

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

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

FILE P.I. # 0008618
CSSFT-0008-00(618)
GDOT District 5 - Jesup
Bulloch County

OFFICE Design Policy & Support

DATE May 14, 2012

FROM  Brent Story, State Design Policy Engineer

TO SEE DISTRIBUTION

SUBJECT **APPROVED CONCEPT REPORT**

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

Attachment

DISTRIBUTION:

Genetha Rice-Singleton, Program Control Administrator
Bobby Hilliard, State Program Delivery Engineer
Cindy VanDyke, State Transportation Planning Administrator
Angela Robinson, Financial Management Administrator
Glenn Bowman, State Environmental Administrator
Kathy Zahul, State Traffic Engineer
Georgene Geary, State Materials & Research Engineer
Lisa Myers, State Project Review Engineer
Jeff Baker, State Utilities Engineer
Ken Thompson, Statewide Location Bureau Chief
Michael Henry, Systems & Classification Branch Chief
Karon Ivery, District Engineer
Bradford W. Saxon, District Preconstruction Engineer
Stephen F. Thomas, District Utilities Engineer
Lawrence Steven Price, District Environmentalist
Charles Robinson, Project Manager
BOARD MEMBER - 12th Congressional District

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

PROJECT CONCEPT REPORT

US 25 Bypass/SR 67 Bypass/Veterans Memorial Parkway
At CR 142/Pulaski Road

Project Number: CSSFT-0008-00(618)

County: Bulloch

F. I. Number: 0008618

Federal Route Number: US 25 Bypass - State Route Number: SR 67 Bypass

Intersection Improvement of State Route 67 Bypass at County Road 142/Pulaski Road

Submitted for approval:

DATE 12/15/11

[Signature]

Gresham Smith and Partners

Design Consultant Name and Firm Name

DATE 12/15/2011

[Signature]

Office Head (Program Delivery)

DATE 12/15/11

[Signature]

Project Manager

Recommendation for approval:

DATE _____

Program Control Administrator

DATE 03-30-12

[Signature]

State Environmental Administrator

DATE 03-30-12

[Signature]

State Traffic Engineer

DATE 03-28-12

[Signature]

Project Review Engineer

DATE 04-02-12

[Signature]

State Utilities Engineer

DATE _____

District Engineer

DATE _____

State Transportation Financial Management Administrator

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

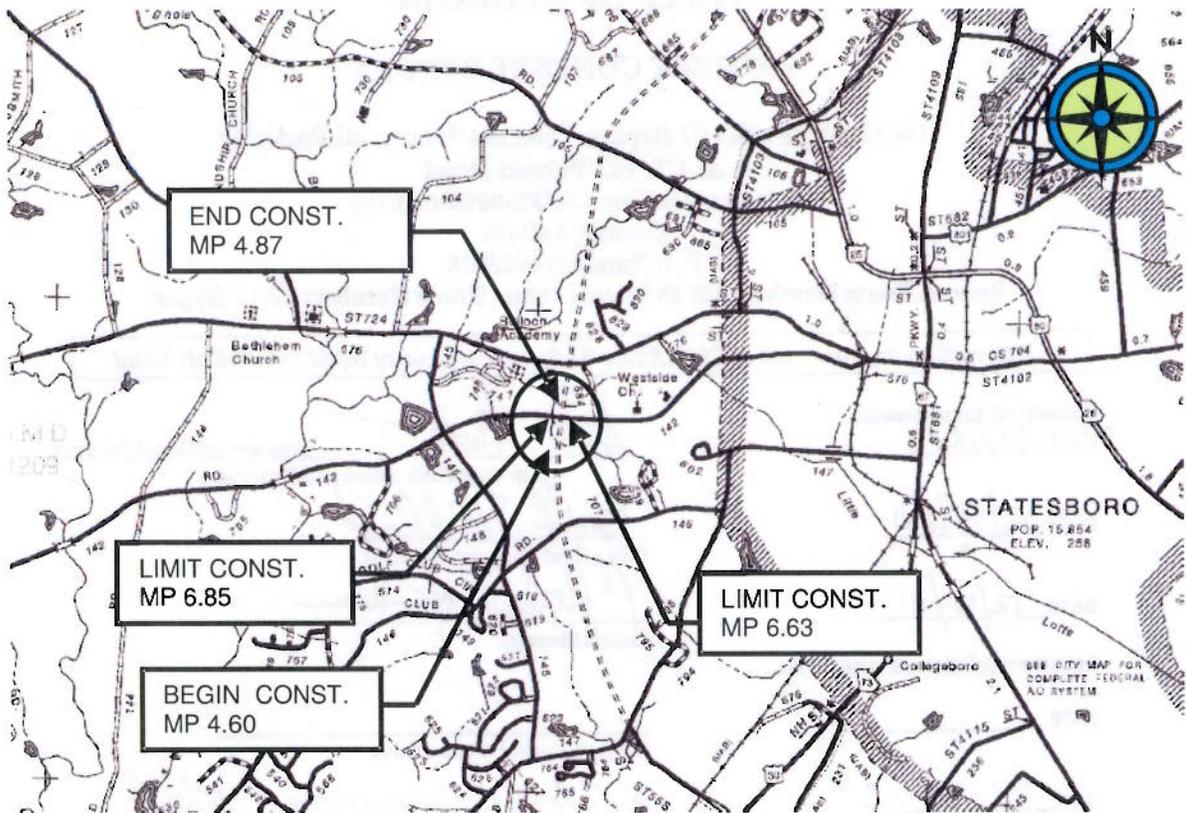
DATE 04-02-12

[Signature]

State Transportation Planning Administrator

* Recommendation on file.

Project Overview Map



NOT TO SCALE

Project Justification Statement:

PI 0008618 was added to the GDOT work program on June 1, 2007 as a Safety Lump Sum project that proposes to improve the intersection of SR 67/US 25 Bypass and Pulaski Road in Bulloch County. The 2009 Bulloch County Long Range Transportation Plan, developed by GDOT, identified this location for improvement based on safety and operational needs.

The intersection currently functions as a two-way stop controlled intersection. SR 67 Bypass is a four lane roadway with rural shoulders and is classified as an urban principal arterial. Pulaski Road is a two lane roadway with rural shoulders and is classified as an urban local street. The posted speed on SR 67 Bypass is 55 mph and the posted speed of Pulaski Road is 45 mph.

According to approved traffic volumes for year 2015 and 2035, the eastbound and westbound intersection approaches currently operate at level-of-service "F" and are expected to continue to operate at level-of-service "F" in the design year if no improvements are made. This analysis indicates unacceptable levels of congestion as defined by performance measure in the 2005-2035 Statewide Transportation Plan.

For the last three years of available data (2007-2009), crash rates on Pulaski Road were significantly greater than the statewide average for urban local streets and crash rates on SR 67 were comparable or less than statewide averages for urban principal arterials. Fifteen total crashes occurred at the intersection between 2007 and 2009. Of these fifteen, twelve were angle-type crashes, three were head-on, and about half involved injury.

Improvements are needed to accommodate future traffic volumes, improve level-of-service, and reduce the frequency and severity of crashes at this intersection.

Crash and Traffic Data

102 crashes have occurred along SR 67 Bypass at Pulaski Road/CR 142 over the last 10 years (2000-2009), all within one mile of the intersection. Forty-two of the 102 crashes have occurred at the intersection of SR 67 Bypass and CR 142, with one fatality. Of the forty-two crashes at the intersection, 86% of the crashes were angle type crashes.

Crash data along one-mile sections of SR 67 Bypass and Pulaski Road / CR 142, in the vicinity of the intersection, were obtained for the period between 2000 and 2009. The traffic crash history along these sections of roadways, summarized by severity and the corresponding crash rates are presented in Tables 1 and 2, respectively. A comparison of the calculated crash rates with the statewide crash averages is also provided in Tables 1 and 2.

Table 1. Summary of Traffic Crash History by Severity along SR 67 Bypass in Bulloch County¹

Year	Crashes			Crashes Per 100 Million Vehicle Miles ²		
	Total	Injury	Fatal	Total	Injury	Fatal
2000	8	5	1	240 (660)	150 (166)	30.04 (1.37)
2001	8	2	0	240 (564)	60 (142)	0.00 (1.20)
2002	7	4	0	210 (568)	120 (143)	0.00 (1.11)
2003	10	4	0	300 (572)	120 (143)	0.00 (1.40)
2004	15	6	0	451 (490)	180 (123)	0.00 (1.29)
2005	14	9	0	421 (534)	270 (135)	0.00 (1.48)
2006	6	1	0	180 (531)	30 (132)	0.00 (1.38)
2007	8	5	0	240 (514)	150 (126)	0.00 (1.34)
2008	10	3	0	300 (471)	90 (116)	0.00 (1.33)
2009	16	6	0	481 (463)	180 (114)	0.00 (1.05)
Total	102	45	1			

Note: (1) The crash data provided is for the section of SR 67 Bypass between MP 4.23 to MP 5.23.

(2) The number in parentheses represents the statewide average crash rates for urban minor arterials.

As shown in Table 1, of the total crash rates and injury crash rates for the section of SR 67 Bypass between MP 4.23 to MP 5.23, the total crash rates were higher than the statewide average for urban minor arterials in 2009. During the ten year period, injury crash rates between MP 4.23 to MP 5.23 were higher than the statewide average for urban minor arterials in 2004, 2005, 2007, and 2009. There was one fatal crash in this section of SR 67 By-Pass during the ten year period in 2000.

Table 2. Summary of Traffic Crash History by Severity along Pulaski Rd/CR 142 in Bulloch County¹

Year	Crashes			Crashes Per 100 Million Vehicle Miles ²		
	Total	Injury	Fatal	Total	Injury	Fatal
2000	6	4	1	548 (470)	365 (104)	91.32 (1.04)
2001	1	1	0	91 (495)	91 (111)	0.00 (1.31)
2002	4	2	0	365 (515)	183 (116)	0.00 (0.95)
2003	5	2	0	457 (502)	183 (111)	0.00 (1.22)
2004	13	4	0	1187 (467)	365 (105)	0.00 (1.05)
2005	8	5	0	731 (388)	457 (90)	0.00 (0.95)
2006	5	2	0	457 (382)	183 (85)	0.00 (1.06)
2007	7	5	1	639 (326)	457 (78)	91.32 (1.26)
2008	6	0	0	548 (317)	0 (68)	0.00 (0.98)
2009	6	2	0	548 (310)	183 (65)	0.00 (0.77)
Total	61	27	2			

Note: (1) The crash data provided is for the section of Pulaski Road / CR 142 between MP 6.24 to MP 7.24.
 (2) The number in parentheses represents the statewide average crash rates for urban local roads.

As shown in Table 2, the total crash rates and injury crash rates for the section of Pulaski Road / CR 142 between MP 6.24 to MP 7.24, total crash rates were higher than the statewide average for local urban streets in 2000 and 2004 through 2009. Injury crash rates between MP 6.24 and MP 7.24 along CR 142 were higher than the statewide average in 2000 and from 2002 to 2007, and again in 2009. There were two fatal crashes in this section of Pulaski Road / CR 142 during the ten year period in 2000 and 2007.

A detailed analysis of the crashes recorded at the SR 67 Bypass @ Pulaski Road / CR 142 intersection are summarized by type and severity in Tables 3 and 4, respectively.

Table 3. Summary of Traffic Crash History by Type at the SR 67 Bypass @ Pulaski Road/CR 142 Intersection

Year	Type						Total
	Angle	Head On	Rear End	Sideswipe - Same Direction	Sideswipe - Opposite Direction	Other (Single-Vehicle)	
2000	2	0	1	0	0	0	3
2001	0	0	0	0	0	0	0
2002	2	0	0	0	0	0	2
2003	2	0	1	0	0	1	4
2004	8	0	0	0	0	0	8
2005	7	0	0	0	0	0	7
2006	3	0	0	0	0	0	3
2007	6	0	0	0	0	0	6
2008	2	0	3	0	0	0	5
2009	4	0	0	0	0	0	4
Total	36	0	5	0	0	1	42

Table 4. Summary of Traffic Crash History by Severity at the SR 67 Bypass @ Pulaski Road/CR 142 Intersection

Year	Severity			Total
	Property Damage Only	Injury	Fatal	
2000	1	1	1	3
2001	0	0	0	0
2002	1	1	0	2
2003	2	2	0	4
2004	4	4	0	8
2005	2	5	0	7
2006	2	1	0	3
2007	1	5	0	6
2008	5	0	0	5
2009	2	2	0	4
Total	20	21	1	42

As shown in Table 3, there were forty-two total crashes at the SR 67 Bypass @ Pulaski Road / CR 142 intersection over the ten year period between 2000 and 2009. The majority of the crashes recorded were angle type, which accounted for about 86% of the total number of crashes. Per Table 4, 50% of the crashes which occurred at the SR 67 Bypass @ Pulaski Road / CR 142 intersection were injury crashes. The crashes at the SR 67 Bypass @ Pulaski Road / CR 142 intersection included one fatal crash recorded which was an angle crash.

Table 5. 2010 Existing and Anticipated AADT

Roadway Segment	2010 "Existing Year" AADT	2015 "Opening Year" AADT	2035 "Design Year" AADT
SR 67 Bypass North of Pulaski Road / CR 142	7,968	9,930	17,935
Pulaski Road / CR 142 West of SR 67 Bypass	2,695	3,124	5,642

A capacity analysis was conducted at the SR 67 Bypass and Pulaski Road/CR 142 intersection to determine the operational characteristics based on the existing and anticipated future conditions. The capacity analysis was performed using the methodologies outlined in the Highway Capacity manual (HCM) and the Synchro 7.0 software program.

A capacity analysis was conducted for the existing condition and the future anticipated no-build and build conditions. For the existing and no-build conditions, the HCM determines LOS for the side street approaches by computing the control delay for these approaches. The results of the capacity analysis for the no-build existing and anticipated future conditions are summarized in Table 6.

Table 6. No-Build Existing and Anticipated Future Level of Service

Intersection	Traffic Control	Approach	Level of Service (AM/PM)		
			2010	2015 No-Build	2035 No-Build
SR 67 Bypass @ Pulaski Road / CR 142	Stop Control on Pulaski Road	Eastbound	F/F	F/F	F/F
		Westbound	F/F	F/F	F/F

The capacity analysis for a proposed roundabout was conducted using the SIDRA software package. The SIDRA software is based on methodology developed in Australia and also uses a gap-acceptance approach to model roundabout operations. The SIDRA software calculates capacity, delay and queue for each approach leg of a roundabout and also for the whole roundabout. SIDRA also reports LOS for each approach leg of the roundabout and also for the roundabout as a whole.

The capacity analysis reveals that the current (2010) LOS of the intersection is a F/F. With a roundabout constructed the anticipated 2015 LOS is expected to be B/B and the 2035 LOS is expected to be C/B for the AM and PM peaks. The results of the capacity analysis for the proposed roundabout for the anticipated future are summarized in Table 7.

Table 7. Roundabout Anticipated Future Intersection Level of Service

SIDRA Analysis	LOS (AM/PM)	
	2015 Build	2035 Build
SR 67 Bypass @ Pulaski Road / CR 142	B/B	C/B

In addition to a roundabout alternative, an analysis of a traditional signalized intersection with turn lanes was performed. The configuration of the traditional signalized intersection included two through lanes with one left and one right turn lane for northbound and southbound SR 67 Bypass, and one through lane with one left and one right turn lane for eastbound and westbound CR 142. With a traditional signalized intersection and turn lanes the anticipated 2015 LOS is expected to be B/B and the 2035 LOS is expected to be a C/B for the AM and PM peak. The results of the capacity analysis for the traditional signalized intersection with turn lanes alternative for the anticipated future are summarized in Table 8.

Table 8. Traditional Signal & Turn Lane Anticipated Future Intersection Level of Service

HCS Analysis	LOS (AM/PM)	
	2015 Build	2035 Build
SR 67 Bypass @ Pulaski Road / CR 142	B/B	C/B

Project Description:

The proposed project would consist of constructing turn lanes and a traffic signal at the intersection of SR 67 Bypass and Pulaski Road/CR 142. The project limits on SR 67 Bypass would extend approximately 760 feet north (MP 4.87) and 650 feet south (MP 4.60) of the intersection. The project limits on Pulaski Road / CR 142 would extend approximately 630 feet east (MP 6.63) and 650 feet west (MP 6.85) of the intersection. The total project length would be approximately 2690 feet (0.51 miles).

The existing right-of-way along SR 67 Bypass is 200 feet, and construction is anticipated to be mostly within the existing right-of-way. The existing right-of-way along Pulaski Road / CR 142 varies between 80 to 100 feet and the majority of the construction is anticipated to be within the existing right-of-way. The project may require permanent easements along Pulaski Road / CR 142. The project is located in Bulloch County, Georgia, 1 mile west of the City of Statesboro.

This project is not in a Flood Zone per FIRM Map No. 13031C0205D, dated September 09, 2009. This project does not lie within 1 mile of a Biota Impaired Stream.

SR 67 Bypass and Pulaski Road/CR 142 are on the Coastal Georgia RC Bicycle Facilities Plan Map, therefore bicycle accessibility will be provided for all legs of the intersection on the rural shoulders.

Environmental:

Is the project located in a PM 2.5 Non-attainment area? ___ Yes ___ X No
(Proposed project is a safety project and is exempt from conformity)

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

PDP Classification: Major _____ Minor X

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

Functional Classification: Urban Principal Arterial (SR 67 Bypass), Local urban street (CR 142)

U. S. Route Number(s): US 25 Bypass

State Route Number(s): SR 67 Bypass

Traffic (AADT):

SR 67 Bypass Base Year (2015): <u>10,930</u>	Design Year (2035): <u>19,620</u>
CR 142 Base Year (2015): <u>3,590</u>	Design Year (2035): <u>6,470</u>

Existing design features:

- Typical Section: SR 67 Bypass is a rural section with four 12-foot wide travel lanes, a depressed 44 foot median, and a varying outside paved shoulder width between six to

- twelve feet. Pulaski Road/CR 142 is a rural two lane road with 12-foot wide travel lanes and a varying shoulder between two to four feet.
- Posted speed: (SR67 Bypass) 55 mph (CR 142) 45 east of SR 67 Bypass/55 mph west of SR 67 Bypass
 - Maximum radius of curve: (SR 67 Bypass) No curve within project limits (CR 142) 3,750'
 - Maximum super-elevation rate for curve: (SR 67 Bypass) Normal Crown (CR 142) 2.1%
 - Maximum grade: SR 67 Bypass: 2.4%
CR 142: 2.2%
Driveways: 1.8%
 - Width of right-of-way: SR 67 Bypass – 200 feet, CR 142 – 80 to 100 feet
 - Major structures: None.
 - Major interchanges or intersections along the project: None.
 - The existing roadway is entirely within Bulloch County, GA. The intersection is located at MP 4.73 on SR 67 Bypass and at MP 6.74 on CR 142.

Proposed Design Features:

- Proposed typical section: The SR 67 Bypass/Veteran’s Memorial Parkway section consists of four 12-foot travel lanes separated by a grassed median with a 10-foot rural shoulder, 6.5-foot paved, along with 12-foot left and right turn lanes at the intersection. The CR 142/Pulaski Road section consists of two 12-foot travel lanes, 12-foot left and right turn lanes, and 10-foot rural shoulders, 2-foot paved.
- Proposed Mainline Design Speed: 55 mph
- Proposed Side Road Design Speed: 45 mph
- Proposed Maximum Grade: SR 67 Bypass: 5% CR 142: 7%
- Maximum Grade allowable: SR 67 Bypass: 5% CR 142: 8%
- Proposed Maximum grade driveways: 2.5%
- Proposed Minimum radius of approach curve: 119'
- Proposed Maximum super-elevation: Normal Crown
- Right-of-Way:
 - Width: SR 67 Bypass – utilize existing 200' ; Pulaski Road/CR 142 – Utilize existing 80-100' and obtain 217' stretch of required R/W on the south half of Pulaski Rd. at the southwest corner of SR 67 Bypass (R/W width varies 0' to 8').
 - Easements: Temporary () Permanent (X) Utility () Other () None ()
 - Type of access control: Full () Partial () By Permit (X) Other ()
 - Number of parcels: 6 Number of displacements: 0
 - Business: _____
 - Residences: _____
 - Mobile homes: _____
 - Other: _____
- Structures:
 - Bridges: None
 - Retaining walls: None

- Median Drop Inlets: Three drop inlets along SR 67 Bypass will be replaced.
- Drainage Pipes: Two drainage pipes will be replaced on SR 67 Bypass. Four drainage pipes will be replaced on CR 142/Pulaski Rd.
- Box Culverts: None
- Major intersections, interchanges, median openings and signal locations: None.
- Transportation Management Plan Anticipated: Yes () No (X)
- Design Exceptions to controlling criteria anticipated:

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

- Maintenance of Traffic: Traffic to be maintained during construction by constructing proposed pavement outside of existing pavement and milling and inlaying under traffic.
- Design Variances: None
- Environmental concerns: Potential wetlands in area. Anticipated Nationwide Permit.
- Level of environmental analysis:
 - Are Time Savings Procedures appropriate? Yes (X), No ()
 - Categorical Exclusion anticipated (X)
 - Environmental Assessment/Finding of No Significant Impact (FONSI) ()
 - Environmental Impact Statement (EIS) ()
- Utility involvements: Frontier Communications, Excelsior EMC, Georgia Power (Distribution)
- Public Interest Determination Policy and Procedure Required? Yes () No (X)
- VE Study Anticipated: Yes () No (X)
- Benefit/Cost Ratio:

Project Cost Estimate and Funding Responsibilities:

	PE	ROW	UTILITY	CST	MITIGATION
By Whom	GDOT	GDOT	GDOT	GDOT	N/A
\$ Amount	\$290,500	\$143,000	\$0	\$803,298	N/A

CST Cost includes E&I and Liquid AC adjustments

Project Activities Responsibilities:

- Design – GDOT - Gresham, Smith & Partners (Consultant)
- Right-of-Way Acquisition – GDOT

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Project Number: CSSFT-0008-00(618)
P. I. Number: 0008618
County: Bulloch

- Right-of-Way funding (real property) - GDOT
- Relocation of Utilities - GDOT
- Letting to contract - GDOT
- Supervision of construction - GDOT
- Providing material pits - Contractor
- Providing detours - N/A
- Environmental Studies/Documents/Permits - GDOT - Gresham, Smith and Partners / Edwards Pittman Environmental, Inc. (Consultant)
- Environmental Mitigation - GDOT
- Lighting - N/A
- Construction Inspection & Materials Testing - GDOT

Coordination

- Initial Concept Meeting date and brief summary. *N/A*
- Concept meeting date and brief summary. *August 27, 2010. See attached minutes with local government comments.*
- P A R meetings, dates and results. *N/A*
- FEMA, USCG, and/or TEVA. *N/A*
- Public Involvement. *Public Information Open House held June 2, 2011. See attached PIOH minutes and responses.*
- Other projects in the area. *There are no known related projects within 2 miles.*
- Other coordination to date. *None.*

Other alternates considered:

- No Build: This alternative would not meet the need and purpose of the intersection and was therefore not considered a viable alternative for the intersection.
- Roundabout: This intersection meets the criteria for installation of a roundabout. However public opposition to a roundabout at this intersection is high, and a traditional intersection with turn lanes and a traffic signal is preferred.

Comments: *None*

Attachments:

1. Detailed Cost Estimates:
 - a. *Construction including Engineering and Inspection*
 - b. *Completed Fuel & Asphalt Price Adjustment forms*
 - c. *Right of Way*
 - d. *Utilities*
2. *Concept Layout plan of Improvements*
3. *Typical sections*
4. *Accident Summaries. Included in Report*
5. *Traffic Diagrams*
6. *Capacity analysis summary. Included in Report*
7. *Minutes of Concept meetings*
8. *PIOH Comments*

9. Summary of Signal Warrant Studies

Exempt Projects

Concur: Bill F. McManis
Director of Engineering

Approve: Dale M. Ren Date: 5/2/2012
Chief Engineer

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE PROJECT No. CSSFT-0008-00(618) , Bulloch County
SR 67 Bypass/US 25 Bypass at CR 142/Pulaski Road

OFFICE Program Delivery

PI No. 0008618

DATE April 4, 2012

FROM Scott Shelton, Project Manager GS&P

TO Lisa Myers, Project Review Engineer

SUBJECT REVISIONS TO PROGRAMMED COSTS

PROJECT MANAGER Charles Robinson

MNGT LET DATE TBD

MNGT R/W DATE TBD

PROGRAMMED COST (Tpro W/OUT INFLATION)

LAST ESTIMATE UPDATE

CONSTRUCTION \$ 803,297.98

DATE November 9, 2011

RIGHT OF WAY \$ 143,000.00

DATE

UTILITIES \$ -

DATE

REVISED COST ESTIMATES

CONSTRUCTION*

RIGHT OF WAY \$ 143,000.00

UTILITIES** \$ -

*Costs contain 5% Engineering and Inspection and Fuel and Liquid AC Adjustments.

CONTINGENCY SUMMARY

Construction Cost Estimate:	\$	707,921.16	(Base Estimate)
Engineering and Inspection:	\$	35,400.00	(Base Estimate X 5%)
Total Fuel Adjustment	\$	-	
Total Liquid AC Adjustment	\$	59,976.82	(From attached worksheet)
Construction Total:	\$	803,297.98	
Utility Cost Estimate:			
Utility Contingency:			
Utility Total:	\$	-	

REIMBURSABLE UTILITY COST

Utility Owner	Reimbursable Costs
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Attachments

c: Genetha Rice - Singleton, Assistant Director of Preconstruction

Angela Robinson, Financial Management Administrator

STATE HIGHWAY AGENCY

DATE : 11/9/2011

JOB ESTIMATE REPORT

JOB NUMBER : 0008618

SPEC YEAR: 01

DESCRIPTION: US 25 BYPASS/SR 67 BYPASS AT CR 142/PULASKI ROAD

ITEMS FOR JOB 0008618

LINE	ITEM	UNITS	DESCRIPTION	QUANTITY	PRICE	AMOUNT
5	150-1000	LS	TRAFFIC CONTROL - TRAFFIC CONTROL FOR CSSFT-0008-00(618)	1	\$100,000.00	\$100,000.00
10	210-0100	LS	GRADING COMPLETE - GRADING COMPLETE FOR CSSFT-0008-00(618)	1	\$75,000.00	\$75,000.00
15	310-1101	TN	GR AGGR BASE CRS, INCL MATL	1992	\$21.63	\$43,088.06
19	402-1812	TN	RECYL AC LEVELING, INC BM&HL	300	\$79.66	\$23,899.33
20	402-3113	TN	RECYL AC 12.5MM SP, GP1/2, BM&HL	2070	\$69.05	\$142,951.49
25	402-3121	TN	RECYL AC 25MM SP, GP1/2, BM&HL	760	\$76.74	\$58,324.82
30	402-3190	TN	RECYL AC 19 MM SP, GP 1 OR 2, INC BM&HL	380	\$83.38	\$31,687.63
35	413-1000	GL	BITUM TACK COAT	880	\$7.41	\$6,523.90
60	446-1100	LF	PVMT REF FAB STRIPS, TP2, 18 INCH WIDTH	600	\$5.39	\$3,235.52
65	632-0003	EA	CHANGEABLE MESS SIGN, PORT, TP 3	4	\$8,777.50	\$35,110.00
70	634-1200	EA	RIGHT OF WAY MARKERS	12	\$118.45	\$1,421.42
75	550-1180	LF	STM DR PIPE 18", H 1-10	250	\$31.55	\$7,889.90
80	550-4218	EA	FLARED END SECT 18 IN, ST DR	4	\$511.85	\$2,047.42
87	641-1200	LF	GUARDRAIL, TP W	250	\$17.79	\$4,447.96
88	641-5001	EA	GUARDRAIL ANCHORAGE, TP 1	2	\$650.23	\$1,300.47
89	641-5012	EA	GUARDRAIL ANCHORAGE, TP 12	2	\$2,032.98	\$4,065.96
90	668-4300	EA	STORM SEW MANHOLE, TP 1	1	\$1,807.60	\$1,807.60
95	163-0232	AC	TEMPORARY GRASSING	5	\$42.64	\$213.20
100	163-0240	TN	MULCH	75	\$221.86	\$16,639.92
105	163-0528	LF	CONSTR AND REM FAB CK DAM -TP C SLT FN	600	\$3.29	\$1,979.42
110	165-0010	LF	MAINT OF TEMP SILT FENCE, TP A	2000	\$0.80	\$1,618.52
115	165-0030	LF	MAINT OF TEMP SILT FENCE, TP C	4000	\$0.66	\$2,664.16
120	165-0041	LF	MAINT OF CHECK DAMS - ALL TYPES	600	\$1.34	\$809.56
125	167-1000	EA	WATER QUALITY MONITORING AND SAMPLING	2	\$494.50	\$989.02
130	167-1500	MO	WATER QUALITY INSPECTIONS	12	\$540.55	\$6,486.71
135	171-0010	LF	TEMPORARY SILT FENCE, TYPE A	2000	\$2.30	\$4,605.94
140	171-0030	LF	TEMPORARY SILT FENCE, TYPE C	4000	\$3.21	\$12,876.56
145	700-8000	TN	FERTILIZER MIXED GRADE	2	\$510.67	\$1,021.35
150	603-2181	SY	STN DUMPED RIP RAP, TP 3, 18"	200	\$48.53	\$9,707.81
155	603-7000	SY	PLASTIC FILTER FABRIC	200	\$4.28	\$857.23
160	700-6910	AC	PERMANENT GRASSING	1.5	\$546.36	\$819.55
165	700-7000	TN	AGRICULTURAL LIME	8	\$27.29	\$218.33
170	700-7010	GL	LIQUID LIME	19	\$21.36	\$405.87
175	700-8000	TN	FERTILIZER MIXED GRADE	5	\$495.21	\$2,476.06
180	700-8100	LB	FERTILIZER NITROGEN CONTENT	300	\$2.69	\$807.23
185	716-2000	SY	EROSION CONTROL MATS, SLOPES	1500	\$1.26	\$1,894.31
190	636-1020	SF	HWY SGN, TP1MAT, REFL SH TP3	300	\$13.64	\$4,092.50
195	653-0296	EA	THERMO PVMT MARKING, WORD, TP 15	8	\$105.13	\$841.11
200	653-1501	LF	THERMO SOLID TRAF ST 5 IN, WHI	2000	\$0.39	\$783.68
205	653-1502	LF	THERMO SOLID TRAF ST, 5 IN YEL	4000	\$0.31	\$1,275.48
210	653-1804	LF	THERM SOLID TRAF STRIPE, 8", WH	1200	\$1.74	\$2,092.10
215	653-3501	GLF	THERMO SKIP TRAF ST, 5 IN, WHI	1000	\$0.28	\$280.99
220	653-6004	SY	THERM TRAF STRIPING, WHITE	1000	\$2.77	\$2,772.36
225	653-6006	SY	THERM TRAF STRIPING, YELLOW	100	\$3.41	\$341.52
230	654-1001	EA	RAISED PVMT MARKERS TP 1	100	\$3.86	\$386.43
235	654-1002	EA	RAISED PVMT MARKERS TP 2	50	\$3.25	\$162.78
240	647-1000	LS	TRAF SIGNAL INSTALLATION NO - CSSFT-0008-00(618)	1	\$85,000.00	\$85,000.00

ITEM TOTAL \$707,921.16
 INFLATED ITEM TOTAL \$707,921.16

TOTALS FOR JOB 0008618

ESTIMATED COST: \$707,921.16
 CONTINGENCY PERCENT (0.0): \$0.00
 ESTIMATED TOTAL: \$707,921.16

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

CALL NO.

CSSFT-0008-00(618)
0008618
11/9/2011

PROJ. NO.

P.I. NO.

DATE

BITUMINOUS TACK COAT (surface treatment)

Price Adjustment (PA)					\$
Monthly Asphalt Cement Price month placed (APM)				892.80	
Monthly Asphalt Cement Price month project let (APL)				558.00	
Total Monthly Tonnage of asphalt cement (TMT)				0	

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

TOTAL LIQUID AC ADJUSTMENT \$ 59,976.82

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

Date: 12/7/2011 Project: STP-0149-01(030)
 Revised: County: Bulloch
 PI: 0008618

Description: US 25 Bypass/SR 67 Bypass at CR 142/Pulaski Road
 Project Termini: US 25 Bypass/SR 67 Bypass at CR 142/Pulaski Road

Existing ROW: Varies
 Required ROW: Varies
 Parcels: 6

Land and Improvements	\$30,750.00										
<table border="1" style="background-color: #FFD700; width: 100%;"> <tr> <td>Proximity Damage</td> <td align="right">\$0.00</td> </tr> <tr> <td>Consequential Damage</td> <td align="right">\$0.00</td> </tr> <tr> <td>Cost to Cures</td> <td align="right">\$0.00</td> </tr> <tr> <td>Trade Fixtures</td> <td align="right">\$0.00</td> </tr> <tr> <td>Improvements</td> <td align="right">\$10,000.00</td> </tr> </table>		Proximity Damage	\$0.00	Consequential Damage	\$0.00	Cost to Cures	\$0.00	Trade Fixtures	\$0.00	Improvements	\$10,000.00
Proximity Damage	\$0.00										
Consequential Damage	\$0.00										
Cost to Cures	\$0.00										
Trade Fixtures	\$0.00										
Improvements	\$10,000.00										
Valuation Services	\$6,000.00										
Legal Services	\$41,550.00										
Relocation	\$12,000.00										
Demolition	\$0.00										
Administrative	\$52,000.00										
TOTAL ESTIMATED COSTS	\$142,300.00										
TOTAL ESTIMATED COSTS (ROUNDED)	\$143,000.00										

Preparation Credits	Hours	Signature

Prepared By: Hashane Alexander CG#: 286999 12/07/2011
 Approved By: Hashane Alexander CG#: 286999 12/07/2011

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

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE CSSFT-0008-00(618), Bulloch County
P.I. # 0008618

OFFICE Jesup

DATE 7-14-2011

FROM Karon L. Ivery, District Utilities Engineer

TO Charles Robinson, Project Manager

SUBJECT PRELIMINARY UTILITY COST ESTIMATE

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

Facility Owner	Non-Reimbursable	Reimbursable	Comments
Frontier Communications	\$ 12,000.00	\$ 0.00	
Excelsior EMC	\$ 18,000.00	\$ 0.00	
Georgia Power (Distribution)	\$ 11,000.00	\$ 0.00	
Totals	\$ 41,000.00	\$ 0.00	
Total Reimbursement	\$ 0.00	\$ 0.00	

KLI: pow

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

STATE OF GEORGIA
 DEPARTMENT OF TRANSPORTATION
 OFFICE OF PROGRAM DELIVERY

PROPOSED INTERSECTION IMPROVEMENTS

SR 67 BYPASS @ CR 142/ PULASKI ROAD
 CSSFT-0008-00(618)
 BULLOCH COUNTY
 P. I. • 0008618

GRESHAM SMITH AND PARTNERS

DATE: 11/01/11

SCALE IN FEET
 0 80 160 320

END PROJECT
 STA. 94+00.00

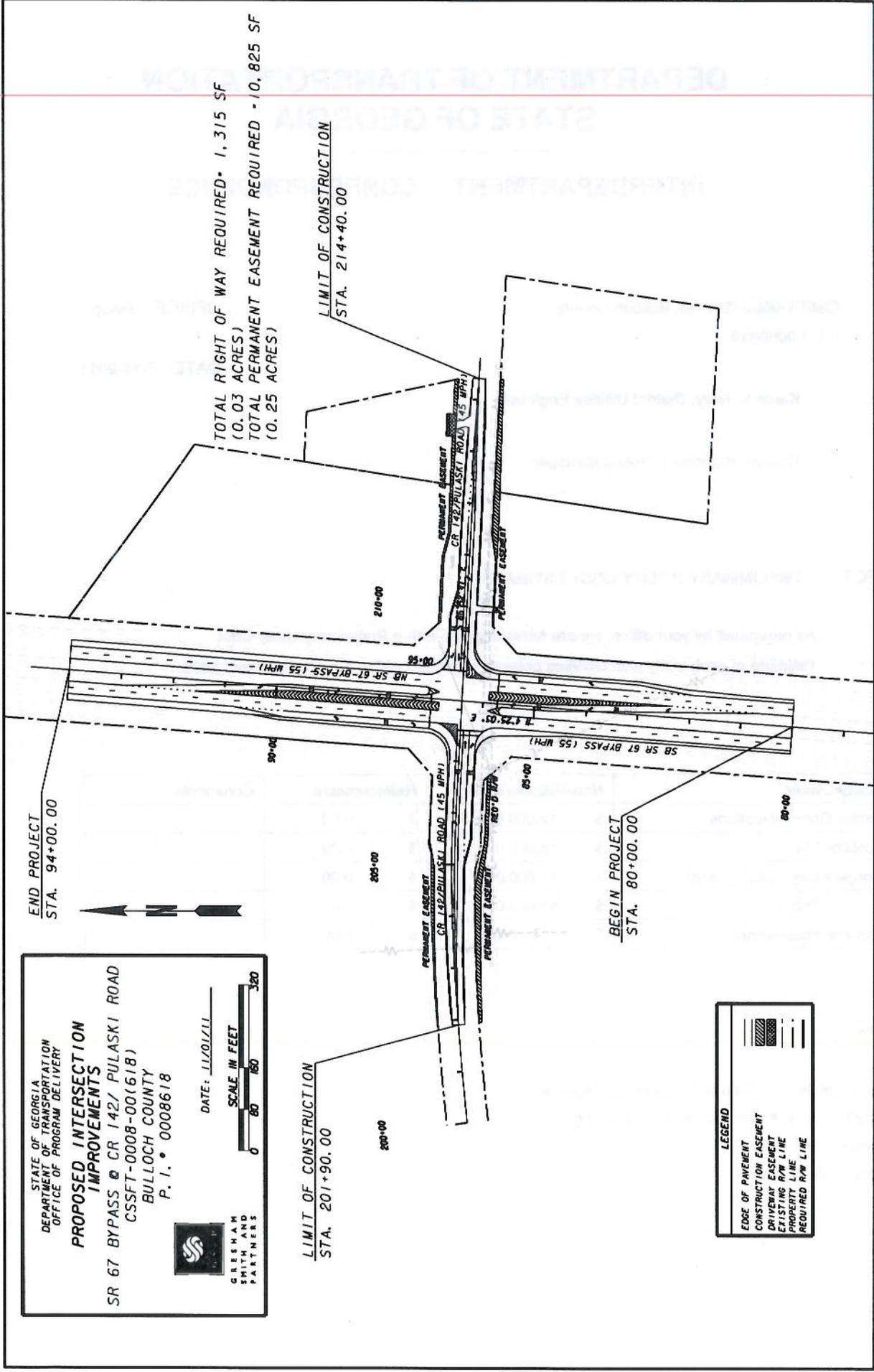


TOTAL RIGHT OF WAY REQUIRED • 1,315 SF
 (0.03 ACRES)
 TOTAL PERMANENT EASEMENT REQUIRED • 10,825 SF
 (0.25 ACRES)

LIMIT OF CONSTRUCTION
 STA. 201+90.00

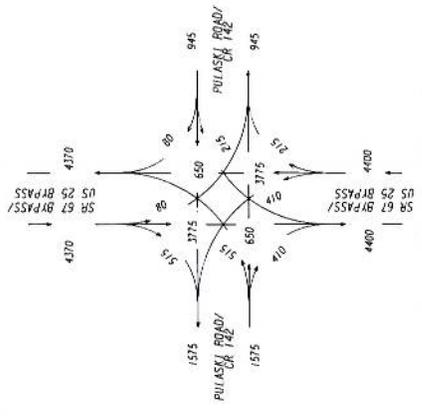
LIMIT OF CONSTRUCTION
 STA. 214+40.00

BEGIN PROJECT
 STA. 80+00.00

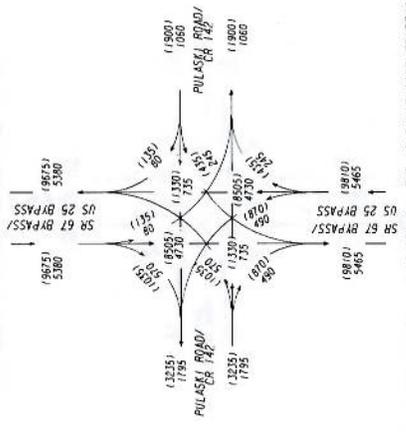


LEGEND

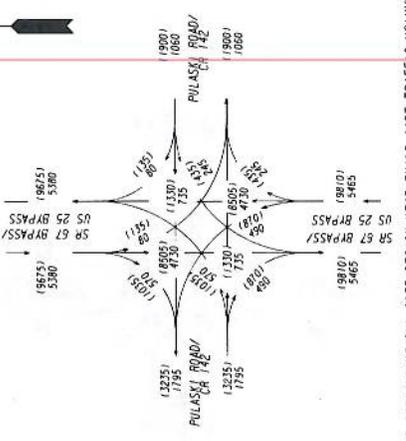
	EDGE OF PAVEMENT
	CONSTRUCTION EASEMENT
	DRIVEWAY EASEMENT
	EXISTING R/W LINE
	PROPERTY LINE
	REQUIRED R/W LINE



2010 EXISTING YEAR ADT VOLUMES
 2010 ADT - 000
 24 HR. T - 13%
 S. U. - 10%
 COMB. - 3%



2015 OPENING YEAR & 2035 DESIGN YEAR NO BUILD ADT TRAFFIC VOLUMES
 2015 ADT - 000
 2035 ADT - (000)
 24 HR. T - 13%
 S. U. - 10%
 COMB. - 3%



2015 OPENING YEAR & 2035 DESIGN YEAR BUILD ADT TRAFFIC VOLUMES
 2015 ADT - 000
 2035 ADT - (000)
 24 HR. T - 13%
 S. U. - 10%
 COMB. - 3%

STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION OFFICE - PROGRAM DELIVERY		REVISION DATES	
PROJECT - SR 67 BYPASS/US 25 BYPASS AT CR 42/PULASKI ROAD PI: 0008618 COUNTY - BULLOCH		NOT TO SCALE	
GRESHAM SMITH AND PARTNERS		1002	



G R E S H A M
S M I T H A N D
P A R T N E R S

September 1, 2010

MEETING MINUTES

US 27 Bypass/SR 67 Bypass/Veterans Memorial Parkway at CR 142/Pulaski Road Intersection
Safety Improvements
Concept Team Meeting
CSSFT-0008-00(618), Bulloch County, PI No. 0008618
GS&P Project No. 26340.10

MEETING DATE: August 27, 2010

PARTICIPANTS: See attachment

DISCUSSION: PROJECT TEAM CONCEPT MEETING

The concept team meeting was held on August 27, 2010 for the SR 67 Bypass at CR 142/Pulaski Road Intersection Improvement Project in Bulloch County. The meeting was held at the Statesboro Area office in Statesboro, GA.

The meeting was opened by Derrick Cameron, who gave a brief description of the project. The detail of the proposed project concept was discussed by Michael Bywaletz, Gresham, Smith and Partners. The project is scheduled to be let in September 2012.

The project is located on US 25 Bypass/SR 67 Bypass, also known as Veterans Memorial Parkway, at CR 142, also known as Pulaski Road in Bulloch County. The project consists of the construction of a dual lane roundabout at the intersection of SR 67 Bypass and Pulaski Road. The proposed project length is 0.48 miles. There are no side roads associated with this project.

Existing SR 67 Bypass/Veterans Memorial Parkway consists of four 12' travel lanes, two in each direction, with a depressed median, rural shoulders and a posted speed of 55 mph. Existing CR 142/Pulaski Road consists of two 12' travel lanes, one in each direction, with rural shoulders and a posted speed of 55 mph west of SR 67 Bypass and 45 mph east of SR 67 Bypass.

Discussion was as follows:

Jay Bockisch from GS&P gave a brief summary on the advantages of roundabouts and previous GDOT roundabout projects. He then played two videos; "Rules of the Road" explained how to properly navigate a roundabout. The second video was a traffic simulation of the proposed roundabout using 2035 traffic projections. GDOT asked about the option of adding a second lane around the entire roundabout. GS&P answered by saying that the proposed design minimizes potential crashes in the roundabout and does a better job of directing vehicles to exit

at the proper location. It is key that proper signing be installed in advance of the roundabout to ensure that vehicles are in the correct lane to make the turning movement they want to make.

GS&P presented the Need & Purpose, including background, safety and operational analyses. Environmental Services requested updated crash and traffic data to be added to the report. GS&P responded that updated data would be added if available. Environmental Services asked why a capacity analysis for a signal was not added to the report. D. Cameron responded that the roundabout was, by GDOT policy, the first scenario to be considered and is a viable option. However, he noted that the policy has been updated, and requested that a comparison to a proposed signal be added to the concept report. Traffic Operations noted that the intersection does meet MUTCD Warrants 1,2,3 & 7 for a traffic signal to be placed.

GS&P reviewed the project description. Environmental Services asked if there were any stream impacts. GS&P responded that the current project limits did not impact the stream. Traffic Operations requested that the truck design be changed from WB-40 to WB-67. GDOT requested that responsibility for material pits be changed to be only the Contractor. GS&P responded that the changes would be made. Bulloch County asked if responsibility for lighting included installation and maintenance; Traffic Operations verified that it would. Traffic Operations requested that the timeline be change to specific dates, and agreed to give GS&P further guidance on these dates.

Discussion continued on public outreach and the timing of public information open house. Traffic Operations stated that a public information open house would occur before proceeding with Preliminary Plans and before the Concept Report would be approved. The District requested eight weeks of lead time prior to the meeting so that signs could be ordered. The County mentioned that questions would arise concerning improvements to the intersection of U.S. 301 and SR 46; GDOT responded that the intersection had a traffic signal project currently in preliminary design.

GDOT requested that the temporary easements shown on the displays either be removed or changed to permanent easements. GS&P agreed that they would be removed if possible. GS&P noted that drainage improvements were needed on the box culvert north of the project, and agreed to look at improvements if the project impacts the box culvert. GDOT requested low maintenance material for the center of the roundabout, and mentioned the possibility of wildflowers. The County also commented that there were existing roundabouts in Statesboro, primarily on the Georgia Southern campus.

Environmental Services requested that FHWA receive a copy of the concept report for review and feedback; Traffic Operations concurred.

This represents our understanding of the items discussed at this meeting. If you have any questions or comments concerning any of the information contained herein, please contact me.

Prepared By: Michael Bywaletz, PE
Project Engineer

Copy File, Attendees

MEETING ATTENDEES

Derrick Cameron	GDOT	dcameron@dot.ga.gov
Landon Perry	GDOT	laperry@dot.ga.gov
Paul Denard	GDOT	
Kirk Tatum	Bulloch County	ktatum@bulloch.net
Teresa Scott	GDOT/Jesup	tscott@dot.ga.gov
P. Paul Alimia	GDOT/Env. Svcs.	palimia@dot.ga.gov
Brad Saxon	GDOT	bsaxon@dot.ga.gov
C.R. Jackson	GDOT	clajackson@dot.ga.gov
R. McCall	GDOT	rmccall@dot.ga.gov
Rick Hardenbrook	GDOT	rhardenbrook@dot.ga.gov
Bryan Wingate	GDOT	bwingate@dot.ga.gov
Michael Bywaletz	GS&P	michael_bywaletz@gspnet.com
Jay Bockisch	GS&P	jay_bockisch@gspnet.com
Marissa Martin	GS&P	marissa_martin@gspnet.com

The GDOT offices below are asked to review the responses provided by the consultant for the comments in their section. The project manager will review all responses.

REVIEWING OFFICE	COMMENT #	NATURE OF COMMENT	PROPOSED RESPONSE
Design	1	Leave stop signs	<p>Leaving a stop sign control would not address the need to improve the safety and traffic operations at the intersection. From 2000 through 2008, 103 crashes occurred within one mile of the intersection along the SR 67 Bypass and CR 142/Pulaski Road. Of the 103 crashes, 38 were at the intersection, with one fatality. The injury crash rates for this section of the SR 67 Bypass are higher than the statewide average for similar roadways. The crash rates and injury rates for this section of CR 142/Pulaski Road are also higher than the statewide average for similar roadways. Additionally, the intersection is currently operating at a failing level of service (a qualitative measure describing the operational conditions). With construction of a roundabout, the intersection is projected to function at an acceptable level of service through Year 2035 at a minimum.</p>

REVIEWING OFFICE	COMMENT #	NATURE OF COMMENT	PROPOSED RESPONSE
Design (continued)	1, 2	Use a traffic light.	At this intersection, a design with turn lanes and a traffic signal has been analyzed. It has been determined that at this location, a roundabout and a traffic signal would function equally well based on the traffic. A roundabout is preferable in this situation due to the reduced number and severity of crashes for a roundabout compared to a traffic signal. The cost for a roundabout at this location is also less than the cost of a traffic signal with signal equipment to install and maintain and right-of-way for turn lanes. The roundabout design would not require additional right-of-way or easements, minimizing impacts to adjacent property owners. The impacts for a signalized intersection with turn lanes would be approximately 0.5 acres from 4 properties. The additional cost of a traffic signal is approximately \$400,000.
	4	We do not need a traffic signal at the intersection because it will make the bypass a parking lot. A traffic signal would be cost-prohibitive and would always need adjustments. This is a waste of the \$800,000 this project will cost.	
14			

REVIEWING OFFICE	COMMENT #	NATURE OF COMMENT	PROPOSED RESPONSE
Design (continued)	1, 11, 12, 14	<p>Drivers will not follow roundabout procedures or speed. I've seen several roundabout failures. Roundabouts are hard to understand and drive through. A roundabout would make the intersection more dangerous/cause more accidents. A pile-up in a roundabout is worse than the single accidents at an intersection. The east-west flow will not blend in with the bypass traffic because some people are going to stop until it is clear, further increasing the gridlock. Elderly and young people need to be able to drive through the intersection.</p>	<p>In a roundabout, all vehicles within the circle have the right-of-way. All vehicles entering the circle must yield to the vehicles already in the circle; therefore, there is no preference shown to any roadway. Based on the traffic analysis, the average delay time to enter the intersection during the most congested hour of the day will be less than 21 seconds, but most legs of the intersection will see an average delay of less than 10 seconds that same hour.</p> <p>The video Modern Roundabouts: A Safer Choice provides general information about roundabouts including guidance on how to navigate through roundabouts. To view this video, scroll down to Resources and click on the WMV or MOV file on the Federal Highway Administration's Roundabouts website: http://safety.fhwa.dot.gov/intersection/roundabouts/.</p> <p>Research has shown that roundabouts reduce the number and severity of traffic crashes at intersections. In a roundabout, crashes that occur are typically at low-speeds. The most severe crashes that occur at signalized and stop controlled intersections are high-speed crashes, head-on crashes and intersecting crashes which are unlikely to occur in a roundabout.</p> <p>Roundabouts have been shown to be very effective at intersections such as this one because of the reduced maintenance costs and a reduction in the number and severity of traffic crashes. Per the current GDOT policy, a roundabout should be a considered alternative at all intersections.</p>

REVIEWING OFFICE	COMMENT #	NATURE OF COMMENT	PROPOSED RESPONSE
	2, 3, 10, 14	We are an experiment or test market for a roundabout on a four-lane roadway. The road is too busy. This is too big of a project not to engage in more extensive study.	Thank you for your response. We don't consider this intersection an experiment or test market for a four-lane roundabout. Research has shown that roundabouts reduce the number and severity of traffic crashes at intersections. In a roundabout, crashes that occur are typically at low-speeds. The most severe crashes that occur at signalized and stop controlled intersections are high-speed crashes, head-on crashes and intersecting crashes which are unlikely to occur in a roundabout. Our studies indicate that with construction of a roundabout, the intersection is projected to function at an acceptable level of service through Year 2035 at a minimum.
Design (continued)	2	Aren't roundabouts more commonly used in residential areas?	Thank you for your response. <u>Roundabouts have been used successfully in all areas throughout the county and throughout the world.</u>
	3	A comparison of similar roundabout type projects in a comparable commercial thoroughfare would be beneficial. This does not make sense as a way to facilitate commercial vehicle transportation (or military) in our area. It could possibly drive out existing businesses as we now face even more competition with efficiency in transportation.	Roundabouts have been used successfully in areas around the country with high truck traffic. The proposed roundabout is designed with a truck apron that will facilitate commercial vehicle movement through the roundabout. The roundabout is designed for a WB-67, which is a very large tractor trailer. Detailed analysis has been performed to make sure a large vehicle can navigate the intersection with-out creating an exceedingly large external diameter which would require additional right-of-way.
	3, 4, 9	A roundabout seems to defeat the purpose of moving traffic around the city at a reasonable speed. We do not need a roundabout slowing traffic 24 hours every day. The roundabout	While all drivers do have to slow down at a roundabout, most do not have to stop. At a signalized intersection, while most drivers do not have to slow down, some percentage of drivers have to come to a complete stop including those on the high speed main line. When averaging the delay for all

	<p>vehicles, the two options have about the same amount of delay. However due to the safety benefit of the roundabout, there will be less non recurring delay (delay due to an incident). Additionally, slowing down as opposed to stopping is safer, more fuel efficient and less polluting to the environment.</p>	<p>will slow traffic to less than half speed and turn the bypass into a parking lot. Slowing to 20 or less from 55 or more and reducing the flow from two lanes to one further extends the gridlock. Cutting the speed to 1/3 and half the flow equals six times as long for the thru traffic.</p>	
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REVIEWING OFFICE	COMMENT #	NATURE OF COMMENT	PROPOSED RESPONSE
Design (continued)	4, 5, 8	<p>Real right turn lanes are needed on Pulaski Road and on the bypass. Move the stop sign and make the entrance like Cypress Lake Road. Moving the right turn lane will allow left turning traffic to proceed and clear the main intersection. Turn lanes would be less expensive than a roundabout.</p>	<p>Thank you for your suggestion. This intersection meets the warrants to provide a signalized intersection. This intersection also satisfies the capacities required for a roundabout to also function at this intersection. The increased cost associated with a signalized intersection, including additional right-of-way for turn lanes, signal equipment and maintenance of that equipment over the long term is not justifiable to not consider a roundabout for providing the same level of service. Research has shown that roundabouts reduce the number and severity of traffic crashes at intersections. In a roundabout, crashes that occur are typically at low-speeds. The most severe crashes that occur at signalized and stop controlled intersections are high-speed crashes, head-on crashes and intersecting crashes which are unlikely to occur in a roundabout.</p>
	5, 7	<p>A roundabout will help slow down traffic, including trucks.</p>	<p>Thank you for your comment. Slowing vehicular traffic is one of the benefits of a roundabout. Having slower vehicles move through the intersection increases the safety and operational efficiency of the intersection.</p>
	8, 12	<p>Large trucks, including logging trucks and farm equipment, will have a difficult time negotiating the turn in a roundabout.</p>	<p>The proposed roundabout has an average outside diameter of 95 feet with a 16-foot travel lanes with an additional 8.5-foot truck apron. A roundabout of this size is adequate for a WB-67 truck which has a trailer length of 53 feet and an overall length of 74 feet. All proposed concrete median barriers will have a mountable curb face which will allow trucks and farm equipment to mount the curb without difficulty if necessary. The proposed truck apron will have a full-depth concrete pavement section adequate for travel by large vehicles and farm equipment. The proposed truck apron will have a four inch curb height with a mountable face</p>

			<p>which is designed to allow vehicles to mount the curb if needed. During the design phase, the designers will further study options for safe travel by farm equipment with a width of 24 feet.</p>
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<p>... ..</p>	<p>... ..</p>	<p>... ..</p>	<p>... ..</p>
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REVIEWING OFFICE	COMMENT #	NATURE OF COMMENT	PROPOSED RESPONSE
Traffic Operations	5	<p>Has analysis been done to compare before and after statistics on crashes with injuries or deaths since the traffic light was added at the SR 67 Bypass and Westside Road? Have injury/fatal crashes significantly decreased after the light was installed? This information would be beneficial in determining if a roundabout is the best option for the Pulaski Road intersection.</p>	<p>In 2005, a traffic signal was installed at the SR 67 Bypass and Westside Road. However, the SR 67 Bypass was also widened from two lanes to four lanes in this same year. As a result, the cause for the decrease in crashes cannot accurately be attributed to the addition of the signal alone.</p> <p>From 2000 to 2004, there were 22 total crashes at the SR 67 Bypass and Westside Road intersection, with 11 of those resulting in injuries. That is an average of 4.4 crashes per year, with 2.2 crashes with injuries per year, prior to the signalization and widening. From 2005 to 2009, there were 12 total crashes at the SR 67 Bypass and Westside Road intersection, with 4 of those crashes resulting in injuries. That is an average of 2.4 crashes per year, with 0.8 crashes with injuries per year, following the signalization and widening.</p> <p>There were no crashes with fatalities recorded at the SR 67 Bypass and Westside Road intersection for the 2000 through 2009 time period. However, the recorded injury crashes at the SR 67 Bypass and Westside Road intersection decreased by 64% following the traffic signal installation and the SR 67 Bypass widening.</p> <p>For comparison, the crash reduction factor for a roundabout is a 58% reduction in total crashes, with an anticipated 82% reduction in fatal and injury crashes based upon the <i>September 2007 Desktop Reference for Crash Reduction Factors, US DOT Report No. FHWA-SA-07-015.</i></p>

REVIEWING OFFICE	COMMENT #	NATURE OF COMMENT	PROPOSED RESPONSE
Planning	2	I was told that our transportation department lags far behind other states and this will be a boost in this area.	As mentioned above, the purpose of the project is to address the safety concerns and traffic operations at the intersection.

REVIEWING OFFICE	COMMENT #	NATURE OF COMMENT	PROPOSED RESPONSE
District 5	1, 14	Signs are hard to read unless you pull off the road and park in front of the sign which is dangerous	Thank you for your suggestion. Your comment has been forwarded to the office responsible for making and placing the signs to consider prior to future meetings.
	5	Other intersections on the Bypass also need work, such as the intersection with Williams Road	This intersection is outside of this proposed project area. However, your comment has been forwarded to the GDOT District Five Office for further consideration. If you have any additional questions regarding that intersection, please contact Glenn Durrence, P.E., the District Five Engineer, at (912) 427-5711.

REVIEWING OFFICE	COMMENT #	NATURE OF COMMENT	PROPOSED RESPONSE
	All letters - 13,		Thank you for your input regarding the PIOH for the proposed project. Your interest in this meeting and your comments are appreciated. Your comments will be made a part of the official record of the project.
Environment	2	I was told that the comment form was online. I was unable to locate it.	The comment form is within the handout packet available online at www.dot.ga.gov . The packet can be accessed by clicking on Public Outreach from the Information Center dropdown menu at the top right side of the page. Although the comment period for this project has ended, please feel free to contact the project manager Derrick Cameron at (404) 631-1223 or Paul Alimia at (404) 631-1353 of the Office of Environmental Services if you have any questions that are not answered in this letter.
	2, 6	I am against this project without additional forums. GDOT personnel seemed to have a complacent attitude and not be interested in any discussion of alternatives.	The June 2, 2011 is the only Public Information Open House scheduled for this project. The purpose of the meeting was to notify the public about the project and to gain input. If you have any additional questions or concerns that have not been addressed at the PIOH or in this letter, please contact Derrick Cameron or Paul Alimia at the numbers provided above.
	8, 9	GDOT should have made a verbal presentation. The meeting would have been better as a group discussion.	The current open house format accommodates individuals with varying schedules, allowing participants to arrive at various times to review the project information and to speak with GDOT representatives at their convenience.

REVIEWING OFFICE	COMMENT #	NATURE OF COMMENT	PROPOSED RESPONSE
Environment (continued)	14	What are you going to do about the wildflowers now blooming along the bypass? Are they not supposed to be protected by DOT rather than destroyed?	The proposed project was surveyed for protected species to comply with federal and state laws. No federally or state protected flora or fauna or appropriate habitat were observed within the project area. An Ecology Resource Survey and Assessment of Effects Report documenting these findings was prepared and is available for review by contacting the GDOT Office of Environmental Services at (404) 631-1100. Additionally, the proposed roundabout would not require right-of-way acquisition, minimizing the disturbance to the surrounding area from the construction of the project.

Summary of Comments
CSSFT-0008-00(618), PI No. 0008618, Bulloch County
July 7, 2011
Page 13

Attached is a complete transcript of the comments received during the comment period and a copy of the public information open house handout for review. **Your input on the proposed responses is required by July 12, 2011.** Please direct your comments via email to Jill Brown (jbrown@edwards-pitman.com) and copy Paul Alimia (palimia@dot.ga.gov), of this office.

If you have any questions about the comments, please either email or call Paul Alimia at (404) 631-1353.

GB/PPA/epei-jeb

Attachments

DISTRIBUTION:

Ben Buchan, w/attachments
Russell R. McMurry, w/attachments
Derrick D. Cameron, w/attachments
District 4 Attn: Joe W. Sheffield, P.E., w/attachments
Angela T. Alexander, w/attachments
Kathy Zahul, P.E., w/attachments
Howard (Phil) Copeland (Attn: Troy Byers), w/attachments

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

Office of
Traffic Safety & Design

NOV 22 2006

RECEIVED

INTERDEPARTMENTAL CORRESPONDENCE

FILE: S.R. 67 By-Pass @ Pulaski Rd. **OFFICE:** Jesup, Georgia
Bulloch County

DATE: November 16, 2006

FROM: Glenn W. Durrence, P.E., District Engineer ^{RTM}

TO: Mr. Keith Golden, P.E., State Traffic Safety & Design Engineer
Atlanta, Georgia
ATTN: Kathy Bailey, P.E., Asst. State Traffic Safety & Design Engineer

SUBJECT: PROPOSED SAFETY IMPROVEMENT PROJECT

This office is requesting this intersection be improved to include signalization and side street lane/geometric improvements. This intersection has appeared on the list of roadways with improvement potential for the past 2 – years.

This office will prepare a preliminary Traffic Signal Design cost estimate and forward this information to your office.

If you should have any questions or comments, please contact Rick Hardenbrook of this office at (912) 427-5762.

RTM:REH:bhs

Copy: Scott Zehngraff, P.E., Traffic Safety & Design w/ originals

**TRAFFIC SIGNAL WARRANT ANALYSIS
TE STUDY
SR67 BY-PASS AT PULASKI RD.
BULLOCH COUNTY**



**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
November 16, 2006
M.P. 4.73**

Prepared by

**District 5
Traffic Operations**

Traffic Control Device Permit Package

County Bulloch City N/A District 5

Intersection S.R. 67 By-Pass(Veterans Memorial Parkway) @ Pulaski Rd.

Stop and Go Signal Flashing Beacons School Beacon _____
Other

	<u>District 5</u>	<u>Traffic Safety and Design</u>
Traffic Engineering Study	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Conceptual Signal Design Diagram	<input checked="" type="checkbox"/> <i>IN PROGRESS</i>	<input type="checkbox"/>
Application	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sample Permit with	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Location Map	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Adjacent Signal Location Maps	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Collision Diagram	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Pedestrian Accommodations	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Support for excluding	<input type="checkbox"/>	<input type="checkbox"/>
Turning Movement Counts	<input checked="" type="checkbox"/>	<input type="checkbox"/>
P/P or Protected Only Documentation	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Recommendation for Installation	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Comments: _____

District Package Reviewer : REN TS & D Package Reviewer: _____

Date Sent: 11-16-06 Date Received : _____ Date Screened: _____

5 Business Day Goal Met

Package Complete Yes No

Incomplete Package or Additional Information Request

	<u>Requested</u>	<u>Returned</u>
First Request <input type="checkbox"/> e-mail <input type="checkbox"/> Phone <input type="checkbox"/> In person	_____	_____
	Date	Date
Second Request <input type="checkbox"/> e-mail <input type="checkbox"/> Phone <input type="checkbox"/> In person	_____	_____
	Date	Date

Package Submittal

Recommendation of State Traffic Safety and Design Engineer _____
Date

15 Business Day Goal Met Yes No

Recommended Director of Operations _____
Date

Approved/ Denied Chief Engineer _____

Distribution:
White - Applicant
Yellow - State Traffic Engineer
Pink - District Traffic Engineer

Do Not Write In This Space

Application No. _____
Permit No. _____

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

REQUEST FOR TRAFFIC SIGNAL

To the Georgia Department of Transportation:

The BOARD of COMMISSIONERS in BULLOCH County hereby requests approval for the use of a traffic signal at the location described below:

LOCATION

Local Street Names: S.R. 67 BYPASS at PULASKI HWY.

State Route Numbers: S.R. 67 BYPASS at PULASKI RD.

TYPE SIGNAL

Stop and Go Flashing Beacon School Beacon Other

CONDITIONS OF APPLICATION AND STANDARDS OF OPERATION

In the event that the Georgia Department of Transportation authorizes the use of a traffic signal at the above location, the undersigned agrees to participate in the costs to purchase and install the signal. This level of participation will be determined after a study of the location has been completed. The signal must be installed to the Department's standards and conform with the authorization issued by the Department and the provisions set forth therein.

COST OF OPERATION

The full and entire costs of the electric energy and telephone service used to operate the signal shall be at the expense of the applicant without any cost to the Georgia Department of Transportation. The applicant understands that the Department may ask for participation in the costs for the purchase, installation and maintenance of the signal if approved.

INSPECTION AND APPROVAL

The installation, maintenance and operation of said signal shall be subject at all times to inspection and approval by a duly authorized engineer of the Georgia Department of Transportation.

RIGHT TO REVOKE

The Georgia Department of Transportation reserves the right to revoke the approval should it for any reason desire to do so, by giving the applicant thirty (30) days written notice, and in that event, the applicant agrees to remove said signal from said right-of-way at its own expense or allow it to be removed by the Department.

This application is hereby submitted and all of the terms and conditions are hereby agreed to. The undersigned are duly authorized to execute this instrument.

Attest:
[Signature]
Clerk

This the 21 day of March 2008

By: [Signature]

Title: County Manager

**TRAFFIC SIGNAL WARRANT ANALYSIS – TE STUDY
SR67 BY-PASS AT PULASKI RD.
BULLOCH COUNTY**

STUDY LOCATION

The intersection of State Route (SR) 67 By-Pass at Pulaski Rd. in Bulloch County has been examined for Signalization needs. This intersection is located along SR67 By-Pass approximately 2.5 miles northwest of SR73. For the purposes of this report, SR67 By-Pass has a North/South orientation and Pulaski Rd. has an East/West orientation. (See attached site map and adjacent signalized intersection map).

REASON FOR INVESTIGATION

The intersection of SR67By-Pass and Pulaski Rd. has been placed on the top 150 high accident location list for the past 2-years. The Department has investigated this location to determine if Signalization or other operational improvements can be implemented.

TOPOGRAPHY

At the study location, SR67 By-Pass is a four-lane divided roadway. Both the northbound and southbound approaches on SR67 By-Pass have dedicated left and right turn lanes. All through lanes are 12-feet in width.

Pulaski Rd. is a two-lane roadway with both lanes being 12-feet in width.

Intersection sight distance was measured using a driver's eye height of 42" and a vehicle height of 42" per ASHTO guidelines. Sight distance measurements are shown below.

Pulaski Rd. East approach looking North onto SR67BP	1000ft.
Pulaski Rd. East approach looking South onto SR67BP	1000ft.
Pulaski Rd. West approach looking North onto SR67BP	1000ft.
Pulaski Rd. West approach looking South onto SR67BP	1000ft.

The intersection of SR67BY/Pulaski Rd. is an undeveloped intersection.

**TRAFFIC SIGNAL WARRANT ANALYSIS – TE STUDY
SR67 BY-PASS AT PULASKI RD.
BULLOCH COUNTY**

EXISTING TRAFFIC CONTROL

SR67BY carries free flow traffic at its intersection with Pulaski Rd. Double indicated stop ahead signs, stop signs, rumble strips, stop bars, edge lines, and center lines control Pulaski Rd. Eastbound and Westbound approaches at its intersection with SR67BY.

VEHICLE VOLUME HISTORY

Table 1- AADT for SR67BY AT PULASKI RD.		
YEAR	SR67BY (TC#0567)	PULASKI RD.
2004	9,640	3,260
2003	7,390	n/a

Left Turning movements are included on a separate sheet listed in this study.

P/P OR PROTECTED ONLY PHASING DOCUMENTATION

This product analysis yields the following for the Northbound left turn:

AM Peak hour-25 left turns X 333 opposing through/right-turn vehicles=8,325/2=4,163
 Midday Peak Hour-33 left turns X 187 opposing through/right-turn vehicles=6,171/2=3,086
 PM Peak Hour- 37 left turns X 289 opposing through/right-turn vehicles=10,693/2=5,347

This product analysis yields the following for the Southbound left turn:

AM Peak hour-10 left turns X 263 opposing through/right-turn vehicles=2,630/2=1,315
 Midday Peak Hour- 5 turns X 210 opposing through/right-turn vehicles=1,050/2=525
 PM Peak Hour- 11 left turns X 311 opposing through/right-turn vehicles=3,421/2=1,711

(See attached turning movement data)

**TRAFFIC SIGNAL WARRANT ANALYSIS – TE STUDY
SR67 BY-PASS AT PULASKI RD.
BULLOCH COUNTY**

VEHICULAR SPEEDS

The posted speed limit for both approaches of SR67BP at Pulaski Rd. is 55 MPH.
The posted speed limit for Pulaski Rd. eastbound approach at SR67BP is 55 MPH.
The posted speed limit for Pulaski Rd. westbound approach at SR67BP is 45 MPH.

PEDESTRIAN MOVEMENTS

During the peak hour traffic counts, no pedestrians were recorded crossing any approach of the intersection. There are no sidewalks or crosswalks present at this intersection.

PARKING

On-street parking is not permitted along SR67BP or Pulaski Rd. in the vicinity of the intersection.

COLLISION HISTORY

Collision data was available for the study intersection between the time period of July 2002 to December 2004. A total of 13 collisions were reported. 12 were correctable by the installation of a traffic signal. Below see the accidents per year.

CRASHES	2004/2005	2002-2003
<i>RIGHT ANGLE</i>	8	4
<i>LEFT TURN</i>		
<i>REAR END</i>		1
<i>HEAD ON</i>		
<i>SIDESWIPE</i>		
<i>OTHER</i>		
	6 Total Collisions-05	

(See attached collision diagram)

**TRAFFIC SIGNAL WARRANT ANALYSIS – TE STUDY
SR67 BY-PASS AT PULASKI RD.
BULLOCH COUNTY**

MUTCD SIGNAL WARRANT ANALYSIS

A traffic signal warrant analysis was performed for the intersection of SR67BY and Pulaski Rd. using the criteria provided in the Manual on Uniform Traffic Control Devices MUTCD, 2003 Edition. The data for the study was imported into the PC WARRANTS program for analysis and justification.
(See attached PC Warrants Analysis)

OTHER INFORMATION

Pulaski Rd. runs from SR46 in Pulaski, Ga. to West Main St. in Statesboro, Ga. On Pulaski Rd. West of SR 67 By-Pass there are numerous residential homes, trailer parks and 3 subdivisions under construction. On Pulaski Rd. East of SR67BY there are 2 churches, numerous residential homes, 4 commercial businesses, Bulloch Co. Dept. of Family and Children Services, Bulloch Co. Health Dept., Boys & Girls Club and The American Cancer Society.

SR67BY is a segment of the Veterans Memorial Parkway that connects SR73 to SR26 and SR67. SR67 By-Pass is a Limited Access Highway.

CONCLUSIONS

An examination of traffic volumes and collision experience indicates that 4 of the MUTCD signal warrants are satisfied at this intersection.

Of the 8 collisions reported between February 2004 and December 2004 all are considered correctable by a traffic signal. There were 6 collisions in 2005, this location is on the Top 150. The collision data is not available on the GDOT database at this time.

Volumes for left turn phasing were not met for any approach at this intersection.

**TRAFFIC SIGNAL WARRANT ANALYSIS – TE STUDY
SR67 BY-PASS AT PULASKI RD.
BULLOCH COUNTY**

RECOMMENDATIONS

Based on an analysis of traffic data, collision experience, intersection operations, and potential signalization needs, the following action is recommended.

- **It is recommended that Bulloch County be issued a permit to erect and operate a stop and go traffic signal at this intersection.**
- **It is recommended that this Location be considered for a Safety improvement project.**
- **It is recommended that the side streets (Pulaski Rd.) be improved to include left, thru and Right turn lanes.**

RECOMMENDED BY: _____

R. J. McCall
District Traffic Engineer

DATE: 11-16-06

RECOMMENDED BY: _____

State Traffic Safety and Design Engineer

DATE: _____

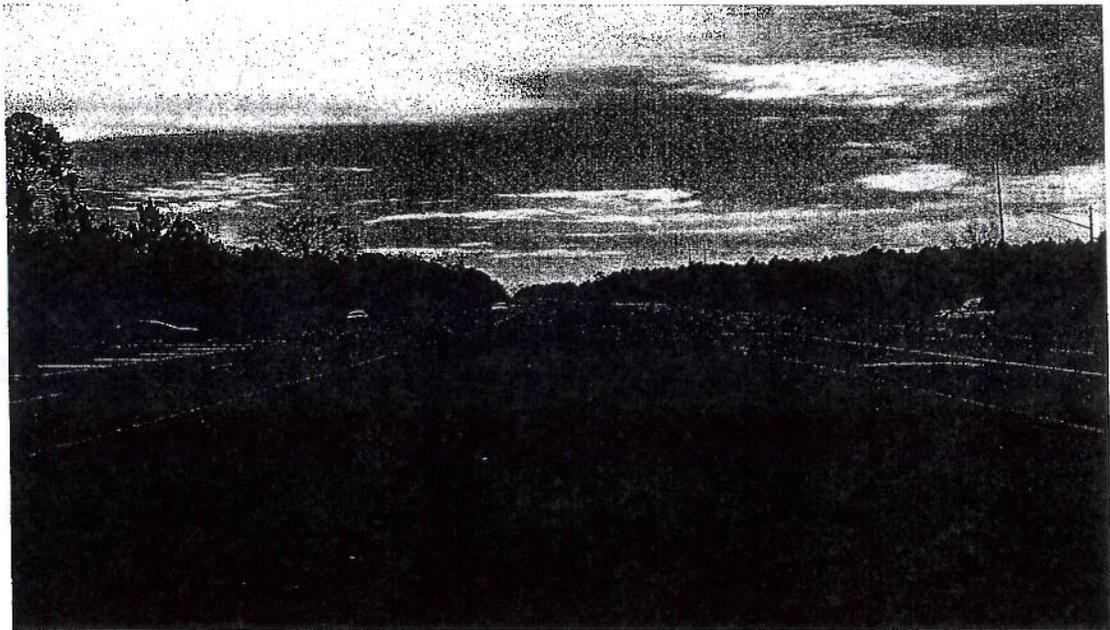
RECOMMENDED BY: _____

Director of Operations

DATE: _____

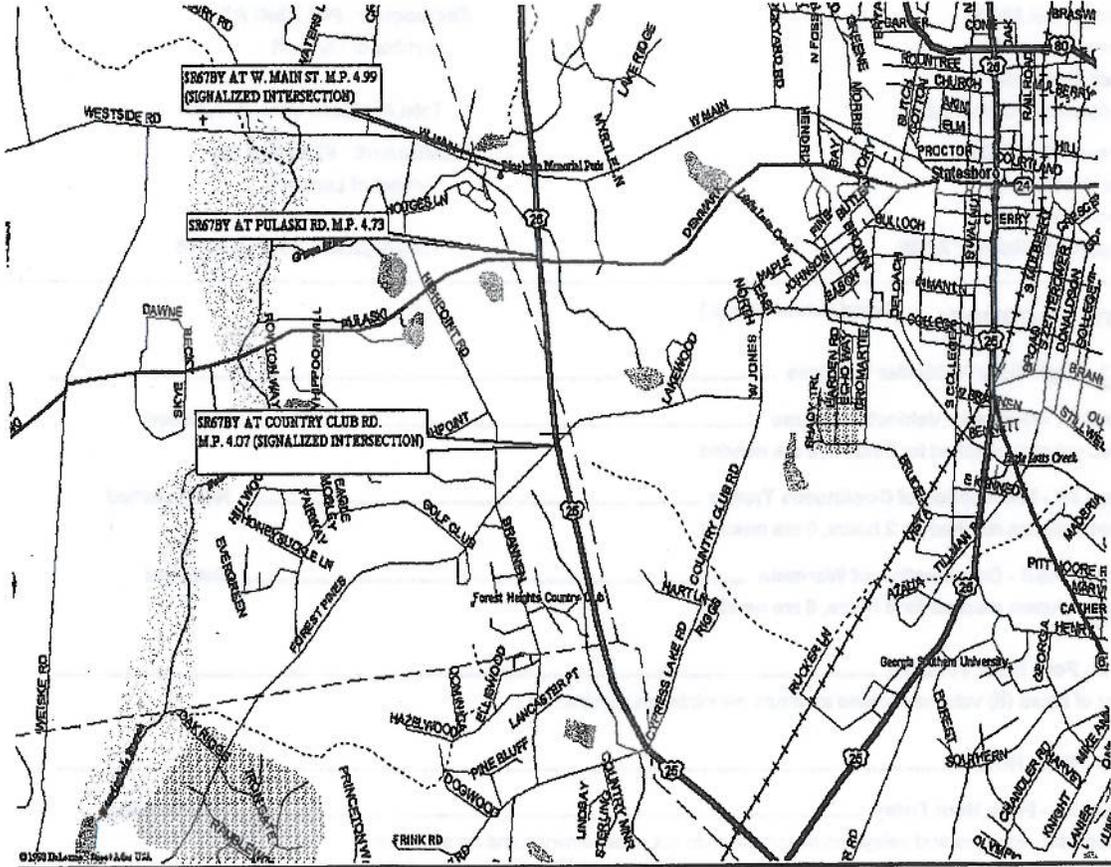


SR67 BY-PASS NORTHBOUND APPROACH AT PULASKI RD.



SR 67 BY-PASS SOUTHBOUND APPROACH AT PULASKI RD.

SITE/SIGNALIZED INTERSECTION MAP



SR67 BY-PASS AT PULASKI RD. INTERSECTION

GEORGIA DEPARTMENT OF TRANSPORTATION

DISTRICT 5 TRAFFIC OPERATIONS

Study Name : SR67BY AT PULASKI RD.
Study Date : 03/07/06
Page No. : 1

Signal Warrants - Summary

Major Street Approaches

Northbound: SR 67BY

Number of Lanes: 2
Approach Speed: 55
Total Approach Volume: 2,347

Southbound: SR 67BY

Number of Lanes: 2
Approach Speed: 55
Total Approach Volume: 2,329

Minor Street Approaches

Eastbound: PULASKI RD

Number of Lanes: 1

Total Approach Volume: 1,401

Westbound: PULASKI RD

Number of Lanes: 1

Total Approach Volume: 1,105

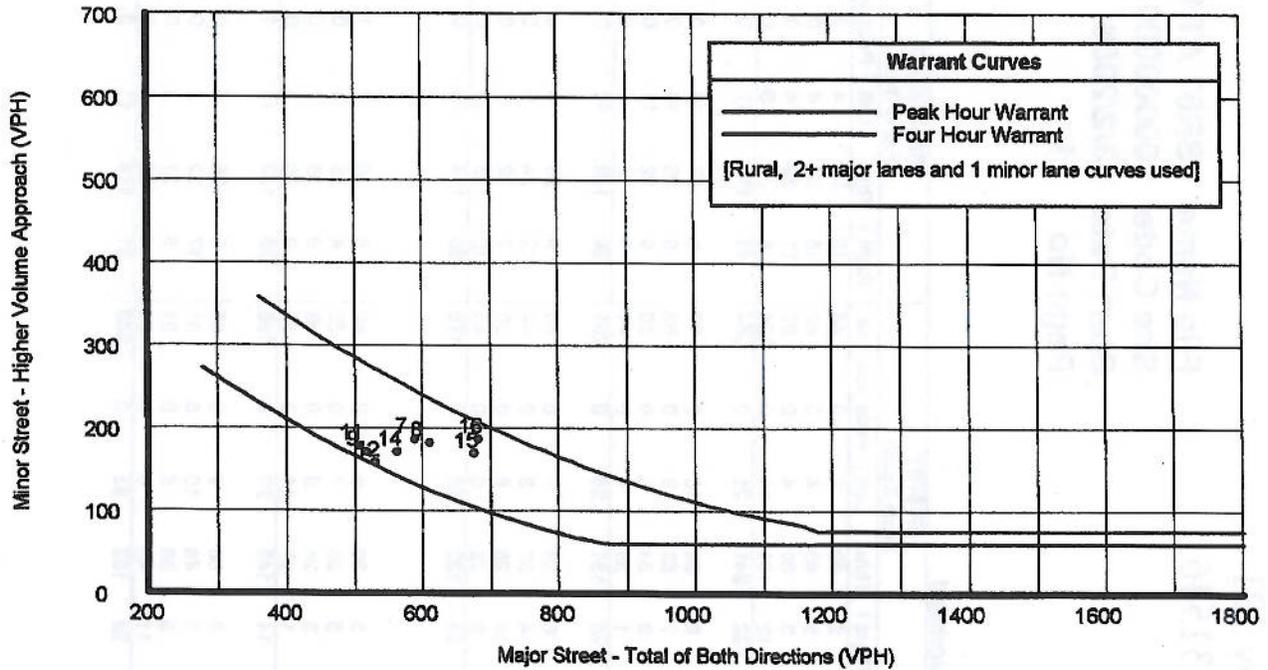
Warrant Summary (Rural values apply.)

Warrant 1 - Eight Hour Vehicular Volumes	Satisfied
Warrant 1A - Minimum Vehicular Volume	Satisfied
Required volumes reached for 8 hours, 8 are needed	
Warrant 1B - Interruption of Continuous Traffic	Not Satisfied
Required volumes reached for 2 hours, 8 are needed	
Warrant 1 A&B - Combination of Warrants	Satisfied
Required volumes reached for 8 hours, 8 are needed	
Warrant 2 - Four Hour Volumes	Satisfied
Number of hours (8) volumes exceed minimum \geq minimum required (4).	
Warrant 3 - Peak Hour	Satisfied
Warrant 3A - Peak Hour Delay	Not Satisfied
Total approach volumes and delays on minor street do not exceed minimums for any hour.	
Warrant 3B - Peak Hour Volumes	Satisfied
Volumes exceed minimums for at least one hour.	
Warrant 4 - Pedestrian Volumes	Not Satisfied
Required 4 Hr pedestrian volume reached for 0 hour(s) and the single hour volume for 0 hour(s)	
Warrant 5 - School Crossing	Not Satisfied
Number of gaps $>$.0 seconds (0) exceeds the number of minutes in the crossing period (0).	
Warrant 6 - Coordinated Signal System	Not Satisfied
No adjacent coordinated signals are present	
Warrant 7 - Crash Experience	Satisfied
Number of accidents (8) is more than minimum (5) and volume requirements are met.	
Warrant 8 - Roadway Network	Not Evaluated

GEORGIA DEPARTMENT OF TRANSPORTATION
DISTRICT 5
TRAFFIC OPERATIONS

Study Name : SR67BY AT PULASKI RD.
 Study Date : 03/07/08
 Page No. : 2

Signal Warrants - Summary



Analysis of 8-Hour Volume Warrants:

Hour Begin	Major Total	Higher Minor		War-1A			War-1B			War-1A&B		
		Vol	Dir	Major Crit	Minor Crit	Meets?	Major Crit	Minor Crit	Meets?	Major Crit	Minor Crit	Meets?
00:00	0	0	EB	420-No	105-No	---	630-No	53-No	---	504-No	84-No	---
01:00	0	0	EB	420-No	105-No	---	630-No	53-No	---	504-No	84-No	---
02:00	0	0	EB	420-No	105-No	---	630-No	53-No	---	504-No	84-No	---
03:00	0	0	EB	420-No	105-No	---	630-No	53-No	---	504-No	84-No	---
04:00	0	0	EB	420-No	105-No	---	630-No	53-No	---	504-No	84-No	---
05:00	0	0	EB	420-No	105-No	---	630-No	53-No	---	504-No	84-No	---
06:00	0	0	EB	420-No	105-No	---	630-No	53-No	---	504-No	84-No	---
07:00	589	186	EB	420-Yes	105-Yes	Both	630-No	53-Yes	Minor	504-Yes	84-Yes	Both
08:00	612	182	EB	420-Yes	105-Yes	Both	630-No	53-Yes	Minor	504-Yes	84-Yes	Both
09:00	617	171	EB	420-Yes	105-Yes	Both	630-No	53-Yes	Minor	504-Yes	84-Yes	Both
10:00	0	0	EB	420-No	105-No	---	630-No	53-No	---	504-No	84-No	---
11:00	507	178	EB	420-Yes	105-Yes	Both	630-No	53-Yes	Minor	504-Yes	84-Yes	Both
12:00	530	158	EB	420-Yes	105-Yes	Both	630-No	53-Yes	Minor	504-Yes	84-Yes	Both
13:00	0	0	EB	420-No	105-No	---	630-No	53-No	---	504-No	84-No	---
14:00	563	171	EB	420-Yes	105-Yes	Both	630-No	53-Yes	Minor	504-Yes	84-Yes	Both
15:00	676	169	EB	420-Yes	105-Yes	Both	630-Yes	53-Yes	Both	504-Yes	84-Yes	Both
16:00	682	186	EB	420-Yes	105-Yes	Both	630-Yes	53-Yes	Both	504-Yes	84-Yes	Both
17:00	0	0	EB	420-No	105-No	---	630-No	53-No	---	504-No	84-No	---
18:00	0	0	EB	420-No	105-No	---	630-No	53-No	---	504-No	84-No	---
19:00	0	0	EB	420-No	105-No	---	630-No	53-No	---	504-No	84-No	---
20:00	0	0	EB	420-No	105-No	---	630-No	53-No	---	504-No	84-No	---
21:00	0	0	EB	420-No	105-No	---	630-No	53-No	---	504-No	84-No	---
22:00	0	0	EB	420-No	105-No	---	630-No	53-No	---	504-No	84-No	---
23:00	0	0	EB	420-No	105-No	---	630-No	53-No	---	504-No	84-No	---

Georgia Department Of Transportation

204 N. Hwy 301

Jesup, GA 31546

File Name : SR67 AT Pulaski RD.
 Site Code : 00000000
 Start Date : 3/2/2006
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**District 5
 Traffic Operations**

Groups Printed- Unshifted

Start Time	SR 078Y						SR 078Y						PULASKI RD									
	From North			From East			From South			From West			From South			From West						
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	App. Total	Peds	Int. Total	
07:00	1	32	1	2	26	3	2	40	2	30	0	0	44	0	15	21	4	0	0	0	40	148
07:15	4	39	2	2	26	0	5	40	4	28	0	0	49	0	18	37	4	0	0	0	59	181
07:30	3	52	1	0	24	4	3	60	4	28	0	0	67	0	11	32	4	0	0	0	47	196
07:45	4	149	6	3	25	3	12	101	11	31	0	0	124	0	8	24	5	0	0	0	37	351
Total	12	272	10	7	100	10	22	241	21	117	0	0	284	0	52	114	17	0	0	0	183	878
08:00	8	102	3	1	27	4	9	58	10	32	0	0	77	0	9	37	18	0	0	0	64	286
08:15	3	69	5	2	33	3	7	53	3	38	0	0	63	0	6	26	16	0	0	0	48	226
08:30	7	63	1	1	32	2	8	34	8	35	0	0	50	0	9	22	11	0	0	0	42	186
08:45	10	71	0	2	25	7	2	36	4	34	0	0	41	0	5	17	5	0	0	0	27	183
Total	28	305	9	6	117	16	25	181	25	139	0	0	281	0	29	102	50	0	0	0	181	893
09:00	10	52	1	1	25	3	6	38	6	29	0	0	50	0	9	25	3	0	0	0	37	179
09:15	6	48	1	1	32	4	4	37	3	37	0	0	44	0	12	24	5	0	0	0	41	177
09:30	8	58	3	2	31	5	5	28	5	38	0	0	38	0	7	32	7	0	0	0	46	191
09:45	12	36	2	3	25	6	9	29	6	34	0	0	44	0	10	33	3	0	0	0	46	174
Total	36	194	7	7	113	18	24	132	20	138	0	0	178	0	38	114	18	0	0	0	170	721
*** BREAK ***																						
11:00	1	49	0	3	26	1	5	36	5	30	0	0	46	0	6	38	2	1	0	0	47	173
11:15	8	43	2	1	32	6	5	26	7	39	0	0	38	0	4	36	4	0	0	0	44	174
11:30	7	38	1	0	26	9	3	24	6	37	0	0	33	0	9	35	2	0	0	0	46	162
11:45	5	48	1	1	32	2	1	57	11	35	0	0	69	0	9	30	3	0	0	0	42	200
Total	21	178	4	7	116	18	14	143	29	141	0	0	188	0	28	138	11	1	0	0	179	709
12:00	7	41	1	3	23	1	6	50	9	27	0	0	65	0	5	26	5	0	0	0	36	177
12:15	7	35	1	1	32	5	3	48	10	38	0	0	61	0	17	32	2	0	0	0	51	184
12:30	8	34	1	0	26	2	8	38	5	29	0	0	51	0	5	31	2	0	0	0	38	161
12:45	12	43	2	2	25	3	11	46	9	30	0	0	66	0	4	26	2	0	0	0	32	185
Total	34	163	5	7	106	11	28	182	33	124	0	0	243	0	31	115	11	0	0	0	157	717

Georgia Department Of Transportation

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District 5

Traffic Operations

File Name : SR67 AT Pulaski RD.

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Start Date : 3/2/2006

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Groups Printed- Unshifted

Start Time	SR 67BY						PULASKI RD						SR 67BY						PULASKI RD							
	From North			From East			From South			From West			From North			From East			From South			From West				
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
14:00	6	46	1	0	53	2	26	3	0	31	6	54	4	0	64	11	32	5	0	48	11	32	5	0	48	196
14:15	16	49	2	0	67	1	27	6	0	34	9	62	4	0	75	7	28	5	0	38	7	28	5	0	38	214
14:30	10	46	0	0	56	3	32	4	0	39	3	52	10	0	65	4	28	8	0	40	4	28	8	0	40	200
14:45	8	56	2	0	66	1	31	3	0	35	11	57	9	0	77	11	28	5	0	44	11	28	5	0	44	222
Total	40	197	5	0	242	7	116	16	0	139	29	225	27	0	281	33	114	23	0	170	33	114	23	0	170	892
15:00	7	59	1	0	67	2	25	15	0	42	8	77	8	0	93	8	25	7	0	40	8	25	7	0	40	242
15:15	8	61	2	0	71	2	27	3	0	32	3	59	6	0	68	4	26	8	0	38	4	26	8	0	38	209
15:30	12	62	0	0	74	2	28	5	0	35	4	64	14	0	82	9	31	3	0	43	9	31	3	0	43	234
15:45	15	73	2	0	90	1	32	6	0	39	3	86	7	0	96	8	32	8	0	48	8	32	8	0	48	273
Total	42	265	5	0	302	7	112	29	0	148	18	286	36	0	339	28	114	26	0	169	28	114	26	0	169	958
16:00	16	55	3	0	74	1	25	9	0	35	4	69	6	0	79	9	28	6	0	43	9	28	6	0	43	231
16:15	12	66	1	0	79	1	27	0	0	28	1	68	5	0	74	8	30	7	0	45	8	30	7	0	45	226
16:30	9	59	2	0	70	1	29	6	0	36	6	69	13	0	88	11	27	4	0	42	11	27	4	0	42	236
16:45	21	51	5	0	77	2	32	12	0	46	7	87	13	0	107	12	34	9	0	55	12	34	9	0	55	285
Total	58	231	11	0	300	5	113	27	0	148	18	293	37	0	348	40	119	26	0	189	40	119	26	0	189	978
Grand Total	271	1785	56	1	2113	53	893	145	0	1091	178	1683	227	0	2088	280	931	182	1	1394	280	931	182	1	1394	6686
Approach %	12.8	84.5	2.7	0	31.6	4.9	81.9	13.3	0	16.3	8.5	80.6	10.9	0	31.2	20.1	66.8	13.1	0.1	20.8	4.2	13.9	2.7	0	20.8	
Total %	4.1	26.7	0.8	0	31.6	0.8	13.4	2.2	0	16.3	2.7	25.2	3.4	0	31.2	4.2	13.9	2.7	0	20.8	4.2	13.9	2.7	0	20.8	

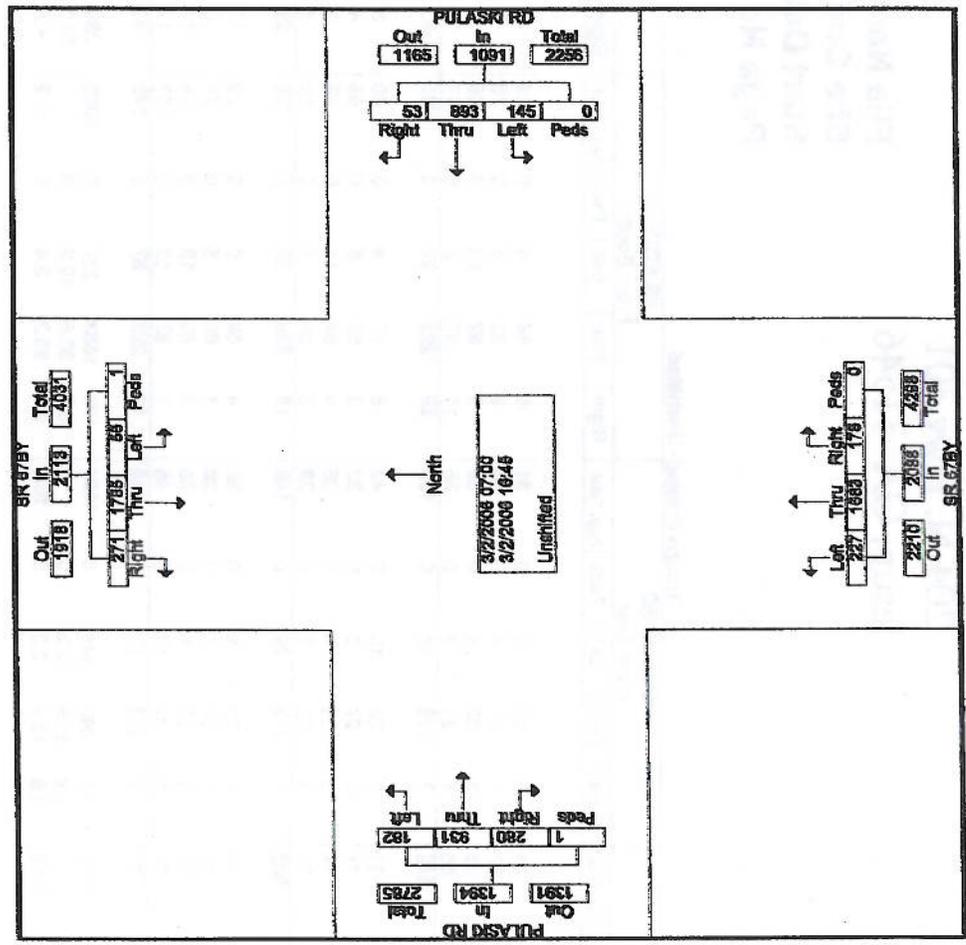
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Georgia Department Of Transportation

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Traffic Operations

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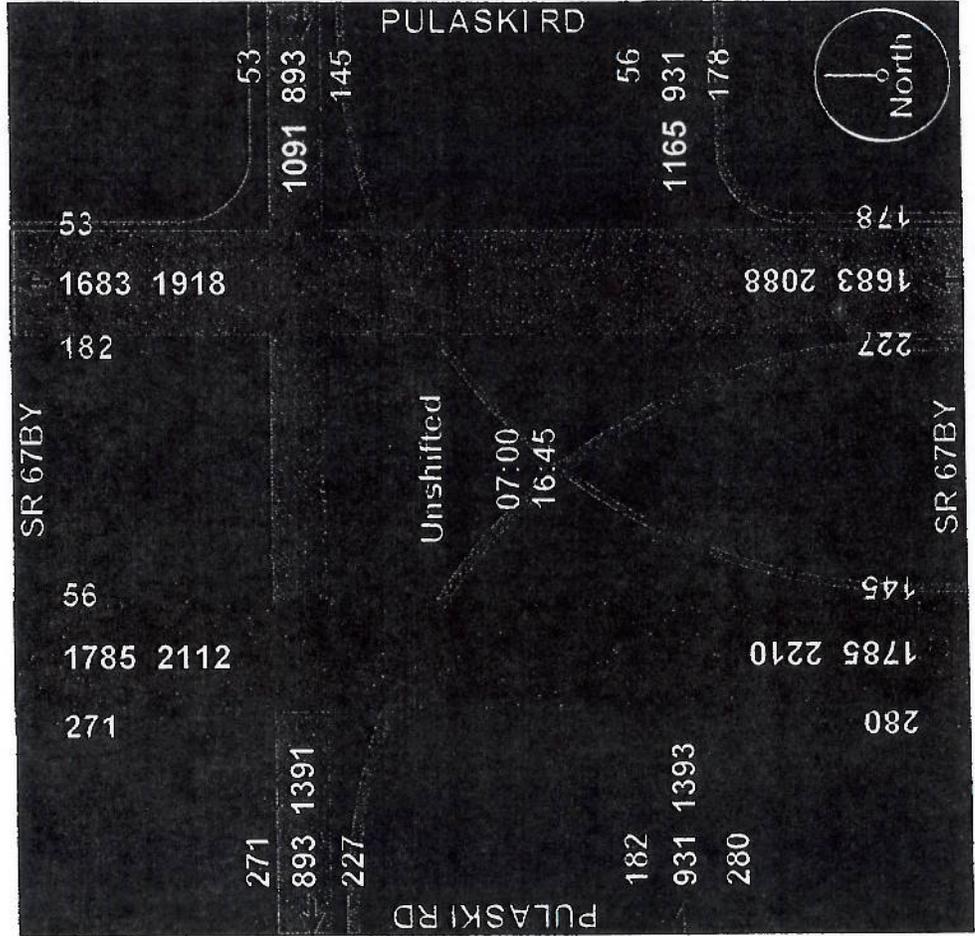


Georgia Department Of Transportation

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204 N. Hwy 301
Jesup, GA 31546

District 5
Traffic Operations

File Name : SR67 AT Pulaski RD.
Site Code : 00000000
Start Date : 3/2/2006
Page No : 5

Start Time	SR 67BY						SR 67BY						SR 67BY												
	From North			From East			From South			From West			From North			From East			From South			From West			
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	App. Total
07:30	3	52	1	0	24	4	0	28	3	60	4	0	67	11	32	4	0	47	198						
07:45	4	149	6	0	3	3	0	31	12	101	11	0	124	8	24	5	0	37	351						
08:00	8	102	3	0	1	4	0	32	9	58	10	0	77	9	37	18	0	64	286						
08:15	3	69	5	0	2	3	0	38	7	53	3	0	63	6	26	16	0	48	226						
Total Volume	18	372	15	0	6	109	14	129	31	272	28	0	331	34	119	43	0	196	1061						
% App. Total	4.4	91.9	3.7	0	4.7	84.5	10.9	0	9.4	82.2	8.5	0	667	17.3	60.7	21.9	0	766							
PHF	.663	.624	.625	.000	.500	.826	.875	.849	.646	.673	.636	.000	.667	.773	.804	.597	.000	.766							

Peak Hour Analysis From 07:00 to 16:45 - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 07:30

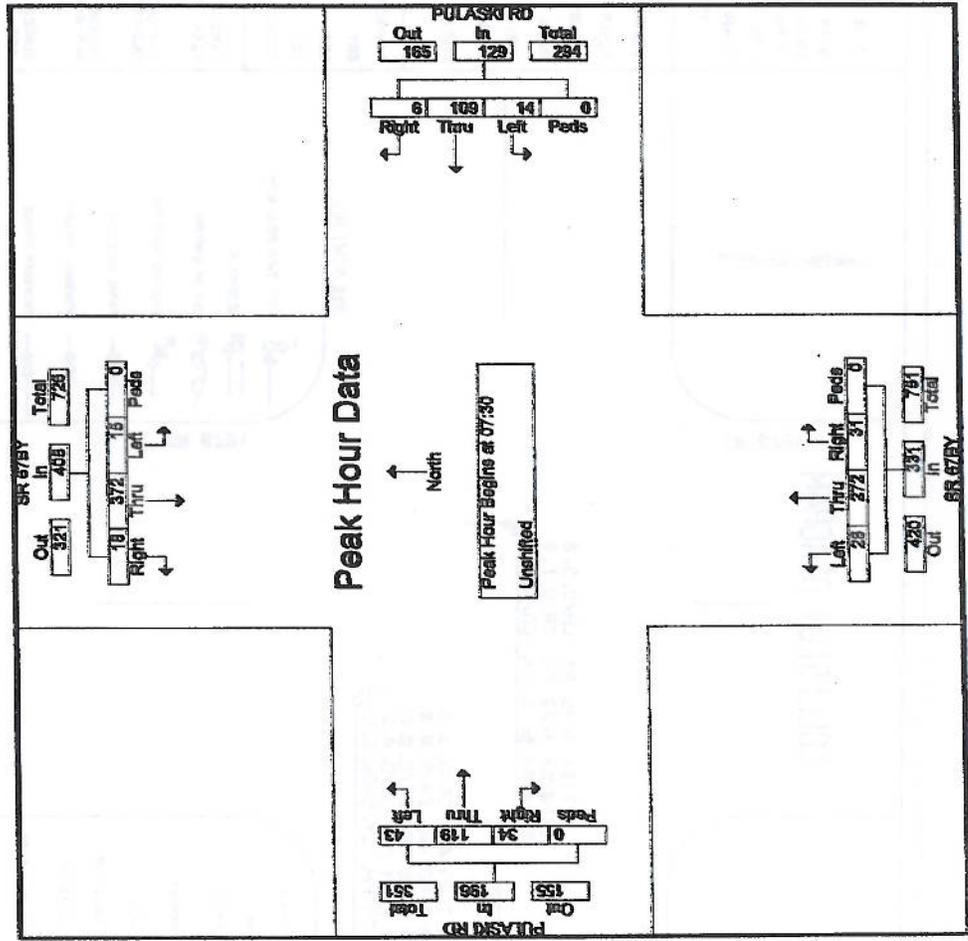
Georgia Department Of Transportation

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COLLISION DIAGRAM



SR 67BY

PULASKI RD.

4/7/04 7:45 AM, CR/D, 3, 0
 8/20/04 4:52 PM, CR/D, 1, 0
 5/24/04 5:15 PM, CR/D, 0, 0

3/6/04 7:29 AM, CR/D, 3, 0
 4/16/04 7:55 AM, CR/D, 0, 0
 12/14/04 9:25 AM, CR/D, 0, 0
 12/5/04 8:39 PM, CR/D, 0, 0
 2/25/04 4:59 PM, CR/SNOW, 2, 0

- MOVING VEHICLE
- PEDESTRIAN
- PARKED VEHICLE
- PARKING VEHICLE
- FIRED OBJECT
- REAR END COLLISION
- HEAD ON COLLISION
- RIGHT ANGLE COLLISION

PULASKI RD.

- LEFT TURN COLLISION
- SIDESWIPE
- OUT OF CONTROL
- BACKING REAR END
- FATAL ACCIDENT
- PERSONAL INJURY
- PROPERTY DAMAGE

SR 67BY

INTERSECTION SR 67BY @ PULASKI RD.

COUNTY BULLOCH CITY STATESBORO DIST 5
 PERIOD 10 MONTHS FROM 2/25/04 TO 12/14/04

TIME OF DAY	NO. ACC.	DIR. OF APPROACH	NO. VEH.
6 AM - 10 AM	4	NORTH	3
10 AM - 4 PM	3	SOUTH	5
4 PM - 7 PM	1	EAST	8
7 PM - 12 MID	1	WEST	16
12 MID - 6 AM	8	TOTAL	16
TOTAL			

WEATHER	NO. ACC'S.	TYPE ACCIDENT	NO. ACC'S.
CLEAR	7	SIDESWIPE	8
CLOUDY	1	REAR END	8
RAIN	1	RT. ANGLE	8
FOG	1	LEFT TURN	8
SNOW	8	OTHER	8
TOTAL			

PAVEMENT	NO. ACC'S.	ACCIDENT SEVERITY	NO. ACC'S.
DRY	7	FATAL	8
WET	1	NON FATAL	8
ICY	8	PROP. DAM.	8
TOTAL			

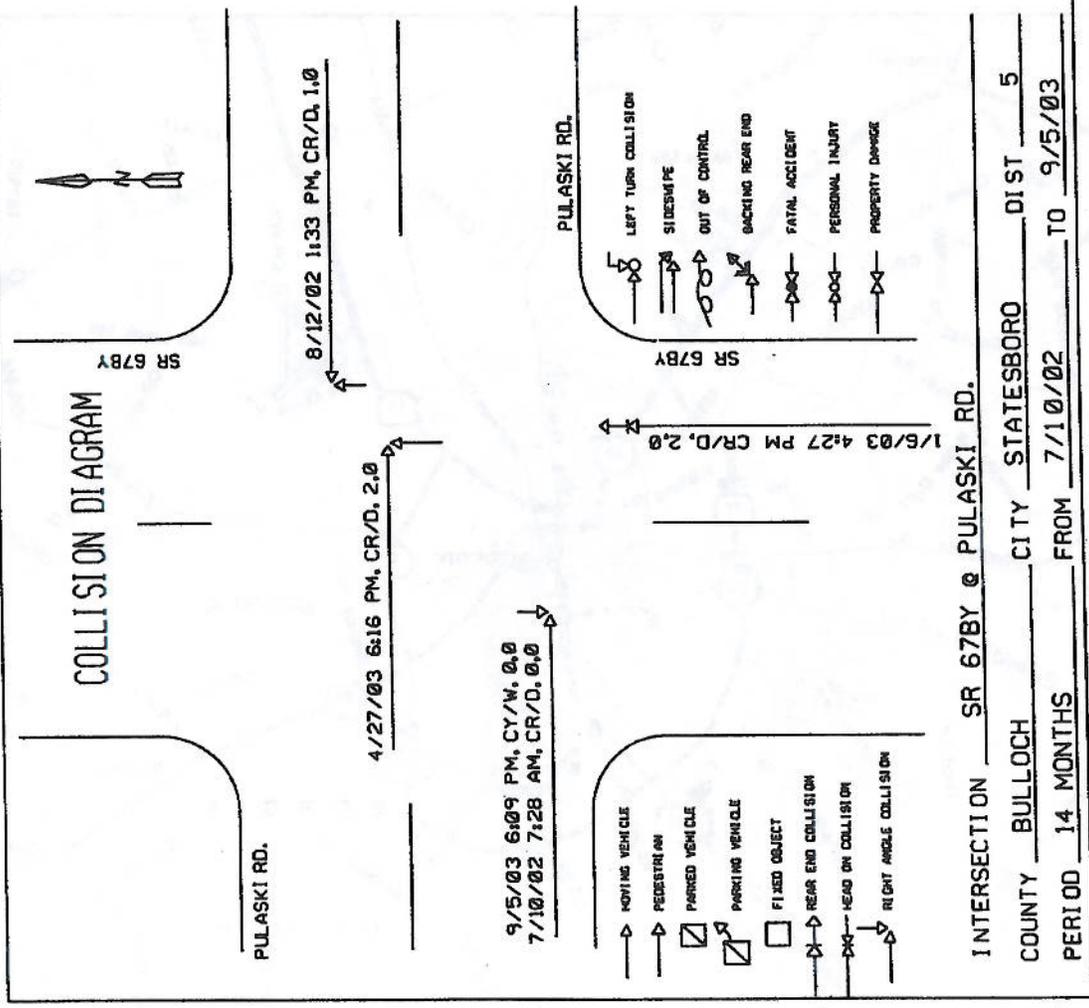
TIME OF YEAR	NO. ACC'S.	TYPE OF VEHICLE	NO. VEH.
WINTER DEC-FEB	3	PASS. CARS	16
SPRING MAR-MAY	4	TRUCKS	16
SUMMER JUNE-AUG	1	OTHER	16
FALL SEPT-NOV	8	TOTAL	16
TOTAL			

TIME OF DAY	NO. ACC.	DIR. OF APPROACH	NO. VEH.
6 AM - 10 AM	1	NORTH	4
10 AM - 4 PM	1	SOUTH	2
4 PM - 7 PM	3	EAST	3
7 PM - 12 MID	1	WEST	1
12 MID - 6 AM	5	TOTAL	10

WEATHER	NO. ACC'S.	TYPE ACCIDENT	NO. ACC'S.
WEATHER	4	SIDESWIPE	1
CLEAR	1	REAR END	4
CLOUDY	1	RT. ANGLE	1
RAIN	1	LEFT TURN	1
FOG	1	OTHER	1
SNOW	1	TOTAL	5

PAVEMENT	NO. ACC'S.	ACCIDENT SEVERITY	NO. ACC'S.
PAVEMENT	4	FATAL	0
DRY	1	NON FATAL	5
WET	1	PROP. DAM.	0
ICY	1	TOTAL	5

TIME OF YEAR	NO. ACC'S.	TYPE OF VEHICLE	NO. VEH.
TIME OF YEAR	1	PASS. CARS	10
WINTER DEC-FEB	1	TRUCKS	0
SPRING MAR-MAY	2	OTHER	0
SUMMER JUNE-AUG	1	TOTAL	10
FALL SEPT-NOV	1		



INTERSECTION SR 67BY @ PULASKI RD.

COUNTY BULLOCH CITY STATESBORO DIST 5

PERIOD 14 MONTHS FROM 7/10/02 TO 9/5/03



Sponsored by

