

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

**OFFICE OF DESIGN POLICY & SUPPORT
INTERDEPARTMENTAL CORRESPONDENCE**

FILE P.I. # 0006684
CSMSL-0006-00(684)
Fulton County
GDOT District 7 - Metro Atlanta
SR 141/Peachtree Road LCI - from
Shadowlawn Avenue to Maple Drive

OFFICE Design Policy & Support

DATE 2/27/2015

FROM  Brent Story, State Design Policy Engineer

TO SEE DISTRIBUTION

SUBJECT APPROVED REVISED CONCEPT REPORT

Attached is the approved Revised Concept Report for the above subject project.

Attachment

DISTRIBUTION:

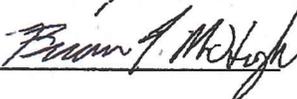
Glenn Bowman, Director of Engineering
Joe Carpenter, Director of P3/Program Delivery
Genetha Rice-Singleton, Assistant Director of P3/Program Delivery
Albert Shelby, State Program Delivery Engineer
Bobby Hilliard, Program Control Administrator
Cindy VanDyke, State Transportation Planning Administrator
Hiral Patel, State Environmental Administrator
Andrew Heath, State Traffic Engineer
Angela Robinson, Financial Management Administrator
Lisa Myers, State Project Review Engineer
Charles "Chuck" Hasty, State Materials Engineer
Mike Bolden, State Utilities Engineer
Richard Cobb, Statewide Location Bureau Chief
Kathy Zahul, District Engineer
Scott Lee, District Preconstruction Engineer
Patrick Allen, District Utilities Engineer
Carleton Fisher, Project Manager
BOARD MEMBER - 5th Congressional District

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
REVISED PROJECT CONCEPT REPORT**

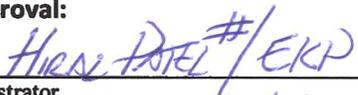
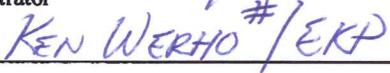
Project Type: <u>Widening/Reconstruction</u>	P.I. Number: <u>0006684</u>
GDOT District: <u>7</u>	County: <u>Fulton</u>
Federal Route Number: <u>N/A</u>	State Route Number: <u>141</u>
Project Number: <u>CSMSL-0006-00(684)</u>	

Revised concept for Peachtree Corridor Complete Street Retrofit – Phase 3 from Shadowlawn Avenue to Maple Drive to incorporate revised typical sections for lane widths and shoulder dimensions.

Submitted for approval:

Kimley-Horn and Associates, Inc.		11/18/2014
Consultant Designer		Date
Buckhead Community Improvement District		October 8, 2014
Local Government Sponsor		Date
 State Program Delivery Engineer		12-2-14
		Date
 GDOT Project Manager		12-1-2014
		Date

Recommendation for approval:

 State Environmental Administrator		10/21/2014
		Date
 For State Traffic Engineer		1/29/2015
		Date

- MPO Area: This project is consistent with the MPO adopted Regional Transportation Plan (RTP)/Long Range Transportation Plan (LRTP).
- Rural Area: This project is consistent with the goals outlined in the Statewide Transportation Plan (SWTP) and/or is included in the State Transportation Improvement Program (STIP).

 State Transportation Planning Administrator		10/24/14
		Date

* PLANNING WILL COORDINATE WITH THE MPO TO ENSURE THE REVISED CONCEPT IS REFLECTED IN THE ATLANTA TIP, UPON APPROVAL OF THIS REVISED CONCEPT REPORT

RECOMMENDATION ON FILE

PLANNING, APPROVED CONCEPT, AND BACKGROUND

Project Justification Statement: The Need and Purpose Statement is included in the original approved Concept Report as well as the Revised Concept Report dated May 20, 2004 and the Revised Concept Report dated May 4, 2011.

Existing conditions: The existing conditions are as stated in the Need and Purpose statement approved November 18, 2010 and included in the original approved Concept Report as well as the Revised Concept Report dated May 20, 2004 and the Revised Concept Report dated May 4, 2011.

Description of the approved concept: This project is an operational improvement and enhancement project in Fulton County and the City of Atlanta. This project consists of corridor and intersection improvements on SR 141/Peachtree Road beginning at Shadowlawn Avenue (milepost 0.37) proceeding north to Maple Drive (milepost 0.52) in the Buckhead Community Improvement District. The speed design for this project is 35 mph. The proposed project typical section consists of six lanes (three in each direction) with the outside lane being 12 feet in width to accommodate bus traffic and a shared bike lane. A median is proposed and varies in width from 6 feet to 16 feet. The outside shoulder is proposed, on either side of the roadway, to have a minimum 10-foot border area containing a sidewalk varying in width from 5 feet to 11 feet. Landscaping will be provided either in a buffer area between the curb and the sidewalk or behind the sidewalk in areas there are no conflicts with existing parking. All sidewalk ramps will be ADA compliant. The right of way will extend to the back of the sidewalk and be mitered at intersections to encompass signal equipment.

Federal Oversight: FOS/PoDI Exempt State Funded Other

Projected Traffic as shown in the approved Concept Report (AADT):

Open Year (2014): 38,400

Design Year (2034): 53,200

Updated Traffic (AADT):

Open Year (2016): 39,800

Design Year (2036): 44,000

Functional Classification: Urban Principal Arterial

VE Study anticipated: No Yes Completed

PROPOSED REVISIONS

Approved Features:	Proposed Features:
<ul style="list-style-type: none"> • The approved typical section consists of the following components: <ul style="list-style-type: none"> • Six lanes (three in each direction) • Outside shared-use lane width of 12 feet • No dedicated bike lanes • Raised median varying in width from 6 feet to 16 feet • Outside shoulders with 10-foot border area containing a sidewalk in varying width from 5 feet to 11 feet. • No conflicts with existing parking 	<ul style="list-style-type: none"> • The proposed typical section consists of the following components: <ul style="list-style-type: none"> • Five to Six 10-foot wide travel lanes (two to three northbound, three southbound) • Dedicated 5-foot bike lanes in each direction • Raised median varying in width from 8 feet to 18 feet, including a northbound dedicated 10-foot left turn lane • Outside shoulders varying in width from 7.5 feet (consisting of a 6" granite curb, 2-foot planter strip, and 5-foot sidewalks) to 10.5 feet (consisting of a 6" granite curb, a 3-foot to 5-foot planter strip, and 5-foot to 7-foot sidewalks). Along the 10.5 foot wide shoulders where 5-foot tree planter boxes are present, the planter strip is eliminated and a 5-foot sidewalk is proposed behind the planter box. • Existing parking and internal circulation is proposed to be impacted on both shoulders
<p>Reason(s) for change:</p> <ul style="list-style-type: none"> • The proposed typical section allows for a tie-in to the proposed Peachtree Corridor Complete Street Retrofit – Phase 4 at Shadowlawn Avenue. This adjacent Phase 4 project would reconfigure Peachtree Road south of Shadowlawn as a five-lane section with two travel lanes, a two-way center turn lane and bike lanes. When the Phase 4 project is completed, the third southbound travel lane can be dropped as a left turn only lane at Shadowlawn Avenue. • The 12-foot outside shared-use lane was revised to a 10-foot general purpose travel lane and a dedicated 5-foot bike lane was added in each direction. The 5-foot bike lanes will provide connectivity to existing bike lanes north of Maple Drive and to the proposed Peachtree Corridor Complete Street Retrofit – Phase 4 bike lanes south of Shadowlawn Avenue. • The raised median has been widened two feet to allow for 1-foot offsets from the adjacent travel/turn lanes to the median curbing. Outside shoulder dimensions have been modified to more closely reflect the proposed shoulder improvements in the proposed Peachtree Corridor Complete Street Retrofit – Phase 4, south of Shadowlawn Drive. Reduced shoulder width would also lessen impacts to adjacent properties, including to existing parking areas. 	

Design Variances and/or Exceptions needed: A Design Variance for lateral offset to trees and for lateral offset to light standards are both anticipated. Design Variances for lane width, median opening spacing, and auxiliary right turn lanes have been obtained. Design Exceptions are not anticipated.

ENVIRONMENTAL AND PERMITS

Potential environmental impacts of proposed revision: Revised footprint results in impacts to existing parking.

Have proposed revisions been reviewed by environmental staff? No Yes

Environmental responsibilities (Studies/Documents/Permits): Buckhead Community Improvement District (consultant: Kimley-Horn and Associates, Inc.)

Air Quality:

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

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

Is a Carbon Monoxide hotspot analysis required? No Yes

It is anticipated that the project will conform to federal and state air quality goals including CO, Ozone, PM 2.5, and MSATs. The project will be evaluated for air quality as part of the environmental assessment, prior to submittal of the EA.

Environmental Comments and Information: No environmental impacts are expected to change as a result of the proposed revision.

PROJECT COST AND ADDITIONAL INFORMATION

Item	Estimated Cost	Date of Estimate	Funded By
Base Construction Cost:	\$1,265,105	11/19/2014	
5% Engineering and Inspection:	\$63,255	11/19/2014	
Contingencies	\$132,836	11/19/2014	
Liquid AC Adjustment:	\$37,119	4/28/2014	
<u>Total Construction Cost:</u>	\$1,498,315		80% Federal 20% LCL Government >\$1,913,847 100% LCL Gov
Right-of-Way:	\$1,144,000	8/22/2014	80% Federal 20% LCL Government >\$1,566,000 100% LCL Gov
Utilities (reimbursable costs):	\$673,780	4/24/2014	100% LCL Gov
Environmental Mitigation:	N/A	N/A	N/A
TOTAL PROJECT COST:	\$3,316,095		

Recommendation: Recommend that the proposed revision to the concept be approved for implementation.

Comments: N/A

Attachments:

1. Project Location Map
2. Typical Sections
3. Cost Estimates
 - a. Construction
 - b. Right-of-Way
 - c. Utilities
4. Traffic Diagrams
5. Previously Approved Design Variances (Approved 2005 based on then-current GDOT Design Policy) for Lane Width; Median Opening spacing; Auxiliary Right Turn Lanes

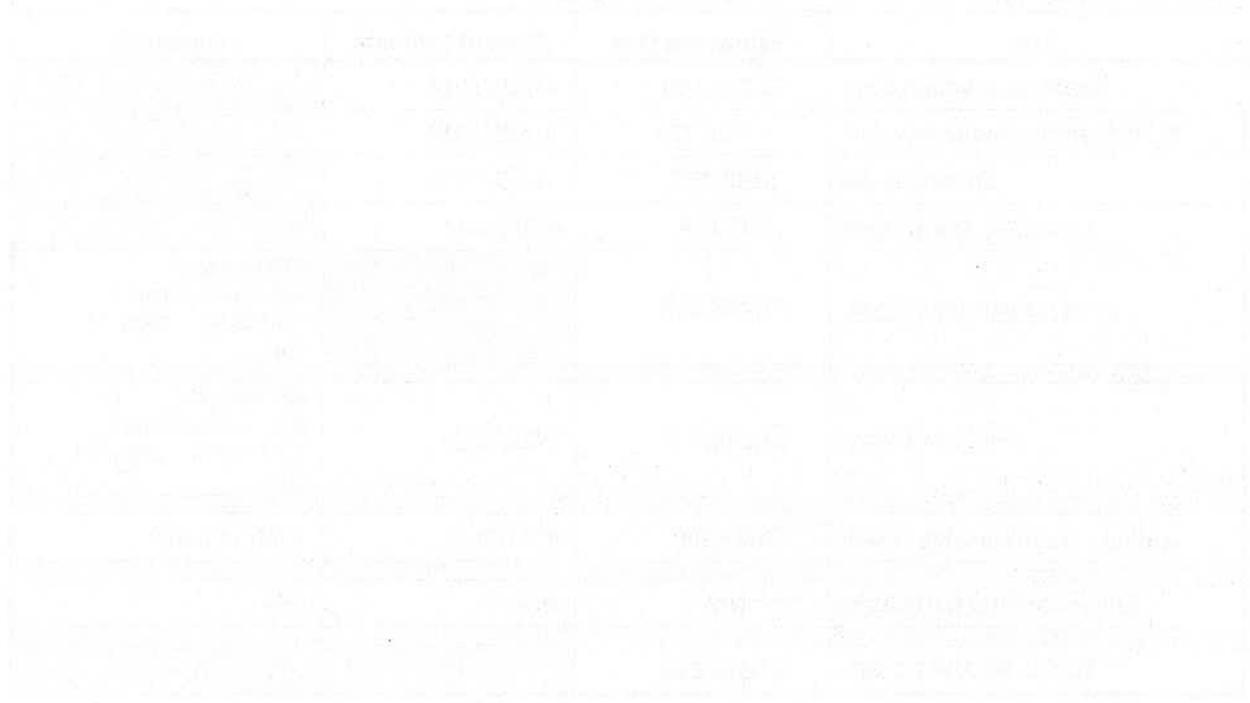
APPROVALS

Concur: 
 Director of Engineering

Approve: 
 Chief Engineer

2.15.15
 Date

ATTACHMENT 1 – LOCATION MAP



The map shows a grid of streets. The highlighted area is located in the center of the grid. The streets are labeled with names, but they are very faint and difficult to read. The map appears to be a street map of a city or town, with the highlighted area possibly representing a specific site or project location.

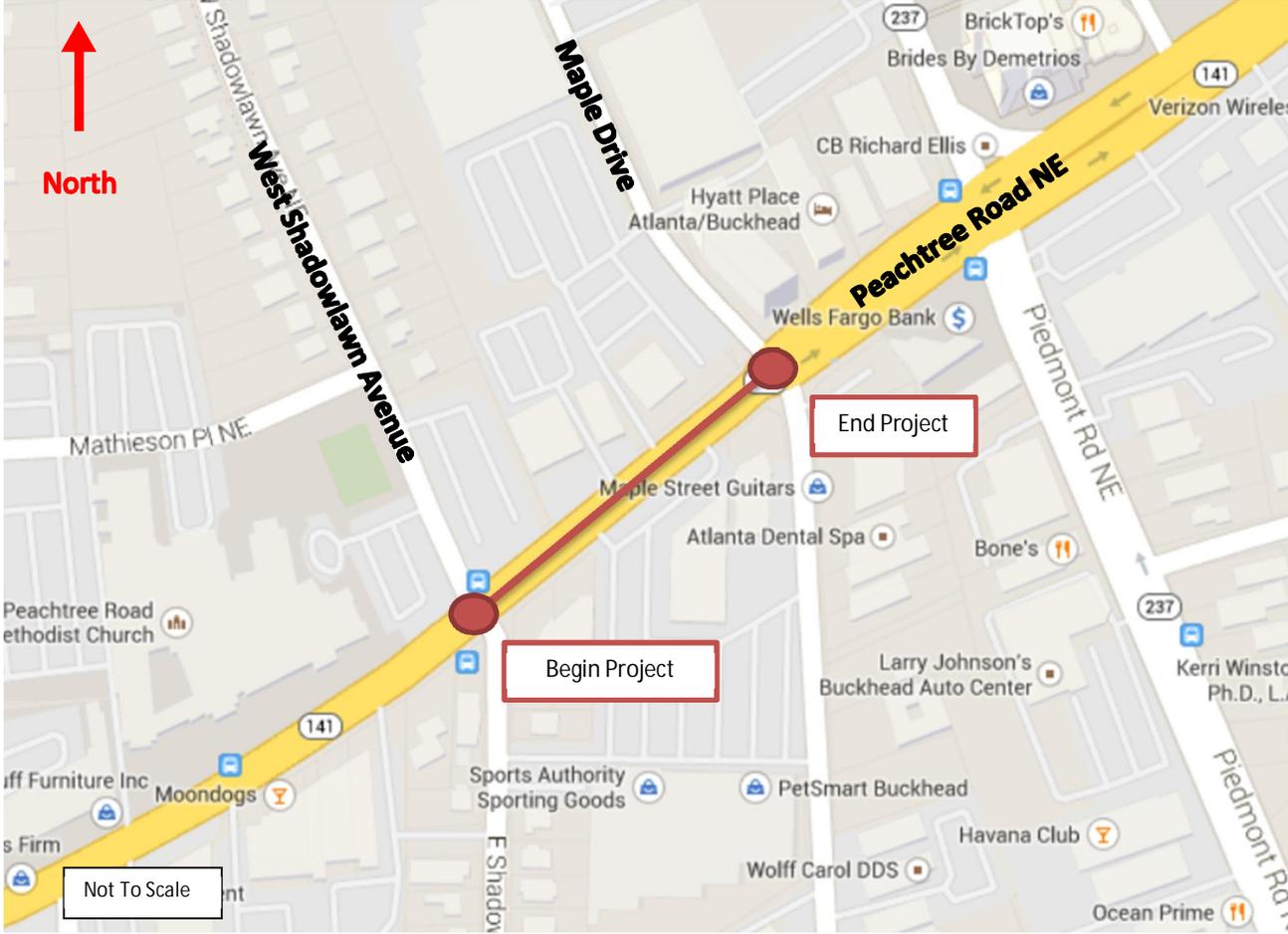
Page 1 of 1

Project Number: CSMSL-0006-00(684)

P.I. Number: 0006684

County: Fulton

SR 141/ Peachtree Road Corridor
Improvement Project Location Map



Source: Google

Legend:

Project Limits

ATTACHMENT 2 – TYPICAL SECTIONS



ATTACHMENT 3 – COST ESTIMATES

STATE HIGHWAY AGENCY

DATE : 11/19/2014
PAGE : 1

JOB ESTIMATE REPORT

JOB NUMBER : 0006684-2 SPEC YEAR: 13
DESCRIPTION: PEACHTREE ROAD PHASE 3

ITEMS FOR JOB 0006684-2

LINE	ITEM	ALT	UNITS	DESCRIPTION	QUANTITY	PRICE	AMOUNT
0005	210-0100		LS	GRADING COMPLETE - 0006684	1.000	262724.00	262724.00
0009	150-1000		LS	TRAFFIC CONTROL - 0006684	1.000	84000.00	84000.00
0010	318-3000		TN	AGGR SURF CRS	100.000	23.26	2326.35
0015	310-1101		TN	GR AGGR BASE CRS, INCL MATL	1390.000	25.33	35214.70
0020	402-1802		TN	RECYL AC PATCHING, INCL BM&HL	183.000	157.75	28868.29
0025	402-4510		TN	RECYL AC 12.5 MM SP,GP2ONLY,INC P-MBM&HL	640.000	94.11	60230.78
0030	402-3190		TN	RECYL AC 19 MM SP,GP 1 OR 2 ,INC BM&HL	440.000	92.49	40697.01
0035	402-3121		TN	RECYL AC 25MM SP,GP1/2,BM&HL	880.000	78.94	69471.86
0040	413-1000		GL	BITUM TACK COAT	490.000	5.68	2786.42
0045	432-0206		SY	MILL ASPH CONC PVMT/ 1.50 DEP	7400.000	2.72	20185.50
0050	437-1571		LF	ST GRANITE CURB,5 X 17,TP A	2400.000	27.00	64800.00
0055	441-0018		SY	DRIVEWAY CONCRETE, 8 IN TK	375.000	44.50	16688.66
0060	441-0104		SY	CONC SIDEWALK, 4 IN	625.000	36.69	22932.26
0064	441-0108		SY	CONC SIDEWALK, 8 IN	100.000	61.06	6106.99
0065	446-1100		LF	PVMT REF FAB STRIPS, TP2,18 INCH WIDTH	1160.000	6.04	7008.63
0070	163-0232		AC	TEMPORARY GRASSING	1.000	450.41	450.41
0075	163-0240		TN	MULCH	20.000	299.13	5982.79
0080	163-0300		EA	CONSTRUCTION EXIT	2.000	1384.03	2768.07
0085	163-0550		EA	CONS & REM INLET SEDIMENT TRAP	25.000	117.89	2947.45
0090	165-0010		LF	MAINT OF TEMP SILT FENCE, TP A	600.000	0.79	478.11
0095	165-0101		EA	MAINT OF CONST EXIT	2.000	629.80	1259.60
0100	165-0105		EA	MAINT OF INLET SEDIMENT TRAP	12.500	39.82	497.87
0105	171-0010		LF	TEMPORARY SILT FENCE, TYPE A	1200.000	1.91	2293.80
0110	636-1033		SF	HWY SIGNS, TP1MAT,REFL SH TP 9	120.000	20.58	2470.02
0115	636-1041		SF	HWY SIGNS,TP 2MAT,REFL SH TP 9	120.000	33.62	4035.15
0120	636-2070		LF	GALV STEEL POSTS, TP 7	170.000	10.01	1701.85
0125	647-1000		LS	TRAF SIGNAL INSTALLATION NO - PEACHTREE AT SHADOWLAWN	1.000	170000.00	170000.00
0130	647-1000		LS	TRAF SIGNAL INSTALLATION NO - PEACHTREE AT MAPLE	1.000	170000.00	170000.00
0135	653-0110		EA	THERM PVMT MARK, ARROW, TP 1	2.000	82.00	164.02
0140	653-0120		EA	THERM PVMT MARK, ARROW, TP 2	7.000	85.09	595.67
0145	652-0094		EA	PVMT MARKING, SYMBOL, TP 4	2.000	163.19	326.40
0150	653-1501		LF	THERMO SOLID TRAF ST 5 IN, WHI	550.000	1.00	550.96
0155	653-1704		LF	THERM SOLID TRAF STRIPE,24,WH	100.000	5.94	594.80
0160	653-1804		LF	THERM SOLID TRAF STRIPE, 8,WH	800.000	2.62	2102.34
0165	653-3501		GLF	THERMO SKIP TRAF ST, 5 IN, WHI	2050.000	0.40	822.03
0170	654-1001		EA	RAISED PVMT MARKERS TP 1	28.000	5.64	158.10
0175	550-1240		LF	STM DR PIPE 24,H 1-10	350.000	44.68	15640.64
0180	550-1180		LF	STM DR PIPE 18,H 1-10	812.000	37.38	30357.06
0185	668-2100		EA	DROP INLET, GP 1	10.000	1926.12	19261.25

STATE HIGHWAY AGENCY

DATE : 11/19/2014
PAGE : 2

JOB ESTIMATE REPORT

0190	668-4300		EA	STORM SEW MANHOLE, TP 1	5.000	2003.08	10015.44
0195	702-0559		EA	LIRIOPE MUSCARI - LIRIOPE	386.000	5.00	1930.00
0200	702-0905		EA	QUERCUS PHELLOS - WILLOW OAK	17.000	700.00	11900.00
0204	702-0977		EA	RHAPHIOLEPIS INDICA - GEORGIA PETITE INDIAN HAWTHORNE	192.000	15.00	2880.00
0205	702-9025		SY	LANDSCAPE MULCH	414.000	7.70	3189.89
0210	708-1000		CY	PLANT TOPSOIL	414.000	55.00	22770.00
0215	754-4000		EA	WASTE RECEPTACLE UNIT	2.000	1250.00	2500.00
0220	754-5000		EA	BENCH	8.000	1000.00	8000.00
0225	754-6000		EA	BICYCLE RACK	2.000	960.00	1920.00
0230	900-0100		SF	GRANITE PAVERS	2025.000	20.00	40500.00

ITEM TOTAL	1265105.17
INFLATED ITEM TOTAL	1265105.17

TOTALS FOR JOB 0006684-2

ESTIMATED COST:	1265105.17
CONTINGENCY PERCENT (0.0):	0.00
ESTIMATED TOTAL:	1265105.17

PROJ. NO.	CSMSL-0006-00(684)	CALL NO.
P.I. NO.	0006684	
DATE	9/23/2014	

INDEX (TYPE)	DATE	INDEX
REG. UNLEADED	Apr-14	\$ 3.335
DIESEL		\$ 3.765
LIQUID AC		\$ 618.00

Link to Fuel and AC Index:
<http://www.dot.ga.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx>

LIQUID AC ADJUSTMENTS

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

Asphalt

Price Adjustment (PA)				36338.4	\$	36,338.40
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	\$	988.80		
Monthly Asphalt Cement Price month project let (APL)			\$	618.00		
Total Monthly Tonnage of asphalt cement (TMT)				98		

ASPHALT	Tons	%AC	AC ton
Leveling		5.0%	0
12.5 OGFC		5.0%	0
12.5 mm	640	5.0%	32
9.5 mm SP		5.0%	0
25 mm SP	880	5.0%	44
19 mm SP	440	5.0%	22
	1960		98

BITUMINOUS TACK COAT

Price Adjustment (PA)				\$ 780.39	\$	780.39
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	\$	988.80		
Monthly Asphalt Cement Price month project let (APL)			\$	618.00		
Total Monthly Tonnage of asphalt cement (TMT)				2.104599452		

Bitum Tack

Gals	gals/ton	tons
490	232.8234	2.10459945

BITUMINOUS TACK COAT (surface treatment)

Price Adjustment (PA)				0	\$	-
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	\$	988.80		
Monthly Asphalt Cement Price month project let (APL)			\$	618.00		
Total Monthly Tonnage of asphalt cement (TMT)				0		

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

TOTAL LIQUID AC ADJUSTMENT **\$ 37,118.79**

CONTINGENCY SUMMARY

A. CONSTRUCTION ESTIMATE:	COST	\$ 1,265,105	Base Estimate From CES	
B. ENGINEERING AND INSPECTION (E & I):		\$ 63,255	Base Estimate (A) x	5 %
C. CONTINGENCY:		\$ 132,836	Base Estimate (A) + E & I (B) x	10 %
			See % Table in "Risk Based Cost Estimation" Memo	
D. TOTAL LIQUID AC ADJUSTMENT:		\$ 37,119	Total From Liquid AC Spreadsheet	
E. CONSTRUCTION TOTAL:		\$ 1,498,315	(A + B + C + D = E)	

**GEORGIA DEPARTMENT OF TRANSPORTATION
PRELIMINARY ROW COST ESTIMATE SUMMARY**

Date: 8/22/2014 Project: CSSTP-0006-00(684)
 Revised: County: Fulton County
 PI: 0006684

Description: SR 141/Peachtree Rd CORR IMP
 Project Termini: Sr 141/Peachtree Rd CORR IMP fm Shawdowlwn Ave to Maple Drive-GRTA

Existing ROW: Varies
 Required ROW: Varies
 Parcels: 9

Land and Improvements _____ \$907,500.00

Proximity Damage	\$0.00
Consequential Damage	\$0.00
Cost to Cures	\$150,000.00
Trade Fixtures	\$0.00
Improvements	\$275,000.00

Valuation Services _____ \$56,250.00

Legal Services _____ \$81,075.00

Relocation _____ \$18,000.00

Demolition _____ \$0.00

Administrative _____ \$80,500.00

TOTAL ESTIMATED COSTS _____ \$1,143,325.00

TOTAL ESTIMATED COSTS (ROUNDED) _____ \$1,144,000.00

Preparation Credits	Hours	Signature

Prepared By: Deshone Alexander CG#: 286999 08/22/2014 (TE)

Approved By: Deshone Alexander CG#: 286999 08/22/2014 (TE)

NOTE: No Market Appreciation is included in this Preliminary Cost Estimate

SR 141/Peachtree Road Phase 3 from Shadowlawn Avenue to Maple Drive
 Opinion of Probable Construction Cost-Utility Burial
 Prepared by: Kimley-Horn and Associates, Inc.
 24-Apr-14

ITEM	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
500-3101	Class A Concrete	321	CY	\$420.00	\$134,820.00
611-8055	Adjust Minor Structure To Grade(ie. meters, valves, manholes, pull boxes, fire hydrants)	19	EA	\$998.00	\$18,962.00
647-2160	Pull Box, PB-6	8	EA	\$1,122.00	\$8,976.00
665-0010	Plastic Gas Main	700	LF	\$50.00	\$35,000.00
670-5620	Water Service Line	650	LF	\$20.00	\$13,000.00
670-9730	Relocate Exist Water Meter, Incl Box	13	EA	\$1,000.00	\$13,000.00
670-9731	Relocate Backflow Prevention Assembly	13	EA	\$4,500.00	\$58,500.00
670-XXXX	Adjust Service Line to Grade(Water and Gas)	1700	LF	\$6.25	\$10,625.00
682-6224	Conduit, Nonmetal, Tp 2, 4 in	12800	LF	\$12.00	\$153,600.00
XXX-XXXX	Utility Pole Removal	11	EA	\$5,000.00	\$55,000.00
XXX-XXXX	Building Service Reconnection	6	EA	\$10,000.00	\$60,000.00

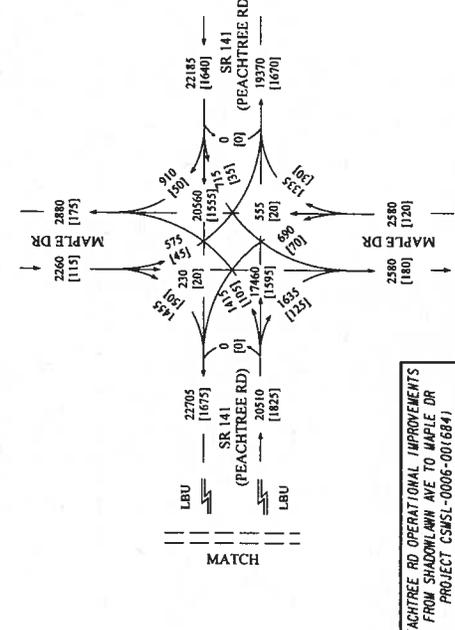
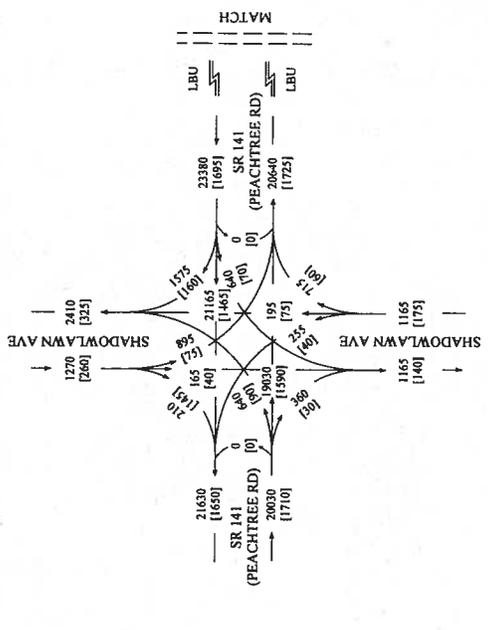
Subtotal **\$561,483.00**

Contingency 20% **\$112,296.60**

Total **\$673,779.60**

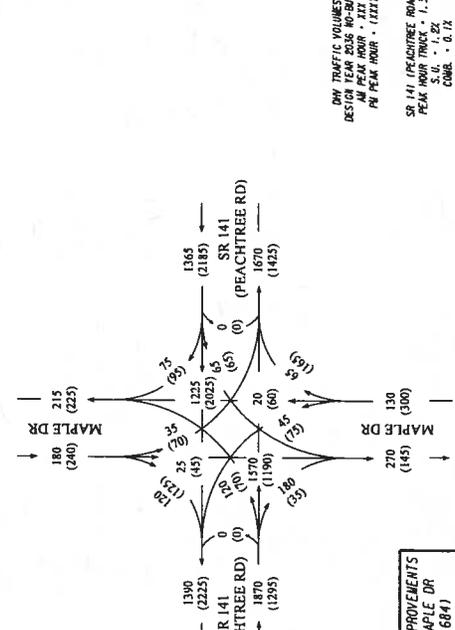
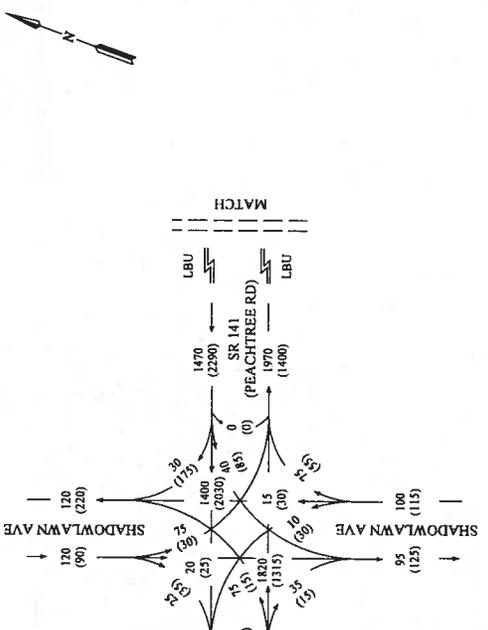
Assumptions:

Overhead lines will be contained in a 20" x 44" concrete duct bank with eight (8) 4 inch ducts
 Overhead service to existing buildings will be replaced with new underground service. Assume \$10k per building
 Burial includes mainline distribution lines along Peachtree Road from Shadowlawn Avenue to Maple Drive
 Burial also includes lateral lines across Peachtree Road



PEACHTREE RD OPERATIONAL IMPROVEMENTS
 FROM SHADOWLAWN AVE TO MAPLE DR
 PROJECT CSUSL-0006-0016841
 P.L. NO. 0006684

REVISION DATES



PEACHTREE RD OPERATIONAL IMPROVEMENTS
 FROM SHADOWLAWN AVE TO MAPLE DR
 PROJECT CSUSL-0006-0016841
 P.L. NO. 0006684

Kimley-Horn and Associates, Inc.
 ENGINEERS, ARCHITECTS, PLANNERS
 3000 Peachtree Road, Suite 400, Atlanta, Georgia 30308

DMV TRAFFIC VOLUMES
 DESIGN YEAR 2035 NO-BUILD
 AM PEAK HOUR - 1.3X
 PM PEAK HOUR - 1.2X
 COMB. - 0.7X

DMV TRAFFIC VOLUMES
 DESIGN YEAR 2035 NO-BUILD
 SATURDAY MIDDAY
 PEAK HOUR - 1.1X
 SR 141 (PEACHTREE RD)
 24-HOUR TRUCK - 1.5X
 S.U. - 1.4X
 COMB. - 0.7X

ATTACHMENT 5 – PREVIOUSLY APPROVED DESIGN VARIANCES

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENTAL CORRESPONDENCE

FILE: MSL-0004-00(689), CSMSL-0006-00(683), CSMSL-0006-00(684), Fulton County
SR141/Peachtree Road Corridor Improvements,
Phases 1, 2, & 3
P.I. Nos.: 0004689, 0006683, 0006684

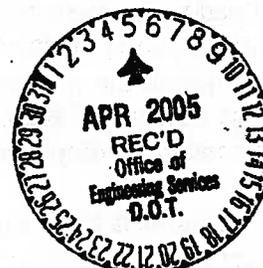
OFFICE: Urban Design

DATE: March 30, 2005

FROM: *James B. Buchan*
James B. Buchan, P.E., State Urban Design Engineer

TO: David Mulling, P.E., State Project Review Engineer

SUBJECT: Request for Design Variances



Approval of the following Design Variances are requested for this project: 1) Lane Width, 2) Median Opening Spacing, and 3) Auxiliary Right Turn Lanes

Projects MSL-0004-00(689), CSMSL-0006-00(683), and CSMSL-0006-00(684) reflect corridor improvements along SR141/ Peachtree Road from Shadowlawn Avenue to Roxboro Road/ Peachtree Dunwoody Road. The project is located along SR141 in the Buckhead Community Improvement District (BCID) from milepost 0.37 to milepost 1.70, a total length of 1.33 miles. Project MSL-0004-00(689) is from Maple Drive to the bridge crossing SR400. Project CSMSL-0006-00(683) is from the bridge crossing SR400 to Roxboro Road/ Peachtree Dunwoody Road. Project CSMSL-0006-00(684) is from Shadowlawn Avenue to Maple Drive. The speed design for this project is 35 mph.

This project consists of two typical sections. The first typical section consists of three lanes in each direction with 10-ft inside and outside lanes and an 11-ft center lane divided by a 19-ft wide, 18-in high landscape median (including turn lanes). This typical section is from Shadowlawn Avenue to Stratford Road and then from Lenox Road to Roxboro Road. The second typical section, which is between Stratford Road and Lenox Road, consists of three 11-ft lanes in each direction divided by a 19-ft wide, 18-in high landscape median (including turn lanes). Both typical sections include 5-ft bike lanes in each direction, 5-in x 17-in (6-in high) header curbs, and 14 to 20-ft shoulders comprised of 6-ft landscape strip and 8 to 14-ft sidewalks.

Current year (2007) traffic for this project is 47,900 vpd while the design year (2027) traffic is 68,400 vpd. The current and design year truck traffic is 3% while for bus traffic it is 1%. During the period from 1997 to 1999, Peachtree Road accident rates were 45 to 75 percent higher than the statewide average for an urban principal arterial. Pedestrian accident experience is limited to only one fatality occurring during the three-year period.

1) Lane Width

The Department's design guidance to applying Context Sensitive Solutions as stated in a policy letter by the Chief Engineer, dated January 7, 2003, states for a project that falls into an Urban Area Type A category requires that "lane widths may be reduced to no less than 11-ft." A design variance is requested to allow for the construction of 10-ft lanes for the inside and outside lanes in each direction from Shadowlawn Avenue (mp 0.37) to Stratford Road (mp 1.04) and then from Lenox Road (mp 1.35) to Roxboro Road (mp 1.70).

The average existing lane width along Peachtree Road from Shadowlawn Avenue to Stratford Road varies from 10-ft to 10.33-ft while the average existing lane width from Lenox Road to Roxboro Road varies from 10.29-ft to 12-ft. Much of the existing sidewalk through this section varies in width and is positioned directly behind the back face of curb. There are no existing bike lanes through the proposed project limits. The proposed improvements along Peachtree Road include adding 5-ft bike lanes in each direction, 5-in x 17-in (6-in high) header curbs, and 14 to 20-ft shoulders comprised of 6-ft landscape strips and 8 to 14-ft sidewalks.

Reduction of the 6-ft landscape strip along the shoulder was considered but rejected since the enhancement of the pedestrian mode is one of the key elements for this project. The provision of an 11-ft lane width would require widening the typical section by an additional 4-ft. The cost of acquiring additional right-of-way through the corridor can range between 75 and 100 dollars per square foot.

2) Median Opening Spacing

The Department's guidance for median opening spacing is found in the Regulations for Driveway and Encroachment Control manual and states that the spacing for an urban non-signalized condition is 1320-ft desirable and 660-ft minimum. The spacing for an urban signalized condition is 1000-ft desirable and 660-ft minimum. It is proposed to provide median openings at the existing signalized intersection locations as well as the two non-signalized critical access points (see attachment 1 for location and spacing). The first access point is a SB left-in only commercial drive which serves the commercial establishment, Joe Muggs (mp 0.68). The second access point is a NB left-in only located at the entrance to Capitol City Plaza (mp 0.90). A design variance is requested for substandard median spacing at each signalized and non-signalized condition within the Peachtree Road project limits except for the signalized conditions at SR237/ Piedmont Road and SR141 CONN/ Lenox Road. See below for a description of each condition.

Peachtree Road at Maple Drive/ Commercial Drive:

Spacing cannot be met because of negative impacts to traffic operations and limitations of access to existing commercial and residential development. Maple Drive is an existing signalized intersection. If the median opening was eliminated, the opening year peak hour of 400 vehicles would be shifted to adjacent intersections. The NB peak hour left-turn volume of 120 vehicles would be expected to shift to the upstream intersection at Piedmont Road. Since U-turns are not allowed at Piedmont Road due to overlap signal phasing, these vehicles would be required to

turn left and cut thru developments or side roads to arrive at the desired destination. This would necessitate increasing the duration of the left-turn phase, negatively impacting operations at an intersection that is already predicted to exceed capacity. Furthermore, elimination of the median would negatively impact traffic operations at Maple Drive, currently predicted to operate at LOS B. Traffic operations are predicted to operate at a LOS E for the EB right turn and LOS C for the WB right turn for Maple Drive with elimination of the median opening.

Peachtree Road at Commercial Drive (Joe Muggs) - SB left-in only:

Spacing cannot be met because of negative impacts to traffic operations and limitations of access to existing commercial development. The commercial drive services multiple businesses via interparcel access. Elimination of the SB left-in median opening would shift the peak hour volume of 60 SB vehicles to the intersection of Piedmont Road. Since U-turns are prohibited at Piedmont Road it is assumed that 30 vehicles would turn left on Piedmont Road and 30 vehicles will continue to Maple Drive to make the U-turn. This would necessitate increasing the duration of the SB left-turn phase, negatively impacting operations at an intersection that is already predicted to exceed capacity during this period. Additionally, the elimination of the SB left-in median opening would reduce access to existing commercial development by requiring drivers to travel SB an additional 950 feet and pass through an additional traffic signal. The commercial drive is proposed as a right-out only.

Peachtree Road at Highland Drive/ Commercial Drive (Prudential):

Spacing cannot be met because of negative impacts to traffic operations and limitations of access to existing commercial and residential development. Highland Drive is an existing signalized intersection. Elimination of the median opening would shift the peak hour volume of 520 vehicles elsewhere, primarily to the upstream intersection at Tower Place Drive. Nearly 420 vehicles would be required to make a U-turn at Tower Place Drive to gain access to SB Peachtree Road. This would necessitate increasing the duration of the left-turn phase, negatively impacting operations to a predicted LOS F. The intersection currently is predicted to operate at LOS C. Furthermore, elimination of the median would negatively impact traffic operations at Highland Road, currently predicted to operate at LOS C. Traffic operations are predicted to operate at a LOS D for the EB right turn and LOS F for the WB right turn for Highland Road with elimination of the median opening.

Peachtree Road at Commercial Drive (Atlanta Financial)/ Tower Place Drive:

Spacing cannot be met because of negative impacts to traffic operations and limitations of access to existing commercial development. Tower Place Drive is an existing signalized intersection that services the Financial Center to the south and the Tower Place multi-use development to the north. Elimination of the median opening would shift the peak hour volume of 870 vehicles, primarily to the upstream median openings at Capital City Plaza or Stratford Road. It was also assumed that the 350 EB left turning vehicles from Tower Place Drive would instead exit via the signal at Highland Drive. 400 vehicles would also be required to make a U-turn at Stratford Drive to gain access to SB Peachtree Road. This would necessitate increasing the duration of the left-turn phase, negatively impacting operations. Operations at Highland Drive would degrade from LOS C to LOS F. Furthermore, elimination of the median would negatively impact traffic operations at Tower Place Drive, currently predicted to operate at LOS C with the proposed

median opening. Traffic operations are predicted to operate at LOS F for the WB right turn and LOS F for the EB right turn at Tower Place Drive with elimination of the median opening.

Peachtree Road at Commercial Drive (Capital City Plaza) - NB left-in only:

Spacing cannot be met because of negative impacts to traffic operations and limitations of access to existing commercial development. The commercial drive services Capital City Plaza, a high-rise office complex. Elimination of the NB left-in median opening would shift the NB peak hour left-turn volume of 118 vehicles to the upstream intersection at Stratford Road. Vehicles would be required to make a U-turn at Stratford Road to gain access to SB Peachtree Road. This would necessitate increasing the duration of the left-turn phase, negatively impacting operations from a LOS C to a predicted LOS D. Additionally, the elimination of the NB left-in median opening would reduce access to existing commercial development by requiring drivers to travel NB an additional 730 feet. The commercial drive is proposed as a right-out only.

Peachtree Road at Commercial Drive (Crown Plaza)/ Stratford Road:

Spacing cannot be met because of negative impacts to traffic operations and limitations of access to existing commercial and residential development. Stratford Road is an existing signalized intersection. Elimination of the median opening would shift the peak hour volume of 585 vehicles to the adjacent intersections. Approximately 250 vehicles would be required to make a U-turn at Around Lenox Drive to gain access to SB Peachtree Road. This would necessitate increasing the duration of the left-turn phase, negatively impacting operations already predicted to exceed capacity. Furthermore, elimination of the median would also negatively impact traffic by shifting the peak hour volume of 331 vehicles downstream from Stratford Road to Tower Place Drive, currently predicted to operate at LOS C. The closing of the median at Stratford Road would cause the Tower Place Drive intersection to operate at a LOS E. The Stratford Road intersection would also be adversely impacted with the WB right turn operating at a LOS E and the EB right turn at a LOS F. The intersection is predicted to operate at a LOS C with the proposed median opening.

Peachtree Road at Around Lenox Drive/ Commercial Drive (Lenox Towers):

Spacing cannot be met because of negative impacts to traffic operations and limitations of access to existing commercial and residential development. Around Lenox Drive is an existing signalized intersection, which serves numerous existing commercial developments as well as an entrance to Lenox Mall. Elimination of the median opening would shift peak hour volume of 1000 vehicles primarily to the downstream intersection at Stratford Road. An estimated 480 additional vehicles would make a U-turn at Stratford Road to gain access to NB Peachtree Road. This would necessitate increasing the duration of the left-turn phase, negatively impacting operations currently predicted to operate at LOS C to a predicted LOS D. Furthermore, elimination of the median would also negatively impact traffic by shifting the peak hour volume of 520 vehicles from Around Lenox Drive to Lenox Square entrance, negatively impacting operations already predicted to operate at LOS F. Many of the trips may also be diverted to the Lenox Square Mall parking area, a travel pattern that is undesirable.

Peachtree Road at Lenox Square (Mall Entrance)/ Commercial Drive (Ritz):

Spacing cannot be met because of negative impacts to traffic operations and limitations of access to existing commercial and residential development. The Lenox Square Mall Entrance is an

existing signalized intersection that provides access to Lenox Square Mall as well as access to Monarch Centre that houses numerous offices and businesses. Elimination of the median opening would shift the peak hour volumes of 530 vehicles to the SB intersection and 405 vehicles to the NB intersection. At those intersections, the shifted vehicles would be required to make a U-turn onto Peachtree Road or a left turn onto a side road to gain access to the side road destination. Since U-turns are prohibited at Lenox Road due to an overlap in signal phasing, multiple left turns from Peachtree Road and Lenox Road would be required. This would necessitate increasing the duration of the left-turn phases, negatively impacting operations at Lenox Road and Around Lenox Drive, both already predicted to operate at LOS F. Many of the trips may also be diverted to the Lenox Square Mall parking area, a travel pattern that is undesirable.

Peachtree Road at Oak Valley/Commercial Drive (Phipps Plaza):

Spacing cannot be met because of negative impacts to traffic operations and limitations of access to existing commercial and residential development. Oak Valley Road is an existing signalized intersection that provides directional access to Phipps Plaza as well as access to Lenox Market Place that houses numerous businesses. Elimination of the median opening would shift 628 peak hour vehicles to other locations. Since U-turns are not allowed at Lenox Road, the NB and EB trips would either continue south on Peachtree Road to the first available U-turn opportunity, or more likely, find alternate routes through the mall parking area or other developments and/or side roads. Many of the SB trips on Peachtree Road could be expected to make U-turns at Wieuca Road. At those intersections, the shifted vehicles would be required to make a U-turn onto Peachtree Road to gain access to SB Peachtree Road and the side road destination. This would necessitate increasing the duration of the left-turn phases, negatively impacting operations at Lenox Road and Wieuca Road, both already predicted to operate at LOS F.

Peachtree Road at Wieuca Road:

Spacing cannot be met because of negative impacts to traffic operations and limitations on access to existing commercial and residential development. Wieuca Road is an existing signalized intersection that provides directional access to residential areas as well as access to numerous businesses, which would be negatively impacted by the loss of directional access. Elimination of the median opening would shift the peak volume of 965 vehicles to the downstream intersections and 1033 vehicles to the upstream intersection. At those intersections, the shifted vehicles would be required to make a U-turn onto Peachtree Road or find less desirable alternate routes to gain access to the side road destinations. This would necessitate increasing the duration of the left-turn phases, negatively impacting operations at Oak Valley Road and Roxboro Road.

Highway Capacity Software was used to analyze LOS with and without median opening spacing.

3) Auxiliary Right Turn Lanes

The Department's guidance for Auxiliary Lanes is found in TOPPS 6638-1 and states that when the posted speed is less than 45 mph, "right turn deceleration lanes shall be placed at paved public street intersections and at major traffic generators under the following conditions: a. Mainline current traffic volumes exceed 6,000 vehicles per day, and b. Traffic volumes on side road exceed 200 vehicles per day with peak hour right movements from the main road exceeding 20 vehicles per hour, and c. Estimated additional right of way cost per turn lane does not exceed \$25,000 plus \$1,000 per 1,000 vehicles per day of current mainline traffic." A design variance is requested to not have auxiliary right turn lanes for the following public street intersections or major traffic generators along Peachtree Road:

NB Auxiliary Right Turn Lanes

Intersection	a.		b.		c.			
	Peachtree	Side	Side	NB	Add. RW area req'd	Add. RW Cost	Add. Const. Cost	Add. Total Cost
	Volume	Volume	Speed	Right Turn volume				
vpd	vpd	mph	vph	ft ²	\$	\$	\$	
Highland Dr	31,770	4100		280	1650	123,750	28,000	151,750
Around Lenox Dr	26,970	8640	25	400	1650	123,750	17,500	141,250
Lenox Square (Mall Entrance)	29,780	5250	15	260	2750	137,500	35,000	172,500
Lenox Rd – free flow right	30,630	13,900	35	482	3750	187,500	48,750	236,250
Wieuca Rd – free flow right	26,860	8700	35	348	4400	220,000	61,250	281,250

SB Auxiliary Right Turn Lanes

Intersection	a.		b.		c.			
	Peachtree	Side	Side	SB	Add. RW area req'd	Add. RW Cost	Add. Const. Cost	Add. Total Cost
	Volume	Volume	Speed	Right Turn volume				
vpd	vpd	mph	vph	ft ²	\$	\$	\$	
Tower Place Dr	27,010	7850		280	3190	239,250	41,280	280,530
Stratford Rd	27,280	4570		240	3190	239,250	42,000	281,250
Commercial (Lenox Towers)	29,480	3200	25	216	1210	124,000	17,500	141,500
Commercial (Ritz)	30,150	4150	15	200	1210	90,750	10,500	101,250
Lenox Rd – free flow right	25,980	15,480	35	237	4200	210,000	54,600	264,400
Wieuca Rd	26,630	13,190	35	359	2200	110,000	28,600	138,600

Synchro 5, Traffic Signal Coordination Software was used to analyze intersections with and without an auxiliary right turn lane. Each intersection analyzed did not display a significant negative impact on LOS.

This Office recommends that the following design variances be approved:

- Lane widths of 10-ft and 11-ft along Peachtree Road.
- Median opening at Maple Drive/ Commercial Drive.
- Median opening at the Commercial Drive (Joe Muggs) – SB left-in only.
- Median opening at Highland Drive/ Commercial Drive (Prudential).
- Median opening at the Commercial Drive (Atlanta Financial)/ Tower Place Drive.
- Median opening at the Commercial Drive (Capitol City Plaza) – NB left-in only.
- Median opening at the Commercial Drive (Crown Plaza)/ Stratford Road.
- Median opening at Around Lenox Drive/ Commercial Drive (Lenox Towers).
- Median opening at Lenox Square (Mall Entrance)/ Commercial Drive (Ritz).
- Median opening at Oak Valley/ Commercial Drive (Phipps Plaza).
- Median opening at Wieuca Road.
- NB Auxiliary Right Turn onto Highland Drive.
- NB Auxiliary Right Turn onto Around Lenox Drive.
- NB Auxiliary Right Turn onto Lenox Square (Mall Entrance).
- NB Auxiliary Right Turn onto Lenox Road.
- NB Auxiliary Right Turn onto Wieuca Road.
- SB Auxiliary Right Turn onto Tower Place Drive.
- SB Auxiliary Right Turn onto Stratford Road.
- SB Auxiliary Right Turn onto Commercial Drive (Lenox Towers).
- SB Auxiliary Right Turn onto Commercial Drive (Ritz).
- SB Auxiliary Right Turn onto Lenox Road.
- SB Auxiliary Right Turn onto Wieuca Road.

JBB:ASW 

Attachment

1) Lane Width Variance:

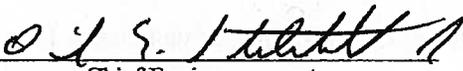
Variance for the Lane Width along Peachtree Road:

Approved: 
Chief Engineer

4/12/05
Date

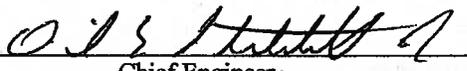
2) Median Opening Spacing Variances:

Variance for the Maple Drive/ Commercial Drive Median Opening:

Approved: 
Chief Engineer

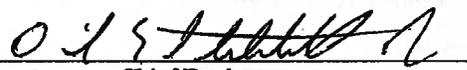
4/12/05
Date

Variance for the Commercial Drive (Joe Muggs) - SB left only Median Opening:

Approved: 
Chief Engineer

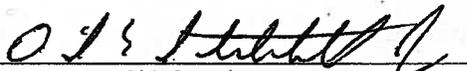
4/12/05
Date

Variance for the Highland Drive/ Commercial Drive (Prudential) Median Opening:

Approved: 
Chief Engineer

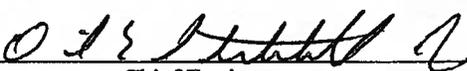
4/12/05
Date

Variance for the Commercial Drive (Atlanta Financial)/ Tower Place Drive Median Opening:

Approved: 
Chief Engineer

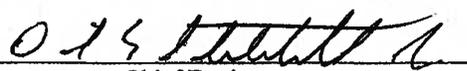
4/12/05
Date

Variance for the Commercial Drive (Capitol City Plaza) - NB left in only Median Opening:

Approved: 
Chief Engineer

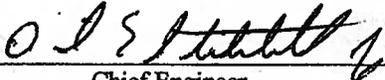
4/12/05
Date

Variance for the Commercial Drive (Crown Plaza)/ Stratford Road Median Opening:

Approved: 
Chief Engineer

4/12/05
Date

Variance for the Around Lenox Drive/ Commercial Drive (Lenox Towers) Median Opening:

Approved:  4/12/05
Chief Engineer Date

Variance for the Lenox Square (Mall Entrance)/ Commercial Drive (Ritz) Median Opening:

Approved:  4/12/05
Chief Engineer Date

Variance for the Oak Valley/ Commercial Drive (Phipps Plaza) Median Opening:

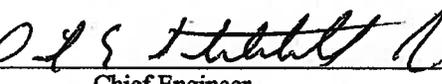
Approved:  4/12/05
Chief Engineer Date

Variance for the Wieuca Road Median Opening:

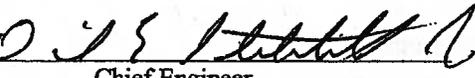
Approved:  4/12/05
Chief Engineer Date

3) Auxiliary Right Turn Lane Variances:

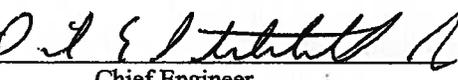
Variance for the NB Auxiliary Right Turn onto Highland Drive:

Approved:  4/12/05
Chief Engineer Date

Variance for the NB Auxiliary Right Turn onto Around Lenox Drive:

Approved:  4/12/05
Chief Engineer Date

Variance for the NB Auxiliary Right Turn onto Lenox Square (Mall Entrance):

Approved:  4/12/05
Chief Engineer Date

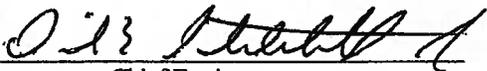
Variance for the NB Auxiliary Right Turn onto Lenox Road:

Approved: 
Chief Engineer
Date: 4/12/05

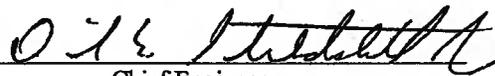
Variance for the NB Auxiliary Right Turn onto Wieuca Road:

Approved: 
Chief Engineer
Date: 4/12/05

Variance for the SB Auxiliary Right Turn onto Tower Place Drive:

Approved: 
Chief Engineer
Date: 4/12/05

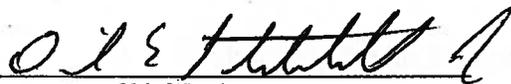
Variance for the SB Auxiliary Right Turn onto Stratford Road:

Approved: 
Chief Engineer
Date: 4/12/05

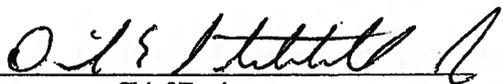
Variance for the SB Auxiliary Right Turn onto Commercial Drive (Lenox Towers):

Approved: 
Chief Engineer
Date: 4/12/05

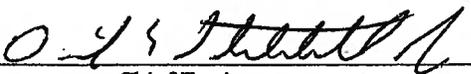
Variance for the SB Auxiliary Right Turn onto Commercial Drive (Ritz):

Approved: 
Chief Engineer
Date: 4/12/05

Variance for the SB Auxiliary Right Turn onto Lenox Road:

Approved: 
Chief Engineer
Date: 4/12/05

Variance for the SB Auxiliary Right Turn onto Wieuca Road:

Approved: 
Chief Engineer
Date: 4/12/05

Variance for the NB Auxiliary Right Turn onto Lenox Road:

Approved: 
Chief Engineer

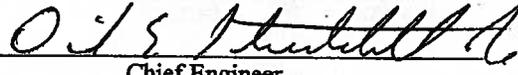
4/12/05
Date

Variance for the NB Auxiliary Right Turn onto Wieuca Road:

Approved: 
Chief Engineer

4/12/05
Date

Variance for the SB Auxiliary Right Turn onto Tower Place Drive:

Approved: 
Chief Engineer

4/12/05
Date

Variance for the SB Auxiliary Right Turn onto Stratford Road:

Approved: 
Chief Engineer

4/12/05
Date

Variance for the SB Auxiliary Right Turn onto Commercial Drive (Lenox Towers):

Approved: 
Chief Engineer

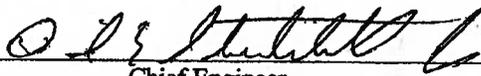
4/12/05
Date

Variance for the SB Auxiliary Right Turn onto Commercial Drive (Ritz):

Approved: 
Chief Engineer

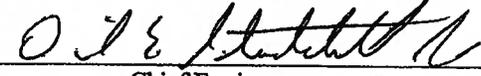
4/12/05
Date

Variance for the SB Auxiliary Right Turn onto Lenox Road:

Approved: 
Chief Engineer

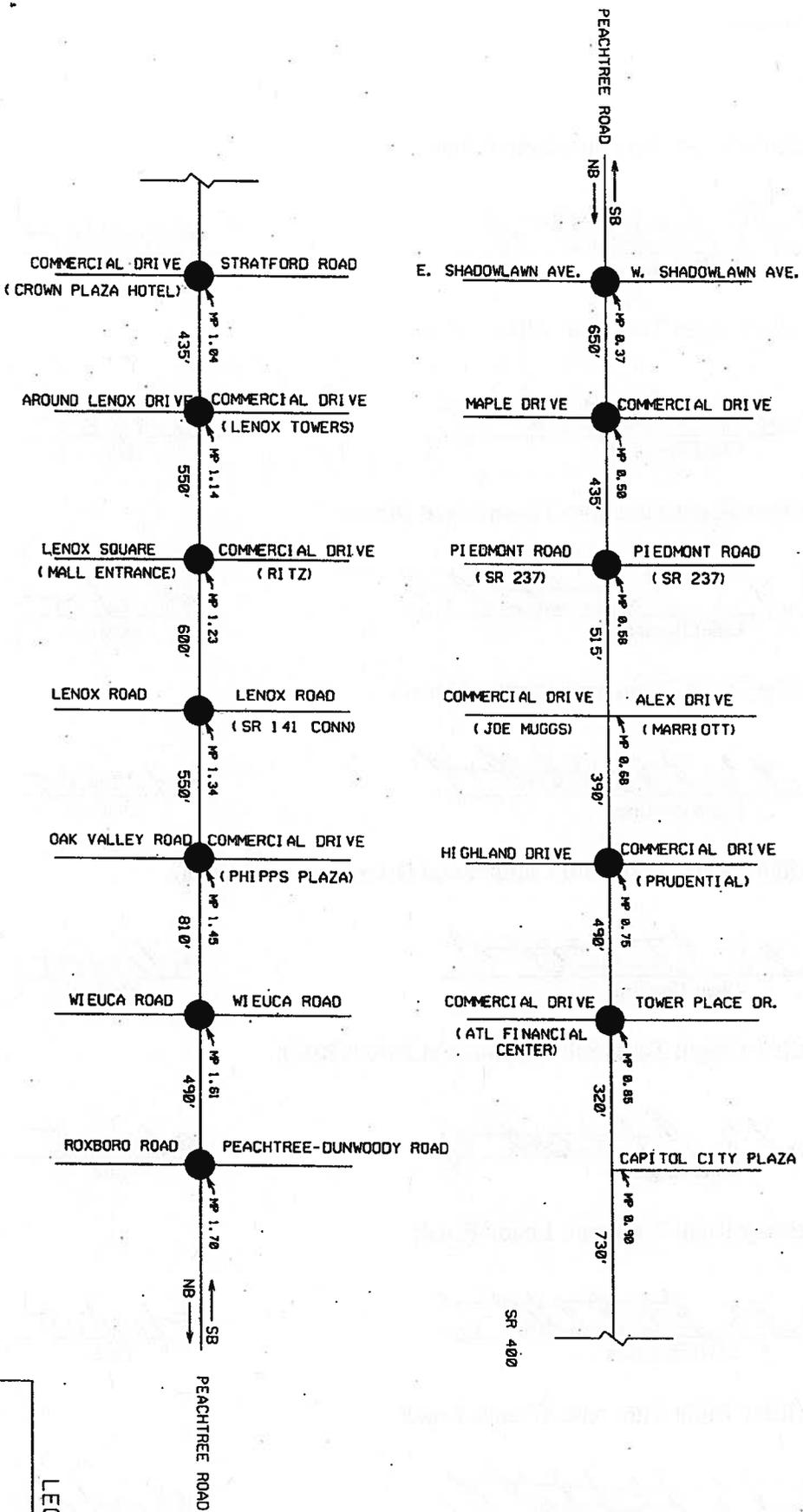
4/12/05
Date

Variance for the SB Auxiliary Right Turn onto Wieuca Road:

Approved: 
Chief Engineer

4/12/05
Date

ATTACHMENT #1
 PEACHTREE ROAD CORRIDOR IMPROVEMENTS
 DESIGN VARIANCE REQUEST
 MEDIAN SPACING



● TRAFFIC SIGNAL

LEGEND