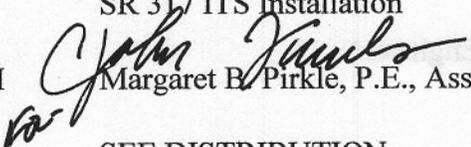


D.O.T. 66

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE P. I. No. 0005689 Gwinnett County **OFFICE** Preconstruction
 STP-0005-00(689)
 SR 317 ITS Installation **DATE** March 24, 2005

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

TO SEE DISTRIBUTION

SUBJECT PROJECT CONCEPT REPORT APPROVAL

Attached for your files is the approval for subject project.

MBP/cj

Attachment

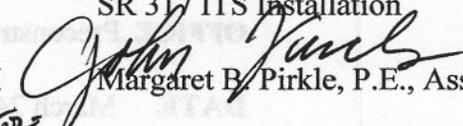
DISTRIBUTION:

- David Mulling
- Harvey Keepler
- Ken Thompson
- Jamie Simpson
- Michael Henry
- Keith Golden
- Joe Palladi (file copy)
- Paul Liles
- Babs Abubakari
- Russell McMurry
- BOARD MEMBER
- FHWA

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE STP-0005-00(689) Gwinnett County **OFFICE** Preconstruction
P.I. No. 0005689
SR 317 ITS Installation **DATE** March 14, 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 consists of the installation of fiber optic communications cable and closed circuit television (CCTV) cameras along SR 317/Lawrenceville-Suwanee Road from SR 120 to Buford Highway/US 23/SR 13 for a total of 7.3 miles. The purpose of this project is to enable arterial traffic monitoring, signal control and quicker response along SR 317 in Gwinnett County. An Intelligent Transportation System (ITS) will allow for improved signal progression and traffic surveillance as well as the ability to control signal timing to effectively manage traffic backup due to incidents along the roadway. The ITS will allow for a more orderly progression of traffic through the SR 317 corridor.

The construction proposes an underground fiber trunk line be installed along the shoulder of SR 317 between the above mentioned limits. There are 18 traffic signals within the project limits. All existing signal controllers along the corridor will be spliced into the fiber optic backbone. Ten (10) new CCTV cameras will be installed at specified locations along the corridor for traffic surveillance. With future connection, all CCTV cameras and traffic signal controllers along the corridor will be connected by fiber optic cable with Gwinnett County TCC and will be integrated into the Georgia DOT NaviGator. Shoulder closures will be required for installation of fiber optic cable.

Environmental concerns include requiring a Categorical Exclusion be prepared; a public hearing open house 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)	\$1,791,000	\$1,664,000	Q23	2006
Right-of-Way & Utilities*	Local	Local		

STP-0005-00(689) Gwinnett
January 21, 2005

*PMA sent 11-30-04 requesting Gwinnett County be responsible for PE, right-of-way, utilities and 20% of construction costs.

I recommend this project concept be approved.

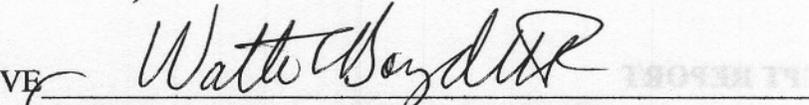
MBP:JDQ/cj

Attachment

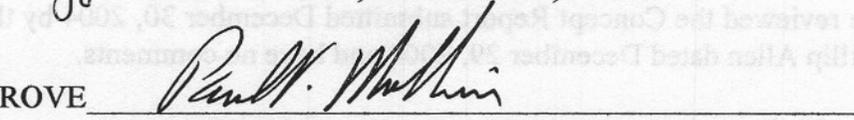
CONCUR


Thomas L. Turner, P.E., Director of Preconstruction

APPROVE

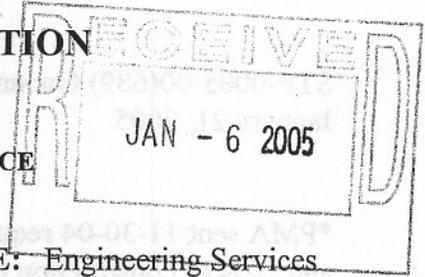

for Robert M. Callan, Administrator, FHWA

APPROVE


for Paul V. Mullins, P.E., Chief Engineer
for DAVID STURSTILL

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENTAL CORRESPONDENCE



FILE: STP-0005-00(689) Gwinnett
P.I. No. 0005689
S.R. 317 ITS

OFFICE: Engineering Services

DATE: January 5, 2005

FROM: David Mulling, Project Review Engineer *DM*

TO: Meg Pirkle, Assistant Director of Preconstruction

SUBJECT: CONCEPT REPORT

We have reviewed the Concept Report submitted December 30, 2004 by the letter from Phillip Allen dated December 29, 2004 and have no comments.

The costs for the project are:

Construction	\$1,584,829
Inflation	\$79,241
E&C	\$166,407
Reimbursable Utilities	\$0.00
Right of Way	\$0.00

REW

c: Keith Golden, Attn.: Jim Tolson

SCORING RESULTS AS PER MOG 2440-2

Project Number: STP-0005-00(689)		County: Gwinnett		PI No.: 0005689	
Report Date: December 29, 2004		Concept By: DOT Office: Traffic Safety and Design			
<input checked="" type="checkbox"/> Concept Stage		Consultant: Arcadis			
Project Type: Choose One From Each Column		<input type="checkbox"/> Major	<input checked="" type="checkbox"/> Urban	<input checked="" type="checkbox"/> ATMS	
		<input checked="" type="checkbox"/> Minor	<input type="checkbox"/> Rural	<input type="checkbox"/> Bridge Replacement	
				<input type="checkbox"/> Building	
				<input type="checkbox"/> Interchange Reconstruction	
				<input type="checkbox"/> Intersection Improvement	
				<input type="checkbox"/> Interstate	
				<input type="checkbox"/> New Location	
				<input type="checkbox"/> Widening & Reconstruction	
				<input type="checkbox"/> Miscellaneous	
FOCUS AREAS	SCORE	RESULTS			
Presentation	100				
Judgement	100				
Environmental	100				
Right of Way	100				
Utility	100				
Constructability	100				
Schedule	100				

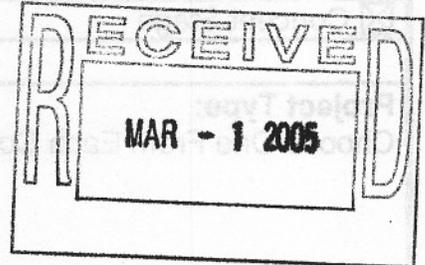
DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE STP-0005-00(689) Gwinnett Co
P.I. No. 0005689
ITS/SR 317 Lawrenceville-Suwanee Rd from
SR 120 to Buford Hwy/SR 13/US 23

OFFICE Traffic Safety and Design
DATE February 28, 2005

FROM ^{KG/DT} Keith Golden, P.E., State Traffic Safety and Design Engineer
TO Meg Pirkle, P.E., Assistant Director of Preconstruction
SUBJECT **Revised Project Concept Report**



Attached is the original copy of the Concept Report for your further handling for approval in accordance with the Plan Development Process (PDP).

Gwinnett County is responsible for the Preliminary Engineering and Gwinnett will also advertise and let this project. The original project limits were from SR 120 to Peachtree Industrial Boulevard. Gwinnett has requested that the project limits be shortened. The new projects limits are from SR 120 to Buford Highway/SR 13/US 23. Gwinnett will do the remaining section with their forces. There are no other changes to the concept report.

If you have any questions, please contact Jim Tolson at (404)635-8139.

Attachment

PMA:JET

CC: David Mulling, Project Review Engineer, w/attachment
Harvey Keeper, State Environment/Location Engineer, w/attachment
Jamie Simpson, State Financial Management Administrator, w/attachment
Bryant Poole, District Engineer – District 7, w/attachment
Joe Palladi, State Transportation Planning Administrator, w/attachment
Carla Holmes, State Traffic Operations Engineer, w/attachment

Revised 2/25/05

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

Office of Traffic Safety and Design

PROJECT CONCEPT REPORT

Project Number: STP-0005-00(689)

County: Gwinnett

P. I. Number: 0005689

Federal Route Number:

State Route Number: SR 317

Recommendation for approval:

DATE 2/25/05

Janner E Tolson

Project Manager

DATE 2/25/05

Keith Golden

State Traffic Safety & Design Engineer

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

DATE _____

State Transportation Planning Administrator

DATE _____

State Financial Management Administrator

DATE _____

State Environmental/Location Engineer

DATE _____

State Traffic Operations Engineer

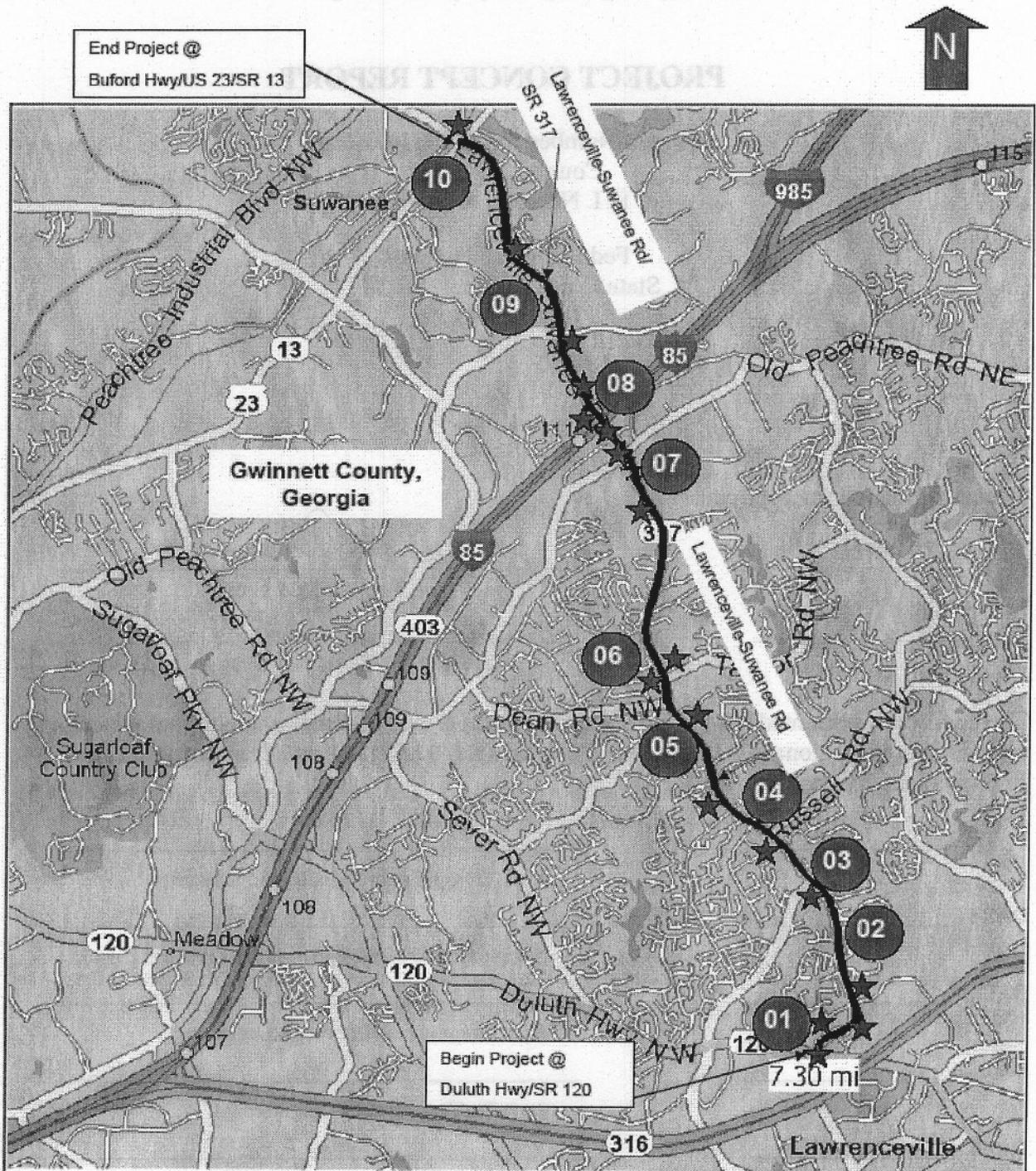
DATE _____

District Engineer

DATE _____

Project Review Engineer

Figure 1: Project Location Map



Map Source: Microsoft Streets & Trips (2004)

- ★ Traffic Signal
- 05 CCTV Site

Need and Purpose: The corridor defined in the scope of this project (Lawrenceville-Suwanee Road from Duluth Hwy/SR 120 to Buford Hwy/US 23/SR 13) currently has minimal connections between signals. In addition, the identified corridors currently do not have nor can support any Intelligent Transportation Systems (ITS) elements.

The purpose of the project is to establish the Advanced Traffic Management System (ATMS) communication route along the above mentioned corridor. The project will provide a fiber optic backbone along the corridor for the deployment of various ITS elements.

Additionally, the fiber will provide communication route for the implementation of traffic signal coordination and monitoring. This coordination will improve existing traffic operations, minimize vehicular delay and improve overall safety along the designated corridor.

In addition to signal communication, the fiber backbone will allow for the placement of Closed Circuit Television (CCTV) cameras. The cameras will be mounted on strain poles, which will allow Gwinnett County and GDOT surveillance of the above-mentioned corridor. The addition of the fiber optic backbone, CCTV cameras and interconnection of the traffic signals will provide Gwinnett County the following options:

- Monitoring and early detection of arterial incidents
- Signal timing monitoring and fine tuning
- Signal trouble call verification allowing timely and proper dispatch of required resources
- Monitoring of accident "hot spots" to identify potential remedies
- Detour routes monitoring and implementation

Description of the proposed project:

The Gwinnett County Lawrenceville-Suwanee Road ATMS project expands upon the current Intelligent Transportation Systems (ITS) in the Gwinnett County, GA. The project will consist of the installation of a communication backbone of fiber optic cable along Lawrenceville-Suwanee Road from Duluth Highway/SR 120 to Buford Hwy/US 23/SR 13. The total project section is approximately 7.3 miles in length. There are 18 traffic signals within the project limit. All existing traffic signal controllers along the corridor will be spliced onto the fiber optic backbone. Closed Circuit Television (CCTV) Cameras will be installed at specified locations along the corridor for traffic surveillance. With future connection, all CCTV cameras and traffic signal controllers along the corridor will be connected by fiber optic cable with the Gwinnett County TCC and will be integrated into the Georgia DOT NaviGator.

Ten (10) CCTV sites along the Lawrenceville-Suwanee Road corridor will also be included in this project. The deployment includes the following sites:

CCTV Site	Location
1	Lawrenceville-Suwanee Rd at Duluth Hwy/SR 120
2	Lawrenceville-Suwanee Rd at Walther Blvd
3	Lawrenceville-Suwanee Rd at Riverside Pkwy
4	Lawrenceville-Suwanee Rd at Russell Rd
5	Lawrenceville-Suwanee Rd at Tab Roberts Rd
6	Lawrenceville-Suwanee Rd at Taylor Rd
7	Lawrenceville-Suwanee Rd at Crestridge Dr
8	Lawrenceville-Suwanee Rd at Horizon Dr
9	Lawrenceville-Suwanee Rd at Satellite Blvd
10	Lawrenceville-Suwanee Rd at Buford Hwy/US 23/SR 13

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

PDP Classification: Major Minor
Federal Oversight: Full Oversight (), Exempt(X), State Funded(), or Other ()

Functional Classification: _____
Lawrenceville-Suwanee Rd: Major Principal Arterial

U. S. Route Number(s): N/A

State Route Number(s): SR 317

Traffic (AADT):

Current Year: (20XX) N/A Design Year: (20YY) N/A

Existing design features:

- Typical Section: (Describe number & width of lanes, turn lanes, curb & gutter, sidewalks, etc.): **Various**
- Posted speed: **45 MPH** Maximum degree of curvature: **N/A**
- Maximum grade: **N/A**
- Width of right of way: **Various**
- Major structures: _____ List all bridge structures including length, width, and sufficient rating).

Lawrenceville-Suwanee Rd Over Yellow River Bridge:

Structure ID: 135-0068-0 Length: 60.0 ft Width 76.0 ft Sufficiency Rating: 94.69

Lawrenceville-Suwanee Rd Over I-85 Bridge:

Structure ID: 135-0133-0 Length: 211.0 ft Width 90.5 ft Sufficiency Rating: 84.00

Lawrenceville-Suwanee Rd Over Suwanee Creek Bridge:

Structure ID: 135-0043-0 Length: 84.0 ft Width 94.0 ft Sufficiency Rating: 95.88

- Major interchanges or intersections along the project:

Lawrenceville-Suwanee Rd:

- @ Duluth Hwy/SR 120
- @ Lawrenceville Market Place
- @ Lawrenceville Market Way
- @ Walther Blvd/Greenvale Rd
- @ Riverside Pkwy
- @ Russell Rd
- @ Whitley Way/McKendree Church Rd
- @ Tab Roberts Rd
- @ Dean Rd
- @ Taylor Rd
- @ Crestridge Dr
- @ Horizon Dr/Old Peachtree Rd
- @ I-85 NB Ramps
- @ I-85 SB Ramps
- @ Sawmill Rd

@ Satellite Blvd
@ Smithtown Rd
@ Buford Hwy/US 23/SR 13

- Existing length of roadway segment:

Lawrenceville-Suwanee Road: 7.3 Miles

Proposed Design Features:

- Proposed typical section(s): **Existing section will remain**
- Proposed Design Speed Mainline: 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 Maximum degree of curve: N/A Maximum degree allowable: N/A
- Right of way: **Existing right-of-way width will remain**
 - Width _____
 - Easements: Temporary (), Permanent (), Utility (), Other ().
 - Type of access control: Full (), Partial (), By Permit (), Other ().
 - Number of parcels: _____ Number of displacements:
 - Business: _____
 - Residences: _____
 - Mobile homes: _____
 - Other: _____
- Structures:
 - Bridges (*Describe*) N/A
 - Retaining walls (*Describe alternates*) N/A
 - Type IV strain poles for CCTV cameras inside the existing right-of-way will be required at identified locations**
- Major intersections and interchanges. N/A
- Traffic control during construction:
Traffic control for underground fiber optic cable installation will require shoulder closures only. Traffic signals will remain functioning during the construction. CCTV camera installation may require temporary right lane closure.

- Design Exceptions to controlling criteria anticipated:

	UNDETERMINED	YES	NO
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)

This area of the Concept Report is for the indication of potential deviations from the controlling criteria followed by the Department. A brief description of the potential deviation should be included in the report. A design exception must be granted for design exceptions.

- Design Variances; (*List design variances expected*). N/A
- Environmental concerns: (*Describe anticipated permits (Section 404, TVA, Water quality, etc.), ust's, hazardous waste sites, history, archaeological, etc.*) **None**
- Level of environmental analysis anticipated:
 - 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: **New trunk fiber will be installed underground. Will coordinate with utility owners during construction.**

Project responsibilities:

- Design: **Gwinnett County DOT**
- Right of Way Acquisition: **None Required**
- Relocation of Utilities: **None Required**
- Letting to contract: **Gwinnett County DOT**
- Supervision of construction: **Gwinnett County DOT**
- Providing material pits: **N/A**
- Providing detours: **N/A**

Coordination

- Concept meeting date and brief summary. Attach minutes.
- P. A. R. meetings, dates and results. **None Required**
- FEMA, USCG, and/or TVA **N/A**
- Public involvement. (*List coordination meetings with citizen groups, public officials, and public hearings and public information meetings. Give a brief summary of the significant meetings and the results and decisions as a result thereof.*) **N/A**

Project Concept Report page 8
Project Number: STP-0005-00(689)
P. I. Number: 0005689
County: Gwinnett

- Local government comments. (*Give a brief summary and attach minutes.*) **None**
- Other projects in the area:
 - STP-0004456 McGinnis Ferry Rd Extension from Lawrenceville-Suwanee Rd To Satellite Blvd (GCDOT Project No. 4101)
- Other coordination to date. **None**
- Railroads (*Discuss the ownership and future use of the railroad.*) **N/A**

Scheduling – Responsible Parties' Estimate

- Time to complete the environmental process: 3 Months.
- Time to complete preliminary construction plans: 4 Months.
- Time to complete right of way plans: N/A Months.
- Time to complete the Section 404 Permit: N/A Months.
- Time to complete final construction plans: 2 Months.
- Time to complete to purchase right of way: N/A Months.
- List other major items that will affect the project schedule:
 - Communication Control Board 3 Months.
 - Utility Coordination 3 Months
 - Petroleum Pipeline 3 Months
 - Railroad Approval 3 Months

Other alternates considered: (*Describe in summary and coordinate with environmental. If rejected ensure environmental is in agreement.*)

Alternate 1: Installation of fiber trunk cable, ITS elements along the corridor and CCTV Camera Systems at ten identified locations along the corridor.

Alternate 2: No Build

Comments: N/A

Attachments:

1. Cost Estimate

Project Concept Report
 Project Number: STP-0005-00(689)
 P. I. Number: 0005689
 County: Gwinnett

PROJECT CONCEPT COST ESTIMATE

PROJECT NUMBER: STP-0005-00(689)
 DATE: February 04 2005
 PREPARED BY: ARCADIS

COUNTY: GWINNETT
 ESTIMATED LETTING DATE: 2006
 PROJECT LENGTH: 7.3 MILES

PROGRAMING PROCESS CONCEPT DEVELOPMENT DURING PROJECT DEV

PROJECT COST	
A. RIGHT-OF-WAY	
1. PROPERTY (LAND & EASEMENT)	\$0
2. DISPLACEMENT; RES: 0, BUS; 0, M.H.: 0	\$0
3. OTHER COST (ADM./COST, INFLATION, ETC)	\$0
SUBTOTAL: A	\$0
B. REIMBURSABLE UTILITIES:	
1. RAILROAD	\$0
2. TRANSMISSION LINES	\$0
3. SERVICES	\$0
SUBTOTAL: B	\$0
C. CONSTRUCTION:	
1. MAJOR STRUCTURES	
a. OVERPASSES	\$0
b. OTHER	\$0
SUBTOTAL: C-1	\$0
2. GRADING AND DRAINAGE	
a. EARTH WORK	\$0
b. DRAINAGE	\$0
SUBTOTAL: C-2	\$0
3. BASE AND PAVING	
a. 8" GR AGGR BASE CRS -	\$0
b. ASPHALT PAVING	\$0
SUBTOTAL: C-3	\$0
4. LUMP ITEMS	
a. TRAFFIC CONTROL	\$20,000
b. CLEARING AND GRUBBING	\$0
c. GRASSING	\$5,000
d. EROSION CONTROL	\$30,000
SUBTOTAL: C-4	\$55,000
5. SIGNAL INSTALLATIONS: NONE	
SUBTOTAL: C-5	\$0
6. ATMS (SEE ATTACHED ATMS COST ESTIMATE FOR DETAILS)	
a. SIGNAL COMMUNICATIONS	\$1,159,015
b. CCTV CAMERA SYSTEMS	\$262,460
c. TCC UPGRADES	\$0
SUBTOTAL: C-6	\$1,421,475

Project Concept Report
 Project Number: STP-0005-00(689)
 P. I. Number: 0005689
 County: Gwinnett

Project Concept Report
 Project Number: STP-0005-00(689)
 P. I. Number: 0005689
 County: Gwinnett

PROJECT COST	
7. MISCELLANEOUS ITEMS:	
a. SIGNING & STRIPING	\$0
b. FIELD OFFICE	\$0
SUBTOTAL: C-7	\$0
8. SPECIAL FEATURES: NONE	
SUBTOTAL: C-8	\$0

ESTIMATE SUMMARY	
A. RIGHT-OF-WAY	\$0
B. REIMBURSABLE UTILITIES:	\$0
C. CONSTRUCTION:	
1. MAJOR STRUCTURES	\$0
2. GRADING AND DRAINAGE	\$0
3. BASE AND PAVING	\$0
4. LUMP ITEMS	\$55,000
5. SIGNAL INSTALLATIONS:	\$0
6. ATMS	\$1,421,475
7. MISCELLANEOUS ITEMS	\$0
8. SPECIAL FEATURES	\$0
SUBTOTAL CONSTRUCTION COST	\$1,476,875
INFLATION (5% PER YEAR)	\$73,824
NUMBER OF YEARS:	1
TOTAL CONSTRUCTION COST	\$1,550,669
GRAND TOTAL PROJECT COST	\$1,550,669

This project is 100% in Gwinnett County, GDOT District 1 and Congressional District No. 11.

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

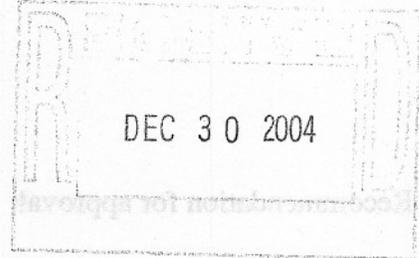
FILE STP-0005-00(689) Gwinnett Co.
P.I. No. 0005689
ITS/SR 317 Lawrenceville-Suwanee Rd from
SR 120 to Peachtree Industrial Blvd.

OFFICE Traffic Safety and Design
DATE December 29, 2004

FROM PMA/JET
Phillip M. Allen, State Traffic Safety and Design Engineer

TO Meg Pirkle, Assistant Director of Preconstruction

SUBJECT Project Concept Report



Attached is the original copy of the Concept Report for your further handling for approval in accordance with the Plan Development Process (PDP)

Attachment

PMA:JET

- CC:** David Mulling, Project Review Engineer, w/attachment
Harvey Keeper, State Environment/Location Engineer, w/attachment
Jamie Simpson, State Financial Management Administrator, w/attachment
Bryant Poole, District Engineer – District 7, w/attachment
Joe Palladi, State Transportation Planning Administrator, w/attachment
Carla Holmes, State Traffic Operations Engineer, w/attachment

	DATE

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

PROJECT CONCEPT REPORT

Project Number: STP-0005-00(689)

County: Gwinnett

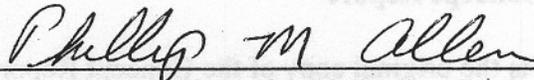
P. I. Number: 0005689

Federal Route Number: NA

State Route Number: SR 317

Recommendation for approval:

DATE 12-29-04



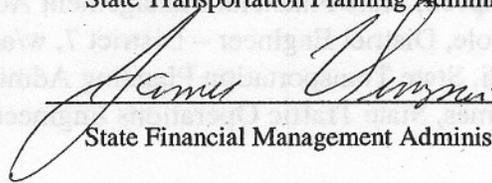
State Traffic Safety & Design Engineer

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

DATE _____

State Transportation Planning Administrator

DATE 1-4-05



State Financial Management Administrator

DATE _____

State Environmental/Location Engineer

DATE _____

State Traffic Operations Engineer

DATE _____

District Engineer

DATE _____

Project Review Engineer

Revised 2/25/05

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

Office of Traffic Safety and Design

PROJECT CONCEPT REPORT

Project Number: STP-0005-00(689)

County: Gwinnett

P. I. Number: 0005689

Federal Route Number:

State Route Number: SR 317

Recommendation for approval:

DATE 2/25/05

Janice E. Tolson
Project Manager

DATE 2/25/05

Keith S. Alden
State Traffic Safety & Design Engineer

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

DATE _____

State Transportation Planning Administrator

DATE 3-3-05

James D. ...
State Financial Management Administrator

DATE _____

State Environmental/Location Engineer

DATE _____

State Traffic Operations Engineer

DATE _____

District Engineer

DATE _____

Project Review Engineer