

Project Concept Report page 1
Project Number: CSMSL-0009-00(159), CSMSL-0009-00(160)
P. I. Number: 0009159, 0009160
City of Sandy Springs

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
PROJECT CONCEPT REPORT**
Project Number: CSMSL-0009-00(159) & CSMSL-0009-00(160)
County: Fulton
P. I. Number: 0009159 & 0009160
Federal Route Number: U.S. 19, I-285
State Route Number: SR 9, SR 407

SR 9/U.S. 19/ROSWELL ROAD BRIDGE SAFETY AND OPERATIONAL
IMPROVEMENTS AT I-285

Submitted for approval: (Submit to "Concept Reports" in Outlook)

DATE 3/24/10

ARCADIS
Design Consultant Name and Firm Name (if applicable)

DATE 3/25/10

Sandy Springs
Local Government (if applicable)

DATE _____

Design/Phase Office Head (if applicable)

DATE 3/30/2010

Manolis Chouros
Office Head (Project Manager's Office)

DATE 3/29/2010

Project Manager

Recommendation for approval:

DATE _____

State Design Policy Engineer

DATE _____

Program Control Administrator

DATE 05/07/10

GLENN BOWMAN / 1/2 *

DATE 4-30-10

State Environmental Administrator

DATE 04/18/10

Kathleen Bahul for **

DATE _____

State Traffic Operations Engineer

DATE 04/14/10

RON WISHON / 1/2 *

DATE _____

Project Review Engineer

District Engineer

PAUL LILES / 1/2 *

State Bridge Design Engineer (if applicable)

State Transportation Financial Management 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).

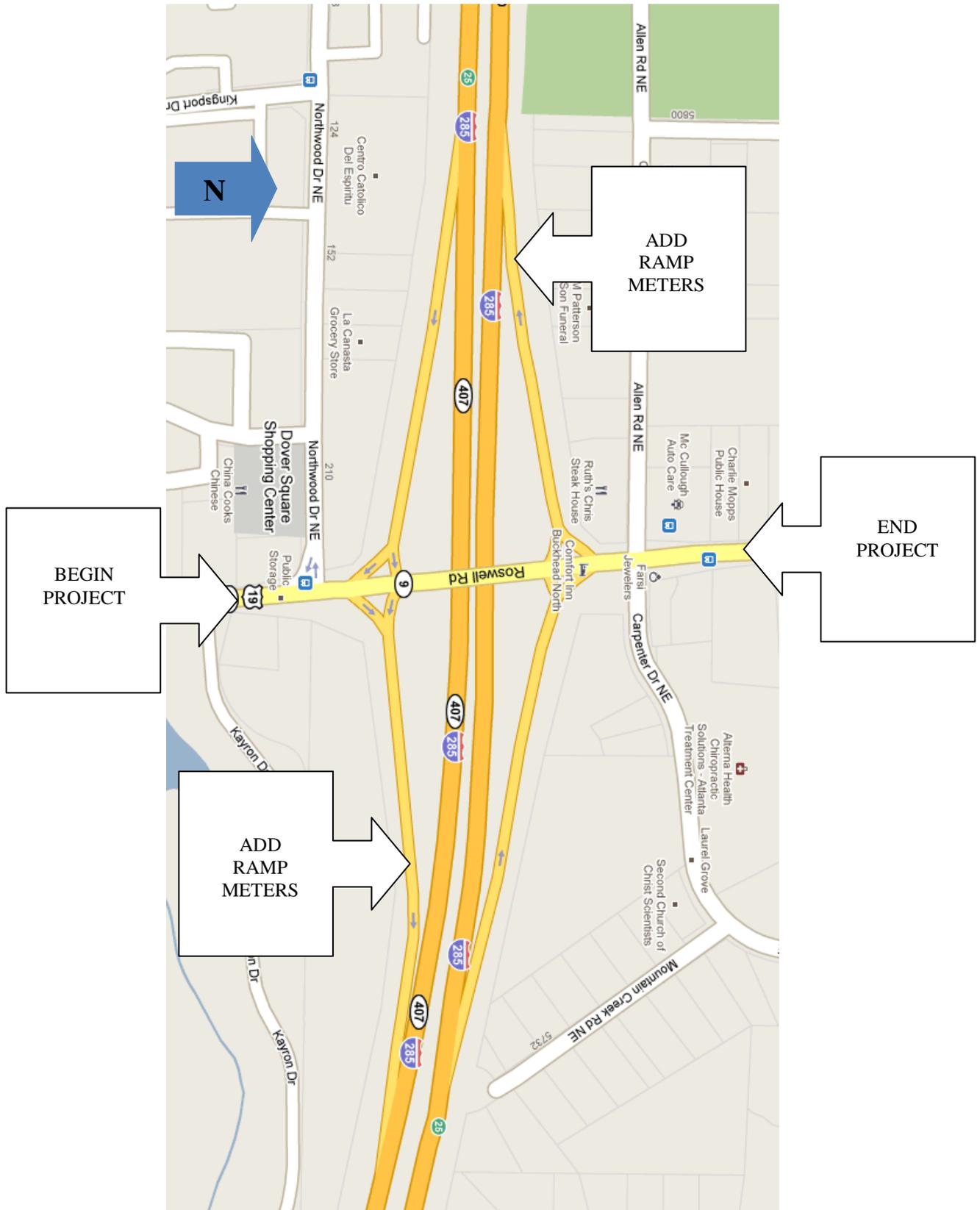
DATE 04/16/10

ANGELA ALEXANDER / 1/2 *

State Transportation Planning Administrator

* RECOMMENDATION ON FILE

** "The office of Traffic Operations recommends further consideration of other alternates if the Department's financial contribution to this project is ever increased. Other configurations, such as a diverging diamond, may provide a better benefit to cost ratio."



Need and Purpose:

Introduction

The purpose of this project is to alleviate traffic congestion and mitigate safety issues on and near the Roswell Road Bridge over I-285 by providing longer dedicated left-turning movements to I-285 on-ramps. This additional storage along the center of the bridge will prevent turning vehicles from blocking through travel lanes and will be accomplished by widening the bridge to make four 11-foot through lanes (two in each direction) and one 11-foot left-turn lane in each direction giving access to I-285 East and West. Traffic congestion along Roswell Road will be further alleviated by providing an additional lane to the eastbound and westbound on-ramps to further disperse waiting cars when ramp metering is in effect.

This project is meant to be a short- to medium-term improvement designed and constructed on a fast track to quickly address the safety concerns at the interchange. This project has limited funding; therefore, cost-saving measures and design exceptions will be necessary for this project to be realized.

Logical Termini

This project is a bridge widening with some minor improvements to the eastbound and westbound on-ramps to I-285. Therefore, the limits of construction contain the existing bridge plus approximately 300 feet on either end of the bridge for the installation of a proposed median.

Existing System Conditions

Safety

A review of traffic data and field observations shows that insufficient capacity on the Roswell Road Bridge over I-285 results in heavy congestion at the interchange during the morning and afternoon peak hours. Heavy congestion and high delays cause driver frustration, which results in unsafe and unpredictable maneuvers, leading to crashes. There is rarely a day without a crash within the study area. The latest three years (2006 through 2008) of accident data were collected from GDOT and analyzed to quantify the magnitude and severity of these crashes along Roswell Road between Glenridge Drive and Cliftwood Drive.

Accident data were analyzed to calculate safety analysis parameters such as total accident rates, fatality rates, and injury rates for the study corridor. These rates were then compared with the statewide average rates as shown in Table 1. Figure 1 shows the variation of crashes by crash types.

Table 1: Accident Data Analysis – Roswell Road

Item		Year		
		2006	2007	2008
Crash Type	Angle	177	134	93
	Rear-End	192	170	138
	Sideswipe – Same Direction	56	33	29
	Sideswipe – Opposite Direction	11	3	3
	Not a Collision with a Motor Vehicle	12	5	8

Table 1: Accident Data Analysis – Roswell Road

Item	Year		
	2006	2007	2008
Head-On	6	11	14
Total Accidents	454	356	285
Total Non-Fatal Injuries	92	76	75
Total Fatalities	1	0	0
AADT	33,993	36,623	36,623
Accident Rate (per 100 MVMT)	3,812	2,774	2,221
Statewide Accident Rate (per 100 MVMT)	548	513	469
Non-Fatality Injury Rate (per 100 MVMT)	772	592	584
Statewide Non-Fatality Injury Rate (per 100 MVMT)	208	190	176
Fatality Rate (per 100 MVMT)	8.40	---	---
Statewide Fatality Rate (per 100 MVMT)	1.55	1.48	1.47

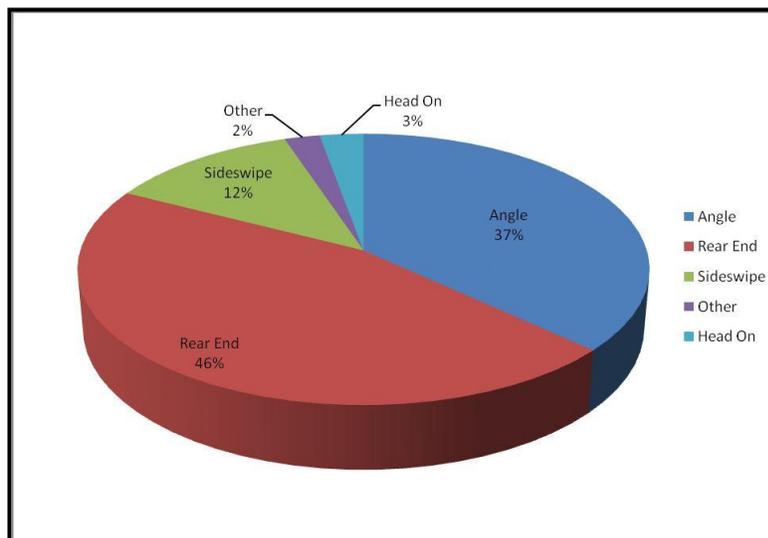


Figure 1: Crashes by Type

Table 1 and Figure 1 show the following:

- Overall accident and injury rates for the project corridor are approximately four to five times the statewide average rates.
- On average, 365 accidents, 81 injuries, and 0.33 fatalities per year were observed in the project area.
- Rear-end crashes are the most predominant crashes in the project area, constituting 46 percent of total accidents. A potential reason for this is insufficient storage length for northbound and southbound left-turn lanes from Roswell Road to the on-ramps.
- Angle crashes and sideswipe crashes account for approximately 37 percent and 12 percent of total accidents, respectively.

Accident data were further analyzed to identify the locations with the maximum concentration of crashes along the corridor. Table 2 and Figure 2 show average yearly accident rates by type at

segment level on Roswell Road.

Table 2: Segment Level Accident Analysis

Segment on Roswell Road	Segment Length (feet)	Average Number of Crashes (by type)				
		Angle	Rear-End	Sideswipe	Other	Head-On
Glenridge Drive to Lake Placid Drive	2,534	26	22	10	3	3
Lake Placid Drive to Northwood Drive	739	15	13	3	1	0
Northwood Drive to I-285 East Ramps	264	2	1	0	0	1
I-285 East Ramps to I-285 West Ramps	422	48	103	22	3	4
I-285 West Ramps to Allen Road	211	29	12	3	0	2
Allen Road to Carpenter Drive/Cliftwood Drive	792	13	14	6	1	0

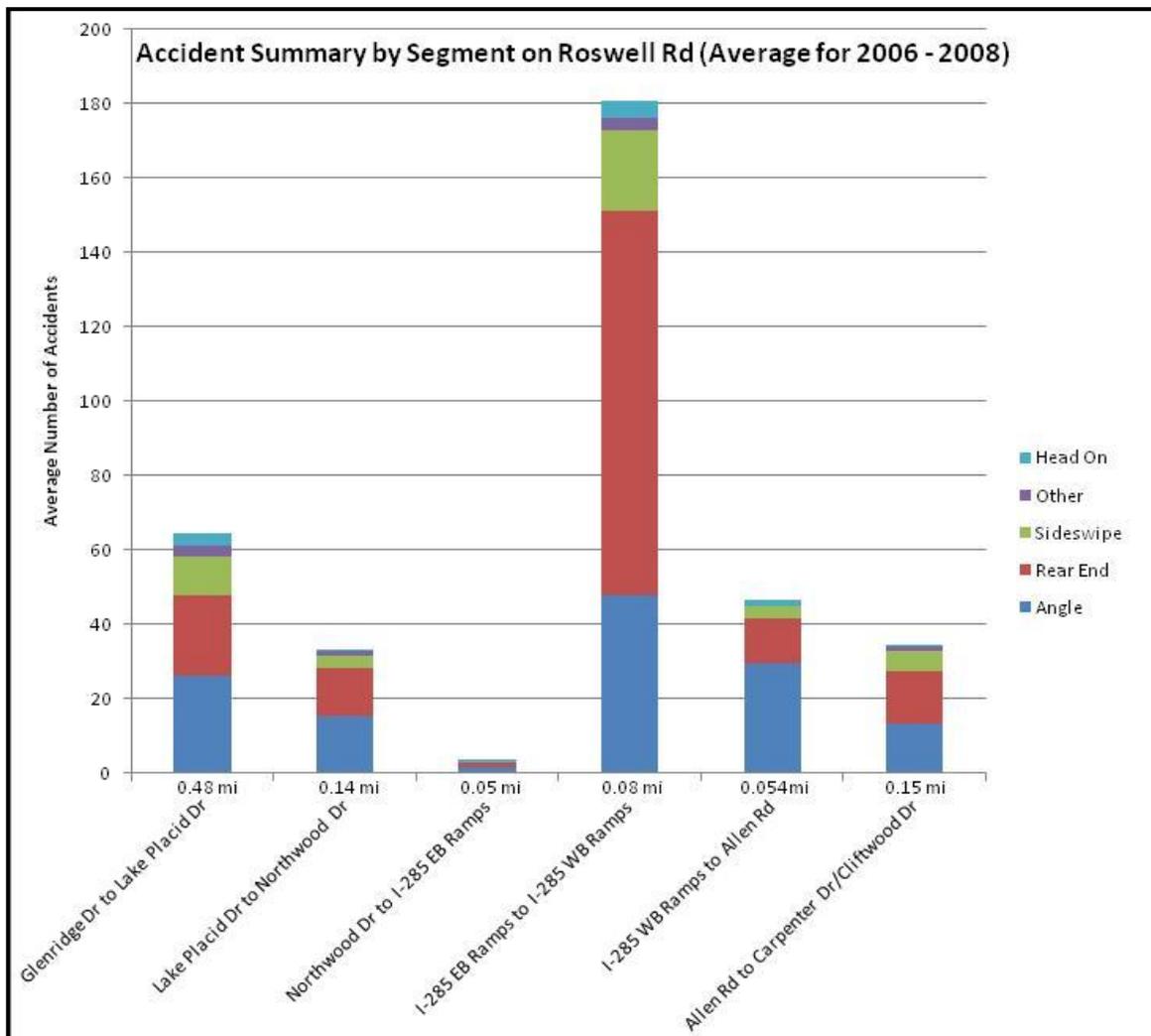


Figure 2: Accident Summary by Segment

Table 2 and Figure 2 indicate that 50 percent of the total annual accidents in the corridor occur between the interchange intersections on Roswell Road and that rear-end crashes constitute 57 percent of these crashes. These accidents occur primarily as a result of two issues: insufficient storage length for northbound and southbound left-turn lanes from Roswell Road to the on-ramps and insufficient storage capacity on both on-ramps upstream of the ramp meter. On-ramp traffic has been observed to queue up to the upstream intersection and block Roswell Road traffic from entering the on-ramps.

Table 2 shows that Northwood Drive and Allen Road are located in close proximity (approximately 250 feet) to the interchange intersections. Currently, these roads have full access from and to Roswell Road, which encourages travelers to make unsafe turning and weaving maneuvers within a very short distance. These maneuvers contribute to the high angle and sideswipe crashes noted on Figures 1 and 2.

With an increase in traffic demand in the future, the above-described safety issues will worsen unless appropriately addressed with capacity improvements at the bridge and both on-ramps and with access control strategies at the Northwood Drive and Allen Road intersections.

Capacity

A capacity analysis was conducted to quantify the serviceability of study area intersections under existing and future conditions for no-build and build scenarios. Because the purpose of this analysis is to define the need for the project, this section specifically presents the results of existing conditions and future no-build scenarios. A comparison between no-build and build scenarios is presented in Appendix A.

Table 3 presents delay and level of service (LOS) experienced at study area intersections under existing and future no-build conditions in both morning and afternoon peak hours.

Table 3: Intersection LOS (A.M./P.M.)

Intersection	Existing (2009)		No Build – Open Year (2011)		No Build – Design Year (2031)	
	LOS	Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	LOS	Delay (Sec/Veh)
Cliftwood Drive/ Carpenter Drive	C/E	25/70	C/F	24/85	F/F	93/112
I-285 West Ramps	D/D	40/42	D/D	42/42	D/E	46/78
I-285 East Ramps	D/E	55/67	E/E	59/80	E/F	72/98
Lake Placid Drive	B/F	15/86	C/F	28/104	F/F	94/103
The Prado	A/C	7/32	A/D	7/49	C/F	32/127
Glenridge Drive	C/E	20/56	C/E	22/61	D/F	35/111

Table 3 shows the following:

- Traffic conditions are the worst during the afternoon peak hour for all analysis years.
- The capacity deficiency on the bridge and on the on-ramps results in heavy congestion at both interchange intersections. This, in turn, results in long queues on the off-ramps and along Roswell Road on both sides of the interchange. Eastbound off-ramp queues spill onto the interstate, causing operations and safety concerns at ramp divergence points. Backup along Roswell Road blocks side street traffic from entering Roswell Road, thereby deteriorating the LOS of the upstream intersections. In existing conditions, both the Lake Placid Drive and Cliftwood Drive intersections operate at or above capacity during the afternoon peak hour with an LOS of F and E, respectively.
- The lack of on-ramp capacity creates congestion at both ramp termini and immediate upstream intersections. This is indicated by afternoon peak-hour LOS E and F at the westbound and eastbound ramps under design year (2031) conditions, respectively. The congestion spills back into the next upstream intersection, with Cliftwood Drive/Carpenter Drive and Lake Placid Drive experiencing the highest delays on the corridor (delays of 93/112 seconds/vehicle and 94/103 seconds/vehicle, respectively). Average delay and LOS is worse at Lake Placid Drive and Cliftwood Drive/Carpenter Drive because queues backing up from ramp intersections extend beyond upstream intersections and provide very limited space to receive any turning vehicles.
- With an increase in traffic in future conditions, all study area intersections will experience significant delays and queuing. By 2031, all intersections will operate at LOS F with delays ranging between 78 seconds/vehicle and 127 seconds/vehicle in the afternoon peak hour.

Delays and queues resulting from the above-described capacity issues will be further exacerbated with any crashes within the study area. Therefore, there is an immediate need to address the capacity and safety deficiencies described above.

Travel Time

Travel time gives a good overall indication of conditions across the entire corridor. Figure 3 illustrates travel times for 2009, 2011, and 2031 for multiple origin-destination pairs in the study area.

Currently, the morning peak period sees little congestion and has reasonable travel times. The only congestion observed in the corridor is in the northbound direction between Lake Placid Drive and I-285 East ramps. The northbound congestion results in a six-minute travel time through the corridor, compared to a four-minute travel time southbound. The increase in traffic by 2011 results in a slight increase in travel times of approximately one minute for most origin-demand pairs, with the exception of an increase in northbound congestion caused by insufficient on-ramp capacity on the eastbound on-ramp. Similar results are observed during the 2031 analysis year, with the exception of additional congestion created in the southbound direction from a lack of capacity on the westbound on-ramp.

Afternoon peak-hour conditions are much worse than morning conditions. In 2009, the travel time for a vehicle going northbound through the corridor was approximately 10 minutes, as compared to a free-flow time of four minutes. By 2011 and 2031, this time is expected to be 11 minutes and 15 minutes, respectively. Southbound vehicles currently experience a travel time of nine minutes between Carpenter Drive and Glenridge Drive. By 2031, this time is expected to increase to approximately 11 minutes.

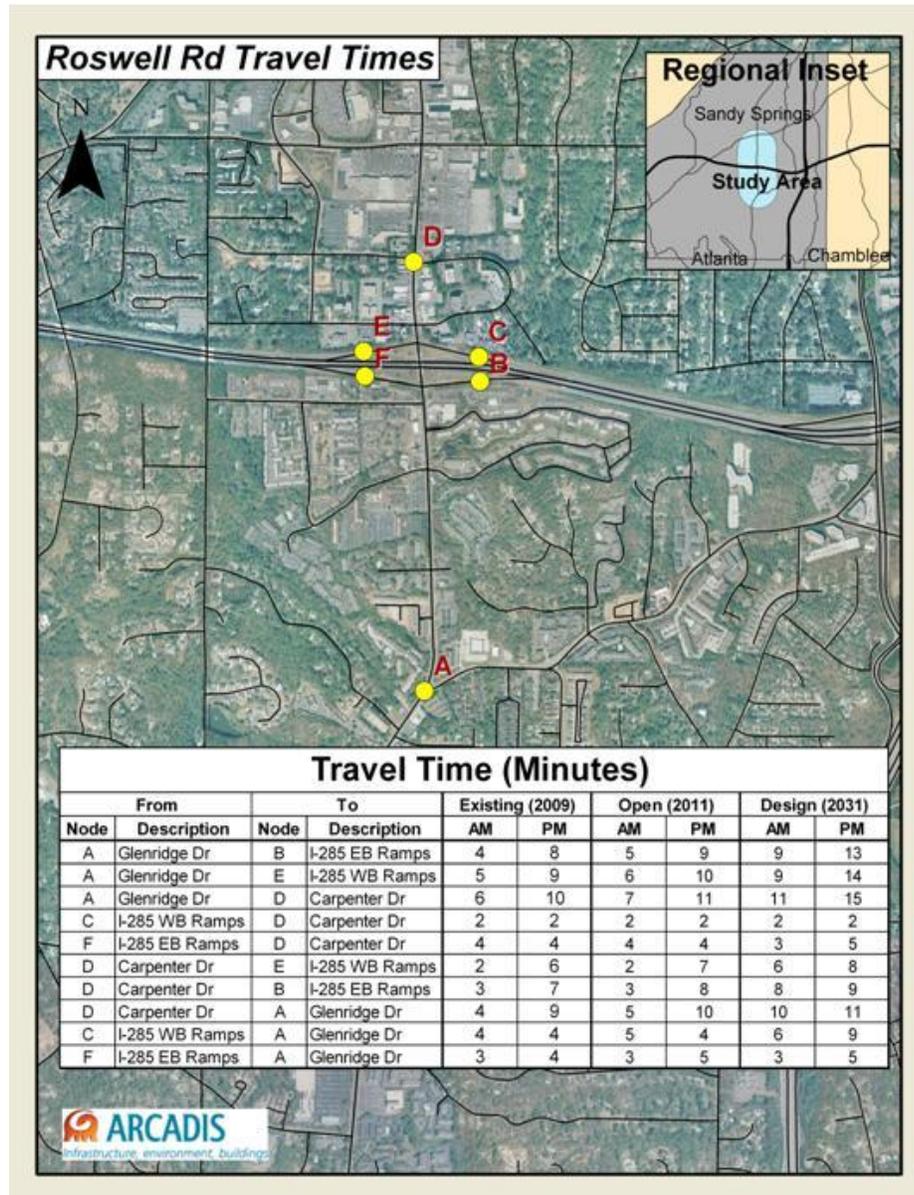


Figure 3: Travel Times along Roswell Road

Conformance Plan vs. Proposed Project

Programmed Project

The Roswell Road bridge safety and operations improvement project is referred to as FN-245 in the FY 2008-2013 Transportation Improvement Plan (TIP), the latest adopted conforming plan by the Atlanta Regional Commission (ARC). Specific lineage and extents are not described in the TIP documentation for this project; however some guidance is given in ARC's Envision6 model. The Envision6 model is a 20-county macroscopic model and therefore does not have turn lanes or turn bay lengths modeled but the number of through lanes and total capacity are available in the model network. Roswell Road is modeled as having two through lanes throughout the study area in the Envision6 model.

Proposed Project

The proposed project design includes two through lanes and a single, full length turn lane in each direction on the Roswell Road bridge. The two through lanes are consistent with what's modeled in the Envision6 model and the purpose of the project is to improve operations and safety on the overpass. Therefore, the proposed design is consistent with project FN-245 in the FY 2008-2013 TIP.

Land Use

Land use surrounding the bridge and the immediate vicinity along Roswell Road consists of commercial land uses including gas stations, restaurants, strip shopping areas and a hotel. Immediately off of Roswell Road along side roads are areas of residential uses consisting of apartment complexes.

Environmental Justice/Socioeconomics

The project lies at the intersection of four U.S. Census 2000 census block groups. These include:

- Census Tract 101.01, Block Group 1, which is located on the south side of I-285 and the east side of Roswell Road;
- Census Tract 101.10, Block Group 2, which is located on the north side of I-285 and the east side of Roswell Road;
- Census Tract 102.05, Block Group 4, which is located on the north side of I-285 and the west side of Roswell Road;
- Census Tract 102.07, Block Group 2, which is located on the south side of I-285 and the west side of Roswell Road;

According to Census 2000 data, approximately 15.70 percent of Fulton County's total population and 12.99 percent of the State of Georgia's total population was living below the poverty level in 1999. Of the four 2000 Census block groups within the project area, the populations of only one contain a higher percentage of persons living below the poverty level than the County or State as a whole, Census Tract 102.07 Block Group 2, in which 18.2 percent of the population was living below the poverty level in 1999. In Census Tract 101.10 Block Group 2, 13.1 percent of the population was living below the poverty level in 1999, which exceeds the statewide, but not countywide, rate.

Minority populations in the state of Georgia comprise approximately 34.9 percent of the total state population, compared to approximately 51.9 percent of Fulton County's population. Three of the four 2000 Census block groups within the project area have much lower percentages of minorities than both the state and Fulton County. The minority percentages are as follows:

- Census Tract 101.01, Block Group 1, 22.6 percent
- Census Tract 101.10, Block Group 2, 12.6 percent
- Census Tract 102.05, Block Group 4, 8.6 percent

Only one block group in the project area has a higher percentage of minorities than the state: Census Tract 102.07, Block Group 2, 51.3 percent. This block group is barely below the minority percentage of Fulton County.

Hispanics in Georgia make up 7.0 percent of the state population, compared to 5.9 percent of Fulton County's population. In contrast to minority populations, three of the four 2000 Census block groups within the project area have higher percentages of Hispanics than both the state and Fulton County. The Hispanic percentages are as follows:

- Census Tract 101.01, Block Group 1, 17.7 percent
- Census Tract 101.10, Block Group 2, 19.5 percent
- Census Tract 102.07, Block Group 2, 48.4 percent

Census Tract 102.05, Block Group 4, is the only tract in the project area contains a lower percentage of Hispanics than the state and county at 0.04 percent. Except for Census Tract 102.05, Block Group 4, the residential areas in the vicinity of the project corridor have a high concentration of Hispanics.

Description of the proposed project:

The proposed project will widen the Roswell Road Bridge over I-285 from the current five lanes to six lanes. This extra lane will provide dedicated left-turn lanes to the I-285 entrance ramps in both directions along Roswell Road. Through-lane widths will be widened from 10 feet to 11 feet in the process of the bridge widening. Access control through the use of a raised median will be installed in the direct vicinity of the bridge to improve safety and discourage dysfunctional movements.

The project begins at milepost 10.3 along Roswell Road/SR 9, extends approximately 1,550 feet, and ends at milepost 10.6.

The project shall also address the lack of ramp meter storage by widening both on-ramps from one lane to two lanes before the ramp meter. The existing gore location, as well as the number of lanes entering the interstate and the ramp meter timing, will be left unchanged.

Is the project located in a PM 2.5 Non-attainment area? Yes No.

Is this project located in an Ozone Non-attainment area? Yes No

PDP Classification: Major _____ Minor X

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

Functional Classification: SR 9 – Major Arterial; SR 407/I-285 – Interstate

U. S. Route Number(s): 19, I-285 **State Route Number(s):** 9, 407

Traffic (AADT):

Roswell Road: Base Year: (2011) 43100 Design Year: (2031) 52580
I-285: Base Year: (2011) 258070 Design Year: (2031) 314890

Existing Roswell Road Design Features:

- Typical section:
 - Two 10-foot travel lanes in each direction, 10-foot shared left-turn lane, curb and gutter, 4-foot sidewalk.
- Posted speed: 35 mph
- Minimum radius for curve: 4,000 feet
- Maximum super-elevation rate for curve: NC
- Maximum grade: 7.0 percent (Roswell Road, I-285, Carpenter Drive, Allen Road)
- Width of right-of-way: Varies; 60 feet to 200 feet
- Major structures:
 - SR 9/Roswell Road over SR 407/I-285
 - 242 feet long, 64.4 feet wide, Five 10-foot lanes
- Major interchanges or intersections along the project: SR 9/Roswell Road at SR 407/I-285 interchange
- Existing length of roadway segment: 1,550 feet (SR 9 MP 10.28 to MP 10.56)
- If an expansion or add-on to an existing ITS system (such as NaviGator), identify physical limits of field device location and/or brief explanation of new features. – Not Applicable

Existing I-285 Design Features:

- Typical section:
 - Two 12-foot lanes and three 11-foot lanes. Under Roswell Road Bridge, the inside shoulder is 5.25 feet, and the outside shoulder is 2 feet. Beyond the bridge, the inside shoulder is 6.75 feet, and the outside shoulder is 12 feet.
- Posted speed: 55 mph
- Minimum radius for curve: 5,730 feet
- Maximum super-elevation rate for curve: 2.60 percent
- Maximum grade: 2.0 percent
- Width of right-of-way: Varies; 300 feet to 600 feet
- Major structures:
 - SR 9/Roswell Road over SR 407/I-285
 - 242 feet long, 64.4 feet wide

- Major interchanges or intersections along the project: SR 9/Roswell Road at SR 407/I-285 interchange
- If an expansion or add-on to an existing ITS system (such as NaviGator), identify physical limits of field device location and/or brief explanation of new features. – Not Applicable

Existing Ramp B Features:

- Typical section:
 - One 16-foot travel lane – PCC pavement with curb and gutter shoulders.
- Posted speed: N/A
- Minimum radius for curve: 1,500 feet
- Maximum super-elevation rate for curve: 5.0 percent
- Maximum grade: 4.0 percent
- Width of right-of-way: Varies
- Major structures: None
- Existing length of roadway segment: 1,160 feet
- If an expansion or add-on to an existing ITS system (such as NaviGator), identify physical limits of field device location and/or brief explanation of new features. – Not Applicable

Existing Ramp D Features:

- Typical section:
 - One 16-foot travel lane – PCC pavement with asphalt overlay. Curb and gutter transitions to 4-foot paved shoulder inside and 6-foot paved shoulder outside.
- Posted speed: N/A
- Minimum radius for curve: 3,000 feet
- Maximum super-elevation rate for curve: 3.2 percent
- Maximum grade: 1.6 percent
- Width of right-of-way: Varies
- Major structures: None
- Existing length of roadway segment: 1,200 feet.
- If an expansion or add-on to an existing ITS system (such as NaviGator), identify physical limits of field device location and/or brief explanation of new features. – Not Applicable

Proposed Roswell Road Design Features:

- Proposed typical section(s):
 - Two 11-foot lanes, one 11-foot left-turn lane in each direction across the bridge, curb and gutter, and sidewalks to match removed sections.
- Proposed design speed mainline: 35 mph
- Proposed maximum grade mainline: Match Existing – 7.4 %
- Maximum grade allowable: 8 %
- Proposed maximum grade side street: Match Existing – 3.5 %
- Maximum grade allowable: 6 % for ramps
- Proposed maximum grade driveway: Match Existing %
- Proposed minimum radius of curve: 2500 ft

- Minimum radius allowable: 371 ft
- Maximum allowable superelevation rate 4 %
- Proposed maximum superelevation rate 2 %
- Right-of-way: No right-of-way required or easements
 - Width: N/A
 - Easements: Temporary () Permanent () Utility () Other ()
 - Type of Access Control: Full () Partial () By Permit (X) Other ()
 - Number of parcels: 0
 - Number of displacements:
 - Business: 0
 - Residences: 0
 - Mobile homes: 0
 - Other: 0
- Structures:
 - Roswell Road Bridge over I-285: 242 feet long, 83.4 feet wide. Six 11-foot lanes.
- Major intersections and interchanges: Roswell Road/I-285
- Traffic control during construction: Permanent shoulder closures on SR 9/Roswell Road; temporary lane closures on SR 9/Roswell Road.
- For ITS projects identify physical limits of field device location, location of any control centers and/or brief explanation of new features. Not Applicable
- Transportation Management Plan Anticipated: Yes (X) No ()
- Design exceptions to controlling criteria anticipated:

	<u>UNDETERMINED</u>	<u>YES</u>	<u>NO</u>
HORIZONTAL ALIGNMENT:	()	()	(X)
LANE WIDTH:	()	()	(X)
SHOULDER WIDTH:	()	()	(X)
VERTICAL GRADES:	()	()	(X)
CROSS SLOPES:	()	()	(X)
STOPPING SIGHT DISTANCE:	()	()	(X)
SUPERELEVATION RATES:	()	()	(X)
VERTICAL ALIGNMENT	()	()	(X)
SPEED DESIGN:	()	()	(X)
VERTICAL CLEARANCE:	()	()	(X)
BRIDGE WIDTH:	()	()	(X)
BRIDGE STRUCTURAL CAPACITY:	()	()	(X)
LATERAL OFFSET TO OBSTRUCTION:	()	()	(X)

- Design variances: None anticipated

Proposed I-285 Design Features:

- Proposed typical section(s):
 - Match existing: Two 12-foot lanes and three 11-foot lanes. Under Roswell Road Bridge, the inside shoulder is 5.25 feet, and the outside shoulder is 2 feet. Beyond the bridge, the inside shoulder is 6.75 feet, and the outside shoulder is 12 feet.
- Proposed design speed mainline: 65 mph
- Proposed maximum grade mainline: Match Existing: 2.0 %

- Maximum grade allowable: 4.0 %
- Proposed maximum grade side street: N/A
- Maximum grade allowable: N/A
- Proposed maximum grade driveway: N/A
- Proposed minimum radius of curve: Match Existing: 5729 ft
- Minimum radius allowable: 1480 ft
- Maximum allowable superelevation rate 8 %
- Proposed maximum superelevation rate Match Existing: 3.2 %
- Right-of-way: No right-of-way required or easements
 - Number of parcels: 0
 - Number of displacements:
 - Business: 0
 - Residences: 0
 - Mobile homes: 0
 - Other: 0
- Structures:
 - Roswell Road Bridge over I-285: 242 feet long, 83.4 feet wide. Six 11-foot lanes.
- Major intersections and interchanges: Roswell Road/I-285
- Traffic control during construction: Permanent shoulder closures on I-285; temporary lane closures on I-285.
- Design exceptions to controlling criteria anticipated:

	<u>UNDETERMINED</u>	<u>YES</u>	<u>NO</u>
HORIZONTAL ALIGNMENT:	()	()	(X)
LANE WIDTH:	()	(X)	()
SHOULDER WIDTH:	()	(X)	()
VERTICAL GRADES:	()	()	(X)
CROSS SLOPES:	()	()	(X)
STOPPING SIGHT DISTANCE:	()	()	(X)
SUPERELEVATION RATES:	()	()	(X)
VERTICAL ALIGNMENT	()	()	(X)
SPEED DESIGN:	()	()	(X)
VERTICAL CLEARANCE:	()	()	(X)
BRIDGE WIDTH:	()	()	(X)
BRIDGE STRUCTURAL CAPACITY:	()	()	(X)
LATERAL OFFSET TO OBSTRUCTION:	()	(X)	()

- Design variances: None anticipated

Proposed Ramp B Design Features:

- Proposed typical section(s):
 - Two 12-foot lanes extending to ramp meters, converging into one 16-foot lane
- Proposed design speed mainline: 45 mph
- Proposed maximum grade mainline: 3.5 %
- Maximum grade allowable: 5.0 %
- Proposed maximum grade side street: N/A
- Maximum grade allowable: N/A
- Proposed maximum grade driveway: N/A

- Proposed minimum radius of curve: 1500 ft
- Minimum radius allowable: 643 ft
- Maximum allowable superelevation rate 6 %
- Proposed maximum superelevation rate Match existing - 4.6 %
- Right-of-way: No right-of-way required or easements
 - Number of parcels: 0
 - Number of displacements:
 - Business: 0
 - Residences: 0
 - Mobile homes: 0
 - Other: 0
- Structures: None
- Major intersections and interchanges: Roswell Road/I-285
- Traffic control during construction: Permanent shoulder closures in accordance with Section 150
- Design exceptions to controlling criteria anticipated: None anticipated
- Design variances: None anticipated

Proposed Ramp D Design Features:

- Proposed typical section(s):
 - Two 12-foot lanes extending to ramp meters, converging into one 16-foot lane
- Proposed design speed mainline: 45 mph
- Proposed maximum grade mainline: Match Existing: 2.5 %
- Maximum grade allowable: 5.0 %
- Proposed maximum grade side street: N/A
- Maximum grade allowable: N/A
- Proposed maximum grade driveway: N/A
- Proposed minimum radius of curve: 3000 ft
- Minimum radius allowable: 643 ft
- Maximum allowable superelevation rate 6 %
- Proposed maximum superelevation rate 2.8 %
- Right-of-way: No right-of-way required or easements
 - Number of parcels: 0
 - Number of displacements:
 - Business: 0
 - Residences: 0
 - Mobile homes: 0
 - Other: 0
- Structures: None
- Major intersections and interchanges: Roswell Road/I-285
- Traffic control during construction: Permanent shoulder closures in accordance with Section 150
- Design exceptions to controlling criteria anticipated: None anticipated
- Design variances: None anticipated

Additional Design Features:

- Environmental concerns: None anticipated
- Anticipated level of environmental analysis:
 - Are Time Savings Procedures appropriate? Yes (X), No (),
 - Categorical Exclusion (X),
 - Environmental Assessment/Finding of No Significant Impact (FONSI) (), or
 - Environmental Impact Statement (EIS) ().
- Utility involvements: Communications (BellSouth), Power (Georgia Power), Gas (Atlanta Gas Light), Water (Fulton County Water), and ITS (City of Sandy Springs, GDOT)
- Railroad Coordination Required: Yes () No (X)
- VE Study Anticipated: Yes () No (X)
- Benefit/Cost Ratio: 13

Project Cost Estimate and Funding Responsibilities:

	PE	ROW	UTILITY	CST	MITIGATION
By Whom	City of Sandy Springs (Consultant – ARCADIS U.S., Inc.)	Not required	Utility owner; Non-reimbursable	Federal Earmark / City of Sandy Springs local funding	Not required
\$ Amount	\$400,000	\$0	\$0	\$5,000,000	\$0

Project Activities Responsibilities:

- Design: City of Sandy Springs (Consultant – ARCADIS U.S., Inc.)
- Right-of-Way Acquisition: None anticipated
- Right-of-Way Funding (real property): None anticipated
- Relocation of Utilities: Utility owner
- Letting to contract: GDOT
- Supervision of Construction: GDOT
- Providing material pits: Not applicable
- Providing detours: Contractor
- Env. Studies/Documents/Permits: City of Sandy Springs (Consultant – ARCADIS U.S., Inc.)
- Environmental Mitigation: Not required

Coordination:

- Initial concept meeting date and brief summary: October 16, 2009. Minutes attached.
- Concept meeting date and brief summary: January 29, 2010. Minutes attached.
- PAR meetings, dates, and results: N/A
- FEMA, USCG, and/or TVA: N/A
- Public involvement: Public information open house - January 26, 2010. Synopsis attached.
- Local government comments: The City of Sandy Springs is the sponsor of this project.

- Other projects in the area:
 - 0009058
 - CSTEE-0009-00(058)
 - SR 9/ROSWELL ROAD FROM JOHNSON FERRY ROAD TO ABERNATHY ROAD
 - Bike/pedestrian facility
 - 0006728
 - CSSTP-0006-00(728)
 - SR 9 FROM JOHNSON FERRY ROAD TO ABERNATHY ROAD
 - Streetscapes
 - M003833
 - CSSTP-M003-00(833)
 - SR 9 FROM CS 327/SARDIS WAY TO I-285
 - Resurface and maintenance
 - 7626060
 - STP00-7626-00(060)
 - SR 9/ROSWELL ROAD FROM MEADOWBROOK DRIVE TO LONG ISLAND DRIVE
 - Sidewalks, bike/pedestrian facility
 - 0006911
 - CSSTP-0006-00(911)
 - CR 655/JOHNSON FERRY ROAD AT CR 243/SANDY SPRINGS CIRCLE
 - Intersection improvement
 - 0005910
 - STP00-0005-00(910)
 - SIDEWALK ON HAMMOND DRIVE AND SANDY SPRINGS CIRCLE – LCI PROJECT
 - Bike/pedestrian facility enhancement
 - M002970
 - CSNHS-M002-00(970)
 - I-285 FROM WEST PACES FERRY ROAD TO ASHFORD DUNWOODY
 - Resurface and maintenance
 - 0001758
 - REVIVE I285 – I-285 FROM I-75/COBB THROUGH FULTON COUNTY TO I-85/DEKALB FOR HOV
 - Reconstruction/rehabilitation
- Railroads: Not applicable.
- Other coordination to date: None

Scheduling – Responsible Parties’ Estimate:

- Time to complete the environmental process: 6 Months.
- Time to complete preliminary construction plans: 2 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 purchase right-of-way: N/A Months.
- List other major items that will affect the project schedule: _____Months.

Other Alternates Considered:

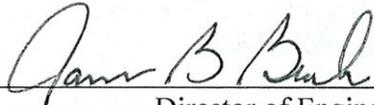
1. Re-striping the bridge to provide dedicated left-turn lanes by reducing one direction to only one through lane. (Rejected as a result of traffic analysis performance and impacts to the I-285 off-ramp.)
2. Reconfiguring to a diverging diamond interchange. This design alternative was rejected due to unfavorable geometric and site conditions. This project location is not desirable for a diverging diamond interchange when compared to other prototype interchanges found elsewhere in the country. The narrow width of the existing bridge at Roswell Road results in design difficulties such as complicated cross-over geometry, diminished lane widths, and substandard median widths. Additionally there are vertical approach grades in excess of seven percent which would complicate the navigation and operation at this interchange. Furthermore there is concern that existing chronic on ramp queuing would compromise the effectiveness of the diverging diamond configuration.

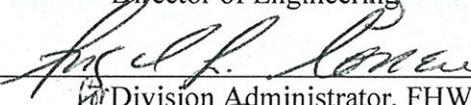
Comments: The project is intended to be an interim improvement which does not require replacement of the existing bridge.

Attachments:

1. Cost Estimates:
 - a. Construction including contingencies, engineering, and inspection
 - b. Completed Fuel & Asphalt Price Adjustment Forms.
 - c. Right-of-Way (not applicable)
 - d. Utilities (all non-reimbursable)
 - e. Environmental Mitigation (not applicable)
2. Sketch Location Map
3. Typical Sections
4. Accident Summaries (not included as attachment; shown in Need and Purpose)
5. Traffic Diagrams
6. Capacity Analysis Summary
7. Summary of Signal Warrant Studies (not applicable)
8. Bridge Inventory
9. Minutes of Initial Concept Team Meeting and Concept Team Meeting
10. Minutes of Any Meetings that Show Support or Objection to the Concept (PIOH synopsis)
11. PFAs and/or SAAs
12. Location and Design Notice (on minor projects)
13. Conforming Plan's Network Schematics Showing Through Lanes
14. Benefit Cost Analysis (contained in Attachment 6)
15. Consultant QA/QC Certification Letter

Project Concept Report page 19
Project Number: CSMSL-0009-00(159), CSMSL-0009-00(160)
P. I. Number: 0009159, 0009160
City of Sandy Springs

Concur: 
Director of Engineering

Approve: 
for Division Administrator, FHWA

Approve: 
Chief Engineer

Date: 12/08/10

Attachment 1:

Cost Estimate

ATTACHMENT 1 - CONSTRUCTION COST ESTIMATE

Project: ROSWELL RD BRIDGE WIDENING
 Project No.: CSMSL-0009-00(160)
 County: FULTON

Prepared by: 
 Last Modified: March 15, 2010

ITEM NO.	ITEM	UNIT	QUANTITY	UNIT PRICE	COST
	ROADWAY ITEMS				
	BRIDGE WIDENING COMPLETE - (\$180/SF)	LS	LUMP	\$1,412,100.00	\$1,412,100.00
540-1202	REMOVAL OF PARTS OF EXISTING BRIDGE, BR NO - 1	LS	LUMP	\$150,000.00	\$150,000.00
150-1000	TRAFFIC CONTROL - CSMSL-0009-00(160)	LS	LUMP	\$1,000,000.00	\$1,000,000.00
210-0100	GRADING COMPLETE - CSMSL-0009-00(160)	LS	LUMP	\$400,000.00	\$400,000.00
310-5120	GR AGGR BASE CRS, 12 INCH, INCL MATL	SY	2100	\$13.24	\$27,804.00
402-1812	RECYCLED ASPH CONC LEVELING, INCL BITUM MATL & H LIME	TN	300	\$66.70	\$20,010.00
402-3121	RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME	TN	670	\$53.81	\$36,052.70
402-3130	RECYCLED ASPH CONC 12.5 MM SUPERPAVE, GP 2 ONLY, INCL BITUM MATL & H LIME	TN	5600	\$64.13	\$359,128.00
402-3190	RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME	TN	230	\$57.93	\$13,323.90
413-1000	BITUM TACK COAT	GL	3000	\$2.00	\$6,000.00
432-0206	MILL ASPH CONC PVMT, 1 1/2 IN DEPTH	SY	10700	\$1.60	\$17,120.00
441-0106	CONC SIDEWALK, 6 IN	SY	215	\$23.07	\$4,960.05
441-0204	PLAIN CONC DITCH PAVING, 4 IN	SY		\$35.18	
441-0748	CONCRETE MEDIAN, 6 IN	SY	1200	\$29.05	\$34,860.00
441-6022	CONC CURB & GUTTER, 6 IN X 30 IN, TP 2	LF	1345	\$11.58	\$15,580.18
446-1100	PVMT REINF FABRIC STRIPS, TP 2, 18 INCH WIDTH	LF	4600	\$3.12	\$14,352.00
641-1200	GUARDRAIL, TP W	LF	675	\$14.57	\$9,834.75
641-5001	GUARDRAIL ANCHORAGE, TP 1	EA	1	\$636.40	\$636.40
641-5012	GUARDRAIL ANCHORAGE, TP 12	EA	1	\$2,275.35	\$2,275.35
610-5705	REM CATCH BASIN	EA	2	\$2,360.78	\$4,721.56
668-1100	CATCH BASIN, GP 1	EA	4	\$2,500.00	\$10,000.00
	EROSION CONTROL	LS	LUMP	\$100,000.00	\$100,000.00
	SIGNING & MARKING ITEMS				
615-1200	DIRECTIONAL BORE	LF	1340	\$13.80	\$18,492.00
636-1020	HIGHWAY SIGNS, TP 1 MATL, REFL SHEETING, TP 3	SF	100	\$16.83	\$1,683.00
636-1033	HIGHWAY SIGNS, TP 1 MATL, REFL SHEETING, TP 9	SF	150	\$21.63	\$3,244.50
636-1041	HIGHWAY SIGNS, TP 2 MATL, REFL SHEETING, TP 9	SF	100	\$39.79	\$3,979.00
636-2070	GALV STEEL POSTS, TP 7	LF	400	\$9.37	\$3,748.00
639-2001	STEEL WIRE STRAND CABLE, 1/4 IN	LF	250	\$4.00	\$1,000.00
639-2002	STEEL WIRE STRAND CABLE, 3/8 IN	LF	1500	\$3.55	\$5,325.00
639-3004	STEEL STRAIN POLE, TP IV	EA	20	\$12,164.15	\$243,283.00
647-1000	TRAFFIC SIGNAL INSTALLATION NO. 1	LS	LS	\$55,952.98	\$55,952.98
647-1000	TRAFFIC SIGNAL INSTALLATION NO. 2	LS	LS	\$55,952.98	\$55,952.98
647-1000	TRAFFIC SIGNAL INSTALLATION NO. 3 (Eastbound Ramp Meter)	LS	LS	\$40,000.00	\$40,000.00
647-1000	TRAFFIC SIGNAL INSTALLATION NO. 4 (Westbound Ramp Meter)	LS	LS	\$40,000.00	\$40,000.00
647-2160	PULL BOX, PB-6	EA	5	\$700.00	\$3,500.00
647-2170	PULL BOX, PB-7	EA	4	\$1,721.25	\$6,885.00
653-0110	THERMOPLASTIC PVMT MARKING, ARROW, TP 1	EA	10	\$68.95	\$689.50
653-0120	THERMOPLASTIC PVMT MARKING, ARROW, TP 2	EA	42	\$76.51	\$3,213.42
653-0130	THERMOPLASTIC PVMT MARKING, ARROW, TP 3	EA	3	\$105.00	\$315.00
653-0140	THERMOPLASTIC PVMT MARKING, ARROW, TP 4	EA	6	\$100.00	\$600.00
653-0210	THERMOPLASTIC PVMT MARKING, WORD, TP 1	EA	12	\$108.98	\$1,307.76
653-1501	THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, WHITE	LF	11070	\$0.54	\$5,977.80
653-1502	THERMOPLASTIC SOLID TRAF STRIPE, 5 IN, YELLOW	LF	6980	\$0.53	\$3,699.40
653-1704	THERMOPLASTIC SOLID TRAF STRIPE, 24 IN, WHITE	LF	270	\$3.70	\$999.00
653-1804	THERMOPLASTIC SOLID TRAF STRIPE, 8 IN, WHITE	LF	2000	\$1.73	\$3,460.00

653-1810	THERMOPLASTIC SOLID TRAF STRIPE, 10 IN, WHITE	LF	300	\$1.88	\$564.00
653-3501	THERMOPLASTIC SKIP TRAF STRIPE, 5 IN, WHITE	GLF	5530	\$0.41	\$2,267.30
653-3502	THERMOPLASTIC SKIP TRAF STRIPE, 5 IN, YELLOW	GLF	850	\$0.41	\$348.50
653-6004	THERMOPLASTIC TRAF STRIPING, WHITE	SY	150	\$3.14	\$471.00
653-6006	THERMOPLASTIC TRAF STRIPING, YELLOW	SY	300	\$2.96	\$888.00
654-1001	RAISED PVMT MARKERS TP 1	EA	50	\$3.55	\$177.50
654-1003	RAISED PVMT MARKERS TP 3	EA	300	\$5.82	\$1,746.00
682-6540	CONDUIT, FIBERGLASS, 4 IN	LF	500	\$53.99	\$26,995.00
682-6233	CONDUIT, NONMETL, TP 3, 2 IN	LF	4500	\$4.59	\$20,655.00
935-1113	OUTSIDE PLANT FIBER OPTIC CABLE, LOOSE TUBE, SINGLE MODE, 24 FIBER	LF	2000	\$1.74	\$3,480.00
935-1511	OUTSIDE PLANT FIBER OPTIC CABLE, DROP SINGLE MODE, 6 FIBER	LF	400	\$2.82	\$1,128.00
935-3101	FIBER OPTIC CLOSURE, UNDERGROUND, 6 FIBER	EA	4	\$509.98	\$2,039.92
935-3103	FIBER OPTIC CLOSURE, UNDERGROUND, 24 FIBER	EA	2	\$564.27	\$1,128.54
935-3401	FIBER OPTIC CLOSURE, FDC (RACK MOUNTED), 6 FIBER	EA	4	\$412.00	\$1,648.00
935-4010	FIBER OPTIC SPLICE, FUSION	EA	12	\$61.98	\$743.76
935-5050	FIBER OPTIC PATCH CORD, SM	EA	4	\$73.19	\$292.76
935-8000	TESTING (COMMUNICATION AND ELECTRONIC EQUIPMENT)	LS	LS	\$1,839.73	\$1,839.73
938-1100	INTERSECTION VIDEO DETECTION SYSTEM ASSEMBLY, TYPE A	EA	8	\$5,763.30	\$46,106.40
938-1200	PROGRAMMING MONITOR, TYPE A	EA	1	\$428.30	\$428.30
938-8000	TESTING (IVDS)	LS	1	\$2,039.82	\$2,039.82
939-2305	FIELD SWITCH, TYPE C	EA	4	\$2,750.00	\$11,000.00
939-8000	TESTING	LS	LS	\$2,250.00	\$2,250.00

Subtotal Construction Cost \$ 4,420,303.76

E&C Rate 5% \$ 221,015.19

LIQUID AC ADJUSTMENT \$ 209,190.41

FUEL ADJUSTMENT \$ 138,467.11

Total Construction Cost \$ 4,988,976.47

Right-of-way \$ -

REMIBERSABLE UTILITIES \$ -

ENVIRONMENTAL MITIGATION \$ -

Grand Total Project Cost \$ 4,988,976.47

PROJ. NO.

CSMSL-0009-00(159) & CSMSL-0009-00(160)

CALL NO.

9/29/2009

P.I. NO.

0009159 & 0009160

DATE

3/18/2010

INDEX (TYPE)

REG. UNLEADED
DIESEL
LIQUID AC

DATE	INDEX
Mar-10	\$ 2.799
	\$ 2.928
	\$ 494.00

Link to Fuel and AC Index:

<http://www.dot.ga.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx>

LIQUID AC ADJUSTMENTS

PA=[((APM-APL)/APL)-0.05]xTMTxAPL

Asphalt

Price Adjustment (PA)			\$ 201,552.00	\$ 201,552.00
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	125%	\$ 1,111.50	
Monthly Asphalt Cement Price month project let (APL)			\$ 494.00	
Total Monthly Tonnage of asphalt cement (TMT)			340	

ASPHALT	Tons	%AC	AC ton
Leveling	300	5.0%	15
12.5 OGFC	0	5.0%	0
12.5 mm	5600	5.0%	280
9.5 mm SP	0	5.0%	0
25 mm SP	670	5.0%	33.5
19 mm SP	230	5.0%	11.5
	6800		340

BITUMINOUS TACK COAT

Price Adjustment (PA)			\$ 7,638.41	\$ 7,638.41
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	125%	\$ 1,111.50	
Monthly Asphalt Cement Price month project let (APL)			\$ 494.00	
Total Monthly Tonnage of asphalt cement (TMT)			12.88530277	

Bitum Tack

Gals	gals/ton	tons
3000	232.8234	12.8853028

PROJ. NO.

CSMSL-0009-00(159) & CSMSL-0009-00(160)

CALL NO.

9/29/2009

P.I. NO.

0009159 & 0009160

DATE

3/18/2010

BITUMINOUS TACK COAT (surface treatment)

Price Adjustment (PA)				\$	-	\$	-
Monthly Asphalt Cement Price month placed (APM)		Max. Cap	125%	\$	1,111.50		
Monthly Asphalt Cement Price month project let (APL)				\$	494.00		
Total Monthly Tonnage of asphalt cement (TMT)					0		

Bitum Tack	SY	Gals/SY	Gals	gals/ton	tons
Single Surf. Trmt.	0	0.20	0	232.8234	0
Double Surf.Trmt.	0	0.44	0	232.8234	0
Triple Surf. Trmt	0	0.71	0	232.8234	0

TOTAL LIQUID AC ADJUSTMENT **\$ 209,190.41**

PROJ. NO.

CSMSL-0009-00(159) & CSMSL-0009-00(160)

CALL NO.

9/29/2009

P.I. NO.

0009159 & 0009160

DATE

3/18/2010

FUEL ADJUSTMENTS - ROADWAY

FPA = (((FPM-FPL)/FPL)-.10)xQxF)FPL

GRADED AGGREGATE BASE (Section 310)

			REGULAR		
			UNLEADED	DIESEL	TOTALS
Fuel Price Adjustment (FPA)			\$ 1,070.72	\$ 1,353.41	\$ 2,424.13
Monthly Fuel Price for month work was accomplished (FPM)	Max. Cap	125%	\$ 6.298	\$ 6.588	
Monthly Fuel Price for month when project was let (FPL)			\$ 2.799	\$ 2.928	
Quantity Placed (Q)	Ton	1386			
Fuel Usage Factor (F)			0.24	0.29	

ASPHALT (Sections 400 and 402)

			REGULAR		
			UNLEADED	DIESEL	TOTALS
Fuel Price Adjustment (FPA)			\$ 15,540.61	\$ 66,401.18	\$ 81,941.79
Monthly Fuel Price for month work was accomplished (FPM)	Max. Cap	125%	\$ 6.298	\$ 6.588	
Monthly Fuel Price for month when project was let (FPL)			\$ 2.799	\$ 2.928	
Quantity Placed (Q)	Ton	6800			
Fuel Usage Factor (F)			0.71	2.90	

EARTHWORK (Section 205 and 206)

			REGULAR		
			UNLEADED	DIESEL	TOTALS
Fuel Price Adjustment (FPA)			\$ 767.70	\$ 1,552.62	\$ 2,320.31
Monthly Fuel Price for month work was accomplished (FPM)	Max. Cap	125%	\$ 6.298	\$ 6.588	
Monthly Fuel Price for month when project was let (FPL)			\$ 2.799	\$ 2.928	
Quantity Placed (Q)	Cy	1590			
Fuel Usage Factor (F)			0.15	0.29	

CONCRETE PAVEMENT (Section 430)

			REGULAR		
			UNLEADED	DIESEL	TOTALS
Fuel Price Adjustment (FPA)			\$ 6,888.34	\$ 9,007.26	\$ 15,895.60
Monthly Fuel Price for month work was accomplished (FPM)	Max. Cap	125%	\$ 6.298	\$ 6.588	
Monthly Fuel Price for month when project was let (FPL)			\$ 2.799	\$ 2.928	
Quantity Placed (Q)	Sy	10700			
Fuel Usage Factor (F)			0.20	0.25	

TOTAL ROADWAY FUEL ADJUSTMENTS			\$ 24,267.36	\$ 78,314.47	\$ 102,581.83
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PROJ. NO.

CSMSL-0009-00(159) & CSMSL-0009-00(160)

CALL NO.

9/29/2009

P.I. NO.

0009159 & 0009160

DATE

3/18/2010

FUEL ADJUSTMENTS - BRIDGE

FPA = (((FPM-FPL)/FPL)-.10)x(QxF/1000))FPL

			REGULAR UNLEADED	DIESEL	TOTALS
Fuel Price Adjustment (FPA)			\$ 5,454.41	\$ 30,430.87	\$ 35,885.27
Monthly Fuel Price for month work was accomplished (FPM)		125%	\$ 6.298	\$ 6.588	
Monthly Fuel Price for month when project was let (FPL)			\$ 2.799	\$ 2.928	
Quantity Placed (Q)	Cost	\$ 1,129,680.00			
Fuel Usage Factor (F)			1.5	8	

Section	Bridge 1 Cost	Bridge 2 Cost	Bridge 3 Cost	Bridge 4 Cost		
211 Bridge Excavation						
500 Superstr Conc Cl AA						
500 Class A Concrete						
500 Class AA Concrete						Use when bridge items haven't been established. Assumes 80% of the estimated bridge cost will qualify for fuel adjustments.
500 Concrete Handrail						
500 Concrete Barrier						
501 Structural Steel						
507 Prestressed Conc Beams					EST. BRIDGE COST	% COST w/ADJ.
507 Prestressed Conc Beams					\$ 1,412,100.00	80%
507 Prestressed Conc Beams					COST	\$ 1,129,680.00
511 Super Reinforcement						
511 Bar Reinf Steel						
520 Piling						
520 Piling						
524 Drilled Caisson						
547 Pile Encasement						
547 Pile Encasement						
	\$ -	\$ -	\$ -	\$ -		

TOTAL BRIDGE FUEL ADJUSTMENTS	\$ 5,454.41	\$ 30,430.87	\$ 35,885.27
TOTAL FUEL ADJUSTMENT (ROADWAY AND BRIDGE)	\$ 29,721.77	\$ 108,745.34	\$ 138,467.11

Attachment 2:

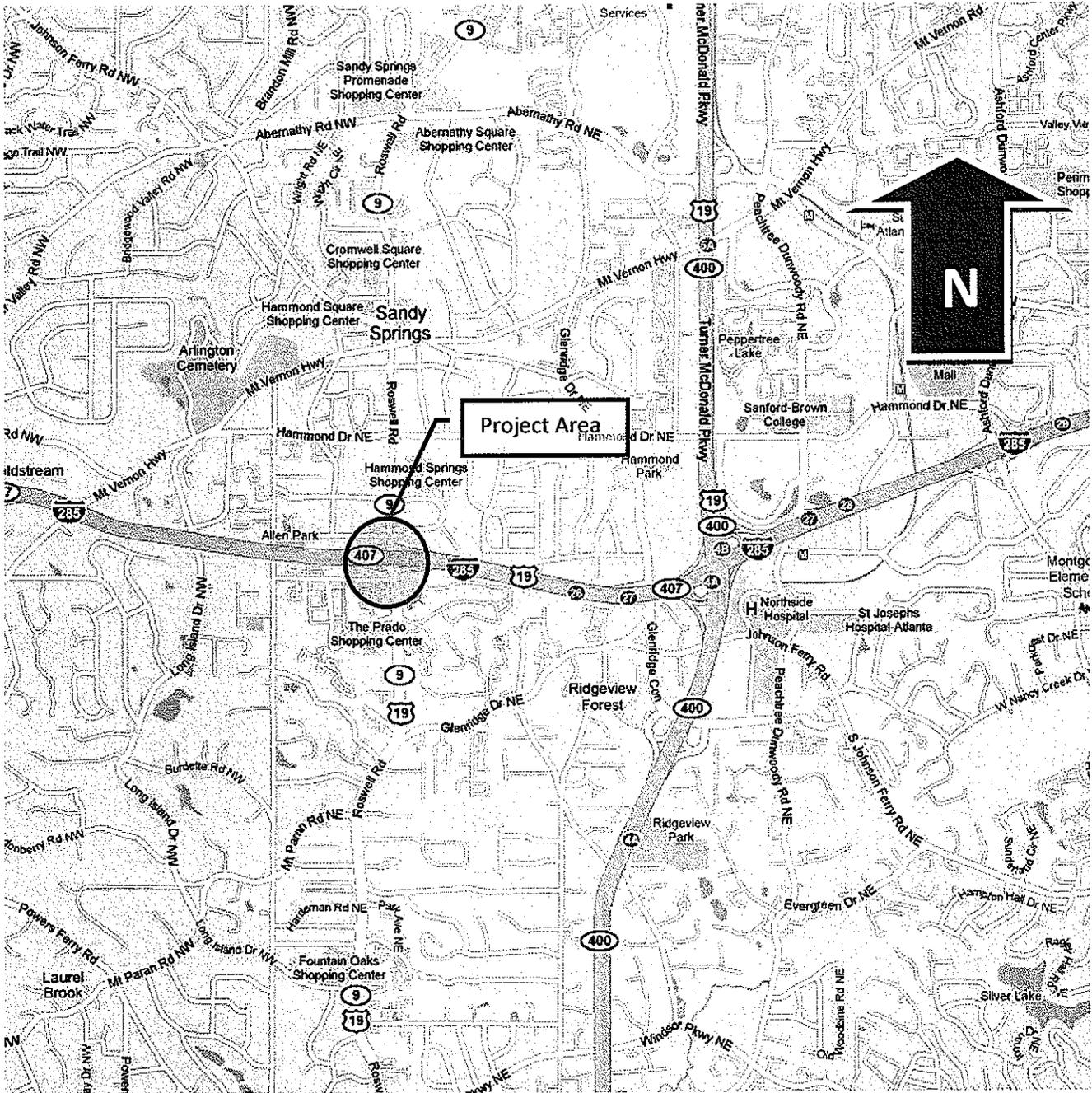
Sketch Location Map

Location Map

Project Number: CSMSL-0009-00(159) & CSMSL-0009-00(160)

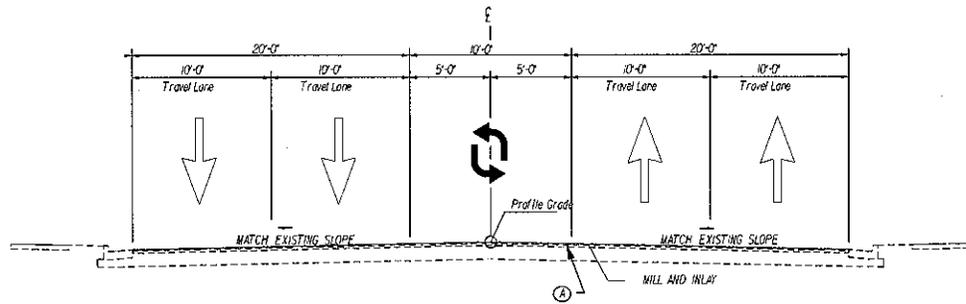
P.I. Number: 0009159 & 0009160

County: Fulton



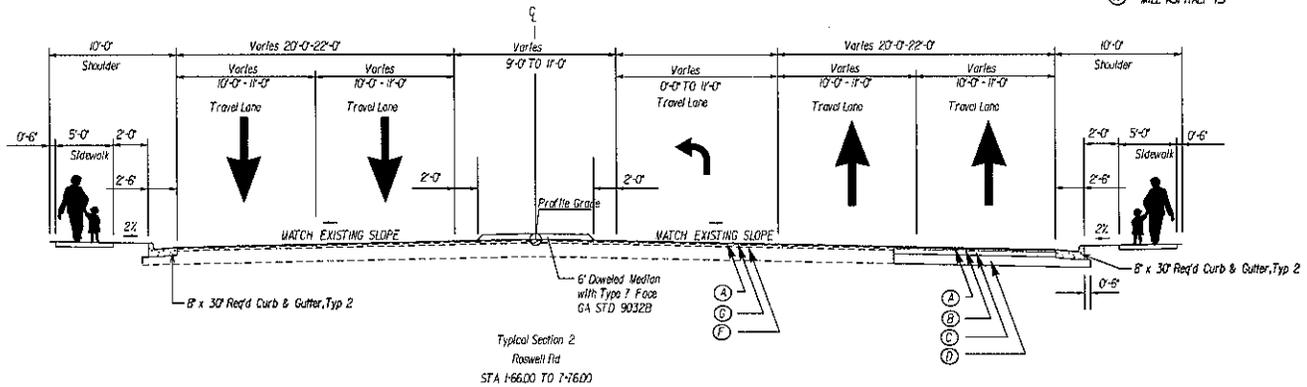
Attachment 3:

Typical Sections



Existing condition at Trains
Roswell Rd

- (A) RECYCLED ASPH CONC. 125 mm SUPERPAVE W/ POLYMER (165 LB/SY)
- (B) RECYCLED ASPH CONC. 19 mm SUPERPAVE (220 LB/SY)
- (C) RECYCLED ASPH CONC. 25 mm SUPERPAVE (1880 LB/SY)
- (D) GRADED AGGREGATE BASE (12")
- (E) GRADED AGGREGATE BASE (6")
- (F) MILL ASPHALT 3"
- (G) RECYCLED ASPH CONC. 125 mm SUPERPAVE (165 LB/SY)
- (H) MILL ASPHALT 15"



Typical Section 2
Roswell Rd
STA 1+66.00 TO 7+76.00



PRELIMINARY

REVISION DATES

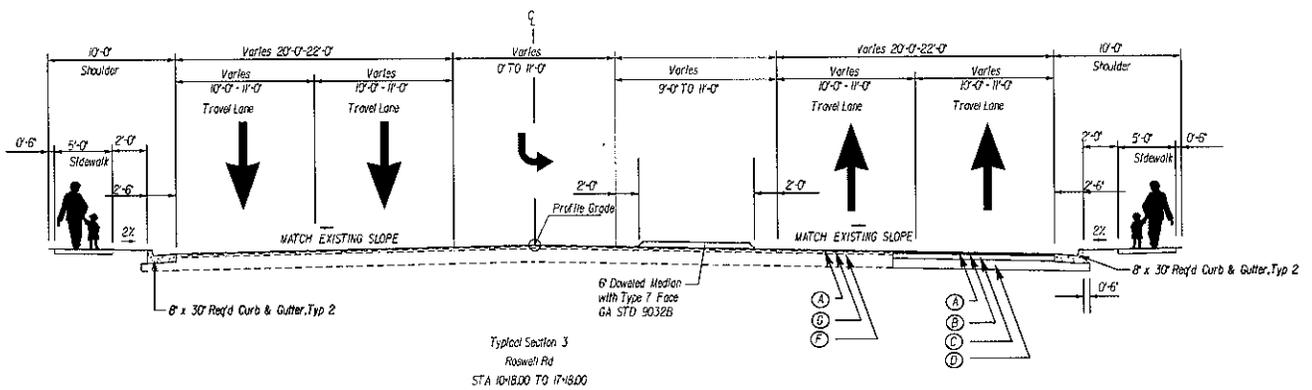
NO.	DATE	DESCRIPTION

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE:

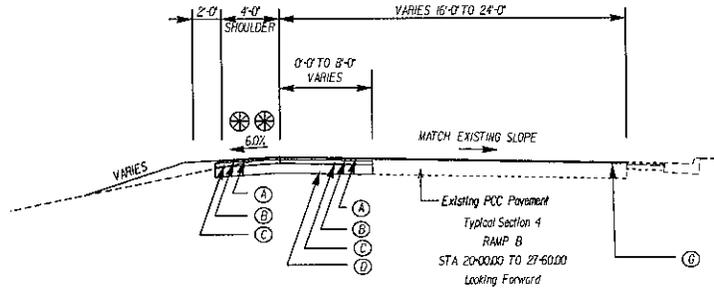
TYPICAL SECTIONS

ROSSELL ROAD OVER I-285
BRIDGE WIDENING

DRAWING NO.
5-01



- (A) RECYCLED ASPH CONC. 125 mm SUPERPAVE W/ POLYMER (165 LB/SY)
- (B) RECYCLED ASPH CONC. 19 mm SUPERPAVE (220 LB/SY)
- (C) RECYCLED ASPH CONC. 25 mm SUPERPAVE (180 LB/SY)
- (D) GRADED AGGREGATE BASE (12)
- (E) GRADED AGGREGATE BASE (16)
- (F) MILL ASPHALT 3"
- (G) RECYCLED ASPH CONC. 125 mm SUPERPAVE (165 LB/SY)
- (H) MILL ASPHALT 15"



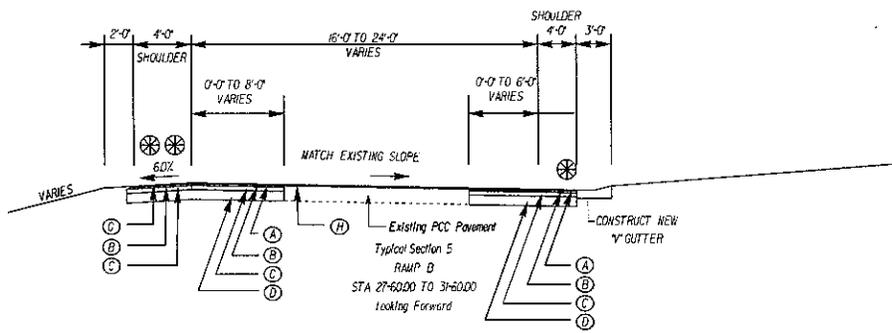
- ⊗ SHOULDER TO SLOPE AT NORMAL RATE OR SUPERELEVATION RATE, WHICHEVER IS GREATER.
- ⊗ SHOULDER TO SLOPE AT NORMAL RATE, HOWEVER, THE ALGEBRAIC DIFFERENCE IN PAVING SLOPE AND SHOULDER SLOPE SHALL NOT EXCEED 0.7%. MINIMUM SHOULDER SLOPE TO BE 2%.



PRELIMINARY

REVISION DATES

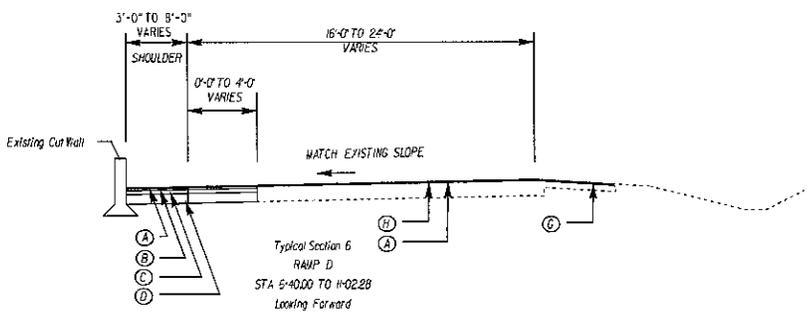
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE:
TYPICAL SECTIONS
ROSWELL ROAD OVER I-285
BRIDGE WIDENING
DRAWING NO. 5-02



- (A) RECYCLED ASPH CONC. 125 mm SUPERPAVE W/ POLYMER (65 LB/SY)
- (B) RECYCLED ASPH CONC. 19 mm SUPERPAVE (220 LB/SY)
- (C) RECYCLED ASPH CONC. 25 mm SUPERPAVE (800 LB/SY)
- (D) GRADED AGGREGATE BASE (12')
- (E) GRADED AGGREGATE BASE (12')
- (F) RECYCLED ASPH CONC. 125 mm SUPERPAVE (65 LB/SY)
- (H) MILL ASPHALT 15'

⊗ SHOULDER TO SLOPE AT NORMAL RATE OR SUPERELEVATION RATE, WHICHEVER IS GREATER.

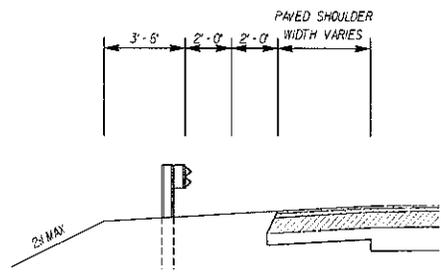
⊗ SHOULDER TO SLOPE AT NORMAL RATE, HOWEVER, THE ALGEBRAIC DIFFERENCE IN PAVING SLOPE AND SHOULDER SLOPE SHALL NOT EXCEED 2%. MINIMUM SHOULDER SLOPE TO BE 2%.



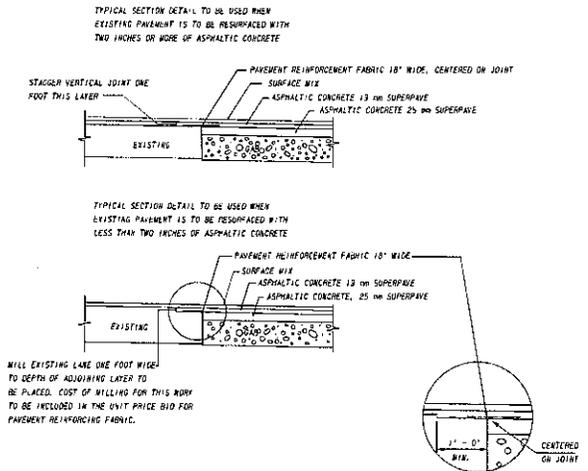
PRELIMINARY

REVISION DATES

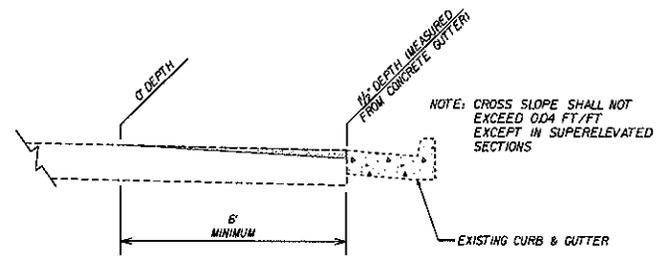
STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION	
OFFICE: TYPICAL SECTIONS	
ROSWELL ROAD OVER I-285 BRIDGE WIDENING	
DRAWING NO.:	5-03



W-BEAM GUARDRAIL DETAIL
 FOR RAMP SHOULDERS
 N.T.S.

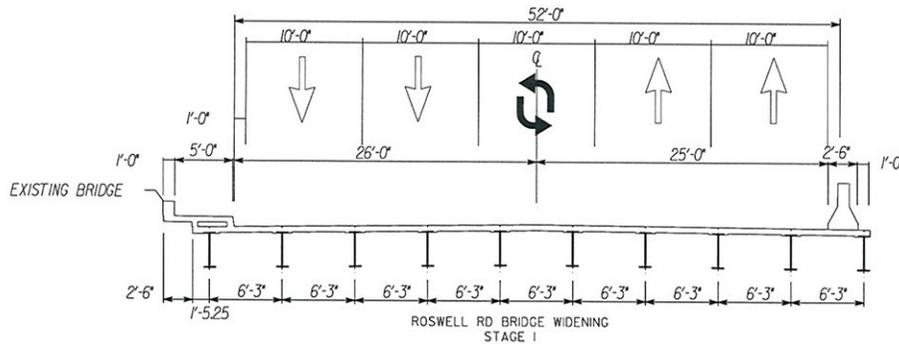
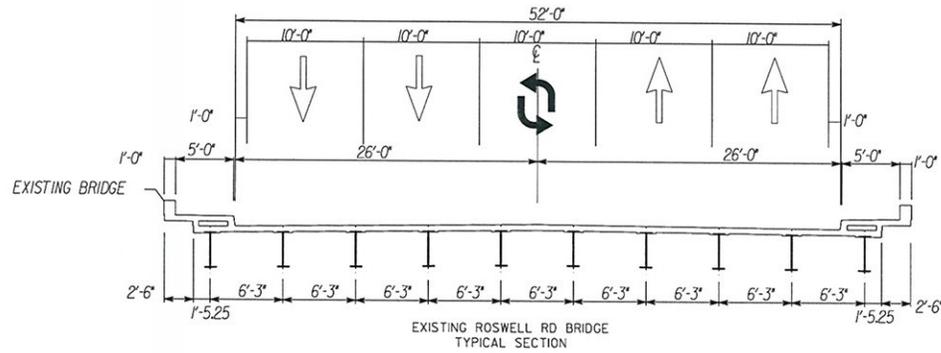


DETAIL FOR MILLING ALONG EXISTING CURB AND GUTTERS



PRELIMINARY

REVISION DATES		STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION	
		OFFICE: TYPICAL SECTIONS	
		ROSWELL ROAD OVER I-285 BRIDGE WIDENING	
		DRAWING NO. 5-05	



PRELIMINARY

REVISION DATES

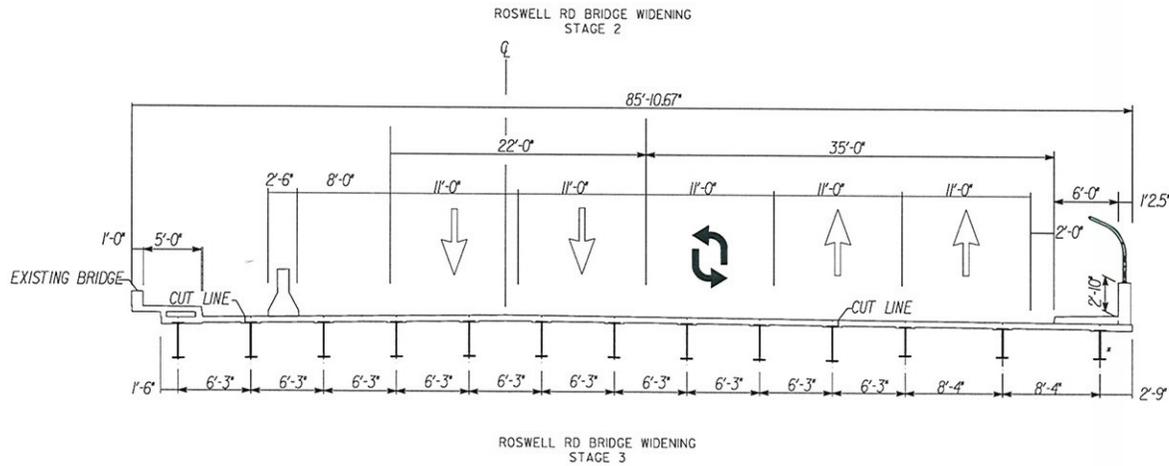
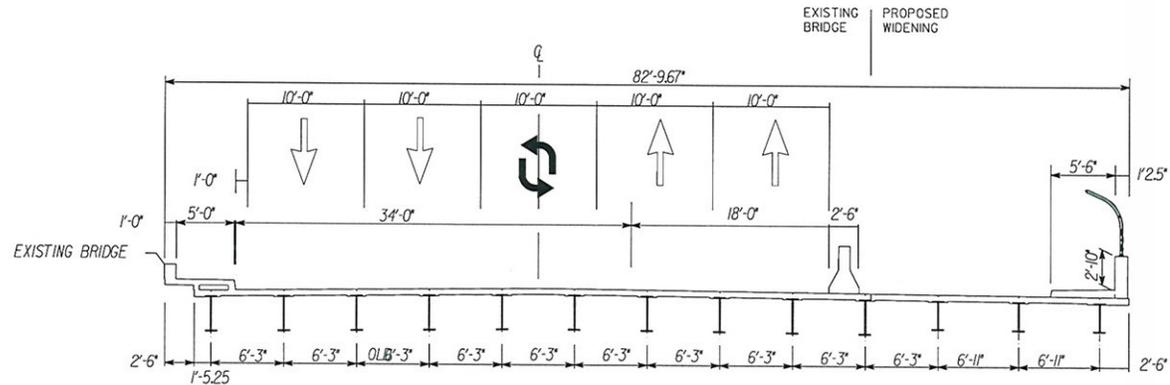
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION

OFFICE:
TYPICAL SECTIONS

ROSWELL ROAD OVER I-285
BRIDGE WIDENING

DRAWING NO.
5-01

5-06



* MINIMUM VERTICAL CLEARANCE OF BRIDGE WILL BE MAINTAINED



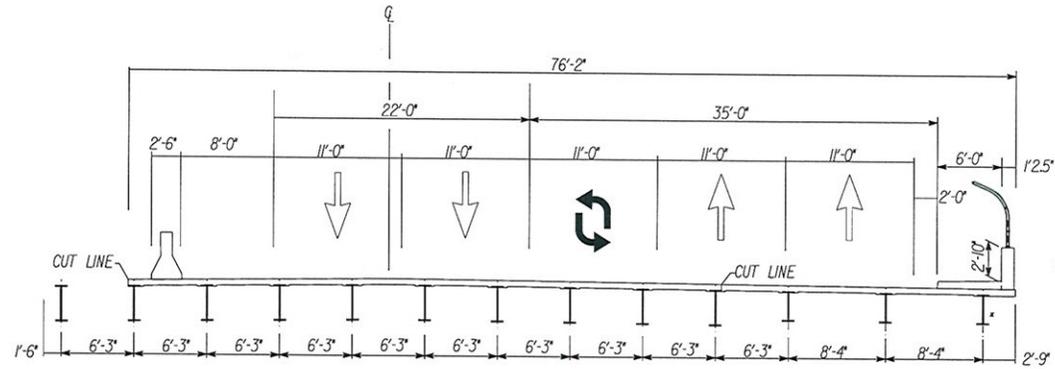
PRELIMINARY

REVISION	DATE	DESCRIPTION

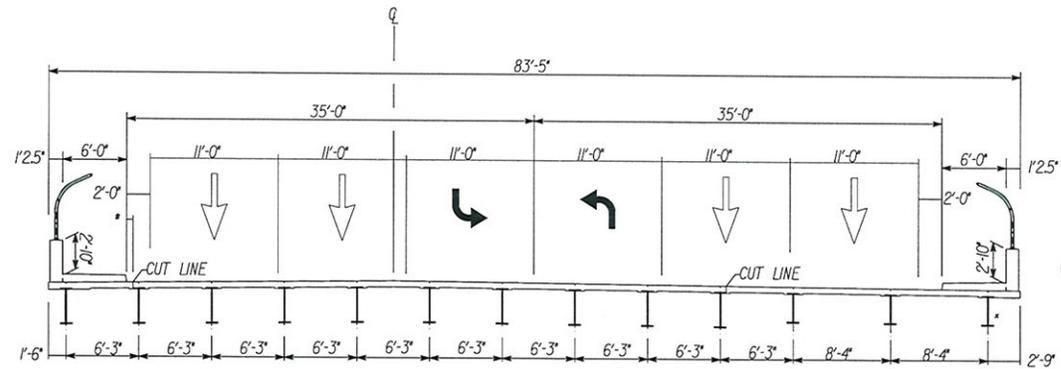
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE:
TYPICAL SECTIONS
ROSWELL ROAD OVER I-285
BRIDGE WIDENING

DRAWING NO.
5-02

5-07



ROSWELL RD BRIDGE WIDENING
STAGE 4



0'-6.5" EXCEPT @
BT 3, 0'-4.25"

ROSWELL RD BRIDGE WIDENING
STAGE 5



PRELIMINARY

REVISION DATES

NO.	DATE	DESCRIPTION

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION

OFFICE:

TYPICAL SECTIONS

ROSWELL ROAD OVER I-285
BRIDGE WIDENING

DRAWING NO.
~~5-03~~
5-08

Attachment 4:

Accident Summaries

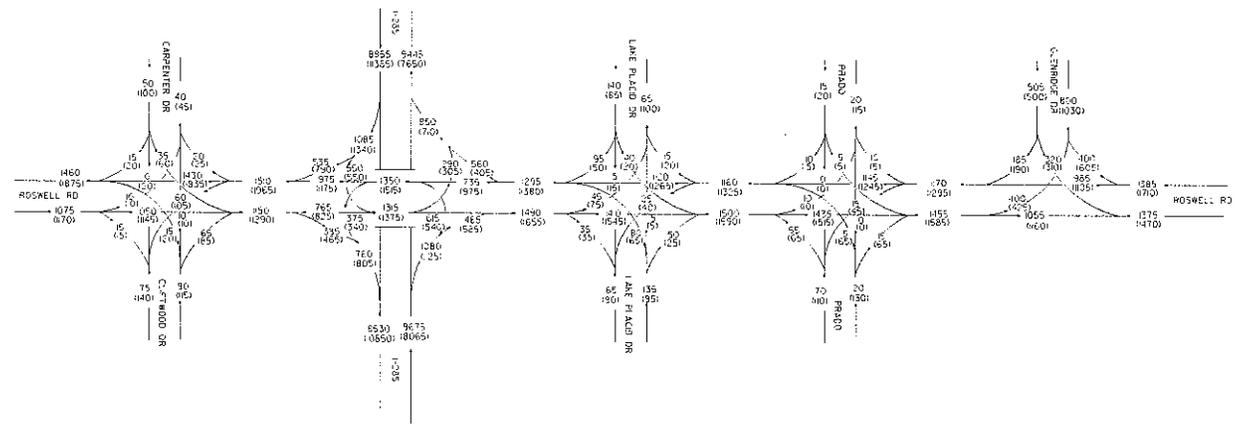
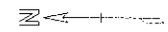
(Not included as attachment – Shown in Need and Purpose)

Attachment 5:

Traffic Diagrams

FIGURE 1 OF 5

GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF ENVIRONMENT/LOCATION



EXISTING (2009) DESIGN HOURLY VOLUMES

CITY OF ROSWELL
 ROSWELL ROAD BRIDGE
 AT I-285 SAFETY AND
 OPERATIONAL IMPROVEMENTS
 P.L. # 0009160
 2009 AM DHV = 000
 2009 PM DHV = 1000
 HR T = 5.5%
 S.U. = 2.5%
 COMB. = 3.0%



PRELIMINARY

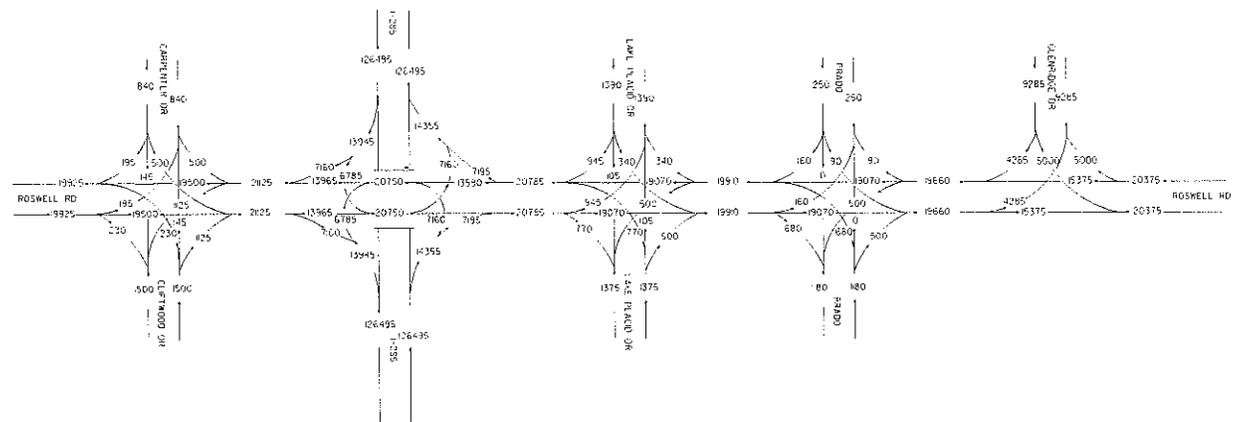
REVISION DATES

STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 OFFICE:
TRAFFIC DIAGRAM
 ROSWELL ROAD OVER I-285
 BRIDGE WIDENING

10-01

FIGURE 2 OF 5

GEORGIA DEPARTMENT OF TRANSPORTATION
 OFFICE OF ENVIRONMENT/LOCATION



EXISTING (2009) ADT

CITY OF ROSWELL
 ROSWELL ROAD BRIDGE
 AT I-285 SAFETY AND
 OPERATIONAL IMPROVEMENTS
 P.I. # 0009160
 EXISTING (2009)
 ADT = 600
 24 HR T = 4%
 S.U. = 2.5%
 COMB. = 1.5%



PRELIMINARY

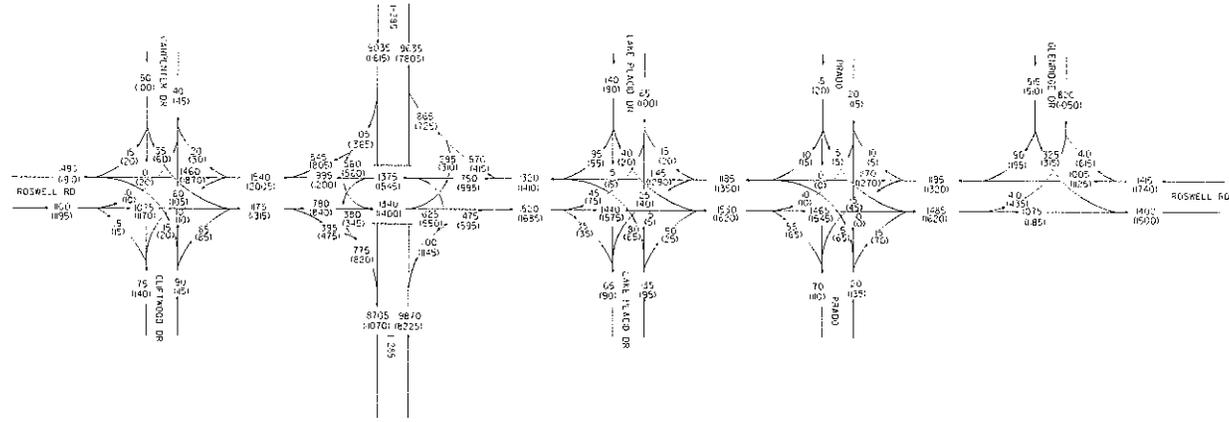
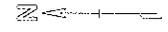
REVISION DATES

STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 OFFICE:
TRAFFIC DIAGRAM
 ROSWELL ROAD OVER I-285
 BRIDGE WIDENING

FRAME NO.
10-02

FIGURE 3 OF 5

GEORGIA DEPARTMENT OF TRANSPORTATION
 OFFICE OF ENVIRONMENT/LOCATION



OPEN YEAR (2011) DESIGN HOURLY VOLUMES

CITY OF ROSWELL
 ROSWELL ROAD BRIDGE
 AT I-285 SAFETY AND
 OPERATIONAL IMPROVEMENTS
 P.I. # 0009160
 2011 AM DHV = 000
 2011 PM DHV = (000)
 HR % = 5.5%
 S.L. = 0.5%
 COMB. = 3.0%
 11-17-15

PRELIMINARY

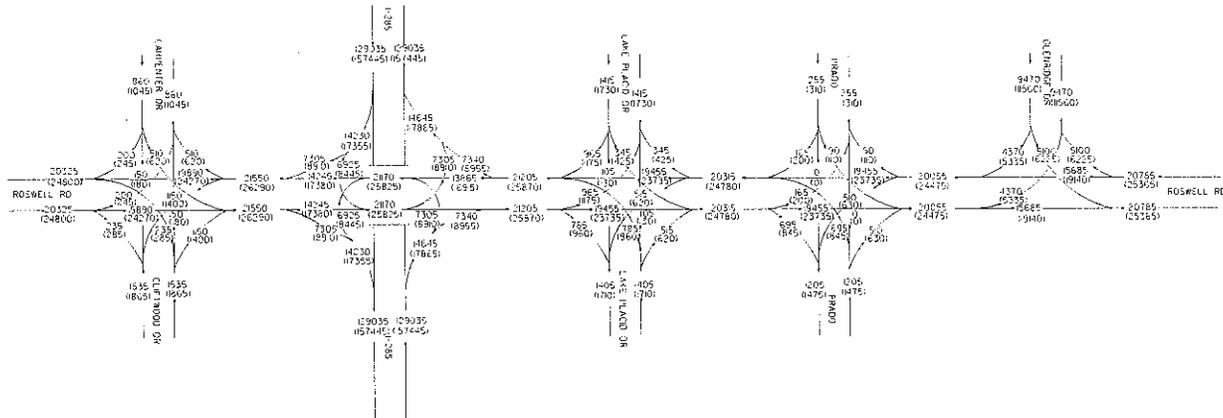


REVISION DATES	

STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 OFFICE:
TRAFFIC DIAGRAM
 ROSWELL ROAD OVER I-285
 BRIDGE WIDENING

FIGURE 5 OF 5

GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF ENVIRONMENT/LOCATION



OPEN YEAR 2011 & DESIGN YEAR (2031) ADT

CITY OF ROSWELL
 ROSWELL ROAD BRIDGE
 AT I-285 SAFETY AND
 OPERATIONAL IMPROVEMENTS
 P.I. # 0009160
 2011 ADT = 000
 2031 ADT = 1000
 24 HR T = 4%
 S.L. = 2.5%
 COMB. = 1.5%
7/10/05



PRELIMINARY

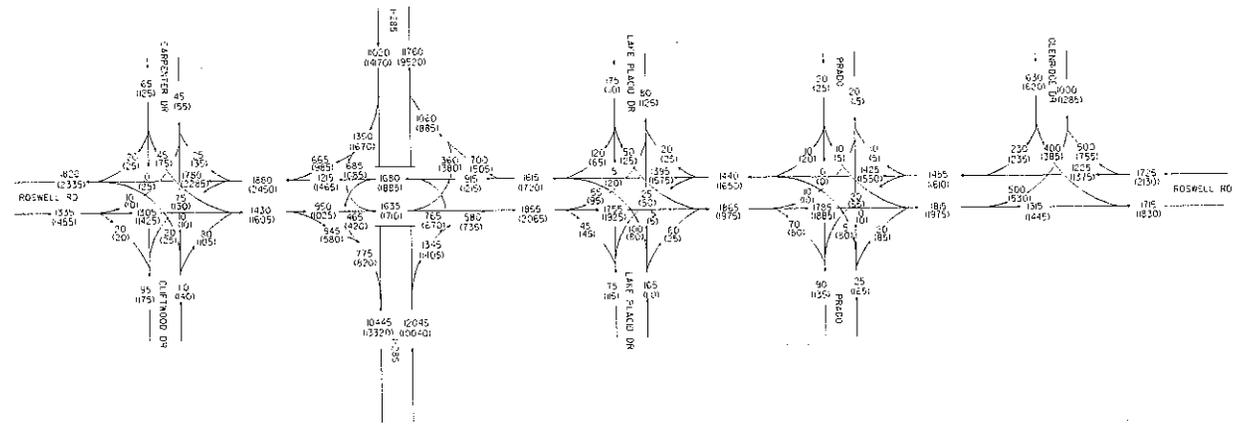
REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: **TRAFFIC DIAGRAM**
 ROSWELL ROAD OVER I-285
BRIDGE WIDENING

DRAWING NO. **10-04**

FIGURE 4 OF 5

GEORGIA DEPARTMENT OF TRANSPORTATION
OFFICE OF ENVIRONMENT/LOCATION



DESIGN YEAR (2031) DESIGN HOURLY VOLUMES

CITY OF ROSWELL
 ROSWELL ROAD BRIDGE
 AT I-285 SAFETY AND
 OPERATIONAL IMPROVEMENTS
 P.I. # 0009160
 2031 AM DHV = 000
 2031 PM DHV = 1000
 HR T = 5.5%
 S.U. = 2.5%
 CEMS. = 3.0% (TRANS) 11/2009



PRELIMINARY

REVISION DATES

STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 OFFICE:
TRAFFIC DIAGRAM
 ROSWELL ROAD OVER I-285
 BRIDGE WIDENING

DRAWING NO.
10-05

Attachment 6:

Capacity Analysis Summary

Attachment 6: Capacity Analysis

Intersection Delay and LOS

A capacity analysis is the primary method for the evaluation of the quality of service on highway and street facilities, and level of service (LOS) is a quality measure describing operational conditions for these facilities. The Highway Capacity Manual 2000 (HCM 2000), published by Transportation Research Board, outlines the procedures for preparing a capacity analysis and defining LOS.

Six LOS are defined in the HCM 2000. Letters ranging from A to F designate each LOS, with LOS A representing the best operating conditions and LOS F representing the worst. For signalized intersections, LOS is directly related to the control delay value. LOS criteria are shown in Table A.1.

Table A.1: Signalized Intersection LOS (2000 HCM)

LOS	Control Delay (veh/sec)
A	Less than 10
B	10 to 20
C	20 to 35
D	35 to 55
E	55 to 80
F	Greater than 80

A capacity analysis was conducted to quantify the serviceability of the study area intersections under existing and future conditions for no-build and build scenarios. Tables A.2 and A.3 present delay and LOS experienced at study area intersections under existing year (2009), open year (2011), and design year (2031) no-build and build conditions during morning and afternoon peak hours, respectively.

Table A.2: Intersection Level of Service (LOS) – A.M. Peak Hour

Location	Existing (2009)		No Build – Open Year (2011)		Build – Open Year (2011)				No Build – Design Year (2031)		Build – Design Year (2031)			
	LOS	Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	Difference in Delay	Delay Reduction (Percent)	LOS	Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	Difference in Delay	Delay Reduction (Percent)
Cliftwood Drive/ Carpenter Drive	C	25	C	24	C	21	3	11	F	93	C	29	65	69
I-285 West Ramps	D	40	D	42	C	27	15	35	D	46	C	31	15	33
I-285 East Ramps	D	55	E	59	C	30	29	49	E	72	D	38	34	48
Lake Placid Drive	B	15	C	28	B	13	15	54	F	94	B	16	79	83
The Prado	A	7	A	7	A	5	1	21	C	32	A	7	25	79
Glenridge Drive	C	20	C	22	C	29	-6	-29	D	35	D	36	-1	-4

Table A.3: Intersection Level of Service (LOS) – P.M. Peak Hour

Location	Existing (2009)		No Build – Open Year (2011)		Build – Open Year (2011)				No Build – Design Year (2031)		Build – Design Year (2031)			
	LOS	Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	Difference in Delay	Delay Reduction (Percent)	LOS	Delay (Sec/Veh)	LOS	Delay (Sec/Veh)	Difference in Delay	Delay Reduction (Percent)
Cliftwood Drive/ Carpenter Drive	E	70	F	85	C	33	53	62	F	112	D	38	74	66
I-285 West Ramps	D	42	D	42	C	32	10	23	E	78	D	42	36	46
I-285 East Ramps	E	67	E	80	C	32	47	59	F	98	E	59	39	40
Lake Placid Drive	F	86	F	104	B	10	93	90	F	103	B	19	84	81
The Prado	C	32	D	49	A	7	42	85	F	127	A	9	118	93
Glenridge Drive	E	56	E	61	C	35	26	43	F	111	F	96	15	14

Existing and No-Build Scenarios

- Tables A.2 and A.3 show that traffic conditions are the worst during the afternoon peak hour for all analysis years.
- The capacity deficiency on the bridge and onramps results in heavy congestion at both interchange intersections. This, in turn, results in long queues on the offramps and along Roswell Road on both sides of the interchange. Eastbound offramp queues spill onto the interstate, causing operation and safety concerns at ramp diverge points. Backup along Roswell Road blocks side street traffic from entering Roswell Road, thereby deteriorating the LOS of the upstream intersections. In existing conditions, both the Lake Placid Drive and Cliftwood Drive intersections operate at or above capacity during the afternoon peak hour, with an LOS of F and E, respectively.
- The lack of onramp capacity creates congestion at both ramp termini and immediate upstream intersections. This is indicated by LOS E and F at the westbound and eastbound ramps under design year (2031) conditions, respectively. The congestion spills back into the next upstream intersection, with Cliftwood Drive/Carpenter Drive and Lake Placid Drive experiencing the highest delays on the corridor (delays of 112 seconds/vehicle and 103 seconds/vehicle, respectively). Average delay and LOS are worse at Lake Placid Drive and Cliftwood Drive/Carpenter Drive because queues backing up from the ramp intersections extend beyond upstream intersections and provide very limited space to receive any turning vehicles.
- With an increase in traffic in future conditions, all study area intersections will experience significant delays and queuing. By 2031, all intersections will operate at LOS F with delays ranging between 78 seconds/vehicle and 128 seconds/vehicle in the afternoon peak hour.

Build Scenarios

- In the build conditions, capacity deficiencies on the bridge and onramps are alleviated by providing two full-length turn lanes on the Roswell Road Bridge over I-285 for more storage space for left-turning vehicles and by providing an additional lane on eastbound and westbound onramps to further disperse waiting cars when ramp metering is in effect. The newly created storage space on the onramps and the addition of a second lane for ramp metering prevent ramp meter queues from spilling onto Roswell Road. The addition of a lane on the bridge and the creation of two full-length turn lanes provide more storage space for left-turning vehicles and prevent queues from obstructing the flow of through vehicles.
- During the morning peak hour in the open year (2011), improvements will range from an 11 percent reduction in delay at Cliftwood Drive/Carpenter Drive to a 54 percent reduction in delay at Lake Placid Drive. Glenridge Drive will experience a 29 percent

increase in delay caused mainly by the increase in throughput on the corridor.

- For the design year (2031) morning peak hour, the improvements are more significant. The biggest improvement (83 percent) is observed at Lake Placid Drive, and the smallest (33 percent) is observed at the I-285 West ramps. Again, Glenridge Drive experienced an increase in delay of 4 percent.
- With significant congestion already being experienced along the study corridor during afternoon peak hours, the corridor will likely not experience any worse conditions for both open year and design year scenarios under no-build conditions. All intersections will operate at an unacceptable LOS by 2031, and four intersections will experience delays greater than 100 seconds/vehicle. With the construction of the project, open year conditions will be improved with a 23 percent reduction in delay at the I-285 West ramps and a 90 percent reduction in delay at Lake Placid Drive. All intersections will perform at an acceptable LOS. By 2031, reductions in delay will increase from a low of 40 percent at the I-285 East ramps to a high of 93 percent at The Prado under build conditions. The only intersections that will operate at a less-than-acceptable LOS are the I-285 East ramps (LOS E) and Glenridge Drive (LOS F with a delay of 96 seconds/vehicle).

Queue Lengths

Approach queue lengths for both the eastbound and westbound offramps are summarized in Table A.4.

Table A.4: Approach Queue Lengths – No-Build and Build Scenarios

Location	Approach Queue Length (feet)									
	Existing		Open Year – 2011				Design Year – 2031			
			No-Build		Build		No-Build		Build	
	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.	A.M.	P.M.
I-285 East Offramp	360	1,250	420	**	300	400	640	**	260	**
I-285 West Offramp	340	280	500	300	240	460	480	1,040	380	700

** Offramp queues spill back onto I-285

The results of the build conditions operational analysis show a significant improvement over no-build conditions for both the morning and afternoon peak periods, except in the design year (2031), where offramp queues spill onto I-285 during afternoon peak hours.

Travel Time

Travel time provides a good overall indication of conditions across the entire corridor. With the increase in congestion, travel times increase and speeds decrease. With a small corridor (less than 1 mile), a small increase in travel time can mean a significant decrease in travel speed. Figures A.1 and A.2 show travel times along the corridor for several origin-destination pairs.

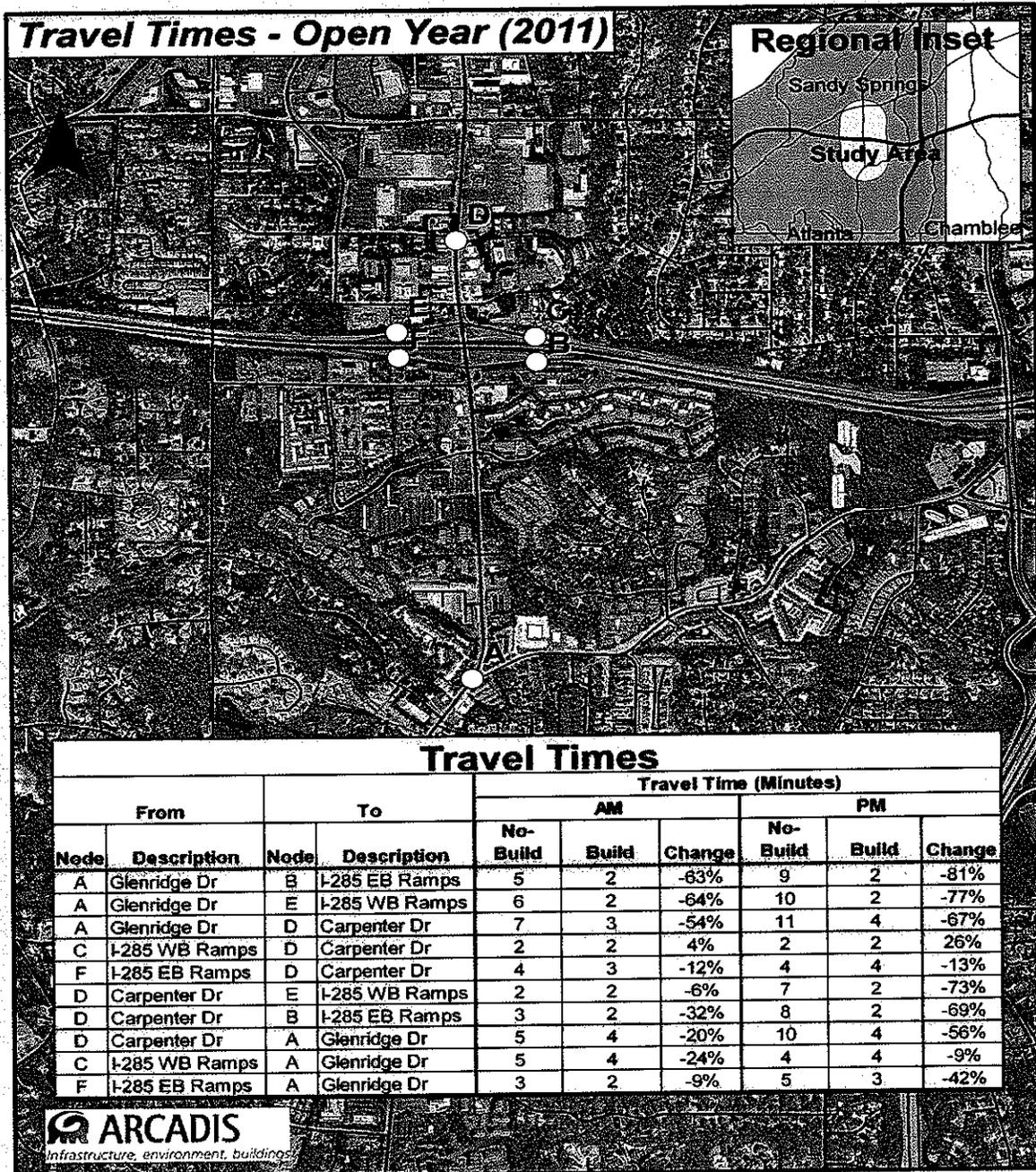


Figure A.1: Open Year (2011) Travel Times

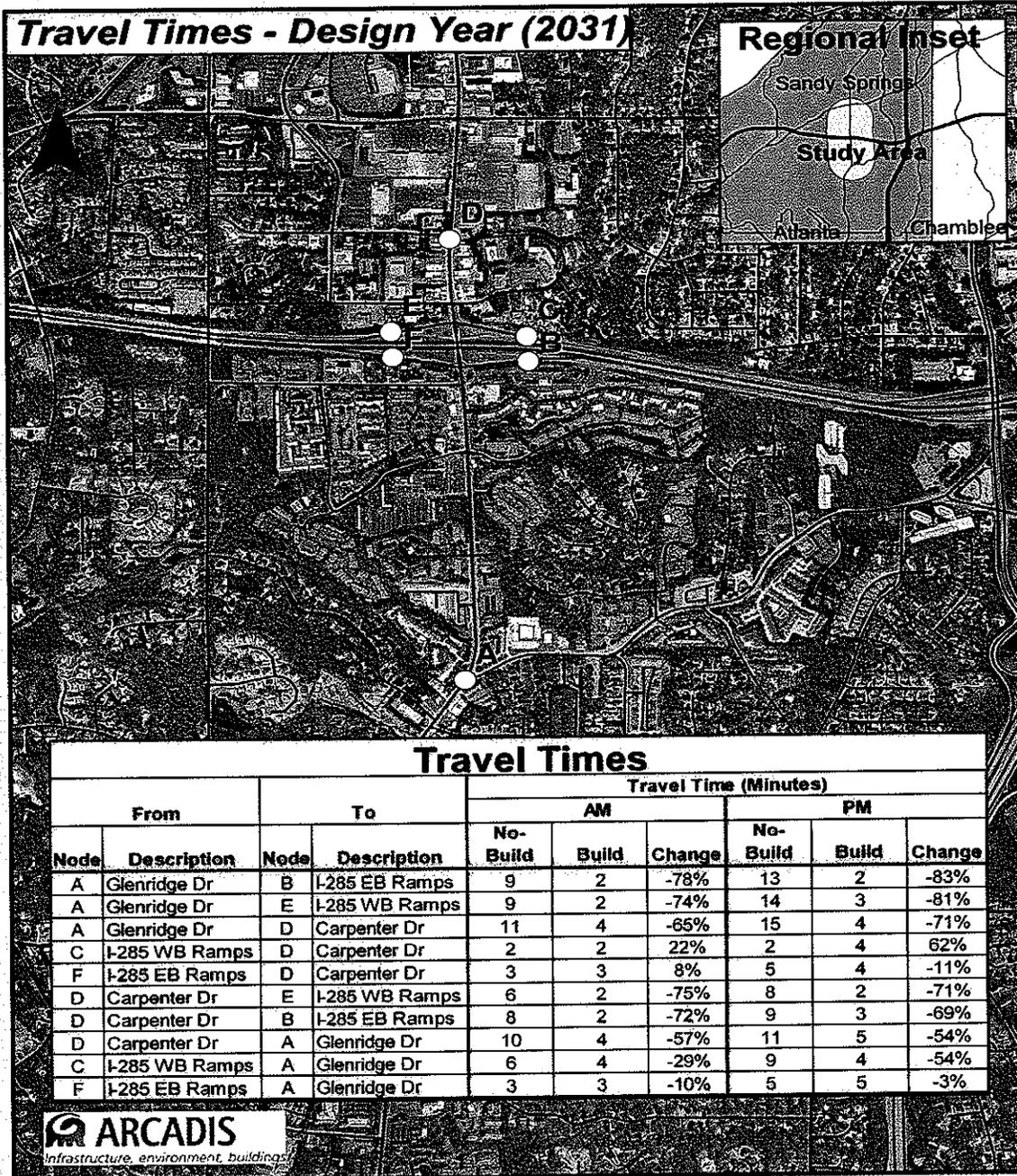


Figure A.2: Design Year (2031) Travel Times

For the open year (2011) analysis period, travel times are expected to increase without the implementation of the improvements proposed in this report. The most significant improvement in morning travel time will be observed by vehicles traveling the segment of Roswell Road between the I-285 ramps. Travel times will be reduced between 6 percent and 63 percent for those vehicles accessing Roswell Road from I-285 or accessing I-285 from Roswell Road. Users traveling northbound through the entire corridor will experience a 54 percent reduction in travel time, while southbound vehicles will experience a 20 percent reduction. The travel time reduction is directly related to increased capacity on the bridge and increased storage space provided by two-lane onramps. Specifically, the two-lane ramp to I-285 East allows for sufficient storage to prevent queuing along Roswell Road.

During the more congested afternoon peak period, travel time improvements are more significant. Motorists using Roswell Road in conjunction with I-285 will experience travel time improvements ranging between 9 percent and 81 percent. Vehicles traveling through the entire corridor northbound will have a 67 percent decrease in travel time, and southbound vehicles will have a 56 percent decrease. Roswell Road congestion will be improved by ensuring that vehicles accessing I-285 have sufficient storage space. Additionally, the addition of full-length turn lanes will create more capacity on the bridge.

Similar to the results seen in the intersection delay and LOS, no-build conditions do not change significantly between open and design years. This is directly caused by significant pre-existing congestion and capacity deficiencies in the corridor. Travel times for build conditions are also similar between open and design years. This is caused by vehicles operating in nearly free-flow conditions in both scenarios. The slight increase in no-build travel times does result in an approximate 10 percent increase in percentage of improvement seen between open and design years.

Benefit/Cost (B/C) Analysis

A B/C analysis was performed to determine the total benefit of the project compared to the total cost incurred by the project. The B/C ratio was estimated based on GDOT's latest B/C methodology, which was developed as part of the project prioritization program. The B/C ratio was estimated for a 20-year design life period.

Figure A.3 shows the equations used for estimating automobile delay savings, truck delay savings, and fuel cost savings.

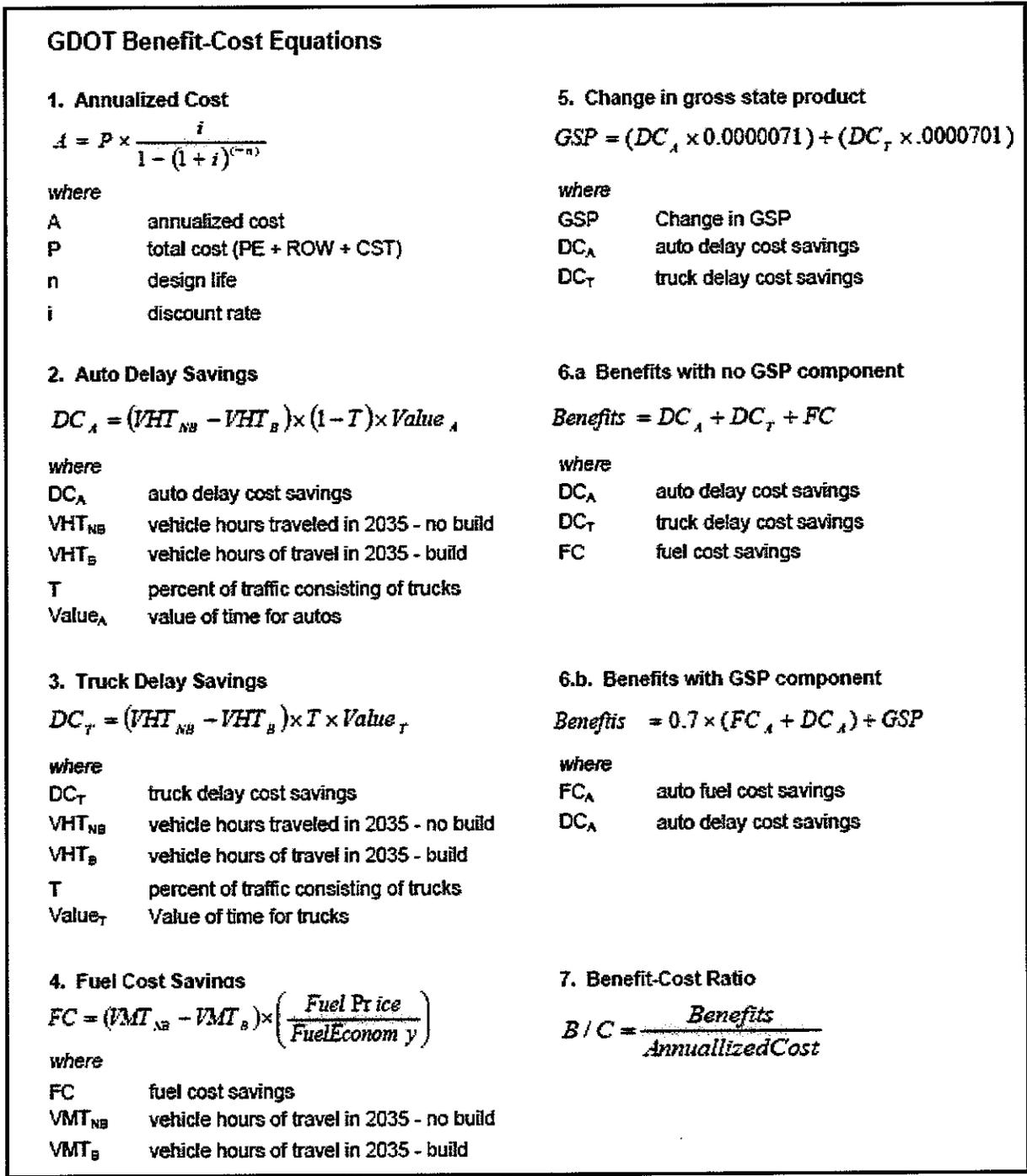


Figure A.3: GDOT B/C Equations

Table A.5 shows various parameters and their values used in the equations for benefit calculations.

Table A.5: B/C Parameters and Values

Parameters	Value
Discount rate (percent)	7.0
Fuel price (\$/gallon)	2.40
Fuel economy (mpg)	18.03
Value of auto travel (\$/hr)	13.75
Value of truck travel (\$/hr)	72.65
Percent trucks	6
No. of working days in a year	250

Hourly vehicle miles traveled (VMT) and vehicle hours traveled (VHT) were converted to annualized values using following conversion factors:

- Six hours (three hours in the morning peak and three hours in the afternoon peak) of peak traffic per day
- 250 working days in a year

Annualized VMTs and VHTs for no-build and build conditions were used in the B/C equations to estimate the anticipated annual benefits in the open year and design year. These benefits were then converted into open year dollars (2011 dollars) to ensure that both benefits and costs are in same year dollar. Table A.6 presents annual benefits both in future year dollars and 2011 dollars. The worksheets used to calculate the benefits are included at the end of this appendix.

Table A.6: Project Benefit Calculations

Analysis Year	Annual Vehicle Miles Traveled (VMT)		Annual Vehicle Hours Traveled (VHT)		Benefits In	
	No-Build	Build	No-Build	Build	Future Year Dollar	Open Year (2012) Dollar
Open Year (2012)	7,679,685	8,219,112	745,748	455,253	\$4,949,103	\$4,949,103
Design Year (2032)	8,150,396	9,512,201	1,094,108	677,933	\$7,011,897	\$1,812,007

The annualized benefits (in 2011 dollars) estimated for the open year and design year were interpolated to estimate interim year benefits. Figure A.4 shows the project benefit for a design life of 20 years.

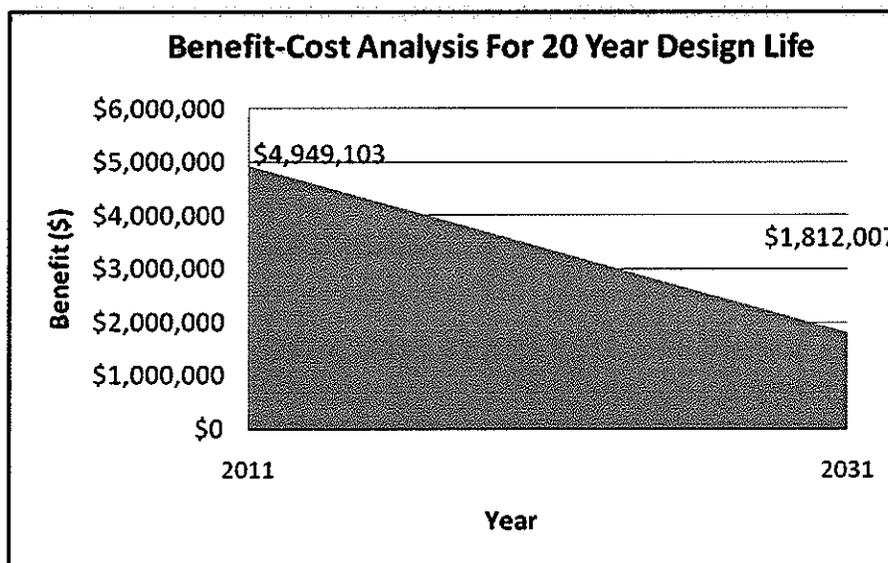


Figure A.4: Benefits for Project Design Life of 20 Years

Figure A.4 shows a 20-year design life benefit of approximately \$67 million. Table A.7 summarizes the four cost components and their values. The total cost of the project is estimated to be approximately \$5.0 million.

Table A.7: Cost Estimates for the Project

Cost Component	Cost Estimate (\$)
PE Cost	\$380,000
Right-of-Way Cost	No right-of-way impact
Utility Cost	No utility cost
CST Cost	\$4,641,000
Total Cost	\$5,021,000

Therefore, the proposed project would provide a B/C ratio of 13 for a 20-year design life. This analysis thereby confirms that the travel time benefits as a result of the proposed improvements along Roswell Road significantly outweigh the construction cost.

Conclusions

Existing capacity deficiencies and expected future growth along Roswell Road will have a significant impact on intersection delays and LOS for no-build conditions during both morning and afternoon peak hours. The additional traffic increase in the open year (2011) and design year (2031) at these intersections aggravates capacity deficiencies along the study corridor. As a result, it takes longer for vehicles to get through the intersection and the corridor. The proposed improvements along the corridor will significantly improve intersection delays and LOS for the open year and design year during the peak hours. In addition to operational improvements, safety improvements will result from the addition of a median, reduced onramp queuing, and reduced congestion along Roswell Road. The project will provide an approximate benefit of \$67 million with a cost just at \$5 million.

Attachment 7:

Summary of Signal Warrant Studies

(Not Applicable)

Attachment 8:

Bridge Inventory

BRIDGE INVENTORY DATA LISTING GEORGIA DEPARTMENT OF TRANSPORTATION

ATTACHMENT 8-1

Structure ID: 121-0031-0
 Location & Geography

Fulton Area 7 County

SUFF. RATING: 62.0

* Structure I.D. No.: 121-0031-0
 200 Bridge Information: 07

* 6A Feature Int.: I-285
 * 6B Critical Bridge: 0
 * 7A Route Number Carried: SR00009
 * 7B Facility Carried: ROSWELL ROAD
 * 9 Location: JCT. SR 9 & I-285
 * 2 DOT District: 7
 207 Year Photo: 1999

* 91 Inspection Frequency: 24 Date: 09/01/1999
 92A Fract Crit Insp Freq: 0 00 Date: 0000
 92B Underwater Insp Freq: 0 00 Date: 0000
 92C Other Spc. Insp Freq: 0 00 Date: 0000

* 4 Place Code: 68516

* 5 Inventory Route (O/U): 1
 Type: 2
 Designator: 1
 Number: 00019
 Direction: 0

* 16 Latitude: 33-54.7
 * 17 Longitude: 84-22.8

98 Border Bridge: 000 %Shared: 00
 99 ID Number: 00000000000000

* 100 Defense Highway: 2
 * 101 Parallel Structure: N
 * 102 Direction of Traffic: 2
 264 Road Inventory Mile Post: 010.44

* 208 Inspection Area: 07 Initials: DAS

* Location I.D. No: 121-00009D-010.44N
 * XReferen I.D. No: 000-000000-000.000

* 104 Highway System: 0
 * 26 Functional Classification: 16
 * 204 Federal Route Type: F No: 187-1
 * 110 Truck Route: 0
 206 School Bus Route: 1
 217 Benchmark Elevation: 0.00
 218 Datum: 0
 * 19 Bypass Length: 4
 * 20 Toll: 3
 * 21 Maintenance: 01
 * 22 Owner: 01
 * 31 Design Load: 6
 37 Historical Significance: 5
 205 Congressional District: 05
 * 27 Year Constructed: 1961
 106 Year Reconstructed: 0000
 33 Bridge Median: 0
 34 Skew: 10
 35 Structure Flared: 0
 38 Navigation Control: N
 213 Special Steel Design: 0
 267 Type of Paint: 5

* 42 Type Service On: 5
 Under: 1
 214 Movable Bridge: 00
 203 Type Bridge: Z-O-M-O
 259 Pile Encasement: 3
 * 43 Structure Type Main: 4 02
 45 No. Spans Main: 004
 44 Structure Type Appr: 0 0
 46 No. Spans Appr: 0000
 226 Bridge Curve Horz: 0 Vert: 0
 111 Pier Protection: 0
 107 Deck Structure Type: 1

108 Wearing Surface Type: 1
 Membrane: 0
 Protection: 8

Signs & Attachments

223 Expansion Joint Type: 04
 242 Deck Drains: 0

243 Parapet Location: 3
 Height: 1.3
 Width: 1

238 Curb: 0.9 1
 239 Handrail: 7 7
 * 240 Median Barrier Rail: 0

241 Bridge Median Height: 0
 Width: 0

* 230 Guardrail Loc Dir Rear: 2
 Fwd: 1
 Oppo Dir Rear: 0
 Fwd: 0

244 Approach Slab: 3
 224 Retaining Wall: 0

233 Posted Speed Limit: 35
 236 Warning Sign: 0
 234 Delineator: 0
 235 Hazard Boards: 0

237 Utilities Gas: 22
 Water: 21
 Electric: 00
 Telephone: 21
 Sewer: 00

247 Lighting Street: 1
 Navigation: 0
 Aerial: 0

* 248 County Continuity No: 01

BRIDGE INVENTORY DATA LISTING GEORGIA DEPARTMENT OF TRANSPORTATION

Structure ID: 121-0031-0

Fulton Area 7 County

SUFF. RATING: 62.0

Programming Data

201 Project No: I-285-1 (17) 94 CT.2
 202 Plans Available: 1
 249 Prop. Proj No:
 250 Approval Status: 0000
 251 P.I. No: 000000
 252 Contract Date: 0000
 260 Seismic No: 00000
 75 Type Work: 00 0
 94 Bridge Imp. Cost: \$ 0
 95 Roadway Imp. Cost: \$ 0
 96 Total Imp. Cost: \$ 0
 76 Imp. Length: 000000
 97 Imp. Year: 0000
 114 Future ADT: 077010 Year: 2018

Hydraulic Data

215 Waterway Data
 Highwater Elev: 0000.0 Year: 0000
 Flood Elev: 0000.0 Freq: 00
 Avg. Streambed Elev: 0000.0
 Drainage Area: 00000
 Area of Opening: 000000
 113 Scour Critical: N
 216 Water Depth: 00.0 Br Height: 00.0
 222 Slope Protection: 4
 221 Spur Dikes Rear: 0 Fwd: 0
 219 Fender System: 0
 220 Dolphin: 0
 223 Culvert Cover: 000
 Type: 0
 No Barrels: 0
 Width: 0.0
 Height: 0.0
 Length: 0
 Apron: 0
 * 265 U/W Insp. Area: 0 Diver: ZZZ

* Location I.D. No: 121-00009D-010.44N
 * XReferen I.D. No: 000-000000-000.000

Measurements

* 29 ADT: 051340 Year: 1998
 109 % Trucks: 6
 * 28 Lanes On: 05 Under: 10
 210 No. Tracks On: 00 Under: 00
 * 48 Max. Span Length: 0071
 * 49 Structure Length: 242
 51 Br. Rdwy. Width: 52.0
 52 Deck Width: 64.4
 * 47 Tot. Horz. Cl: 52.0
 50 Curb/Sdewlk Width: 5.0/5.0
 32 Approach Rdwy Width: 052
 * 229 Slddr Width:
 Rear Lt: 10.0 Type: 5 Rt: 10.0
 Fwd Lt: 2.0 Type: 1 Rt: 2.0
 Pwment Width:
 Rear: 52.0 Type: 2
 Fwd: 52.0 Type: 2
 Intersection Rear: 1 Fwd: 1
 36 Safety Features Br. Rail: 2
 Transition: 2
 App. G. Rail: 2
 App. Rail End: 2
 53 Minimum Cl. Over: 99' 99"
 Under: H 16' 07"
 * 228 Min. Vert. Cl
 Act. Odm. Dir: 99' 99"
 Oppo. Dir: 99' 99"
 Posted Odm. Dir: 00' 00"
 Oppo. Dir: 00' 00"
 55 Lateral Underol. Rt: H 2.0
 56 Lateral Underol. Lt: 5.0
 * 10 Max Min Vert Cl: 99' 99" Dir: 0
 39 Nav Vert Cl: 000 Horz: 0000
 116 Nav Vert Cl Closed: 000
 245 Deck Thickness Main: 7.5
 Deck Thick Approach: 0.0
 246 Overlay Thickness: 0.0
 211 Tons Structural Steel: 0.0
 212. Year Last Painted: Sup: 1996 Sub: 0000

Ratings

66 Inventory Type: 2 Rating: 36
 64 Operating Type: 2 Rating: 51
 231 Calculated Loads
 H-Modified: 20 0
 HS-Modified: 25 0
 Type 3: 28 0
 Type 3s2: 40 0
 Timber: 36 0
 Piggyback: 00 0
 261 H Inventory Rating: 20
 262 H Operating Rating: 28
 67 Structural Evaluation: 6
 58 Deck Condition: 6
 59 Superstructure Condition: 6
 * 227 Collision Damage: 0
 60A Substructure Condition: 7
 60B Scour Condition: N
 60C Underwater Condition: N
 71 Waterway Adequacy: N
 61 Channel Protection Cond: N
 68 Deck Geometry: 2
 69 UnderClr. Horz/Vert: 3
 72 Appr. Alignment: 8
 62 Culvert: N

Posting Data

70 Bridge Posting Required: 5
 41 Struct Open, Posted, Cl: A
 * 103 Temporary Structure: 0
 232 Posted Loads H-Modified: 00
 HS-Modified: 00
 Type 3: 00
 Type 3s2: 00
 Timber: 00
 Piggyback: 00
 253 Notification Date: 0000
 253 Fed Notify Date: 0000 0

Attachment 9:

Minutes of Initial Concept Team Meeting
and Concept Team Meeting



ARCADIS U.S., Inc.
2849 Paces Ferry Road
Suite 400
Atlanta
Georgia 30339
Tel 770.431.8666
Fax 770.435.2666

MEMO

To:
Marlo Clowers
Department of Transportation
State of Georgia
One Georgia Center
600 West Peachtree Street, NW
Atlanta, GA 30308

Copies:
Attendees

From:
Keith Kunst, PE

Date:
December 21, 2009

ARCADIS Project No.:

Subject:
Initial Concept Team Meeting
Widening of the Roswell Road Bridge over I-285

Attendees:

Marlo Clowers - GDOT Office of Innovative Program Delivery
Darryl VanMeter - GDOT Office of Innovative Program Delivery
Paul Liles – GDOT State Bridge Design Engineer
Keith Golden – GDOT office of Traffic and Safety
Tom Black – City of Sandy Springs
Garrin Coleman, City of Sandy Springs
John Drysdale – City of Sandy Springs
Greg Ramsey – City of Sandy Springs
Frank Danchetz – ARCADIS
Keith Kunst - ARCADIS

On October 16, 2009 an Initial Concept Team Meeting was held for the subject project at the Georgia Department of Transportation. The City of Sandy Springs is looking to sponsor a project for the widening of the Roswell Road Bridge over I-285. The purpose of the meeting was to discuss the existing conditions and potential solutions at this location as well as different project delivery scenarios, design related issues and construction related issues.

ARCADIS

Darryl VanMeter called the meeting to order and introductions were made. Keith Kunst, the project manager for ARCADIS gave a description of the existing traffic conditions and the deficiencies at the Roswell Road Bridge over I-285:

- There are extensive traffic delays at this interchange due to the lack of storage space for left-turning vehicles going from Roswell Road to I-285 in both directions.
- The existing bridge contains 5-10' lanes with the center lane being shared as a left-turn lane for both directions.
- The subsequent storage length for this turn-lane is only 125 feet per direction which causes turning traffic to queue and block one through-lane in each direction, creating congestion and delay.
- Mr. Black produced accident data at the Roswell Road Bridge and stated there is approximately one accident per day at this bridge.
- The proposed project would widen the bridge by one lane to allow for independent turn lanes in each direction, subsequently increasing the turn lane storage to over 360 feet.
- The project would also seek to add more queuing storage above the on-ramp meters at this interchange by widening the ramps from one-lane to two-lanes.

It was discussed that the City of Sandy Springs is sponsoring the project and intends to use approximately \$2 Million in earmarks for the design and a portion of the construction cost. The current project cost is estimated at \$3.5 Million, with the City intending to cover the balance of funding with local funds. The City is requesting GDOT's assistance in getting this project built as quickly as possible. Mr. Black stated that the City would like this project let in March of 2010. GDOT responded that a March letting would be extremely aggressive and is not likely attainable. This project was discussed as an interim project that would address near term operational issues and safety and would be replaced by the Revive I-285 improvements.

There was a discussion about what form of project delivery would be best for this project. The City inquired if a design-build project would be the quickest delivery method for this project. Mr. VanMeter stated that design-build may not be the best approach for this specific project relative to cost and schedule. He also cautioned that there may be a risk of low contractor interest due to the low construction value of the project and stated that the project could not be awarded unless they received multiple bidders. He suggested that the City have ARCADIS develop schedules for both a conventional method as well as design-build to compare.

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Specific elements of the bridge construction were discussed:

- The bridge is proposed to be widened to the east. Method 2 barrier would be used during construction to protect the workzone. The design would attempt to maintain 5 lanes across the bridge; however that may need to be cut back to 4 lanes.
- Existing bridge clearance was discussed. Mr. Liles suggested using shorter beams than existing to keep the cross slope of the widening from reducing the bridge clearance.

There was discussion if an Interchange Modification Report (IMR) would be needed. ARCADIS stated that they did not believe that an IMR would be needed since the configuration of the interchange was not changing and since exiting and entering lanes are not changing. The two lanes above the ramp meter would taper into one lane prior to entering the Interstate. Mr. Van Meter suggested preparing a white paper explaining the project features and why we believe an IMR would not be required. This white paper would be submitted to FHWA for their review and concurrence. ARCADIS agreed to prepare this paper.

The group discussed the project schedule. The City asked if the process could be streamlined to move this project along quicker. GDOT stated that since federal monies were used, the project would need to follow the federal NEPA process. There was discussion if a Programmatic Categorical Exclusion (PCE) would be appropriate considering that there is no right of way need. It was determined that ARCADIS would work with GDOT's environmental staff and FHWA to determine if the project would fall under a PCE. On other issues relative to the PDP process, GDOT said they might be open to streamlining some processes while still meeting federal requirements but did not commit to anything.

There was general discussion at the conclusion of the meeting. Overall, GDOT thought that this could be a good project but Mr. VanMeter stressed a few points:

- The GDOT is open to the project and would perform the letting and construction administration of the project, but the state will not be contributing financially to the project. The City will use their combination of the federal earmarks and local funds to complete the project.
- Since this project is using federal funds, the project would have to see a benefit and life span of at least 10 years. This means that the larger Roswell Road bridge replacement project along with the Roswell Road widening would fall behind other interchange replacement priorities on the I-285 corridor.

Mr. Black of the City of Sandy Springs thanked the GDOT staff for meeting with them to discuss this project and looked forward to working with them to see it through completion. After closing statements, the meeting was adjourned.



ARCADIS U.S., Inc.
2849 Paces Ferry Road
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Atlanta
Georgia 30339
Tel 770.431.8666
Fax 770.435.2666

MEMO

To:
Marlo Clowers
Department of Transportation
State of Georgia
One Georgia Center
600 West Peachtree Street, NW
Atlanta, GA 30308

Copies:
Attached Attendee List

From:
Keith Kunst, PE

Date:
February 5, 2010

ARCADIS Project No.:
GA063913

Subject:
PI Nos. 0009159 0009160
Concept Team Meeting
Widening of the Roswell Road Bridge over I-285

On January 29, 2010 a Concept Team Meeting was held for the subject project at the Georgia Department of Transportation. Those in attendance are listed on the attached sign-in sheet.

Mario Clowers called the meeting to order and introductions were made. Keith Kunst, the project manager for ARCADIS gave a description of the existing typical section, project location, project limits, accident history, recent signal upgrades completed by the City of Sandy Springs, and finished with a description of the proposed typical section.

In brevity, the project proposes to widen Roswell Road by one lane to provide dedicated left turn lanes both northbound and southbound to the I-285 on-ramps. Additionally, the existing bridge parapets on both sides of the bridge would be upgraded to meet current impact standards. I-285 on-ramps would be widened to two lanes before the ramp meter locations to allow for more queue storage. The existing ramp meters would also be upgraded to two signals, however the ramp meter would still only allow one car onto the interstate at a time. A median is proposed on Roswell Road along the north and south approaches to the bridge – this would preclude left turn movements from Roswell Road onto Allen Road and Kingsport Drive and improve safety.

The group went through the concept report and the following statements and comments were given:

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- What would stop a U-turn at the Allen Road/Carpenter Road intersection with Roswell Road at the end of the proposed median?

We will be adding signage at this location to prohibit U-turns. Violations would be subject to local enforcement.

- There was discussion about the more substantial future bridge and road widening project and a question about how the side for widening was selected. The widening is being performed to the east because it is the easiest to construct and ties into the existing roadway north and south better than widening to the west. There was some speculation that more questions about the selection may be asked by FHWA.
- At the ramp meters, how fast is the taper rate from two lanes to one lane toward the interstate?

The taper rate will be designed for a 45 mph speed design

- Has consideration been given to closing Northwood?

This project has improved safety and limited some access on this project through the use of the raised median. Completely closing the intersection at this location would be met with more public opposition and would require right of way in order to build a cul-de-sac. All of this would impact the schedule and increase the cost of the project. The closing of Northwood Drive is in the future Roswell Road project and would be better addressed at that time.

- There was discussion about the required staging of the Interstate in order to build the proposed bridge columns. It was agreed that this would be a challenge that would need to be addressed in the preliminary plan stage. Ideas discussed were the potential of having a short duration 1-2 week lane single lane closure or possibly shifting traffic with 10' lanes. The design team will follow up with GDOT design and construction staff as well as FHWA during design development.
- Fulton County Public Works may be able to send digital files for their utilities.

Concept Report corrections to be made:

- Separate the Design Exceptions / Variances out by federal vs. state approval.
- Attach design exception / variance approval requests to the concept report along with all other meeting minutes.
- Get the project's Need and Purpose to Office of Planning for review.
- Revise the front sheet of the concept report to new format.
- Correct State and Federal Route designations through the report.

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- Check the typical section against the project description for accuracy.
- In the header of the report, make sure that both Project and PI Nos. are listed.
- Consider adding some description of the ramp meter on page 6.
- Page 9, add the mile post to the description.
- Page 9, add a statement on air quality
- Page 9, add ADTs for both 285 and SR 9
- Page 9, describe the design features for I-285 as well as Roswell Road and assume the future I-285 is a 5-lane section and not what it might be under Revive 285. Add super elevation data for I-285
- Page 10, clarify bridge length (show length and width).
- Page 10, expand on traffic control.
- Page 10, clarify design speed. Request by the City for Roswell Road to be a major arterial would require 45mph design speed.
- Page 11, the contractor would be responsible for detours.
- Page 11, list out the name of involved utility companies
- Page 11, Sandy Springs is responsible for the environmental document.
- Page 11, add January 26, 2010 as the date of the PIOH expand on the public meeting comments.
- Page 11, Add Revive 285 as a project in the area. Add the I-285 resurfacing project.
- Page 14, remove exempt signatures.

Attachment 10:

Minutes of any meetings that shows support or objection to the concept

(PIOH Synopsis)

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE: P. I. Nos. 0009159 and 0009160 OFFICE: Environmental/Location
DATE: January 27, 2010

FROM Glenn Bowman, P.E., State Environmental Administrator

TO Distribution Below

SUBJECT PUBLIC INFORMATION OPEN HOUSE SYNOPSIS

PROJECT Nos. & COUNTY: CSMSL-0009-00(159) CSMSL-0009-00(160), Fulton

PROJECT DESCRIPTION: The proposed widening of the Roswell Road Bridge over Interstate 285

DATE: 1/26/2010

NUMBER IN ATTENDANCE: 30

FOR: 29

CONDITIONAL: 1

UNCOMMITTED: 0

AGAINST: 0

OFFICIALS IN ATTENDANCE: 4

ADDITIONAL COMMENTS: Almost all of the comments were in favor of the project with the addition of the median. The majority of the commentors stated that they felt this was a good solution and would relieve congestion on the bridge. Many commented to please not wait on the Revive 285 project. One commentor suggested that a median break or pass through be considered for pedestrians near the Prado. One commentor was opposed to the median stating that it hurts the local business owners.

PREPARED BY: Bonnie Peacock of ARCADIS (770-431-8666) for Alexis John of GDOT OES

TELEPHONE No.: (404) 631-1467

cc: Gerald M. Ross, P.E.
Ben Buchan, P.E.
Todd McDuffie

Neil Kantner, P.E.

Attachment 11:

PFAs and/or SAAs

MEMO

March 31, 2010

Marlo Clowers, P.E.

Innovative Program Delivery

P.I. #'s 0009159 & 0009160

The Project Framework Agreement (PFA) between Georgia DOT and the City of Sandy Springs for the above listed projects is currently being revised to add a Construction phase to the projects. The attached document shows only a Preliminary Engineering phase, however it is the current PFA until the revision is complete.

Vance C. Smith, Jr. Commissioner



DEPARTMENT OF TRANSPORTATION

One Georgia Center, 600 West Peachtree Street, NW
Atlanta, Georgia 30308
Telephone: (404) 631-1000

CC: Jon D
Lynn T.

July 28, 2009

RECEIVED

JUL 31 2009

OFFICE OF
THE CITY CLERK

The Honorable Eva Galambos, Mayor
City of Sandy Springs
7840 Roswell Road, Bldg. 500
Sandy Springs, Georgia 30350

Dear Mayor Galambos:

I am returning for your files an executed agreement between the Georgia Department of Transportation and City of Sandy Springs for the following projects:

PROJECT#: CSMSL-0009-00(160) Fulton County, P.I. #0009159
PROJECT#: CSMSL-0009-00(160) Fulton County, P.I. #0009160

CA 2008-121

We look forward to working with you on the successful completion of the joint project. Should you have any questions, please contact the Project Manager Marlo Clowers at (404)631-1713.

Sincerely,

Angela O. Whitworth

Angela O. Whitworth
Financial Management Administrator

AOW: rm

Enclosure

c: Bob Rogers
Rachel Brown - District 7
Jeff Baker - Utilities

**AGREEMENT
BETWEEN
DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
AND
SANDY SPRINGS
FOR
TRANSPORTATION FACILITY IMPROVEMENTS**

This Framework Agreement is made and entered into this 28th day of July, 2009 by and between the DEPARTMENT OF TRANSPORTATION, an agency of the State of Georgia, hereinafter called the "DEPARTMENT", and the City of Sandy Springs, acting by and through its Mayor and City Council, hereinafter called the "LOCAL GOVERNMENT".

WHEREAS, the LOCAL GOVERNMENT has represented to the DEPARTMENT a desire to improve the transportation facility described in Attachment A, attached and incorporated herein by reference and hereinafter referred to as the "PROJECT"; and

WHEREAS, the LOCAL GOVERNMENT has represented to the DEPARTMENT a desire to participate in certain activities including the funding of certain portions of the PROJECT and the DEPARTMENT has relied upon such representations; and

WHEREAS, the DEPARTMENT has expressed a willingness to participate in certain activities of the PROJECT as set forth in this Agreement; and

WHEREAS, the Constitution authorizes intergovernmental agreements whereby state and local entities may contract with one another "for joint services, for the provision of services, or for the joint or separate use of facilities or equipment; but such contracts must deal with activities, services or facilities which the parties are authorized by law to undertake or provide." Ga. Constitution Article IX, §III, ¶I(a).

NOW THEREFORE, in consideration of the mutual promises made and of the benefits to flow from one to the other, the DEPARTMENT and the LOCAL GOVERNMENT hereby agree each with the other as follows:

1. The LOCAL GOVERNMENT shall contribute to the PROJECT by funding all or certain portions of the PROJECT costs for the preconstruction engineering (design), all reimburseable utility relocation costs, right of way acquisitions and construction, as specified in Attachment A, attached hereto and incorporated herein by reference. Expenditures incurred by the LOCAL GOVERNMENT and eligible for reimbursement by the DEPARTMENT shall not be considered reimbursible to the LOCAL GOVERNMENT until the LOCAL GOVERNMENT receives a written notice to proceed for each phase of the PROJECT.

2. The DEPARTMENT shall contribute to the PROJECT by funding all or certain portions of the PROJECT costs for the preconstruction engineering (design) activities, right of way acquisitions or construction as specified in Attachment A.

3. It is understood and agreed by the DEPARTMENT and the LOCAL GOVERNMENT that the funding portion as identified in Attachment "A" of this Agreement only applies to the Preconstruction Engineering Activities. The Right of Way and Construction funding estimate levels as specified in Attachment A are provided herein for planning purposes and does not constitute a funding commitment for right of way and construction activities. The DEPARTMENT will prepare LOCAL GOVERNMENT Specific Activity Agreements for applicable Right of Way and Construction when appropriate.

Further, the LOCAL GOVERNMENT shall be responsible for repayment of any expended federal funds, if the PROJECT does not proceed forward to completion due to a lack of available funding in future Project phases.

4. The LOCAL GOVERNMENT shall be responsible for all costs for the continual maintenance of the project and the continual operations of any and all sidewalks and the grass strip between the curb and gutter and the sidewalk within the PROJECT limits.

5. Both the LOCAL GOVERNMENT and the DEPARTMENT hereby acknowledge that Time is of the Essence. It is agreed that both parties shall adhere to the schedule of activities currently established in the approved Transportation

Improvement Program/State Transportation Improvement Program (TIP/STIP). Furthermore, all parties shall adhere to the detailed project schedule as approved by the DEPARTMENT, attached as Attachment B and incorporated herein by reference. In the completion of respective commitments contained herein, if a change in the schedule is needed, the LOCAL GOVERNMENT shall notify the DEPARTMENT in writing of the proposed schedule change and the DEPARTMENT shall acknowledge the change through written response letter; provided that the DEPARTMENT shall have final authority for approving any change.

If, for any reason, the LOCAL GOVERNMENT does not produce acceptable deliverables in accordance with the approved schedule, the DEPARTMENT reserves the right to delay the project's implementation until funds can be re-identified for construction or right of way, as applicable.

6. The LOCAL GOVERNMENT shall certify that they have read and understands the regulations for "CERTIFICATION OF COMPLIANCES WITH FEDERAL PROCUREMENT REQUIREMENTS, STATE AUDIT REQUIREMENTS, AND FEDERAL AUDIT REQUIREMENTS" and will comply in full with said provisions.

7. The LOCAL GOVERNMENT shall accomplish all of the design activities for the PROJECT. The design activities shall be accomplished in accordance with the DEPARTMENT's Plan Development Process, the applicable guidelines of the American Association of State Highway and Transportation Officials, hereinafter referred to as "AASHTO", the DEPARTMENT's Standard Specifications

Construction of Transportation Systems, the DEPARTMENT's Plan Presentation Guide, PROJECT schedules, and applicable guidelines of the DEPARTMENT. The LOCAL GOVERNMENT responsibility for design shall include, but is not limited to the following items:

a. Prepare the PROJECT concept report in accordance with the format used by the DEPARTMENT. The concept for the PROJECT shall be developed to accommodate the future traffic volumes as generated by the LOCAL GOVERNMENT as provided for in paragraph 7b and approved by the DEPARTMENT. The concept report shall be approved by the DEPARTMENT prior to the LOCAL GOVERNMENT beginning further development of the PROJECT plans. It is recognized by the parties that the approved concept may be modified by the LOCAL GOVERNMENT as required by the DEPARTMENT and re-approved by the DEPARTMENT during the course of design due to public input, environmental requirements, or right of way considerations.

b. Develop the PROJECT base year (year facility is expected to be open to traffic) and design year (base year plus 20 years) traffic volumes. This shall include average daily traffic (ADT) and morning (am) and evening (pm) peak hour volumes. The traffic shall show all through and turning movement volumes at intersections for the ADT and peak hour volumes and shall indicate the percentage of trucks expected on the facility.

c. Validate (check and update) the approved PROJECT concept and prepare a PROJECT Design Book for approval by the DEPARTMENT prior to the beginning of preliminary plans.

d. Prepare environmental studies, documentation, and reports for the PROJECT that show the PROJECT is in compliance with the provisions of the National Environmental Protection Act and Georgia Environmental Protection Act, as appropriate to the PROJECT funding. This shall include any and all archaeological, historical, ecological, air, noise, underground storage tanks (UST), and hazardous waste site studies required as well as any environmental reevaluations required. The LOCAL GOVERNMENT shall submit to the DEPARTMENT all environmental documents and reports for review and approval by the DEPARTMENT and the FHWA.

e. Prepare all public hearing and public information displays and conduct all required public hearings and public information meetings in accordance with DEPARTMENT practice.

f. Perform all surveys, mapping, soil investigation studies and pavement evaluations needed for design of the PROJECT.

g. Perform all work required to obtain project permits, including, but not limited to, US Army Corps of Engineers 404 and Federal Emergency Management Agency (FEMA) approvals. These efforts shall be coordinated with the DEPARTMENT. As part of the design an environmental assessment will be conducted, which may or may not result in environmental impacts of the surrounding area. If it is determined that there will be impacts that will require mitigation, then it will be the responsibility of the LOCAL GOVERNMENT to resolve the matter.

h. Prepare the PROJECT drainage design including erosion control plans and the development of the hydraulic studies for the Federal

Emergency Management Agency Floodways and acquisition of all necessary permits associated with the drainage design.

i. Prepare traffic studies, preliminary construction plans including a cost estimate for the Preliminary Field Plan Review, preliminary and final utility plans, preliminary and final right of way plans, staking of the required right of way, and final construction plans including a cost estimate for the Final Field Plan Review, erosion control plans, lighting plans, traffic handling plans, and construction sequence plans and specifications including special provisions for the PROJECT.

j. Provide certification, by a Georgia Registered Professional Engineer, that the construction plans have been prepared under the guidance of the professional engineer and are in accordance with AASHTO and DEPARTMENT guidelines.

k. Failure of the LOCAL GOVERNMENT to follow the DEPARTMENT's Plan Development Process will jeopardize the use of Federal funds in some or all of the categories outlined in this Agreement, and it shall be the responsibility of the LOCAL GOVERNMENT to make up the loss of that funding.

8. All Primary Consultant firms hired by the LOCAL GOVERNMENT to provide services on the PROJECT shall be prequalified with the DEPARTMENT in the appropriate area-classes. The DEPARTMENT shall, on request, furnish the LOCAL GOVERNMENT with a list of prequalified consultant firms in the appropriate area-classes. Any Consultant hired by the Local Government to perform work on

the Project must be compliant to applicable state and federal regulations relating to the procurement of design services in accordance with the Brooks Architect-Engineers Act of 1972, better known as the Brooks Act.

9. The PROJECT construction and right of way plans shall be prepared in English units.

10. All drafting and design work performed on the project shall be done utilizing the DEPARTMENT's latest approved software respectively, and shall be organized as per the Department's guidelines on electronic file management.

11. The DEPARTMENT shall review and has approval authority for all aspects of the PROJECT provided however this review and approval does not relieve the LOCAL GOVERNMENT of its responsibilities under the terms of this agreement. The DEPARTMENT will work with the FHWA to obtain all needed approvals as deemed necessary with information furnished by the LOCAL GOVERNMENT.

12. The LOCAL GOVERNMENT shall be responsible for the design of all bridge(s) and preparation of any required hydraulic and hydrological studies within the limits of this PROJECT in accordance with the DEPARTMENT's policies and guidelines. The LOCAL GOVERNMENT shall perform all necessary survey efforts in order to complete the design of the bridge(s) and prepare any required hydraulic

and hydrological studies. The final bridge plans shall be incorporated into this PROJECT as a part of this Agreement.

13. The LOCAL GOVERNMENT shall follow the DEPARTMENT's procedures for identification of existing and proposed utility facilities on the PROJECT. These procedures, in part, require all requests for existing, proposed, or relocated facilities to flow through the DEPARTMENT's Project Liaison and the District Utilities Engineer.

14. The LOCAL GOVERNMENT shall address all railroad concerns, comments, and requirements to the satisfaction of the DEPARTMENT.

15. If the right of way phase is 100% local funding with no Federal or State reimbursement, upon the DEPARTMENT's approval of the project right of way plans, verification that the approved environmental document is current, which shall mean that the approval of the environmental document occurred within six (6) months of the approval notice by the DEPARTMENT's for project right of way plans, and delivery of a written notice to proceed, the LOCAL GOVERNMENT may proceed with the acquisition of the necessary right of way for the PROJECT. If the right of way phase involves federal and/or state funding reimbursement, upon the Department's approval of the project right of way plans, the Local Government may proceed with all pre-acquisition right of way activities, however, property negotiation and acquisition cannot commence until right of way funding authorization is approved. Right of way acquisition shall be in accordance with the law and the rules

and regulations of the FHWA including, but not limited to, Title 23, United States Code; 23 CFR 710, et. Seq., and 49 CFR Part 24 and the rules and regulations of the DEPARTMENT and in accordance with the "Contract for the Acquisition of Right of Way" to be prepared by the Office of Right of Way and executed between the LOCAL GOVERNMENT and the DEPARTMENT prior to the commencement of any right of way activities. Failure of the LOCAL GOVERNMENT to adhere to the provisions and requirements specified in the acquisition contract may result in the loss of Federal funding for the PROJECT and it will be the responsibility of the LOCAL GOVERNMENT to make up the loss of that funding. In the event the LOCAL GOVERNMENT is to receive reimbursement of all or part of the acquisition funding, reimbursable right of way costs are to include land and improvement costs, property damage values, relocation assistance expenses and contracted property management costs. Non reimbursable costs include administrative expenses such as appraisal, consultant, attorney fees and any in-house property management or staff expenses. All required right of way shall be obtained and cleared of obstructions, including underground storage tanks, prior to advertising the PROJECT for bids. The LOCAL GOVERNMENT shall further be responsible for making all revisions to the approved right of way plans, as deemed necessary by the DEPARTMENT, for whatever reason, as needed to purchase the required right of way.

16. Upon completion and approval of the PROJECT plans, certification that all needed rights of way have been obtained and cleared of obstructions, and certification that all needed permits for the PROJECT have been obtained by the

LOCAL GOVERNMENT the PROJECT shall be let for construction. The DEPARTMENT, unless shown otherwise on Attachment A, shall be solely responsible for securing and awarding the construction contract for the PROJECT.

17. The LOCAL GOVERNMENT shall review and make recommendations concerning all shop drawings prior to submission to the DEPARTMENT. The DEPARTMENT shall have final authority concerning all shop drawings.

18. The LOCAL GOVERNMENT agrees that all reports, plans, drawings, studies, specifications, estimates, maps, computations, computer diskettes and printouts, and any other data prepared under the terms of this Agreement shall become the property of the DEPARTMENT if required. This data shall be organized, indexed, bound, and delivered to the DEPARTMENT no later than the advertisement of the PROJECT for letting. The DEPARTMENT shall have the right to use this material without restriction or limitation and without compensation to the LOCAL GOVERNMENT.

19. Traffic signals will be timed to maintain coordinated traffic flow progression through the synchronized intersections. The signal timing will be designed to minimize the overall total delay of the roadway segment. The major street typically carries the larger volumes, thus the signal timing will provide the majority of the green time to the major roadway approaches. The progression of vehicles along the major roadway will be given the priority even when the characteristics of the roadway traffic flow and control changes. Once a signal timing plan has been completed to optimize traffic flow, any modification to the signal

timing to increase green time on minor streets will not adversely affect the traffic flow progression on the major roadway.

20. The LOCAL GOVERNMENT shall be responsible for the professional quality, technical accuracy, and the coordination of all designs, drawings, specifications, and other services furnished by or on behalf of the LOCAL GOVERNMENT pursuant to this Agreement. The LOCAL GOVERNMENT shall correct or revise, or cause to be corrected or revised, any errors or deficiencies in the designs, drawings, specifications, and other services furnished for this PROJECT. Failure by the LOCAL GOVERNMENT to address the errors or deficiencies within 30 days shall cause the LOCAL GOVERNMENT to assume all responsibility for construction delays caused by the errors and deficiencies. All revisions shall be coordinated with the DEPARTMENT prior to issuance. The LOCAL GOVERNMENT shall also be responsible for any claim, damage, loss or expense, to the extent allowed by law that is attributable to errors, omissions, or negligent acts related to the designs, drawings, specifications, and other services furnished by or on behalf of the LOCAL GOVERNMENT pursuant to this Agreement.

This Agreement is made and entered into in FULTON COUNTY, GEORGIA, and shall be governed and construed under the laws of the State of Georgia.

The covenants herein contained shall, except as otherwise provided, accrue to the benefit of and be binding upon the successors and assigns of the parties hereto.

IN WITNESS WHEREOF, the DEPARTMENT and the LOCAL GOVERNMENT have caused these presents to be executed under seal by their duly authorized representatives.

RECOMMENDED:

The City of Sandy Springs

Carol C. V. Mitt
State Urban Design Engineer
INNOVATIVE PROGRAM DELIVERY ENGINEER
Heath P. S. [Signature]
Director of Preconstruction

BY: Gina Colawler
Name
Title

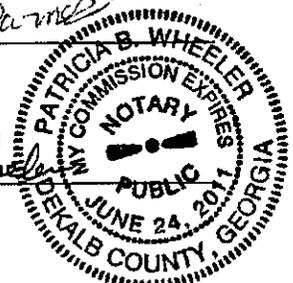
Signed, sealed and delivered this 22nd day of October, 2008, in the presence of:

Merald M. Row
Chief Engineer

Andrea Barnes
Witness

DEPARTMENT OF TRANSPORTATION

Patricia B. Wheeler
Notary Public



BY: Vance Smith
Commissioner

This Agreement approved on the 31st day of October, 2008.

ATTEST: [Signature]
Treasurer Asst.

Debra Dyl
City Clerk Acting

REVIEWED AS TO LEGAL FORM:
Sandra S. [Signature]
Office of Legal Services

FEIN: 20 3767748

THE CITY OF SANDY SPRINGS

ATTACHMENT "A"

Project Number: CSMSL-0009-00(159) – City of Sandy Springs
Project Number: CSMSL-0009-00(160) – City of Sandy Springs

Project (PI#, Project #Description)	Work Type	Preliminary Engineering		Right of Way		Construction		Utilities
		Funding	Design	Funding of Real Property	Acquisition & Administrative Cost by	Funding	Letting by	Relocation Costs by
PI# 0009159 CSMSL-0009-00(159) I-285 Underpass / Tunnel Assess; Eng. & Int. in Sandy Springs	Roadway Project	\$1,780,000 Total \$1,424,000 – 80% Fed \$356,000 – 20% Local Gov.	Local Gov.	n/a	n/a	n/a	n/a	n/a
PI# 0009160 CSMSL-0009-00(160) I-285 Underpass / Tunnel Assess; Eng. & Int. in Sandy Springs	Roadway Project	\$222,500 Total \$178,000 – 80% Fed \$44,500 – 20% Local Gov.	Local Gov.	n/a	n/a	n/a	n/a	n/a

Note: 1. Maximum allowable GDOT reimbursable amount may be shown above in lieu of percentages when applicable. Local Government will only be reimbursed the percentage of the accrued invoiced amounts up to but not to exceed the maximum amount indicated.
 2. Cash participation limits may be shown above in lieu of percentages when applicable.

ATTACHMENT "B"
0009159 – Sandy Springs

Proposed Project Schedule

Environmental Phase					
Concept Phase					
Preliminary Plan Phase					
Right of Way Phase					
Deadlines for Responsible Parties	Execute Agreement	06 / 2010 Month/Year (Approve Concept)	06 / 2011 Month/Year (Approve Env. Document)	06 / 2012 Month/Year (Authorize Right of Way funds)	06 / 2013 Month/Year (Authorize Const. funds)

Annual Reporting Requirements

The Local Government shall provide a written status report to the Department's Project Manager with the actual phase completion date(s) and the percent complete/proposed completion date of incomplete phases. The written status report shall be received by the Department no later than the first day of February of every calendar year until all phases have been completed.

Training Certification Requirement

The Local Government shall provide a written certification that all appropriate staff (employees and consultants) involved in the Project have attended or are scheduled to attend the Department's Plan Development Process Training Course. The written certification shall be received by the Department no later than the first day of February of every calendar year until all phases have been completed.

ATTACHMENT "B"
0009160 – Sandy Springs

Proposed Project Schedule

Environmental Phase					
Concept Phase					
Preliminary Plan Phase					
Right of Way Phase					
Deadlines for Responsible Parties	Execute Agreement	<i>06/2010</i> Month/Year (Approve Concept)	<i>06/2011</i> Month/Year (Approve Env. Document)	<i>06/2012</i> Month/Year (Authorize Right of Way funds)	<i>06/2013</i> Month/Year (Authorize Const. funds)

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Attachment 12:

Location and Design Notice

(On minor projects)

NOTICE OF LOCATION AND DESIGN APPROVAL

***CSMSL-0009-00(159) & CSMSL-0009-00(160), FULTON COUNTY
P.I. 0009159 & 0009160
SR 9/US 19/ROSWELL RD BRIDGE SAFETY AND OPERATIONAL
IMPROVEMENTS AT I-285***

Notice is hereby given in compliance with Georgia Code 22-2-109 and 32-3-5 that the Georgia Department of Transportation has approved the Location and Design of this project.

The date of location approval is *DECEMBER 8, 2010*

The purpose of this project is to alleviate traffic congestion and mitigate accidents on and near the Roswell Road Bridge over Interstate 285 by widening the existing bridge by one lane width. This additional lane will provide dedicated left-turn lanes in each direction from Roswell Road to I-285. On ramps will also be widened from one lane to two lanes prior to existing ramp meters to allow for more peak-period vehicular storage.

This project is 100% in Fulton County in land lots 70, 90 & 91.

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

*Sebastian Nesbitt
District 7 / Area 2 Engineer
snesbitt@dot.ga.gov
1269 Kennestone Circle
Marietta, Georgia 30066
(770) 528-3238*

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

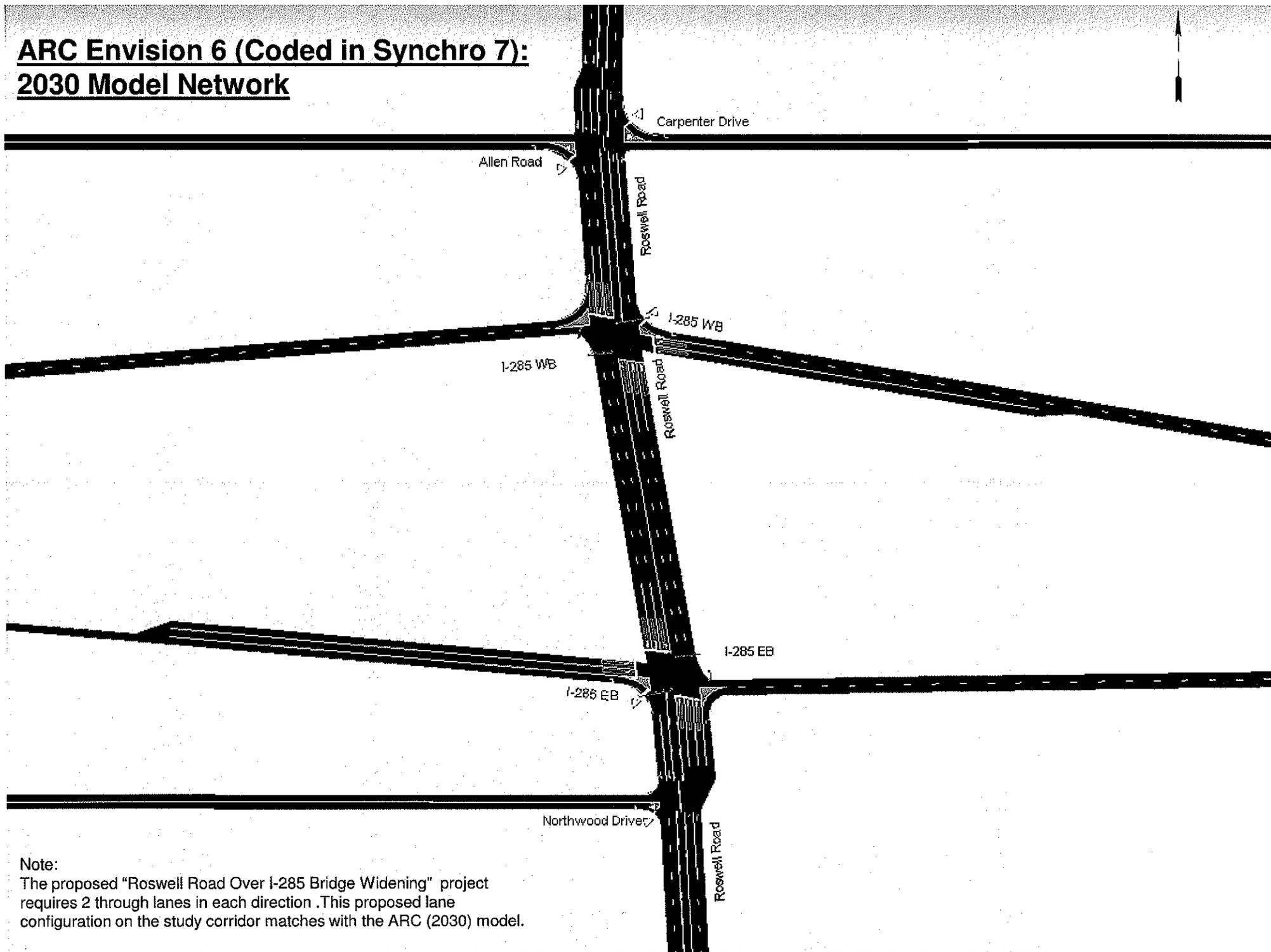
*Darryl VanMeter, PE
Office of Innovative Program Delivery
dvanmeter@dot.ga.gov
One Georgia Center, Suite 2700
600 West Peachtree Street NW
Atlanta, Georgia 30308
(404) 631-1703*

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

Attachment 13:

**Conforming Plan's Network Schematics
Showing Through Lanes**

ARC Envision 6 (Coded in Synchro 7): 2030 Model Network



Note:
The proposed "Roswell Road Over I-285 Bridge Widening" project requires 2 through lanes in each direction. This proposed lane configuration on the study corridor matches with the ARC (2030) model.

Attachment 14:

Benefit Cost Analysis

(Contained in Attachment 6)

Attachment 15:

Consultant QA/QC Certification Letter



Infrastructure, environment, buildings

Ms. Marlo Clowers
GDOT Office of Innovative Program Delivery
One Georgia Center, Suite 2700
600 West Peachtree Street NW
Atlanta, Georgia 30308

Subject:

CSMSL-0009-00(159) & CSMSL-0009-00(160), Fulton
PI 0009159 & 0009160
SR9/US19/Roswell Road Bridge Safety and Operational Improvements at I-285

Dear Ms. Clowers:

I certify as the project manager for the above-referenced project that the submitted concept report and cost estimate prepared by ARCADIS has been performed in accordance with Georgia DOT standards and has been reviewed in accordance with ARCADIS' quality assurance/quality control (QA/QC) program.

Please see the attached record documentation of ARCADIS' QA/QC activities on this project.

Sincerely,

ARCADIS U.S., Inc.

Keith Kunst, PE
Project Manager

Copies:

Greg Ramsey, City of Sandy Springs

Attachment

ARCADIS U.S., Inc.
2849 Paces Ferry Road
Suite 400
Atlanta
Georgia 30339
Tel 770.431.8666
Fax 770.435.2666
www.arcadis-us.com

TRANSPORTATION

Date:

March 22, 2010

Contact:

Keith Kunst

Phone:

770.431.8666 Ext 46562

Email:

keith.kunst@arcadis-us.com

Our ref:

GA063913

Imagine the result