

ORIGINAL TO GENERAL FILES

D.O.T. 66

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE P. I. No. 0007190, Chatham County **OFFICE** Preconstruction
CSSTP-0007-00(190)
SR 204 Realignment **DATE** November 29, 2005

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

TO *MBP* SEE DISTRIBUTION

SUBJECT APPROVED PROJECT CONCEPT REPORT

Attached for your files is the approval for subject project.

MBP/cj

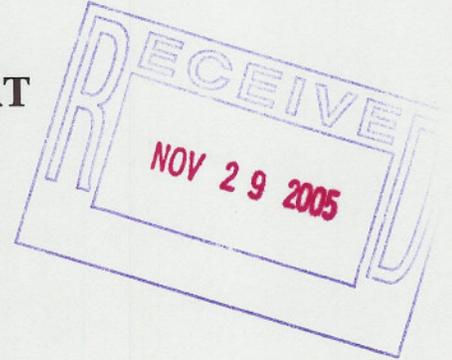
Attachment

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DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

PROJECT CONCEPT REPORT



CSSTP-0007-00(190)

CHATHAM COUNTY
0007190

FEDERAL ROUTE NO: N/A
STATE ROUTE NO: 204
GADOT P.I. NO: 0007190

Date of Report: 9-22-2005

RECOMMENDED: 11-22-05
DATE

Steve Seld
STATE TRAFFIC SAFETY AND DESIGN ENGINEER

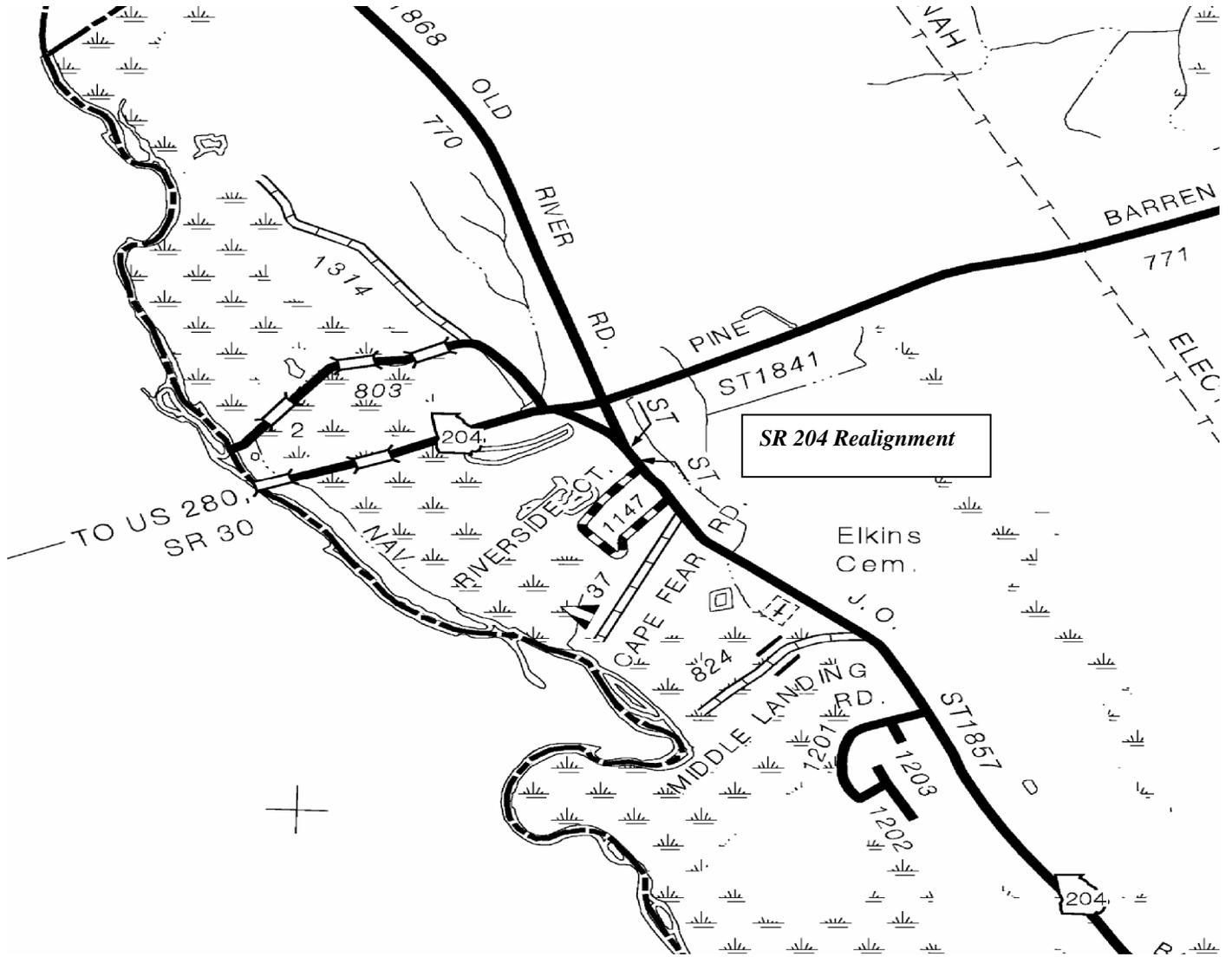
RECOMMENDED: 9/22/05
DATE

Gary O. Pitt
DISTRICT ENGINEER

APPROVED: 11/23/05
DATE

O. J. Stahl
CHIEF ENGINEER

Project Concept Report page 2
Project Number: CSSTP-0007-00(190)
P. I. Number: 0007190
County: CHATHAM



SR 204 at Old River Road & Pine Barren Road, Chatham County

Need and Purpose:

Background

This project is a lump sum safety project initiated by the District 5 Office in 2004 due to the high number of accidents in this segment of SR 204.

Corridor Description

SR 204 on the western edge of Savannah provides local and through access from/to Bryan and Chatham counties, across the Ogeechee River. The area is rural and sparsely populated. About five miles to the east, SR 204 intersects with I-95 and becomes Abercorn Street with access to the city of Savannah. To the west in Bryan County, SR 204 eventually intersects with US 280/SR 30 across the Ogeechee River and north of Ft. Stewart in Bryan County. US 280/SR 30 then provides access to the city of Pembroke in Bryan County.

Route Characteristics

State Route 204 is functionally classified as a rural major collector in the project area. SR 204 has two-way traffic and is a two-lane facility and a truck route. It is not part of the National Highway System and is not a STRAHNET Highway. SR 204 is not part of the Statewide Bicycle Plan and is not a locally designated bikeway or bike route within the project area. The posted speed limit is 55 mph. Sidewalks are not planned for the route. It lies within the boundaries of the Chatham Urban Transportation Study (CUTS) in Chatham County.

Traffic Counts

The Average Annual Daily Traffic (AADT) along this section of roadway was 6,560 in 2000 and 7,000 in 2004 (Office of Planning) at Traffic Count 318. Traffic is projected to be 14,000 vehicles per day in 2025 (District 5). Design traffic has been requested by the District 5 Office. Truck traffic is estimated at 10% of all traffic (Office of Planning).

Travel Demand and Operational Conditions

Traffic along this section of SR 204 has grown modestly during the last five years at a rate of about 1.6% per annum. Following is a table listing current and future traffic as projected by the department and Highway Capacity software:

Roadway Segment	2000 AADT (2000)	Base Year AADT (2004)	Future AADT (2025)	Existing Level of Service	Future LOS (No Build)
SR 204 (Traffic Count 318)	6,560	7,000	14,000	"B"	"D"

Level of service (LOS) is defined as a qualitative measure describing operational conditions within a traffic stream. There are six defined LOS tiers at which a roadway can operate. Each of the six tiers is identified by a letter; “A” represents the best operating conditions with a free flow of traffic, “C” with some congestion and reduced speeds and LOS “F” represents the worst conditions with considerable delay. If a roadway is operating at LOS “A”, “B”, or “C”, that is considered acceptable operating conditions. Currently, SR 204 is operating at a LOS of “B”. If no improvements are made, it is anticipated that the study area will have a LOS of “D” in 2025.

Land Use and Community Issues

Land uses in the project area are primarily residential with significant amounts of forested land and marshy areas. There are a limited number of driveways, local roadway intersections including Old River Road and Pine Barren Road and several subdivision roads (that back-up to the Ogeechee River and marshes) that intersect with SR 204. To the west, the project area is defined by marshes, the Ogeechee River and forested lands including portions of the Ft. Stewart military reservation. The area is sparsely populated to the north, east and south; however a major mixed use Development of Regional Impact (DRI) is planned to the northeast.

The following table provides population for Chatham County:

	2004	2000	1990
Population	238,518	232,048	216,935

The population of Chatham County grew by 7.0 % from 216,935 residents in 1990 to 232,048 residents in 2000. The total population of census tract 108.02, which is where the project is located, was only 2,216 persons in 2000 (less than 1% of county population). The poverty rate in Chatham County in 2000 was 15.6 %, while the state of Georgia averaged 14.7% living in poverty. The poverty rate in census tract 108.02 was 13.3%. According to the 2000 census, 42% of Chatham County residents were classified as minority, compared to 34.9% of the residents of the State of Georgia. Only 7.1 % of the residents of census tract 108.02 were classified as minority.

Deficiencies

Deficiencies along SR 204 in the study area include intersections with Old River Road and Pine Barren Road located within the “sharp” curve of SR 204. The intersections meet SR 204 at a “skewed” angle, resulting in poor sight distance, turning conflicts and inadequate distance between intersections. Poor geometrics in the existing curve also define this section of SR 204.

Accidents

For the years 2000 to 2003, an analysis of accidents for the project area indicates accident, injury and fatality rates significantly above statewide averages. During this period, there were a total of 36 accidents involving 66 vehicles, with **29 injuries and four fatalities**. An examination of the statewide averages for injury and fatality crashes for rural major collectors for the project area is provided in the table below.

SR 204								
	2000		2001		2002		2003	
		State		State		State		State
Accidents	9		6		11		10	
Accident Rate	743	188	505	180	932	195	825	211
Injuries	5		11		9		4	
Injury Rate	413	97	926	98	763	104	330	110
Fatalities	0		1		2		1	
Fatality Rate	0.00	2.37	84.14	2.29	169.54	2.37	82.52	2.95

Injury and accident rates are generally three to seven times higher than statewide averages, and **fatality rates are much higher** than statewide averages for the project area. Types of accidents are displayed in the following table:

Year	Angle Number / %	Rear End	Side Swipe	Not A Collision with another vehicle	Head-On	Fatality
2000	0 / 0%	2 / 22%	1 / 11%	5 / 55%	0 / 0%	0
2001	1 / 16%	1 / 16%	2 / 33%	1 / 16%	1 / 16%	1
2002	4 / 36%	4 / 36%	1 / 9%	2 / 18%	0 / 0%	2
2003	5 / 50%	3 / 30%	0 / 0%	2 / 20%	0 / 0%	1

Generally, the type and distribution of accidents (eight of ten collisions not involving another vehicle appeared to be outside the travel lane or the roadway altogether; only one was a deer); and the number of injuries and fatalities from the total accidents (29 injuries and four fatalities from 36 total accidents) may indicate vehicles are having difficulty staying within the travel lane on the curve.

Need and Purpose

Accident, injury and fatality rates are far above statewide averages for the SR 204 project area. Realigning and improving SR 204 and making needed intersection improvements to Pine Barren Road and Old River Road will bring this segment of SR 204 up to current design standards. Improvements will reduce turning conflicts, reduce the number of driveways and intersections, improve sight distance and improve the operation and safety of the roadway. Fewer accidents, injuries and fatalities should result from these improvements.

Project Description

The project is located in western Chatham County, near the Bryan County line and Ogeechee River. The segment of SR 204 to be improved is located about 5 miles west of the I-95 and SR 204 (Abercorn Street) interchange. The project extends for approximately 1.0 mile from road inventory milepost .04 to milepost 1.04. The project will realign the curve along SR 204 with a 3° 0'00" curve. The typical section will consist of 2 – 12' lanes, 10' shoulders, 4' flat bottom ditches and 4:1 slopes. Intersection improvements will be made at Old River Road, Pine Barren Road and Fort Argyle Road.

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

PDP Classification:

Full Oversight (), Exempt(X), State Funded(), or Other ()

Functional Classification: Rural Major Collector.....

U. S. Route Number(s): N\A..... **State Route Number(s): 204**.....

Traffic (AADT):

Current Year: (2005)7000 Design Year: (2025) ..14000.....

Existing design features:

- Typical Section: Two 12' paved lanes, 8' shoulders(2'paved), with v ditches left and right
- Posted speed ..55..... mph Maximum degree of curvature:.....
- Maximum grade:2..... %
- Width of right of way: 100.....ft.....
- Major structures: None.....
- Mile Post Reference: Begin 0.04 End 1.04
- Major interchanges or intersections along the project: Fort Argyle and Old River Road.....
- Existing length of roadway segment and the beginning mile logs for each county segment. For new location projects, the existing length of roadway is zero (0).

Proposed Design Features:

- Proposed typical section(s): *Will consist of 2-12' lanes,10' shoulders(6.5' paved), 12' front Slopes, 4' flat bottom ditch.*
- Proposed Design Speed Mainline 65mph
- Proposed Maximum grade Mainline 2.0% Maximum grade allowable 3.5%.
- Proposed Maximum grade Side Street N/A% Maximum grade allowable N/A%.
- Proposed Maximum grade driveway 10.5%
- Proposed Maximum degree of curve 2 00'. Maximum degree allowable 6 @ 65 mph.
- Right of way

Width 150.

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-
- Easements: Temporary (X), Permanent (), Utility (), Other ().
- Type of access control: Full (), Partial (), By Permit (X), Other ().
- Number of parcels: 6 Number of displacements: None
 - Business: 0
 - Residences: 0
 - Mobile homes: 0
 - Other: 0

- Structures:
 - Bridges: None
 - Retaining walls: None
- Major intersections and interchanges. None
- Traffic control during construction: *The roadway will be built on new alignment. Their will only need to be temporary lane closures to tie back into the existing alignment.*
- Design Exceptions to controlling criteria anticipated:

	<u>UNDETERMINED</u>	<u>YES</u>	<u>NO</u>
HORIZONTAL ALIGNMENT:	()	()	(x)
ROADWAY WIDTH:	()	()	(x)
SHOULDER WIDTH:	()	()	(x)
VERTICAL GRADES:	()	()	(x)
CROSS SLOPES:	()	()	(x)
STOPPING SIGHT DISTANCE:	()	()	(x)
SUPERELEVATION RATES:	()	()	(x)
HORIZONTAL CLEARANCE:	()	()	(x)
SPEED DESIGN:	()	()	(x)
VERTICAL CLEARANCE:	()	()	(x)
BRIDGE WIDTH:	()	()	(x)
BRIDGE STRUCTURAL CAPACITY:	()	()	(x)

- Design Variances none expected
- Environmental concerns: anticipated permits Section 404, wetland impact

Anticipated level of environmental analysis:

- Are Time Savings Procedures appropriate? Yes (x), No (),
- Categorical exclusion (x),
- Environmental Assessment/Finding of No Significant Impact (FONSI) (), or
- Environmental Impact Statement (EIS) ().
- Utility involvements: *Power, Telephone, Gas*

Project responsibilities:

- Design, – District 5 Design Section
- Right of Way Acquisition, – District 5 ROW
Relocation of Utilities, - LGPA

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-
- Letting to contract, G.D.O.T.
- Supervision of construction, - G.D.O.T.
- Providing material pits, - contractor
- Providing detours. – None

Coordination

- Initial Concept Meeting date and brief summary. Attach minutes.
- Concept meeting date and brief summary. Attach minutes.
- No P. A. R. meetings were held.
- FEMA, USCG, and/or TVA
- No Public involvement.
- Local government comments. To be determined
- Other projects in the area. None
- No other coordination to date.

Scheduling – Responsible Parties’ Estimate

- Time to complete the environmental process: 9 Months
- Time to complete preliminary construction plans: 9 Months.
- Time to complete right of way plans: 6 Months.
- Time to complete the Section 404 Permit: 9 Months.
- Time to complete final construction plans: 18 Months.
- Time to complete to purchase right of way: 12 Months.
- List other major items that will affect the project schedule: None

Other alternates considered:

1. Remove curve and create crossroad intersection
2. No Build.

Comments:

Alternate (1) was eliminated due having to intersect SR 204 with Pine Barren and Old River Rd. causing the traffic of SR 204 having to stop and turn and still having a safety problem.

Alternate (2) was eliminated due to not improving the safety of traffic flow.

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Project Number: CSSTP-0007-00(190)
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Attachments:

1. Cost Estimates:
 - a. Construction including E&C,
 - b. Right of Way, and
 - c. Utilities.
2. Sketch location map,
3. Typical sections,
4. Location and Design Notice (On Minor Projects),

D. GRADING AND DRAINAGE:

1. EARTHWORK

Grading Complete - 28,000 cu.yd. @ \$2.50/cu.yd. \$70,000
\$0

2. DRAINAGE

a. CROSS DRAIN PIPES (exc. Box culverts) - \$9,000

b. CURB & GUTTER - If X \$12/lf \$0

c. LONGITUDINAL SYSTEM (incl. Catch Basins) - \$0

SUBTOTAL ===== \$79,000

E. BASE AND PAVING:

1. AGGREGATE BASE - \$0

2. ASPHALT PAVING - SUPERPAVE \$243,000

3. CONCRETE PAVING - \$0

4. OTHER (driveways, mill existing paving, etc.) - \$13,000

SUBTOTAL ===== \$256,000

F. LUMP SUM ITEMS:

1. EROSION CONTROL - \$21,000

2. CLEARING & GRUBBING - \$13,000

3. TRAFFIC CONTROL - \$30,000

4. LANDSCAPING - \$0

5. DETOURS (incl Temp. bridges) - \$0

SUBTOTAL ===== \$64,000

G. MISCELLANEOUS:

1. LIGHTING - \$0

2. SIGNING & STRIPING \$4,600

3. GUARDRAIL - \$14,400

SUBTOTAL ===== \$19,000

ESTIMATE SUMMARY

A. RIGHTS-OF-WAY -----	\$0
B. REIMBURSABLE UTILITIES -----	\$0

CONSTRUCTION COST SUMMARY

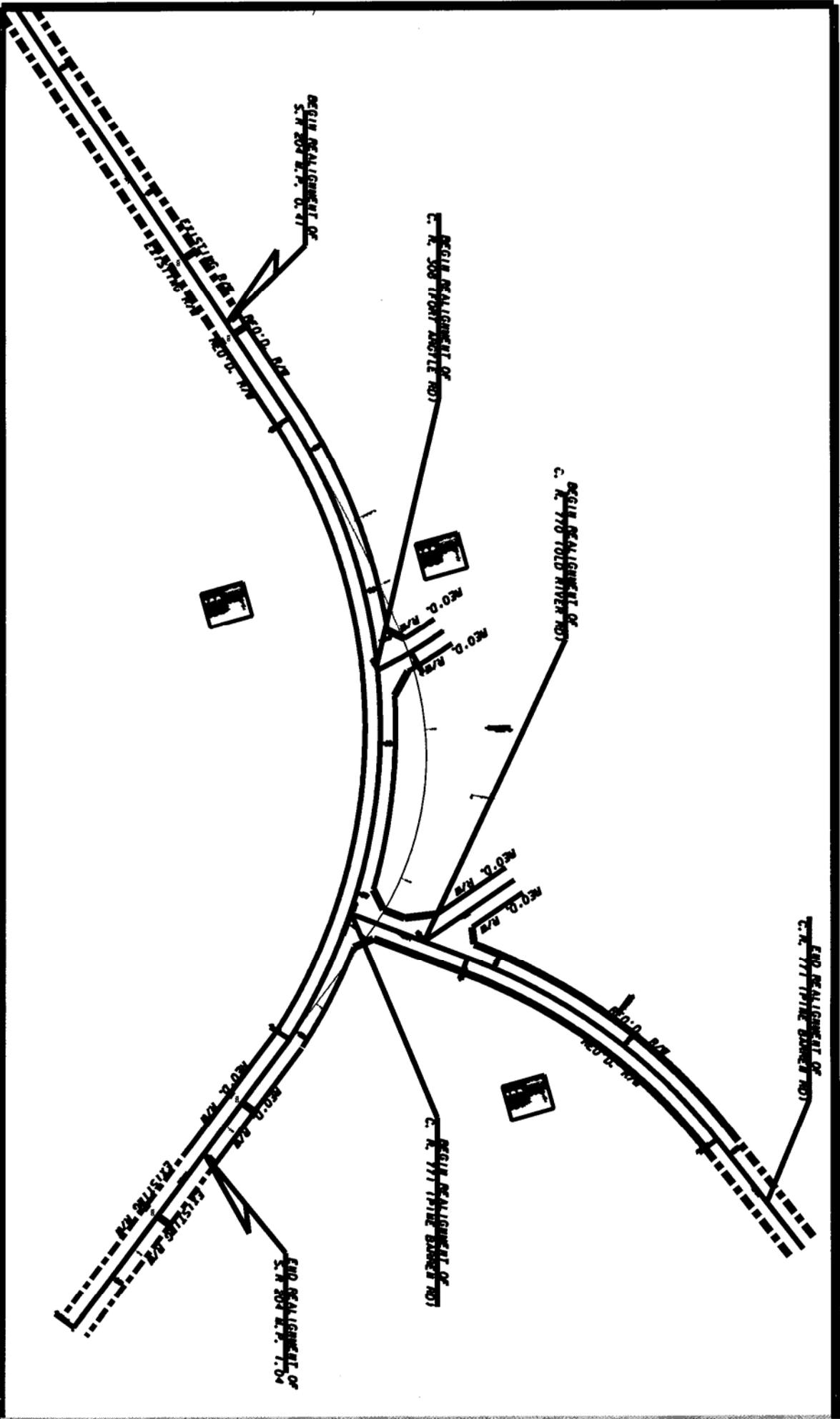
C. MAJOR STRUCTURES -----	\$0
D. GRADING AND DRAINAGE -----	\$79,000
E. BASE AND PAVING -----	\$256,000
F. LUMP SUM ITEMS -----	\$64,000
G. MISCELLANEOUS -----	\$19,000

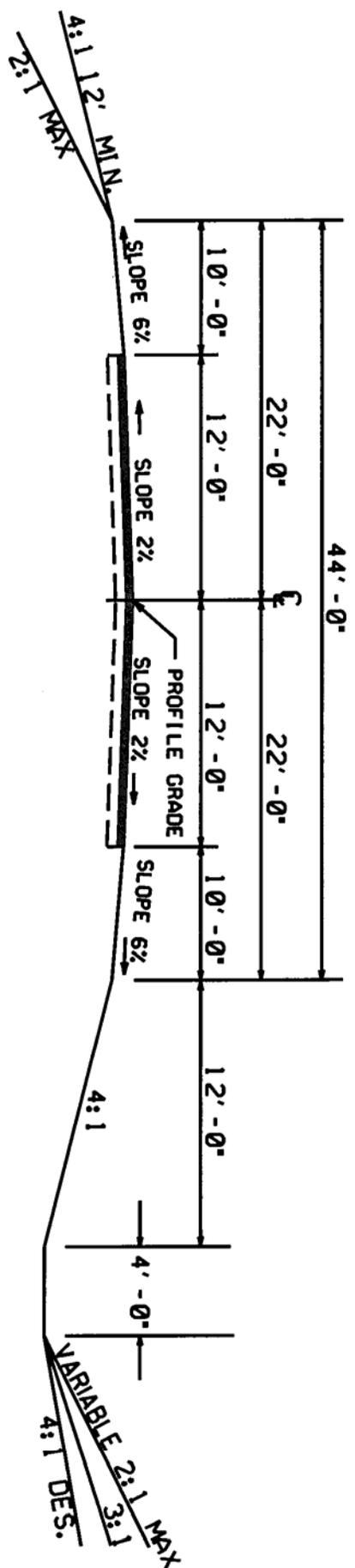
SUBTOTAL CONSTRUCTION COST -----	\$418,000
E & C (10%) -----	\$41,800
INFLATION (1 YRS @ 5% /YR) -----	\$20,900

TOTAL CONSTRUCTION COST =====	\$480,700
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GRAND TOTAL PROJECT COST =====	\$480,700
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Cost Estimate Prepared by: Myles Brewer, District Design Squad Leader





NOTICE OF LOCATION AND DESIGN APPROVAL

Project No. CSSTP-0007-00(190)

P. I. NUMBER 0007190

Notice is hereby given in compliance with Georgia Code 22-2-109 that the Georgia Department of Transportation has approved the Location and Design of this project.

Date of Location Approval: NOVEMBER 29, 2005

~~Date of Environmental Approval:~~ _____

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Drawings or maps or plats of the proposed project, as approved, are on file and are available for public inspection at the Georgia Department of Transportation:

Donnie Williams
GDOT
Donnie.Williams@dot.state.ga.us
P.O.Box 1212
Savannah GA 31402
Phone: 912-651-2144

Any interested party may obtain a copy of the drawings or maps or plats or portions thereof by paying a nominal fee and requesting in writing to:

Tony Collins
GDOT
Tony.Collins@dot.state.ga.us
P.O. Box 610
Jesup GA 31598
Phone: 912-427-5715

Any written request or communication in reference to this project or notice SHOULD include the Project and P. I. Numbers as noted at the top of this notice.