

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

Project Number: NHSTP-0075-03 (203)

County: Gordon

P. I. Number: 610870

Federal Route Number: NA

State Route Number: NA

Changes and reasons for changes:

Typical Sections:

The typical section for the ramps is to be revised to provide a 10 ft paved, 12 ft total outside shoulder. GDOT typical paved shoulder widths are 10 ft paved outside shoulders and 4 foot paved inside shoulders on interchange ramps. AASHTO requires a total of 12 ft of paved shoulders on interchange ramps. FHWA agrees that 10 ft paved outside shoulders and 4 ft paved inside shoulders on these interchange ramps are appropriate.

The typical section for the side roads is to be revised to provide a 2 ft paved, 8 ft total outside shoulder. GDOT policy requires 8 ft shoulders with 2 ft paved shoulders for two lane rural local road sections.

Design Speed:

The design speeds for the interchange ramps are revised to 45/60 MPH.

For a highway design speed of 70 mph, the ramp design speed should be 60 mph. Minimum acceleration and deceleration lengths given in AASHTO justify lower design speed for curves approaching stop conditions at ramp heads. This design speed is 45 mph.

Submitted for approval:

DATE 8-29-2011

Shawn Hunt

Heath and Lineback Engineers, Inc.

DATE 12-14-2011

Bobby Stillhard

Office Head

DATE 12-14-2011

Steve Oranville

Project Manager

Recommendation for approval:

DATE 12-19-2011

** Glenn Bowman / KLP*

State Environmental Administrator

DATE 1-6-2012

** Ben Rabun / KLP*

State Bridge Design Engineer

** Recommendation on file*

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

DATE 12-21-11

Cynthia L. Vandke

State Transportation Planning Administrator

REVISED PROJECT CONCEPT REPORT

PROJECT NO.: NHSTP-0075-03(203)

GORDON COUNTY

PI NO.: 610870

Need & Purpose:

Introduction

The proposed Projects STP00-00MS-00(007) and NHSTP-0075-03(203), Gordon County, would construct a new South Calhoun Bypass (multi-lane facility with variable width median) using portions of the existing County Road (CR) 65/Union Grove Road and new location for a total project length of approximately 6.7 miles (See Project Location Map). The proposed Project STP00-00MS-00(007) would begin at State Route (SR) 53 approximately 5.25 miles southwest of the existing I-75 interchange with SR 53/Fairmount Highway and end at SR 53 approximately 2.7 miles southeast of the existing I-75 interchange with SR 53/Fairmount Highway. The proposed Project NHSTP-0075-03(203) would include the construction of a new full diamond interchange at I-75 and CR 65/Union Grove Road with a bridge approximately 330 feet long and 91.5 feet wide over I-75. The new interchange would add an access break to I-75, approximately 1.9 miles south of the existing I-75 interchange with SR 53/Fairmount Highway, between Exit 306/S.R. 140/Folsom Road and Exit 312/SR 53/Fairmount Highway. An Interchange Justification Report (IJR) was approved on June 20, 2001 for the proposed action.

The proposed bypass would utilize both rural design, with open grassed swale drainage ditches, and urban design with curb-and-gutter and a closed drainage system. The criteria selected for a particular section depends on the terrain and natural drainage conditions as well as adjacent land use.

Planning Basis for the Action

The primary purpose of the proposed construction is to provide direct access to I-75 from the Calhoun-Gordon County/Tom B. David Field Airport and the Calhoun-Gordon County Industrial Park area. Currently, the airport has a 6,000-foot runway and 17 hangars, accommodating 115 aircraft and a terminal which was completed in 2006. Additionally, there are currently three completed industrial parks within the Calhoun-Gordon County area, with one park under development and one new park that is in the planning stage.

The proposed project is in the 2008-2011 State Transportation Improvement Plan (STIP) identified as 662510 & 610870. The proposed project is also in the April 1992 Gordon County/City Comprehensive plan for recommended roadway improvements to relieve congestion on SR 53. The project would serve to relieve truck traffic from industrial land use along CR 65/Union Grove Road.

The proposed project is not located in a non-attainment area for ozone or PM 2.5.

The industrial park under development is located on McDaniel's Station Road between SR 53 and the SR 53 Spur. At this time, the park is still under development. The planned industrial park will be located on CR 334/Old Dixie Highway between CR 65/Union Grove Road and Adairsville. The proposed South Calhoun Bypass would provide access to these industrial parks from I-75. Daily vehicle and truck trips generated by the industrial park area are projected to reach 25,000

additional vehicles per day (VPD) by the year 2010. Currently, the closest access from I-75 south of the industrial area is approximately two miles south of the Gordon County line in Bartow County. As proposed, the interchange and the improvements to Union Grove Road would provide an alternate route for SR 53 and act as a bypass for vehicles traveling through the South Calhoun area.

Currently, east-west traffic movements from I-75 in the southern portion of the City of Calhoun occur along SR 53, and movement is hampered by the number of driveways and turning movements from cars accessing retail and restaurant developments along the route. Traffic analysis of the existing SR 53 corridor in the proposed project vicinity indicates that additional widening is needed before 2031 if an alternate route is not provided to relieve congestion on SR 53. Traffic volumes on SR 53 would exceed 36,200 VPD in 2011 and would exceed 65,300 VPD in 2031, resulting in levels-of-service (LOS) of "C" in 2011 and "F" in 2031 without construction of the proposed bypass and additional interstate access. The best LOS is "A" or "B" for facility operations. This traffic analysis indicates a need to widen SR 53 to six lanes by 2031; however, widening SR 53 to six lanes would severely impact several businesses due to their proximity to the existing roadway. The LOS for the bypass would be "C" or better. The proposed South Calhoun Bypass would consist of variable typical sections to minimize impacts to physical and natural resources. The following provides a detailed explanation of the proposed typical sections of the bypass.

- From SR 53 (west terminus) to US 41, 4 lanes depressed median, but only 2 lanes will be paved initially.
- From US 41 to Marine Road, 4 lanes raised concrete median, rural shoulder.
- From Marine Road to just east of Shaw Property (where proposed Union Grove Spur leaves the main alignment), 4 lanes raised median, with curb, gutter and sidewalk.
- From just east of Shaw Property (where proposed Union Grove Spur leaves the main alignment) to Union Grove Church Road, 4 lanes raised median, rural shoulder.
- From Union Grove Church Road to SR 53 (east terminus) 2 lanes, rural shoulder (2-lanes of right of way)
- All side streets will be two lanes.

As noted above, a section of the selected alternative (from S.R. 53 to U.S. 41 — west terminus) would have two lanes paved on four lanes of right of way. This action is in response to the Value Engineering Study (VE) due to future traffic volumes in this area not warranting a four lane section upon design year construction. With the new proposed interchange with Interstate 75, property value would certainly increase, therefore it is proposed to purchase the required right of way for the four-lane section and construct two lanes. Environmental consequences of a four-lanes section have been addressed.

Currently CR 65/Union Grove Road is the center of over 3,000 acres of zoned industrial land uses, and is adjacent to the Calhoun-Gordon County/Tom B. David Field Airport. The proposed connector route bypass with a raised median would serve these areas and divert truck traffic from using SR 53 and the SR 53/I-75 interchange, allowing an acceptable LOS to be maintained along SR 53 until the year 2031. Traffic analysis shows that the estimated traffic volumes on SR 53 at the I-75 interchange would be reduced by 23 percent westbound and 21 percent eastbound for 2011, and would be reduced by 26 percent westbound and 23 percent eastbound for 2031. The LOS for SR 53 under the proposed project would be "C" in 2011 and would be "D" in 2031. Further, both City of Calhoun and Gordon County plans recommend the implementation of the bypass and

interchange, and these are identified in the Short Term Work Program of the City of Calhoun's Comprehensive Plan.

In the proposed project area, SR 53 and I-75 are part of the Surface Transportation Assistance Act (STAA) National Network. SR 53 is classified as a STAA Access Route to the east of I-75 and as an Other National Network Route to the west of I-75. SR 53 connects with US 411 in Rome, Georgia, and continues into Alabama. SR 53/US 411 also connects with US 27/SR 1 in Rome. US 27/SR 1 is part of the Governor's Road Improvement Program (GRIP), which is meant to stimulate the economy of rural Georgia towns by providing multi-lane highway access. I-75 is part of the Eisenhower Interstate System, which runs through Georgia from Florida to Tennessee. The STAA of 1982 designated specific routes to facilitate the movement of freight. Federal law prohibits oversized trucks (wide body, twin trailer) from traveling more than one mile from a designated STAA route. Georgia has identified STAA access routes, which are routes that allow truck traffic to reach terminals and delivery points more directly. SR 53 provides east-west access to US 41/SR 3, to US 411, to US 27/SR 1 to the west of I-75, and to US 411/SR 61 to the east of I-75.

According to Year 2000 census data from the U.S. Census Bureau, Calhoun's population has increased 49.5 percent since 1990, making Calhoun the fifth fastest growing small city in the State of Georgia. Gordon County experienced a 25.7 percent increase in population between 1990 and 2000. The Atlanta Journal-Constitution (AJC) reported that "Calhoun...draws its own commuters..." and quoted Cathy Harrison, Calhoun's City Administrator and Chief Financial Officer, as saying, "We've got 30,000 jobs here, and Calhoun has a population of 11,000" (AJC, August 4, 2003). According to the same article, 15,172 of the people who work in Gordon County live there. Floyd County sends 1,813 workers into the county, while Bartow County has 1,203 of its residents working there. Whitfield and Murray counties send a combined 1,469. Whitfield, Bartow, and Floyd are also the main counties drawing workers out of Gordon County with 2,909 traveling to Whitfield, 1,034 to Bartow County and 966 to Rome, Floyd County.

Three Fortune 500 companies are also reported to be considering locations in Gordon County, which would bring in approximately 1,900 jobs.

The neighboring counties have been experiencing growth since 1990, with Bartow County to the south experiencing a 36 percent increase in population, and Whitfield County to the north experiencing a 15.3 percent increase in population. These counties contain the cities of Cartersville and Dalton respectively, which also have large industrial bases. The region of US 41/SR 3 between Dalton and Cartersville is known as a focal point for the carpet industry. This industry has such a presence in the area that Dalton is referred to as the "Carpet Capital of the World" on the city of Dalton website. Mohawk Industries, Dixie Yarns, Aladdin Manufacturing, and Bretlin/Globaltex were the top four employers in 2003, all of which are textile based (AJC, August 4, 2003). While many industry operations are still related to carpeting or flooring, other industries have moved into the area and have provided a diverse industrial base. Gordon County, particularly the City of Calhoun, has a growing industrial and commercial base, and a rapidly growing population that would be served by the proposed South Calhoun Bypass and new I-75 interchange.

I-75 currently has three (3) lanes in each direction in the area of the proposed bypass. The Georgia Department of Transportation (GDOT) has recognized a future need for I-75 to be widened to four (4) lanes in each direction.

In the proposed project vicinity, there are three other GDOT projects. Currently, there are two projects in the pre-construction stage on SR 53. One project will add median turn lanes from north of Floyd County to the SR 53 Spur, and another will widen SR 53 from the WC Bryant Parkway/County Secondary 814 to just west of I-75. Intersection improvements at CR 5/McDaniel Station Road are listed in the Construction Work Program, and a widening project along US 41/SR 3 from CR 65/Union Grove Road north to SR 53 is in the preconstruction stage. Figure 1-3, Adjoining Projects Map, identifies the location of those projects outlined in Table I-1, Adjoining Projects.

TABLE I-1 Adjoining Projects

PROJECT NO.; P.I. No.	FACILITY	LIMITS	DESCRIPTION	SCHEDULE
STP00-0001-00(578); 0001578	SR 53	From north of Floyd County to SR 53 Spur	Addition of median turn-lanes/Safety Improvements (3.48 miles).	Let — December 2008
STP00-0001-06(35); 621365	US 41/SR 3	From CR 65/Union Grove Road north to SR 53 including bridge	Widening/ Reconstruction/ Rehabilitation (2.84	Right of Way — 2011/2012 Construction 2016
STP00-0004-00(048); 0004048	SR 53	SR 53 at CR 5 McDaniel Station Road	Intersection (.52 mile)	Right of Way — Authorized Construction — July 2008

Deficiencies in the System

The current deficiencies in the system are traffic congestion, above average accident rates, frequent flooding, and a substandard intersection.

Roadways are rated for operational effectiveness using a level-of-service (LOS). LOS is a standard means of classifying traffic conditions associated with various traffic volume levels and traffic flow conditions. There are six levels of service at which a roadway can operate, represented by the letters "A" through "F". Each level is defined by a maximum value for the ratio of traffic volume (V) to facility capacity (C). An LOS of A is when volume is well below capacity and traffic is flowing freely. LOS of "B" is when traffic flow is steady but the presence of other vehicles begins to be noticeable. An LOS of "C" allows for steady traffic flow, but the higher volumes more closely control speeds and maneuverability. LOS of "D" is approaching an unsteady flow in which speed and maneuverability are severely restricted. LOS of "E" is when traffic flow is reduced to a slow but relatively uniform speed, and traffic volume is equal to or nearly equal to capacity and maneuverability is extremely difficult. The lowest LOS of "F" is when the volume greatly exceeds the capacity and lengthy delays occur.

Project Location:

This project is located in Gordon County just south Calhoun Georgia. The eastern half of the, of the project is within the city Limits of Calhoun. The project concept begins approximately at milepost 5.4 on CR 65/Union Grove Road and ends approximately at milepost 5.2 along CR 65/Union Grove Road. The total length of the project is approximately 0.6 miles. NHSTP-0075-03(203) is paired with STP00-00MS-00(007).

Description of the approved concept:

NHSTP-0075-03(203) Gordon County consists of the construction of a full diamond interchange at the intersection of I-75 and CR 65/Union Grove Road. This project includes all structures associated with the interchange.

PDP Classification: Major X Minor _____

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

Functional Classification: Urban Principal Arterial

U. S. Route Number(s): NA **State Route Number(s):** NA

Traffic (AADT) as shown in the approved concept:

Base Year: (2005) 2,200 – 3,500 Design Year: (2025) 4,250 – 6,500

Updated Traffic Data (AADT):

Base Year: (2015) - 13,350 Design Year: (2035) - 24,250

Approved Programmed/Schedule:

P.E. 1998 R/W: 2010 Construction: 2013

VE Study Required Yes (X) No () Held: May 1-4, 2007

Benefit/Cost Ratio Not Available

Is the project located in an Ozone Non-Attainment area? _____ Yes X No

Is the project in a PM2.5 Non-Attainment area? _____ Yes X No

<p>Approved features:</p> <ul style="list-style-type: none"> • The approved design speed on the interchange ramps is 55 MPH. • The approved typical section for the ramps provides 6 ft paved, 8 ft total outside shoulder. • The approved typical section for the side roads provides 2 ft paved, 10 ft total outside shoulder. 	<p>Proposed features:</p> <ul style="list-style-type: none"> • The design speeds for the interchange ramps are revised to 45 and 60 MPH. • The typical section for ramps is revised to provide 10 ft paved, 12 ft total outside shoulder. • The typical section for side roads is revised to provide 2 ft paved, 8 ft total outside shoulder.
<p>Reasons for changes:</p> <p><u>Typical Sections:</u></p> <p>GDOT typical paved shoulder widths are 10 ft paved outside shoulders and 4 foot paved inside shoulders on interchange ramps. AASHTO requires a total of 12 ft of paved shoulders on interchange ramps. FHWA agrees that 10 ft paved outside shoulders and 4 ft paved inside shoulders on these interchange ramps are appropriate.</p> <p>GDOT policy requires 8 ft shoulders with 2 ft paved shoulders for two lane rural local road sections.</p> <p><u>Design Speed:</u></p> <p>For a highway design speed of 70 mph, the ramp design speed should be 60 mph per AASHTO, Exhibit 10-56. Minimum acceleration and deceleration lengths given in AASHTO, Exhibit 10-73 justify lower design speed for curves approaching stop conditions at ramp heads. This design speed is 45 mph.</p>	

Potential Environmental Impacts of Proposed Revision:

The project footprint varies slightly from the original design. In some areas the proposed construction limits are outside of the original design, and other places they are inside of the original design. The environmental impacts have been addressed in the current Re-evaluation.

- **Have Proposed Revisions Been Reviewed by Environmental Staff** (X) YES () NO
- **Environmental Responsibilities (Studies/Documents/Permits):** Edwards Pittman Environmental, Inc. & Georgia Department of Transportation, Office of Environmental Service

Updated Cost Estimate	
• Base Construction Cost	\$15,010,515.03
• Engineering and Inspection (5%)	\$750,525.75
• Total Liquid AC Adjustment	\$189,250.87
• Total Construction Cost	\$15,950,291.65
• Right-of-Way	\$8,340,000
• Utilities (Reimbursable)	\$206,700.00
• Utility Contingencies	\$0,000,000

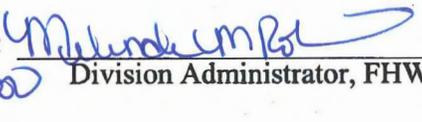
Recommendation: It is recommended that the proposed revision to the concept be approved for implementation.

Attachments:

1. Location Map
2. Roadway Typical Section
3. Cost Estimate Summary
4. Construction Cost Estimate
5. Total Liquid AC Adjustment
6. Right of Way Cost Estimate
7. Utility Cost Estimate
8. Traffic Diagram
9. VE Implementation Letter

Full Oversight Projects:

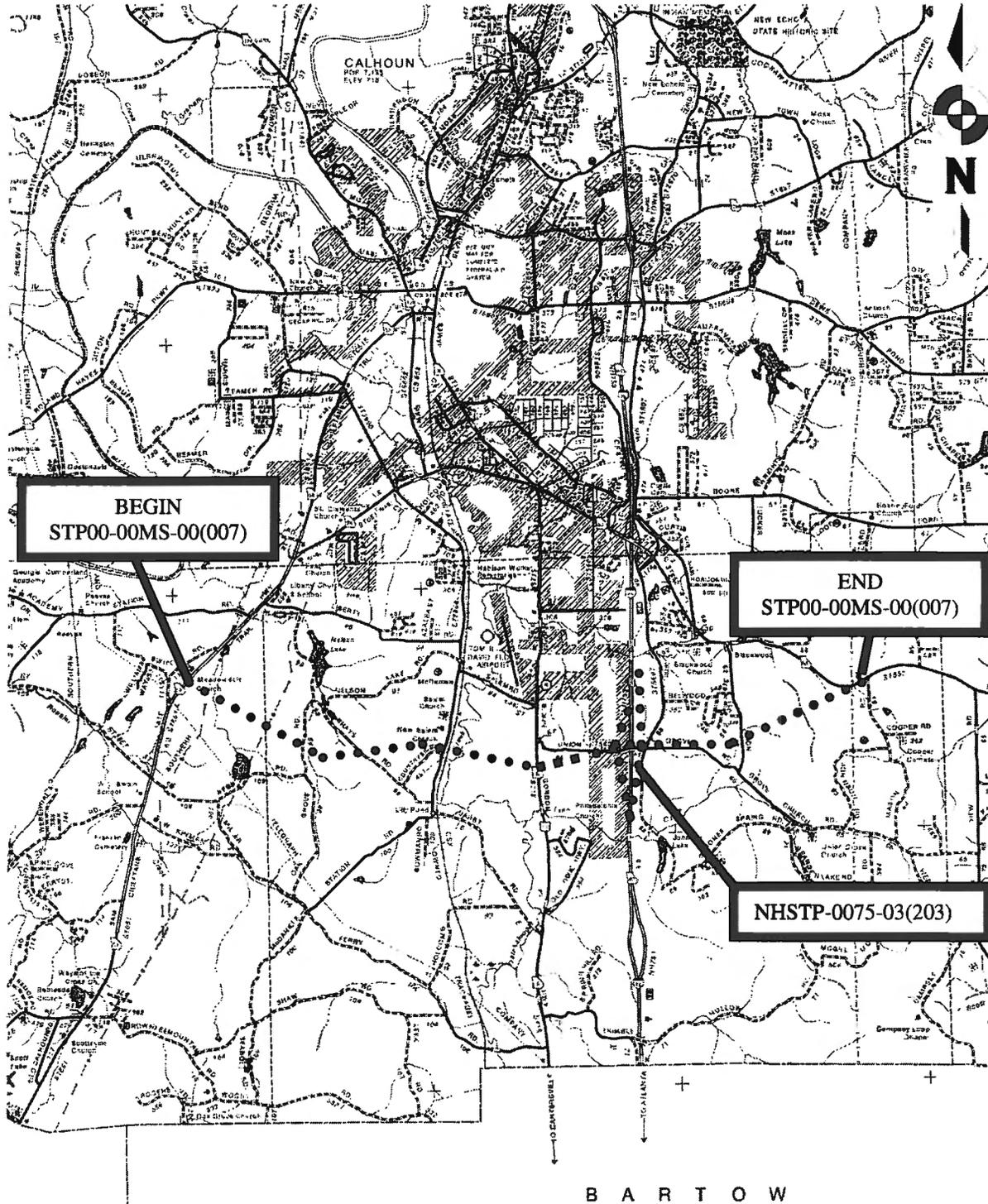
Concur: 
Director of Engineering

Approve: 
Division Administrator, FHWA

Approve: 
Chief Engineer

Date: 2-15-12

Project Location Map

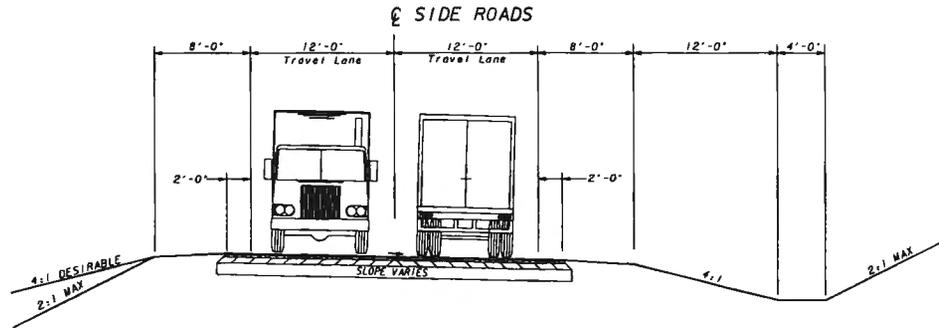
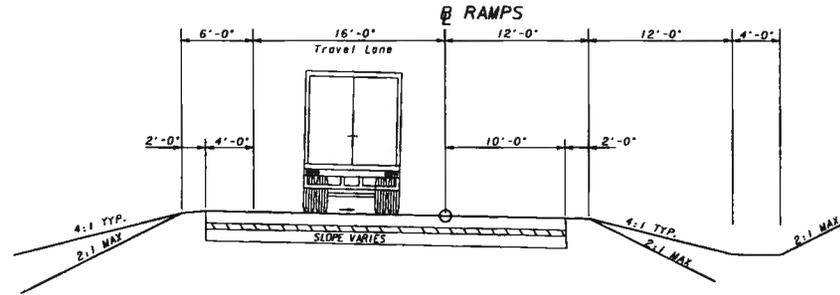


Location Map

Project: NHSTP-0075-03(203) & STP00-00MS-00(007), Gordon County

PI No.: 610870 & 662510

Description: Union Grove Road Interchange and South Calhoun Bypass



HL Heath & Lineback Engineers
 INCORPORATED
 2398 CANTON ROAD, BUILDING 200
 MARIETTA, GEORGIA 30066-5393
 (770)241-1648

REVISION DATES	

STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 OFFICE: CONSULTANT DESIGN
 TYPICAL SECTIONS
 NHSTP-0075-03(203)
 UNION GROVE ROAD INTERCHANGE

DRAWING No. 5-04

11/11/11

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE PROJECT No. , **OFFICE**

DATE

P.I. No.

FROM

TO Ronald E. Wishon, Project Review Engineer

SUBJECT REVISIONS TO PROGRAMMED COSTS

PROJECT MANAGER

MNGT LET DATE

MNGT R/W DATE

PROGRAMMED COST (TPro W/OUT INFLATION)

LAST ESTIMATE UPDATE

CONSTRUCTION \$

DATE

RIGHT OF WAY \$

DATE

UTILITIES \$

DATE

REVISED COST ESTIMATES

CONSTRUCTION* \$

RIGHT OF WAY \$

UTILITIES \$

* Costs contain % Engineering and Inspection

REASON FOR COST INCREASE

Revised total liquid AC adjustments.
Revised quantities for Plan PC Concrete Pavement sections.

CONTINGENCY SUMMARY

Construction Cost Estimate:	\$ <input type="text" value="15,010,515.03"/>	(Base Estimate)
Engineering and Inspection:	\$ <input type="text" value="750,525.75"/>	(Base Estimate x <input type="text" value="5"/> %)
Total Fuel Adjustment	\$ <input type="text" value="N/A"/>	(From attached worksheet)
Total Liquid AC Adjustment	\$ <input type="text" value="189,250.87"/>	(From attached worksheet)
Construction Total:	\$ <input type="text" value="15,950,291.65"/>	

REIMBURSABLE UTILITY COST

Utility Owner	Reimbursable Cost
<input type="text" value="North Ga. EMC"/>	<input type="text" value="\$206,700.00"/>
<input type="text"/>	<input type="text"/>

Attachments

c: Genetha Rice-Singleton, State Program Control Administrator

DATE : 01/12/2012
PAGE : 1

JOB ESTIMATE REPORT

JOB NUMBER : 610870 SPEC YEAR: 01
DESCRIPTION: I-75 @ CR 65/UNION GROVE RD & FM CS 825 TO W OF CR 68 RELOC
INTERCHANGE

ITEMS FOR JOB 610870

LINE	ITEM	ALT	UNITS	DESCRIPTION	QUANTITY	PRICE	AMOUNT
0013	210-0100		LS	GRADING COMPLETE - NHSTP-0075-03(203)	1.000	1747686.11	1747686.11
0014	150-1000		LS	TRAFFIC CONTROL - NHSTP-0075-03(203)	1.000	475000.00	475000.00
0019	150-9011		HR	TR CT-WORKZONE LAW ENF-CTR BIDS	400.000	150.00	60000.00
0020	153-1300		EA	FIELD ENGINEERS OFFICE TP 3	1.000	65385.97	65385.97
0028	208-0200		CY	ROCK EMBANKMENT	7730.000	28.61	221191.01
0029	225-4340		SY	S-LIME TRT/ROADBED/CL C/8"	108492.000	3.10	336325.20
0030	455-1000		SY	FILTER FAB/EMBANKMENT STAB	4822.000	3.99	19261.62
0035	620-0100		LF	TEMP BARRIER, METHOD NO. 1	6511.000	32.18	209559.53
0039	150-5010		EA	TRAF CTRL,PORTABLE IMPACT ATTN	18.000	7917.30	142511.48
0040	634-1200		EA	RIGHT OF WAY MARKERS	152.000	101.24	15388.64
0045	643-0010		LF	FIELD FENCE WOVEN WIRE	6762.000	4.93	33362.29
0046	643-2152		LF	CH FEN,W/X ARM/BWIRE,ZC,6',9GA	5128.000	24.00	123072.00
0047	643-8010		EA	GATE, CHAIN LINK ZC COAT - 16' GATE	1.000	1049.73	1049.73
0051	643-8200		LF	BARRIER FENCE (ORANGE), 4 FT	6459.000	1.40	9078.51
0067	318-3000		TN	AGGR SURF CRS	500.000	19.53	9766.41
0072	402-1812		TN	RECYL AC LEVELING,INC BM&HL	161.000	77.90	12542.09
0077	402-3130		TN	RECYL AC 12.5MM SP,GP2,BM&HL	971.000	75.20	73027.19
0082	402-3190		TN	RECYL AC 19 MM SP,GP 1 OR 2 ,INC BM&HL	9384.000	61.98	581700.83
0085	310-1101		TN	GR AGGR BASE CRS, INCL MATL	60589.000	15.38	932296.88
0087	413-1000		GL	BITUM TACK COAT	705.000	2.34	1650.54
0092	430-0210		SY	PLN PC CONC PVMT/CL1C/ 11" TK	96816.000	34.50	3340152.00
0097	432-0206		SY	MILL ASPH CONC PVMT/ 1.50" DEP	5034.000	3.28	16515.04
0102	441-0018		SY	DRIVEWAY CONCRETE, 8 IN TK	3037.000	32.68	99268.78
0112	433-1100		SY	REF CONC APPR SL/INCL CURB	573.000	179.51	102863.37
0117	436-1000		LF	ASPH CONC CURB - 5"	11721.000	7.08	83066.96
0122	441-0104		SY	CONC SIDEWALK, 4 IN	2832.000	25.15	71244.03
0131	441-0108		SY	CONC SIDEWALK, 8 IN	237.000	46.60	11045.86
0132	441-0748		SY	CONC MEDIAN, 6 IN	3062.000	42.26	129421.25
0137	441-5002		LF	CONC HEADER CURB, 6", TP 2	439.000	13.32	5851.73
0142	441-5004		LF	CONC HEADER CURB, 10", TP 4	490.000	20.00	9800.00
0147	441-5052		LF	CONC DWL INT CURB, TP 2,DOWELS	5674.000	30.40	172489.60
0152	441-5057		LF	CONC DWL INT CURB, TP 7,DOWELS	5520.000	12.91	71303.61
0157	576-1015		LF	SLOPE DRAIN PIPE, 15 IN	400.000	23.65	9461.66
0162	577-1100		EA	METAL DR INLET - CMPLT ASSMBLY	18.000	1087.36	19572.59
0167	611-5380		EA	RESET HIST MARKER, CI	1.000	500.00	500.00
0175	500-3115		LF	CLASS A CONCRETE, TYPE P2, RETAINING WAL	186.000	363.66	67641.08
0177	621-4062		LF	CONCRETE SIDE BARRIER, TY 6B	450.000	400.00	180000.00
0182	641-1100		LF	GUARDRAIL, TP T	124.000	52.03	6452.22
0187	641-1200		LF	GUARDRAIL, TP W	20350.000	12.59	256367.27
0192	641-5001		EA	GUARDRAIL ANCHORAGE, TP 1	40.000	667.07	26682.81

0196	641-5006	EA	GUARDRAIL ANCHORAGE, TP 6	3.000	752.54	2257.63
0197	641-5012	EA	GUARDRAIL ANCHORAGE, TP 12	23.000	1762.19	40530.38
0199	441-0004	SY	CONC SLOPE PAV, 4 IN	383.000	45.50	17428.10
0200	500-0100	SY	GROOVED CONCRETE	573.000	5.21	2988.62

STATE HIGHWAY AGENCY

DATE : 01/12/2012
PAGE : 2

JOB ESTIMATE REPORT

0207	207-0203	CY	FOUND BK FILL MATL, TP II	581.000	44.43	25818.33
0212	441-0600	CY	CONC HEADWALLS	36.000	962.50	34650.00
0217	500-3101	CY	CLASS A CONCRETE	1025.000	285.02	292150.79
0222	500-3200	CY	CL B CONC	12.000	372.54	4470.59
0227	511-1000	LB	BAR REINF STEEL	111344.000	0.72	80823.50
0232	550-2120	LF	SIDE DR PIPE 12", H 1-10	34.000	30.00	1020.00
0236	550-1120	LF	STM DR PIPE, 12", H 1-10	160.000	34.58	5534.29
0237	550-1150	LF	STM DR PIPE 15", H 1-10	178.000	38.93	6930.09
0242	550-1180	LF	STM DR PIPE 18", H 1-10	4283.000	31.55	135149.81
0247	550-1181	LF	STM DR PIPE 18", H 10-15	142.000	31.99	4542.79
0252	550-1182	LF	STM DR PIPE 18", H 15-20	159.000	37.06	5893.96
0257	550-1240	LF	STM DR PIPE 24", H 1-10	281.000	38.40	10792.30
0262	550-1300	LF	STM DR PIPE 30", H 1-10	308.000	50.18	15456.82
0267	550-1301	LF	STM DR PIPE 30", H 10-15	94.000	64.82	6093.84
0272	550-1302	LF	STM DR PIPE 30", H 15-20	108.000	73.56	7945.27
0277	550-1360	LF	STM DR PIPE 36", H 1-10	2097.000	53.16	111491.66
0282	550-1361	LF	STM DR PIPE 36", H 10-15	149.000	69.62	10374.79
0287	550-1420	LF	STM DR PIPE 42", H 1-10	100.000	77.98	7798.35
0292	550-1480	LF	STM DR PIPE 48", H 1-10	47.000	94.13	4424.47
0297	550-2180	LF	SIDE DR PIPE 18", H 1-10	240.000	29.91	7178.84
0302	550-2240	LF	SIDE DR PIPE 24", H 1-10	275.000	19.60	5390.80
0307	550-4118	EA	FLARED END SECT 18 IN, SIDE DR	12.000	363.86	4366.41
0312	550-4124	EA	FLARED END SECT 24 IN, SIDE DR	2.000	530.81	1061.63
0317	550-4112	EA	FLARED END SECT 12 IN, SIDE DR	2.000	425.00	850.00
0321	550-4212	EA	FLARED END SECT 12 IN, ST DR	2.000	500.00	1000.00
0322	550-4215	EA	FLARED END SECT 15 IN, ST DR	1.000	434.29	434.30
0327	550-4218	EA	FLARED END SECT 18 IN, ST DR	25.000	482.51	12062.95
0332	550-4224	EA	FLARED END SECT 24 IN, ST DR	3.000	687.75	2063.27
0337	550-4230	EA	FLARED END SECT 30 IN, ST DR	9.000	839.29	7553.67
0342	550-4236	EA	FLARED END SECT 36 IN, ST DR	4.000	995.23	3980.93
0347	550-4242	EA	FLARED END SECT 42 IN, ST DR	2.000	1418.37	2836.74
0351	603-2024	SY	STN DUMPED RIP RAP, TP 1, 24"	748.000	41.47	31021.11
0355	603-2181	SY	STN DUMPED RIP RAP, TP 3, 18"	209.000	38.21	7986.53
0357	603-7000	SY	PLASTIC FILTER FABRIC	3865.000	3.91	15147.82
0362	668-1100	EA	CATCH BASIN, GP 1	40.000	2088.68	83547.39
0367	668-1110	LF	CATCH BASIN, GP 1, ADDL DEPTH	67.000	160.89	10780.21
0372	668-2100	EA	DROP INLET, GP 1	26.000	1857.95	48306.94
0377	668-2110	LF	DROP INLET, GP 1, ADDL DEPTH	15.000	178.27	2674.14
0382	668-4300	EA	STORM SEW MANHOLE, TP 1	6.000	1845.64	11073.88
0387	668-4311	LF	ST SEW MANHOLE, TP 1, A DEP, CL 1	6.000	220.15	1320.92
0392	668-4400	EA	STORM SEW MANHOLE, TP 2	2.000	2704.71	5409.43
0397	668-4411	LF	ST SEW MANHOLE, TP 2, A DEP, CL 1	3.000	244.61	733.85
0402	668-4412	LF	ST SEW MANHOLE, TP 2, A DEP, CL 2	5.000	333.32	1666.60
0407	668-8011	SF	SAFETY GRATE, TP 1	261.000	26.81	6998.10
0412	163-0232	AC	TEMPORARY GRASSING	21.000	437.98	9197.75

01.12.2012.txt

0417	163-0240	TN	MULCH	1000.000	164.82	164824.85
0422	163-0300	EA	CONSTRUCTION EXIT	24.000	1062.30	25495.39
0427	163-0503	EA	CONSTR AND REMOVE SILT CONTROL GATE,TP 3	16.000	331.67	5306.74
0432	163-0520	LF	CONSTR AND REMOVE TEMP PIPE SLOPE DRAIN	1490.000	11.49	17122.19
0437	163-0527	EA	CNST/REM RIP RAP CKDM,STN P RIPRAP/SN	314.000	164.55	51670.18
0442	163-0528	LF	BG CONSTR AND REM FAB CK DAM -TP C SLT FN	1344.000	2.44	3292.09

STATE HIGHWAY AGENCY

DATE : 01/12/2012
PAGE : 3

JOB ESTIMATE REPORT

0452	163-0541	EA	CONSTR & REM ROCK FILTER DAMS	3.000	383.27	1149.82
0457	163-0550	EA	CONS & REM INLET SEDIMENT TRAP	80.000	141.10	11288.40
0462	165-0030	LF	MAINT OF TEMP SILT FENCE, TP C	30471.000	0.57	17515.95
0467	165-0040	EA	MAINT OF EROSION CTRL CHKDAMS/DITCH CHKS	362.000	34.84	12612.66
0472	165-0071	LF	MAINT OF SEDIMENT BARRIER - BALED STRAW	230.000	1.21	279.18
0477	165-0087	EA	MAINT OF SILT CONTROL GATE, TP 3	16.000	92.72	1483.54
0487	165-0101	EA	MAINT OF CONST EXIT	24.000	605.34	14528.33
0492	165-0105	EA	MAINT OF INLET SEDIMENT TRAP	80.000	51.63	4130.89
0497	165-0110	EA	MAINT OF ROCK FILTER DAM	3.000	152.17	456.52
0502	167-1000	EA	WATER QUALITY MONITORING AND SAMPLING	2.000	557.16	1114.32
0507	167-1500	MO	WATER QUALITY INSPECTIONS	36.000	297.60	10713.80
0512	170-2000	LF	STAKED SILT RETENTION BARRIER	230.000	13.11	3015.96
0517	171-0030	LF	TEMPORARY SILT FENCE, TYPE C	60942.000	2.23	136394.29
0522	441-0204	SY	PLAIN CONC DITCH PAVING, 4 IN	8776.000	29.57	259550.20
0527	700-6910	AC	PERMANENT GRASSING	41.000	761.69	31229.48
0532	700-7000	TN	AGRICULTURAL LIME	138.000	89.44	12342.93
0542	700-8000	TN	FERTILIZER MIXED GRADE	41.000	376.31	15428.87
0547	700-8100	LB	FERTILIZER NITROGEN CONTENT	2047.000	1.68	3440.07
0549	700-9300	SY	SOD	3897.000	3.40	13274.70
0552	716-2000	SY	EROSION CONTROL MATS, SLOPES	45726.000	0.81	37478.40
0557	636-1020	SF	HWY SGN,TP1MAT,REFL SH TP3	135.000	13.21	1784.65
0562	636-1029	SF	HWY SGN,TP2 MATL,REFL SH TP 3	64.000	16.37	1048.30
0567	636-1033	SF	HWY SIGNS, TP1MAT,REFL SH TP 9	460.000	18.46	8492.46
0572	636-1041	SF	HWY SIGNS,TP 2MAT,REFL SH TP 9	112.000	29.63	3319.01
0577	636-1072	SF	HWY SIGNS,ALUM EXTRD PNLS, RS TP 3	889.000	23.75	21119.89
0582	636-2070	LF	GALV STEEL POSTS, TP 7	838.000	6.92	5805.76
0587	636-2080	LF	GALV STEEL POSTS, TP 8	562.000	8.49	4773.02
0592	636-2090	LF	GALV STEEL POSTS, TP 9	32.000	8.47	271.16
0597	636-3010	EA	GROUND-MOUNTED BREAKAWAY SIGN SUPPORT	34.000	535.70	18214.07
0602	638-1001	LS	STR SUPPORT OVHD SIGN,TP I,STA 76+15 I-75 NB	1.000	65000.00	65000.00
0607	638-1001	LS	STR SUPPORT OVHD SIGN,TP I,STA 122+45 I-75 SB	1.000	65000.00	65000.00
0612	638-1003	LS	STR SUPPORT OVHD,SIGN,TPIIISTA 23+35 I-75 NB	1.000	50000.00	50000.00

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0617	638-1003	LS	STR SUPPORT OVHD,SIGN,TPIIISTA 49+75 I-75 NB	1.000	50000.00	50000.00
0622	638-1003	LS	STR SUPPORT OVHD,SIGN,TPIIISTA 158+85 I-75 SB	1.000	50000.00	50000.00
0627	638-1003	LS	STR SUPPORT OVHD,SIGN,TPIIISTA 175+25 I-75 SB	1.000	50000.00	50000.00
0632	653-1501	LF	THERMO SOLID TRAF ST 5 IN, WHI	6288.000	0.38	2407.49
0637	653-1502	LF	THERMO SOLID TRAF ST, 5 IN YEL	2329.000	0.43	1023.01
0647	653-1810	LF	THER SLD TRAF STRIPE, 10 IN, W	3781.000	1.28	4865.77
0650	150-0250	LF	TRAF CTRL,SLD TS,THERM,24" WHT	19.000		
0652	653-3501	GLF	THERMO SKIP TRAF ST, 5 IN, WHI	1546.000	0.22	354.08
0655	657-5002	SY	PREFORMED PLASTIC PVMT MKG, YE, TP PB	85.000	19.95	1695.85
0657	654-1001	EA	RAISED PVMT MARKERS TP 1	144.000	3.82	550.30

STATE HIGHWAY AGENCY

DATE : 01/12/2012
PAGE : 4

JOB ESTIMATE REPORT

0662	654-1003	EA	RAISED PVMT MARKERS TP 3	514.000	3.93	2021.85
0667	657-1084	LF	PRF PL SD PVMT MKG,8",WH,TP PB	4176.000	3.75	15682.43
0672	657-1085	LF	PRF PL SD PVT MKG,8",B/W,TP PB	26758.000	4.77	127703.63
0682	657-1244	LF	PRF PL SD PVMT MKG,24",WH,TPPB	274.000	19.33	5298.77
0687	657-3085	GLF	PRF PL SK PVMT MKG,8",B/W,TPPB	8023.000	3.69	29640.25
0692	657-5001	SY	PREFORMED PLASTIC PVMT MKG, WHITE, TP PB	2433.000	11.69	28453.25
0697	657-5002	SY	PREFORMED PLASTIC PVMT MKG, YE, TP PB	994.000	14.72	14640.99
0700	657-5003	EA	PRF PLASTIC PVMT MKG, WORD TP 1, TP PB	4.000	595.40	2381.60
0702	657-5017	EA	PRF PL PVT MKG,ARW TP2,WH,TPPB	41.000	511.19	20958.94
0705	655-7000	EA	PVMT ARROW, PREFORM PLASTIC W/RAISE REFL	2.000	559.98	1119.96
0712	657-6085	LF	PRF PL SD PVMT MKG,8",B/Y,TPPB	21843.000	3.80	83158.70
0717	639-4004	EA	STRAIN POLE, TP IV	8.000	5704.86	45638.95
0722	647-1000	LS	TRAF SIGNAL INSTALLATION NO - 1	1.000	65000.00	65000.00
0727	647-1000	LS	TRAF SIGNAL INSTALLATION NO - 2	1.000	65000.00	65000.00
0732	647-2160	EA	PULL BOX, PB-6	2.000	1005.74	2011.49
0737	647-2170	EA	PULL BOX, PB-7	2.000	1762.97	3525.96
0742	682-6110	LF	CONDUIT, RIGID, 1 IN	15.000	12.26	184.01
0747	682-6120	LF	CONDUIT, RIGID, 2 IN	565.000	13.83	7817.89
0750	937-1000	EA	VIDEO CAMERA SENSOR ASSEMBLY	2.000	1800.67	3601.34
0751	639-5000	EA	PRESTRESSED CONC STR POLE, TP- TP IV	2.000	6076.82	12153.66
0752	682-6222	LF	CONDUIT, NONMETL, TP 2, 2 IN	845.000	3.31	2804.56
0757	927-0200	EA	RACK MNT SPRD SPEC WIRE. TRANS. W/ FSK &	1.000	2280.52	2280.53
0762	935-1113	LF	OUT PLNT FBR OPT CBL,LOOSE TB,SM,24 FBR	420.000	4.51	1897.71
0767	935-1511	LF	OUT PLNT FBR OPT CBL,DROP,SM,6 FBR	260.000	2.26	588.60
0772	935-3101	EA	FIBER OPTIC CLOSURE,UNDRGRD,6 FIBER	2.000	435.06	870.12
0777	935-4010	EA	FIBER OPTIC SPLICE, FUSION	2.000	69.38	138.78
0782	500-3101	CY	CLASS A CONCRETE	244.000	285.02	69546.14
0787	511-1000	LB	BAR REINF STEEL	35246.000	0.78	27687.50
0792	615-1200	LF	DIRECTIONAL BORE - 2"	1600.000	6.98	11180.90

01.12.2012.txt

0797	647-2130	EA	PULL BOX, PB-3	9.000	391.00	3519.00
0802	647-2140	EA	PULL BOX, PB-4	4.000	1085.86	4343.46
0807	681-4215	EA	LIGHTING STD,35 FT MH,POST TOP	12.000	1246.00	14952.00
0812	681-4220	EA	LT STD, 40' MH, POST TOP	8.000	3113.33	24906.67
0817	681-6320	EA	LUMINAIRE,TP 3, 150W,HP SODIUM	20.000	674.33	13486.72
0822	681-6646	EA	LUMINAIRE,TP A, 250W,HP SODIUM	4.000	1330.00	5320.00
0827	682-1504	LF	CABLE, TP RHH/RHW, AWG NO 10	11940.000	0.45	5373.00
0832	682-1505	LF	CABLE, TP RHH/RHW, AWG NO 8	8410.000	1.40	11774.00
0837	682-1506	LF	CABLE, TP RHH/RHW, AWG NO 6	9188.000	0.91	8400.77
0842	682-1507	LF	CABLE, TP RHH/RHW, AWG NO 4	6871.000	2.24	15391.04
0847	682-1509	LF	CABLE, TP RHH/RHW, AWG NO 2	19135.000	2.93	56065.55
0852	682-1511	LF	CABLE, TP RHH/RHW, AWG NO 1/0	247.000	4.00	988.00
0857	682-1512	LF	CABLE, TP RHH/RHW, AWG NO 2/0	7370.000	5.20	38324.00
0862	682-1514	LF	CABLE, TP RHH/RHW, AWG NO 4/0	7582.000	6.50	49283.00
0867	682-6110	LF	CONDUIT, RIGID, 1 IN	300.000	8.66	2598.67
0872	682-6222	LF	CONDUIT, NONMETL, TP 2, 2 IN	16811.000	2.46	41492.91
0877	682-6233	LF	CONDUIT, NONMETL, TP 3, 2 IN	1940.000	3.59	6978.49
0882	682-9021	EA	ELEC JCT BX,CONC GRD MOUNTED 24"X24"X24"	10.000	2230.15	22301.52

STATE HIGHWAY AGENCY

DATE : 01/12/2012
PAGE : 5

JOB ESTIMATE REPORT

0887	682-9023	EA	ELEC JCT BX,GALVANIZED, SIZE - 12"X12"X6" DEEP	4.000	524.55	2098.24
0892	683-1101	EA	LIGHT TOW/STEL/100'MH/LW EQUIP	2.000	14776.73	29553.47
0897	683-1110	EA	LIGHT TOW/STEL/110'MH/LW EQUIP	21.000	15000.00	315000.00
0902	683-6586	EA	HI-LEVEL LUMIN,TP 5,1000w,HP	81.000	862.00	69822.00
0907	683-9025	EA	LOWERING DEVICE POWER SUPPLY UNIT	1.000	3950.00	3950.00
0912	939-5010	EA	ELEC PWR SVC ASSEMBLY,AERIAL SVC POINT	3.000	2818.99	8456.98
0917	939-5020	EA	ELEC PWR SVC ASSEMBLY,UNDRGRD SVC POINT	1.000	2575.00	2575.00
0922	207-0203	CY	FOUND BKFILL MATL, TP II	18.000	58.34	1050.17
0927	211-0200	CY	BR EXCAV, GRADE SEPARATION	149.000	31.21	4650.89
0932	500-0100	SY	GROOVED CONCRETE	1462.000	4.43	6485.84
0937	500-1006	LS	SUPERSTR CONCRETE, CL AA, BR NO - 1	638.000	625.14	398839.32
0942	500-3002	CY	CL AA CONCRETE	201.000	485.75	97637.57
0947	507-9030	LF	PSC BEAMS,AASHTO,BULB TEE, 54"	1853.000	131.43	243540.14
0952	511-1000	LB	BAR REINF STEEL	40134.000	0.77	31247.53
0957	511-3000	LS	SUPERSTR REINF STEEL, BR NO - 1	67081.000	0.64	42931.84
0962	514-1000	LS	EPOXY COAT/SUP REINF ST BR NO- 1	52188.000	0.85	44359.80
0967	520-1147	LF	PIL-IN-PL,STEEL H,HP 14 X 73	590.000	56.09	33096.75
0972	520-1151	LF	PIL-IN-PL,STEEL H,HP 14 X 89	1410.000	70.54	99468.21
0977	520-4147	EA	LOAD TEST, STEEL H, HP 14 X 73	1.000	1.00	1.00
0982	520-4151	EA	LOAD TEST, STEEL H, HP 14 X 89	1.000	1.00	1.00
0987	540-1102	LS	REM OF EX BR, BR NO - 1	1.000	52200.00	52200.00
0992	643-1152	LF	CH LK FEN,ZC COAT, 6', 9 GA	360.000	28.49	10259.58
0997	627-1000	SF	MSE WALL FACE, 0 - 10 FT HT, WALL NO - 1	177.000	40.41	7154.13
1002	627-1010	SF	MSE WALL FACE, 10 - 20 FT HT, WALL NO - 1	614.000	43.59	26766.10
1007	627-1020	SF	MSE WALL FACE, 20 - 30 FT HT, WALL NO - 1	2846.000	50.16	142779.58

01.12.2012.txt

1012	627-1100	LF	1 COPING A, WALL NO - 1	198.000	75.22	14895.03
1017	627-1180	CY	ADDITIONAL MSE BACKFILL	472.000	40.12	18941.28
1022	627-1000	SF	MSE WALL FACE, 0 - 10 FT HT, WALL NO - 2	168.000	40.51	6805.69
1027	627-1010	SF	MSE WALL FACE, 10 - 20 FT HT, WALL NO - 2	597.000	43.68	26079.86
1032	627-1020	SF	MSE WALL FACE, 20 - 30 FT HT, WALL NO - 2	2657.000	50.20	133392.93
1037	627-1100	LF	COPING A, WALL NO - 2	191.000	75.24	14371.10
1042	627-1180	CY	ADDITIONAL MSE BACKFILL	340.000	41.13	13985.64

ITEM TOTAL	15010515.01
INFLATED ITEM TOTAL	15010515.03

TOTALS FOR JOB 610870

ESTIMATED COST:	15010515.03
CONTINGENCY PERCENT (0.0):	0.00
ESTIMATED TOTAL:	15010515.03

PROJ. NO. NHSTP-0075-03(203)- Gordon
P.I. NO. 610870
DATE 1/24/2012

CALL NO.

INDEX (TYPE)	DATE	INDEX
REG. UNLEADED	1/24/12	\$ 3.297
DIESEL		\$ 3.818
LIQUID AC		\$ 578.00

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

LIQUID AC ADJUSTMENTS

$PA = \left(\frac{APM - APL}{APL} \right) \times TMT \times APL$

Asphalt

Price Adjustment (PA)			\$ 182,347.44	\$ 182,347.44
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	\$ 924.80	
Monthly Asphalt Cement Price month project let (APL)			\$ 578.00	
Total Monthly Tonnage of asphalt cement (TMT)			525.8	

ASPHALT	Tons	%AC	AC ton
Leveling	161	5.0%	8.05
12.5 OGFC		5.0%	0
12.5 mm	971	5.0%	48.55
9.5 mm SP		5.0%	0
25 mm SP		5.0%	0
19 mm SP	9384	5.0%	469.2
	10516		525.8

BITUMINOUS TACK COAT

Price Adjustment (PA)			\$ 1,050.13	\$ 1,050.13
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	\$ 924.80	
Monthly Asphalt Cement Price month project let (APL)			\$ 578.00	
Total Monthly Tonnage of asphalt cement (TMT)			3.02804615	

Bitum Tack

Gals	gals/ton	tons
705	232.8234	3.02804615

PROJ. NO.

NHSTP-0075-03(203)- Gordon

CALL NO.

P.I. NO.

610870

DATE

1/24/2012

BITUMINOUS TACK COAT (surface treatment)

Price Adjustment (PA)				\$	5,853.30	\$	5,853.30
Monthly Asphalt Cement Price month placed (APM)		Max. Cap	60%	\$	924.80		
Monthly Asphalt Cement Price month project let (APL)				\$	578.00		
Total Monthly Tonnage of asphalt cement (TMT)					16.87802858		

Bitum Tack	SY	Gals/SY	Gals	gals/ton	tons
Single Surf. Trmt.	4314	0.20	862.8	232.8234	3.705813075
Double Surf. Trmt.	6970	0.44	3066.8	232.8234	13.17221551
Triple Surf. Trmt.		0.71	0	232.8234	0
					16.87802858

TOTAL LIQUID AC ADJUSTMENT						\$	189,250.87
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DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE Project No. NHSTP-0075-03(203) **OFFICE** Right of Way
P.I. No. 610870 County Gordon
I-75 @ CR 65/Union Grove Rd & from CS 825 to W. of CR 68 Reloc

DATE 12/17/2009

FROM Howard ^{HAC} Copeland, Right of Way Administrator

TO Steve Adewale, Project Manager

SUBJECT Cost Estimates **Mgmt LET Date:** 09/15/2011
Mgmt R/W Date: 02/19/2010

Attached is a current detailed cost estimate that we received that will be utilized for Right of Way authorization.

ROW Phase: 2010	\$878,507.14
ROW Phase: 2010	\$282,056.25
ROW Phase: 2011	\$4,579,600.00
ROW Phase: 2012	\$3,920,027.35

Attached Cost Estimate \$8,340,000.00

Please let Floyd J. Williams know, for tracking purposes, once the cost estimate has been sent to Engineering Services. Right of Way funding cannot be requested until the cost estimate has been approved by the Chief Engineer.

Timely submission of the cost estimate and timely approval notification is critical to maintaining the Right of Way authorization schedule. If you have any questions please call Floyd J. Williams at 404-347-0191.

Cc: Bobby Hilliard, P.E.; Stanley Hill

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

Date: 12/16/2009 Project: NHSTP-007-003 (203)
 Revised: County: GORDON
 PI: 610870
 Description: I-75 INTERCHANGE AT 6R 65/UNION GROVE ROAD
 Parcels: 19 R/W Plan Date: 12/15/2008

CONTRACT

Land and Improvements _____ \$7,677,987.19
 Valuation Services _____ \$194,375.00
 Legal Services _____ \$136,625.00
 Relocation _____ \$51,300.00
 Demolition _____ \$78,500.00
TOTAL CONTRACT _____ \$8,138,787.19

INHOUSE

TOTAL INHOUSE _____ \$197,500.00
TOTAL ESTIMATED COSTS _____ \$8,336,287.19

TOTAL ESTIMATED COSTS (ROUNDED) _____ \$8,340,000.00

Preparation Credits	Hours	Signature

_____, CG#: _____, Team Manager
 _____, CG#: _____, OGC Estimator

Attachment(s): Project Location Map; Subject/Comp Location Map; Comparable Sales Data

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE NH-STP-75-3 (203) Gordon OFFICE Cartersville
New Interchange I-75 @ CR 65/Union
Grove Rd fm CS 825 to West of CR 68 DATE October 13, 2010
P.I. No. 610870-

FROM  Kerry D. Bonner
District Utilities Engineer

TO Bobby Hilliard, P. E., State Program Delivery Engineer

ATTN Steve Adewale, Office of Program Delivery

SUBJECT PRELIMINARY UTILITY COST ESTIMATE

As requested by your office, we are furnishing you with a Preliminary Utility Cost estimates for each utility with facilities potentially located within the project limits.

FACILITY OWNER	NON-REIMBURSABLE	REIMBURSABLE
*City of Calhoun (Water)	\$335,000.00	
*City of Calhoun (Fiber)	\$32,000.00	
North Georgia EMC	\$23,400.00	\$206,700.00
Comcast	No Facilities	
AT&T-Georgia (BellSouth)	\$80,000.00	
Atlanta Gas Light Co.	\$691,850.00	
Tennessee Valley Authority	No Conflict	
Totals	\$1,162,250.00	\$206,700.00

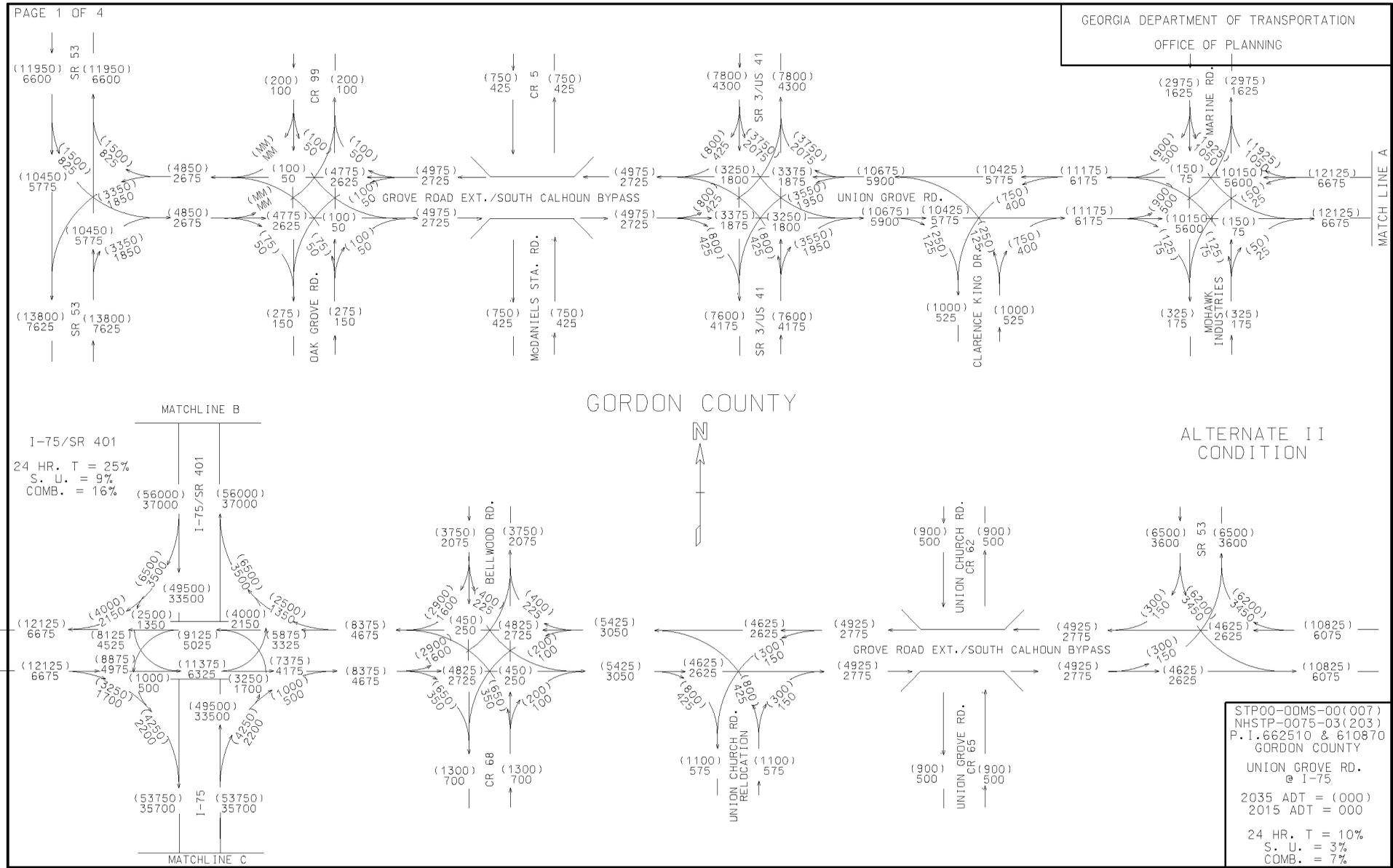
Total preliminary cost estimate for the above project is \$1,368,950.00.

*The reimbursable amount could increase to \$541,732.00 if the City of Calhoun were to apply for utility assistance for the relocation of their facilities.

If you have any questions, please contact Royce Turner at 770-387-3615.

KDB/RET/rt

C: Jeff Baker, P. E., State Utilities Engineer;
Angela Robinson, State Financial Management Administrator
Lisa Wesley, Area Engineer
File/Estimating Book



REVISIONS
 NO. DATE BY
 1 03/20/12 DAM11H
 2 04/08/12 DAM11H

HL Heath & Lineback Engineers
INCORPORATED
2390 CANTON ROAD, BUILDING 200
MARIETTA, GEORGIA 30066-5393
(770)424-1668

NOT TO SCALE

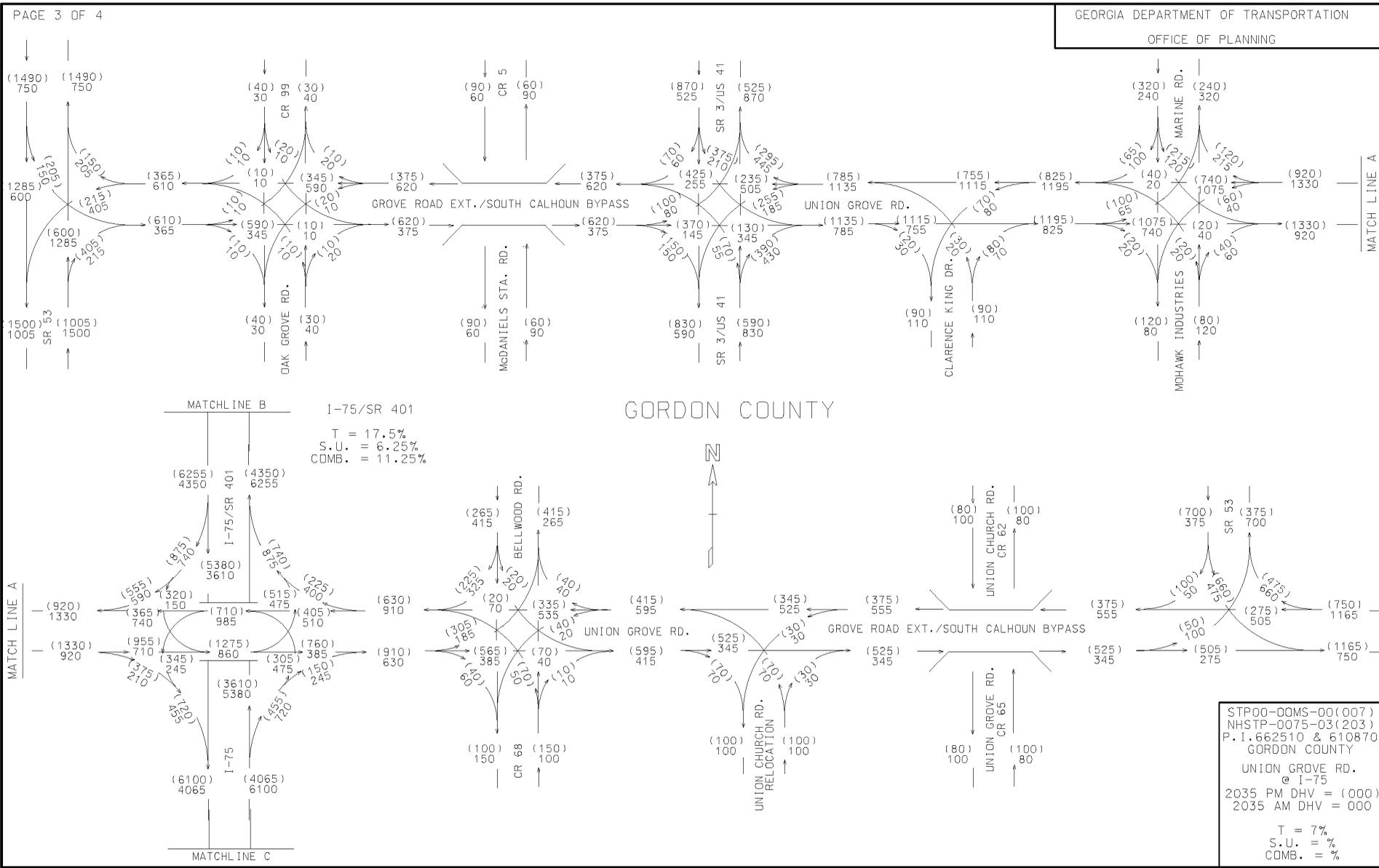
REVISION DATES	

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: CONSULTANT DESIGN

TRAFFIC DIAGRAM

NHSTP-0075-03(203)
UNION GROVE ROAD INTERCHANGE

DRAWING No.
10-001



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NOT TO SCALE

REVISION DATES

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE: CONSULTANT DESIGN
TRAFFIC DIAGRAM
NHSTP-0075-03(203)
UNION GROVE ROAD INTERCHANGE

DRAWING NO.
10-003

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DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE: NH-STP-75-3(203) & STP-00MS(7) Gordon
P. I. Nos.: 610870 & 662510
I-75/Union Grove Interchange/South Calhoun Bypass

OFFICE: Engineering Services

DATE: December 5, 2007

FROM:  Brian Summers, P.E., Project Review Engineer

TO: Babs Abubakari, P.E., State Program Delivery and Consultant Design Engineer

SUBJECT: IMPLEMENTATION OF VALUE ENGINEERING STUDY ALTERNATIVES

Recommendations for implementation of Value Engineering Study Alternatives are indicated in the table below. Incorporate alternatives recommended for implementation to the extent reasonable in the design of the project.

ALT No.	Description	Savings PW & LCC	Implement	Comments
(I) I-75/Union Grove Road Interchange (P.I. No. 610870)				
I-1	Use AASHTO Type III Beams for bridge instead of 54' Bulb Tees	\$99,075	No	Would result in a higher stressed beam. The Type III Beams would also require special fabrication due to their higher strength.
I-2	Verify vertical clearance of 17'-0" vs. 17'-6"	Design Suggestion	No	The 17'-6" vertical clearance would result in a more costly bridge when compared to a 17'-0" clearance.
I-3	Shift alignment of Bridge $\pm 30'$ to the south to eliminate stage construction of bridge	\$273,768	No	The alignment as shown incorporates a compromise between the SHPO and the property owner.
I-5	Shorten lengths of Ramps C & D	\$336,573	Yes	This should be done.
I-6	Clarify MSE Wall locations	Design Suggestion	Yes	This should be done.

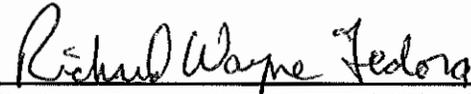
ALT No.	Description	Savings PW & LCC	Implement	Comments
(I) I-75/Union Grove Road Interchange (P.I. No. 610870) - continued				
I-7	Construct Ramps of Asphalt instead of PCC	-\$2,677,250 (Cost increase)	No	Results in a cost increase when Life Cycle Costs are considered over a 25 year period.
I-8	Construct Calhoun Bypass mainline (within the interchange project) of Asphalt instead of PCC	-\$4,847,270 (Cost increase)	No	Results in a cost increase when Life Cycle Costs are considered over a 25 year period.
I-9	Use portions of Bypass Project area as Borrow source	Design Suggestion	Yes	This should be done.
I-10	Shorten bridge, eliminate end spans, use MSE abutments	\$605,370	Yes	This should be done. This would still accommodate any future widening on I-75.
I-11	Eliminate Guardrail in locations of 4:1 slopes	\$34,100	Yes	This should be done.
I-15	Shorten spans over Interstate by using guardrail or concrete barrier along I-75	Design Suggestion	No	Would require guardrail or barrier wall to protect the Clear Zone.
I-16	Selectively reduce shoulder widths on ramps	\$573,924	No	The additional 6' of paved shoulders on the ramps would help prevent future maintenance problems associated with trucks parking on the ramps.
I-19	Widen bridge to increase left turn storage length	-\$1,953,221 (Cost increase)	No	Based on traffic projections, an adequate storage length has been provided.
I-20	Eliminate mast arm lighting standards in interchange	\$605,110	Yes	This should be done.
(C) South Calhoun Bypass (P.I. No. 662510)				
C-1	Optimize right of way takings	Design Suggestion	Yes	This should be done.
C-8	Reduce median width from 44' wide to 30' wide	\$1,063,454 (proposed) \$911,532 (revised)	Yes	A 32' median width will be used instead of a 30' width.

ALT No.	Description	Savings PW & LCC	Implement	Comments
(C) South Calhoun Bypass (P.I. No. 662510) - continued				
C-9	Construct eastbound roadway from S.R. 53 to U.S. 41 for two way traffic	\$6,475,524	Yes	This should be done. ←
C-10	Offset roadway east of Union Grove Road 34' from the centerline	Design Suggestion	No	There are no proposals at this time to widen this section of roadway over to S.R. 53 in the future.
C-11	Increase inside paved shoulder width from 2' to 4'	Design Suggestion	No	This would increase project costs.
C-13	Separate bridges at McDaniel Station Road/CSX & Oothkalooga Creek into four bridges instead of two bridges	Design Suggestion	Yes	This should be done.
C-14	Provide disposition for abandoned roadway/tie-in locations	Design Suggestion	Yes	This should be done.
C-16	Consider use of 3:1 fill slopes in areas where clear zone requirements can be met beyond toe of slope	Design Suggestion	No	There would be future maintenance issues with ensuring the clear zone is clear of vegetation.

A meeting was held on November 7, 2007 to discuss the above recommendations. Chris Rideout and William Ruhsam with Greenhorne and O'Mara, Stanley Hill, and Steve Adewale with Consultant Design and Brian Summers and Ron Wishon with Engineering Services were in attendance. Additional information was provided on November 13, 2007.

The above reflects the consensus of those in attendance and those that provided comments.

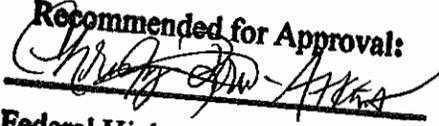
Approved:  Date: 12/17/07
Gerald M. Ross, P. E., Chief Engineer

Approved:  Date: 2/25/2008
for Rodney Barry, P.E., FHWA Division Administrator

BKS/REW

Attachments

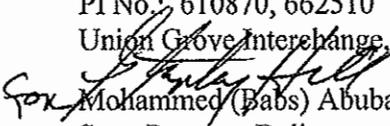
- c: Gus Shanine/Christy Poon-Atkins
- Todd Long
- Stanley Hill
- Steve Adewale
- Lowell James
- Lonnie Jones
- Kenny Beckworth
- Judy Meisner
- Ken Werho
- Nabil Raad
- Melanie Nable
- Lisa Myers

Recommended for Approval:

Federal Highway Administration

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENTAL CORRESPONDENCE

FILE: NH-STP-75-3(203), STP-00MS(7), Gordon County OFFICE: Consultant Design
PI No.: 610870, 662510
Union Grove Interchange, South Calhoun Bypass DATE: October 23, 2007

FROM:  Mohammed (Babs) Abubakari, P.E.
State Program Delivery and Consultant Design Engineer

TO: Brian Summers, P.E., State Project Review Engineer

SUBJECT: Value Engineering Study-Responses

Reference is made to the recommendations that are contained in the Value Engineering Study Report dated May 14, 2007 for the above referenced projects. Our responses and recommendations are as follows:

1) **Value Engineering Alternative No. I-1 -- Use AASHTO Type III Beams for Bridge instead of 54" Bulb Tees**

Approval of the VE Alternative No. I-1 is not recommended.

- The Cross Section LF has been revised since first submitted to now show 10 beams spaced at 8 feet 9 inches. In lieu of this revision the quantity as shown in the VE study for LF of Bulb Tee should be adjusted to 1984 ft, to replace the 2160 LF shown.
- The cost per unit used in the study for the Type III beams appears to be the average for the year 2006. We believe this will not accurately depict the true cost of the beams as these beams will be the costliest of Type III beams, not the average, due to the fact that the required strength will likely be 10,000 psi. Assuming a 10-15% markup in the price the cost savings is reduced significantly. In years prior to 2006, the cost of a type III and a 54 BT were much closer than 2006, and we believe the 2006 numbers may be a bit of an anomaly. Additionally, these high strength Type III beams will require special fabrication due to their high strength.
- We believe it prudent to use a larger sized beam (54 BT) at normal capacity rather than a smaller beam at its absolute maximum strength and stress when the cost differences are this close.

2) **Value Engineering Design Suggestion No. I-2 -- Verify Vertical Clearance of 17'-0" vs. 17'-6"**

Approval of the VE Design Suggestion No. I-2 is not recommended.

- The use of a 17'-0" clearance for the interstate crossover bridge has been verified. This is the recommended clearance preferred by the GDOT Bridge Office for Interstate bridges.

3) **Value Engineering Alternative No. I-3 -- Shift Alignment at bridge 30' ± to south to eliminate stage construction of bridge**

Approval of the VE Alternative No. I-3 is not recommended.

- The Alignment as set prior to the VE Study incorporates compromises between the State Historic Preservation Office and Shaw Industries, Inc. Revising the alignment at the bridge would require

revisiting this compromise, negatively impacting the schedule for the environmental document and right of way acquisition.

- 4) **Value Engineering Alternative No. I-5 – Shorten Lengths of Ramps C and D**
Approval of the VE Alternative No. I-5 is recommended for implementation.
 - Shortening the ramps will reduce the amount of R/W necessary for constructing the interchange project.
- 5) **Value Engineering Design Suggestion No. I-6 – Clarify MSE Wall locations**
Approval of the VE Design Suggestion No. I-6 is not recommended.
 - All MSE walls illustrated in the concept are unneeded. No MSE Walls from the Concept will be included in the final design.
- 6) **Value Engineering Alternative No. I-7 – Construct ramps of asphalt instead of PCC**
Approval of the VE Alternative No. I-7 is not recommended.
 - Utilizing asphalt for ramp paving instead of PCC is a GDOT District 6 policy on interstate ramps.
- 7) **Value Engineering Alternative No. I-8 – Construct Calhoun Bypass mainline (within the interchange project) of asphalt instead of PCC**
Approval of the VE Alternative No. I-8 is not recommended.
 - It is a GDOT policy to install PCC pavement between ramp terminals on an interchange. Note that only 40% (approximately 1,220') of the interchange mainline is proposed to be PCC. Asphalt will be installed on the remaining portion of the mainline.
- 8) **Value Engineering Design Suggestion No. I-9 – Use portions of the Bypass project as Borrow source**
Approval of the VE Design Suggestion No. I-9 is not recommended.
 - GDOT projects do not include provisions for borrow pits as a matter of policy. This is left to the contractor
- 9) **Value Engineering Alternative No. I-10 – Shorten Bridge, eliminate end spans, use MSE abutments**
Approval of the VE Alternative No. I-10 is not recommended.
 - While using MSE abutments will likely result in a significant cost savings, it will limit future expansions of the roadway, will not provide the same sight distances as bridges on end rolls, and are susceptible to settlement issues from the retained earth behind the wall
- 10) **Value Engineering Alternative No. I-11 – Eliminate guardrail in locations of 4:1 slopes**
Approval of the VE Alternative No. I-11 is recommended.
 - Any guardrail shown on 4:1 slopes was an error. 4:1 slope is recoverable and will not be protected by guardrail.
- 11) **Value Engineering Design Suggestion No. I-15 – Shorten spans over Interstate by using guardrail or concrete barrier along I-75**
Approval of the VE Design Suggestion No. I-15 is not recommended.
 - Shortening the spans will reduce construction costs, but introducing barrier or guardrail places an obstruction in the clear zone that may lead to collisions. For safety considerations, Interstate bridge piers will be placed outside of the roadway clear zone.

- 12) **Value Engineering Alternative No. I-16 – Selectively reduce shoulder widths on ramps.**
Approval of the VE Alternative No. I-16 is not recommended.
 - Existing outside shoulder specifications for interchange ramps (14' with 12' paved) is a design utilized on other sections of I-75 throughout the state.

- 13) **Value Engineering Alternative No. I-19 – Widen Bridge to increase left turn storage length.**
Approval of the VE Alternative No. I-19 is not recommended.
 - Sufficient storage for project turning volumes is already provided. In the design year, the 95th Percentile back-of-queue for left turning traffic is within the design parameters of the left turn bays.

- 14) **Value Engineering Alternative No. I-20 – Eliminate Mast Arm lighting standards in interchange.**
Approval of the VE Alternative No. I-20 is not recommended.
 - In order to meet the requirements that GDOT maintains for lighting, a mixture of high- and low-mast lighting is used. To meet specifications without low-mast lighting would require more high mast lighting, impacting the cost savings this recommendation is intended to address.

- 15) **Value Engineering Design Suggestion No. C-1 – Optimize right of way takings.**
Approval of the VE Design Suggestion No. C-1 is recommended for implementation
 - Right of Way limits will be optimized during the later stages of preliminary design.

- 16) **Value Engineering Alternative No. C-8 – Reduce median width from 44' wide to 30' wide**
Approval of the VE Alternative No. C-8 is not recommended.
 - A 44' depressed grassy median width is the current GDOT standard for rural divided arterials. Whereas reducing the width of the median will undeniably have a positive impact on project costs, there is no specific design- or safety-related reason to use a reduced width.

- 17) **Value Engineering Alternative No. C-9 – Construct eastbound roadway from SR 53 to US 41 for two way traffic**
Approval of the VE Alternative No. C-9 is not recommended
 - Does not meet the Need and Purpose of the project. The Need and Purpose states, "The proposed South Calhoun Bypass will divert through traffic [on SR 53] from the commercial area of SR 53 and specifically help reduce the through truck traffic in the area." The intent of this project is to route large-capacity vehicles, i.e. tractor-trailer combinations on their way to I-75 away from the downtown areas of the City of Calhoun. Providing positive separation of vehicles by building a rural 4 lane divided section will be the safest and most efficient type of roadway.

- 18) **Value Engineering Design Suggestion No. C-10 – Reduce Offset roadway east of Union Grove Road 34' from centerline**
Approval of the VE Design Suggestion No. C-10 is not recommended
 - This suggestion refers to the proposed two-lane section of the South Calhoun Bypass east of Union Grove Church Road, connecting to SR 53 on the eastern terminus. It is intended to allow for future expansion of this section of roadway to four-lane divided. However, the concept for this project does not envision further expansion in the future and does not incorporate R/W purchases to account for future construction. Offsetting the two-lane construction to account for future expansion will require changes to the R/W limits and is therefore not recommended.

19) Value Engineering Design Suggestion No. C-11 – Increase inside paved shoulder width from 2' to 4'

Approval of the VE Design Suggestion No. C-11 is not recommended

- Currently, GDOT policy calls for 2' of inside paved shoulder. There are no overriding reasons to deviate from this policy on these projects.

20) Value Engineering Design Suggestion No. C-13 – Separate bridges at McDaniel Station Road/CSX & Oothkalooga Creek into four bridges instead of two bridges

Approval of the VE Design Suggestion No. C-13 is recommended for implementation

- Between distribution of the VE Study materials and the VE Study Report, this recommendation was already implemented by the bridge design consultants.

21) Value Engineering Design Suggestion No. C-14 – Provide disposition for abandoned roadways/tie-in locations

Approval of the VE Design Suggestion No. C-14 is recommended for implementation

- Any roadway being cut/abandoned will have details on the construction plans illustrating what specific work is to occur, whether it is obliterate-grade-to-drain, cul de sac, or relocated tie-in. All existing access will be maintained through alternate routes if necessary.

22) Value Engineering Design Suggestion No. C-16 – Consider use of 3:1 fill slopes in areas where clear zone requirements can be met beyond toe of slope.

Approval of the VE Design Suggestion No. C-16 is not recommended

- While this is an innovative approach to reducing costs by reducing earthwork, it is non-standard and may not be applied well in the field. As noted on the Design Suggestion Form, maintenance crews will need to ensure that the clear zone beyond the toe of slope is clear of vegetation. Crews generally mow slopes to the toe and no farther. A failure in maintenance would increase the likelihood of a clear zone violation and therefore a run-off-the-road collision.

MBA:SA:wmr

Cc: Lisa Meyers, Design Review Manager, GDOT

Wishon, Ron

From: RUHSAM, William [WRUHSAM@G-and-O.com]
Sent: Tuesday, November 13, 2007 4:23 PM
To: Wishon, Ron; Hill, Stanley; RIDEOUT, Chris; Adewale, Steve (Adesoji)
Cc: Summers, Brian
Subject: RE: VE Implementation --- South Calhoun Bypass --- Gordon Co.

Ron,

See below for our responses to the various comments. Also, as a natural extension of C-9, the two-lane option, it would make sense to eliminate half of the parallel bridge spans that would not be used due to no pavement. This would result in more cost savings.

Bill

William M. Ruhsam, Jr., PE, PTOE
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Marietta, GA 30067
Phone: (678) 987-3917
Cell: (404) 931-6478
Fax: (770) 952-0653
www.G-and-O.com

From: RUHSAM, William
Sent: Friday, November 09, 2007 10:50 AM
To: 'Adewale, Steve (Adesoji)'
Subject: 610870/662510 Functional Classification

Steve,

The existing functional classification of Union Grove Road is Urban Collector, not Urban Local as I had thought.

With respect to the various action items from the VE Implementation Meeting:

- 1) We recommend a 32' median rather than a 30' median to satisfy VE Alternative C-8. While 30' would be acceptable to the AASHTO design standards, the GDOT median break design standards details a 60', 44' and 32' median. To ease construction, we believe a 32' median would be most appropriate.
- 2) There has been a sea change in Lighting Standards since the last time I conversed with our lighting subconsultant. Accordingly, all low-mast lighting will be removed from the project, leaving only the high-mast, in accordance with recommendation I-20.
- 3) With respect to VE Alternative C-9, "Construct eastbound roadway from SR 53 to US 41 for two way traffic", the level of service for a two-lane roadway goes from C to D in approximately 2029, therefore we recommend the two-lane option rather than full construction of four lanes.
- 4) Cover sheets and Supporting Documents for I-3 will be couriered to you today.

Bill

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Fax: (770) 952-0653
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From: Wishon, Ron [mailto:Ron.Wishon@dot.state.ga.us]
Sent: Tuesday, November 13, 2007 4:00 PM
To: Hill, Stanley; RIDEOUT, Chris; RUHSAM, William
Cc: Summers, Brian
Subject: VE Implementation --- South Calhoun Bypass --- Gordon Co.

Hey guys:

I seem to remember that we are waiting on some additional information from you before a determination is made on C-9. Have you had a chance to evaluate this one yet? Thanks!

C-9	Construct eastbound roadway from S.R. 53 to U.S. 41 for two way traffic	\$6,475,524	Yes?	Need more info from the Design Consultant.
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Ron Wishon
Assistant Project Review Engineer
Engineering Services
Room 261
404-651-7470
404-463-6131 (FAX)