

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

Office of Traffic Operations

I-285/I-20/I-85/75 VARIABLE SPEED LIMIT SIGNS

PROJECT CONCEPT REPORT

Counties: Clayton, Cobb, DeKalb, & Fulton

P. I. Number: 0010218

Federal Route Number: I-285; I-20; I-75; I-85

State Route Number: 401; 402; 403; 407

See sheet 2 for location sketch.

Date of Concept Report: January 12, 2011

RECOMMENDED: 1-12-11
DATE

Kathleen Zahnd
STATE TRAFFIC ENGINEER

RECOMMENDED: 1-25-11
DATE

Paul Jell
DIRECTOR OF OPERATIONS

APPROVED: 1/31/11
DATE

Debra Miller
CHIEF ENGINEER

PROJECT CONCEPT REPORT

P.I. NO.:

0010218

Route No:

I-285; I-20; I-75; I-85

Location:

The project is located in Clayton, Cobb, DeKalb, and Fulton Counties on I-285, I-20, I-75, and I-85.

Description:

In this project Variable Speed Limit Signs (VSLS) will be installed on the shoulders of the of the inner and outer loops of I-285, EB and WB directions of I-20 inside I-285, I-75, I-85 NB and SB inside I-285 throughout Clayton, Cobb, DeKalb, and Fulton Counties. Signs will tie into the existing NaviGator system using existing fiber and field switches. Speeds will adjust based on traffic conditions, and signs will be monitored from the Transportation Management Center (TMC) using NAV2 active traffic management.

Traffic- Current ADT:

N/A

Existing Right of Way:

N/A

Existing Traffic Control:

None

Existing Major Structures:

There are many existing major structures along I-285, I-20, I-75, and I-85 and the work required under this project will not affect any of the structures.

Statement of Need & Purpose:

The purpose of this project is to optimize traffic flow, increase the operational efficiency and reduce congestion, traffic delays, crashes, and vehicle emissions on the freeway corridor by installing VSLS on I-285, I-20, I-75, and I-85 throughout Clayton, Cobb, DeKalb, and Fulton Counties. Speeds will adjust based on traffic conditions to prepare drivers for upcoming traffic conditions thereby reducing congestion and stabilizing the flow of traffic on the freeway. The operation of the VSLS will create a smoother flow of traffic, decrease average travel times, increase throughput, maximize progression along routes, and reduce the potential for traffic crashes, created by speed differentials, during peak hours.

Bicycle and Pedestrian Considerations:

None

Length:

I-285: 103.00 miles

I-20: 33.00 miles

I-75: 40.00 miles

I-85: 33.00 miles

Termini:

I-285:

Entire inner and outer loop of I-285

I-20:

I-20 Eastbound and Westbound inside I-285

I-75:

I-75 Northbound and Southbound inside I-285

I-85:

I-85 Northbound and Southbound inside I-285

PDP Class:

Minor

Functional Classification:

I-285: Urban Interstate Principal Arterial

I-20: Urban Interstate Principal Arterial

I-75: Urban Interstate Principal Arterial

I-85: Urban Interstate Principal Arterial

Posted Speed:

I-285: 55 mph

I-20: 50 and 55 mph

I-75: 55 mph

I-85: 55 mph

Proposed Typical Section:

No changes to typical sections are proposed.

Proposed Major Structures:

None

Type Access:

Limited Access

Traffic Control During Construction:

Temporary shoulder/lane closures

Right-of-Way Requirements:

None

Utilities:
None Anticipated

Estimated Cost:
\$2,329,937.42

Item Total Amount

<u>Item</u>	<u>State</u>
R/W	\$0
Utilities	\$0
Est. LGPA Total	\$0
Construction	\$ 2,218,988.02
Engineering and Inspection 5%	\$ 110,949.40
Total Construction	\$ 2,329,937.42

Permits Required:
None

Anticipated Level of Environmental Analysis:
Programmatic Categorical Exclusion

Level of Public Involvement:
None

Time Saving Procedures Appropriate: Yes(X) No ()

Design Variances Required:
None

Alternates Considered:
No build

Comments:
None

Attachments:
Cost estimate

Item Number	Quantity	Units	Unit Price	Item Description	Cost
150-1000	LUMP	LS		TRAFFIC CONTROL - 0010218	\$ 266,044.69
647-6057	182	EA	\$ 270.00	PEDESTAL POLE	\$ 49,140.00
682-6233	18200	LF	\$ 3.20	CONDUIT, NONMETAL, TP 3, 2 IN	\$ 58,240.00
682-6236	18200	LF	\$ 5.97	CONDUIT, NONMETAL, TP 2, 2 IN - POWER SERVICE	\$ 108,654.00
935-1511	18200	LF	\$ 0.81	OUTSIDE PLANT F/O CABLE, DROP, SM, 6 FIBER	\$ 14,742.00
935-3101	182	EA	\$ 398.07	FIBER OPTIC CLOSURE, UNDERGROUND, 6 FIBER	\$ 72,448.74
935-3602	182	EA	\$ 507.11	F/O CLOSURE, FDC, PRE-TERMINATED, TP A, 6 FIBER	\$ 92,294.02
935-4010	1092	EA	\$ 36.42	FIBER OPTIC SPLICE, FUSION	\$ 39,770.64
939-5010	182	EA	\$ 3,126.14	ELECTRICAL POWER SERVICE ASSEMBLY, AERIAL SVC POINT	\$ 568,957.48
999-XXXX	182	EA	\$ 1,400.00	FIELD SWITCH	\$ 254,800.00
999-XXXX	182	EA	\$ 7,700.00	VARIABLE SPEED LIMIT SIGN W/ FLASHER	\$ 1,401,400.00
				TOTAL ESTIMATED COST	\$ 2,926,491.57