

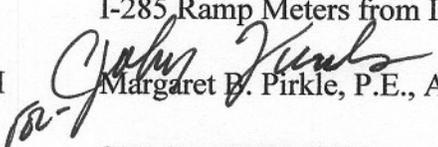
D.O.T. 66

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

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**INTERDEPARTMENT CORRESPONDENCE**

**FILE** P. I. No. 713405, Fulton-DeKalb Counties **OFFICE** Preconstruction  
CM-285-1(359), Ct. 2  
I-285 Ramp Meters from I-75 N to I-85 N **DATE** September 9, 2005

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

**TO** SEE DISTRIBUTION

**SUBJECT APPROVED PROJECT CONCEPT REPORT**

Attached for your files is the approval for subject project.

MBP/cj

Attachment

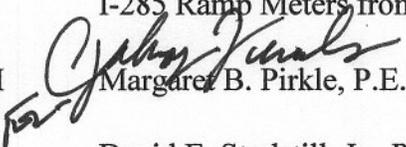
**DISTRIBUTION:**

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Bryant Poole  
BOARD MEMBER  
FHWA

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

**INTERDEPARTMENT CORRESPONDENCE**

**FILE** P.I. No. 713405, Fulton-DeKalb Counties **OFFICE** Preconstruction  
 CM-285-1(359) Ct. 2  
 I-285 Ramp Meters from I-75 N to I-85 N **DATE** August 4, 2005

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

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

**SUBJECT** PROJECT CONCEPT REPORT

This project will install ramp meters and enhanced vehicle detection system (VDS) and closed circuit television (CCTV) coverage at all on-ramp locations between I-75 and I-85. The ramp meters will control the release of vehicles onto the corridor during peak hours, thereby reducing congestion and stabilizing the flow of traffic that typical occurs at heavy volume merge locations. The operation of ramp meters will create a smoother flow of traffic and reduce the potential for traffic crashes during peak hours.

Ramp meters will be installed eastbound and westbound along I-285 at entrance ramps for Northside Drive, Riverside Drive, Roswell Road, Glenridge Connector, Peachtree Dunwoody Road, Ashford Dunwoody Road, Chamblee Dunwoody Road/Peachtree Road, Peachtree Industrial Boulevard, and Buford Highway (as appropriate). Each ramp meter will require at least one VDS to monitor the operation of the ramp meter, as well as CCTV for visual coverage of the length of the ramp. All supporting hardware, VDS, CCTV, poles and/or mast arms, lane markings, signal assemblies, controller cabinets, and signage for the installation of ramp meters are in this project. The project will tie into the existing fiber optic trunk lines along I-285 at hubs A, B, and C.

Environmental concerns include requiring a Categorical Exclusion be prepared; a public meeting is not required; time saving procedures are appropriate.

The estimated costs for this project are:

	<u>PROPOSED</u>	<u>APPROVED</u>	<u>FUNDING</u>	<u>PROG DATE</u>
Construction (includes E&C and inflation)	\$1,568,000	\$675,000	Q05	2006
Right-of-Way & Utilities	-0-	-0-		

David Studstill

Page 2

P. I. No. 713405, Fulton-DeKalb

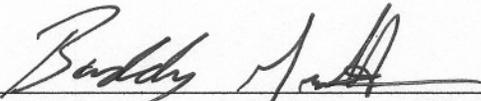
August 4, 2005

I recommend this project concept be approved.

MBP:JDQ/cj

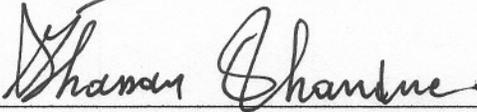
Attachment

CONCUR



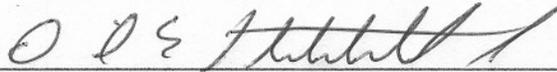
Buddy Gratton, P.E., Director of Preconstruction

APPROVE



For Robert M. Callan, Administrator, FHWA

APPROVE



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

DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA

# PROJECT CONCEPT REPORT

## CM-285-1(359) CT 2

### DeKALB and FULTON COUNTIES

### P.I. NO. 713405

FEDERAL ROUTE NO: NH-285-1, I-285  
STATE ROUTE NO: SR 407

*I-285 Ramp Meters from I-75 (N) to I-85 (N)*

Recommendation for approval:

DATE 7-8-05 *Sheryl Gold*  
State Traffic Safety & Design Administrator

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

DATE \_\_\_\_\_  
State Traffic Operations Engineer

DATE 7-12-05 *Joseph P. Palladino*  
State Transportation Planning Administrator

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

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

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

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

DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA

**PROJECT CONCEPT REPORT**

**CM-285-1(359) CT 2  
DeKALB and FULTON COUNTIES  
P.I. NO. 713405**

FEDERAL ROUTE NO: NH-285-1, I-285  
STATE ROUTE NO: SR 407

*I-285 Ramp Meters from I-75 (N) to I-85 (N)*

Recommendation for approval:

DATE 7-8-05 *Heidi Gold*  
State Traffic Safety & Design Administrator

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

DATE \_\_\_\_\_  
State Traffic Operations Engineer

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

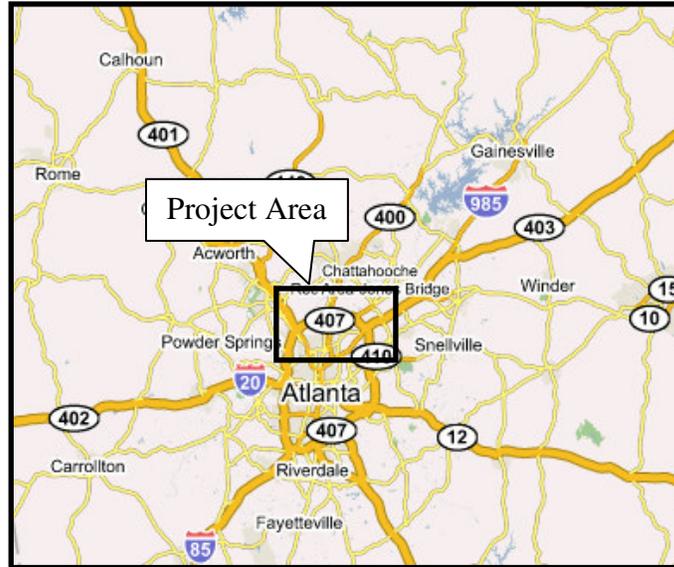
DATE \_\_\_\_\_  
State Transportation Financial Management Administrator

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

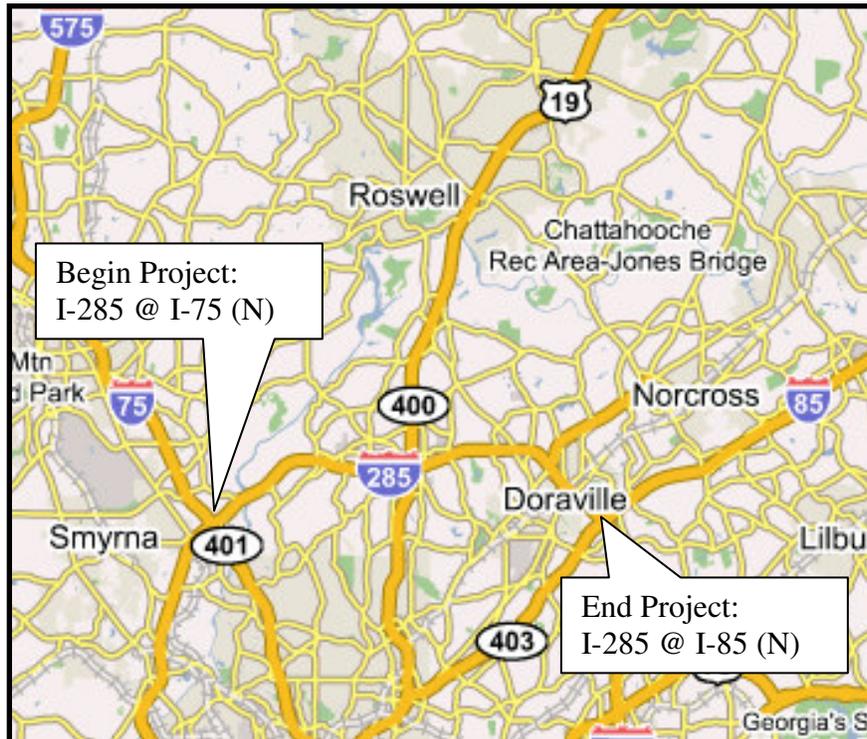
DATE 7/25/05 *Bryant Hoyle*  
District Engineer

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

## PROJECT LOCATION MAPS



Location of Project in Fulton County



Detail View of Project Area

### **Need and Purpose:**

The purpose of this project is to increase the efficiency and safety of the corridor by installing ramp meters along I-285 in Fulton County, from the intersection with I-75 to the intersection with I-85. The ramp meters will control the release of vehicles onto these corridors during peak hours, therefore reducing congestion and stabilizing the flow of traffic that typically occurs at heavy volume merge locations. The operation of the ramp meters will create a smoother flow of traffic and reduce the potential for traffic crashes during peak hours.

The Georgia DOT's NaviGator – Intelligent Transportation System has been in operation since April 1996. Initially providing coverage on Interstates 75 and 85, primarily within the I-285 Perimeter Highway, it is currently being extended along SR 166 in Fulton County and SR 141 in DeKalb and Gwinnett counties, with further projects on I-20, I-75, I-85, I-285, I-575, I-675, I-985, SR 316, SR 400, and US 78 planned as part of the Fast Forward Program. The system consists of surveillance cameras (CCTV), vehicle detection system cameras, Changeable Message Signs (CMS), and ramp meters. By use of a fiber optic communications backbone, all the devices are tied to the Transportation Management Center (TMC) and various Traffic Control Centers (TCC) in the Metro Atlanta area. Operators located at the TMC are able to detect incidents and dispatch, with minimal delay, appropriate response teams. The NaviGator program benefits the trucking industry and motorists by reducing incident response/clearance times, and providing better information with consequential safety improvements.

On April 14, 2004 Governor Sonny Perdue introduced the Fast Forward Congestion Relief Program which includes accelerated growth of the NaviGator system throughout the Metro Atlanta region. The Fast Forward Program provides \$211 million to expand the Navigator and Highway Emergency Response Operator (HERO) coverage with a goal of reducing peak hour delays by 30%. This project includes new field device connections to Hubs "A", "B", and "C" in DeKalb and Fulton Counties.

### **Description of the proposed project:**

#### **Coverage**

This project will install ramp meters and enhanced VDS and CCTV coverage at all on ramp locations between I-75 and I-85 along I-285. The new CCTV cameras will allow for improved monitoring of the interchanges and operation of the ramp meters at the TMC. The project will tie into existing fiber optic trunk line along I-285 at Hubs "A", "B" and "C".

#### **Communications Plan**

This project will use the digital communications architecture. The video data and control communications from the new devices will be sent via Gig Ethernet network, as opposed to the older analog method involving switches and multiplexers. All network electronics required to operate and communicate with the devices in this project are included as well.

#### **Ramp Meters**

Ramp Meters will be installed eastbound and westbound along I-285 at entrance ramps for Northside Drive, Riverside Drive, Roswell Road, Glenridge Connector, Peachtree Dunwoody Road, Ashford Dunwoody Road, Chamblee Dunwoody Road/Peachtree Road, Peachtree Industrial Boulevard, and Buford Highway (as appropriate). Each ramp meter will require at least one VDS to monitor the operation of the ramp meter, as well as CCTV for visual coverage of the length of the ramp. All supporting hardware, VDS, CCTV, poles and/or mast arms, lane markings, signal assemblies, controller cabinets and signage for the installation of ramp meters are in this project.

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

**PDP Classification:** Major  Minor

**Federal Oversight:** Full Oversight , Exempt , State Funded , or Other

**Functional Classification:** Interstate Principal Arterial

**U. S. Route Number(s):** I-285

**State Route Number(s):** SR 407

**Traffic (2004 AADT)**

source: [http://www.dot.state.ga.us/dot/plan-prog/transportation\\_data/traffic\\_counts/index.shtml](http://www.dot.state.ga.us/dot/plan-prog/transportation_data/traffic_counts/index.shtml)

I-285 (Northside Drive to Riverside Drive).....	224,630
I-285 (Riverside Drive to Glenridge Drive) .....	218,720
I-285 (Glenridge Drive to Glenridge Connector) .....	192,770
I-285 (Glenridge Connector to SR 400).....	173,560
I-285 (SR 400 to SR 400 Connector).....	195,320
I-285 (SR 400 Connector to Peachtree Dunwoody Road).....	231,290

**Existing design features:**

- Typical Sections:
  - I-285: 5 lanes in each direction
- Posted speed:
  - I-285: 55 mph
- Minimum Radius: N/A
- Maximum grade: N/A
- Major structures:
  - Bridge at Powers Ferry Drive
  - Bridge at Chattahoochee River
  - Bridge at Northside Drive
  - Bridge at Heard's Road NW
  - Bridge at Riverside Drive
  - Bridge at Mt. Vernon Highway
  - Bridge at Long Island Drive
  - Bridge at Roswell Road
  - Bridge at Glenridge Drive
  - Bridge at Turner McDonald
  - Bridge at Peachtree Dunwoody
  - Bridge at Perimeter Center Parkway
  - Bridge at Ashford Dunwoody
  - Bridge at Chamblee Dunwoody
  - Bridge at North Shallowford Road
  - Bridge at North Peachtree
  - Bridge at Peachtree Industrial
  - Bridge at New Peachtree Road
  - Bridge at Buford Highway
- Major interchanges or intersections along the project:

- I-285 @ I-75
- I-285 @ Northside Drive
- I-285 @ Riverside Drive
- I-285 @ Roswell Road
- I-285 @ Glenridge Drive
- I-285 @ SR 400
- I-285 @ Peachtree Dunwoody
- I-285 @ Ashford Dunwoody
- I-285 @ Chamblee Dunwoody
- I-285 @ North Peachtree
- I-285 @ Peachtree Industrial
- I-285 @ Buford Highway
- I-285 @ I-85

**Existing length:**

*Total Project Length: 11.4 miles*

**Proposed Design Features:**

- Typical Sections:
  - Existing section to remain
- Posted speed: 55 mph
- Minimum Radius: N/A
- Maximum grade: N/A
- Proposed Maximum grade Mainline: N/A                      Maximum grade allowable: N/A
- Proposed Maximum grade Side Street: N/A                      Maximum grade allowable: N/A
- Proposed Maximum grade driveway : N/A
- Proposed Minimum Radius Mainline: N/A                      Minimum Radius allowable: N/A
- Proposed Minimum Radius Side Street: N/A                      Minimum Radius allowable: N/A
- Type of Access: Limited Access
- Right of way: *Project will be constructed within the existing Limited Access/Right of Way. No additional right of way and/or easements will be required.*
  - Number of parcels: 0                      Number of displacements: 0
    - Business: 0
    - Residences: 0
    - Mobile homes: 0
    - Other: 0
- Structures:
  - Strain Poles for CCTV, VDS units, and traffic signal equipment for ramp meters
- Major intersections and interchanges:
  - I-285 @ I-75
  - I-285 @ Northside Drive
  - I-285 @ Riverside Drive
  - I-285 @ Roswell Road
  - I-285 @ Glenridge Drive
  - I-285 @ SR 400
  - I-285 @ Peachtree Dunwoody
  - I-285 @ Ashford Dunwoody
  - I-285 @ Chamblee Dunwoody
  - I-285 @ North Peachtree

- *I-285 @ Peachtree Industrial*
- *I-285 @ Buford Highway*
- *I-285 @ I-85*
- Traffic control during construction: *Shoulder closures and/ or lane closures will be necessary during installation of conduit, fiber optic cables, changeable message signs, and strain poles. Traffic pacing will be required during installation of changeable message signs.*
- Design Exceptions to controlling criteria anticipated: *None.*

	<u>UNDETERMINED</u>	<u>YES</u>	<u>NO</u>
HORIZONTAL ALIGNMENT:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ROADWAY WIDTH:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SHOULDER WIDTH:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
VERTICAL GRADES:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
CROSS SLOPES:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
STOPPING SIGHT DISTANCE:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SUPERELEVATION RATES:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
HORIZONTAL CLEARANCE:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
SPEED DESIGN:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
VERTICAL CLEARANCE:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
BRIDGE WIDTH:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
BRIDGE STRUCTURAL CAPACITY:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- Design Variances: *None*
- Environmental Concerns: *None*
- Probable Locations of UST's: *N/A*
- Probable Locations of Hazardous Waste: *None*
- Level of environmental analysis:
  - Are Time Savings Procedures appropriate? Yes , No ,
  - Categorical Exclusion ,
  - Environmental Assessment/Finding of No Significant Impact (FONSI) , or
  - Environmental Impact Statement (EIS) .
- Utility involvements: *Power service will be required for all CCTV cameras, VDS and ramp meter equipment.*
- Meets Logical Termini Requirements: *Yes*
- Conforms to TIP/STIP: *Yes*

**Project responsibilities:**

- Design: *Gresham Smith and Partners on Behalf of the Georgia DOT.*
- Right of Way Acquisition: *N/A*
- Relocation of Utilities: *GDOT*
- Letting to contract: *GDOT*
- Supervision of construction: *GDOT*
- Providing material pits: *None Required*
- Providing detours: *None Anticipated*

**Coordination**

- Pre-Concept Meeting: *xx-xx-05*

- Initial Concept Meeting date and brief summary: *To be determined.*
- Concept meeting date and brief summary: *To be determined.*
- P. A. R. meetings, dates and results: *None Required*
- Public involvement: *No public meetings are anticipated.*
- Local government comments: *N/A*
- Other projects in the area: *See attached list*
- Other coordination to date: *GS&P to contact Fulton and DeKalb Counties to determine any needs they may have with regards to this project.*

#### **Scheduling – Responsible Parties’ Estimate**

- Time to complete the environmental process: *4 Months*
- Time to complete preliminary construction plans: *6 Months*
- Time to complete right of way plans: *N/A*
- Time to complete the Section 404 Permit: *N/A*
- Time to complete final construction plans: *7 Months*
- Time to complete to purchase right of way: *N/A*

#### **Other alternates considered:**

*Alternative #1: No Build*

**Comments:** *Extension of NaviGator system, Current fiscal year FY 05.*

#### **Attachments:**

1. Cost Estimate including E & C
2. List of other projects in the area
  - a. Description: Perimeter Center Parkway Extension over I-285  
GDOT Project Number: 0000949
  - b. Description: I-285 North Bus Rapid Transit from Perimeter Center to Doraville MARTA rail station  
GDOT Project Number: Long Range (AR 901A)
  - c. Description: I-285 East Bus Rapid Transit from I-20 East to Doraville MARTA rail station  
GDOT Project Number: Long Range (AR 902A)
  - d. Description: I-285 East HOV lanes from I-20 East to I-85 North  
GDOT Project Number: 0003432
  - e. Description: I-285 North HOV lanes from I-75 North to I-85 North  
GDOT Project Number: 0001758
  - f. Description: I-285 at SR 400 HOV Interchange and C-D road system  
GDOT Project Number: 0000784
  - g. Description: Rottenwood Creek Trail from Paces Mill Road to Terrell Mill Road  
GDOT Project Number: 0004505
  - h. Description: Mount Vernon Highway Pedestrian Facility from Powers Ferry to Lake Forest  
GDOT Project Number: 0004453
  - i. Description: SR 9 (Roswell Road) sidewalks from Atlanta city limits to I-285 North  
GDOT Project Number: 762606
  - j. Description: Interchange improvement, I-285 North at SR 9 (Roswell Road)  
GDOT Project Number: 0000247
  - k. Description: Interchange improvement, I-285 North at Riverside Drive  
GDOT Project Number: 713320
  - l. Description: Fiber Optic Interconnection along several corridors in area of I-285 and Ashford

Project Concept Report  
Project Number: CM-285-1(359)CT 2  
P.I. Number: 713405  
County: DeKalb and Fulton

Dunwoody

GDOT Project Number: 0006807

m. Description: Perimeter Center Parkway Extension over I-285 from Hammond Drive to Lake Hearn Drive

GDOT Project Number: 0000949

### 3. Concept Report Rating Form

**ATMS / I-285 Ramp Meters from I-75 to I-85  
 CM-285-1(359) CT 2  
 Fulton County  
 Quantities and Cost Summary  
 Concept Cost Estimate**

Item Code	Description	Unit	Quantity	Engineer Estimate	
				Unit Price (\$)	Amount (\$)
150-1000	Traffic Control CM-285-1(359) CT2	Lump	Lump	\$ 150,000.00	\$ 150,000.00
XXX-XXXX	Ramp Meter Equipment	Each	17	\$ 75,000.00	\$ 1,275,000.00
<b>Total Estimate</b>					<b>\$ 1,425,000.00</b>

Total Estimate:	\$ 1,425,000.00
Inflation:	
10% E & C:	\$ 142,500.00
<b>Total Project Cost:</b>	<b>\$ 1,567,500.00</b>

**SCORING RESULTS AS PER TOPPS 2440-2**

<b>Project Number:</b> CM-285-1(359)		<b>County:</b> DeKalb and Fulton		<b>PI No.:</b> 713405		
<b>Report Date:</b>		<b>Concept By:</b> DOT Office: Traffic Safety and Design				
<input checked="" type="checkbox"/> CONCEPT		Consultant: Gresham Smith and Partners				
<b>Project Type:</b> Choose One From Each Column		<input type="checkbox"/> Major <input checked="" type="checkbox"/> Minor	<input checked="" type="checkbox"/> Urban <input type="checkbox"/> Rural	<input checked="" type="checkbox"/> ATMS <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>				
Presentation						
Judgment						
Environmental						
Right of Way						
Utility						
Constructability						
Schedule						

## NOTICE OF LOCATION AND DESIGN APPROVAL

### PROJECT: CM-285-1(359) CT 2 FULTON COUNTY P. I. NO. 713405

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 the above projects.

Date of Location and Design Approval: SEPTEMBER 9, 2005

Project CM-285-1(359) CT 2 in Fulton County consists of installing ramp meters along I-285 in Fulton County, from the intersection with I-75 (north) to the intersection with I-85 (north). The ramp meters will control the release of vehicles onto I-285 during peak hours, therefore reducing congestion and stabilizing the flow of traffic that typically occurs at heavy volume merge locations. The operation of the ramp meters will create a smoother flow of traffic and reduce the potential for traffic crashes during peak hours. In addition to ramp meters, the project will provide enhanced VDS and CCTV coverage at all entrance ramp locations along I-285 between I-75 (north) and I-85 (north). The new CCTV cameras will allow for improved monitoring of the interchanges and operation of the ramp meters at the TMC. The project will tie into existing fiber optic trunk line along I-285 at Hubs A, B and C.

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

Mr. Jim Tolson, Traffic Design Manager  
935 E. Confederate Avenue  
Wayne Shackelford Building  
Atlanta, GA 30316  
(404) 635-8139  
email: [jim.tolson@dot.state.ga.us](mailto:jim.tolson@dot.state.ga.us)

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

Keith Golden, P.E.  
Office of Traffic Safety & Design  
935 E. Confederate Avenue  
Building 24  
Atlanta, GA 30316  
email: [keith.golden@dot.state.ga.us](mailto:keith.golden@dot.state.ga.us)

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