

DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA

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## INTERDEPARTMENT CORRESPONDENCE

FILE EDS-500(5) & IR-75-3(175) Bartow County OFFICE Preconstruction  
(Formerly: EDS-460(3) & TSAP-777 Bartow)  
P.I. Nos. 661950 & 610640 DATE November 20, 1991

FROM *C. Wayne Hutto*  
C. Wayne Hutto, Assistant Director of Preconstruction

TO SEE DISTRIBUTION

SUBJECT PROJECT CONCEPT REPORT APPROVAL - OUTER PERIMETER

Attached for your files is the approval for subject project.

CWH/se

Attachment

## DISTRIBUTION:

John Lively  
Robert E. Humphrey  
David Studstill  
Herman Griffin  
Roland Hinners  
Darrell Elwell  
Winn Guthrie  
Kirby Hamil  
Felton Rutledge

DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE EDS-500(5) & IR-75-3(175) Bartow County OFFICE Preconstruction  
(Formerly: EDS-460(3) & TSAP-777 Bartow) DATE November 5, 1991  
P.I. Nos. 61950 & 610640

FROM Hoyt J. Lively, Director of Preconstruction

TO Wayne Shackelford, Commissioner

SUBJECT OUTER PERIMETER - PROJECT CONCEPT REPORT

A concept report was approved for subject projects on September 29, 1988 and an L&D report was approved on September 15, 1989, both of which proposed constructing 4 lanes w/30' grassed median on minimum 400' of right-of-way. This revised concept report changes the median width from 30' to 102'. The initial construction of 4 lanes remains unchanged. The initial diamond interchange at I-75 will now be a portion of the future proposed directional interchange. The location of the bridges in the original report remains unchanged.

Therefore, this revised concept report should be attached to and become part of the original report to reflect the new width of median and the interchange design. The original report should be retained to reflect the location of the major structures. The estimated cost of the revised project is:

	<u>EDS-500(5)</u>		<u>PROG. DATE</u>
	<u>PROPOSED</u>	<u>APPROVED</u>	
Constr(Infl&E/C)	\$27,094,000	\$36,180,000	FY 94
Right-of-way	\$ 8,867,000	\$10,490,000	
Utilities	\$ 718,400	-	

	<u>IR-75-3(175)</u>		<u>PROG. DATE</u>
	<u>PROPOSED</u>	<u>APPROVED</u>	
Constr(Infl&E/C)	\$19,531,000	\$7,277,000	FY/94
Right-of-way	\$ 4,581,000	\$ 463,000	
Utilities	\$ 15,600	-	

I recommend that we approve this revised project concept report for implementation. A public hearing has been held.

HJL/WLP/se

CONCUR: G. C. Lewis  
G. C. Lewis  
State Highway Engineer

APPROVED: Wayne Shackelford  
Wayne Shackelford  
Commissioner

DEPARTMENT OF TRANSPORTATION RECEIVED  
STATE OF GEORGIA

SEP 11 1991

INTERDEPARTMENT CORRESPONDENCE

FILE EDS-500(5), Bartow  
 IR-75-3(175), Bartow  
 P. I. No. 661950, 610640, Outer Perimeter

OFFICE Atlanta, Georgia

DATE September 6, 1991

FROM *Walker W. Scott*  
 Walker W. Scott, Jr., P.E., State Urban Design Engineer

TO Hoyt J. Lively, Jr., P.E., Director of Preconstruction  
 Attn: Wayne Hutto

SUBJECT

Attached for your review and approval is a revised concept report for these projects. The primary change is to widen the median of the initial project from 30 ft. to 102 ft. for the reasons stated under "Comments" on page four of the report.

<sup>ART</sup>  
WWS:ART:mj  
Attachment

*We Concur in revised cost estimate*  
*[Signature]* 11/5/91

DEPARTMENT OF TRANSPORTATION

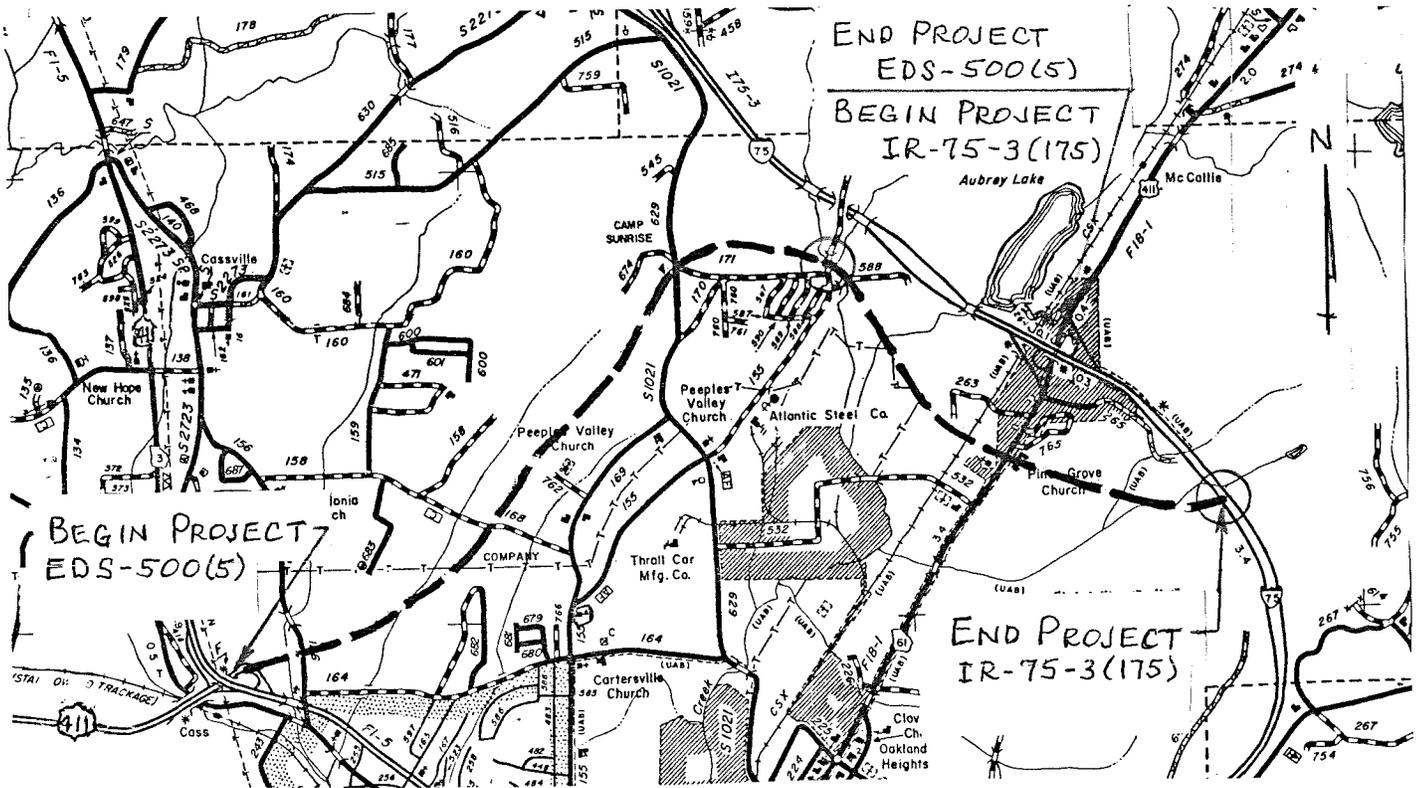
STATE OF GEORGIA

REVISED PROJECT CONCEPT REPORT

EDS-500(5) & IR-75-3(175) BARTOW

OUTER PERIMETER FROM THE US41/US411 INTERCHANGE TO I75 NORTH OF  
CARTERSVILLE

Federal Route No: F12-1  
State Route No: SR777  
GaDOT P.I.Nos.: 661950 & 610640



RECOMMENDATION FOR APPROVAL

Date 1991

Walter W. Scott  
State Urban Design Engineer

Date: September 5, 1991

**REVISED PROJECT CONCEPT**

**PROJECT NO.:** EDS-500(5) & IR-75-3(175) Bartow

**P.I.No.:** 661950 & 610640

**PREVIOUS PROJECT NO.:** EDS-460(3) & TSAP-777 Bartow

**ROUTE NO.:** US411/SR777

**LOCATION:** US411 Extension from the US41/US411 intersection north of Cartersville to I75 just south of the SR61/I75 intersection.

**TRAFFIC: CURRENT ADT 14,000 (1994)      DESIGN ADT 32,000 (2014)**

**EXISTING TYPICAL SECTION:** N/A.

**EXISTING MAJOR STRUCTURES:** None.

**APPROVED PROJECT CONCEPT**

**TYPICAL SECTION:** Four lanes with a 30' wide depressed grassed median built on 400' minimum right-of-way.

**MAX DEG OF CURVE:**2.75 Deg    **MAX GRADE:** 5%    **DESIGN SPEED:** 70 mph

**MAJOR STRUCTURES:** There will be new structures built to carry the mainline over the following: 1. Mac Johnson Road, 2. Rudy York Road, 3. Peoples Valley Road, 4. Grassdale Road, 5. CSX Railroad, 6. SR61, and 7. I75.

**TYPE ACCESS:** Limited.

**CONSTRUCTION EST (INCL E&C AND INF):** \$ 36,180,000 [EDS-500(5)]  
\$ 7,277,000 [IR-75-3(175)]

**R/W EST:** \$ 10,490,000 [EDS-500(5)]    **UTILITIES EST:** \$ 265,000 Total  
\$ 463,000 [IR-75-3(175)]

**DATE CONCEPT APPROVED:** September 29, 1988.

**INTERCHANGES:** Grassdale Rd. - Diamond Interchange  
I-75 - Diamond Interchange

**PROPOSED REVISED CONCEPT**

**TYPICAL SECTION:** Four lanes with a 102' wide depressed median.

**MAX DEG OF CURVE:** 2.75 Deg    **MAX GRADE:** 5%    **DESIGN SPEED:** 70 mph

**MAJOR STRUCTURES:** It is proposed to keep bridges at the same locations as above mentioned.

**TYPE ACCESS:** Limited.

**ESTIMATED COST OF PROPOSED FINAL ALTERNATE:**

<u>ITEM</u>	<u>EDS-500(5)</u>	<u>IR-75-3(175)</u>
R/W	\$ 8,867,000	\$ 4,581,000
UTILITIES	718,400	15,600
SUBTOTAL	\$ 9,585,400	\$ 4,596,600
CONSTR	\$ 22,341,000	\$ 16,104,000
INFLATION	2,290,000	1,651,000
E&C	2,463,000	1,776,000
SUBTOTAL CONSTR	\$ 27,094,000	\$ 19,531,000
CONSTRUCTION TOTAL PROJECT		\$ 46,625,000

**PUBLIC HEARING RESULTS:** The public hearing for the project was held March 31, 1988. There were 515 people that attended with 342 comments received, of which 188 were in favor of the project, 133 were opposed to the project, and 21 which were uncommitted or expressed conditional support of the project. Also, two petitions, one with 1,739 names in support of the project and one with 87 names opposing the project, were received.

There was a Public Information Meeting held June 9, 1988, concerning the alignment shift at the Atlantic Steel facilities. There were 130 people that attended with 61 comments received, of which 10 were in favor of the project, 46 were opposed to the project, and 5 which were uncommitted or expressed conditional support of the project. Also, there were six petitions received with a total of 75 names which were opposed to the project.

There was a second Public Information Meeting held November 26, 1990, concerning the shift at the Kellogg community. There were 53 people that attended with 19 comments received, of which 4 were in favor of the project and 15 were opposed to the project.

**OTHER PROJECTS IN AREA:** EDS-500(2) Bartow - Outer Perimeter from CR623 east to US41/SR3 - Under design.

**COMMENTS:**

The revision to the originally proposed concept (change the median width from 30' to 102') is recommended for the following reasons:

1. Make the initial project safer by decreasing the likelihood of head-on collisions. The Roadside Benefit-Cost computer program indicates that the likelihood of a median accident with the 102 ft. wide median would be approximately one-third as great as with a 30 ft. wide median with guardrail placed eight feet from the edge of pavement. Also, the likelihood of an accident with the 102 ft. median is one-half as great as with a concrete median barrier at the centerline.

2. Minimize grading, erosion control, and maximize work area safety on future widening projects as the roadway is brought to its ultimate section.

3. A concrete barrier with paved median would have a lower maintenance cost than would guardrail. To add a paved median and concrete median barrier instead of guardrail would increase the construction costs as follows:

	Increase	30' Median Total	102' Median Total
EDS-500(5)	\$1,142,600	\$28,819,000	\$27,094,000
IR-75-3(175)	\$ 402,200	\$17,047,000	\$19,531,000

4. The 102 ft. wide median would match the approved typical section for Project EDS-500(8), Gwinnett County.

The I-75 interchange, originally planned with a temporary diamond configuration, is now proposed to be constructed using a portion of the future directional interchange ramps rather than having to remove the diamond interchange ramps when the fully directional interchange is constructed.

**COST COMPARISONS**

Proj. No.	Constr.	Approved		Proposed		Total	Diff. (1,000's)
		R/W (1,000's)	Total	Constr. (1,000's)	R/W		
<b>EDS-500 (5)</b>	\$36,180	\$10,490	\$46,670	\$27,094	\$ 8,867	\$35,961	\$10,709
<b>IR-75-3 (175)</b>	\$ 7,277	\$ 463	\$ 7,740	\$19,531	\$ 4,581	\$24,112	\$16,372
<b>Totals</b>	\$43,457	\$10,953	\$54,410	\$46,625	\$13,448	\$60,073	\$ 5,663

**RECOMMEND:**

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**Hoyt J. Lively, Jr., P.E.**  
**Director of Preconstruction**

**RECOMMEND:**

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**G. C. Lewis, PE**  
**State Highway Engineer**

**APPROVE:**

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**Hal Rives, PE**  
**Commissioner**

xc: Walker W. Scott, Jr.  
David Studstill  
Paul Liles  
Ron Colvin  
Felton Rutledge

Attachment: Construction Cost Estimate

PRELIMINARY COST ESTIMATE

URBAN DESIGN OFFICE

DATE: 7/17/91 PROJECT NO: EDS-500(5) Bartow P.I.No. 661950

PREPARED BY: ART [DISK2:EDS500(5.102)] MILEAGE: 5.55

PROJECT DESCRIPTION: New location project for the construction of the Outer Perimeter from US41/US411 interchange to just west of I75 north of Cartersville.

PROPOSED CONCEPT: Four lane roadway with a center 102' median.

EXISTING RDY: N/A

TRAFFIC: Exist: 14,000 (1994) Design: 32,000 (2014)

( ) PROGRAMMING PROCESS ( ) CONCEPT DEVELOPMENT  
 (X) DURING PROJECT DEVELOPMENT

PROJECT COSTS

A. RIGHT-OF-WAY			\$8,867,000.00
B. REIMBURSABLE UTILITIES			\$718,400.00
C. MAJOR STRUCTURES			
1. RETAINING WALLS (MAJOR)			
	_____sf_@_	_____	\$0.00
	_____sf_@_	_____	\$0.00
2. BRIDGES			
Outer Perimeter/Mac Johnson Rd			
	13575 _____sf_@_ \$40.00	_____	\$543,000.00
Outer Perimeter/Rudy York Rd			
	17195 _____sf_@_ \$40.00	_____	\$687,800.00
Outer Perimeter/Peoples Valley Rd			
	23982.5 _____sf_@_ \$40.00	_____	\$959,300.00
Outer Perimeter/Grassdale Rd			
	23530 _____sf_@_ \$40.00	_____	\$941,200.00
Outer Perimeter/CSX Railroad Yard			
	30770 _____sf_@_ \$65.00	_____	\$2,000,050.00
Outer Perimeter/SR61			
	16290 _____sf_@_ \$40.00	_____	\$651,600.00
3. CULVERTS			
_____Conc_____	2347 _____cy_@_ \$260.00	_____	\$610,220.00
_____Rbar_____	284200 _____lbs_@_ \$0.42	_____	\$119,364.00
		SUBTOTAL	\$6,512,534.00

D. GRADING & EARTHWORK

1. BORROW:	1030000	___cy___@_	\$1.00	_____	\$1,030,000.00
2. EXCAVATION:					
Soil:	1587000	___cy___@_	\$1.50	_____	\$2,380,500.00
Rock:	529000	___cy___@_	\$5.00	_____	\$2,645,000.00
				SUBTOTAL	\$6,055,500.00

E. DRAINAGE

1. PIPING SYSTEM

3000	lf_15in_@_	\$20.00	_____	\$60,000.00
1500	lf_18in_@_	\$28.00	_____	\$42,000.00
1000	lf_24in_@_	\$30.00	_____	\$30,000.00
400	lf_30in_@_	\$40.00	_____	\$16,000.00
400	lf_36in_@_	\$55.00	_____	\$22,000.00
400	lf_48in_@_	\$97.00	_____	\$38,800.00
12	FES_15_@_	\$260.00	_____	\$3,120.00
6	FES_18_@_	\$290.00	_____	\$1,740.00
4	FES_24_@_	\$390.00	_____	\$1,560.00
2	FES_30_@_	\$465.00	_____	\$930.00
8	FES_36_@_	\$550.00	_____	\$4,400.00

2. CATCH BASINS

\_\_\_\_\_EA\_\_\_@\_ \_\_\_\_\_ \$0.00

3. DROP INLETS

60 \_\_\_\_\_EA\_\_\_@\_ \$1,200.00 \_\_\_\_\_ \$72,000.00

4. DRAINAGE LUMP SUM

\_\_\_\_\_Mi\_\_\_@\_ \_\_\_\_\_ \$0.00

SUBTOTAL \$292,550.00

F. BASE & PAVING

1. AGGREGATE BASE

\_\_\_\_\_tons\_\_\_@\_ \_\_\_\_\_ \$0.00

2. ASPHALT PAVING

_Tons_of_B_( in)_@_	_____	\$0.00
Tns_of_E_( in)_@_	_____	\$0.00
_Tons_BASE_( in)_@_	_____	\$0.00
_Tons_LEVELING_@_	_____	\$0.00
_Gals_of_TACK_@_	_____	\$0.00

3. PAVING PER SQ FT

RDWY	1482800	sf_@_	\$3.40	_____	\$5,041,520.00
SHLD	862000	sf_@_	\$1.18	_____	\$1,017,160.00
				SUBTOTAL	\$6,058,680.00

G. CONCRETE WORK

1. CURB & GUTTER

_____lf_@_	_____	\$0.00
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2. APPROACH SLABS

3480	sy_@_	\$70.00	_____	\$243,600.00
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3. SIDEWALKS

_____sy_@_	_____	\$0.00
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4. MEDIAN BARRIER

_____lf_Type_	_____	@_	\$80.00	_____	\$0.00
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5. VALLEY GUTTER

_____sy_@_	_____	\$0.00
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SUBTOTAL	\$243,600.00
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H. LIGHTING/SIGN/STRIP/SIGNAL

Signals_@_	_____	\$0.00
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5.55	Miles_@_	\$30,000	_____	\$166,500.00
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SUBTOTAL	\$166,500.00
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I. GUARDRAIL

12000 lf_Ty_W_@_	\$11.00	_____	\$132,000.00
500 lf_Ty_T_@_	\$22.00	_____	\$11,000.00
25 ___Anchors_Ty_1___@_	\$350.00	_____	\$8,750.00
25 ___Anchors_Ty_9___@_	\$800.00	_____	\$20,000.00
		SUBTOTAL	\$171,750.00

J. TRAFFIC CONTROL

1. TEMPORARY MEDIAN BARRIER

1000 _lf_Md_2_@	\$20.00	_____	\$20,000.00
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2. LUMP SUM

1 ___Miles_@_	\$150,000	_____	\$150,000.00
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		SUBTOTAL	\$170,000.00
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K. LUMP SUM ITEMS

1. CLEARING & GRUBBING

330 ___Acres_@_	\$5,000.00	_____	\$1,650,000.00
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2. LANDSCAPING/GRASSING

280 ___Acres_@_	\$1,000.00	_____	\$280,000.00
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3. EROSION CONTROL

5.55 ___Miles_@_	\$50,000	_____	\$277,500.00
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		SUBTOTAL	\$2,207,500.00
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L. MISCELLANEOUS ITEMS

1. FIELD OFFICE_____Type _3_____			\$30,000.00
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2. FENCING

60000 ___lf_@_	\$7.00	_____	\$420,000.00
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3. NOISE WALLS

___sf_@_		_____	\$0.00
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4. RIGHT-OF-WAY MARKERS

200 ___Ea_@_	\$45.00	_____	\$9,000.00
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5. CONSTRUCTION SEQUENCE\_\_\_\_\_

		SUBTOTAL	\$459,000.00
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ESTIMATE SUMMARY

RIGHT-OF-WAY	\$8,867,000.00
REIMBURSABLE UTILITIES	\$718,400.00

CONSTRUCTION COST SUMMARY

CLEARING & GRUBBING	\$1,650,000.00
EARTHWORK	\$6,056,000.00
BASE & PAVING	\$6,059,000.00
DRAINAGE	\$293,000.00
CONCRETE WORK	\$244,000.00
TRAFFIC CONTROL	\$170,000.00
EROSION CONTROL	\$278,000.00
GUARDRAIL	\$172,000.00
SIGN/STRIP/SIGNAL/LIGHT	\$167,000.00
LANDSCAPING/GRASSING	\$280,000.00
MISCELLANEOUS	\$459,000.00
SUBTOTAL ROADWAY ITEMS	\$15,828,000.00
MAJOR STRUCTURES	\$6,513,000.00
TOTAL CONSTRUCTION ESTIMATE	\$22,341,000.00
2 YEARS OF INFLATION AT 5%/YR	\$2,290,000.00
10% E&C	\$2,463,000.00
TOTAL	\$27,094,000.00

NOTE: 1,030,000 cy borrow obtained from IR-75 contract.

NOTE: There is an additional \$240,550 in City and County Water line relocation costs which are not included in reimbursable utilities.

PRELIMINARY COST ESTIMATE

URBAN DESIGN OFFICE

DATE: 9/5/91 PROJECT NO: IR-75-3(175) Bartow P.I.No. 610640

PREPARED BY: ART [DISK2:I75(175).102] MILEAGE: 2.34

PROJECT DESCRIPTION: New location project for the construction of the Outer Perimeter north of Cartersville. This estimate is for the interchange with I75. It goes with project EDS-500(5) Bartow.

PROPOSED CONCEPT: Four lane roadway with a center 102' median.

EXISTING RDY: N/A

TRAFFIC: Exist: 14,500 (1994) Design: 31,000 (2014)

( ) PROGRAMMING PROCESS ( ) CONCEPT DEVELOPMENT  
 (X) DURING PROJECT DEVELOPMENT

PROJECT COSTS

A. RIGHT-OF-WAY \_\_\_\_\_ \$4,581,000.00

B. REIMBURSABLE UTILITIES \_\_\_\_\_ \$15,600.00

C. MAJOR STRUCTURES

1. RETAINING WALLS (MAJOR)

\_\_\_\_\_sf @ \_\_\_\_\_ \$0.00

2. BRIDGES

Outer Perimeter/I75

1 @ 29.2' x 1200'

1 @ 29.2' x 2200'

99280 \_\_\_\_\_sf @ \$40.00 \_\_\_\_\_ \$3,971,200.00

3. CULVERTS

\_\_\_\_\_Conc\_\_\_\_\_ 230 \_\_\_\_\_cy @ \$260.00 \_\_\_\_\_ \$59,800.00

\_\_\_\_\_Rbar\_\_\_\_\_ 35400 \_\_\_\_\_lbs @ \$0.42 \_\_\_\_\_ \$14,868.00

SUBTOTAL \$4,045,868.00

D. GRADING & EARTHWORK

1. BORROW: \_\_\_\_\_cy @ \_\_\_\_\_ \$0.00

2. EXCAVATION:

Soil: 2262000 \_\_\_\_\_cy @ \$1.50 \_\_\_\_\_ \$3,393,000.00

Rock: 754000 \_\_\_\_\_cy @ \$5.00 \_\_\_\_\_ \$3,770,000.00

SUBTOTAL \$7,163,000.00

E. DRAINAGE

1. PIPING SYSTEM

2000 lf_15in_@_	\$20.00	_____	\$40,000.00
1000 lf_18in_@_	\$28.00	_____	\$28,000.00
500 lf_24in_@_	\$30.00	_____	\$15,000.00
300 lf_36in_@_	\$55.00	_____	\$16,500.00
10 FES_15_@_	\$260.00	_____	\$2,600.00
4 FES_18_@_	\$290.00	_____	\$1,160.00
4 FES_24_@_	\$390.00	_____	\$1,560.00
2 FES_36_@_	\$550.00	_____	\$1,100.00

2. CATCH BASINS

8 ___EA___@_	\$1,200.00	_____	\$9,600.00
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3. DROP INLETS

30 ___EA___@_	\$1,200.00	_____	\$36,000.00
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4. DRAINAGE LUMP SUM

___Mi___@_		_____	\$0.00
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SUBTOTAL \$151,520.00

F. BASE & PAVING

1. AGGREGATE BASE

___tons___@_		_____	\$0.00
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2. ASPHALT PAVING

__Tons_of_B_( in)___@_		_____	\$0.00
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Tns_of_E_( in)___@_		_____	\$0.00
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__Tons_BASE_( in)___@_		_____	\$0.00
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__Tons__LEVELING___@_		_____	\$0.00
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__Gals_of_TACK___@_		_____	\$0.00
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3. PAVING PER SQ FT

RDWY	689050	___sf___@_	\$3.40	_____	\$2,342,770.00
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SHLD	405950	___sf___@_	\$1.18	_____	\$479,021.00
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SUBTOTAL \$2,821,791.00

G. CONCRETE WORK

1. CURB & GUTTER

1500 lf @ \$8.00 \$12,000.00

2. APPROACH SLABS

533 sy @ \$70.00 \$37,310.00

3. SIDEWALKS

sy @ \$0.00

4. MEDIAN BARRIER

lf\_Type @ \$80.00 \$0.00

5. VALLEY GUTTER

sy @ \$0.00

SUBTOTAL \$49,310.00

H. LIGHTING/SIGN/STRIP/SIGNAL

Signals @ \$0.00

2.34 Miles @ \$30,000 \$70,200.00

SUBTOTAL \$70,200.00

I. GUARDRAIL

10000 lf\_Ty\_W @ \$11.00 \$110,000.00

82 lf\_Ty\_T @ \$22.00 \$1,804.00

20 Anchors\_Ty\_1 @ \$350.00 \$7,000.00

20 Anchors\_Ty\_9 @ \$800.00 \$16,000.00

SUBTOTAL \$134,804.00

J. TRAFFIC CONTROL

1. TEMPORARY MEDIAN BARRIER

500 lf\_Md\_2 @ \$20.00 \$10,000.00

2. LUMP SUM

1 Miles @ \$80,000 \$80,000.00

SUBTOTAL \$90,000.00

K. LUMP SUM ITEMS

1. CLEARING & GRUBBING

200 \_\_Acres\_@\_\$5,000.00 \_\_\_\_\_ \$1,000,000.00

2. LANDSCAPING/GRASSING

170 \_\_Acres\_@\_\$1,000.00 \_\_\_\_\_ \$170,000.00

3. EROSION CONTROL

2.34 \_\_Miles\_@\_\$50,000 \_\_\_\_\_ \$117,000.00

SUBTOTAL \$1,287,000.00

L. MISCELLANEOUS ITEMS

1. FIELD OFFICE\_\_\_\_\_Type \_3\_\_\_\_\_ \$30,000.00

2. FENCING

36000 \_\_lf\_@\_\$7.00 \_\_\_\_\_ \$252,000.00

3. NOISE WALLS

\_\_\_\_\_sf\_@\_\_\_\_\_ \$0.00

4. RIGHT-OF-WAY MARKERS

130 \_\_Ea\_@\_\$45.00 \_\_\_\_\_ \$5,850.00

5. CONSTRUCTION SEQUENCE\_\_\_\_\_

SUBTOTAL \$287,850.00

NOTE: 1,030,000 cy of excavated material goes to EDS portion of project.

ESTIMATE SUMMARY

RIGHT-OF-WAY	\$4,581,000.00
REIMBURSABLE UTILITIES	\$15,600.00

CONSTRUCTION COST SUMMARY

CLEARING & GRUBBING	\$1,000,000.00
EARTHWORK	\$7,163,000.00
BASE & PAVING	\$2,822,000.00
DRAINAGE	\$152,000.00
CONCRETE WORK	\$50,000.00
TRAFFIC CONTROL	\$90,000.00
EROSION CONTROL	\$117,000.00
GUARDRAIL	\$135,000.00
SIGN/STRIP/SIGNAL/LIGHT	\$71,000.00
LANDSCAPING/GRASSING	\$170,000.00
MISCELLANEOUS	\$288,000.00
SUBTOTAL ROADWAY ITEMS	\$12,058,000.00
MAJOR STRUCTURES	\$4,046,000.00
TOTAL CONSTRUCTION ESTIMATE	\$16,104,000.00
2 YEARS OF INFLATION AT 5%/YR	\$1,651,000.00
10% E&C	\$1,776,000.00
TOTAL	\$19,531,000.00

