

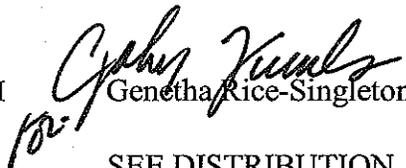
DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

**FILE** P. I. No. 0007534, Warren County  
CSHPP-0007-00(534)  
I-20 Frontage Road – Phases I and II

**OFFICE** Preconstruction

**DATE** August 17, 2007

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

**TO** SEE DISTRIBUTION

**SUBJECT** APPROVED 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  
Mike Thomas  
Angela Alexander  
Paul Liles  
George Brewer  
BOARD MEMBER

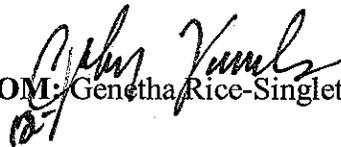
**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

**INTERDEPARTMENTAL CORRESPONDENCE**

**FILE:** P.I. No. 0007534, Warren County  
CSHPP-0007-00(534)  
I-20 Frontage Road -Phases I and II

**OFFICE:** Preconstruction

**DATE:** August 14, 2007

  
**FROM:** Genetha Rice-Singleton, Assistant Director of Preconstruction

**TO:** David E. Studstill, P.E., Chief Engineer

**SUBJECT: PROJECT CONCEPT REPORT**

This project consists of the construction of a frontage road on new location along the south side of I-20 between Cadley Road/ CR 185 (exit 160) and Washington Highway/SR 80 (exit 165) in two phases. Phase I will extend from Cadley Road/ CR 185 to Ridge Road/CR 187 for a total of 2.68 miles. Phase II will extend from Ridge Road/CR 187 to Washington Road/SR 80 for a total of 3.39 miles. The purpose of this project is to provide sufficient roadway infrastructure along I-20 in Warren County for future commercial and industrial development. With very little development along I-20 in Warren County, this frontage road is expected to attract needed economic development that has traditionally located in other counties along I-20. Warren County has identified the frontage road as vital to provide access to the large tracts of undeveloped land that will attract commercial and industrial development.

The proposed project will construct a two-lane frontage road between the above mentioned limits. The proposed typical section will consist of two, 12 lanes with 10' rural shoulders (4' paved) on 125' minimum proposed right-of-way. Also included in this project is a proposed 180'x 40' bridge over the railroad tracks (Weston Brooker Spur). Traffic will be maintained along the existing roadway during construction.

Environmental concerns include requiring an Environmental Assessment be prepared; Three potential historical properties have been identified in the project area; There is potential for impact to Hart Creek, Middle Creek, and approximately 10 of their tributaries; Anticipated permits are Section 404, 4(f); a public hearing open house is not required; Time saving procedures is not appropriate.

P.I. No. 0007534, Warren County  
August 14, 2007

The estimated costs for this project are:

**Phase I- P.I. No 0007534, Cadley Road/CR 185 to Ridge Road/CR 187**

	PROPOSED	APPROVED	FUNDING	PROG DATE
Construction (includes E&C)	\$ 7,302,000	\$ 18,949,000	LY20	2009
Right-of-way & utilities	Local	Local	Local	Local

**Phase II- P.I. New Project, Ridge Road/CR 187 to Washington Highway/SR 80**

	PROPOSED	APPROVED	FUNDING	PROG DATE
Construction (includes E&C)	\$10,168,000	---	LY20	LR (Proposed)
Right-of-way & utilities	Local	Local	Local	Local

\*PFA sent 2-16-07 requesting Warren County do right-of-way and utilities; 450K toward PE and 450K toward construction.

I recommend this project concept be approved and Phase II be assigned a new project number.

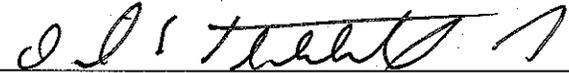
GRS: JDQ

Attachment

CONCUR

  
\_\_\_\_\_  
Todd I. Long, P.E., Director of Preconstruction

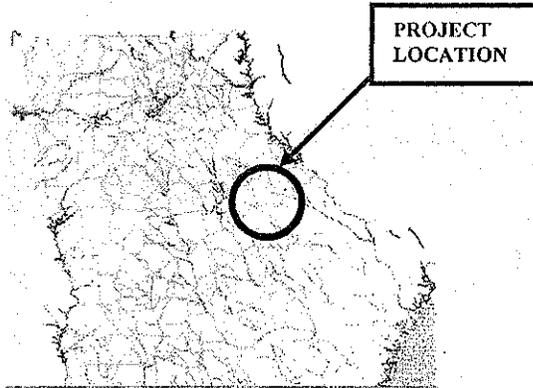
APPROVED

  
\_\_\_\_\_  
David E. Studstill, Jr. P.E., Chief Engineer

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA  
District 2  
PROJECT CONCEPT REPORT**

Project Number: CSHPP-0007-00(534)  
County: Warren  
P. I. Number: 0007534

Federal Route Number: N/A  
State Route Number: N/A



Recommendation for approval:

DATE 6/27/07

DATE 6-27-07

*Gregory M. Brew*  
Project Manager

*Michael J. Johnson*  
Office Head/District Engineer

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

DATE \_\_\_\_\_

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

DATE \_\_\_\_\_

\_\_\_\_\_  
State Transportation Financial Management Administrator

DATE \_\_\_\_\_

\_\_\_\_\_  
State Environmental/Location Engineer

DATE \_\_\_\_\_

\_\_\_\_\_  
State Traffic Safety & Design Engineer

DATE \_\_\_\_\_

\_\_\_\_\_  
District Engineer

DATE 7/13/07

*Brian K. Summer*  
Project Review Engineer

DATE \_\_\_\_\_

\_\_\_\_\_  
State Bridge Design Engineer

DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA

District 2

PROJECT CONCEPT REPORT

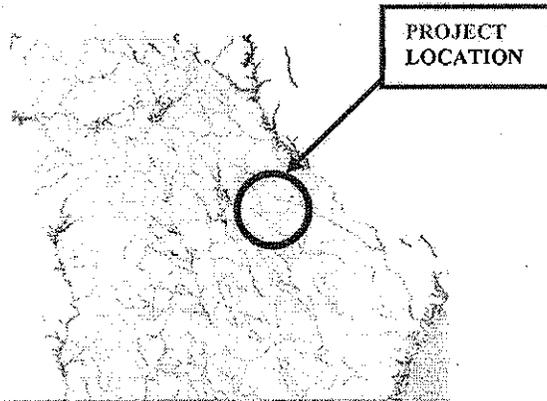
Project Number: CSHPP-0007-00(534)

County: Warren

P. I. Number: 0007534

Federal Route Number: N/A

State Route Number: N/A



Recommendation for approval:

DATE 6/27/07

[Signature]  
Project Manager

DATE 6-27-07

[Signature]  
Office Head/District Engineer

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

DATE \_\_\_\_\_

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

DATE \_\_\_\_\_

\_\_\_\_\_  
State Transportation Financial Management Administrator

DATE \_\_\_\_\_

\_\_\_\_\_  
State Environmental/Location Engineer

DATE \_\_\_\_\_

\_\_\_\_\_  
State Traffic Safety & Design Engineer

DATE \_\_\_\_\_

\_\_\_\_\_  
District Engineer

DATE \_\_\_\_\_

\_\_\_\_\_  
Project Review Engineer

DATE 7/2/07

[Signature]  
State Bridge Design Engineer

6-29-07

WRS

DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA  
District 2  
PROJECT CONCEPT REPORT

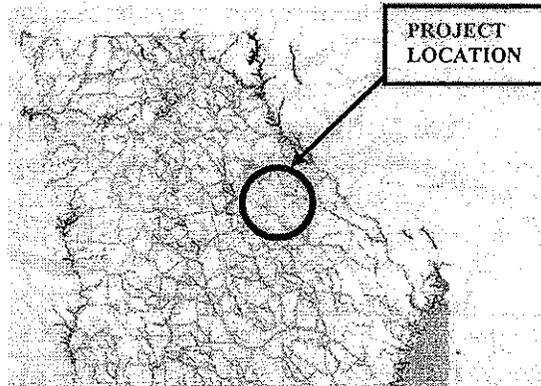
Project Number: CSHPP-0007-00(534)

County: Warren

P. I. Number: 0007534

Federal Route Number: N/A

State Route Number: N/A



Recommendation for approval:

DATE 6/27/07

DATE 6-27-07

Eugene Brew  
Project Manager  
Michael J. [Signature]  
Office Head/District Engineer

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

DATE \_\_\_\_\_

DATE 7-3-07

DATE \_\_\_\_\_

DATE \_\_\_\_\_

DATE \_\_\_\_\_

DATE \_\_\_\_\_

DATE \_\_\_\_\_

\_\_\_\_\_  
State Transportation Planning Administrator  
James T. Simpson  
State Transportation Financial Management Administrator  
\_\_\_\_\_  
State Environmental/Location Engineer  
\_\_\_\_\_  
State Traffic Safety & Design Engineer  
\_\_\_\_\_  
District Engineer  
\_\_\_\_\_  
Project Review Engineer  
\_\_\_\_\_  
State Bridge Design Engineer

DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA

District 2

PROJECT CONCEPT REPORT

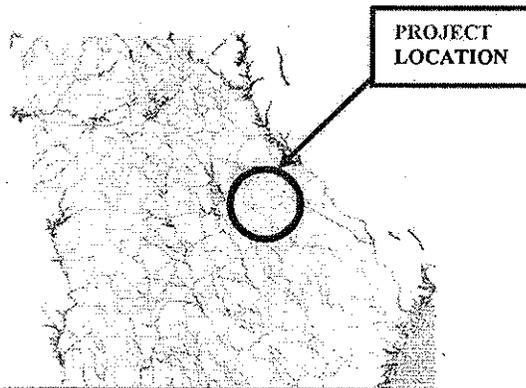
Project Number: CSHPP-0007-00(534)

County: Warren

P. I. Number: 0007534

Federal Route Number: N/A

State Route Number: N/A



Recommendation for approval:

DATE 6/27/07

*August M. Brewer*  
Project Manager

DATE 6-27-07

*Michael J. [Signature]*  
Office Head/District Engineer

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

DATE \_\_\_\_\_

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

DATE \_\_\_\_\_

\_\_\_\_\_  
State Transportation Financial Management Administrator

DATE \_\_\_\_\_

*Frederick [Signature]*  
State Environmental/Location Engineer

DATE 7-2-07

\_\_\_\_\_  
State Traffic Safety & Design Engineer

DATE \_\_\_\_\_

\_\_\_\_\_  
District Engineer

DATE \_\_\_\_\_

\_\_\_\_\_  
Project Review Engineer

DATE \_\_\_\_\_

\_\_\_\_\_  
State Bridge Design Engineer

DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA

District 2

PROJECT CONCEPT REPORT

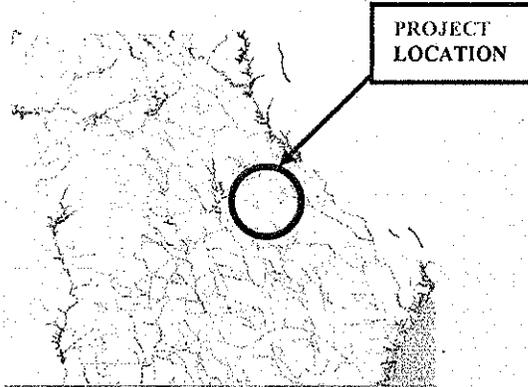
Project Number: CSHPP-0007-00(534)

County: Warren

P. I. Number: 0007534

Federal Route Number: N/A

State Route Number: N/A



Recommendation for approval:

DATE 6/27/07

Gregory M. Brown  
Project Manager

DATE 6-27-07

Michael J. Brown  
Office Head/District Engineer

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

DATE 7/6/07

Angela S. Alvarado  
State Transportation Planning Administrator

DATE \_\_\_\_\_

State Transportation Financial Management Administrator

DATE \_\_\_\_\_

State Environmental/Location Engineer

DATE \_\_\_\_\_

State Traffic Safety & Design Engineer

DATE \_\_\_\_\_

District Engineer

DATE \_\_\_\_\_

Project Review Engineer

DATE \_\_\_\_\_

State Bridge Design Engineer

## SCORING RESULTS AS PER MOG 2440-2

<b>Project Number:</b> CSHPP-0007-00(534)		<b>County:</b> Warren		<b>PI No.:</b> 0007534		
<b>Report Date:</b> June 27,2007		<b>Concept By:</b> DOT Office: District 2 Consultant- JJG				
<input checked="" type="checkbox"/> Concept Stage						
<b>Project Type:</b> Choose One From Each Column		<input checked="" type="checkbox"/> Major <input type="checkbox"/> Minor	<input type="checkbox"/> Urban <input checked="" type="checkbox"/> Rural	<input type="checkbox"/> ATMS <input type="checkbox"/> Bridge Replacement <input type="checkbox"/> Building <input type="checkbox"/> Interchange Reconstruction <input type="checkbox"/> Intersection Improvement <input type="checkbox"/> Interstate <input checked="" type="checkbox"/> New Location <input type="checkbox"/> Widening & Reconstruction <input type="checkbox"/> Miscellaneous		
<b>FOCUS AREAS</b>		<b>SCORE</b>		<b>RESULTS</b>		
<b>Presentation</b>		100				
<b>Judgment</b>		100				
<b>Environmental</b>		100				
<b>Right of Way</b>		100				
<b>Utility</b>		100				
<b>Constructability</b>		100				
<b>Schedule</b>		100				

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

**INTERDEPARTMENT CORRESPONDENCE**

**FILE:** P.I. No. 0007534

**OFFICE:** Environment/Location

**DATE:** July 9, 2007

**FROM:**   
Harvey D. Keeper, State Environmental/Location Engineer

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

**SUBJECT:** **PROJECT CONCEPT REPORT**  
**CSHPP-0007-00(534) / Warren County**

The above subject concept report has been reviewed. Two unmarked cemeteries are located adjacent to the project corridor: the Tucker Cemetery should be south of proposed corridor, while the Hill Cemetery is located in the immediate proximity. The railroad is also an eligible historic resource. Will need to consider avoidance and/or minimization of impact. The Project will likely require an Individual Permit and PAR. The management let date is May 2009. Time to complete Environmental is indicated as 36 months. The schedule does not jibe. Since project is new location, we should be able to avoid 4f concerns and may be able to complete in time. Based on May 2009 let date, environmental document and Permit need to be in hand within eighteen (18) months.

If you have any questions, please contact me at (404) 699-4401.

HDK/lc

Attachment

cc: Brian Summers  
Keith Golden  
Michael L. Thomas  
Angela Alexander  
Jamie Simpson

DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA

District 2

PROJECT CONCEPT REPORT

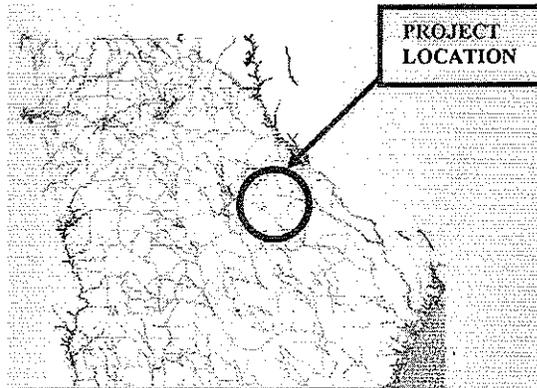
Project Number: CSHP-0007-00(534)

County: Warren

P. I. Number: 0007534

Federal Route Number: N/A

State Route Number: N/A



Recommendation for approval:

DATE 6/27/07

[Signature]  
Project Manager

DATE 6-27-07

[Signature]  
Office Head/District Engineer

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

DATE \_\_\_\_\_

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

DATE \_\_\_\_\_

[Signature]  
State Transportation Financial Management Administrator

DATE 7.05.07

[Signature]  
State Environmental/Location Engineer

DATE \_\_\_\_\_

\_\_\_\_\_  
State Traffic Safety & Design Engineer

DATE \_\_\_\_\_

\_\_\_\_\_  
District Engineer

DATE \_\_\_\_\_

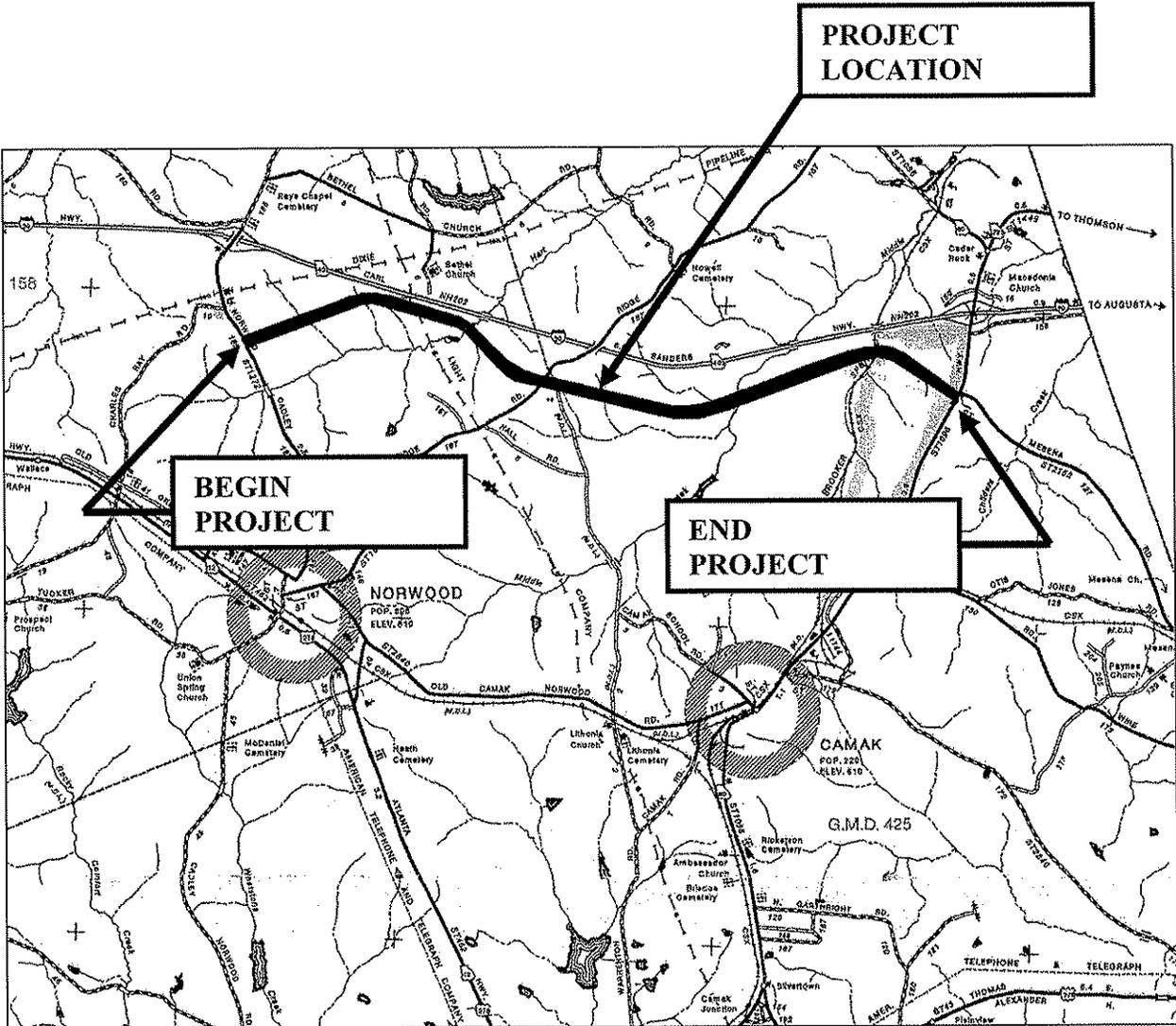
\_\_\_\_\_  
Project Review Engineer

DATE \_\_\_\_\_

\_\_\_\_\_  
State Bridge Design Engineer

Project Concept Report page 2  
Project Number: CSHPP-0007-00(534)  
P.I. Number: 0007534  
County: Warren

### Location Sketch



**Need and Purpose:**

The proposed project is designed to construct a two-lane frontage road along the south side of Interstate 20 between Exit 160 (Cadley Road) and Exit 165 (SR 80) in Warren County, Georgia. The purpose of the project is to provide sufficient roadway infrastructure along I-20 in Warren County in order to provide access for future commercial and industrial development. With very little development along I-20 in Warren County, this frontage road is expected to attract needed economic development that has traditionally located in other counties along I-20.

Planning Background and Project History

Warren County has identified the proposed frontage road as vital to the County in order to provide access to large tracts of undeveloped land that will attract commercial and industrial development. This project is identified in the GDOT State Transportation Improvement Program (STIP) as project # CSHPP-0007-00(534), P.I. 0007534.

Land Use and Development Trends

Currently, the area between Exit 160 (Cadley Road) and Exit 165 (SR 80) is mainly undeveloped rural agricultural land, and there is no development at either interchange with I-20. There are varying levels of industrial and commercial development along this section of I-20, with virtually none of this type of development in Warren County. By providing access to a large undeveloped area adjacent to the Interstate, the proposed frontage road is expected to attract several large distribution facilities as well as commercial growth near the interchanges. The attached traffic study provides an analysis of the existing and future traffic conditions as well as a detailed description of the expected development and the traffic associated with this development.

Logical Termini

The eastern project terminus is located at the intersection of SR 80 (Washington Hwy) and Mesena Road (CR 127). The frontage road would tie into this intersection creating a 4-leg intersection. The western project terminus is located at the intersection of Cadley Road and Charles Ray Road. The frontage road would tie into Charles Ray Road west of Cadley Road and follow the existing alignment to the 4-leg intersection with Cadley Road. By tying into the existing roadway system, these intersections provide logical termini.

**Description of the proposed project:**

The project is located in Warren County, south of and parallel to Interstate 20, beginning at Cadley Road (CR 185) (Exit 160) and ending at Washington Highway (SR 80) (Exit 165). The project is approximately 5.90 miles of new location roadway with approximately 0.77 miles of side road improvements.

**Is the project located in a Non-attainment area?** \_\_\_\_\_ Yes      X   No.

**PDP Classification:** Major   X   Minor \_\_\_\_\_

**Federal Oversight:** Full Oversight ( ), Exempt (X), State Funded ( ), or Other ( )



- **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

- **Environmental concerns:** Three potential historical properties have been identified in the project area. There is potential for impact to Hart Creek, Middle Creek, and approximately 10 of their tributaries. Also, there are wetlands associated with these creeks and tributaries. Anticipated permits are Section 404, 4(f).

- **Level of environmental analysis:**

- Are Time Savings Procedures appropriate? Yes ( ), No (X),
- Categorical exclusion ( ),
- Environmental Assessment/Finding of No Significant Impact (FONSI) (X)
- Environmental Impact Statement (EIS) ( ).

**Utility involvements:** Proposed alignment crosses a Georgia Power Easement, an Atlanta Gas Light Pipeline, and a railroad spur. The proposed roadway shall avoid the transmission towers. The pipeline and other utilities will be coordinated. An at grade crossing and a bridge alternate are being considered for the railroad.

**VE Study Required**      Yes( )      No(X)

**Project responsibilities:**

- Design, GDOT
- Right of Way Acquisition, Warren County
- Relocation of Utilities, utility owner
- Letting to contract, GDOT
- Supervision of construction, GDOT
- Providing material pits, contractor
- Providing detours, Warren County

### **Coordination**

- Initial Concept Meeting – March 23, 2007 (minutes attached)
- Concept meeting – May 1, 2007
- There are no other planned road projects in the project area.

### **Scheduling – Responsible Parties' Estimate**

- Time to complete the environmental process: 36 Months.
- Time to complete preliminary construction plans: 12 Months.
- Time to complete right of way plans: 3 Months.
- Time to complete the Section 404 Permit: 3 Months.
- Time to complete final construction plans: 12 Months.
- Time to complete to purchase right of way: 12 Months.

### **Other alternates considered:**

#### At-Grade Railroad Crossing Alternate

A bridge alternate and an at grade railroad crossing alternate were considered. Implementation of the at grade crossing depends on the closure of two existing at grade crossings in the area. Also, an at grade crossing would have a negative impact on safety and traffic operations as compared to a bridge crossing. Therefore, the bridge alternate is recommended for this project.

#### Alternate Alignments

Alternate alignments were considered which moved the layout of the proposed frontage road parallel and closer to the interstate. It was concluded that the historical and environmental impacts which were anticipated from these alignments would have been extensive.

#### Project Phase Alternate

The project is recommended to be designed and built under two phases. The first phase would start at Cadley Road and end at Ridge Road, and the second phase would start at Ridge Road and end at Washington Highway (SR 80).

### **Attachments:**

1. **Cost Estimates:**
  - a. **Right-of-Way**
  - b. **Utilities**
  - c. **Construction including E&C**
2. **Sketch Location Map**
3. **Typical Sections**
4. **Traffic and Safety Analysis**
5. **Environmental Inventory**
6. **Minutes of Initial Concept and Concept Meetings**

## SCORING RESULTS AS PER TOPPS 2440-2

<b>Project Number:</b> CSHPP-0007-00(534)		<b>County:</b> WARREN		<b>PI No.:</b> 0007534	
<b>Report Date:</b>		<b>Concept By:</b>			
		DOT Office:			
<input type="checkbox"/> CONCEPT					
		Consultant: Jordan, Jones, and Goulding, Inc.			
<b>Project Type:</b> Choose One From Each Column		<input type="checkbox"/> Major	<input type="checkbox"/> Urban	<input type="checkbox"/> ATMS	
		<input type="checkbox"/> Minor	<input type="checkbox"/> Rural	<input type="checkbox"/> Bridge	
				<input type="checkbox"/> Building	
				<input type="checkbox"/> Interchange	
				<input type="checkbox"/> Intersection	
				<input type="checkbox"/> Interstate	
				<input type="checkbox"/> New Location	
				<input type="checkbox"/> Widening & Reconstruction	
				<input type="checkbox"/> Miscellaneous	
<b>FOCUS AREAS</b>	<b>SCORE</b>	<b>RESULTS</b>			
<b>Presentation</b>					
<b>Judgement</b>					
<b>Environmental</b>					
<b>Right of Way</b>					
<b>Utility</b>					
<b>Constructability</b>					
<b>Schedule</b>					

**Attachment #1**  
**Cost Estimates**

ATTACHMENT #1  
CONCEPT COST ESTIMATE

PROJECT NUMBER: CSHPP-0007-00(534) P.I. NO.0007534

COUNTY: WARREN

ESTIMATED LETTING DATE: 2012

PROJECT LENGTH: 5.90 miles

PROJECT COST					
	Parcels		Unit Cost		Cost
<b>A. RIGHT-OF-WAY:</b>					
	18				
1. PROPERTY (LAND & EASEMENT)					
a. R/W Residential: 20 acres @ \$6,300/acre				\$	126,000
b. R/W Large Residential: 115 acres @ \$3,150/acre				\$	362,250
c. Easmt: 10 acres @ \$3,150/acre				\$	15,750
2. DISPLACEMENTS; RES: -, BUS: -, M.H.: -					
3. MISCELLANEOUS IMPROVMENTS					
				\$	25,000
		SUBTOTAL: A-1-3		\$	529,000
4. OTHER COST					
a. Scheduling Contingency (55%)				\$	290,950
b. Adm/Court Cost (60%)				\$	491,970
c. Inflation Factor (40%)				\$	524,768
		SUBTOTAL: A		\$	1,836,700
<b>B. UTILITIES:</b>					
1. REIMBURSABLE UTILITIES:					
a. RAILROAD				\$	-
b. TRANSMISSION LINES				\$	-
c. SERVICES					
GEORGIA POWER				\$	-
BELLSOUTH				\$	-
AGL				\$	-
WATER				\$	-
2. NON-REIMBURSABLE UTILITIES:					
		SUBTOTAL: B		\$	-
<b>C. CONSTRUCTION:</b>					
1. MAJOR STRUCTURES					
a. BRIDGES					
<b>Bridge Alternate</b>					
510'x66' Frontage Rd bridge over railroad spur	7790		SF	\$90.00	\$
					701,000
		SUBTOTAL: C-1.a		\$	701,000
b. OTHER (CULVERTS)					
CLASS A CONCRETE	340		CY	\$587.75	\$
					200,000
BAR REINF STEEL	48,000		LB	\$0.96	\$
					46,000
TYPE II BACKFILL	370		CY	\$59.77	\$
					22,000
		SUBTOTAL: C-1.b		\$	268,000
		SUBTOTAL: C-1		\$	969,000
2. GRADING AND DRAINAGE:					
a. EARTHWORK					
UNCLASSIFIED EXCAVATION	800000		CY	\$5.58	\$
					4,464,000
IN PLACE EMBANKMENT			CY	\$10.19	\$
					-
BORROW EXCAVATION			CY	\$7.90	\$
					-
		SUBTOTAL: C-2.a		\$	4,464,000
b. DRAINAGE					
1) Cross Drain Pipe					
SIDE ROADS					
STORM DRAIN PIPE, 18"				LF	\$41.56
					\$
STORM DRAIN PIPE, 24"	500	300	800	LF	\$53.56
					\$
STORM DRAIN PIPE, 30"				LF	\$67.67
					\$
STORM DRAIN PIPE, 36"	1000		1000	LF	\$79.72
					\$
STORM DRAIN PIPE, 42"	500		500	LF	\$118.40
					\$
STORM DRAIN PIPE, 48"	500		500	LF	\$130.17
					\$
STORM DRAIN PIPE, 54"				LF	\$118.03
					\$
STORM DRAIN PIPE, 60"				LF	\$131.95
					\$

ATTACHMENT #1  
CONCEPT COST ESTIMATE

PROJECT NUMBER: CSHPP-0007-00(534) P.I. NO.0007534

COUNTY: WARREN

ESTIMATED LETTING DATE: 2012

PROJECT LENGTH: 5.90 miles

PROJECT COST						
			Parcels	Unit Cost		Cost
STORM DRAIN PIPE, 72"	500	500	LF	\$265.00	\$	133,000
SIDE DRAIN PIPE, 18"	300	300	LF	\$35.54	\$	11,000
SIDE DRAIN PIPE, 24"	200	200	LF	\$38.22	\$	8,000
SLOPE DRAIN, 10"		400	LF	\$27.00	\$	11,000
SLOPE DRAIN, 18"		200	LF	\$27.26	\$	5,000
FLARED END SECTION, 18" STORM DRAIN			EA	\$676.54	\$	-
FLARED END SECTION, 24" STORM DRAIN		16	EA	\$867.64	\$	14,000
FLARED END SECTION, 30" STORM DRAIN			EA	\$888.97	\$	-
FLARED END SECTION, 36" STORM DRAIN		20	EA	\$1,225.95	\$	25,000
FLARED END SECTION, 42" STORM DRAIN		10	EA	\$1,834.50	\$	18,000
CLASS A CONCRETE, INCL REINF STEEL		20	CY	\$884.14	\$	18,000
FLARED END SECTION, 18" SIDE DRAIN		10	EA	\$476.08	\$	5,000
FLARED END SECTION, 24" SIDE DRAIN		10	EA	\$231.76	\$	2,000
METAL DRAIN INLET, TYPE 1		20	EA	\$712.70	\$	14,000
					\$	511,000
SUBTOTAL: C-2.b.1					\$	511,000
2) Curb and Gutter			LF	\$23.00		
					\$	-
SUBTOTAL: C-2.b.2					\$	-
3) Longitudinal System						
STORM DRAIN PIPE, 18"			LF	\$41.56	\$	-
STORM DRAIN PIPE, 24"			LF	\$53.56	\$	-
STORM DRAIN PIPE, 30"			LF	\$67.67	\$	-
STORM DRAIN PIPE, 36"			LF	\$79.72	\$	-
STORM DRAIN PIPE, 42"			LF	\$118.40	\$	-
STORM DRAIN PIPE, 48"			LF	\$130.17	\$	-
CATCH BASIN, GP1			EA	\$2,285.08	\$	-
CATCH BASIN GP2			EA	\$2,362.65	\$	-
DROP INLET, GP1			EA	\$4,380.37	\$	-
DROP INLET, GP2			EA	\$4,105.09	\$	-
MANHOLE, TP1			EA	\$2,250.59	\$	-
MANHOLE, TP2			EA	\$3,498.38	\$	-
CATCH BASIN, ADDL DEPTH			LF	\$234.65	\$	-
DROP INLET, ADDL DEPTH			LF	\$278.12	\$	-
MANHOLE, ADDL DEPTH			LF	\$297.52	\$	-
					\$	-
SUBTOTAL: C-2.b.3					\$	-
SUBTOTAL: C-2					\$	4,975,000
3. BASE AND PAVING:						
a. AGGREGATE BASE						
GAB - 12" - FOR PAVEMENT SECTION	83800	TON		\$17.15	\$	1,437,000
					\$	1,437,000
SUBTOTAL: C-3.a					\$	1,437,000
b. ASPHALT PAVING (Mainline & Cross-Roads):						
SURFACE - 12.5 mm SUPERPAVE - FOR PAVEMENT SECTION	10400	TON		\$80.00	\$	832,000
BINDER - 19 mm SUPERPAVE - FOR PAVEMENT SECTION	20800	TON		\$80.00	\$	1,664,000
BASE - 25 mm SUPERPAVE - FOR PAVEMENT SECTION	27800	TON		\$80.00	\$	2,224,000
LEVELING - 19 mm - FOR PAVEMENT SECTION	200	TON		\$80.00	\$	16,000
					\$	4,736,000
SUBTOTAL: C-3.b					\$	4,736,000
c. CONCRETE PAVING - 11" CRC						
			SY	\$70.00	\$	-
d. OTHER						
TACK COAT	16500	GAL		\$1.88	\$	31,000
MILLING - VARIABLE DEPTH	700	SY		\$2.51	\$	2,000
					\$	33,000
SUBTOTAL: C-3.d					\$	33,000
SUBTOTAL: C-3					\$	6,206,000
4. GRASSING AND EROSION CONTROL						
a. GRASSING						
PERMANENT GRASSING	45	AC		\$893.28	\$	40,000

ATTACHMENT #1  
CONCEPT COST ESTIMATE

PROJECT NUMBER: CSHPP-0007-00(534) P.I. NO.:0007534

COUNTY: WARREN

ESTIMATED LETTING DATE: 2012

PROJECT LENGTH: 5.90 miles

PROJECT COST					
		Parcels	Unit Cost		Cost
AGRICULTURAL LIME	45	TON	\$58.09	\$	3,000
LIQUID LIME	115	GAL	\$19.20	\$	2,000
FERTILIZER MIXED GRADE	86	TON	\$347.20	\$	30,000
FERTILIZER NITROGEN CONTENT	2250	LB	\$2.09	\$	5,000
SUBTOTAL: C-4.a			\$	80,000	
b. CLEARING AND GRUBBING	141	AC	\$10,000.00	\$	1,410,000
c. LANDSCAPING				\$	-
d. EROSION CONTROL					
TEMPORARY GRASSING	23	AC	\$561.09	\$	13,000
MULCH	500	TON	\$192.62	\$	96,000
TYPE A SILT FENCE	15000	LF	\$1.84	\$	28,000
TYPE C SILT FENCE	62000	LF	\$3.86	\$	239,000
INLET SEDIMENT TRAP		EA	\$299.73	\$	-
SILT GATE, TP 3	30	EA	\$569.11	\$	17,000
TEMP PIPE SLOPE DRAIN	5000	LF	\$16.91	\$	85,000
BALED STRAW EROSION CHECK	3000	LF	\$3.75	\$	11,000
TEMP DITCH CHECKS	500	EA	\$219.23	\$	110,000
CONSTRUCTION EXIT	8	EA	\$2,863.64	\$	23,000
CONCRETE DITCH PAVING	5000	SY	\$31.72	\$	159,000
RIP RAP	2000	SY	\$49.81	\$	100,000
PLASTIC FILTER FABRIC	2000	SY	\$4.88	\$	10,000
EROSION CONTROL MATS	15000	SY	\$1.32	\$	20,000
MAINT TYPE A SILT FENCE	7500	LF	\$0.93	\$	7,000
MAINT TYPE C SILT FENCE	31000	LF	\$1.88	\$	58,000
MAINT INLET SEDIMENT TRAP		EA	\$111.10	\$	-
MAINT SILT GATE, TP 3	30	EA	\$200.21	\$	6,000
MAINT BALED STRAW EROSION CHECK	1500	LF	\$2.33	\$	3,000
MAINT TEMP DITCH CHECKS	500	EA	\$86.87	\$	43,000
MAINT CONSTRUCTION EXIT	24	EA	\$676.71	\$	16,000
SUBTOTAL: C-4.d			\$	1,044,000	
e. TRAFFIC CONTROL	1	LS	\$607,500.00		\$608,000.00
SUBTOTAL: C-4				\$	3,142,000
5. MISCELLANEOUS:					
a. LIGHTING				\$	-
b. SIGNING - MARKING - SIGNALIZATION					
SIGNING & MARKINGS	5.90	MI	\$50,000.00	\$	295,000
TRAFFIC SIGNAL MODIFICATIONS AND INSTALLATIONS		EA	\$75,000.00	\$	-
SUBTOTAL: C-5.b			\$	295,000	
c. GUARDRAIL					
TYPE T GUARDRAIL	400	LF	\$34.00	\$	14,000
TYPE W GUARDRAIL	4000	LF	\$23.52	\$	94,000
TYPE 1 ANCHOR	10	EA	\$631.55	\$	6,000
TYPE 12 ANCHOR	10	EA	\$1,878.51	\$	19,000
SUBTOTAL: C-5.c			\$	133,000	
d. SIDEWALK		SY	\$37.80	\$	-
e. TEMPORARY BARRIER					
PRECAST CONCRETE MEDIAN BARRIER, METHOD 3	1000	LF	\$39.00	\$	39,000
PRECAST CONCRETE MEDIAN BARRIER, METHOD 4		LF	\$159.00	\$	-
SUBTOTAL: C-5.e			\$	39,000	
f. ACCESS FENCE		LF	\$6.00	\$	-
g. APPROACH SLABS	1,440	SY	\$132.91	\$	191,000
h. REMOVAL					
Concrete Paving		SY	\$50.00	\$	-
SUBTOTAL: C-5.h			\$	-	
i. ATMS Conduit		LF	\$25.00	\$	-
j. OTHER				\$	-

ATTACHMENT #1  
CONCEPT COST ESTIMATE

PROJECT NUMBER: CSHPP-0007-00(534) P.I. NO.:0007534

COUNTY: WARREN

ESTIMATED LETTING DATE: 2012

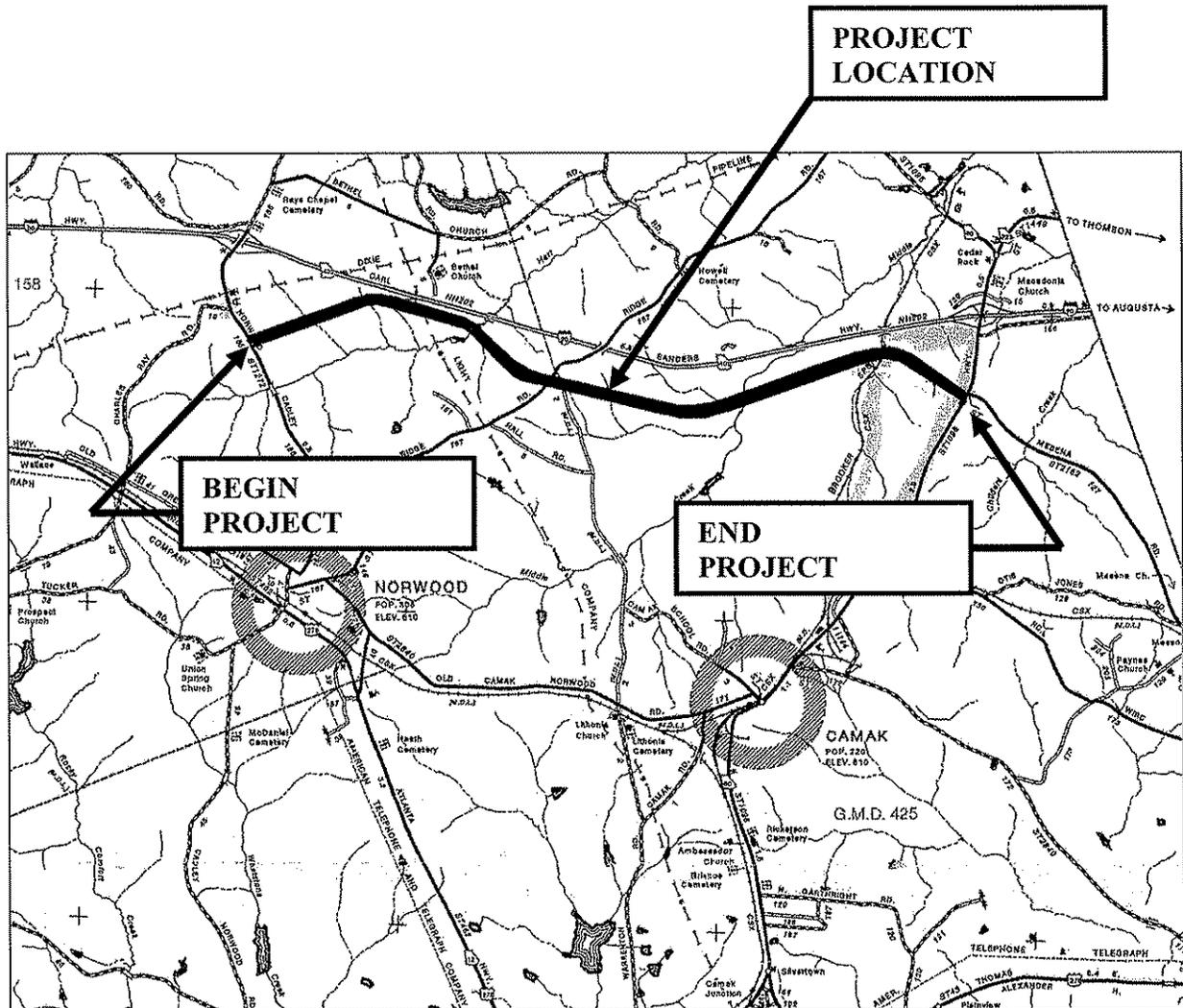
PROJECT LENGTH: 5.90 miles

PROJECT COST			
	Parcels	Unit Cost	Cost
SUBTOTAL C-5			\$ 658,000
6. SPECIAL FEATURES			\$ -
			\$ -
			\$ -
			\$ -
SUBTOTAL C-6			\$ -
<b>SUMMARY</b>			
A. RIGHT-OF-WAY			\$ 1,836,700
B. REIMBURSABLE UTILITIES			\$ -
C. CONSTRUCTION			
1. MAJOR STRUCTURES			\$ 969,000
2. GRADING AND DRAINAGE			\$ 4,975,000
3. BASE AND PAVING			\$ 6,206,000
4. LUMP ITEMS			\$ 3,142,000
5. MISCELLANEOUS			\$ 658,000
6. SPECIAL FEATURES			\$ -
SUBTOTAL CONSTRUCTION COST			\$ 15,950,000
INFLATION (3% PER YEAR)			\$ 2,540,000
NUMBER OF YEARS	5		
E. & C. (10%)			\$ 1,849,000
TOTAL CONSTRUCTION COST			\$ 20,339,000
<b>GRAND TOTAL PROJECT COST</b>			\$ 22,175,700

**Attachment #2**  
**Sketch Location Map**

Project Concept Report Attachment 2  
Project Number: CSHPP-0007-00(534)  
P.I. Number: 0007534  
County: Warren

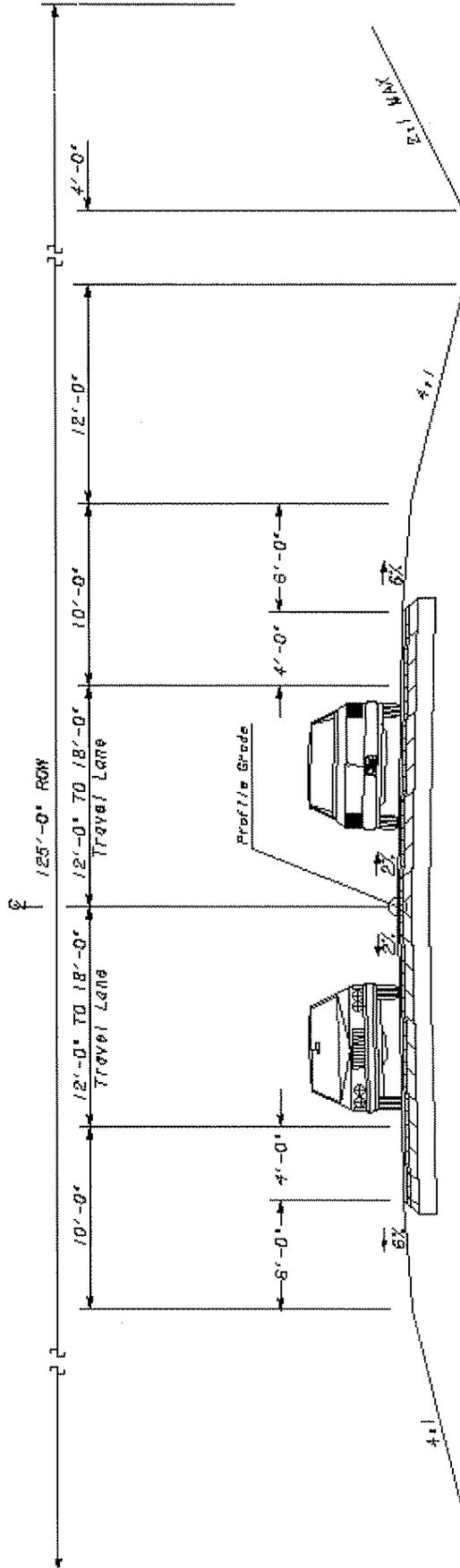
## Sketch Location Map



### LOCATION / DESCRIPTION:

The project includes 5.90 miles of new location roadway with approximately 0.77 miles of side road improvements from south of and parallel to Interstate 20, beginning at Cadley Road (CR185) (Exit 160), and ending at Washington Highway (SR 80) (Exit 165).

**Attachment #3**  
**Typical Sections**



TYPICAL SECTION  
 I-20 FRONTAGE ROAD

**Attachment #4**  
**Traffic and Safety Analysis**

**TRAFFIC & SAFETY  
STUDY**

**WARREN COUNTY FRONTAGE ROAD**

Project Number: CSHPP-007-00(534)

P. I. Number: 0007534

Warren County, GA

*Prepared for:*

Georgia Department of Transportation

The purpose of this traffic study is to evaluate existing and future conditions for the Warren County Frontage Road project. The proposed frontage road would be located on the south side of I-20 between Exit 160 (Cadley Road) and Exit 165 (SR 80). The study area between these two interchanges is mainly rural agricultural with no development at the interchanges. With the majority of interchanges along I-20 between Atlanta and Augusta experiencing some level of development, the lack of development at these two interchanges in Warren County is conspicuous. To address this issue, Warren County and the Georgia Department of Transportation have identified this location for a frontage road. This frontage road is expected to provide the infrastructure necessary to attract economic development that has traditionally located in other counties along I-20.

### Existing and Projected Traffic Volumes

Existing traffic volumes were collected along Cadley Road and SR 80 (Washington Hwy) as well as Ridge Road in April of 2007. These traffic volumes are presented in figures T1 and T2. As shown in these figures, traffic volumes along study area roadways and at intersections are very low. In order to determine background traffic growth rates along area roadways, GDOT historical traffic counts within the study area were studied. Table 1 presents the historical traffic volumes and their corresponding growth rates.

**Table 1: GDOT Historical Traffic Growth Rates**

GDOT Count Station	RT Type	2000	2001	2002	2003	2004	2005	Compounded Annual Growth Rate
187	CR	302	300	300	234	266	280	-2.8%
174	SR	2638	2563	2624	2603	2908	2680	1.3%
247	SR	424	400	345	281	299	350	-5.7%
198	SR	26688	22505	20058	23641	24024	23520	-0.8%
192	CR	381	380	454	297	282	310	-6.5%
176	CR	1197	672	664	657	821	750	-4.9%
201	SR	23272	24046	21600	25704	27729	25830	3.3%
223	CR	139	164	174	145	144	200	3.6%
221	CR	157	357	113	200	108	130	-10.7%
<b>Total</b>		<b>55199</b>	<b>51389</b>	<b>46335</b>	<b>53766</b>	<b>56586</b>	<b>54056</b>	<b>1.0 %</b>

In addition to the GDOT traffic growth rates, the Georgia Department of Community Affairs (DCA) population and employment projections for Warren County were analyzed. These projections and growth rate calculations are presented in Tables 2 and 3.

**Table 2: Warren County Population Forecast**

1980	1985	1990	1995	2000	2005	Compounded Annual Growth Rate
6583	6331	6078	6207	6336	6274	-0.6%

Source: GA DCA

**Table 3: Warren County Employment Forecast**

1980	1985	1990	1995	2000	2005	Compounded Annual Growth Rate
2151	2280	2409	2374	2339	2386	1.7%

Source: GA DCA

As a result of the analysis of these traffic, population, and employment forecasts, it was decided that a 1.0% growth rate was appropriate in order to project background traffic growth to the 2032 design year. This growth rate was applied to the existing traffic volumes to develop the 2032 No-Build traffic. The No-Build scenario assumes that the frontage road and associated development would not be constructed. The 2032 No-Build traffic volumes are presented in Figures T3 and T4.

In order to predict the traffic associated with development as a result of the proposed frontage road, Warren County provided an estimate of expected development associated with the frontage road. From previous discussions with companies looking to develop in the region, Warren County expects that several large distribution centers are likely to locate along the frontage road as well commercial development near the interchanges on each end of the project. Figure T5 presents a general location diagram of the expected distribution and commercial development.

The number of vehicle trips associated with the distribution facilities and commercial developments was determined by applying the trip generation rates as per the Institute of Transportation Engineers (ITE), *Trip Generation Handbook (7<sup>th</sup> Edition)*. The estimation of trip rates was based on the predominant measure of development intensity (i.e. SF-square footage, number of gas pumps, etc.) for daily as well as AM and PM peak time periods. The trip generation was performed for development on both the east and west sides of the proposed frontage road. Table 4 presents this trip generation. This traffic was then added to the 2032 No-Build traffic to develop the 2032 Build scenario traffic volumes. These volumes are presented in Figures T6 and T7.

#### Level Of Service Analysis

Under Existing and 2032 No-Build conditions, all intersections within the study area are expected to operate at Level of Service "A". This is expected due to very low traffic volumes on the study area roadways and intersection. With the construction of the frontage road as well as the expected development, traffic volumes are expected to increase significantly when compared to the Existing and No-Build conditions. As shown in Table 5, all intersections are expected to operate at LOS "C" or better in 2032. Full build-out of the expected development is likely to occur by 2032. Although not warranted in opening year, the intersections of Cadley Road and the proposed frontage road as well as SR 80 (Washington Hwy) and the frontage road will require signalization by 2032 in order to accommodate projected traffic volumes. As development occurs over the 20 year design horizon, traffic volumes at these two intersections will need to be studied and, as these intersections meet warrants, signalization will be necessary.

**Table 4: Warren Co. Frontage Road Development Trip Generation**

LAND USE	ITE	INTENSITY		WEEK-DAY TOTAL	DAILY TOTAL		AM		PM	
		UNITS	SQ.FT (1000)		AM	PM	ENTER	EXIT	ENTER	EXIT
<b>Eastern Frontage Road Development</b>										
Warehousing	150		500	2190	260	747	214	47	187	560
Gasoline/Service Station with Convenience Mart (# of Fueling Positions)	945	12		1953	121	161	60	60	80	80
Fast Food Restaurant with Drive-Through Window	934		3	1488	159	104	81	78	54	50
High Turnover (Sit-Down) Restaurant	932		5	636	58	55	30	28	33	21
Sub-Total				6,268	598	1,066	385	213	354	712
<b>Western Frontage Road Development</b>										
Warehousing	150		1000	4030	426	1210	349	77	302	907
Gasoline/Service Station with Convenience Mart (# of Fueling Positions)	945	12		1953	121	161	60	60	80	80
Fast Food Restaurant with Drive-Through Window	934		3	1488	159	104	81	78	54	50
High Turnover (Sit-Down) Restaurant	932		5	636	58	55	30	28	33	21
Sub-Total				8,108	764	1,529	521	243	470	1,059
<b>TOTAL</b>				<b>14,375</b>	<b>1,362</b>	<b>2,595</b>	<b>906</b>	<b>456</b>	<b>825</b>	<b>1,771</b>

**Table 5: Intersection Level of Service Results (Vehicle Delay/LOS)**

Intersection	Existing (2006)		No-Build (2032)		Build (2032)	
	AM	PM	AM	PM	AM	PM
Cadley Road and I-20 Westbound Ramps	1.8 (A)	8.7 (A)	1.8 (A)	8.7 (A)	10.3 (B)	19.8 (C)
Cadley Road and I-20 Eastbound Ramps	3.1 (A)	8.6 (A)	3.1 (A)	8.6 (A)	9.4 (A)	12.8 (B)
Charles Ray Road and Cadley Road	8.6 (A)	0.9 (A)	8.6 (A)	0.9 (A)	9.5 (A)*	9.3 (A)*
Ridge Road and Proposed Frontage Road					7.7 (A)	8.67 (A)
Washington Hwy (SR 80) and I-20 Westbound Ramps	9.4 (A)	9.5 (A)	9.7 (A)	9.9 (A)	15.3 (C)	22.9 (C)
Washington Hwy (SR 80) and I-20 Eastbound Ramps	9.6 (A)	9.6 (A)	10.0 (A)	9.9 (A)	14.0 (B)	14.8 (B)
Washington Hwy (SR 80) and CR 127	9.1 (A)	9.1 (A)	9.4 (A)	9.4 (A)	16.1 (B)*	34.1 (C)*

Note: For unsignalized intersections delay shown is minor street delay

\* For signalized intersections delay shown is intersection delay

### **Safety Analysis**

Historic accident and injury data for 2003, 2004, and 2005 was obtained from GDOT for Cadley Road and SR 80 (Washington Hwy) for one mile to the north and south of I-20 within the study area. The data revealed that there were no recorded accidents, injuries or fatalities on these two sections of roads. With no accidents, injuries, or fatalities, a comparison to statewide average would not be useful. It is expected that all roadways and intersections associated with the frontage road would be designed to safely accommodate future traffic volumes.

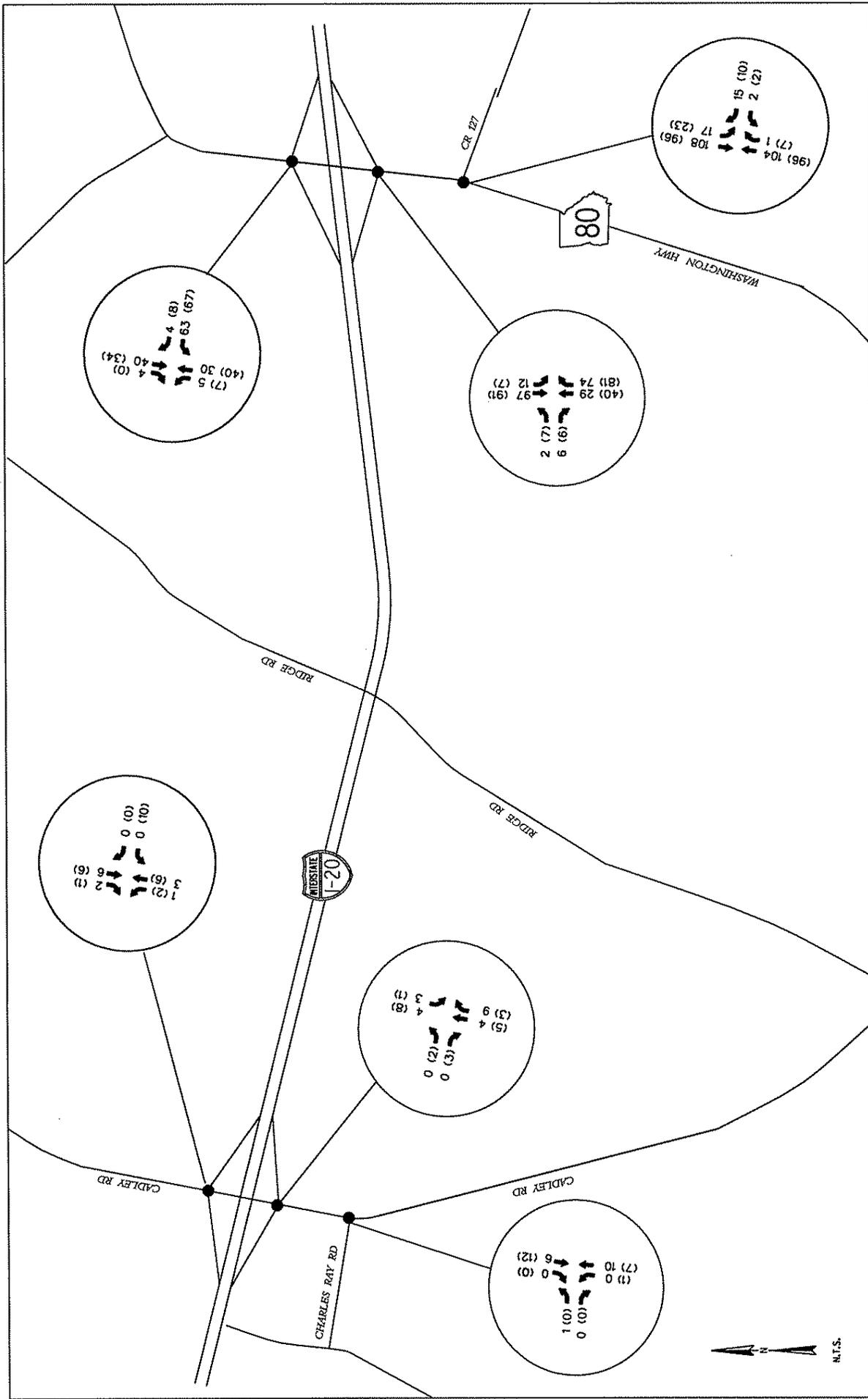


FIGURE T1  
 PEAK HOUR TRAFFIC  
 YEAR 2006  
 EXISTING CONDITION

WARREN COUNTY  
 FRONTAGE ROAD, GEORGIA

LEGEND  
 ∅∅ AM PEAK HOUR  
 (∅∅) PM PEAK HOUR

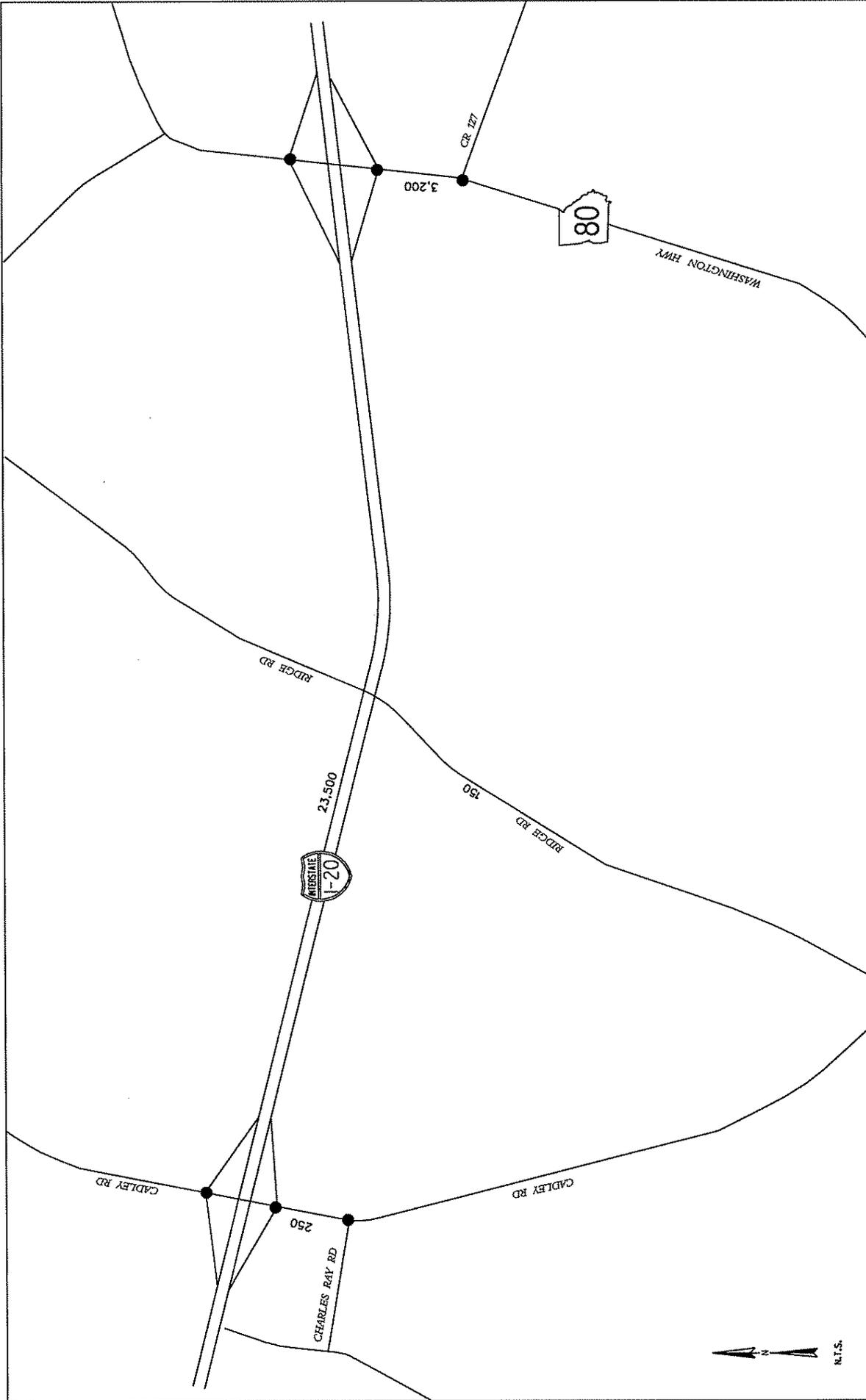


FIGURE T2

AVERAGE DAILY TRAFFIC  
YEAR 2006  
EXISTING CONDITION

WARREN COUNTY  
FRONTAGE ROAD, GEORGIA

LEGEND  
0000 AADT

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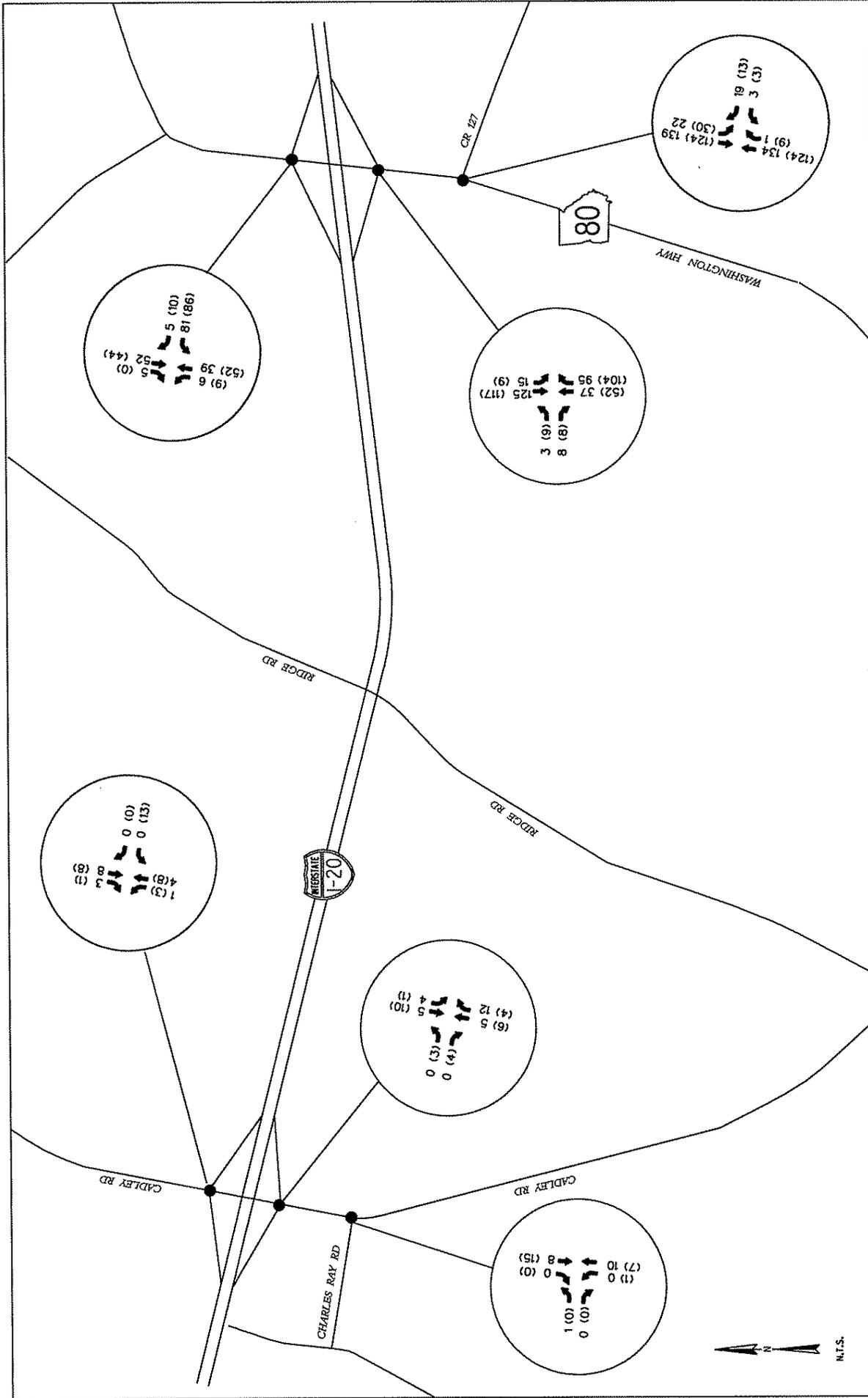


FIGURE  
T3

PEAK HOUR TRAFFIC  
YEAR 2032  
NO BUILD CONDITION

WARREN COUNTY  
FRONTAGE ROAD, GEORGIA

LEGEND  
○ AM PEAK HOUR  
○ PM PEAK HOUR



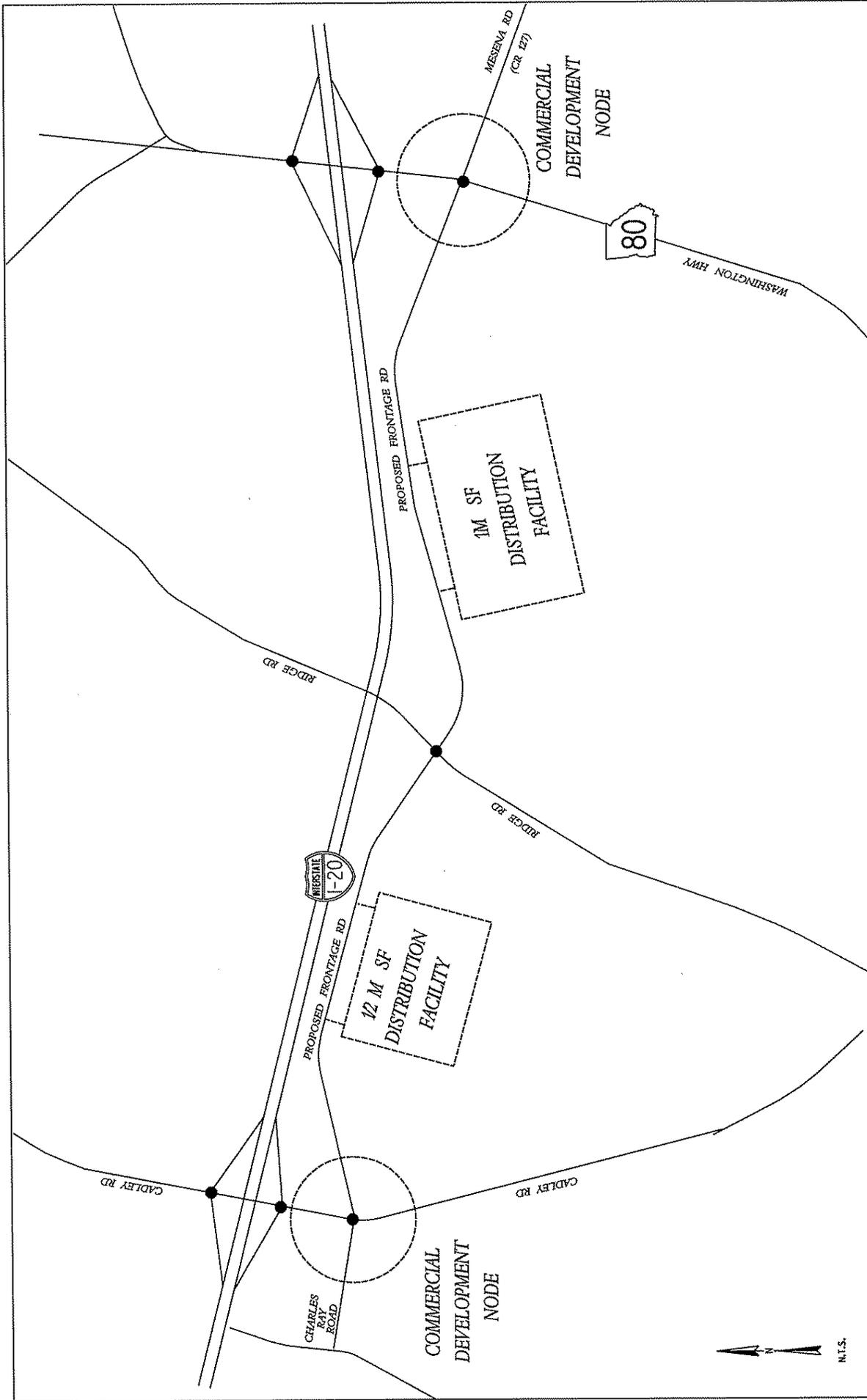


FIGURE T5

EXPECTED FRONTAGE ROAD DEVELOPMENT

WARREN COUNTY FRONTAGE ROAD, GEORGIA

NEW DEVELOPMENT



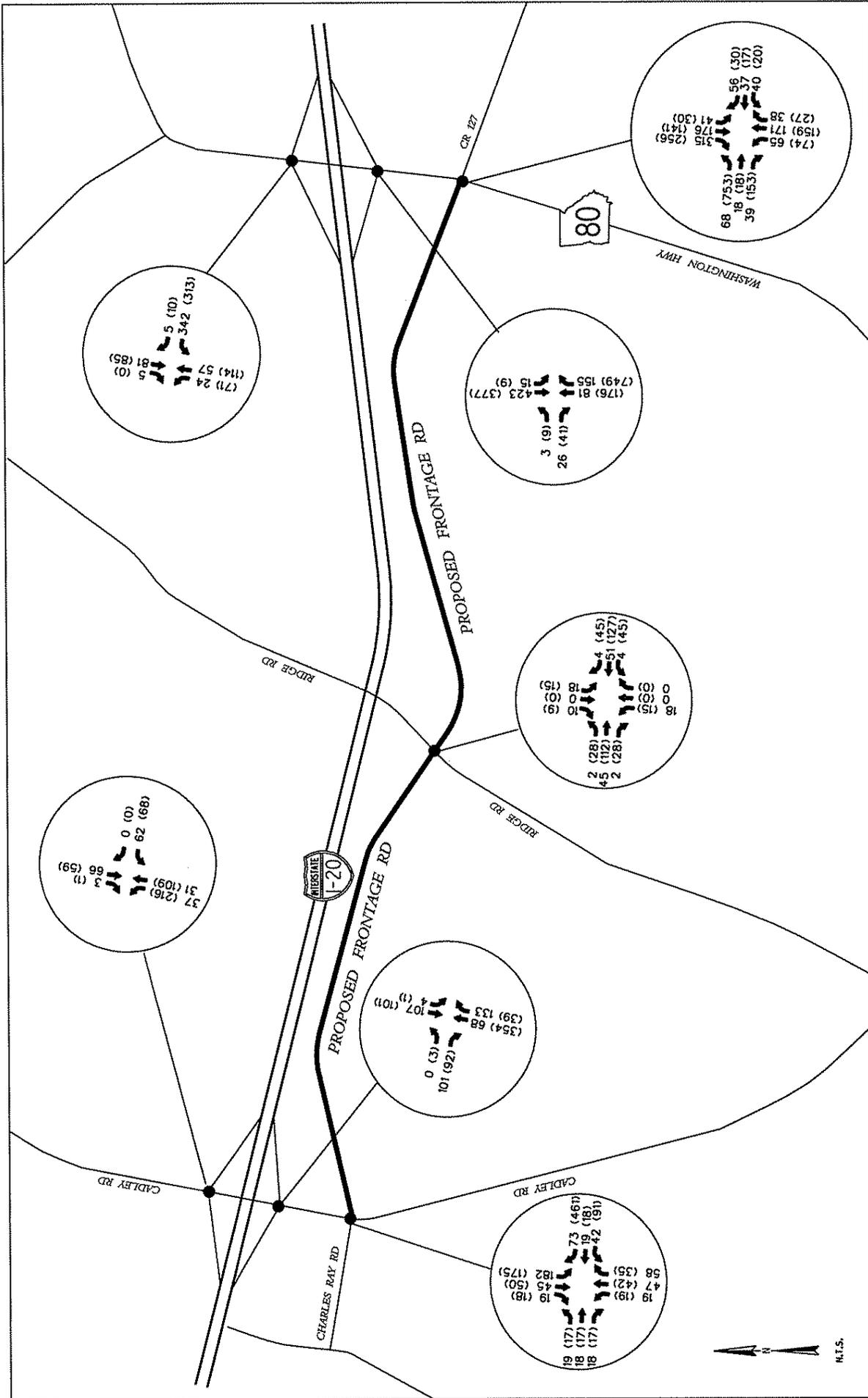


FIGURE T6

PEAK HOUR TRAFFIC  
 YEAR 2032  
 BUILD CONDITION

WARREN COUNTY  
 FRONTAGE ROAD, GEORGIA

LEGEND  
 ◊◊ AM PEAK HOUR  
 (◊◊) PM PEAK HOUR

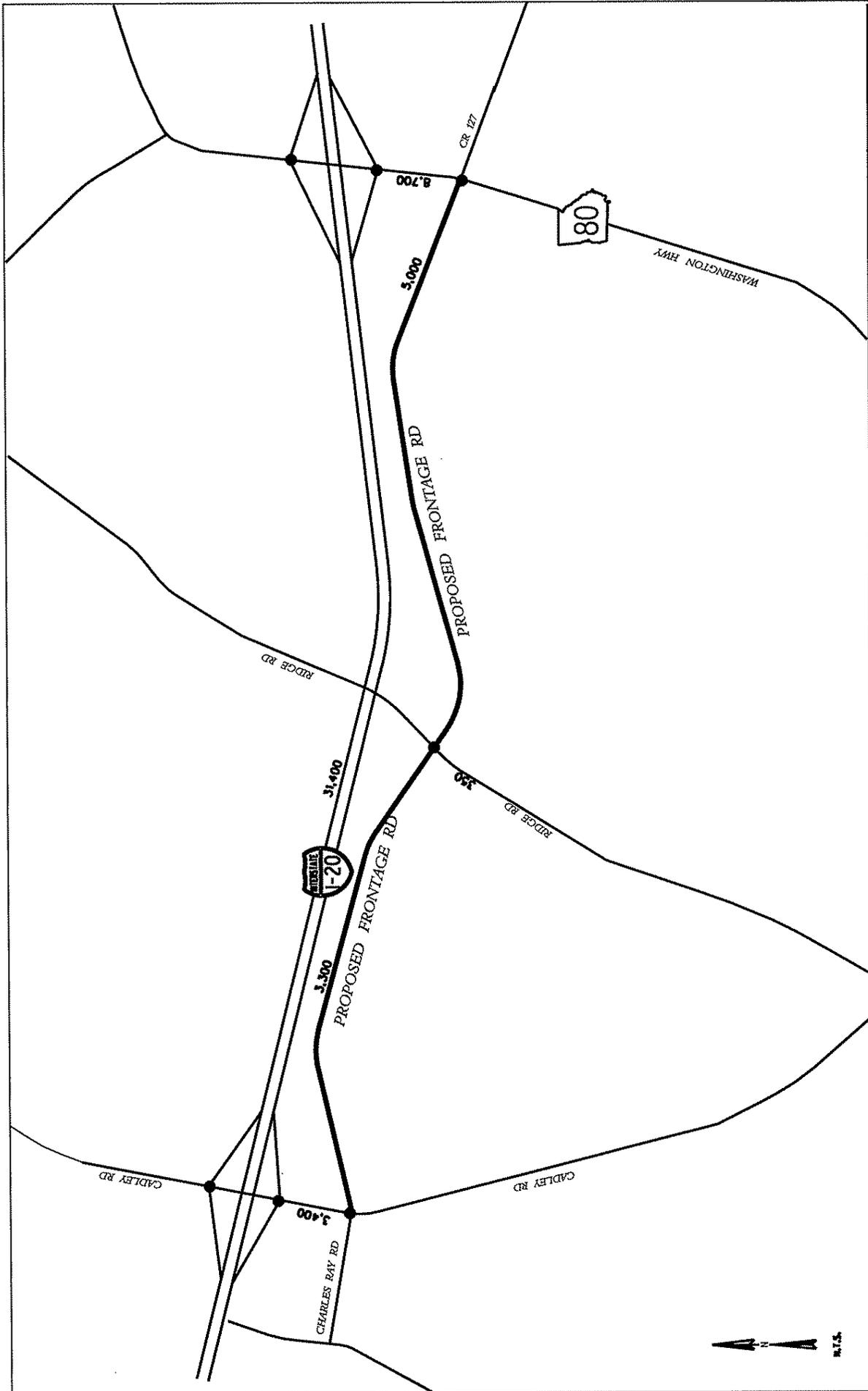


FIGURE  
T7

AVERAGE DAILY TRAFFIC  
YEAR 2032  
BUILD CONDITION

WARREN COUNTY  
FRONTAGE ROAD, GEORGIA

LEGEND  
0000 AADT

**Attachment #5**  
**Environmental Inventory**

**ENVIRONMENTAL INVENTORY**  
**I-20 Frontage Road**  
**Warren County, Georgia**  
CSHPP-0007-00(534)

**I. DESCRIPTION OF THE PROPOSED PROJECT**

**A. Proposed Project Corridor**

The proposed project corridor is located in Warren County, and is designed to develop a frontage road on the south side and parallel to Interstate 20, beginning at Cadley Road (CR 185) and ending at Washington Highway (SR 80). The proposed frontage road will provide adequate capacity for forecasted future traffic volumes related to Interstate 20 (I-20), and to provide physical improvements and modifications necessary to allow the Interstate and the frontage road to function smoothly and safely with other planned I-20 and frontage road improvements. Please see Figure 1.

**B. Site Description**

The majority of the project would be constructed within a mostly undeveloped area located between Cadley Road (CR 185) and Washington Highway (SR 80). The proposed frontage road corridor consists of undeveloped mixed hardwood forest, commercial pine timberland, and agricultural lands. Hart and Middle Creeks, two major tributaries of the Little River, flow through the proposed road corridor.

**II. ENVIRONMENTAL INVENTORY**

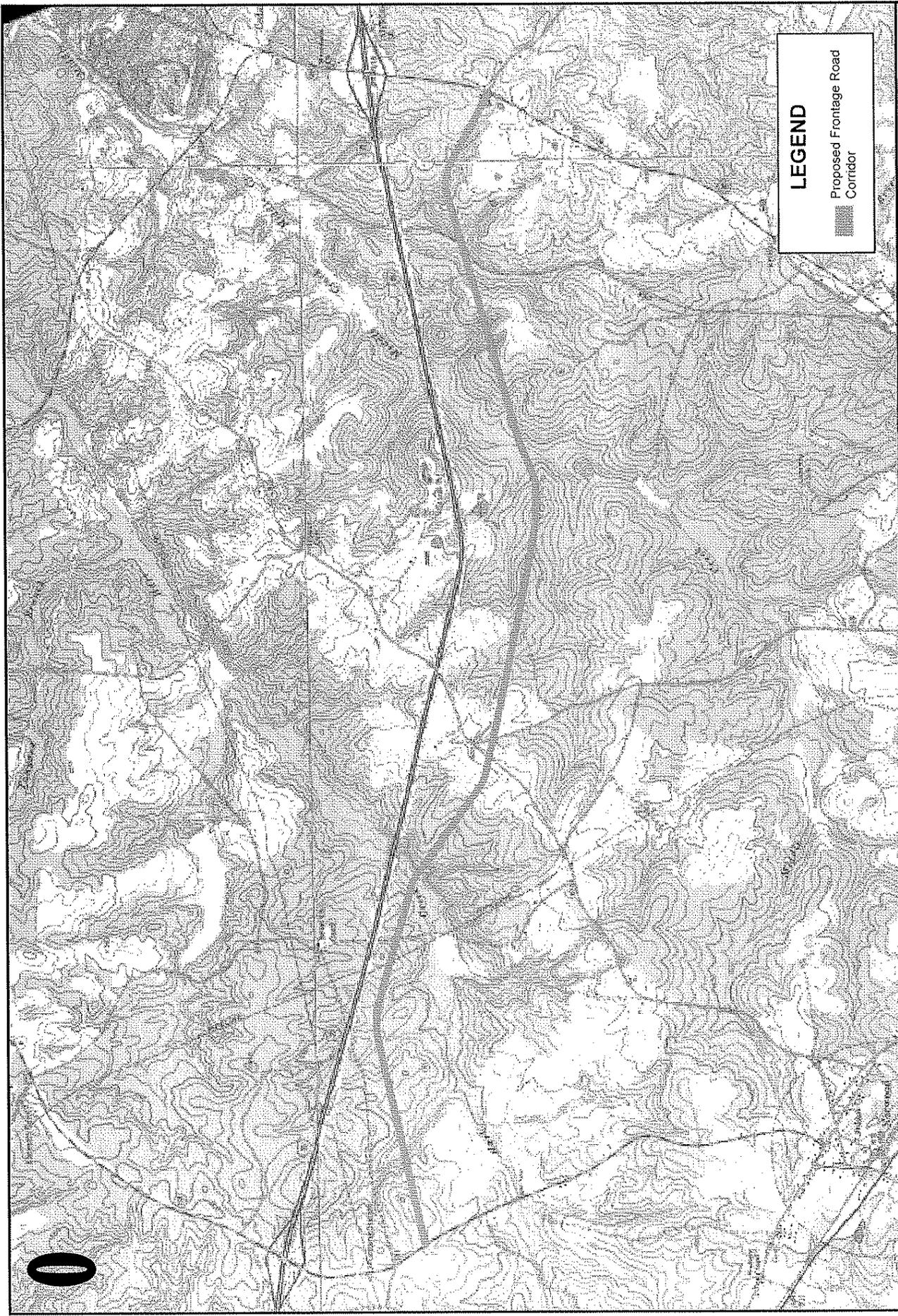
A preliminary survey of the proposed project corridor has been conducted in order to identify potential ecological, historical, and socioeconomic resources within the project corridor. All of these factors could affect project implementation and the course of documentation that would be necessary to fulfill pre-construction and permitting requirements.

**A. Social Environment**

The proposed project corridor would traverse an area of mainly undeveloped property that runs on the south side and parallel to I-20. The study area consists of commercial timberland and a few small farms that are located between Cadley Road and SR 80.

Compared with other counties in Georgia, Warren County has a high percentage of low-income residents. However, in the area of the proposed intersection and corridor improvement, the percentage of the population below poverty level is low due to the fact that the land is mainly undeveloped.

Any project with federal funding must be evaluated with respect to Environmental Justice in accordance with *Title VI of the Civil Rights Act and Executive Order 12898*, to determine if the project would have a disproportionate adverse environmental impact to minority or low-income



**LEGEND**

 Proposed Frontage Road Corridor

 <b>JORDAN JONES &amp; GOULDING</b>	<b>Proposed I-20 Frontage Road Warren County, Georgia</b>		Date: April 2007
	Project Location Map		Scale: Not To Scale
			Proj. No.: 02077912
			Figure 1

populations. This applies mostly, but not always, when displacements occur. Environmental Justice must also be applied in the reverse to ensure that the project does not disproportionately benefit an upper income or non-minority community while neglecting others. Additional investigations would be necessary during project planning to ensure that these low-income communities are not disproportionately impacted by the proposed project. Based upon preliminary concept alignments, no displacements are anticipated due to the proposed project.

## **B. Cultural Environment**

A preliminary field survey to identify historic resources was conducted on April 2, 2007. The site files on the Natural, Archaeological, & Historic Resources GIS (NAHRGIS) have also been researched. During the survey, three potentially eligible resources within or adjacent to the area of potential effect were observed along the project corridor. However, no sites were identified in the Georgia Department of Natural Resources: Historic Preservation Division (DNR – HPD) site files and no sites were identified on NAHRGIS. Below are descriptions of each eligible resource identified within the proposed frontage road corridor.

### **Resource WA-01**

Resource WA-01 was most likely originally constructed c. 1890 as a Saddlebag cottage type, and a Georgian cottage was later added to the side of the building, c. 1925, reorienting the front façade. The wood-framed building is covered with clapboards and has a standing-seam metal roof. The oldest, rear section of the vacant house has a foundation constructed of both brick piers and solid granite piers. The Georgian cottage addition has brick piers, some of which appear to have been rebuilt at a later date. The historic windows in the Saddlebag section of the house have been replaced with 1/1 aluminum-framed windows, but the Georgian cottage section still retains many of its historic 9/9 double-hung wood sash windows, as well as several historic wooden shutters with movable louvers. The four chimneys date from various periods in the building's history. The brick chimney, located in the middle of the ridgeline of the Saddlebag, dates from the original construction. The Georgian cottage section of the house has two exterior end chimneys, which are both partially constructed of stone and partially constructed of brick. A small stove chimney is an early twentieth century addition to the Saddlebag section of the house. The property has an associated outbuilding, which is located southeast of the house. The double-crib barn has a standing-seam metal roof and vertical board siding, which has been removed in places to accommodate the building's use as a run-in shed.

### **Resource WA-02**

Resource WA-02 was most likely constructed c. 1900 as a T-shaped Gabled Ell cottage. The rear of the building has been extended, approximately c. 1925. The entire building is covered with clapboards and a standing-seam metal roof. The building rests on a stacked stone foundation. Resource WA-02 appears to have been used as a barn since its residents vacated the premises, and most of the floors have collapsed. The front gable of the house is also collapsing, as portions of the wall have been removed, and all of the historic windows have been removed,

although some remaining sash indicate that they may have been 4/4 double-hung sash. The building has two brick exterior end chimneys located on the north and south sides of the house and both chimneys are collapsing. The rear ell of the house is also collapsing, and this portion of the building is currently being largely supported by encroaching vegetation. The property shows evidence of historic landscaping, including an Eastern red cedar tree and a hydrangea shrub in the front yard, near the house.

### **Resource WA-03**

Resource WA-03 was most likely constructed c. 1890 as a Saddlebag cottage. The building has an ell extension, which was probably a later addition, c. 1920. The building rests on a stacked stone and brick pier foundation, is covered with clapboards and possesses a standing-seam metal roof. The interior, centeridge chimney is constructed of brick. An additional chimney is located on the north slope of the ell addition. The house has 4/4 double-hung wood sash windows throughout. A shed-roofed porch is located on the front façade which is supported by square wooden posts. Another shed-roofed porch, on the south side of the ell extension, is partially collapsing. A small, board-and-batten shed is associated with the house.

Please see Figure 2, Environmental Constraints Map for a location of the three eligible resources.

This historic resources inventory is preliminary only, and further evaluations would be completed during the formal environmental permitting process. The resources or areas identified during the environmental screening either within, or adjacent to, the project corridor will need further research and analysis. The properties directly adjacent to the project corridor were identified to allow for adjustments in alignment during the preliminary planning phase to avoid impacting identified historic resources. Once the Section 106 process is initiated, a Historic Survey Report would be completed to identify all potentially eligible structures. This report would then be submitted to the State Historic Preservation Officer (SHPO) for concurrence. When eligible structures are identified, an assessment of the project's effects on the eligible resources would then be studied and documented.

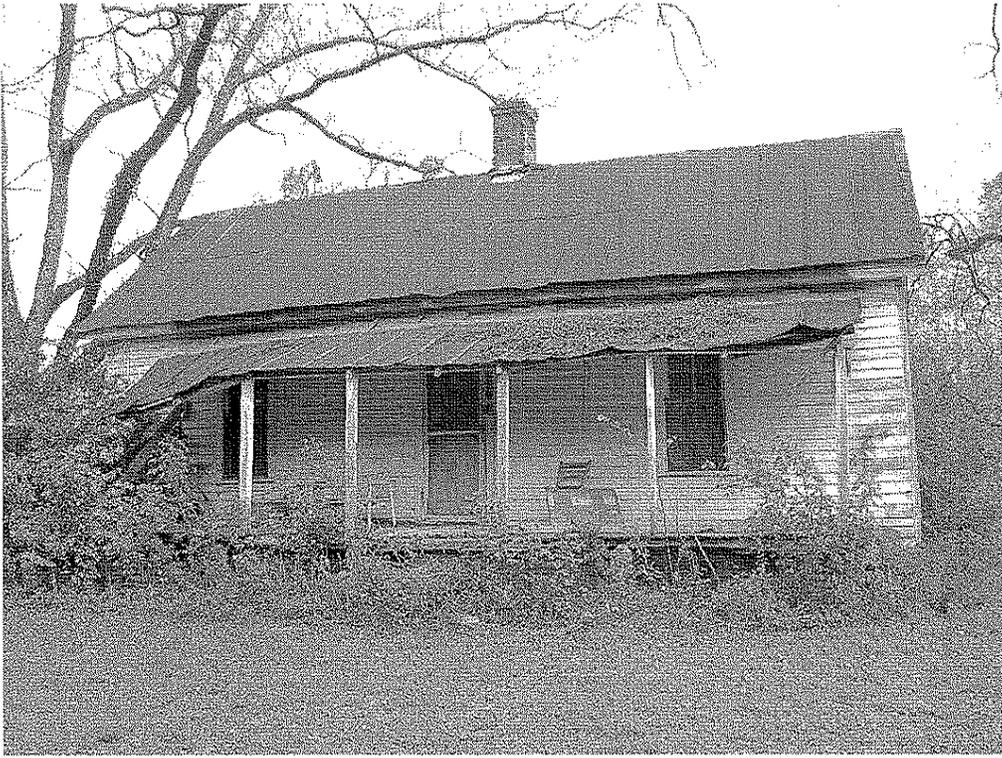
A formal assessment of cultural resources was not conducted as part of this preliminary inventory. Once the Section 106 process is initiated, a full archaeological and historic resources survey would be required.



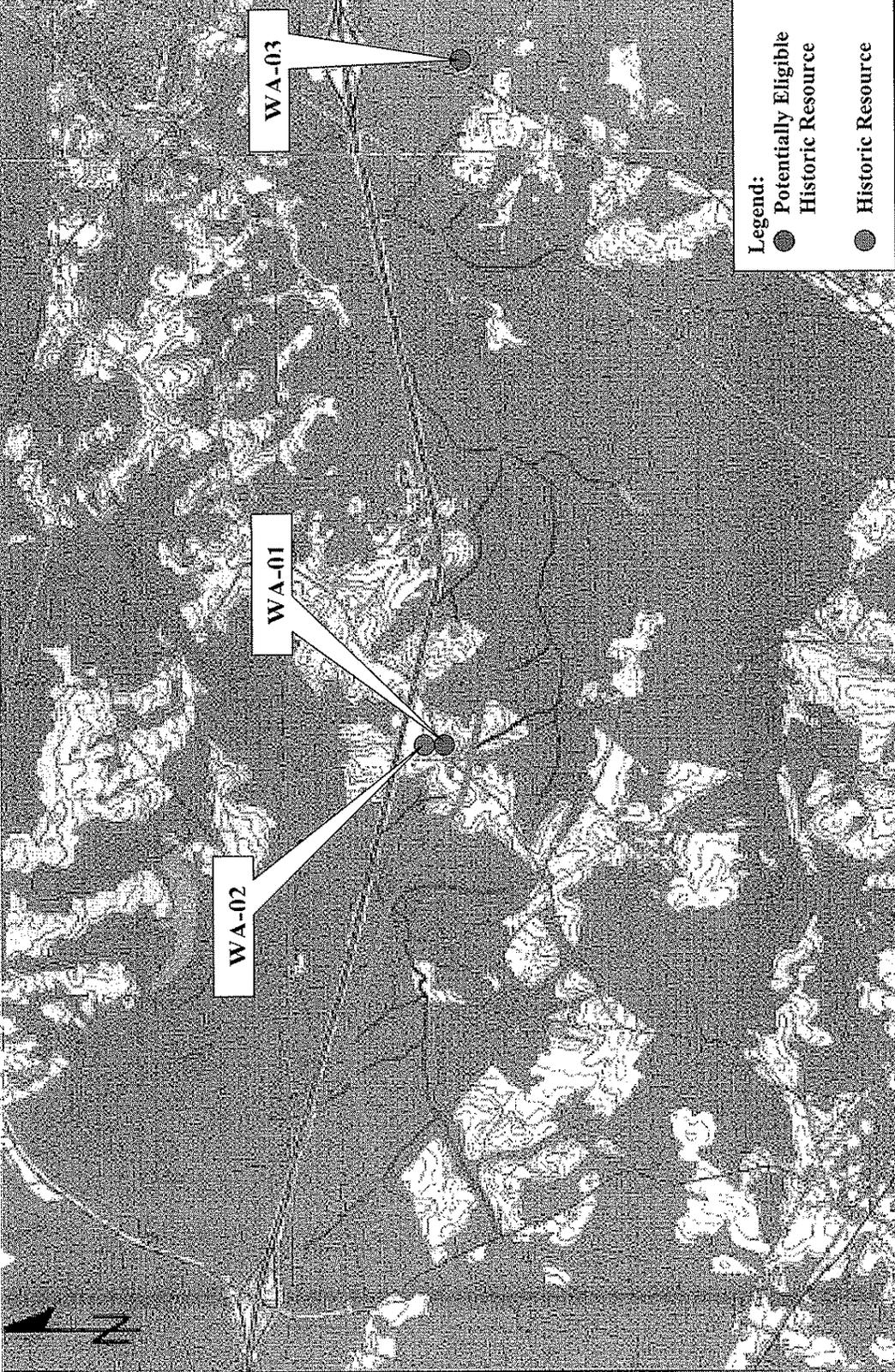
**Resource WA-01**



**Resource WA-02**



Resource WA-03



**Legend:**  
 ● Potentially Eligible  
 ● Historic Resource  
 ● Historic Resource

Date: April 2007  
 Scale: Not To Scale  
 Proj. No.: 02077912

Proposed I-20 Frontage Road  
 Warren County, Georgia

Approximate Jurisdictional Waters Map

Figure 2



### **C. Natural Environment**

During the April 2, 2007 preliminary field survey, waters of the United States (streams and wetlands), and areas of potential habitat for federally protected species were investigated. Based on review of the United States Geological Survey Quadrangle maps for the area and the field survey, it appears that the project would cross Hart and Middle Creeks and approximately 10 unnamed streams that are associated with these systems. Hart and Middle Creeks flow into the Little River, which is within the Hydrologic Unit Code 03060105-301. Please see Figure 2 Environmental Constraints Map for locations of these streams. Numerous wetlands were also identified during the preliminary environmental survey. These wetlands are associated with Hart and Middle Creeks and various tributaries of these streams.



**Hart Creek**



**Middle Creek**



**Typical wetland associated with Hart and Middle Creeks**

Section 404 of the 1977 Clean Water Act CFR 33 Part 323 requires a permit from the U.S. Army Corps of Engineers (USACE) if construction of a project results in the discharge of any fill material into jurisdictional waters/wetlands. As part of the Section 404 permit process, it would also be necessary to evaluate avoidance and minimization of impacts to streams and wetlands. Mitigation would also be part of the environmental permitting process.

All soil and erosion standards would need to be followed to prevent further impacts to these streams and wetlands during construction of the proposed project.

Threatened and Endangered Wildlife

In addition to the preliminary field survey to identify potential habitat for threatened and endangered wildlife, the US Fish and Wildlife Database was also accessed to determine if known occurrences of federally threatened and endangered species occur in the project area. The list of federally threatened and endangered species for Warren County was consulted prior to the field survey (Please see Table 1).

More intensive field investigations would also be completed during the environmental documentation process to ensure the absence of threatened and endangered species and potential habitat.

**Table 1: Federally Endangered & Threatened Species in Warren County**

Common Name	Scientific Name	Status (Federal/State)	Preferred Habitat
Bald eagle	<i>Haliaeetus leucocephalus</i>	T/E	Inland waterways and estuarine areas in Georgia

T= Threatened and E= Endangered.

**D. Physical Environment**

Air quality studies would be conducted to assure that the proposed construction would comply with the Clean Air Act of 1990. A Noise Impact Assessment for the proposed project would also be required since federal funds would be used on this project.

Federal funding would prohibit adversely affecting natural mineral sources or natural sources of energy. The Martin Marietta Aggregates Camak Quarry is located approximately 1.2 miles north of the proposed frontage road corridor. Therefore, the quarry would not sustain impacts due to construction of the proposed frontage road.

The construction phase of the proposed project may create an inconvenience for some motorists. The project may involve some disruption of traffic flow at portions of the proposed project corridor during construction. The east and west termini of the proposed frontage road would intersect Cadley Road (CR 165) on the west terminus and SR 80 on the east terminus. Construction of these intersections may cause minor disruptions of traffic flow on these existing roads. It is not anticipated that this project would require significant disruption of utilities in the

area. It will be important that coordination with utilities in the area be made a priority so as to minimize the potential for disruption of service as a result of accidentally cutting utility lines.

According to the Georgia Environmental Protection Division's Hazardous Site Inventory dated July 1, 2006, there are no hazardous sites located along the project corridor. However, the Martin Marietta Aggregates Camak Quarry is located approximately 1.2 miles north of the eastern terminus of the proposed frontage road. This site is listed as Class 1 by the Georgia Environmental Protection Division (GA-EPD). Class 1 status indicates that the director of GA-EPD has deemed the site is need of corrective action, and that corrective action has failed to take place.

### III. APPLICABLE DOCUMENTATION

Compliance with the National Environmental Policy Act (NEPA) would be required. The level of NEPA documentation to be completed on a new frontage road would most likely be an Environmental Assessment (EA). The following effects would need to be evaluated in the required federal environmental document:

1. Social Environment (land use changes, community cohesion, environmental justice, controversy potential, and economic effects, and Section 4(f))
2. Cultural Environment (historic sites, archaeological sites, and Section 4(f))
3. Natural Environment (wetland, water quality, wild/scenic rivers, farmlands, endangered/threatened species, floodplains, stream, and invasive species)
4. Physical Environment (noise, air, construction/utilities, USTs, and hazardous waste sites)

Upon approval of the project concept by the Georgia Department of Transportation, more intensive environmental field studies would be completed in order to assess impacts on the affected areas of environmental concern. These studies along with the required public involvement would form the EA, which would eventually be submitted to the Federal Highway Administration for review and approval. Other project specific permits including the USACE 404 permit would not be processed until more detailed engineering construction plans are substantially complete.

**Attachment #6**  
**Minutes of Initial Concept**  
**And**  
**Concept Meetings**

## MEETING MINUTES

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**SUBJECT:** I-20 Frontage Road Kick-off Meeting

**PROJECT NO:** CSHPP-0007-00(534), Warren County, P.I. No. 0007534

**MEETING DATE:** March 23, 2007

**LOCATION:** Warren County Courthouse-Warrenton, GA

**ATTENDEES:** See attached Attendee List

**PREPARED BY:** Mike Shoup

### **Introductions and General Discussion**

Introductions were held. Sam Williams gave a description of the project and discussed the contract relationships of the client, consultant and subconsultant.

### **Project Details and Scope of Work**

The group had an open discussion and came to an agreement on the following items:

#### *Design*

- The typical section will consist of 12' lanes, 4' paved shoulders, 6' unpaved shoulder, ditches. There will not be a bike path.
- The design and posted speed will be 55 mph.
- Intersection improvements may be needed at the SR80/Frontage Road intersection.
- Right of Way will be acquired for possible future widening (approximately 125').
- The initial alignment sketch from GDOT is a general idea of the proposed alignment and may be modified when environmental, topographic, and contour information is available.
- Chairman John Graham explained that we should avoid a property on the eastern end of the project.

#### *Survey*

- Existing topographic and contour information will be obtained as currently described in the subconsultant's scope of work; however, to obtain more detailed information to determine bridge locations and lengths, it will be necessary to have some survey shots taken in the areas of possible bridge locations.
- JJG will send a letter to the property owners prior to field survey.

### ***Environmental***

- There was a discussion of a possible cemetery and a historic farm in the area. The alignment could change depending on the findings of the environmental screening.

### ***Bridges***

- The concept will include a bridge at the frontage road railroad crossing in addition to an at grade alternate.

### ***Traffic***

- Chairman Graham explained that the road will allow access for commercial and industrial development in the project area. JJG will obtain known information on the development of the project area from the County to do the traffic analysis and develop the project need and purpose statement. JJG may need to make some assumptions on the type, size, and/or location of development.
- A build year of 2013 and a projection of 2033 will be used for traffic analysis.

### ***Utilities***

- There is a power easement and a gas line within the project area.

### **Schedule**

The group discussed the project schedule, milestones, and critical tasks. The survey subconsultant was not present to verify their completion date.

### **Deliverables**

Mike Shoup explained that the deliverables for the project will consist of the final approved concept report, the graphic layout, the design book, and electronic design files.

### **Upcoming Milestones and Action Items**

- JJG to send Jamie Lindsey the project layout when complete for the development of the utility cost estimate.
- JJG to send GDOT Right of Way office the project layout when complete for the development of the right of way cost estimate.
- JJG will request a letter from the County stating the project justification.
- JJG will request the County's land use plan.
- Initial Concept Team Meeting currently scheduled for April 19, 2007.

**Attendee List**

<b>Name</b>	<b>Company</b>	<b>Email</b>	<b>Telephone</b>
George Brewer	GDOT	<a href="mailto:george.brewer@dot.state.ga.us">george.brewer@dot.state.ga.us</a>	478-552-4629
Jamie Lindsey	GDOT	<a href="mailto:jamie.lindsey@dot.state.ga.us">jamie.lindsey@dot.state.ga.us</a>	478-552-4637
Lynn Bean	GDOT	<a href="mailto:lynn.bean@dot.state.ga.us">lynn.bean@dot.state.ga.us</a>	478-625-3681
John R Graham	Warren County Board of Commissioners	<a href="mailto:jgraham@classicsouth.net">jgraham@classicsouth.net</a>	706-465-2171
Sam Williams	JJG	<a href="mailto:swilliams@jjg.com">swilliams@jjg.com</a>	678-333-0505
David Griffith	JJG	<a href="mailto:dgriffith@jjg.com">dgriffith@jjg.com</a>	770-862-4024
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Mike Shoup	JJG	<a href="mailto:mshoup@jjg.com">mshoup@jjg.com</a>	678-333-0616

## MEETING MINUTES

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**SUBJECT:** I-20 Frontage Road Concept Team Meeting

**PROJECT NO:** CSHPP-0007-00(534), Warren County, P.I. No. 0007534

**MEETING DATE:** May 1, 2007

**LOCATION:** Warren County Courthouse-Warrenton, GA

**ATTENDEES:** See attached Attendee List

**PREPARED BY:** Mike Shoup

### Introduction

Sam Williams summarized the action items from the kickoff meeting and briefly described the work done on the project up to the Concept Team Meeting.

### Overview of Project

Mike Shoup discussed the following major design topics while referring to the concept display:

#### *Alignment*

- The typical section consists of 12' lanes, 4' paved shoulders, and 6' unpaved shoulder.
- In general, the initial alignment sketch from the kickoff meeting was not altered. The alignment is controlled by logical termini, side road intersections, utilities, and environmental and historical areas.
- The horizontal curve radii exceed the minimum required by the 2004 AASHTO Green Book.
- An existing profile was created from quad map information. A proposed profile was created to verify the project's constructability and that the vertical curvature would exceed the minimums.

#### *Environmental and Historical Areas*

- The three historic properties were noted in addition to ponds and streams.

#### *Railroad*

- The potential bridge over the railroad was shown on the layout. The group discussed the pros and cons of the bridge alternate and the at grade alternate, and the bridge alternate seemed to be preferred. In the future as traffic increases, the at grade crossing could be a significant problem for safety and traffic operations.

### *Utilities*

- The areas where the alignment crosses a gas line and a Georgia Power easement were noted on the concept display. Although difficult to see on the display, the alignment runs between transmission towers as they appear on the aerial.

### **Concept Report**

Pat Smeeton read through and explained the project need and purpose statement and the supporting traffic study. Mike Shoup read through the remainder of the report. Group discussion points are summarized below:

- The purpose of the project is to provide access for future commercial and industrial development.
- By 2032, signalization of the Cadley Road/Frontage Road and Washington Highway (SR 80)/Frontage Road intersections will be necessary.
- Data from 2003-2005 showed no accidents on Cadley Road and Washington Highway (SR 80) in the project area.
- It was assumed that all side roads had a 35 mph speed limit, however it was noted that Ridge Road is paved and has a 55 mph posted speed limit.
- The responsibility of the relocation of utilities should be of the utility owners.
- The time to purchase right of way will more likely be 12 months.

### **Schedule**

- JJG requested that GDOT Utilities complete the utility cost estimate by the end of May.
- The final concept report and display is due on June 22, 2007.

### **Alternate Selection**

The group agreed that the bridge alternate will be recommended.

### **Comments/Miscellaneous Items**

- GDOT traffic operations noted that the left turn movement onto Washington Highway (SR 80) from the proposed frontage road would probably require dual left turn lanes in the future based on the traffic projections. JJG will look into building the necessary pavement as part of this project and striping out the extra lanes until needed in the future.
- Lynn Bean suggested that an alternate for the project could be to split the project into two phases. The group agreed to put this alternate in the concept report, with Ridge Road being the end of Phase 1 and the beginning of Phase 2.

- It was agreed that the bridge alternate was to be constructed rather than a railroad at-grade crossing, as the cost difference between the two options was relatively minor compared to the total project cost. Also a bridge would be better for safety and traffic operations, and would be attractive to future development.
- A VE Study is currently necessary for this project. The \$ 6.5M estimate for the required ROW took the total project cost over the minimum \$ 25M threshold. An accurate ROW cost estimate has been requested from Jerry Milligan.
- The termini at Mesena Road will be maintained; however, the horizontal alignment will be modified to cause as little an impact as possible to the two Reece Properties.

### Upcoming Milestones and Action Items

- GDOT Utilities to send JIG the utilities cost estimate by May 31, 2007.
- JIG to send George Brewer the final concept report and concept display by June 22.

### Attendee List

Name	Company	Email	Telephone
George Brewer	GDOT	<a href="mailto:george.brewer@dot.state.ga.us">george.brewer@dot.state.ga.us</a>	478-552-4629
Renae Lawrence	GDOT-Utilities	<a href="mailto:jamie.lindsey@dot.state.ga.us">jamie.lindsey@dot.state.ga.us</a>	478-553-4606
Lynn Bean	GDOT	<a href="mailto:lynn.bean@dot.state.ga.us">lynn.bean@dot.state.ga.us</a>	478-552-4603
Corbett Reynolds	GDOT	<a href="mailto:corbett.reynolds@dot.state.ga.us">corbett.reynolds@dot.state.ga.us</a>	478-552-4604
James H Smith	GDOT-Traffic Ops	<a href="mailto:jimmy.smith@dot.state.ga.us">jimmy.smith@dot.state.ga.us</a>	478-552-4618
Kedrick Collins	GDOT-Traffic Ops	<a href="mailto:kedrick.collins@dot.state.ga.us">kedrick.collins@dot.state.ga.us</a>	478-552-4622
Todd Price	GDOT-Traffic Ops	<a href="mailto:todd.price@dot.state.ga.us">todd.price@dot.state.ga.us</a>	478-552-4621
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