

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

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

FILE P.I. #0010311 **OFFICE** Design Policy & Support
GDOT District 7 - Metro Atlanta
Fulton County **DATE** January 17, 2012
SR 400 @ Abernathy Road - NB Ramp Extension

FROM  Brent Story, State Design Policy Engineer

TO SEE DISTRIBUTION

SUBJECT APPROVED CONCEPT REPORT

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

Attachment

DISTRIBUTION:

Genetha Rice-Singleton, Program Control Administrator
Bobby Hilliard, State Program Delivery Engineer
Darryl VanMeter, State Innovative Program Delivery Engineer
Cindy VanDyke, State Transportation Planning Administrator
Angela Robinson, Financial Management Administrator
Glenn Bowman, State Environmental Administrator
Kathy Zahul, State Traffic Engineer
Georgene Geary, State Materials & Research Engineer
Ron Wishon, State Project Review Engineer
Jeff Baker, State Utilities Engineer
Ken Thompson, Statewide Location Bureau Chief
Michael Henry, Systems & Classification Branch Chief
Bryant Poole, District 7 Engineer
Scott Lee, District 7 Preconstruction Engineer
Jonathan Walker, District 7 Utilities Engineer
Loren Bartlett, Project Manager
BOARD MEMBER - 6th Congressional District

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

Project Type: <u>Operational</u>	P.I. Number: <u>0010311</u>
GDOT District: <u>Seven (7)</u>	County: <u>Fulton</u>
Federal Route Number: <u>19</u>	State Route Number: <u>400</u>

SR 400 @ Abernathy Road – NB Ramp Extension

Submitted for approval:
Gary Newton, P.E. Kimley-Horn and Associates, Inc.

Consultant Designer & Firm or GDOT Concept/Design Phase Office Head & Office <u>Dan M. Kimley</u>	DATE <u>11/10/2011</u>
Office Head (GDOT Project Manager's Office) <u>Andrew Sherry</u>	DATE <u>11/09/2011</u>
GDOT Project Manager	DATE

Recommendation for approval:

Program Control Administrator <u>Glenn Bowman</u> *	DATE <u>11/28/2011</u>
State Environmental Administrator (recommendation required)	DATE

State Traffic Engineer (recommendation required for roundabout projects) <u>Ron Wishon</u> *	DATE <u>11/18/2011</u>
Project Review Engineer <u>Sal Piszad</u> *	DATE <u>11/21/2011</u>

for State Utilities Engineer	DATE
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District Engineer (projects not originating in District Office)	DATE
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State Transportation Financial Management Administrator	DATE
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The concept as presented herein and submitted for approval is consistent with that which is included in the Regional Transportation Plan (RTP) and/or the State Transportation Improvement Program (STIP). <u>Cynthia L. VanRiper</u>	DATE <u>11-18-11</u>
State Transportation Planning Administrator (recommendation required)	DATE

* Due to funding, concept of the project, this project is NOT Required to be shown in the TIP/RTP.

* Recommendation on file

PLANNING & BACKGROUND DATA

The Georgia Department of Transportation (GDOT) and the State Road and Tollway Authority (SRTA) are making a constructive effort to improve transportation along State Route (SR) 400. The northbound on-ramp at the Abernathy Road interchange is one such area that experiences severe congestion as traffic merges onto northbound SR 400 from Abernathy Road.

PI 0010311 is operational in nature and is a short distance project which is not of regional significance. Therefore, the project is not included in the FY 08-11 TIP.

Project Limits

The project limits for this project are of a sufficient length to improve traffic congestion on SR 400 in the vicinity of the Abernathy Road interchange. The proposed southern terminus is suitable because it would tie to the existing two lanes on the northbound ramp. The existing ramp tapers from two lanes to a single lane tapered entrance onto SR 400. The northern terminus for this project should terminate at the SR 400 northbound auxiliary lane prior to the on ramp just north of the MARTA flyover bridge.

Project Goal

The goal of the project would be to improve traffic mobility in the vicinity of the SR 400 at Abernathy Road interchange. Improvements are needed to alleviate the severe traffic congestion caused by motorists merging onto northbound SR 400 from Abernathy Road.

Description of the proposed project:

This project is to reconstruct the northbound on ramp from Abernathy Road to SR 400 by providing a two-lane entrance ramp. The on-ramp will be extended approximately 2,900 feet using an auxiliary, parallel fifth lane with an 840-foot, 70:1 taper at its terminus. The interstate gore would remain in its existing location and the new fifth lane would extend beyond the MARTA flyover bridge and merge into the existing travel lanes before the subsequent on-ramp to the north. The total length of the project is 0.75 miles.

Federal Oversight: Full Oversight Exempt State Funded Other

MPO: N/A MPO – Atlanta Regional Commission
MPO Project TIP #

Regional Commission: N/A RC – Atlanta Regional Commission
RC Project ID #

Congressional District(s): 6

Projected Traffic: ADT

Current Year (2011): 94,400 Open Year (2012): 94,900 Design Year (2032): 105,050

Functional Classification (Mainline): Urban Freeway and Expressway

Is this project on a designated bike route? No YES

Is this project located on a pedestrian plan? No YES

CONTEXT SENSITIVE SOLUTIONS

Issues of Concern: None

Context Sensitive Solutions: None

DESIGN AND STRUCTURAL DATA

Mainline Design Features: *SR 400 (Northbound)*

Feature	Existing	Standard*	Proposed
Typical Section			
- Number of Lanes	4	N/A	4-5
- Lane Width(s)	12 ft	12 ft	12 ft
- Median Width & Type	Barrier	Barrier	Barrier
- Outside Shoulder Width & Type	14 ft (12' pvd)	14 ft (12' pvd)	16 ft (12' pvd)
- Outside Shoulder Slope	2-6%	2-6%	6%
- Inside Shoulder Width & Type	8 ft	10 ft	N/A
- Sidewalks	N/A	N/A	N/A
- Auxiliary Lanes	N/A	12 ft	12 ft
- Bike Lanes	N/A	N/A	N/A
Posted Speed	55		55
Design Speed	55	55	55
Min Horizontal Curve Radius	22600 ft	1060 ft	22600 ft
Superelevation Rate	1%	3%	3%
Grade	3.2%	4%	3.2%
Access Control	Full	Full	Full
Right-of-Way Width	Varies	N/A	Varies
Maximum Grade – Crossroad	N/A	N/A	N/A
Design Vehicle	Unknown	WB-50	WB-50

*According to current GDOT design policy if applicable

Major Interchanges/Intersections: SR 400 at Abernathy Road

Utility Involvements: GDOT, MARTA, Fulton County

Public Interest Determination Policy and Procedure recommended (Utilities)? YES NO

Project anticipated to be delivered by design-build.

SUE Required: Yes No

Railroad Involvement: None

Right-of-Way:

Required Right-of-Way anticipated: YES NO Undetermined
 Easements anticipated: Temporary Permanent Utility Other

Anticipated number of impacted parcels: 0
 Anticipated number of displacements (Total): 0
 Businesses: 0
 Residences: 0
 Other: 0

Location and Design approval: Not Required Required

Off-site Detours Anticipated: No Yes Undetermined

Transportation Management Plan Anticipated: YES NO

Design Exceptions to FHWA/AASHTO controlling criteria anticipated:

FHWA/AASHTO Controlling Criteria	YES	Appvl Date (if applicable)	NO	Undetermined
1. Design Speed	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Lane Width	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Shoulder Width	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Bridge Width	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Horizontal Alignment	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. Superelevation	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
7. Vertical Alignment	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
8. Grade	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
9. Stopping Sight Distance	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
10. Cross Slope	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
11. Vertical Clearance	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
12. Lateral Offset to Obstruction	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
13. Bridge Structural Capacity	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>

Design Variances to GDOT standard criteria anticipated:

GDOT Standard Criteria	Reviewing Office	YES	Appvl Date (if applicable)	NO	Undetermined
1. Access Control - Median Opening Spacing	DP&S	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Median Usage & Width	DP&S	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Intersection Skew Angle	DP&S	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Lateral Offset to Obstruction	DP&S	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Intersection Sight Distance	DP&S	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. Bike & Pedestrian Accommodations	DP&S	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
7. GDOT Drainage Manual	DP&S	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
8. Georgia Standard Drawings	DP&S	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
9. GDOT Bridge & Structural Manual	Bridge Design	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
10. Roundabout Illumination - (if applicable)	DP&S	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
11. Rumble Strips/Safety Edge	DP&S	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>

VE Study anticipated: No Yes Completed – Date:

ENVIRONMENTAL DATA

Anticipated Environmental Document:

GEPA: **NEPA:** Categorical Exclusion EA/FONSI EIS

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

This project is located in the Metro-Atlanta non-attainment area for PM 2.5 and Ozone. The project is not listed in the approved Transportation Improvement Program (TIP). Because the project is funded with 44220 monies from the State Roadway and Tollway Authority, it is considered operational in nature and is not a project of regional significance. Therefore, it is exempt from being shown in the TIP. It is anticipated that this project will not require a qualitative PM2.5 hotspot analysis since it is not a project of local air quality concern under 40 CFR 93.123(b)(1). Because the average annual daily traffic along the on ramp extension will NOT exceed 10,000 vehicles a carbon monoxide analysis is not required.

Environmental Permits/Variations/Commitments/Coordination anticipated:

Permit/ Variance/ Commitment/ Coordination Anticipated	YES	NO	Remarks
1. U.S. Coast Guard Permit	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
2. Forest Service/Corps Land	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
3. CWA Section 404 Permit	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
4. Tennessee Valley Authority Permit	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
5. Buffer Variance	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
6. Coastal Zone Management Coordination	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
7. NPDES	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
8. FEMA	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
9. Cemetery Permit	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
10. Other Permits	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
11. Other Commitments	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
12. Other Coordination	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Is a PAR required? No Yes Completed – Date: [Click here to enter a date.](#)

NEPA/GEPA: No significant issues are anticipated. There are no Section 4(f) resources in the area.

Ecology A combined Ecology Resource Survey and Assessment of Effects Report is appropriate for this project. The federally listed and candidate species known to occur in Fulton County include the Cherokee darter (*Etheostoma scotti*), gulf moccasinshell (*Medionidus penicillatus*), shinyrayed pocketbook (*Hamiota subangulata*), dwarf sumac (*Rhus michauxii*), and Georgia aster (*Symphotrichum georgianum*). It is anticipated that there will be no suitable habitat for any of the

species. It is also anticipated that there will be no significant ecological issues. Surveys for the dwarf sumac and the Georgia aster were completed during their appropriate 2011 season.

History: There are no potential or known historic resources present in the survey corridor. A historic survey is required. It is anticipated that a No Historic Properties Affected would be appropriate for this project.

Archeology: There are no potential or known archaeological resources present in the survey corridor. An archeology survey is required. It is anticipated that an archeology short form will be appropriate for this project.

Air & Noise: A Noise study is not required for this project.

Public Involvement: Public Information Open Houses (PIOH) were held by SRTA on December 7,8 & 20 2010 and also held January 5 & 6, 2011. The PIOH's were held for various Ga 400 corridor improvement projects including PI 0010311.

Major stakeholders: The major stakeholders in the project include SRTA, City of Sandy Springs, and Perimeter CID.

PROJECT RESPONSIBILITIES

Project Activities:

Project Activity	Party Responsible for Performing Task(s)
Concept Development	Kimley-Horn and Associates, Inc.
Design	Kimley-Horn and Associates, Inc.
Right-of-Way Acquisition	None
Utility Relocation	GDOT
Letting to Contract	GDOT
Construction Supervision	GDOT
Providing Material Pits	Contractor
Providing Detours	None
Environmental Studies, Documents, and Permits	Kimley-Horn and Associates, Inc.
Environmental Mitigation	None
Construction Inspection & Materials Testing	GDOT

Lighting required: No Yes

Initial Concept Meeting: N/A

Concept Meeting: October 13, 2011

Other projects in the area:

- 0006398 – SR 400 ATMS Ramp Meters from I-285 to SR 120/Old Milton Parkway. This project has been constructed.

- 0008415 – SR 400 at Hammond Drive Interchange – This project has been constructed.
- 0001757 – SR 400 from I-285 to McFarland Road/Forsyth County HOV Lanes. This project is in design.
- 751580- SR 400/US 19 @ CR145/Northridge Road – this project is in design.
- 0010290 – SR 400 from CR 458/McFarland Road to Big Creek Greenway – Northbound Lane Extension. This project is in design and will be Let with 0010311.

Other coordination to date: N/A

Project Cost Estimate and Funding Responsibilities:

	Breakdown of PE	ROW	Utility	CST*	Environmental Mitigation	Total Cost
By Whom	GDOT	GDOT	GDOT	GDOT	N/A	
\$ Amount	\$300,000	\$0	\$0	\$1,317,817	N/A	\$1,617,817
Date of Estimate	8/30/2011	N/A	11/02/2011	8/30/2011		

*CST Cost includes: Construction, Engineering and Inspection, and Liquid AC Cost Adjustment.

ALTERNATIVES DISCUSSION

Alternative selection:

Preferred Alternative: Extend the northbound entrance ramp approximately 2,900 ft using an auxiliary, parallel fifth lane. Widening of the ramp to create a two-lane ramp up to the gore. The limits of construction would be entirely within the existing R/W, eliminating the need to acquire right of way and/or easements.			
Estimated Property Impacts:	0	Estimated Total Cost:	\$2,000,000
Estimated ROW Cost:	\$0	Estimated CST Time:	9 months
Rationale: This alternative would allow a greater distance for on-ramp vehicles to merge into the SR 400 traffic flow and allow greater queuing distance along the ramp. The limits of construction would be entirely within the existing R/W, eliminating the need to acquire right of way and/or easements.			

No-Build Alternative: No-Build			
Estimated Property Impacts:	0	Estimated Total Cost:	\$0
Estimated ROW Cost:	\$0	Estimated CST Time:	0
Rationale: No-build does not address the need to improve operations during peak hours when heavy traffic is not able to smoothly merge onto SR 400. No-build continues to operate at LOS F.			

Comments:

Attachments:

1. Concept Layout
2. Typical sections

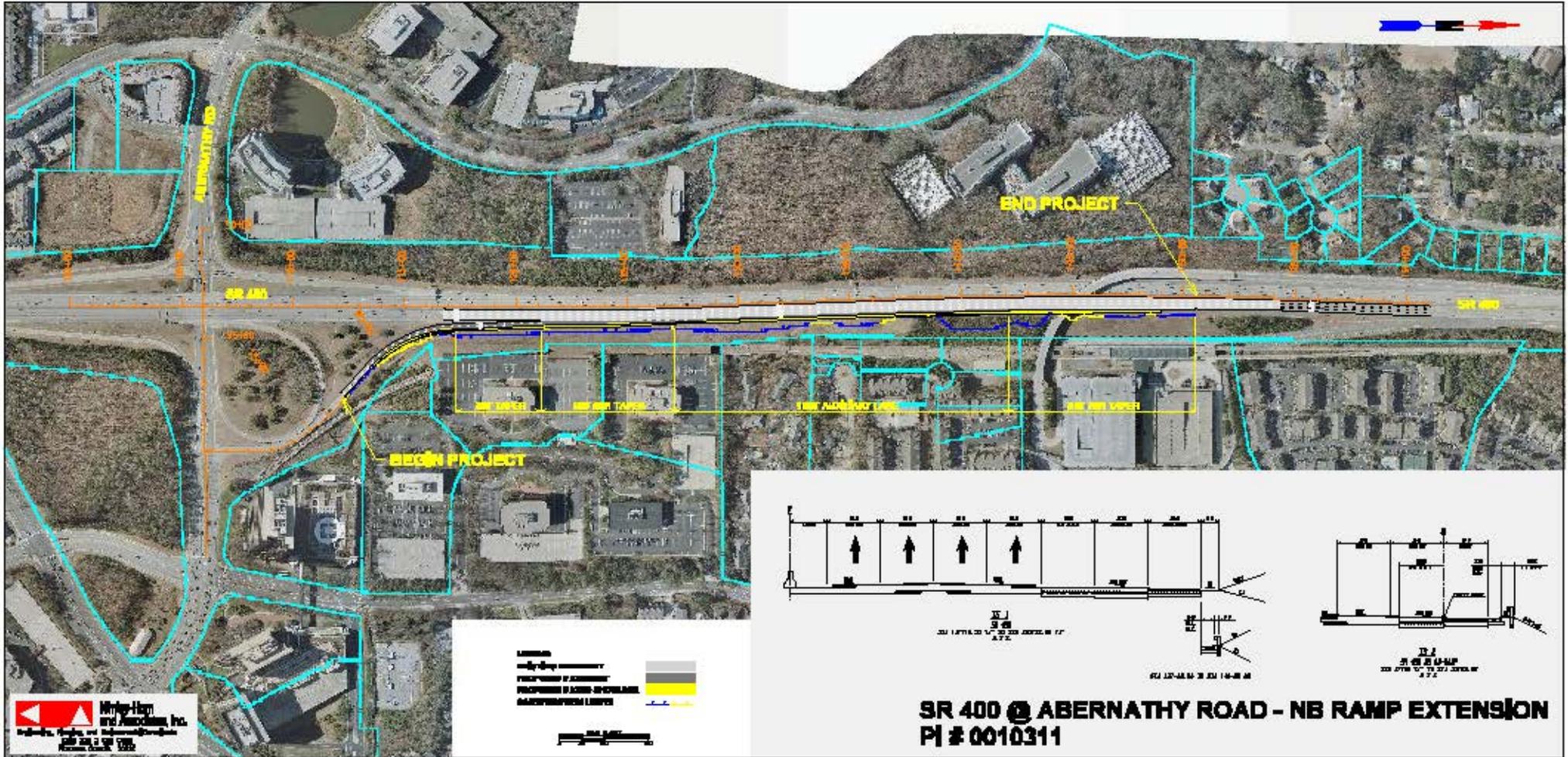
3. Detailed Cost Estimates:
 - a. Construction including Engineering and Inspection
 - b. Completed Fuel & Asphalt Price Adjustment forms
 - c. Utilities
4. Traffic data and crash summaries
5. Traffic diagrams
6. Capacity analysis summary (*tabular format*)
7. Summary of TE Study
8. Minutes of Concept meetings

APPROVALS

Concur: Bill R. McManis
Director of Engineering

Approve: Dale M. Run
Chief Engineer

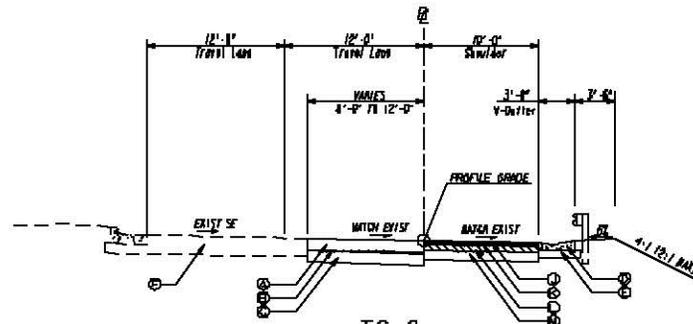
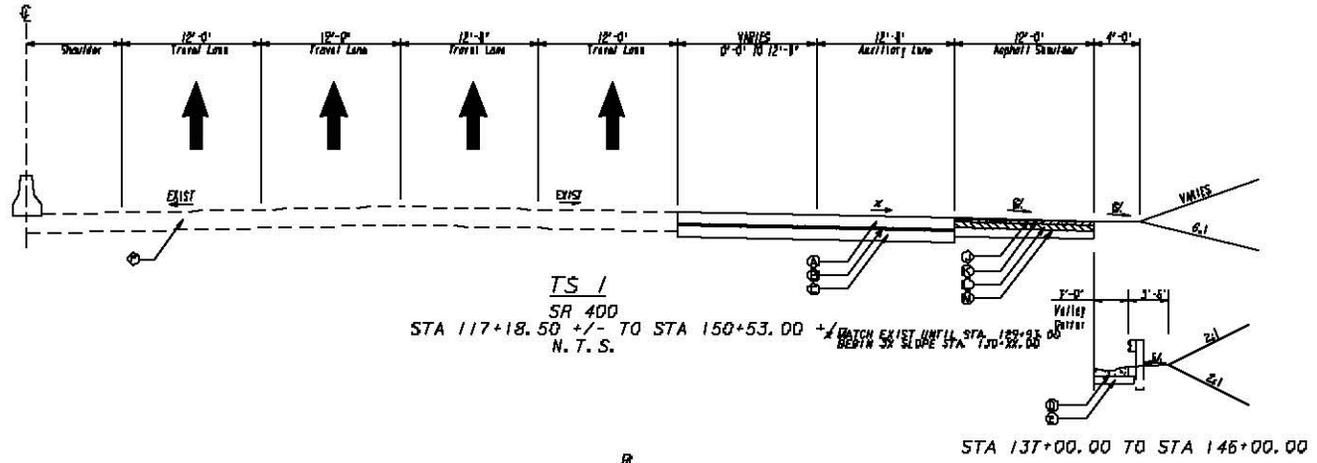
1-11-12
Date




Hays Group and Associates, Inc.
 Engineers, Architects, and Environmental Planners
 2000 1st St. SW
 Grand County, CO 80430

LEGEND
 LIMITS
 EXISTING ROADWAY
 PROPOSED ALIGNMENT
 PROPOSED PAVED OVERLAY
 PROPOSED DRIVE

SR 400 @ ABERNATHY ROAD - NB RAMP EXTENSION
PI # 0010311



REQUIRED PAVEMENT

- Ⓐ PLAIN PC CONC PAVT, CL 3 CONC, 12 INCH THK
- Ⓑ RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (330 LB/SY)
- Ⓒ GRADED AGGREGATE BASE, 12"
- Ⓓ CONCRETE V BUTTER, GA. DETAIL D-33
- Ⓔ GRADED AGGREGATE BASE, 4"
- Ⓕ EXISTING PAVEMENT
- Ⓖ RECYCLED ASPH CONC 12.5 MM SUPERPAVE, GP 2 ONLY, INCL BITUM MATL & H LIME (165 LB/SY)
- Ⓗ RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (220 LB/SY)
- Ⓘ RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME (140 LB/SY)
- Ⓚ GRADED AGGREGATE BASE, 10"



REVISION DATES

STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 OFFICE:

TYPICAL SECTIONS

Attachment 3

STATE HIGHWAY AGENCY

DATE : 08/31/2011
PAGE : 1

JOB ESTIMATE REPORT

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JOB NUMBER : 0010311 SPEC YEAR: 01

DESCRIPTION: SR 400 @ ABERNATHY ROAD - NB RAMP EXTENSION

ITEMS FOR JOB 0010311

LINE	ITEM	ALT	UNITS	DESCRIPTION	QUANTITY	PRICE	AMOUNT
0020	150-1000		LS	TRAFFIC CONTROL - PI 0010311	1.000	100000.00	100000.00
0025	210-0100		LS	GRADING COMPLETE - PI 0010311	1.000	250000.00	250000.00
0030	207-0203		CY	FOUND BKFILL MATL, TP II	50.000	41.86	2093.43
0035	310-1101		TN	GR AGGR BASE CRS, INCL MATL	5765.000	17.89	103148.94
0040	402-3130		TN	RECYL AC 12.5MM SP,GP2,BM&HL	395.000	77.38	30565.54
0045	402-3190		TN	RECYL AC 19 MM SP,GP 1 CR 2 ,INC BM&HL	1220.000	66.08	80627.25
0050	402-3121		TN	RECYL AC 25MM SP,GPI/2,BM&HL	1045.000	67.38	70420.02
0055	413-1000		GL	BITUM TACK COAT	680.000	3.11	2115.06
0060	439-0026		SY	PLN PC CONC FVMT CL3 12" THK	4215.000	64.00	269790.05
0065	441-0204		SY	PLAIN CONC DITCH PAVING, 4 IN	800.000	29.56	23654.79
0070	441-3999		LF	CONCRETE V GUTTER	1500.000	14.85	22275.30
0075	500-3200		CY	CL B CONC	12.000	184.42	2213.07
0080	500-9999		CY	CL B CONC,BASE OR FVMT WIDEN	30.000	153.79	4613.80
0085	550-1180		LF	STM DR PIPE 18",H 1-10	500.000	34.73	17368.87
0090	550-1240		LF	STM DR PIPE 24",H 1-10	500.000	35.10	17552.21
0095	550-1360		LF	STM DR PIPE 36",H 1-10	100.000	54.04	5404.28
0100	550-4224		EA	FLARED END SECT 24 IN, ST DR	2.000	522.56	1045.13
0105	620-0100		LF	TEMP BARRIER, METHOD NO. 1	4000.000	21.76	87062.60
0110	631-0005		EA	PERM CHGABLE MSG SIGN,P/LL/TP- 3	3.000	7000.00	21000.00
0114	641-1100		LF	GUARDRAIL, TP T	20.000	74.50	1490.13
0115	641-1200		LF	GUARDRAIL, TP W	1100.000	16.21	17835.42
0120	641-5001		EA	GUARDRAIL ANCHORAGE, TP 1	3.000	619.82	1859.47
0125	641-5012		EA	GUARDRAIL ANCHORAGE, TP 12	1.000	1850.09	1850.09
0130	668-2100		EA	DROP INLET, GP 1	10.000	1468.25	14682.53
0140	636-1033		SF	HWY SIGNS, TPLMAT,REFL SH TP 9	50.000	22.00	1100.10
0145	636-2070		LF	GALV STEEL POSTS, TP 7	85.000	8.70	740.13
0159	657-1054		LF	PRF PL SD FVMT MKG,5",WH,TP PB	5000.000	3.22	16121.80
0160	657-3054		GLF	PRF PL SK FVMT MKG,5",WH,TP PB	3100.000	2.22	6904.97
0170	163-0232		AC	TEMPORARY GRASSING	1.000	377.92	377.92
0175	163-0240		TN	MULCH	30.000	231.60	6948.15
0180	163-0300		EA	CONSTRUCTION EXIT	2.000	1172.27	2344.55
0185	163-0550		EA	CONS & REM INLET SEDIMENT TRAP	10.000	95.52	955.22
0190	165-0030		LF	MAINT OF TEMP SILT FENCE, TP C	2000.000	0.71	1433.30
0195	165-0101		EA	MAINT OF CONST EXIT	2.000	442.10	884.22
0200	165-0105		EA	MAINT OF INLET SEDIMENT TRAP	10.000	58.21	582.12
0205	167-1000		EA	WATER QUALITY MONITORING AND SAMPLING	2.000	298.53	597.08
0210	167-1500		MO	WATER QUALITY INSPECTIONS	6.000	562.12	3372.78
0215	171-0030		LF	TEMPORARY SILT FENCE, TYPE C	7000.000	2.68	18802.07
0220	700-6910		AC	PERMANENT GRASSING	1.000	708.04	708.04
0225	700-7000		TN	AGRICULTURAL LIME	2.000	96.34	192.68
0230	700-8000		TN	FERTILIZER MIXED GRADE	1.000	484.88	484.88

STATE HIGHWAY AGENCY

DATE : 08/31/2011
PAGE : 2

JOB ESTIMATE REPORT

0235	700-8100		LB	FERTILIZER NITROGEN CONTENT	50.000	2.36	118.22
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ITEM TOTAL							1211336.21
INFLATED ITEM TOTAL							1211336.21

TOTALS FOR JOB 0010311

ESTIMATED COST:							1211336.21
CONTINGENCY PERCENT (5.0):							60566.81
ESTIMATED TOTAL:							1271903.02

PROJ. NO.: 0
P.I. NO. 0010311
DATE: 10/12/2011

Base Construction Cost		\$	1,211,336.21
E & I	5%	\$	60,566.81
Construction Contingency		\$	-
Subtotal Construction Cost		\$	<u>1,271,903.02</u>
Liquid AC Adjustment (50 % cap)		\$	45,914.00
Total Construction Cost		\$	<u>1,317,817.02</u>

PROJ. NO.

[Redacted]

CALL NO.

P.I. NO.

0010311

DATE

10/12/2011

INDEX (TYPE)

REG. UNLEADED
DIESEL
LIQUID AC

DATE	INDEX
Oct-11	\$ 3.258
	\$ 3.769
	\$ 563.00

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)					44927.4	\$	44,927.40
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	\$	900.80			
Monthly Asphalt Cement Price month project let (APL)			\$	563.00			
Total Monthly Tonnage of asphalt cement (TMT)				133			

ASPHALT	Tons	%AC	AC ton
Leveling		5.0%	0
12.5 OGFC		5.0%	0
12.5 mm	395	5.0%	19.75
9.5 mm SP		5.0%	0
25 mm SP	1045	5.0%	52.25
19 mm SP	1220	5.0%	61
	2660		133

BITUMINOUS TACK COAT

Price Adjustment (PA)					\$	986.60	\$	986.60
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	\$	900.80				
Monthly Asphalt Cement Price month project let (APL)			\$	563.00				
Total Monthly Tonnage of asphalt cement (TMT)				2.920668627				

Bitum Tack	Gals	gals/ton	tons
	680	232.8234	2.92066863

PROJ. NO.

[Redacted]

CALL NO.

P.I. NO.

0010311

DATE

10/12/2011

BITUMINOUS TACK COAT (surface treatment)

Price Adjustment (PA)						0	\$	-
Monthly Asphalt Cement Price month placed (APM)		Max. Cap	60%	\$	900.80			
Monthly Asphalt Cement Price month project let (APL)				\$	563.00			
Total Monthly Tonnage of asphalt cement (TMT)					0			

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

TOTAL LIQUID AC ADJUSTMENT						\$	45,914.00
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DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE OFFICE District Seven Utilities
DATE November 2, 2011

FROM Jonathan Walker, District Utilities Engineer

TO Andrew Hoenig, P.E., Program Delivery

SUBJECT **Preliminary Utility Cost Estimate**
SR 400 @ Abernathy Road
PI # 0010311

As per your request, a field inspection was conducted on the above referenced project. The following companies have facilities that occupy the public right-of-way and should be relocated at **no cost** to the Department of Transportation:

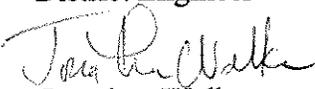
Fulton County Public Works
MARTA
GDOT

There were no utilities observed that could potentially have prior rights. Therefore, there are no reimbursable utilities at this time. Please note that this estimate was prepared without the certification of right-of-way and could change when more detailed information is made available.

If you have any questions, please contact Mr. Clyde Cunningham at (770) 986-1117.

Sincerely,

Bryant R. Poole
District Engineer


For: Jonathan Walker
District Utilities Engineer

BRP:JW:CAC

c: Jeff Baker, P.E.
File

P.I. Number 0010311
SR 400 Northbound Ramp Extension at Abernathy Road

Existing Conditions

This section of SR 400 is functionally classified as an Urban Expressway and Freeway. The existing conditions in the area are as follows:

SR 400 – Between the Abernathy Road off-ramps and on-ramp

- Four (4) 12-foot through lanes (NB)
- Concrete Barrier-Separated Median
- Four (4) 12-foot through lanes (SB)
- One (1) 12-foot Single Lane Exit Ramp

Northbound on-ramp

- One (1) 16-foot Single Lane Taper – Type Entrance Ramp (NB)

SR 400 – North of Abernathy Road

- Four (4) 12-foot through lanes (NB)
- Concrete Barrier-Separated Median
- Four (4) 12-foot through lanes (SB)

The current posted speed limit along SR 400 is 55 miles per hour (MPH) south and north of the Abernathy Road interchange.

Existing and Projected Traffic Volumes

The current (2011) Average Daily Traffic (ADT) ranges from 78,875 between the SR 400 Abernathy Road off and on-ramps to 94,400 on SR 400 north of Abernathy Road. The Abernathy Road northbound on-ramp current (2011) ADT is 15,525. Table 1 provides a listing of existing (2011) traffic volumes on SR 400 in the vicinity of the Abernathy Road interchange. The 2010 regional travel demand model has an annual growth rate of 0.7% along SR 400 and the northbound Abernathy on-ramp.

Table 1			
Volume Summary for (2011) Existing			
Segment	AM Peak	PM Peak	ADT
SR 400 between the Abernathy Road Off-Ramps and On-Ramp	6,350	5,500	78,875
Northbound On-Ramp	775	1,900	15,525
SR 400 North of Abernathy Road	7,150	7,400	94400

Sources: Kimley-Horn and Associates, Inc. 2011
 Georgia's State Traffic and Reporting Statistics, 2011

Table 2	
Volume Summary for (2032) No-Build	

Segment	AM Peak	PM Peak	ADT
SR 400 between the Abernathy Road Off-Ramps and On-Ramp	6,900	6,100	87,275
Northbound On-Ramp	925	2,125	17,775
SR 400 North of Abernathy Road	7,825	8,825	105,050

Note: Traffic volumes grown from 2010 regional travel demand model used for PLAN 2040

Levels-of-Service (LOS)

A substantial portion of the traffic congestion in this area is the result of the short distance that all of the motorists have in which to merge onto SR 400 from the northbound on-ramp. The existing (2011) LOS in this area ranges from “B” and “D” in the AM Peak Hour at the on-ramp to a “F” for all segments in the PM Peak Hour as depicted in Table 3. The design traffic volumes provide for LOS to decrease to a “C” and “D” in the AM Peak Hour at the on-ramp to a “F” for all segments in the PM Peak Hour as shown in Table 4.

Table 3 Existing Year 2011 AM and PM LOS Analysis				
Segment	AM Peak Hour		PM Peak Hour	
	Density (VPLPM)**	Overall LOS	Density (VPLPM)**	Overall LOS
SR 400 between the Abernathy Road Off-Ramps and On-Ramp	29	D	73	F
Northbound On-Ramp	17	B	120	F
SR 400 North of Abernathy Road	33	D	65	F

** VPLPM represents vehicles per lane per mile
Source: Kimley-Horn and Associates, Inc. 2011

Table 4 Design Year 2032 No-Build AM and PM LOS Analysis				
Segment	AM		PM	
	Density (VPLPM)**	Overall LOS	Density (VPLPM)**	Overall LOS
SR 400 between the Abernathy Road Off-Ramps and On-Ramp	36	E	73	F
Northbound On-Ramp	21	C	124	F
SR 400 North of Abernathy Road	41	E	66	F

** VPLPM represents vehicles per lane per mile
Source: Kimley-Horn and Associates, Inc. 2011

Crash Data

Crash data for SR 400 from Abernathy Road to the MARTA North Springs overpass, as well as for the northbound on-ramp from Abernathy Road, were obtained from the Georgia Department of Transportation accident records for the years 2006, 2007, and 2008. Table 5 summarizes the number of crashes, injuries, and fatalities for this section of SR 400 for each year. This table shows that the accident rates for this section of SR 400 have been consistently lower than the statewide average.

Table 5 GDOT Crash History SR 400 from Abernathy Road to North Springs MARTA Station									
	Study Corridor Quantity			Study Corridor Rates			Georgia Statewide Average Rates		
Year	Accidents	Injuries	Fatalities	Accidents	Injuries	Fatalities	Accidents	Injuries	Fatalities
2006	44	18	0	68	25	0.00	200	43	0.37
2007	95	23	0	56	16	0.00	205	45	0.27
2008	78	5	0	58	29	0.00	207	47	0.87
Total	217	82	0	-	-	-	-	-	-

Note: Segment accident rates are number of accidents per 100 million vehicle miles.

Source: Georgia Department of Transportation, 2011

Department of Transportation State of Georgia

INTERDEPARTMENT CORRESPONDENCE

FILE Fulton County **OFFICE** Planning
P.I. # 0010311
DATE August 26, 2011

FROM Cindy VanDyke, State Transportation Planning Administrator

TO Daryl VanMeter, State Innovative Engineer
Attention: Andrew Hoenig

SUBJECT **Reviewed** Design Traffic for SR 400 @ ABERNATHY ROAD - NB RAMP
EXTENSION.

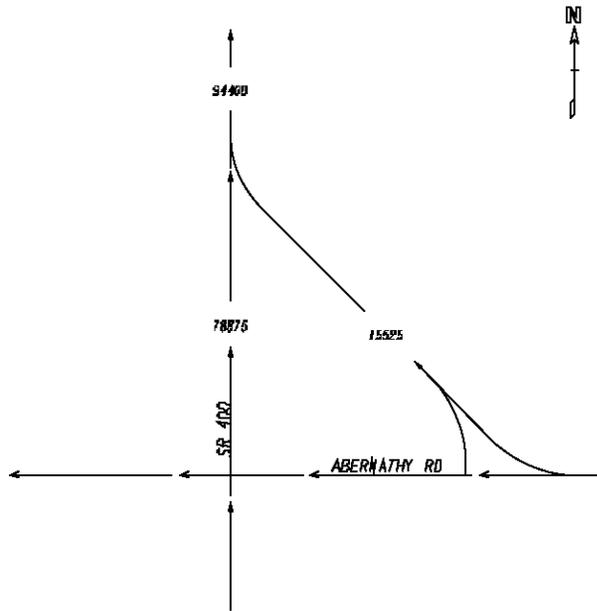
We have Reviewed Design Traffic for the above project.

The traffic is approved based on the information furnished. If you have any questions concerning this information please contact Abby Ebodaghe at (404) 631-1923.

CLV/AFE

24 HR TRUCKS: 3%
S.U.: 2%
COMB.: 1%

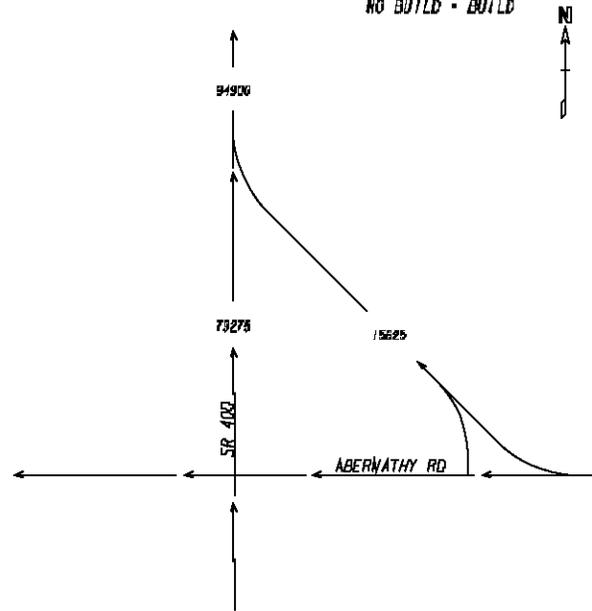
EXISTING YEAR 2011 ADT
TRAFFIC VOLUMES



24 HR TRUCKS: 3%
S.U.: 2%
COMB.: 1%

BASE YEAR 2012 ADT
TRAFFIC VOLUMES

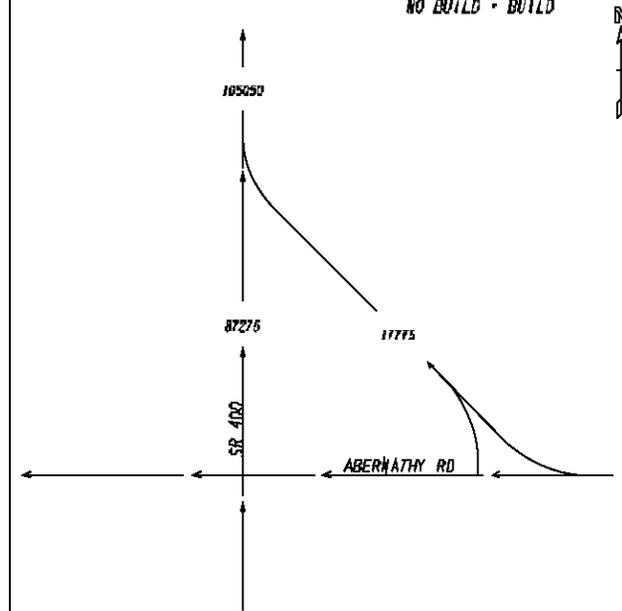
NO BUILD - BUILD



24 HR TRUCKS: 3%
S.U.: 2%
COMB.: 1%

DESIGN YEAR 2032 ADT
TRAFFIC VOLUMES

NO BUILD - BUILD



FULTON COUNTY
SR 400 @ ABERNATHY RD
PI # 00103 / 01/11



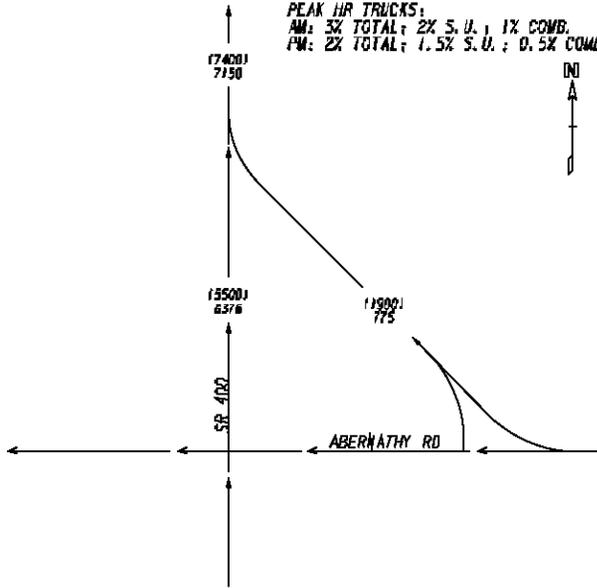
GEORGIA
DEPARTMENT
OF
TRANSPORTATION

REVISION DATES

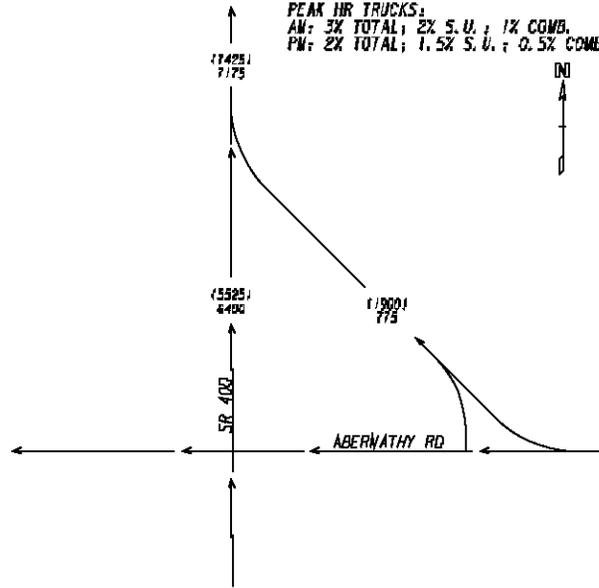
STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
TRAFFIC DIAGRAM
SR 400 @ ABERNATHY RD - NB RAMP EXTENSION

DRAWING NO.
10-01

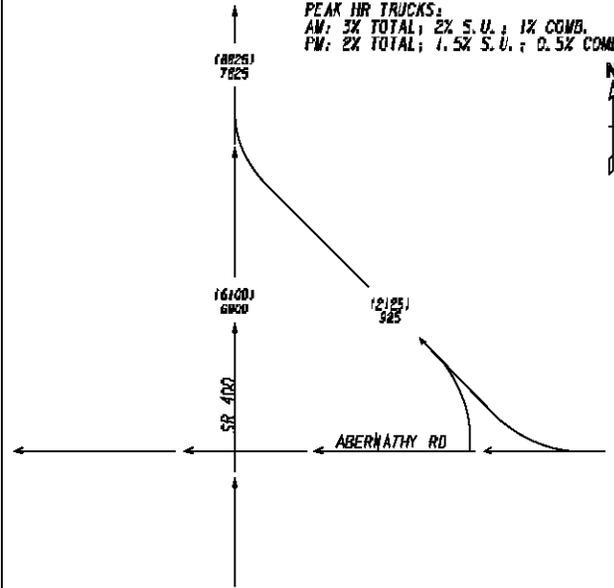
EXISTING YEAR 2011 ADT
 TRAFFIC VOLUMES
 PM PEAK HOUR VOLUMES = 1000
 AM PEAK HOUR VOLUMES = 000
 PEAK HR TRUCKS:
 AM: 3% TOTAL; 2% S.U.; 1% COMB.
 PM: 2% TOTAL; 1.5% S.U.; 0.5% COMB.



BASE YEAR 2012
 TRAFFIC VOLUMES
 PM PEAK HOUR VOLUMES = 1000
 AM PEAK HOUR VOLUMES = 000
 PEAK HR TRUCKS:
 AM: 3% TOTAL; 2% S.U.; 1% COMB.
 PM: 2% TOTAL; 1.5% S.U.; 0.5% COMB.



DESIGN YEAR 2032
 TRAFFIC VOLUMES
 PM PEAK HOUR VOLUMES = 1000
 AM PEAK HOUR VOLUMES = 000
 PEAK HR TRUCKS:
 AM: 3% TOTAL; 2% S.U.; 1% COMB.
 PM: 2% TOTAL; 1.5% S.U.; 0.5% COMB.

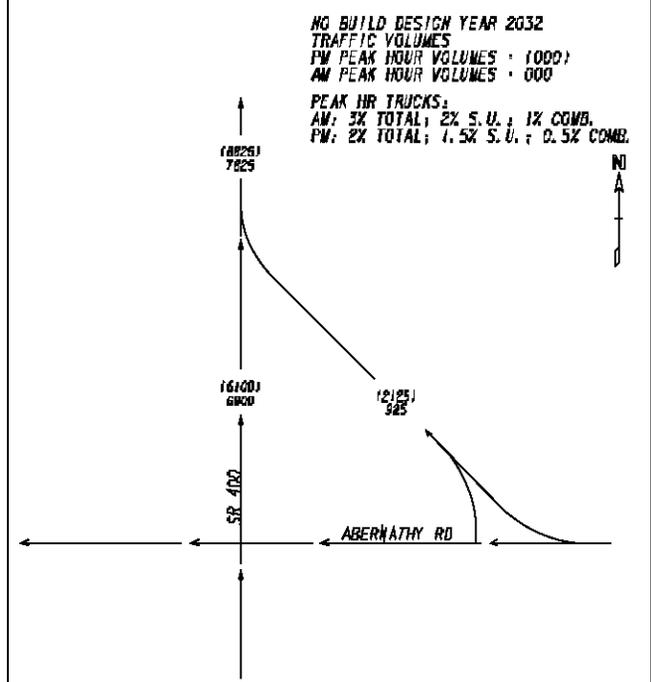
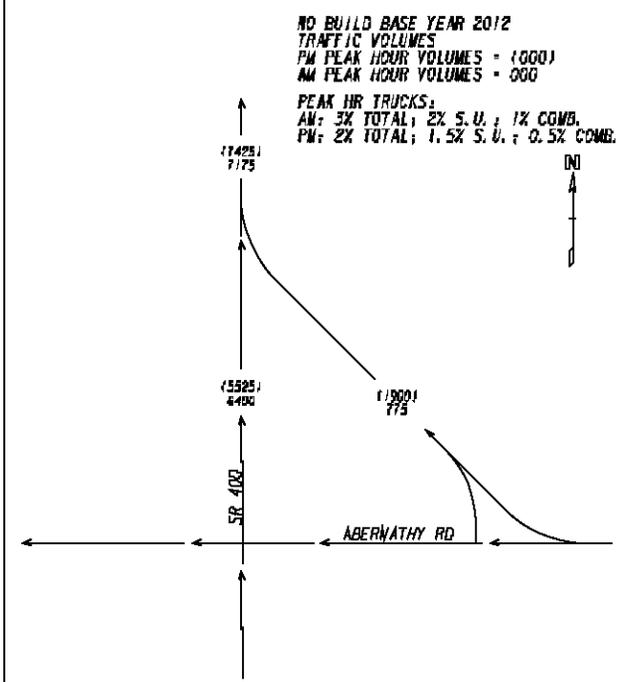


FULTON COUNTY
 SR 400 @ ABERNATHY RD
 PI # 00103 / 02/11



REVISION DATES

STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 OFFICE: INNOVATIVE PROGRAM DELIVERY
 TRAFFIC DIAGRAM
 SR 400 @ ABERNATHY RD - NB RAMP EXTENSION
 DRAWING NO. 10-02



FULTON COUNTY
SR 406 @ ABERNATHY RD
PI # 00103 / 02/11



REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: INNOVATIVE PROGRAM DELIVERY
TRAFFIC DIAGRAM
SR 406 @ ABERNATHY RD - NB RAMP EXTENSION

DRAWING NO.
10-03

Levels-of-Service (LOS)

A substantial portion of the traffic congestion in this area is the result of the short distance that all of the motorists have in which to merge onto SR 400 from the northbound on-ramp. The existing (2011) LOS in this area ranges from "B" and "D" in the AM Peak Hour at the on-ramp to a "F" for all segments in the PM Peak Hour as depicted in Table 3. The design traffic volumes provide for LOS to decrease to a "C" and "D" in the AM Peak Hour at the on-ramp to a "F" for all segments in the PM Peak Hour as shown in Table 4..

Table 3 Existing Year 2011 AM and PM LOS Analysis				
Segment	AM Peak Hour		PM Peak Hour	
	Density (VPLPM)**	Overall LOS	Density (VPLPM)**	Overall LOS
SR 400 between the Abernathy Road Off-Ramps and On-Ramp	29	D	73	F
Northbound On-Ramp	17	B	120	F
SR 400 North of Abernathy Road	33	D	65	F

** VPLPM represents vehicles per lane per mile
Source: Kimley-Horn and Associates, Inc. 2011

Table 4 Design Year 2032 No-Build AM and PM LOS Analysis				
Segment	AM		PM	
	Density (VPMPM)**	Overall LOS	Density (VPMPM)**	Overall LOS
SR 400 between the Abernathy Road Off-Ramps and On-Ramp	36	E	73	F
Northbound On-Ramp	21	C	124	F
SR 400 North of Abernathy Road	41	E	66	F

** VPLPM represents vehicles per lane per mile
Source: Kimley-Horn and Associates, Inc. 2011

10.0 CONCLUSION

The existing on-ramp from Abernathy Road to SR 400 is scheduled to be extended in the year 2012 in order to provide additional length for motorists to safely merge into mainline traffic and to provide more queuing space for vehicles enter SR 400.

Traffic counts on the ramp were obtained from Georgia Department of Transportation STARS for February 2010 and directly from the Georgia Department of Transportation for the mainline segments of SR 400 for October 2010. These counts were grown by the growth rates shown in Table 3 for 1 year to establish adjusted existing year 2011 traffic conditions. The existing year 2011 traffic volumes were then grown by the growth rates shown in Table 3 for 1 year to establish the Base year 2012 volumes. The Base year 2012 volumes were then grown by the growth rates shown in Table 3 for 20 years to establish Design year 2032 volumes. The mainline section of SR 400, as well as the Abernathy Road northbound on-ramp were analyzed under Existing Year 2011, Completion Year 2012 No-Build and Build, and Future Year 2032 No-Build and Build traffic conditions.

As a result of the extended merge segment of the on-ramp, the Abernathy Road northbound on-ramp is expected to experience improved levels of service during both the AM and PM peak hours for both the 2012 and 2032 conditions. Specifically, the analysis shows that for the Year 2012 scenarios, the LOS for the on-ramp improves from a LOS B and F for the AM and PM peak hours respectively to a LOS A and C. For Year 2032 scenarios, the LOS for the on-ramp improves from a LOS C and F for the AM and PM peak hours respectively to a LOS B and D.

The SR 400 mainline section within the study area is expected to experience very minor decreases in LOS during the same time periods. The analysis shows that no more than five vehicles per lane per mile will be added during 2012 PM peak hour conditions and no more than 13 vehicles per lane per mile will be added during 2032 PM peak hour conditions. These additional vehicles will cause minor reductions in LOS for the SR 400 mainline and are very minor compared to the major gains experienced by the Abernathy Road on-ramp. AM peak hour conditions for Year 2012 and Year 2032 improve, as they do for the Abernathy Road on-ramp.



To: Attendees

From: Gary Newton, P.E.
Kimley-Horn and Associates, Inc.

Subject: PI #0010311 – SR 400 @ Abernathy Road – Northbound Ramp Extension

Date: October 13, 2011

A concept team meeting was held on October 13, 2011 at 9:00 AM in the GDOT General Office, conference room 408. The following is a list of attendees (see attachment for e-mail addresses & phone numbers):

Mike Dover (Moderator/PM)	GDOT – IPD
Andrew Hoenig	GDOT – IPD
Dave Peters	GDOT – Design Policy
David Zoeckler	GDOT - Engineering Services
Nabil Raad	GDOT – Traffic Operations
Clyde Cunningham	GDOT – Utilities
Vicki Gavalas	GDOT – District Seven PPE
Rafael Lawrence	City of Dunwoody
Garrin Coleman	City of Sandy Springs
Sgt. Dan Nable	Sandy Springs Police
Jennifer Harper	PCID
David Hannon	HNTB
Doretha Cannon	SRTA
Gary Newton	Kimley-Horn (KHA)
John Walker	Kimley-Horn (KHA)
Nathan Currie	Kimley-Horn (KHA)

Agenda:

- Introductions
- Project Introduction (Mike Dover)
 - Design-Build project to be let together with PI #0010290, Forsyth County – SR 400 from CR 458/McFarland Pkwy to Big Creek Greenway – Northbound Lane Extension
 - The Environmental Document is anticipated to be a GEPA- B.
 - All proposed construction to be completed within existing right-of-way
 - SRTA providing 100% of funding for project
 - Loren Bartlett will be the GDOT PM for the project
 - Andrew Hoenig is currently serving as GDOT PM
- Project Summary and Concept Layout Summary (Gary Newton)
 - Auxiliary lane to be added along SR 400 Northbound at end of Abernathy entrance ramp

- AASHTO recommends 2500' auxiliary lane but the proposed lane will only be 1500' in order to terminate project prior to entrance ramp from Northsprings Marta Station
- Proposed 12' travel lane and 12' paved shoulder will not be tapered in order to allow for future ease of extension. Striping will be used to generate auxiliary lane taper.
- V- gutter, guardrail and 2:1 slopes will be proposed adjacent to Marta overpass in order to minimize cut slope impacts
- Concept Report review (Gary Newton)
 - Dave Peters will email an updated Concept Report template to be used
 - Office of Planning will be contacted to provide Planning and Background Data and approval of Justification Report
 - MPO and RC to fall under Atlanta Regional Commission (ARC)
 - SUE has been accepted and MOUs will be sent out shortly. The potential utility impacts noted are:
 - City of Atlanta water line located at Abernathy entrance ramp
 - DOT Traffic – ATMS conduit location will need to be verified
 - Sanitary Sewer line approximately 20' deep, not expected to be impacted
 - MARTA is listed as an owner but no effect to bridge is expected
 - Project is not in the TIP
 - KHA to check with Keisha Jackson and explain reason for exemption
 - Attach email to Concept Report to confirm exemption
 - NPDES permit will be required
 - Special Studies have been submitted to OES
 - No public involvement is necessary
 - No Environmentally Sensitive Areas have been identified within the project limits.
 - Stakeholders: City of Sandy Springs, Perimeter CID, SRTA, and MARTA
 - Which district will be responsible for construction supervision?
 - This project will be bundled with PI 0010290 in Forsyth County
 - Districts One and Seven to coordinate oversight
 - Other projects within the surrounding area:
 - 0006398 – SR 400 ATMS Ramp Meters from I-285 to SR 120/Old Milton Parkway. This project has been constructed.
 - 0008415 – SR 400 at Hammond Drive Interchange – This project has been constructed.
 - 0001757 – SR 400 from I-285 to McFarland Road/Forsyth County HOV Lanes. This project is in design.
 - 751580 – SR 400/US 19 @ CR 145/Northridge Road
 - 0010290 – SR 400 Northbound Lane Extension at McFarland Parkway Potential sidewalk and landscape project along Abernathy Road (City of Sandy Springs)
 - Utility cost estimate to be provided by GDOT
 - A Transportation Management Plan will not be required
 - Design-Build team will be responsible for gaining approval of soil survey and pavement study
 - Discussed possibility of using previous soil survey completed for SR 400 NB south of McFarland Pkwy

- IPD later followed up with Materials & Research Office and confirmed that D-B team will be responsible for submitting a Soil Survey
 - Also discussed possibility of using pavement study for this same portion, depending on change in traffic counts
 - IPD later followed up with Materials & Research Office and confirmed that a pavement evaluation will not be necessary
- Comments (Mike Dover)
 - GDOT Traffic Operations (Nabil Raad) – Verify traffic numbers within need and purpose statement
 - KHA to review PM Peak Hour densities for the northbound on-ramp (Table4).
 - GDOT has accepted traffic diagrams
 - PCID (Jennifer Harper) – Requested input on project construction schedule
 - Request sensitivity to traffic during holiday season (Nov 5 – Jan 5)
 - Engineering Service (David Zoeckler) Noted potential environmental impacts adjacent to on-ramp due to anticipated project staging due to use of concrete paving
 - Impacts are most likely minimal, but KHA will review
 - HNTB (David Hannon) – May be necessary for OMR to identify potential pavement improvements along on-ramp in locations where existing pavement to be retained will need repair
 - Discussion was held regarding clearing of SR 400 shoulder for traffic safety
 - Most of the areas that need to be cleared are within the grading limits and will be cleared as part of the project
 - No Design Variances or Exceptions are expected
 - Project schedule
 - Project to be let in April 2012, Design of costing plans is currently underway and may be finished early
 - Expected 4 month procurement process
 - RFQ will go out following public advertisement; minimum of 3 SOQs are needed
 - RFP expected by March with construction beginning by August 2012
 - Open to traffic by Spring 2013

This document represents Kimley-Horn's interpretation of the meeting. Please contact Gary Newton at gary.newton@kimley-horn.com or at 770-825-0074 if you have any questions, comments or concerns.