

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

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

FILE P.I. # 522790-
STP00-0218-01(001)
Chatham County
GDOT District 5 - Jesup
Jimmy Deloach Parkway Extension from I-16 to SR
26/US 80

OFFICE Design Policy & Support

DATE January 17, 2013

FROM  for Brent Story, State Design Policy Engineer

TO SEE DISTRIBUTION

SUBJECT APPROVED REVISED CONCEPT REPORT

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

Attachment

DISTRIBUTION:

Bobby Hilliard, Program Control Administrator
Genetha Rice-Singleton, State Program Delivery Engineer
Glenn Bowman, State Environmental Administrator
Cindy VanDyke, State Transportation Planning Administrator
Ben Rabun, State Bridge Engineer
Kathy Zahul, State Traffic Engineer
Angela Robinson, Financial Management Administrator
Lisa Myers, State Project Review Engineer
Charles "Chuck" Hasty, State Materials Engineer
Jeff Baker, State Utilities Engineer
Paul Tanner, Asst. State Transportation Data Administrator
Attn: Systems & Classification Branch
Ken Thompson, Statewide Location Bureau Chief
Tamaya Huff, State Pedestrian and Bicycle Coordinator
Karon Ivery, District Engineer
Brad Saxon, District Preconstruction Engineer
Stephen Thomas, District Utilities Engineer
Robert Murphy, Project Manager
BOARD MEMBER - 12th Congressional District
FHWA – attn: Rodney Barry, Georgia Division Administrator



U.S. Department
of Transportation
**Federal Highway
Administration**

Georgia Division

January 11, 2013

61 Forsyth Street SW
Suite 17T100
Atlanta, Georgia 30303
Phone 404-562-3630
Fax 404-562-3703
Georgia.fhwa@fhwa.dot.gov

In Reply Refer To:
HPE-GA

Keith Golden, P.E., Commissioner
Georgia Department of Transportation
One Georgia Center
600 West Peachtree Street, NW
Atlanta, GA 30308

Dear Commissioner Golden:

The revised Concept Report submitted for project STP00-0218-01(001) in Chatham County has been reviewed. As noted in the revised Concept Report, Georgia Department of Transportation (GDOT) recommends the revisions based on the recommendations of the value engineering study dated March 8-11, 2010. As a result of the information submitted, Federal Highway Administration (FHWA) has concurred with the following comments:

- Value Engineering Alternative # RD-3: The preliminary plans provide 31-ft 4-in of clearance over the Georgia Central Railway railroad, but is now proposed to be lowered to allow for 24-ft of clearance at the edge of the railroad ROW. Please ensure proper coordination has been completed with the Railway.
- Value Engineering Alternative # I-3: "Reduce the sum of the paved shoulders widths on ramps from 14 ft. to 12 ft." Due to expected high truck volumes, FHWA recommends to keep the paved shoulders widths at 14-ft to maximize safety and traffic operations.
- Typical Sections No. 5 and 7: Please consider changing concrete curb and gutter Type 7 to 4" tall Type 1 (GDOT Standard 9032B). Curbed sections are generally restricted to design speeds of 45 mph or less. Where curb is needed for drainage, the use of curb no higher than 4-in with a mountable profile is recommended.
- Design Traffic: Peak Hour Trucks of 10% and 24 Hour Trucks of 15% are relatively low since the project will provide connectivity from the Georgia Port Authority's port facilities in Port Wentworth to I-16. Please verify the truck percentage will be using the facility.

Please contact Vuong (Victor) Dang, Transportation Engineer, at 404-562-3654 if you have any questions or to schedule a meeting to discuss our comments.

Sincerely,

A handwritten signature in black ink, appearing to read "R. N. Barry", with a long horizontal flourish extending to the right.

 Rodney N. Barry, P.E.
Division Administrator

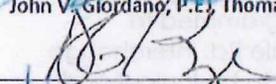
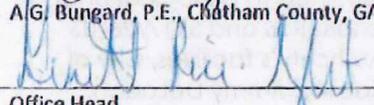
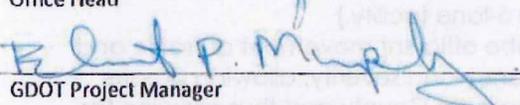
Cc: Robert Murphy, GDOT Project Manager

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

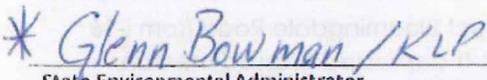
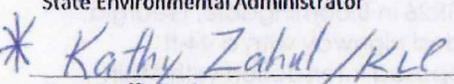
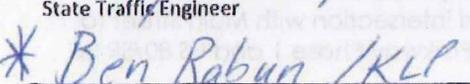
Project Type: <u>New Construction</u>	P.I. Number: <u>522790</u>
GDOT District: <u>12</u>	County: <u>Chatham</u>
Federal Route Number: <u>N/A</u>	State Route Number: <u>17</u>

The revised concept includes the utilization of a 32-ft depressed median, removal of a median break, lowering the profile grade line at the Georgia Central Railway crossing and utilization of two bridge structures in-lieu of one structure. The revisions were based on the recommendations of the value engineering study.

Submitted for approval:

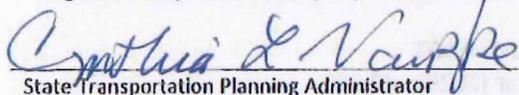
 _____ John V. Giordano, P.E., Thomas and Hutton	<u>9/11/12</u> DATE
 _____ A.G. Bungard, P.E., Chatham County, GA	<u>9/18/2012</u> DATE
 _____ Office Head	<u>10/18/2012</u> DATE
 _____ GDOT Project Manager	<u>10/12/2012</u> DATE

Recommendation for approval:

*  _____ State Environmental Administrator	<u>11-21-12</u> DATE
*  _____ State Traffic Engineer	<u>12-10-12</u> DATE
*  _____ State Bridge Design Engineer	<u>12-27-12</u> DATE

*** Recommendation on file**

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).

 _____ State Transportation Planning Administrator	<u>11-20-12</u> DATE
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PLANNING, APPROVED CONCEPT, & BACKGROUND DATA

Project Justification Statement: Jimmy DeLoach Parkway, Phase II, is needed as an extension of Jimmy DeLoach Parkway, Phase I from its existing terminus at SR 17/26/US 80 to its proposed southern terminus at the existing I-16/SR 17/Bloomingtondale Rd. interchange. The project was developed as a principal component of the Long Range Major Thoroughfare Plan adopted by the Chatham Urban Transportation Study (CUTS) Policy Committee in 1996 and has been included in the annual Transportation Improvement Programs (TIPs) since the adoption of the Plan. The project was initially identified by the Savannah-Chatham County Metropolitan Planning Commission to address traffic projections for the areas of Southern Effingham County and Western Chatham County and was identified in the long range transportation plan as a “developmental highway” to allow for the placement of infrastructure prior to development occurring rather than after, when it becomes more expensive and invasive. This project, in conjunction with the Jimmy DeLoach “Last Mile” project currently under construction, will provide connectivity from the Georgia Port Authority’s port facilities in Port Wentworth to I-16. This improved connectivity will allow goods to be moved more efficiently through the area.

The logical termini have been identified (and previously approved as defined in the Need and Purpose in the Finding of No Significant Impact) as the existing I-16/SR 17/Bloomingtondale Rd. interchange to the south and the existing intersection of Jimmy DeLoach Parkway, Phase I and SR 17/26/US 80 to the north. A separate project is being programmed to address the needed improvements to the existing I-16/SR 17/Bloomingtondale Rd. interchange (typical diamond configuration). The termini locations were determined to be logical and appropriate because both termini connect to existing major arterials (I-16 and SR17/26/US 80) and would provide connectivity between the Georgia Port Authority’s facilities, City of Bloomingtondale and I-16. (I-16 is a 4-lane, divided, limited access facility; Jimmy DeLoach, Phase I is a 4-lane divided facility; SR 17/26/US 80 is a 5-lane facility.)

The ultimate purpose of the project is to provide for the efficient movement of traffic and goods through the area, while reducing crash frequency and severity, allowing greater access to the undeveloped western quadrant of Chatham County and thus allowing for future development of the area.

Description of the approved concept: Widen and reconstruct Bloomingtondale Road from I-16 to Pine Barren Road to a 4 lane divided highway with a 44-ft depressed grassed median. There will be a new location from Pine Barren Road to US80/SR26 in Bloomingtondale, Georgia. The new location portion of the project is to be a 4 lane divided highway with a 44-ft depressed grassed median from Pine Barren Road to the proposed intersection with Main Street and a 24-ft raised grassed median from the proposed intersection with Main Street to the project terminus at the intersection of Jimmy DeLoach Parkway Phase I and US 80/SR 26 in Bloomingtondale, Georgia.

PDP Classification: Major Minor

Federal Oversight: Full Oversight Exempt State Funded Other

Projected Traffic as shown in the approved Concept Report: AADT

Open Year (2009): 7,200

Design Year (2029): 40,000

Updated Traffic: AADT

Open Year (2018): 18,020

Design Year (2038): 32,390

Functional Classification (Mainline): Urban Principal Arterial

VE Study anticipated: No Yes Completed – Date: 3/31/2010

PROPOSED REVISIONS

Approved Features:	Proposed Features:
<ul style="list-style-type: none"> • <u>Typical Section:</u> The approved concept report, dated 3/14/2008, proposed a 44-ft grassed depressed median from the I-16/Bloomingtondale Rd Intersection to Main Street and a raised 24-ft median between Main Street and US 80/SR 26. • <u>Median Break:</u> The preliminary plans indicated a median break at STA 107+00 to accommodate future growth. • <u>Profile Grade:</u> The preliminary plans provide 31-ft 4-in of clearance over the Georgia Central Railway railroad. • <u>Median Break and Bridge Structure:</u> The preliminary plans provided for a single bridge structure to span the Little Ogeechee River to accommodate a Type B median opening at STA 43+20 	<ul style="list-style-type: none"> • <u>Typical section:</u> The alternative proposes to revise the 44-ft grass depressed median from the I-16/Bloomingtondale Rd. Intersection to Main Street to a 32-ft grassed depressed median. The 24-ft raised median between Main Street and US 80/SR26 will remain unchanged. • <u>Median Break:</u> Chatham County and GDOT have indicated that this median break is not warranted at this time and therefore it has been removed from the plan. • <u>Profile Grade:</u> The profile grade at the Georgia Central Railway crossing is proposed to be lowered to allow for 24-ft of clearance at the edge of the railroad ROW. (23-ft minimum required) • <u>Median Break and Bridge Structure:</u> The median break at STA 43+20 is proposed to be revised to remove the southbound turn lane allowing for a northbound Type B median opening and two bridge structures.
<p>Reason(s) for change: The changes are necessary to conform to the recommendations for implementation of the value engineering study alternatives dated August 30, 2010.</p>	

ENVIRONMENTAL

Air Quality:

Is the project located in a PM 2.5 Non-attainment area?
 Is the project located in an Ozone Non-attainment area?

No Yes
 No Yes

Potential environmental impacts of proposed revision: The proposed revisions will result in a reduction in Environmental Impacts. The reduced project footprint as a result of the 32-ft median (in lieu of the 44-ft) will reduce the construction limits by approximately 12-ft and therefore have less impacts to the surrounding environmentally sensitive areas. The decrease in impacts should have no impact on the project schedule.

Have proposed revisions been reviewed by environmental staff? No Yes

Environmental responsibilities (Studies/Documents/Permits): Consultant

PROJECT COST & ADDITIONAL INFORMATION

Updated Cost Estimate		Date of Estimate
Base Construction Cost:	\$16,114,406.12	9/11/2012
Engineering and Inspection:	\$805,720.31	9/11/2012
Liquid AC Adjustment:	\$1,262,980.48	8/21/2012
<u>Total Construction Cost:</u>	\$18,183,106.91	
Right-of-Way:	\$7,169,000.00	2/2/2012
Utilities (reimbursable costs):	\$20,000	8/22/2012
Environmental Mitigation:	\$305,000.00	3/5/2012
TOTAL PROJECT COST:	\$25,677,106.91	

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

Comments:

Attachments:

1. Sketch map
2. Cost Estimates
3. VE Implementation Letter
4. Traffic Approval Letter and Diagrams
5. Typical Sections
6. Design Variance for Reduced Median Width



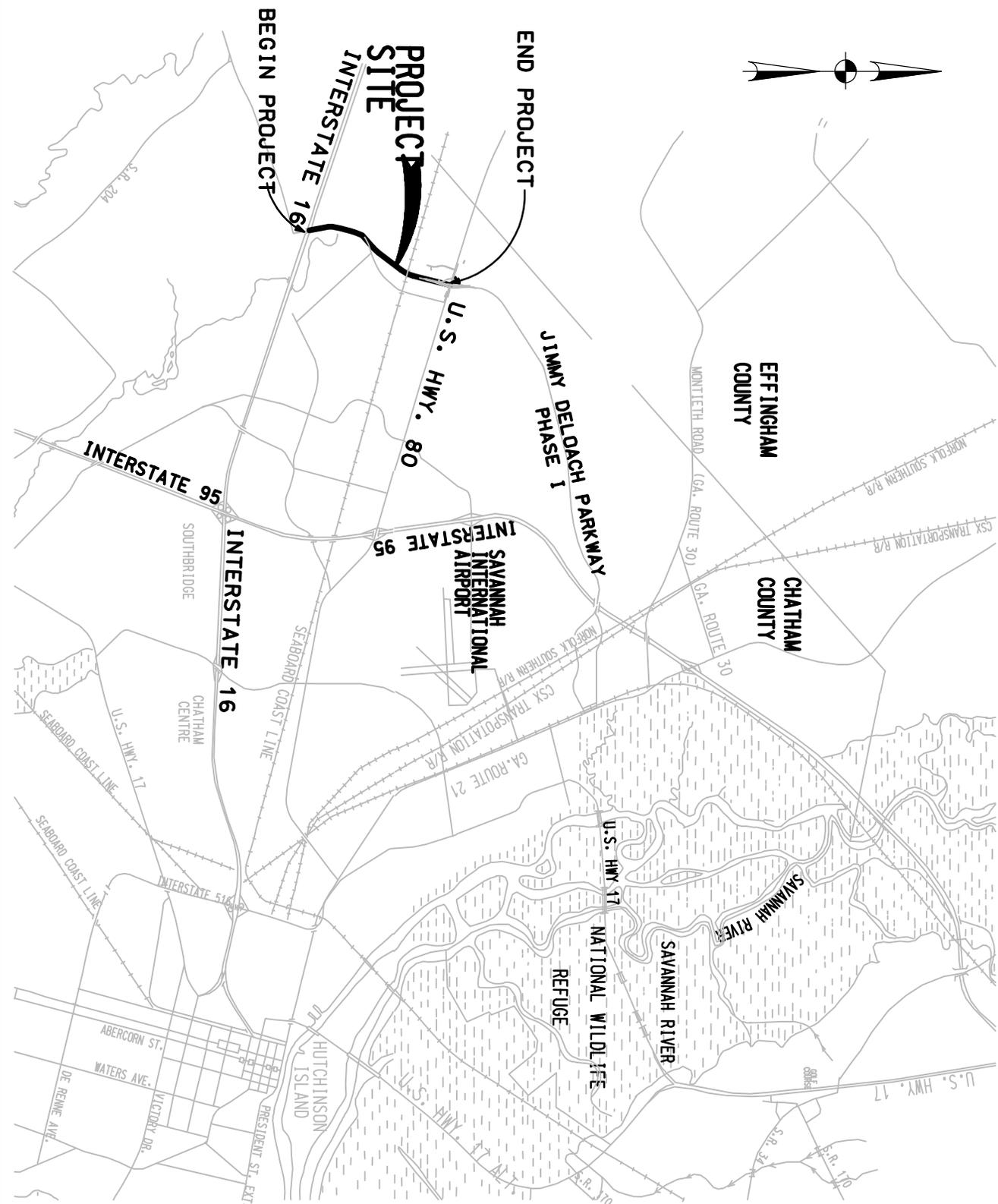
THOMAS & HUTTON
 50 PARK OF COMMERCE WAY • PO BOX 2727
 SAVANNAH, GA 31402-2727 • 912.294.5300
 www.thomasonhutton.com
 Birmingham, GA | Charleston, SC | Myrtle Beach, SC | Wilmington, NC
 Corporate Office 4200 Thomas & Hutton

JIMMY DELOACH PARKWAY EXTENSION FROM I-16 TO U.S. 80
LOCATION MAP
 DATE: SEPTEMBER 29, 2010
 JOB NO.: J-19343

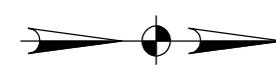
SHEET 1 OF 1

SCALE: N.T.S.
 DATUM: N/A

PROPOSED ACTIVITY:
 JIMMY DELOACH PARKWAY PHASE II
PROJECT LOCATION:
 CHATHAM COUNTY, GA
APPLICANT:
 BOARD OF COMMISSIONERS OF CHATHAM COUNTY



PROJECT SITE
 BEGIN PROJECT
 END PROJECT



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

MNGT LET DATE

PROJECT MANAGER

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

The Construction Cost decrease was a result of the of the VE revisions.

CONTINGENCY SUMMARY

Construction Cost Estimate:	\$ <input type="text" value="16,114,406.12"/>	(Base Estimate)
Engineering and Inspection:	\$ <input type="text" value="805,720.31"/>	(Base Estimate x <input type="text" value="5"/> %)
Total Fuel Adjustment	\$ <input type="text"/>	(From attached worksheet)
Total Liquid AC Adjustment	\$ <input type="text" value="1,262,980.48"/>	(From attached worksheet)
Construction Total:	\$ <input type="text" value="18,183,106.91"/>	

REIMBURSABLE UTILITY COST

Utility Owner	Reimbursable Cost
<input type="text" value="Georgia Power Company Transmission"/>	<input type="text" value="\$20,000.00"/>
<input type="text"/>	<input type="text"/>

Attachments

JOB DETAIL ESTIMATE

JOB NUMBER : 522790 SPEC YEAR: 01
 DESCRIPTION: JIMMY DELOACH PARKWAY EXTENSION FROM I-16 TO US 80

***** This job contains obsolete items *****

COST GROUPS FOR JOB 522790

COST GROUP	DESCRIPTION	QUANTITY	PRICE	AMOUNT	ACTIVE?
ERTHLS	EARTHWORK (LS)				Y
ASPH	ASPHALT (TN)				Y
BASE	BASE/AGGREGATE (TN)				Y
STRO	STRUCTURES, OTHER (SF)				Y
EROC	EROSION CONTROL (SY)				Y
CONC	CONCRETE (SY)				Y
DRNGLF	DRAINAGE (LF)				Y
GDRL	GUARDRAIL/BARRIER (LF)				Y
TRFT	TRAFFIC CONTROL-TEMPORARY (LS)				Y
DRNGEA	DRAINAGE (EA)				Y
UTLL	UTILITIES (LF)				Y
CURB	CURB & GUTTER (LF)				Y
SGNL	TRAFFIC SIGNALS (LS)				Y
RMVL	REMOVALS (LS)				Y
SSGN	SMALL ROADSIDE SIGNS				Y
ASPH	ASPHALT (TN)				Y
THSY	THERMO PLASTIC MARKING SQUARE YARDS				Y
SRIS	STATE ROUTE TRAFFIC STRIPE				Y
MILL	MILLING (SY)				Y
THSL	THERMO PLASTIC LINEAR PAVEMENT MARKING				Y
SSYM	SMALL SYMBOL PAVEMENT MARKING				Y
RPMK	RAISED PAVEMENT MARKING				Y
GENR	GENERAL/FIELD OFFICE/ETC (LS)				Y
ERTHCY	EARTHWORK (CY)				Y
XPMK	OBSOLETE PAVEMENT MARKING				Y
ACTIVE COST GROUP TOTAL				0.00	
INFLATED COST GROUP TOTAL				0.00	

ITEMS FOR JOB 522790

LINE	ITEM	ALT	UNITS	DESCRIPTION	QUANTITY	PRICE	AMOUNT
0010	402-3130		TN	RECYL AC 12.5MM SP, GP2, BM&HL	11290.000	68.84	777228.55
0015	402-3190		TN	RECYL AC 19 MM SP, GP 1 OR 2, INC BM&HL	15030.000	69.28	1041402.55
0020	402-3121		TN	RECYL AC 25MM SP, GP1/2, BM&HL	41333.000	58.47	2416849.22
0025	413-1000		GL	BITUM TACK COAT	37500.000	1.94	72890.63

JOB DETAIL ESTIMATE

0030	456-2012	GLM	INTENT. RUMB. STRIPS - GRND-IN-PL (CONT)	2.000	980.27	1960.56
0035	201-1500	LS	CLEARING & GRUBBING -	1.000	1900000.00	1900000.00
0040	150-1000	LS	TRAFFIC CONTROL -	1.000	400000.00	400000.00
0045	150-5010	EA	TRAF CTRL,PORTABLE IMPACT ATTN	1.000	8000.00	8000.00
0050	153-1300	EA	FIELD ENGINEERS OFFICE TP 3	1.000	68650.51	68650.52
0055	158-1000	HR	TRAINING HOURS	80.000	100.00	8000.00
0060	208-0100	CY	IN PLACE EMBANKMENT	530000.000	5.52	2925737.80
0065	310-5060	SY	GR AGGR BS CRS 6IN INCL MATL	15630.000	12.94	202349.26
0070	310-5120	SY	GR AGGR BS CRS 12IN INCL MATL	133716.000	19.90	2661144.96
0074	433-1000	SY	REINF CONC APPROACH SLAB	1040.000	149.98	155980.33
0075	441-6720	LF	CONC CURB & GUTTER/ 6"X30"TP7	5344.000	13.73	73414.86
0079	500-0100	SY	GROOVED CONCRETE	1040.000	5.10	5304.36
0080	550-1180	LF	STM DR PIPE 18",H 1-10	3720.000	29.23	108756.43
0085	550-1240	LF	STM DR PIPE 24",H 1-10	1211.000	41.19	49886.72
0090	550-1300	LF	STM DR PIPE 30",H 1-10	269.000	54.57	14682.00
0095	550-1360	LF	STM DR PIPE 36",H 1-10	562.000	56.14	31554.10
0100	576-1018	LF	SLOPE DRAIN PIPE, 18 IN	2090.000	28.32	59194.84
0105	550-4218	EA	FLARED END SECT 18 IN, ST DR	41.000	569.56	23352.32
0110	550-4224	EA	FLARED END SECT 24 IN, ST DR	16.000	681.09	10897.49
0115	550-4230	EA	FLARED END SECT 30 IN, ST DR	9.000	756.57	6809.16
0120	550-4236	EA	FLARED END SECT 36 IN, ST DR	5.000	1033.57	5167.88
0125	600-0001	CY	FLOWABLE FILL	50.000	189.12	9456.20
0130	610-1055	LF	REM GUARDRAIL	200.000	3.93	787.48
0135	610-1075	EA	REM GUARDRAIL ANCH, ALL TYPES	4.000	190.02	760.09
0140	610-0959	LF	REMOVE PIPE - REMOVE EXIST. DRAINAGE PIPE	2700.000	13.83	37346.99
0145	610-5715	EA	REM CATCH BASIN,DROP INLET/JC	4.000	2560.00	10240.00
0149	641-1100	LF	GUARDRAIL, TP T	120.000	53.13	6376.17
0150	641-1200	LF	GUARDRAIL, TP W	9400.000	14.67	137940.39
0155	641-5001	EA	GUARDRAIL ANCHORAGE, TP 1	5.000	631.16	3155.81
0160	641-5012	EA	GUARDRAIL ANCHORAGE, TP 12	15.000	1856.02	27840.34
0165	668-2182	EA	DROP INLET, GP 1	46.000	2574.35	118420.27
0170	603-2182	SY	STN DUMPED RIP RAP, TP 3, 24"	450.000	73.70	33167.51
0175	603-7000	SY	PLASTIC FILTER FABRIC	450.000	4.19	1887.30
0180	716-2000	SY	EROSION CONTROL MATS, SLOPES	38500.000	1.29	49816.31
0185	700-6910	AC	PERMANENT GRASSING	12.000	791.48	9497.78
0190	700-7000	TN	AGRICULTURAL LIME	24.000	54.54	1308.97
0195	700-8000	TN	FERTILIZER MIXED GRADE	7.000	478.20	3347.46
0200	700-8100	LB	FERTILIZER NITROGEN CONTENT	600.000	2.74	1648.37
0205	163-0232	AC	TEMPORARY GRASSING	12.000	286.43	3437.18
0210	163-0240	TN	MULCH	24.000	257.64	6183.54
0215	163-0300	EA	CONSTRUCTION EXIT	3.000	1564.92	4694.78
0220	163-0522	EA	CONSTR AND REM TEMP DCH CK - TP A SLT FN	275.000	96.11	26431.14
0225	163-0550	EA	CONS & REM INLET SEDIMENT TRAP	27.000	199.97	5399.40
0230	165-0010	LF	MAINT OF TEMP SILT FENCE, TP A	22620.000	0.68	15488.37
0235	165-0030	LF	MAINT OF TEMP SILT FENCE, TP C	2400.000	0.88	2121.10
0240	165-0040	EA	MAINT OF EROSION CTRL CHDAMS/DITCH CHKS	275.000	48.42	13315.95
0245	165-0101	EA	MAINT OF CONST EXIT	3.000	450.58	1351.76

STATE HIGHWAY AGENCY

JOB DETAIL ESTIMATE

0250	165-0105	EA	MAINT OF INLET SEDIMENT TRAP	27.000	96.10	2594.70
0255	167-1000	EA	WATER QUALITY MONITORING AND SAMPLING	1.000	590.18	590.19
0260	167-1500	MO	WATER QUALITY INSPECTIONS	24.000	1149.73	27593.69
0265	171-0010	LF	TEMPORARY SILT FENCE, TYPE A	22620.000	1.96	44379.99
0270	171-0030	LF	TEMPORARY SILT FENCE, TYPE C	2400.000	3.98	9569.76
0275	636-1033	SE	HWY SIGNS, TRIMAT, REFL SH TP 9	2000.000	17.84	35689.26
0280	636-2070	LF	GALV STEEL POSTS, TP 7	300.000	8.26	2480.02
0285	653-0120	EA	THERM PVMT MARK, ARROW, TP 2	14.000	71.63	1002.83
0290	653-0170	EA	THERM PVMT MARK, ARROW, TP 7	24.000	81.69	1960.77
0295	653-1501	LF	THERMO SOLID TRAF ST 5 IN, WHI	30000.000	0.31	9447.00
0300	653-1502	LF	THERMO SOLID TRAF ST, 5 IN YEL	20600.000	0.28	5921.26
0305	653-3501	GLF	THERMO SKIP TRAF ST, 5 IN, WHI	30000.000	0.16	4860.90
0310	654-1001	EA	RAISED PVMT MARKERS TP 1	515.000	3.31	1706.22
0315	654-1003	EA	RAISED PVMT MARKERS TP 3	400.000	3.29	1319.43
0320	653-1704	LF	THERM SOLID TRAF STRIPE,24", WH	300.000	3.56	1068.83
0325	656-0050	LF	REM EX SLD TRF STRIPE, 5", THER	550.000	0.53	293.30
0330	647-1000	LS	TRAF SIGNAL INSTALLATION NO -	1.000	65000.00	65000.00
0335	647-6090	EA	LOOP DETECTOR -	10.000	819.11	8191.20
0340	500-0100	SY	GROOVED CONCRETE	3590.000	3.98	14294.09
0345	500-1006	LS	SUPERSTR CONCRETE, CL AA, BR NO -	1.000	675000.00	675000.00
0350	500-2100	LF	CONCRETE BARRIER	1020.000	44.28	45169.82
0355	500-3101	CY	CLASS A CONCRETE	480.000	475.64	228310.74
0360	507-9001	LF	PSC BEAMS,AASHTO TP I, BR NO -	2800.000	71.13	199168.51
0365	507-9002	LF	PSC BEAMS,AASHTO TP II, BR NO-	2760.000	83.26	229802.73
0370	511-1000	LB	BAR REINF STEEL	85980.000	0.75	64864.17
0375	511-3000	LS	SUPERSTR REINF STEEL, BR NO -	1.000	250000.00	250000.00
0380	520-1147	LF	PIL-IN-PL,STEEL H,HP 14 X 73	3120.000	45.31	141396.15
0385	520-2218	LF	PILING, PSC, 18 IN SQ	3040.000	53.75	163416.14
0390	520-4147	EA	LOAD TEST, STEEL H, HP 14 X 73	2.000	0.87	1.75
0395	540-1101	LS	REM OF EX BR, STA NO -	1.000	50000.00	50000.00
0400	441-0004	SY	CONC SLOPE PAV, 4 IN	4560.000	43.13	196711.92
0405	603-2024	SY	STN DUMPED RIP RAP, TP 1, 24"	1100.000	61.29	67426.74
0410	603-7000	SY	PLASTIC FILTER FABRIC	1100.000	4.12	4538.79

ITEM TOTAL 16114406.12
 INFLATED ITEM TOTAL 16114406.12

TOTALS FOR JOB 522790
 ESTIMATED COST: 16114406.10
 CONTINGENCY PERCENT (0.0): 0.00
 ESTIMATED TOTAL: 16114406.10

NOTE: The item totals include all alternate items. The estimated totals include only the low cost alternate items.

PROJ. NO. STP00-0218-01(001) CALL NO.
 P.I. NO. 522790
 DATE 8/21/2012

INDEX (TYPE)	DATE	INDEX
REG. UNLEADED	Aug-12	\$ 3.431
DIESEL		\$ 3.786
LIQUID AC		\$ 594.00

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) 1205576.46 \$ 1,205,576.46
 Monthly Asphalt Cement Price month placed (APM) Max. Cap 60% \$ 950.40
 Monthly Asphalt Cement Price month project let (APL) \$ 594.00
 Total Monthly Tonnage of asphalt cement (TMT) 3382.65

ASPHALT	Tons	%AC	AC ton
Leveling		5.0%	0
12.5 OGFC		5.0%	0
12.5 mm	11290	5.0%	564.5
9.5 mm SP		5.0%	0
25 mm SP	41333	5.0%	2066.65
19 mm SP	15030	5.0%	751.5
	67653		3382.65

BITUMINOUS TACK COAT

Price Adjustment (PA) \$ 57,404.02 \$ 57,404.02
 Monthly Asphalt Cement Price month placed (APM) Max. Cap 60% \$ 950.40
 Monthly Asphalt Cement Price month project let (APL) \$ 594.00
 Total Monthly Tonnage of asphalt cement (TMT) 161.0662846

Bitum Tack	gals/ton	tons
Gals	37500	232.8234
		161.066285

PROJ. NO.

STP00-0218-01(001)

CALL NO.

P.I. NO.

522790

DATE

8/21/2012

BITUMINOUS TACK COAT (surface treatment)

Price Adjustment (PA)

Max. Cap

60%

\$

950.40

\$

-

Monthly Asphalt Cement Price month placed (APM)

Max. Cap

60%

\$

594.00

\$

0

Monthly Asphalt Cement Price month project let (APL)

Max. Cap

60%

\$

594.00

\$

0

Total Monthly Tonnage of asphalt cement (TMTT)

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

SY	Gals/SY	Gals	gals/ton	tons
	0.20	0	232.8234	0
	0.44	0	232.8234	0
	0.71	0	232.8234	0

TOTAL LIQUID AC ADJUSTMENT

\$ 1,262,980.48

Department of Transportation State of Georgia

Interdepartmental Correspondence

FILE R/W Cost Estimate **OFFICE** Atlanta
DATE February 02, 2012
FROM Phil Copeland, Right of Way Administrator
TO Billy Gordan, Moreland Altobelli Associates
SUBJECT **Preliminary Right of Way Cost Estimate**
Project: STP-218-1(1) Chatham County
P.I. No.: 522790
Description: New Location extension of Jimmy De Loach Parkway
from I-16 to US 80

As per your request, attached is a copy of the approved Preliminary Right of Way Cost Estimates on the above referenced projects.

If you have any questions, please contact LaShone Alexander at One Georgia Center 600 West Parkway Street, NW Atlanta, GA 30308, Right of Way Office at (478) 553-1569 or (478) 232-4045.

PC:LA
Attachments
c:File

GEORGIA DEPARTMENT OF TRANSPORTATION
PRELIMINARY ROW COST ESTIMATE SUMMARY

Date: 2/25/2011 Project: STP-218-1 (1)
 Revised: 2/2/2012 County: Chatham
 PI: 522790

Description: Jimmy Deloach Parkway, Phase II. New location extension from I-16 to US 80
 Project Termini: North side of I-16 to south side of US 80.

Existing ROW: Varies
 Required ROW: 200+ ft
 Parcels: 42

Land and Improvements \$5,609,152.50

Proprietary Damage	\$8,000.00
Consequential Damage	\$1,572,385.00
Cost to Cures	\$20,000.00
Trade Fixtures	\$0.00
Improvements	\$731,000.00

Valuation Services \$140,000.00

Legal Services \$290,850.00

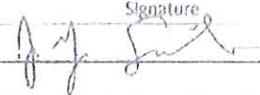
Relocation \$504,000.00

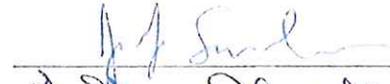
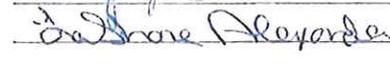
Demolition \$225,000.00

Administrative \$399,000.00

TOTAL ESTIMATED COSTS \$7,168,002.50

TOTAL ESTIMATED COSTS (ROUNDED) \$7,169,000.00

Preparation Credits	Hours	Signature
J.G. Simshauser	2	

Prepared By:  CG#: 2772 DATE: 2/2/12
 Approved By:  CG#: 2866999 DATE: 2/2/2012

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

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

DATE August 22, 2012

FROM Stephen Thomas, District Utilities Engineer, Jesup

TO Robert Murphy, Project Manager, Atlanta

SUBJECT Preliminary Utility Cost Estimate
STP00-0218-01(001), PI 522790-, Chatham

As requested, we are furnishing you with a Preliminary Utility Cost Estimate of each Utility with facilities potentially located within the above referenced project limits.

Facility Owner	Non-Reimbursable	Reimbursable	Comments
AT&T	\$268,275.00	\$0.00	
Comcast	\$116,000.00	\$0.00	
Georgia Power Co - Distribution	\$425,000.00	\$0.00	
Georgia Power Co - Transmission	\$0.00	\$20,000.00	
Total	\$809,275.00	\$20,000.00	
Total Reimbursable		\$20,000.00	

If you have any questions or would like to discuss anything further, please contact the District Utilities Office at (912) 427-5754.

CC: Angie Roberson, Office of Financial Management
Terry Brigman, Assistant State Utilities Engineer
District Office File
Utilities Office File

Jimmy DeLoach Parkway, Phase II Environmental Cost Estimate

Activity	Cost
Purchase Land for Mitigation Activities	\$100,000.00
Consulting Services for Environmental Permitting	\$55,000.00
Construction/Restoration in Accordance with USACE Approved Mitigation Plan	\$90,000.00
Monitoring Mitigation Bank	\$60,000.00

Total Cost \$305,000.00

APPENDIX O

Jimmy DeLoach Parkway, Phase II
100.0 Acre Mitigation Site

Chatham County's Letter of Financial Commitment

Prepared By:

sligh environmental consultants, inc.
31 Park of Commerce Way, Suite 200B
Savannah, Georgia 31405
phone (912) 232-0451
fax (912) 232-0453
www.slighcec.com

COMMISSIONERS OF CHATHAM COUNTY

PETE LIAKAKIS
Chairman



Chatham County Courthouse
Post Office Box 8161
Suite 210 - 124 Bull Street
Savannah, Georgia 31412

(912) 652-7878
(912) 652-7880 - fax

March 5, 2012

Mr. Shaun Blocker
U.S. Army Corps of Engineers
Savannah District
P.O. Box 889
Savannah, GA 31402-0889

RE: Jimmy DeLoach Parkway Phase II, Permittee Responsible Mitigation Plan
Letter of Financial Commitment
USACE Permit No. SAS-2010-00652
Chatham County, Georgia

Dear Mr. Blocker:

By letter dated December 16, 2010, Chatham County applied for a Wetlands 404 Permit from the U.S. Army Corps of Engineers, Savannah District (USACE) for the wetland fill associated with the construction of Phase II of the Jimmy DeLoach Parkway (USACE Permit No. SAS-2010-0652). As compensatory mitigation to off-set the project related impacts to wetlands, Chatham County purchased a 100-acre site adjacent to the existing Chatham County Wetland Mitigation Bank. Chatham County plans to implement wetland restoration and enhancement activities as outlined in the "Jimmy DeLoach Parkway Phase II and U.S. Highway Interchange Permittee-Responsible Mitigation Site Mitigation Plan." As we discussed with you and Mr. Justin Hammonds, since this is a governmental project, Chatham County has elected to provide an alternative financial assurance (i.e. letter of financial commitment) instead of a performance bond, trust, letter of credit, escrow account or other financial assurance agreements for the proposed permittee responsible mitigation plan.

This mitigation plan outlines specific restoration and enhancement activities that are to be completed on the 100-acre site, and as outlined in Section 3.4 of the mitigation plan, Chatham County is committed to complete these activities and agrees to monitor the success of these restoration and enhancement efforts for seven years. Additionally, Chatham County is responsible for maintaining the property in perpetuity and proposes to place restrictive conservation covenants on the entire 100-acre site.

Based on engineers and environmental consultant estimates, the restoration and enhancement construction activities, recording restrictive covenants, and completing seven years of mitigation success monitoring will cost approximately \$150,000. By this letter, Chatham County is certifying these funds are budgeted to complete this mitigation project.

Chatham County has allocated the appropriate funding to conduct and implement the wetland enhancement/restoration and seven years of success monitoring at this site. The commitment of funds allocated to the construction of this project, completing the necessary adaptive management measures, seven years of success monitoring, and any additional monitoring requirements deemed necessary to determine final mitigation success, combined with the excellent financial position of Chatham County, provide the financial assurance to cover the cost of all facets of this project.

If you have any questions concerning the County's financial commitment to complete the mitigation plan, please contact me at (912) 652-7800.

Sincerely,

Pete Liakakis, Chairman
Board of Commissioners

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE: STP00-0218-01(001) Chatham **OFFICE:** Engineering Services
 CSSTP-0007-00(259)
 P.I. Nos.: 522790 & 0007259
 Jimmy Deloach Parkway Extension **DATE:** August 30, 2010

FROM: Ronald E. Wishon, State Project Review Engineer *REW*

TO: Bobby K. Hilliard, PE, State Program Delivery Engineer
 Attn.: Robert Murphy

SUBJECT: IMPLEMENTATION OF VALUE ENGINEERING STUDY ALTERNATIVES

The VE Study for the above projects was held March 8-11, 2010. Responses were received on August 30, 2010. Recommendations for implementation of Value Engineering Study Alternatives are indicated in the table below. The Project Manager shall incorporate the VE alternatives recommended for implementation to the extent reasonable in the design of the project.

ALT #	Description	Potential Savings/ LCC	Implement	Comments
PI No. 522790 ROADWAY (RD)				
RD-1	Use a 32 ft depressed median in lieu of a 44 ft depressed median	\$610,045	Yes	This will be done.
RD-2	Use Type A median opening in lieu of Type B median opening for the SB left turn lane onto driveway at Sta. 107+00	Proposed = \$231,397 Actual = \$379,400	No to recommendation as proposed Yes to alternate recommendation	An alternate recommendation to eliminate the median break has been proposed and accepted. The median break was originally proposed to accommodate future growth, but both Chatham County and GDOT have indicated it is not required at this time. The actual savings represents the savings generated by eliminating the median opening.
RD-3	Lower the profile grade over the CSX railroad crossing	\$1,131,781	Yes	This will be done.

RD-14	Use separate structures for Little Ogeechee River Bridge and a Type A median opening for the SB left turn lane in order to reduce the bridge width	\$378,263	Yes	This will be done.
RD-22	Provide single span bridges with MSE walled abutments at the CSX railroad crossing	\$267,032	No	Although there are perceived construction savings, there would be more maintenance issues and potential costs with MSE walls and the approach roadway than there would be with typical spill through abutments. Also, MSE wall abutments greatly limit the possibility of future expansion for both roadways.
PI No. 0007259 INTERCHANGE (I)				
I-3	Reduce the sum of the paved shoulders widths on ramps from 14 ft to 12 ft	\$77,935	Yes	This will be done.
I-4	Use single span bridges with MSE walls	\$241,945	No	Although there are perceived construction savings, there would be more maintenance issues and potential costs with MSE walls and the approach roadway than there would be with typical spill through abutments. Also, MSE wall abutments greatly limit the possibility of future expansion for both roadways.
I-6	Use 40 ft end spans on bridges across US 80	\$209,853	No	The length of the end spans will be determined during preliminary design. The lengths will be minimized to provide suitable clearance, a stable slope, and adequate drainage. Conceptual information indicates that the end span lengths may have to be substantially greater than 40 ft to provide suitable clearance, accommodate anticipated drainage channels, and to provide a stable slope in the highly erosive soils in this area.

The Office of Engineering Services concurs with the Project Manager's responses.

Approved: Gerald M. Ross Date: 9/2/10
Gerald M. Ross, PE, Chief Engineer

REW/LLM

Attachments

c: Ben Buchan
Bobby Hilliard/Mike Haithcock/Robert Murphy
Paul Liles/Bill Duvall/Bill Ingalsbe/Steve Gaston
Larry Bowman
Will Murphy/Cory Knox
Brad Saxon/Teresa Scott
Ken Werho
Lisa Myers
Matt Sanders

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE STP00-0218-01(001) Chatham County OFFICE Program Delivery
CSSTP-0007-00(259) Chatham County
P.I. #522790 and P.I. #0007259 DATE August 30, 2010
Jimmy DeLoach Extension and Interchange

FROM Bobby K. Hilliard, PE, State Program Delivery Engineer *B.K.H.*

TO Ron E. Wishon State Project Review Engineer
Attn: Lisa Myers P.E.

SUBJECT Responses to Value Engineering Study Alternatives

Attached please find our responses for the Value Engineering Study conducted for P.I. #522790 and P.I. #0007259.

Additionally we have attached correspondence from the office of Roadway Design, The Office of Bridge Design, and The Office of Environmental Services for your review and concurrence with the value engineering recommendations.

The Office of Program Delivery concurs with the Responses.

Please review and if you have any questions please don't hesitate to contact Robert Murphy Project Manager at 404-631-1586.

Thank you,

BKH:
Attachments

Cc:

THOMAS & HUTTON ENGINEERING CO.

50 PARK OF COMMERCE WAY
POST OFFICE BOX 2727
SAVANNAH, GEORGIA 31402-2727
TELEPHONE (912) 234-5300
FAX (912) 234-2950

August 23, 2010

Mr. Leon Davenport
Chatham County Engineering
Post Office Box 8161
Savannah, GA 31402

Re: STP00-0218-01(001) Chatham County
Jimmy DeLoach Parkway Extension -
from I-16 to US 80
P. I. No. 522790
Value Engineering Study Final Report

Dear Mr. Davenport:

Based on our meetings with Georgia Department of Transportation and our review of the prepared Value Engineering Study Report, please see the following responses to the Report Recommendations dated March 2010.

Recommendations:

1. Idea RD-1: Use a 32' depressed median in-lieu of 44' depressed median, Cost Savings: \$610,045.00.
➤ Yes, the design team will implement this recommendation.
2. Idea RD-2: Use Type "A" in-lieu of a Type "B" south bound left turn lane onto driveway at STA 107+00, Cost Savings: \$231,397.00.
➤ No, the median break at STA 107+00 is being removed from the proposed design. The median break was included in the initial layout to accommodate future growth in the area, but it has been indicated by Chatham County and the Georgia Department of Transportation that it is not required at this time. Cost savings by removing median break: \$379,400.00.
3. Idea RD-3: Lower profile grade over the CSX railroad crossing, Cost Savings: \$1,131,781.00.
➤ Yes, the design team will implement this recommendation.
4. Idea RD-14: Relocate or delete southbound U-turn at STA 44+00; use separate structures for Little Ogeechee River Bridge, Cost Savings: \$378,263.00.
➤ Yes, the design team will implement this recommendation.

Mr. Leon Davenport
Chatham County Engineering
August 23, 2010
Page 2

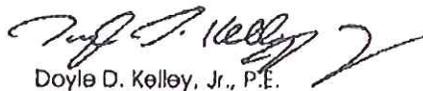
5. Idea RD-22: Provide single span bridges with MSE walled abutments at CSX RR crossing,
Cost Savings: \$267,032.00.

> No, at the recommendation of the State Bridge Engineer (see attached), VE alternative RD-22 will not be implemented.

If there are any further questions or if any additional information is needed, please contact our office at (912)234-5300.

Sincerely,

THOMAS & HUTTON



Doyle D. Kelley, Jr., P.E.

DDK/sawr

Attachment

McGee Partners, Inc.

1990 Lakeside Parkway
Suite 240
Tucker, Georgia 30084
T 770.938 6400
F 770.938 6333

July 14, 2010

Mr. Leon Davenport, P.E.
Chatham County
Department of Engineering
124 Bull Street, Room 430
Savannah, Georgia 31401

Re: US 80/Jimmy DeLoach Parkway Interchange
CSSTP-0007-00(259)
P.I. No. 0007259
Chatham County
**VALUE ENGINEERING STUDY
RECOMMENDATION RESPONSES**

Dear Mr. Davenport:

After reviewing the recommendations from the Value Engineering Study Report prepared by PBS&J, dated March 31, 2010, and the recommendations from the Bridge Office, dated June 23, 2010, we offer the following revised responses to the three design alternatives suggested for the referenced project:

Alternative No. I-3: Reduce sum of paved shoulder widths on ramps from 14' to 12', Cost Savings: \$77,935

Yes, the design team will implement this recommendation.

Alternative No. I-4: Use single span bridges w/MSE walls (on bridges over US 80), Cost Savings: \$241,945

No, the design team will not implement this recommendation.

Although there are perceived construction savings, there would be more maintenance issues and potential costs with MSE walls and the approach roadway than there would be with typical spill through abutments. Also, MSE wall abutments greatly limit the possibility of future expansion for both roadways.

Alternative No. I-6: Use 40' end spans on bridges across US 80, Cost Savings: \$209,853

No, the design team will not implement this recommendation.

The length of the end spans will be determined during preliminary design. The lengths will be minimized to provide suitable clearance, a stable slope and adequate

Mr. Leon Davenport, P.E.
Page 2
July 14, 2010

McGee Partners, Inc.

drainage. Conceptual information indicates that end span lengths may have to be substantially greater than 40' to provide suitable clearance, accommodate anticipated drainage channels and to provide a stable slope in the highly erosive soils in this area.

We have enclosed a project location map as requested by GDOT Engineering Services.

Please let me know if you have any questions or comments. Should you concur with these responses, please forward this to Mr. Robert Murphy at GDOT.

Sincerely,
McGee Partners, Inc.



Thomas M. Crochet, PE, PTOE
President

Enclosure

Murphy, Robert

ROADWAY DESIGN

From: McMurry, Russell
Sent: Monday, May 24, 2010 6:13 PM
To: Richardson, Darrell; Murphy, Robert
Subject: Re: V.E. Recommendations and Responses for P.I.#522790 and P.I.#0007259 Chatham County

Thank you Darrell. Very good point on future traffic and median width.
Russell McMurry
Georgia Department of Transportation
Sent via Blackberry

From: Richardson, Darrell
To: Murphy, Robert
Cc: McMurry, Russell
Sent: Mon May 24 16:21:23 2010
Subject: RE: V.E. Recommendations and Responses for P.I.#522790 and P.I.#0007259 Chatham County
Robert,

In general, the 32 foot median is acceptable from a design criteria standpoint.

RO-1

*Darrell M. Richardson, P.E.
Assistant State Roadway Design Engineer
Georgia Department of Transportation
404-631-1705 (Office)
404-895-5005 (Mobile)
drichardson@dot.ga.gov*

From: McMurry, Russell
Sent: Friday, May 21, 2010 12:31 PM
To: Richardson, Darrell
Cc: Murphy, Reginald
Subject: Fw: V.E. Recommendations and Responses for P.I.#522790 and P.I.#0007259 Chatham County

Murphy, Robert

RD-3

From: DuVall, Bill
Sent: Monday, August 30, 2010 9:48 AM
To: Murphy, Robert
Subject: RE: Scan001 (2).PDF - Adobe Acrobat Professional

Robert,

As we discussed, it is acceptable to lower the grade over the railroad such that the minimum vertical clearance required is provided and accepted by the CSX Transportation. Let me know if you need anything else concerning this matter.

Thanks,
Bill

Bill DuVall
Bridge Design
(404) 631-1883

From: Murphy, Robert
Sent: Tuesday, August 24, 2010 11:16 AM
To: DuVall, Bill
Subject: FW: Scan001 (2).PDF - Adobe Acrobat Professional

Bill,

Please review RD-3 and provide concurrence with lowering the Bridge profile.

Thanks,

Robert Murphy
Senior Project Manager
Georgia Department of Transportation
600 West Peachtree Street
Atlanta Ga. 30308
404-631-1586 office
404-309-0807 cell
email: romurphy@dot.ga.gov

From: Myers, Lisa
Sent: Friday, July 16, 2010 1:11 PM
To: Murphy, Robert
Cc: Hilliard, Bobby; Halthcock, Michael
Subject: FW: Scan001 (2).PDF - Adobe Acrobat Professional

There are still some problems with these responses.

522790

As I pointed out when I reviewed these before, RD-2 needs concurrence from Traffic Ops. It is very rare that they say yes to using a Type A median opening instead of a Type B.

Murphy, Robert

TRAFFIC OPERATIONS:

From: Zehngraff, Scott E.
Sent: Friday, August 06, 2010 11:27 AM
To: Murphy, Robert
Cc: Werho, Ken; Zahul, Kathy
Subject: RE: V.E. recommendation for p.I.#522790

In the VE Report, Alternate RD-2, recommended removing the Type B left turn lanes and replacing it with a Type A. This is a \$231,397 cost savings. I don't recommend removing any Type B's based on the geometric advantages of them, i.e.: improved sight distance, etc. With the volumes of traffic on the roadway it would greatly enhance the efficiency of the intersection.

Scott E. Zehngraff, P.E. General Operations Manager Traffic Operations 404-635-8127 cell: 404-805-8016

From: Zahul, Kathy
Sent: Wednesday, August 04, 2010 6:47 PM
To: Zehngraff, Scott E.
Cc: Werho, Ken; Murphy, Robert
Subject: FW: V.E. recommendation for p.I.#522790

Scott,
Please provide a response to the Type A vs. Type B median crossover for this project.

Thanks,
Kathy

From: Murphy, Robert
Sent: Wednesday, August 04, 2010 2:25 PM
To: Zahul, Kathy
Subject: V.E. recommendation for p.I.#522790

Kathy,

I went ahead and attached this report just in case you were having trouble pulling the project up?

RD-2 is the recommendation I need you concurrence on or your thoughts of no going with their recommendation.

Any questions please contact me.

Robert,

Murphy, Robert

OES

From: Bowman, Glenn
Sent: Thursday, May 20, 2010 1:00 PM
To: Murphy, Robert
Cc: Hilliard, Bobby; Haithcock, Michael; Myers, Lisa; McMurry, Russell; Liles, Paul; DuVall, Bill; Jubran, Abdallah (AJ); Geary, Georgene
Subject: RE: V.E. Recommendations and Responses for P.I.#522790 and P.I.#0007259 Chatham County

Robert.

All of the proposed design responses to the VE recommendations are satisfactory from an environmental perspective. It is important to note that several of the recommended changes would reduce the project impacts to the environment which is also a requirement of NEPA.

Glenn Bowman, P.E.
State Environmental Administrator
Georgia Department of Transportation
600 West Peachtree Street, NW, Atlanta, GA 30308
Phone: 404-631-1101 Fax: 404-631-1916

From: Murphy, Robert
Sent: Thursday, May 20, 2010 11:38 AM
To: McMurry, Russell; Liles, Paul; DuVall, Bill; Jubran, Abdallah (AJ); Bowman, Glenn; Geary, Georgene
Cc: Hilliard, Bobby; Haithcock, Michael; Myers, Lisa
Subject: V.E. Recommendations and Responses for P.I.#522790 and P.I.#0007259 Chatham County

For everyone listed within this email I have attached a copy of the V.E. recommendations submitted by PBSJ and the V.E. responses submitted by both design teams for the listed projects. Engineering Services has posted the official V.E. report on Terex under the P.I. number and archive folder for your use.

Please review each recommendation and responses as required by Engineering Services. I will need your concurrence if you agree with the responses submitted by the design team or I will need your written statement as to why your department does not agree with the responses.

I would like to receive your official letter to the Office of Program Delivery no later than May 25th. If there is a problem with meeting this date, please let me know in advance.

Thank you,

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE STP00-0218-01(001)/CSSTP-0007-00(259) **DATE** June 23, 2010
CHATHAM COUNTY
P.I No. 522790/0007259

FROM  Paul V. Liles, Jr., P.E., State Bridge Engineer

TO Bobby Hilliard, P.E., State Program Delivery Engineer
Attn: Robert Murphy

SUBJECT BRIDGE DESIGN VALUE ENGINEERING RESPONSE

The Value Engineering Study for the above referenced project dated March 31, 2010 contained four VE Alternatives requiring responses from the Bridge Office, VE Alternatives RD-14, RD-22, I-4 and I-6. Below are our recommendations for these alternatives.

RD-14 VE Alternative – “Use separate structures for Little Ogeechee River Bridge and a Type A south bound left turn lane reducing bridge width requirement.”

Recommendation: **Possible Implementation.** If the turn lane can be eliminated as proposed in this VE Alternative, the bridges can be constructed separately. Elimination of the turn lane will be determined by the road designer.

RD-22 VE Alternative – “Provide single span bridges with MSE walled abutments at the CSX railroad crossing.”

Recommendation: **Do Not Implement.** Although there are minimal perceived savings based on the analysis in the VE Study, the Bridge Office does not recommend implementation. Long term, there are more maintenance issues with MSE walls and the approach roadway than there are with typical spill through abutments. Also, MSE wall abutments greatly limit the possibility of future expansion for both the road being carried as well as the facility beneath the structure. Due to sequence of construction and coordination with subcontractors and equipment, bridge costs and wall costs are usually higher than the general bridge and wall costs when used for separate structures.

JUN 25

I-4 VE Alternative – “Use single span bridges w/ MSE walls.”

Recommendation: **Do Not Implement.** Although there are minimal perceived savings based on the analysis in the VE Study, the Bridge Office does not recommend implementation. Long term, there are more maintenance issues with MSE walls and the approach roadway than there are with typical spill through abutments. Also, MSE wall abutments greatly limit the possibility of future expansion for both the road being carried as well as the facility beneath the structure. Due to sequence of construction and coordination with subcontractors and equipment, bridge costs and wall costs are usually higher than the general bridge and wall costs when used for separate structures.

I-6 VE Alternative – “Use 40’ end spans on bridges across US 80.”

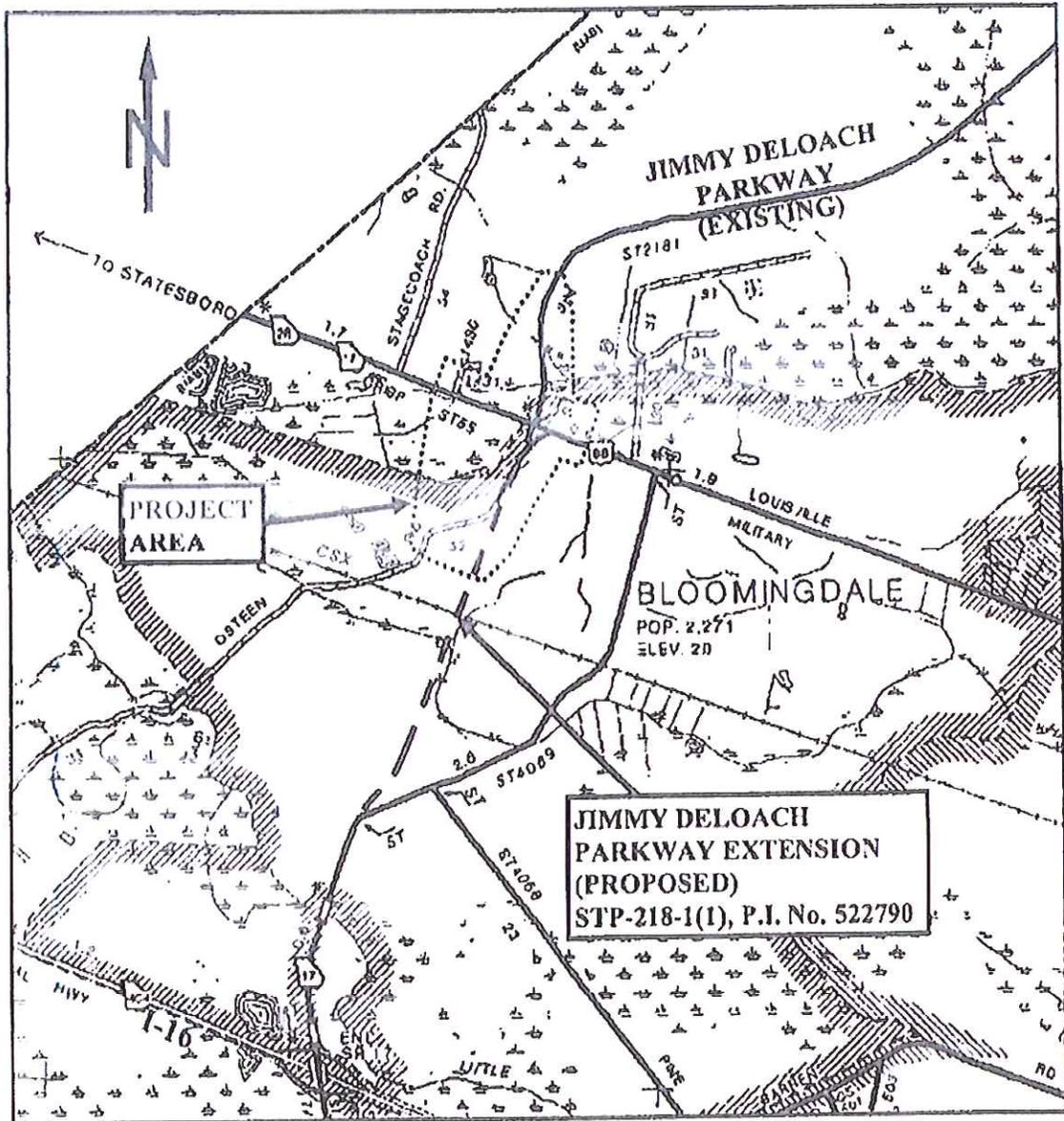
Recommendation: **Possible Implementation.** Structurally the 40 foot ends spans proposed can be constructed as long as there is suitable clearance and adequate drainage. These issues should be determined by the design engineer during the preliminary layout phase of the project.

If you have any questions and/or comments, please contact Bill DuVall of the Bridge Design Office at (404) 631-1883 or at email address bduvall@dot.ga.gov.

PVL/WMD

cc: Ron Wishon, Engineering Services
Bill DuVall, Bridge Office

Project Location Map
US 80/Jimmy DeLoach Parkway Interchange
CSSTP-0007-00(259)
P.I. No. 0007259
Chatham County



Department of Transportation State of Georgia

INTERDEPARTMENT CORRESPONDENCE

FILE STP00-0218-01(001) **OFFICE** Planning
Chatham County
P.I. # 522790 **DATE** April 17, 2012

FROM Cynthia L. VanDyke, State Transportation Planning Administrator

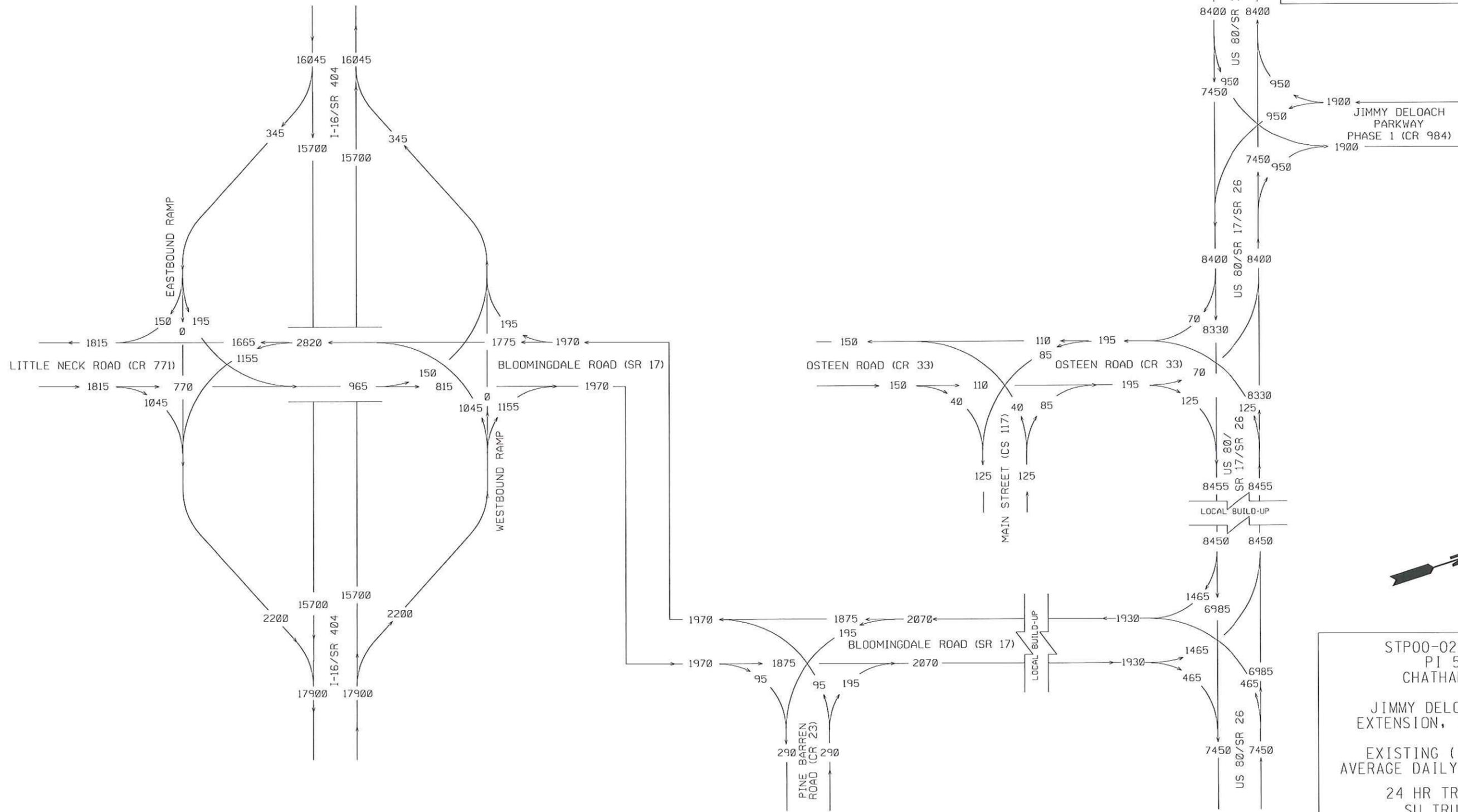
TO Bobby K. Hilliard, P.E., State Program Delivery Design Engineer
Attention: Robert Murphy

SUBJECT **Reviewed** Design Traffic for Jimmy Deloach Parkway Extension, I-16 to US 80.

As per your request, we reviewed the consultant's Design Traffic for the above project.

The Design Traffic is approved based on the information furnished. If you have any questions concerning this information please contact Leslie R. Woods at (404) 631-1773.

CLV/LRW



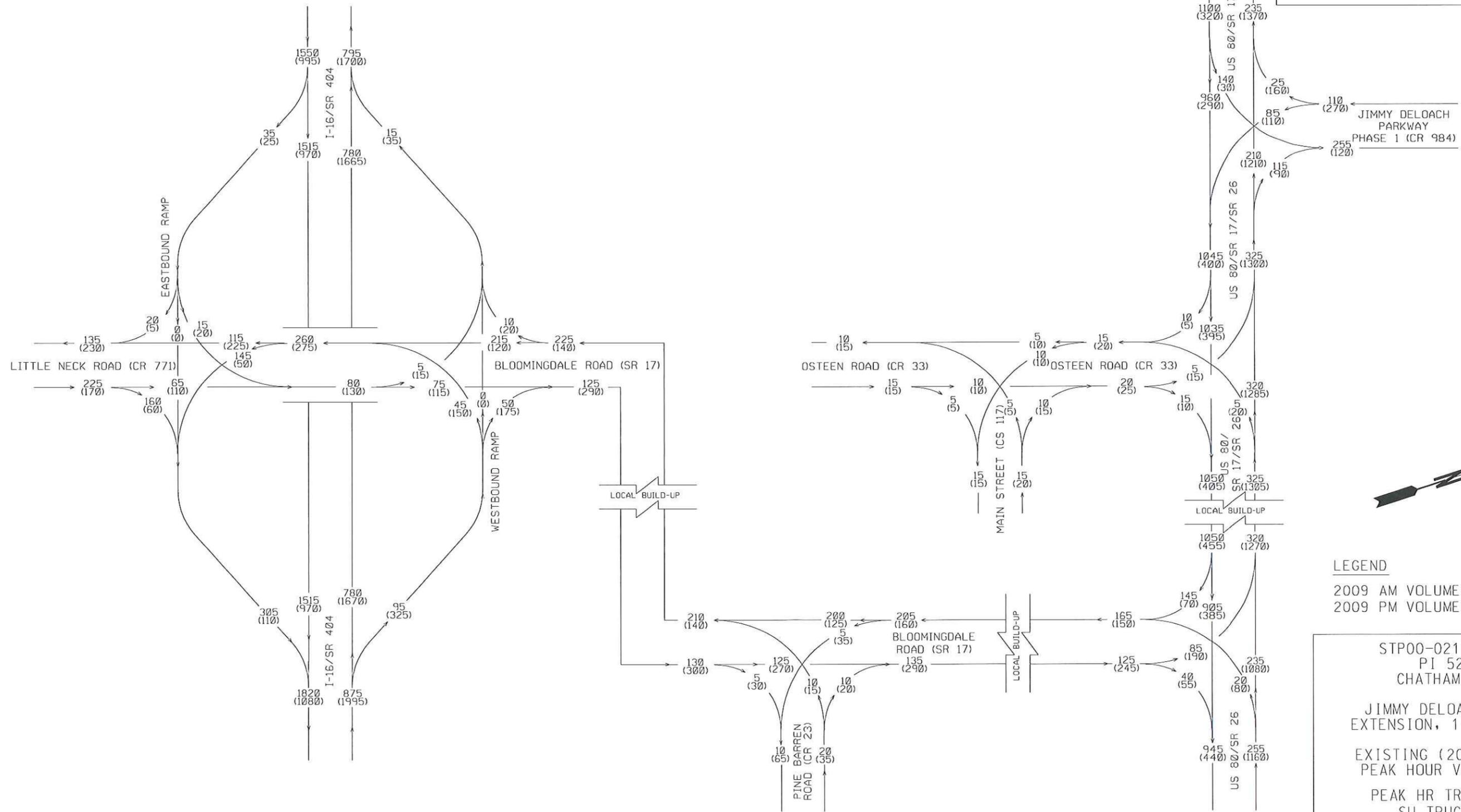
REV 4/2012
5/2010

STP00-0218-01(001)
PI 522790
CHATHAM COUNTY

JIMMY DELOACH PARKWAY
EXTENSION, 1-16 TO US 80

EXISTING (2009) ANNUAL
AVERAGE DAILY TRAFFIC (AADT)

24 HR TRUCKS = 15%
SU TRUCKS = 5%
COMBINATION TRUCKS = 10%



LEGEND
2009 AM VOLUMES 000
2009 PM VOLUMES (000)

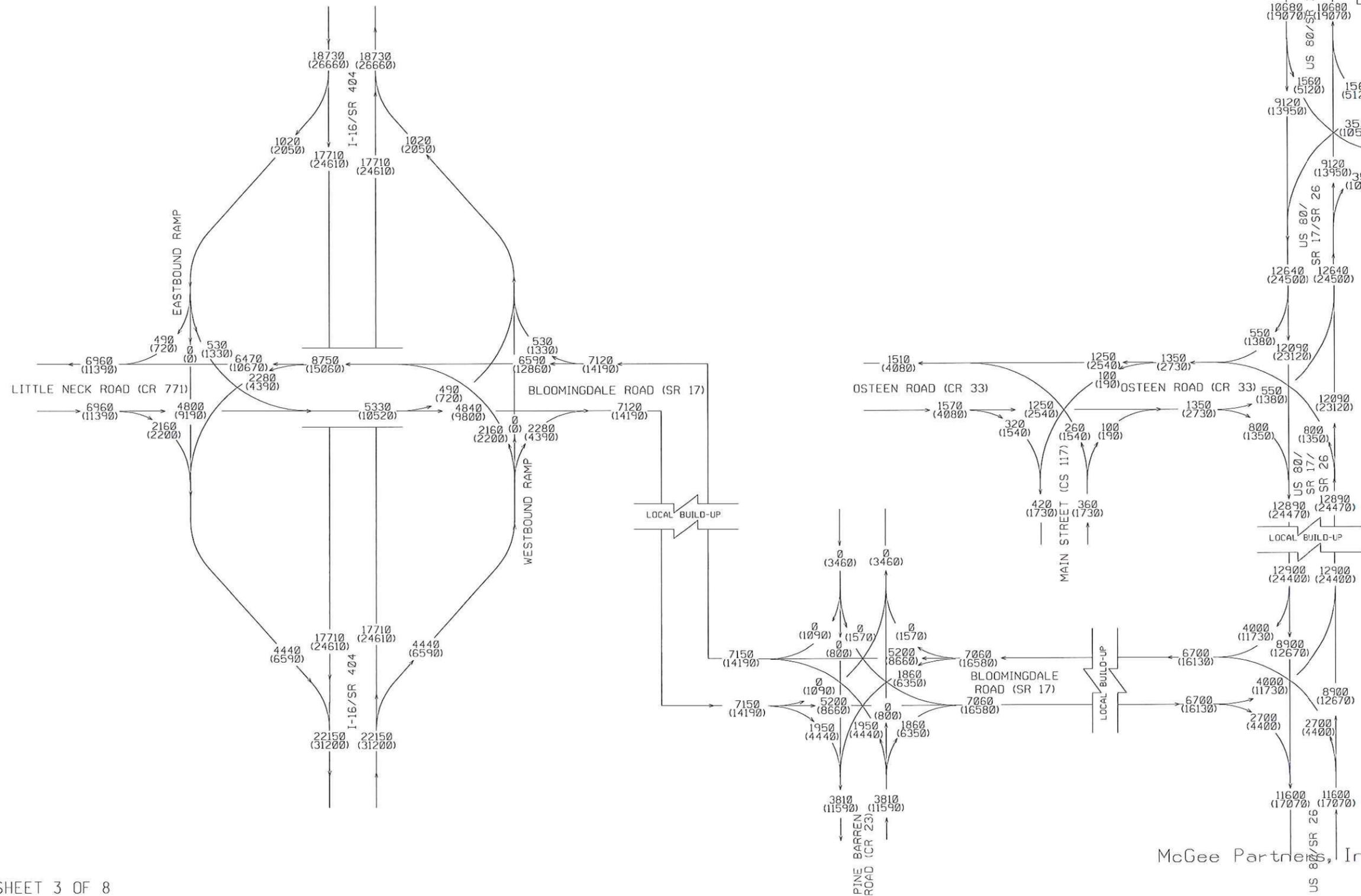
REV 4/2012
5/2010

STP00-0218-01(001)
PI 522790
CHATHAM COUNTY

JIMMY DELOACH PARKWAY
EXTENSION, 1-16 TO US 80

EXISTING (2009) AM & PM
PEAK HOUR VOLUME (PHV)

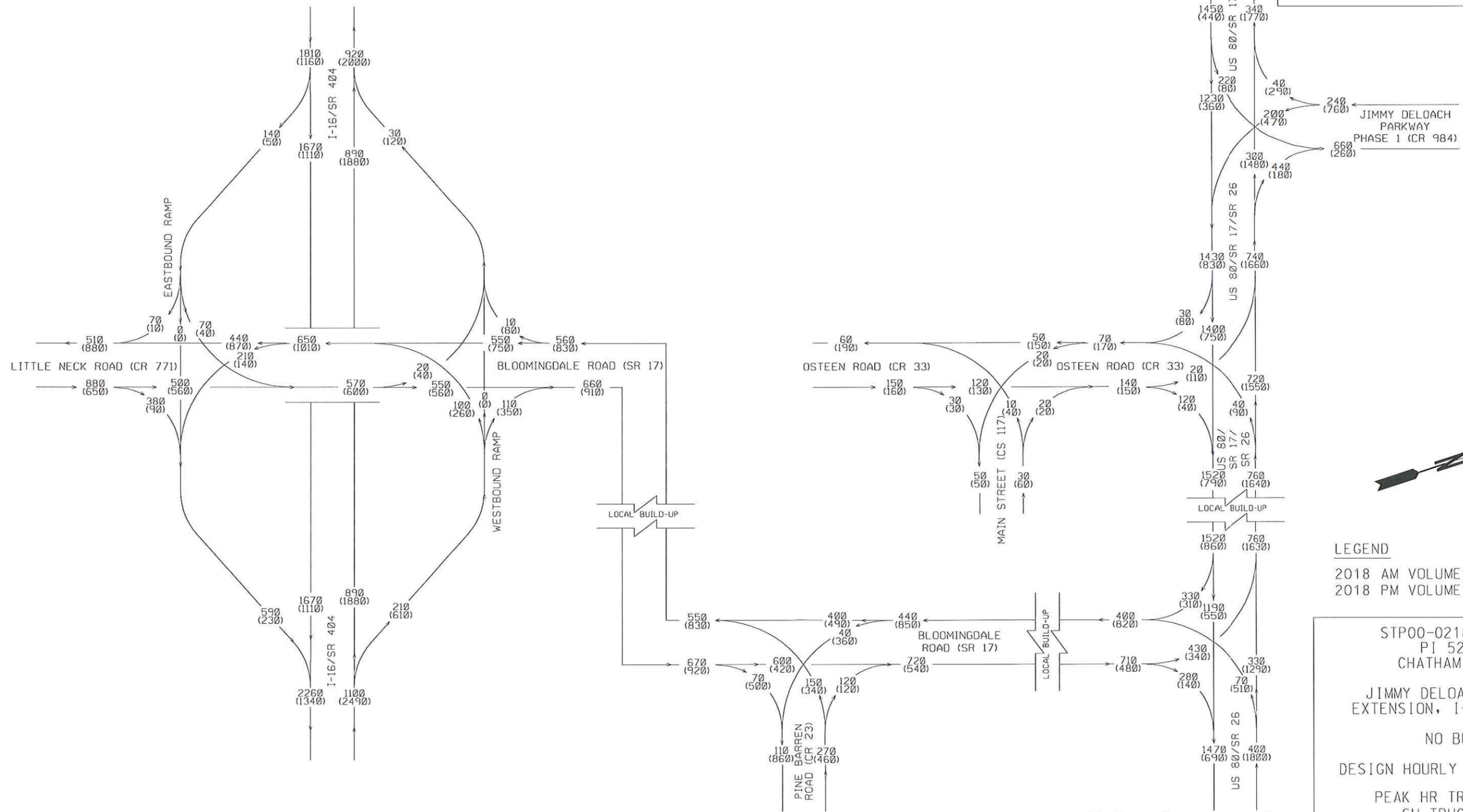
PEAK HR TRUCKS = 10%
SU TRUCKS = 5%
COMBINATION TRUCKS = 5%



LEGEND
 2018 TRAFFIC VOLUMES 000
 2038 TRAFFIC VOLUMES (000)
 REV 4/2012
 5/2010

STP00-0218-01(001)
 PI 522790
 CHATHAM COUNTY
 JIMMY DELOACH PARKWAY
 EXTENSION, I-16 TO US 80
 NO BUILD
 ANNUAL AVERAGE
 DAILY TRAFFIC (AADT)
 24 HR TRUCKS = 15%
 SU TRUCKS = 5%
 COMBINATION TRUCKS = 10%

McGee Partners, Inc.



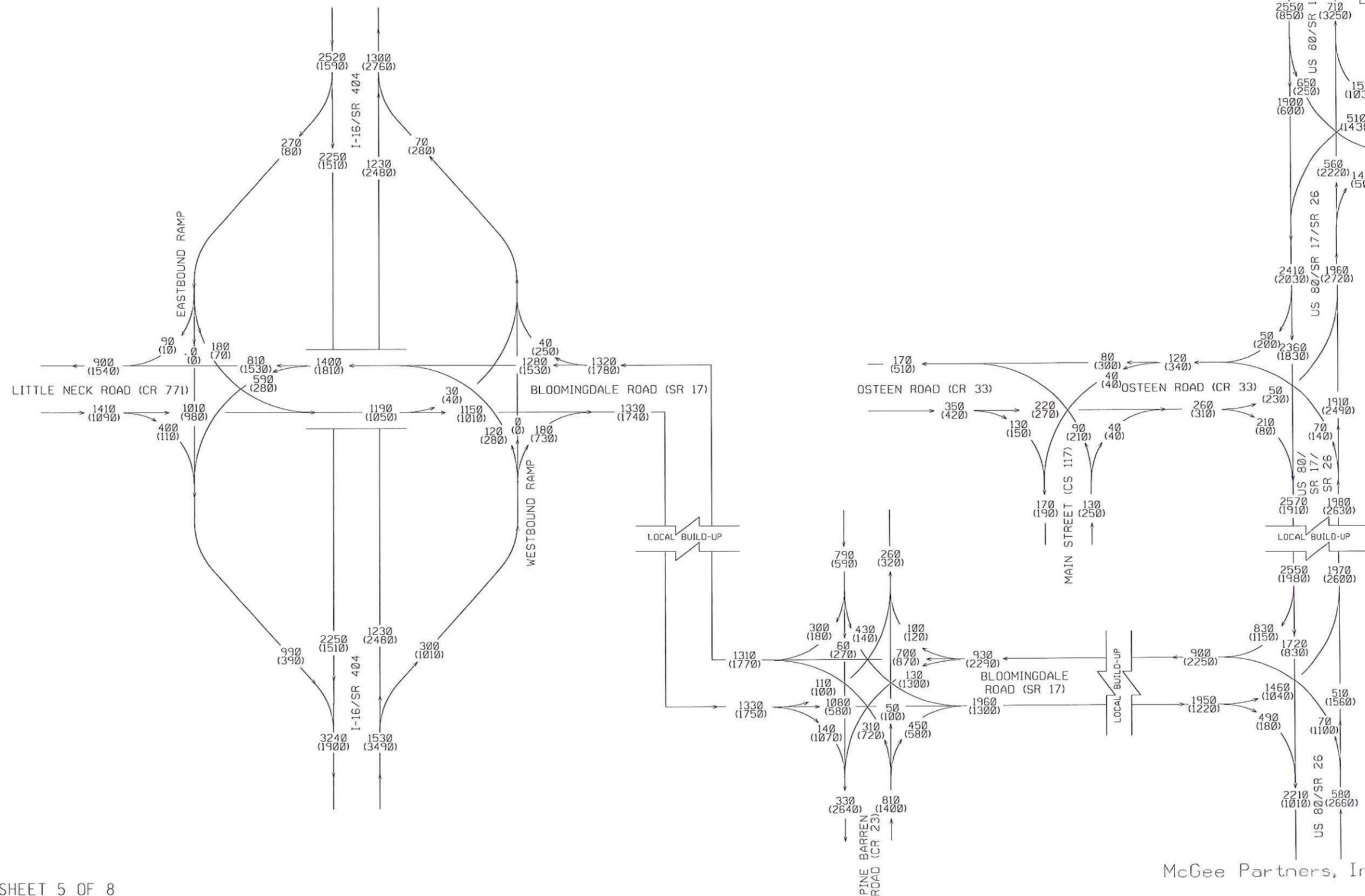
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2018 AM VOLUMES 000
2018 PM VOLUMES (000)

REV 4/2012
5/2010

STPOO-0218-01(001)
PI 522790
CHATHAM COUNTY
JIMMY DELOACH PARKWAY
EXTENSION, I-16 TO US 80
NO BUILD
DESIGN HOURLY VOLUMES (DHV)
PEAK HR TRUCKS = 10%
SU TRUCKS = 5%
COMBINATION TRUCKS = 5%

McGee Partners, Inc.

TMC



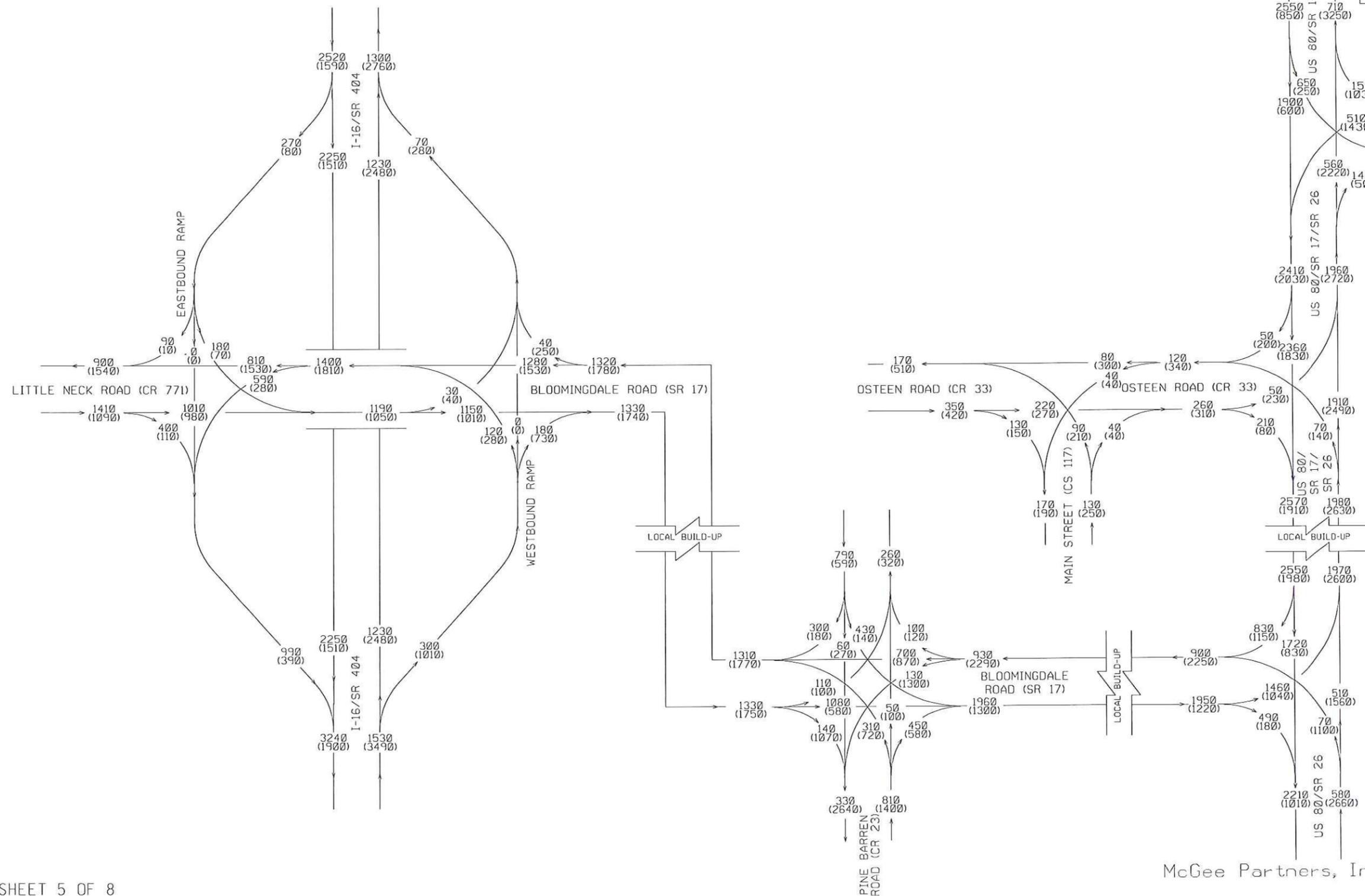
LEGEND
2038 AM VOLUMES 000
2038 PM VOLUMES (000)

REV 4/2012
5/2010

STPOO-0218-01(001)
PI 522790
CHATHAM COUNTY
JIMMY DELOACH PARKWAY
EXTENSION, I-16 TO US 80
NO BUILD
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PEAK HR TRUCKS = 10%
SU TRUCKS = 5%
COMBINATION TRUCKS = 5%

McGee Partners, Inc.

TMC



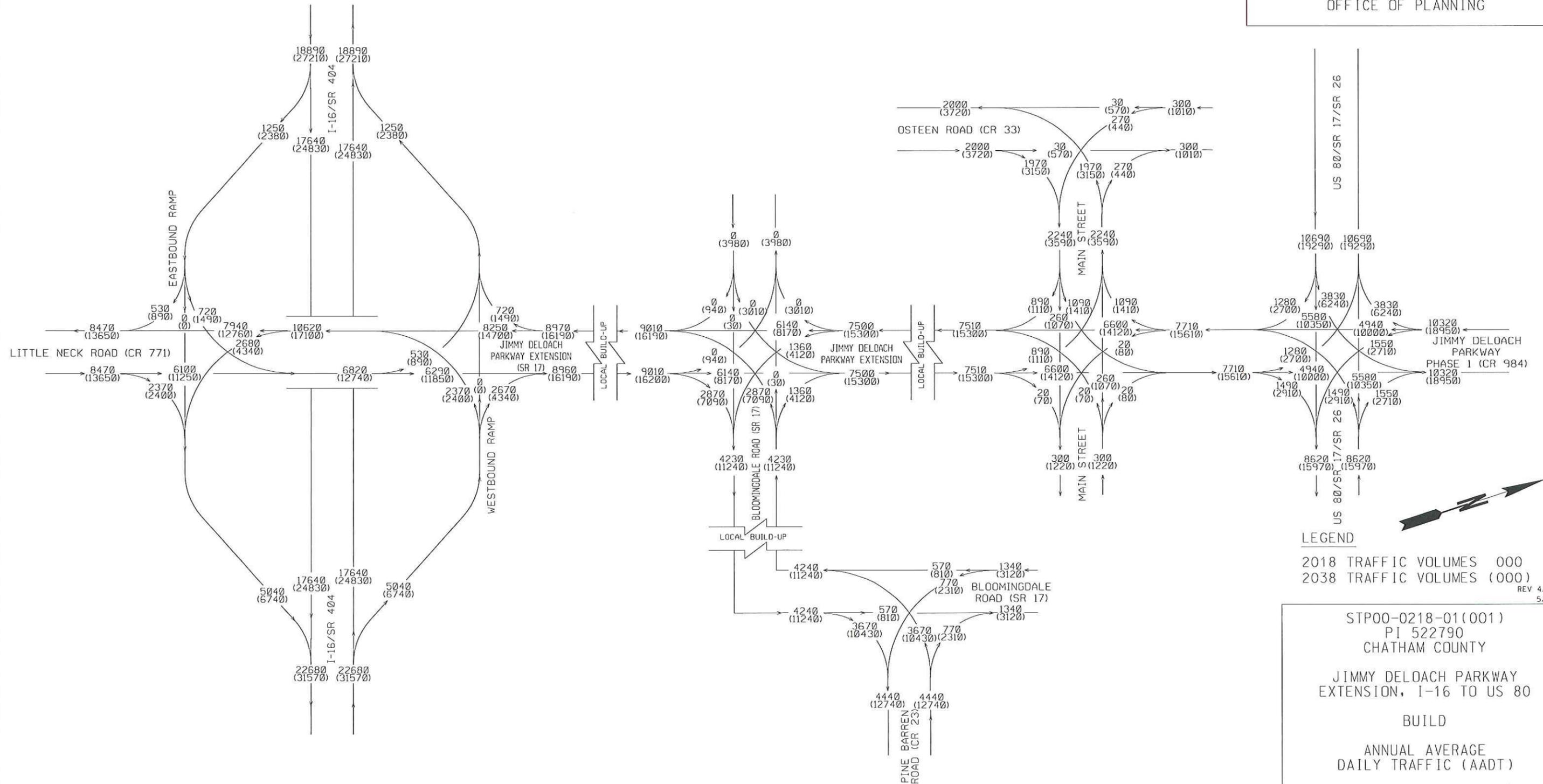
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2038 AM VOLUMES 000
2038 PM VOLUMES (000)

REV 4/2012
5/2010

STPOO-0218-01(001)
PI 522790
CHATHAM COUNTY
JIMMY DELOACH PARKWAY
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COMBINATION TRUCKS = 5%

McGee Partners, Inc.

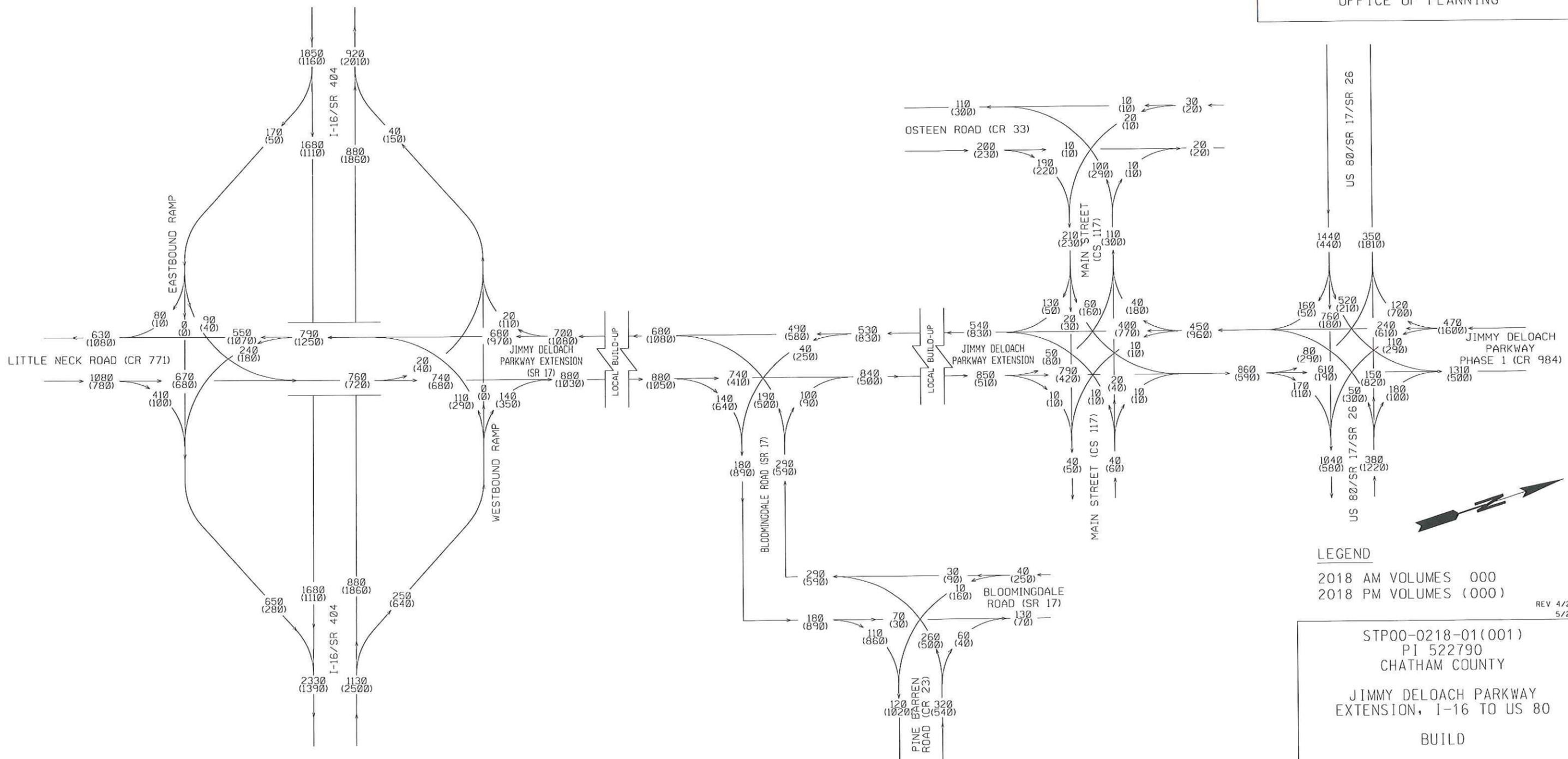
TMC



LEGEND
 2018 TRAFFIC VOLUMES 000
 2038 TRAFFIC VOLUMES (000)
 REV 4/2012
 5/2010

STP00-0218-01(001)
 PI 522790
 CHATHAM COUNTY
 JIMMY DELOACH PARKWAY
 EXTENSION, I-16 TO US 80
 BUILD
 ANNUAL AVERAGE
 DAILY TRAFFIC (AADT)
 24 HR TRUCKS = 15%
 SU TRUCKS = 5%
 COMBINATION TRUCKS = 10%

McGee Partners, Inc.

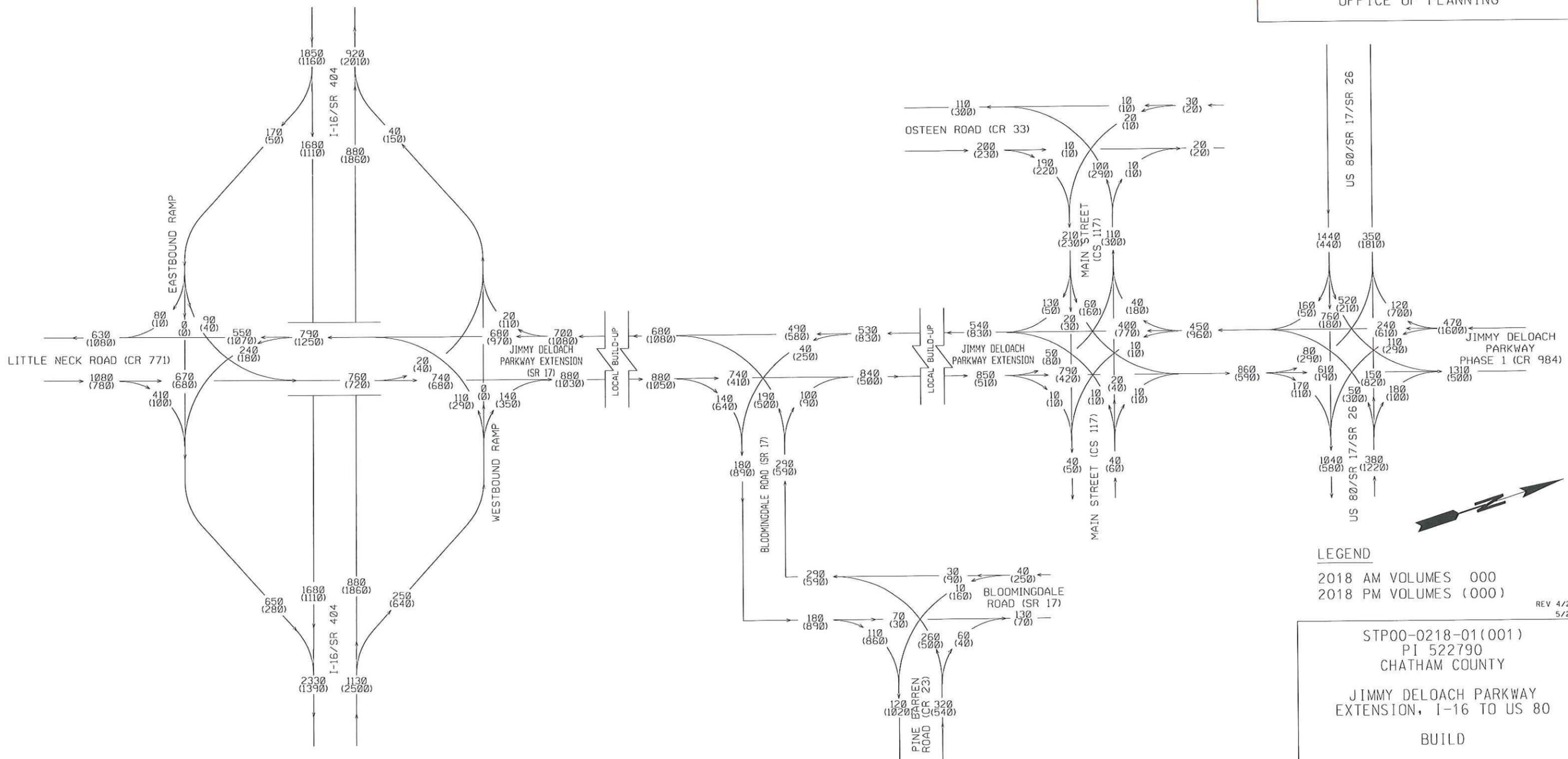


LEGEND
2018 AM VOLUMES 000
2018 PM VOLUMES (000)

REV 4/2012
5/2010

STP00-0218-01(001)
PI 522790
CHATHAM COUNTY
JIMMY DELOACH PARKWAY
EXTENSION, I-16 TO US 80
BUILD
DESIGN HOURLY VOLUMES (DHV)
PEAK HR TRUCKS = 10%
SU TRUCKS = 5%
COMBINATION TRUCKS = 5%

McGee Partners, Inc.

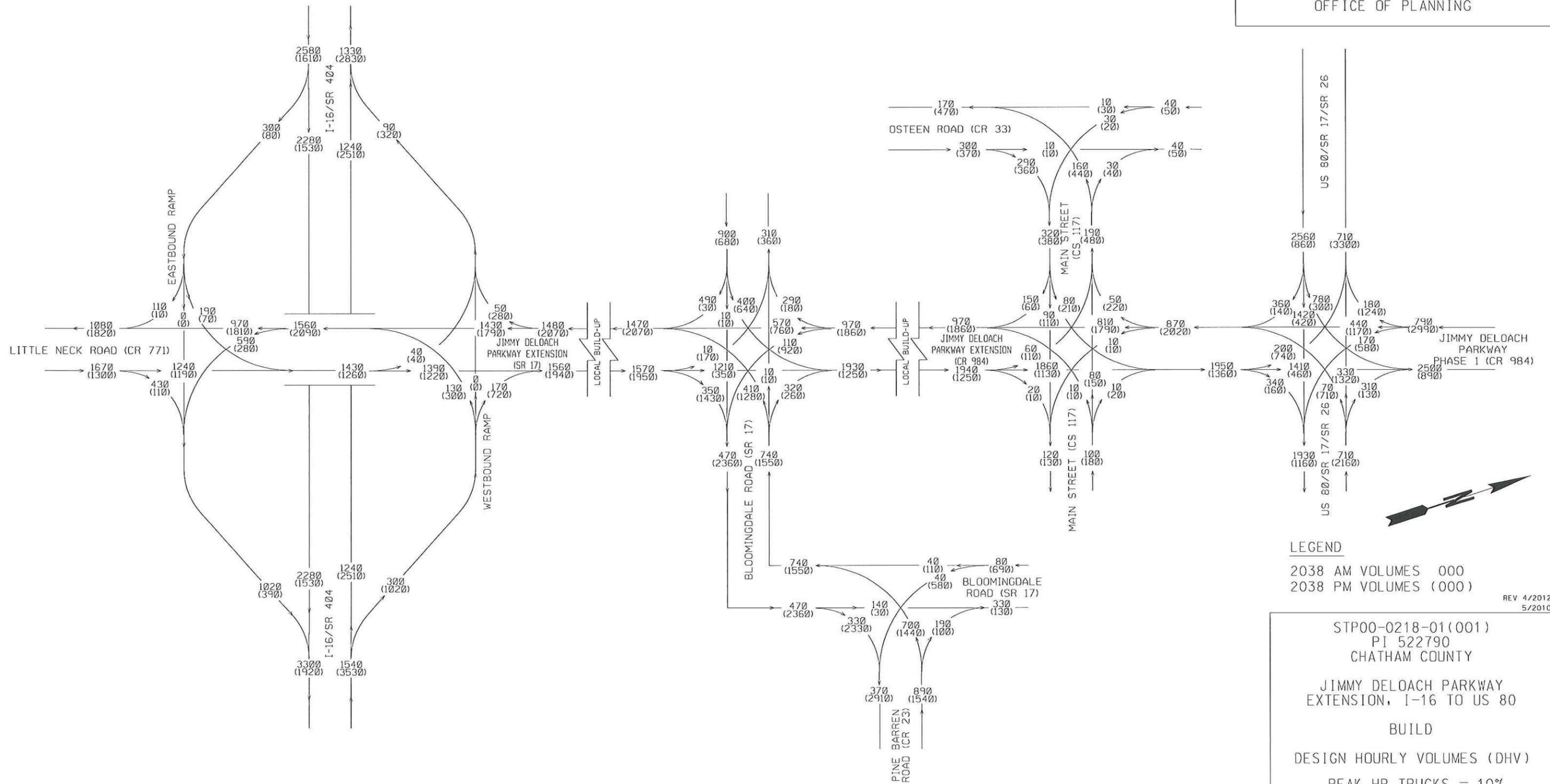


LEGEND
2018 AM VOLUMES 000
2018 PM VOLUMES (000)

REV 4/2012
5/2010

STP00-0218-01(001)
PI 522790
CHATHAM COUNTY
JIMMY DELOACH PARKWAY
EXTENSION, I-16 TO US 80
BUILD
DESIGN HOURLY VOLUMES (DHV)
PEAK HR TRUCKS = 10%
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McGee Partners, Inc.



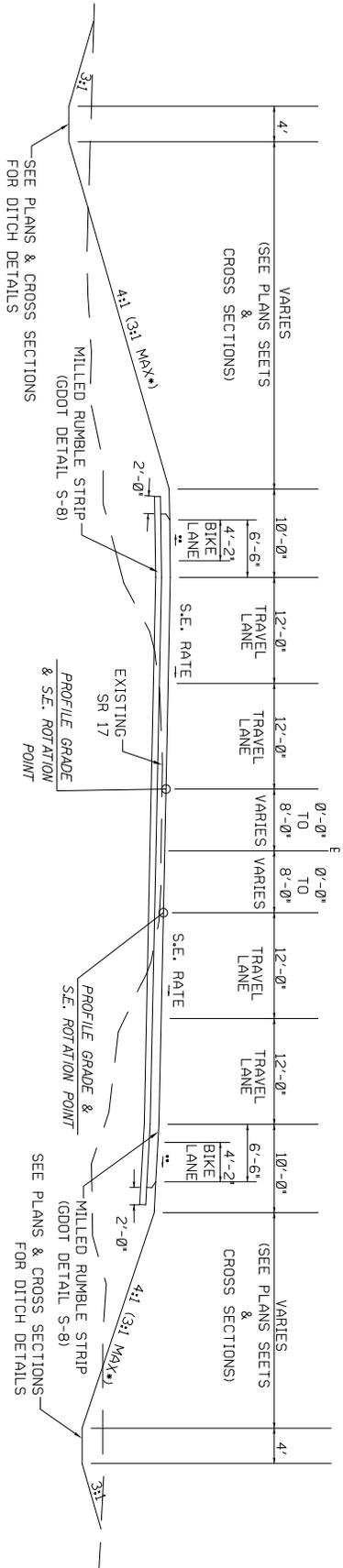
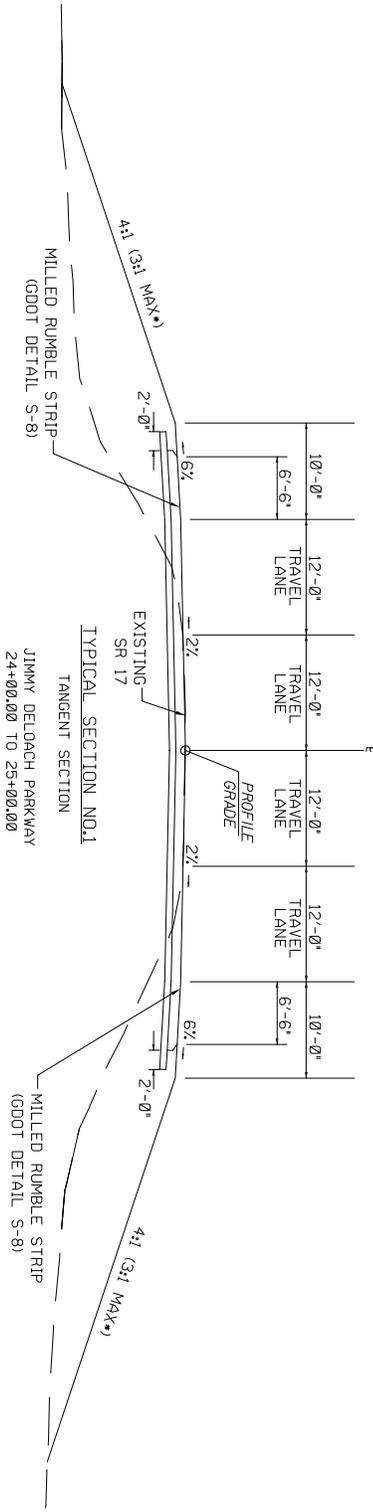
LEGEND
2038 AM VOLUMES 000
2038 PM VOLUMES (000)

REV 4/2012
5/2010

STP00-0218-01(001)
PI 522790
CHATHAM COUNTY
JIMMY DELOACH PARKWAY
EXTENSION, I-16 TO US 80
BUILD
DESIGN HOURLY VOLUMES (DHV)
PEAK HR TRUCKS = 10%
SU TRUCKS = 5%
COMBINATION TRUCKS = 5%

McGee Partners, Inc.

TMC



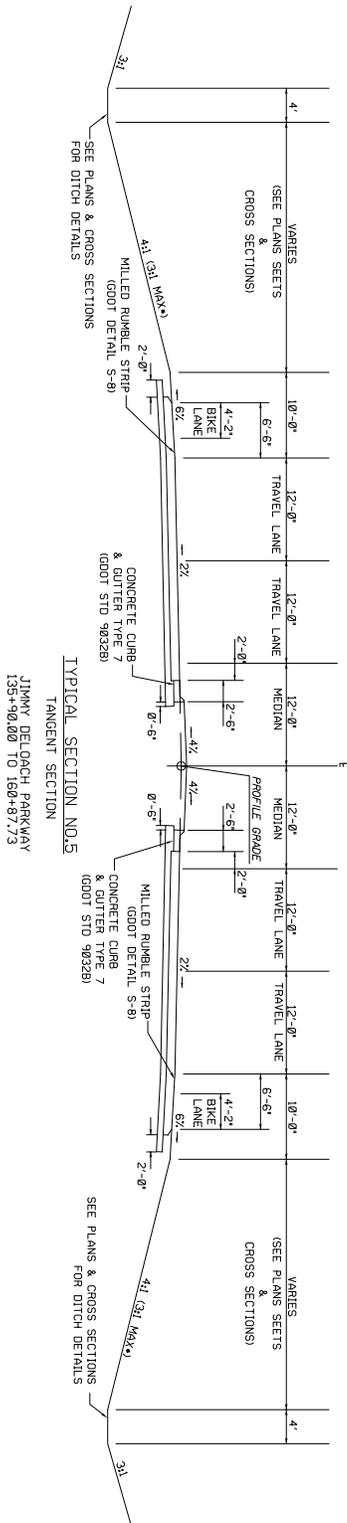
TYPICAL SECTION NO. 2
SUPERELEVATED SECTION
SEE PLANS FOR SUPERELEVATION RATES AND TRANSITIONS
JIMMY DELOACH PARKWAY
25+00.00 TO 24+40.04

* 3:1 SIDE SLOPES ARE USED TO REDUCE WETLAND IMPACTS AND REQUIRED ROW IN AREAS OF HIGH FILL. AREAS WITH 3:1 SIDE SLOPES REQUIRE GUARD RAIL PER GDOT TYPICAL SHOULDER DETAIL FOR GUARDRAIL.

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JIMMY DELOACH PARKWAY EXTENSION FROM I-16 TO U.S. 80
TYPICAL SECTION
 DATE: SEPTEMBER 11, 2012
 JOB NO.: J-19343
 SCALE: N.T.S.
 DATUM: N/A
 SHEET 1 OF 4

PROPOSED ACTIVITY:
 JIMMY DELOACH PARKWAY PHASE II
PROJECT LOCATION:
 CHATHAM COUNTY, GA
APPLICANT:
 BOARD OF COMMISSIONERS OF CHATHAM COUNTY



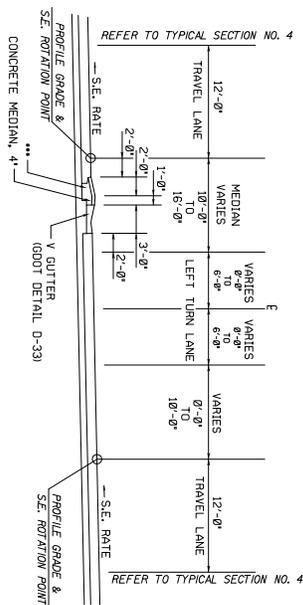
TYPICAL SECTION, NO. 5
TANGENT SECTION
JIMMY DELOACH PARKWAY
135+90.00 TO 150+87.73

* 3:1 SIDE SLOPES ARE USED TO REDUCE NETLAND IMPACTS AND REQUIRED ROW IN AREAS OF HIGH RAIN. AREAS WITH 3:1 SIDE SLOPES REQUIRE GUARD RAIL PER GDOT TYPICAL SHOULDER DETAIL FOR OVERPASS.

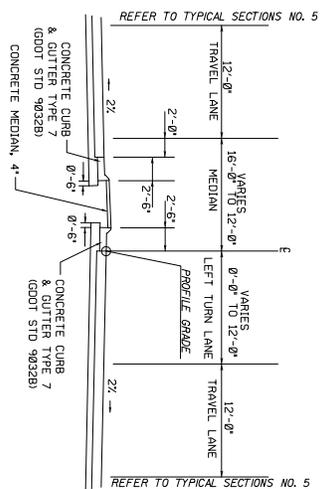
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JIMMY DELOACH PARKWAY EXTENSION FROM I-16 TO U.S. 80
TYPICAL SECTION
 DATE: SEPTEMBER 11, 2012
 JOB NO.: J-19343
 SCALE: N.T.S.
 DATUM: N/A
 SHEET 3 OF 4

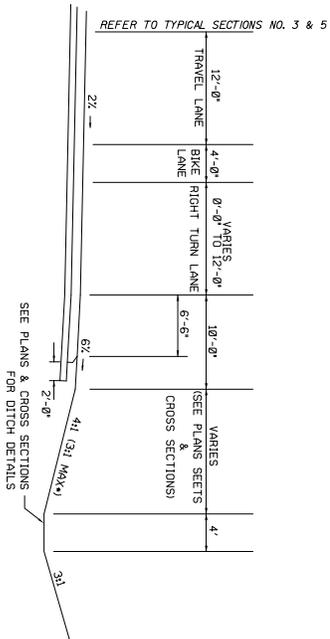
PROPOSED ACTIVITY:
 JIMMY DELOACH PARKWAY PHASE II
PROJECT LOCATION:
 CHATHAM COUNTY, GA
APPLICANT:
 BOARD OF COMMISSIONERS OF CHATHAM COUNTY



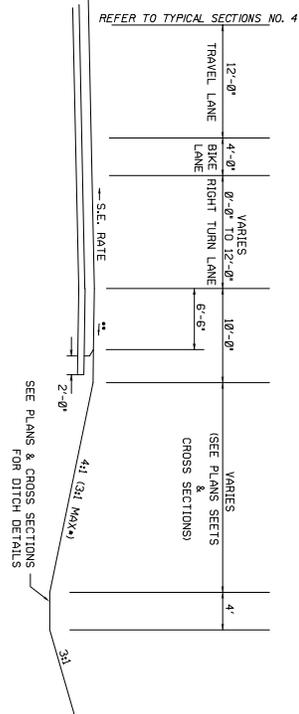
TYPICAL SECTION NO.6
SUPERELEVATED SECTION - 32' MEDIAN W/ LEFT TURNLANE
JIMMY DELOACH PARKWAY



TYPICAL SECTION NO.5
TANGENT SECTION - 24' MEDIAN W/ LEFT TURNLANE
JIMMY DELOACH PARKWAY



TYPICAL SECTION NO.8
TANGENT SECTION W/ RIGHT TURNLANE
JIMMY DELOACH PARKWAY



TYPICAL SECTION NO.9
SUPERELEVATED SECTION W/ RIGHT TURNLANE
JIMMY DELOACH PARKWAY

* 3:1 SIDE SLOPES ARE USED TO REDUCE WETLAND IMPACTS AND REQUIRED ROW IN AREAS OF HIGH FLOOD RISK. 3:1 SIDE SLOPES REQUIRE CURB AND GUTTER TYPE 7 (GDOT DETAIL D-33) OVER GUTTER.

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CORPORATE OFFICE | THOMAS & HUTTON

JIMMY DELOACH PARKWAY EXTENSION FROM I-16 TO U.S. 80
TYPICAL SECTION

DATE: SEPTEMBER 11, 2012
JOB NO.: J-19343

SCALE: N.T.S.
DATUM: N/A

SHEET 4 OF 4

PROPOSED ACTIVITY:
JIMMY DELOACH PARKWAY PHASE II

PROJECT LOCATION:
CHATHAM COUNTY, GA

APPLICANT:
BOARD OF COMMISSIONERS OF CHATHAM COUNTY

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
OFFICE OF DESIGN POLICY & SUPPORT**

LETTER OF TRANSMITTAL

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

DATE: May 9, 2012
PROJECT: STP00-0218-01(001)
P.I. No. 522790
COUNTY: Chatham

ATTN: Robert Murphy

PROJECT: Jimmy Deloach Parkway Extension - Request for Design Variance

We are sending you the following items:

- Attached (via e-mail) Under Separate Cover
 Design Variance



<u>COPIES</u>	<u>DESCRIPTION</u>
1	Approval for Design Variance

These are transmittals as checked below:

- As requested For your use For approval
 For review & comment For corrections

REMARKS:

The attached request for a design variance has been approved. If you have questions or need further assistance, please call Jim Simpson at (404) 631-1605 or Brad Ehrman at (404) 631-1669.

SIGNED: Joseph Jabaley
for STATE DESIGN POLICY ENGINEER

JHS: BRE: JGJ
Enclosures

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA



INTERDEPARTMENT CORRESPONDENCE

FILE STP00-0218-01(001) Chatham County OFFICE Program Delivery
P.I. No. 522790
Jimmy DeLoach Parkway Extension DATE April 25, 2012

FROM Bobby K. Hilliard, PE, State Program Delivery Engineer

TO Brad Ehrman P.E.
Attention Daniel Pass P.E.

SUBJECT Design Variance

Daniel,

Thomas and Hutton have addressed your comments and we offer the attached revised design variance for your review and further handling.

Please review and should you have any additional questions or comments please feel free to contact the project manger Mr. Robert Murphy @ 404-631-1586.

Thank you,

A handwritten signature in blue ink, appearing to read "R Murphy Sr".

Robert Murphy Sr. PM

Cc:

THOMAS & HUTTON

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MEMORANDUM

TO Brent A. Story, P.E., State Design Policy Engineer

FROM John V. Giordano, P.E., Thomas & Hutton

DATE April 17, 2012

FILE STP00-0218-01(001), Chatham County **OFFICE** Program Delivery
P.I. Number 522790
Jimmy DeLoach Parkway Phase 2
from I-16 to US 80

SUBJECT Request for Design Variance - Median Width

Approval of a Design Variance is requested for this project- *Median width*

Project STP00-0218-01(001) is approximately 2.7 miles, beginning at the existing intersection of Bloomingdale Road (SR17) and Interstate 16 to its tie in at the existing intersection of Jimmy DeLoach Parkway, Phase 1 and US 80 in Chatham County, Georgia. The proposed project includes the widening of the existing 2 lane Bloomingdale Road from I-16 to Pine Barren Road to a 4 lane divided highway with a depressed median. From Pine Barren Road, the proposed alignment will be constructed on new location and tie into the existing intersection of US 80 and Jimmy DeLoach Parkway, Phase 1. The new location portion of the project is to be a 4 lane divided highway with a depressed median from Pine Barren Road to the proposed intersection with Garvin Street and a 4 lane divided highway with a raised grassed median from the intersection with Garvin Street to the project terminus. The project utilizes a 60 mph design speed and proposes 12' travel lanes. This project is not on a bus route. The alignment has two proposed bridge crossings. The first crosses the Little Ogeechee River and the second crosses the CSX Railroad right of way. Both bridges will utilize separate structures. A box culvert is proposed at the Hardin Canal Crossing.

The previous Revised Concept Report for the project was approved in 2008 and proposed a 44-ft depressed median from the I-16 intersection to Garvin Street and a 24-ft raised median from Garvin Street to US 80. The 24-ft raised median is proposed for the portion of the project which will tie into the City of Bloomingdale's local street system. The typical sections were submitted to GDOT as part of the Value Engineering (VE) Study. The Study recommended reducing the 44-ft depressed median to 32-ft and maintaining the 24-ft raised median. Based on the Department's recommendation to implement the VE alternatives, a revised Concept Report was prepared and submitted that included typical sections showing a 32-ft depressed median and a 24-ft raised median. The current GDOT Design Policy Manual requires a 44-ft depressed median for a 60 MPH design speed. Therefore, a design variance is required for the use of a 32-ft depressed median for 1.87 miles and for the use of a 24-ft raised median for 0.53 miles.

Average Daily Traffic (ADT)

<u>Project</u>	<u>Median</u>	<u>Current Year (2015)</u>	<u>Design Year (2035)</u>
STP00-0218-01 (001)	32-ft	18,020 vpd	32,390 vpd
	24-ft	15,420 vpd	31,220 vpd

There is no relevant crash history as the majority of the proposed alignment is new location. The portion that is being widened is an existing two-lane road. The construction of a four-lane facility, regardless of median width, is expected to reduce the potential for the types of accidents usually associated with two-lane highways. In addition, the only requested design variance is for median width and all other proposed design features are in accordance with the Design Policy Manual. There are no other factors relating to cross-median crashes that require a design variance.

The following summarizes the increased costs that would be required if the 44-ft median is required in lieu of the proposed 1.87 miles of 32-ft median.

- The implementation of the 44-ft median would increase cost at the Hardin Canal crossing by approximately \$29,500.
- The 44-ft median in lieu of the 32-ft median will require the extension of other cross drain pipes resulting in an additional \$1300.
- The 44-ft median in lieu of the 32-ft median will increase the environmental impacts for the project. The additional wetland mitigation cost is estimated at \$17,000.
- Implementing the 44-ft depressed median in lieu of the 32-ft median will cost an additional \$210,900 in grading and fill placement costs.
- The 44-ft depressed median in lieu of the 32-ft median will require the acquisition of an additional \$520,800 worth of Right-of-Way for the project.

The total cost increase attributed to the 44-ft wide depressed median in lieu of the 32-ft median is approximately \$779,500.

The following summarizes the increased costs that would be required if the 44-ft median is required in lieu of the proposed 0.53 miles of 24-ft median.

- The 44-ft median in lieu of the 24-ft median will require the extension of other cross drain pipes resulting in an additional \$700.
- Implementing the 44-ft depressed median in lieu of the 24-ft median will cost an additional \$75,000 in grading and fill placement costs.
- The 44-ft depressed median in lieu of the 24-ft median will require the acquisition of an additional \$266,700 worth of Right-of-Way for the project.

The total cost increase attributed to the 44-ft wide depressed median in lieu of the 24-ft median is approximately \$342,400.

The proposed 32-ft median meets AASHTO's clear zone recommendations of 28-ft to 30-ft as presented in Table 3.1 of the AASHTO Roadside Design Guide. These values are based on a 60 mph design speed, traffic as approved by GDOT and median side slopes of 6:1 or flatter. In addition, should areas require steeper median side slopes due to site constraints; additional design features will be utilized to prevent crossover accidents. It is noted that by utilizing 6:1 side slopes, rainwater conveyance in the median ditches will be diminished and additional drainage

Memorandum to
Brent A. Story, P.E., State Design Policy Engineer
April 17, 2012
Page 3

inlets may be required. A portion of the cost for the additional drainage infrastructure is offset by the savings in reduced drainage pipe from utilizing the narrower medians.

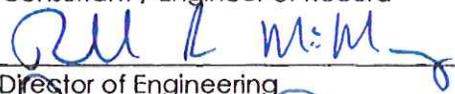
It is noted that the proposed 24-ft median does not meet AASHTO's clear zone recommendation for a 60 mph design speed, therefore the posted speed within the portion of the project utilizing the 24-ft raised median will be reduced to 45 mph. The clear zone range presented in the table for 45 mph is 20-ft to 22-ft. Therefore the proposed 24-ft median will meet clear zone recommendations for the posted speed but not the design speed. In addition to meeting the clear zone recommendation for the posted speed, the proposed speed reduction will occur as this portion of the project is within the urbanized area of the City of Bloomingdale and will be connecting into the local street system.

Intersection sight distance and stopping site distance has been examined for both the 32-ft and 24-ft medians, and all intersections have adequate sight distance and are therefore not restricted by the use of the 32-ft or 24-ft medians.

Enhanced pavement markings will be used on the inside of the travel lane to increase driver awareness in both wet and dry conditions, minimizing pavement departures. The proposed pavement markings will be an 8-in wide thermoplastic traffic stripe.

The cost associated with the additional drainage infrastructure and enhanced pavement markings do not offset the additional cost of implementing the 44-ft median. Considering the cost savings by utilizing the 32-ft depressed and 24-ft raised medians, while meeting current federal clear zone and sight distance requirements, it is the recommendation of this office that the design variance be granted for the use of the 32-ft wide depressed and 24-ft raised medians.

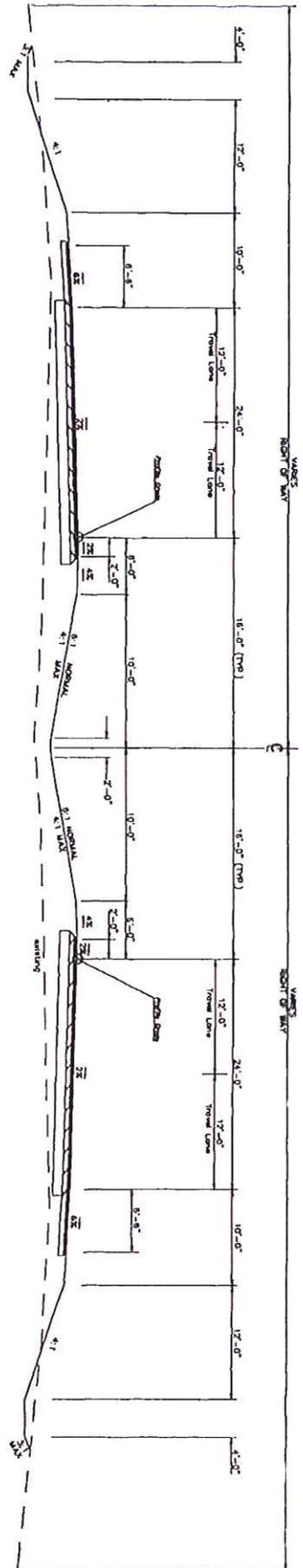
If you have any questions or comments please feel free to contact John Giordano, Thomas & Hutton, at 912-721-4054.

Submitted By:		<u>4/17/12</u>
	Consultant / Engineer of Record	Date
Recommend:		<u>5/3/12</u>
	Director of Engineering	Date
Approved:		<u>5/17/12</u>
	Chief Engineer	Date

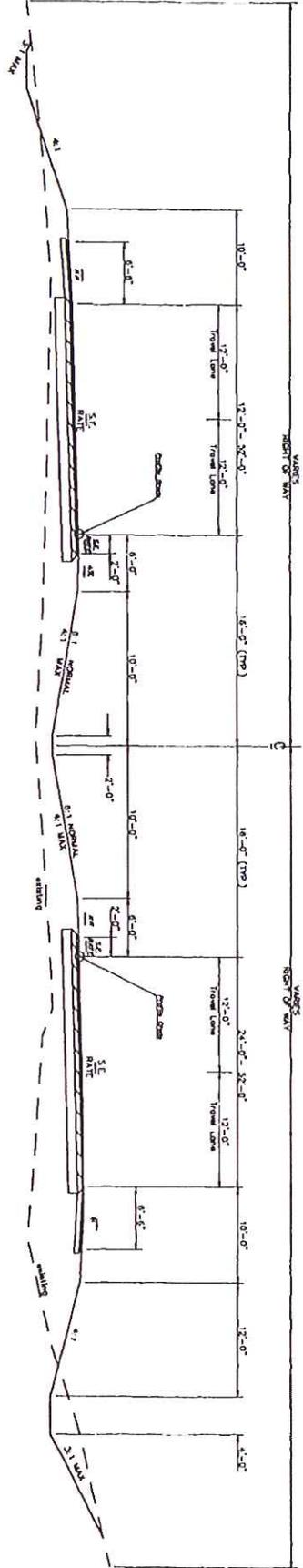
Attachment:

Cover Sheet
Typical Sections

JVG/kts



TANGENT SECTION W/ 32' DEPRESSED MEDIAN
 TYPICAL SECTION NO.1
 STA 49+49.14 TO STA 56+87.92
 STA 98+53.54 TO STA 132+64.31



SUPERELEVATION SECTION W/ 32' DEPRESSED MEDIAN
 TYPICAL SECTION NO.2
 STA 53+89.78 TO STA 49+49.14
 STA 56+87.92 TO STA 98+53.54



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JIMMY DELOACH PARKWAY EXTENSION FROM I-16 TO U.S. 80
TYPICAL SECTION
 DATE: April 11, 2012
 JOB NO.: J-19343
 SCALE: N.T.S.
 DATUM: N/A
 SHEET 1 OF 2

PROPOSED ACTIVITY:
 JIMMY DELOACH PARKWAY PHASE II
 PROJECT LOCATION:
 CHATHAM COUNTY, GA
 APPLICANT:
 BOARD OF COMMISSIONERS OF CHATHAM COUNTY



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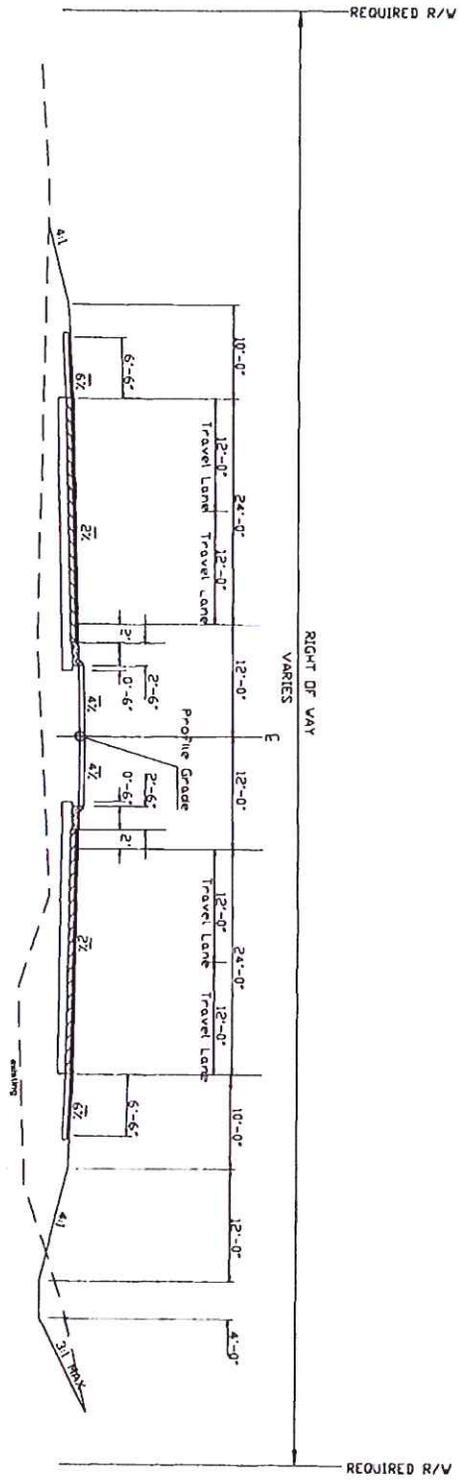
JIMMY DELOACH PARKWAY EXTENSION FROM I-16 TO U.S. 80
TYPICAL SECTION

DATE: APRIL 11, 2012
 JOB NO.: J-19343

SHEET 2 OF 2

SCALE: N.T.S.
 DATUM: N/A

PROPOSED ACTIVITY:
 JIMMY DELOACH PARKWAY PHASE II
 PROJECT LOCATION:
 CHATHAM COUNTY, GA
 APPLICANT:
 BOARD OF COMMISSIONERS OF CHATHAM COUNTY



TANGENT SECTION 24' RAISED MEDIAN
 TYPICAL SECTION NO.5
 STA 132+54.31 TO 150+56.02