP Classification: Major/Construction on existing roadway and new location

Full Oversight ()

Exempt (X)

SF ()

Other ()

Functional Classification: Urban 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: 1992	ADT: 6500	Year: 2012	ADT: 10,400

Proposed Features to be revised:

Project Alignment: The approved concept (one way pair through the City of Lyons) is proposed to be revised in order to avoid impacts to eligible historical resources, and reduce displacements in the city of Lyons.

Typical Section: The three approved typical sections (two 15-foot lanes on curb and gutter, four lanes with a 14-foot flush median and open ditches, and four lanes with a 14-foot flush median on curb and gutter) would be revised due to the change in the proposed alignment.

Project Termini: The approved project termini (starting approximately at the south city limits of Lyons on US 1/SR 4 and ending approximately on US 1/SR 4 at the north City Limits of Lyons) would be revised because of the proposed change in the concept alignment.

Right-of-Way: The approved right-of-way (widening project) would be revised because of the proposed change in the concept alignment.

Design Speed: The approved design speed (35-45 mph) would be revised because of the proposed changes in the concept.

Revised feature(s) to be approved:

Project Alignment: To avoid impacts to eligible historic resources and reduce displacements in the city of Lyons, the proposed alignment would bypass the city of Lyons to the west on new location. The bypass would begin just north of intersection US 1/SR 4 and CR 386/Green Oak Road, and proceed on new location on the west side of Lyons. The proposed alignment would continue northwest, and would intersect at grade CR 265/Dee Mosley Road, CR 337/Lyons Center Road and CR 257/Taylor Road. Continuing northward, the proposed alignment would grade separate the intersections of US 280/SR 30, Georgia Central Railroad, and SR 292, approximately 1.8 miles west of downtown Lyons. The proposed alignment would then move northeast on new location and would intersect at grade CR 370/McDilda Road and CR 224/Normantown Road. The proposed alignment would then transition back onto existing US 1/SR 4 as west side

Revised feature(s) to be approved continued:

widening approximately 0.4 miles north of Swift Creek and proceed north to the project's end at SR 130/Fisher Barefoot Highway.

Typical Section: The typical section that would be used for the new location portion of the project is four-12 foot lanes with a 44-foot grass median and open ditch drainage. For the section of the project where widening along existing pavement is proposed, four 12-foot lanes with a 32-foot grass median and open ditch drainage would be used.

Project Termini: The project would begin approximately at the intersection of existing US 1/SR 4 and CR 386/Green Oak Road (milepost 15.7) south of the city of Lyons, and would end on the north side of Lyons, approximately at the intersection of US 1/SR 4 and SR 130/Fisher Barefoot Highway (milepost 22.6) in Toombs County. The length of the new project would be 7.3 miles.

Right-of-Way: To accommodate the new slopes and typical section, the proposed conceptual right-of-way would vary from approximately 250 feet to 300 feet.

Design Speed: In order to remain consistent with Department policy for GRIP corridor roadways, the design speed would be 65 mph for the length of the project.

Updated traffic data (AADT):

Current Traffic		Design Traffic	
Year: 2007	AADT: 2,300 – 4,300	Year: 2027	AADT: 4,000 – 7,600

Programmed/Schedule:

P.E. 2002 R/W FY 2007 Construction FY 2009

Revised Cost Estimates:

Construction cost including inflation and E&C:	\$ 34,471,000
Right-of-way:	\$ 14,879,300
Utilities:	\$ 1,629,000

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.

HDK/EKP/mrh

Attachments:

Sketch Map

Typical Sections

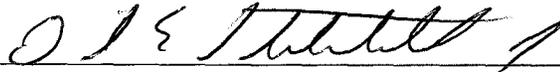
Cost Estimates – Construction, Utilities, and Right-of-Way

Concur:

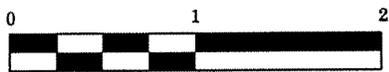
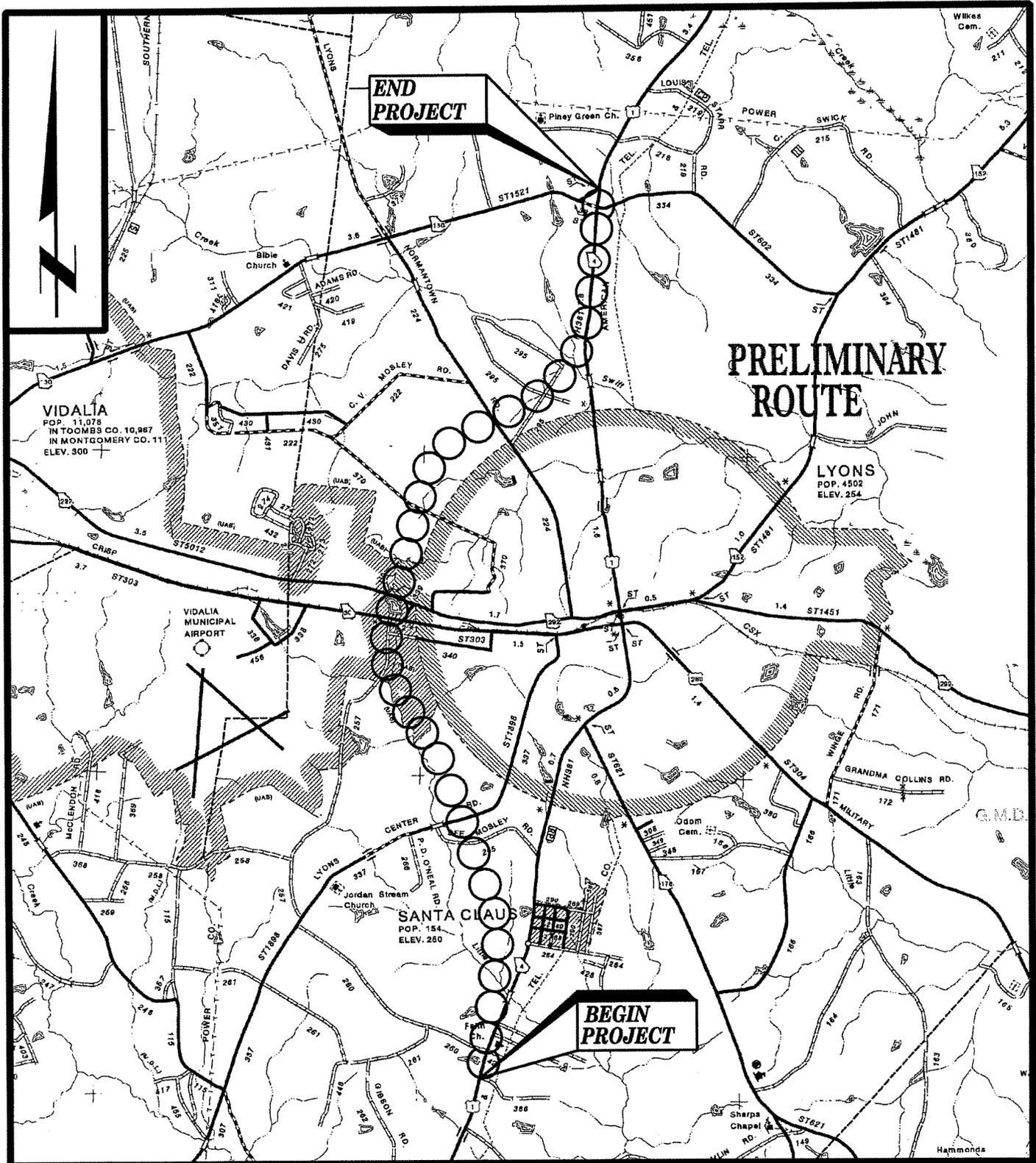


Director of Preconstruction

Approve:



Chief Engineer



SCALE IN MILES



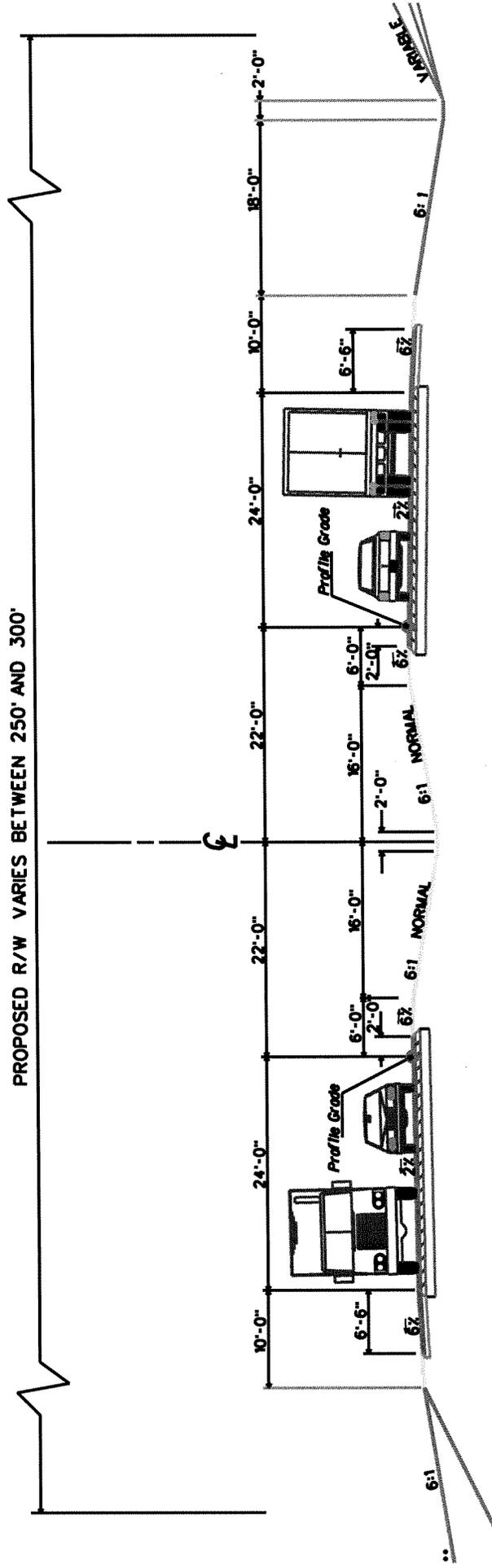
LOCATION

STRIP-MAP
EDS-545(26)
US 1 IMPROVEMENTS
TOOMBS COUNTY

P.I.# 522200

SOURCE: GENERAL HIGHWAY MAP, TOOMBS CO., GEORGIA
PREPARED BY THE GEORGIA DEPT. OF TRANSPORTATION, 1990

G.R.I.P. TYPICAL SECTION
 44-FOOT DEPRESSED GRASS MEDIAN RURAL SECTION
 65 MPH SPEED DESIGN



** Guardrail Required when sleeper (non 4:1

US 1/5R 4 IMPROVEMENTS
 EDS-545(26) TOOMBS CO.

From just north of intersection
 US 1/5R 4 and CR 386 to
 approximately 3100 ft south of
 intersection US 1/5R 4 and CR 344

NOT TO SCALE

CONCEPT COST ESTIMATE

Office of Environment/Location

February 24, 2006 1:26 PM

County(s)

PI Number Project Number

Project Name Project Length Miles

Project Description

Beginning at the intersection of US 1/SR 4 and CR 386/Green Oak Road, bypassing the city of Lyons to the west on new location, ending at the Toombs Corporate park on existing US 1/SR 4.

Existing Roadway

Comments

Avoidance Alternative - West of Lyons

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="6.60"/> Miles
<input type="text" value="Rural New Location: 2-Lanes with 24 ft Pavement"/>	<input type="text" value="0.90"/> Miles
<input type="text" value="Rural Widening: 2 To 4-Lanes with 32 ft Divided Median"/>	<input type="text" value="0.70"/> 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	Little Rocky Creek	2	Stream-New	41.30	90.0	54.00	401,000
2	Georgia Central RR/US 280 Crossing	2	Railway-New	41.30	320.0	70.00	1,850,000
3	SR 292 Crossing	2	Roadway-New	41.30	180.0	57.00	847,000
4	Swift Creek	2	Stream-New	41.30	300.0	54.00	1,338,000
5							
6							
7							
8							
9							
10							
11							
12							

Bridge Culverts

NO	LOCATION	TYPE / W x H / FILL	LENGTH	UNIT COST	TOTAL
1	Ephemeral Stream	Single / 6 x 6 / 20	232.0	291.18	68,000
2	Ephemeral Stream	Single / 6 x 6 / 10	216.0	258.35	56,000
3	Tributary of Swift Creek	Single / 6 x 6 / 20	184.0	296.03	54,000
4					
5					
6					
7					
8					

Walls

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

MAJOR STRUCTURES SUBTOTAL \$ 4,614,000

Typical Section

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

Typical Section Length MilesRight-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
730,620	CY	7.00	5,114,000
81,180	CY	13.00	1,055,000
104,800	CY	8.69	911,000
6.60	MI	144,562	954,000
GRADING AND DRAINAGE SUBTOTAL			\$8,034,000

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"	142,855	TN	16.24	2,320,000
1 1/2" (165 LB/SY)	20,764	TN	46.72	970,000
3" (330 LB/SY)	41,895	TN	44.82	1,878,000
4" (440 LB/SY)	51,676	TN	42.04	2,172,000
	30,413	GL	1.09	33,000
		LF		
	6.60	MI	59,304	391,000
				776,000
BASE AND PAVING SUBTOTAL				\$8,540,000

LUMP ITEMS

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

QUANTITY		UNIT COST	TOTAL
6.60	MI	35,652	235,000
176.00	AC	9,103	1,602,000
6.60	MI	120,112	793,000
6.60	MI	29,986	198,000
6.60	MI	79,626	526,000
LUMP ITEM SUBTOTAL			\$3,354,000

MISCELLANEOUS PROJECT ITEMS

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

QUANTITY		UNIT COST	TOTAL
11,620	LF	17.30	201,000
52	EA	1,638.60	85,000
	MI	360,145	
MISCELLANEOUS SUBTOTAL			\$286,000

Typical Section

Rural New Location: 2-Lanes with 24 ft Pavement

Typical Section Length MilesRight-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
48,060 CY	7.00	336,000
5,340 CY	13.00	69,000
	CY	
0.90 MI	52,779	348,000
GRADING AND DRAINAGE SUBTOTAL		\$753,000

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"	9,883 TN	16.24	160,000
1 1/2" (165 LB/SY)	1,612 TN	46.72	75,000
3" (330 LB/SY)	3,249 TN	44.82	146,000
4" (440 LB/SY)	2,868 TN	42.04	121,000
	2,056 GL	1.09	2,000
		LF	
	0.90 MI	22,373	20,000
			52,000
BASE AND PAVING SUBTOTAL			\$576,000

LUMP ITEMS

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

QUANTITY	UNIT COST	TOTAL
0.90 MI	10,696	10,000
10.91 AC	9,103	99,000
0.90 MI	96,432	87,000
0.90 MI	10,858	10,000
0.90 MI	23,888	21,000
LUMP ITEM SUBTOTAL		\$227,000

Typical Section

Rural Widening: 2 To 4-Lanes with 32 ft Divided Median

Typical Section Length MilesRight-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
13,500 CY	7.00	95,000
1,500 CY	13.00	20,000
0.70 MI	144,458	953,000
GRADING AND DRAINAGE SUBTOTAL		\$1,068,000

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"	9,066 TN	16.24	147,000
1 1/2" (165 LB/SY)	2,202 TN	46.72	103,000
3" (330 LB/SY)	2,798 TN	44.82	125,000
4" (440 LB/SY)	3,250 TN	42.04	137,000
	2,195 GL	1.09	2,000
	0.70 MI	40,114	28,000
			54,000
BASE AND PAVING SUBTOTAL			\$596,000

LUMP ITEMS

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

QUANTITY	UNIT COST	TOTAL
0.70 MI	76,522	54,000
18.67 AC	9,103	170,000
0.70 MI	97,891	69,000
0.70 MI	27,306	19,000
0.70 MI	91,653	64,000
LUMP ITEM SUBTOTAL		\$376,000

ESTIMATE SUMMARY

TYPICAL SECTION	COST (per mile)
1. Rural New Location: 4-Lanes with 44 ft Divided Median	\$ 3,019,000
2. Rural New Location: 2-Lanes with 24 ft Pavement	\$ 1,729,000
3. Rural Widening: 2 To 4-Lanes with 32 ft Divided Median	\$ 2,914,000
PROJECT COST	
A. MAJOR STRUCTURES	\$ 4,614,000
B. GRADING AND DRAINAGE	\$ 9,855,000
C. BASE AND PAVING	\$ 9,712,000
D. LUMP ITEMS	\$ 3,957,000
E. MISCELLANEOUS	\$ 286,000
SUBTOTAL CONSTRUCTION COST	\$ 28,424,000
ENGINEERING & CONTINGENCIES (10%)	\$ 2,842,000
INFLATION <u> 2 </u> yr(s) @ <u> 5 </u> % per yr	\$ 3,205,000
GRAND TOTAL CONSTRUCTION COST	\$ 34,471,000

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENTAL CORRESPONDENCE

FILE: EDS-545(26) Toombs P. I. # 522200

OFFICE: Jesup, Georgia

DATE: January 30, 2006

FROM: Karon Ivery, District Utilities Engineer

TO: Babs Abubakari, P.E., Office of Program Delivery and Consultant Design
David Norwood

SUBJECT: Utility Cost Estimate- SR 4 LYONS FM S CTY LMTS TO N CTY LMTS/INCL 1-WY
PAIR&CLVT(this project description is wrong; new description should be new alignment from south of
the city limits of Santa Clause north City limits of Lyons)

Per a request, an on site inspection was made by this office and the following utilities
were found to be located within the project limits:

- Altamaha EMC-Power
- Atlanta Gas Light Company-Gas
- Bellsouth- Telephone
- City of Lyons-Water
- Georgia Power Company; Distribution-Power
- Georgia Power Company; Transmission-Power

This estimate is based upon an aerial photograph with existing and proposed R/W marked
without Station Numbers and a field visit to the project. From the field visit most of the
existing utilities appear to be on the existing right of way (on and off system), with the
exceptions of Georgia Power's 115 KV line is on private easement. Atlanta Gas Light
Company's 4" main is on a 5' easement adjacent to the south side R/W of the SR 30.

The estimated cost to relocate 11 concrete structures to Georgia Power Company-
Transmission is \$1,375,000.00 @ \$125,000.00 per structure.

The estimated cost to relocate 13 three phase wood structures to Altamaha EMC
which is located off of the State's R/W is \$104,000.00 @ \$8,000.00 per structure.

The estimated cost to relocate 24 single phase wood structures to Altamaha EMC
which is located off of the State's R/W is \$120,000.00 @ \$5,000.00 per structure.

The estimated cost to relocate 3,900LF of buried copper cable to BellSouth which is located off of the State's R/W is \$19,500.00@ \$5.00 per foot and 300LF of buried fiber optic cable is \$3,000.00 @\$10.00 per foot.

The estimated cost to relocate 1,500LF of buried TV cable to Northland Cablevision of Georgia, Inc. which is located off of the State's R/W is \$7,500.00@ \$5.00 per foot

Other utilities that are not reimbursable but should be noted is that Altamaha EMC has a distribution pole line which runs mostly on the north side R/W of SR 292 and should relocate where necessary at no cost. Georgia Power Company has a distribution pole line which runs mostly on the south side R/W of SR 30 and should relocate where necessary at no cost. BellSouth Telephone has a 12 conduit ductbank on Railroad R/W on the north side of SR 30.

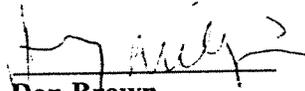
The total estimated reimbursable cost for this project is \$1,629,000.00.

If there are any questions please contact George Shenk at (912) 427-5859.

Copy:

Jamie Simpson, Office of Financial Management
District Office files
Utility Office Files

Preliminary Right of Way Cost Estimate



Don Brown
 Right of Way Administrator
 By: Jerry Milligan

Date: November 10, 2005
Project: EDS-545(26)Appling / Toombs
Existing/Required R/W: Varies/Varies
Project Termini: US 1 / SR 4 from Hardon Chapel Road to SR 130
Project Description: Widening of US / SR 4

P.I. Number: 522200
No. Parcels: n/a

Land:

Residential : 41.7 acres @ \$ 4,000 / acre	\$ 166,800	
Agricultural : 145.8 acres @ \$ 1,500 / acre	218,700	
Commercial : 21.0 acres @ \$ 100,000 / acre	<u>2,100,000</u>	\$ 2,485,500

Improvements : Houses, business, Misc. Site Improvements 1,450,000

Relocation: Residential (9)	\$ 180,000	
Commercial (1)	<u>25,000</u>	205,000

Damage : None 0

Net Cost \$ 4,285,500

Net Cost		\$ 4,286,500
Scheduling Contingency	55 %	2,357,025
Adm/Court Cost	60 %	3,985,515
Inflation Factor	40 %	<u>4,251,216</u>
		\$ 14,879,256

Total Cost \$ 14,879,300