

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE: STP00-7062-00(001) Columbia **OFFICE:** Engineering Services
P.I. No.: 250600
SR 1017/Flowing Wells Road **DATE:** September 10, 2009

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

TO: James B. Buchan, PE, State Urban Design Engineer

SUBJECT: IMPLEMENTATION OF VALUE ENGINEERING STUDY ALTERNATIVES

The VE Study for the above project was held June 3-6, 2008. Responses were received on August 27, 2009. 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
FLUSH MEDIAN SECTION				
RW-1	Reduce travel lane widths from 13 ft. to 11 ft. between Sta. 82+93 to Sta. 93+96	Proposed = \$261,778 Actual = \$130,889	Yes, with modifications	The proposed typical section for this corridor is four 13-ft travel lanes, two 4 ft bike lanes and a 16 ft flush median. As traffic increases in the future, the four 14 ft travel lanes would be re-striped to four 12 ft lanes and the 16 ft flush median would be replaced with a 20 ft raised median. Due to this proposed future design, it is recommended that the typical section be changed to four 12 ft lanes with a 15 ft flush median. This will allow for a future typical section of four 11 ft lanes with a 19 ft raised median.
RW-5	Use 14 ft. wide flush two way left turn median from Sta. 82+93 to Sta. 93+96	\$39,148	Yes, with modifications	The flush median will be reduced to 15 ft. See comments for RW-1.

RAISED MEDIAN SECTION				
RW-2	Reduce travel lane widths to 11 feet	\$264,032	Yes	This will be done.
RW-3	Reduce median width to 18 ft. from Sta. 19+88 to Sta. 22+80	\$3,904	Yes	This will be done.
BIKE LANE SECTION				
RW-4	Eliminate bike lanes and build an 8-ft wide multiuse trail	\$590,245	No	Flowing Wells Road was adopted as a bike route in 1993 and is identified in the Transportation Plan of 1997. The use of a multi-use path for this project would not comply with the AASHTO Guide for the Development of Bicycle Facilities.
REDUCED SLOPES				
RW-7	Reduce commercial property slopes to 2:1	\$261,044	No	The use of 2:1 slopes increases the difficulty for maintenance of the slopes. In order to reduce costs in this area, the Office of Urban Design recommends shifting the proposed ROW to the shoulder break point and acquiring easements outside of the ROW.
RIGHT OF WAY FOOTPRINT REDUCTION				
ROW-1	Reduce ROW footprint	\$89,295	Yes	This will be done.

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

Approved: Gerald M. Ross Date: 9/11/09
 Gerald M. Ross, PE, Chief Engineer

REW/LLM

Attachments

c: Genetha Rice Singleton
Darrell Richardson/Jan Hilliard/Anton Sova
Rusty Merritt/Lynn Bean/Mike Keene
Patrick Allen
Alexis John
Chartrae Kent
Kevin Mack
Lisa Myers
Matt Sanders

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENTAL CORRESPONDENCE



FILE: STP00-7062-00(001) Columbia County **OFFICE:** Urban Design
SR 1017/Flowing Wells Road from I-20 to
SR 104/Washington Road
P.I. No. 250600-

DATE: August 26, 2009

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

TO: Ronald E. Wishon, State Project Review Engineer

SUBJECT: VE Study Responses to Recommendations

This office has reviewed the VE Study responses prepared by Columbia County's consultant W.R. Toole which the county concurred with for the above referenced project. The VE Study was held June 3, 2008 to June 6, 2008 and the county submitted responses on July 16, 2008. This office regrets the tardiness of this response. However, soon after the responses were received from the consultant, this office received an e-mail on August 7, 2008 from Columbia County's Preconstruction Engineer stating that they were shutting the project down until issues were resolved with the county's upper management [Commission]. The main issue focused on revising the typical section to a three-lane section in lieu of the four-lane divided section that was in the approved concept report and the typical section the VE Study was based on. The Department would not support a three-lane section. This office requested that the VE Study responses be revised to reflect any decisions made by the county to revise the typical section. No new responses were received and the county issued a Stop Work Order to WR Toole.

Furthermore, after reviewing the responses it was found that the county chose not to implement most of the VE Study recommendations based solely on the consultant's cost estimates to redesign and revise the plans, and in part, based on jeopardizing a schedule this office believes was not attainable at that time.

In order to bring closure, and after recent conversations with Columbia County, this office offers the following responses to the VE Study recommendations.

1. **Recommendation RW-1: Reduce width of travel lanes from 13 ft. to 11 ft. (Sta 82+93 to Sta 93+96)**

Initial cost savings is \$261,778

Response: Urban Design recommends partial implementation

The recommendation RW-1 starts on the south side of the Flowing Wells & State Route 232 (Columbia Road) intersection and ends at the Flowing Wells & State Route 104 (Washington Road) intersection. The project has dual northbound lefts (at both signalized intersections) from Flowing Wells Road to State Route 232 and Flowing Wells to State Route 104. This corridor is commercial with a large car dealership on the west side. A bank and retail stores are located on the east side.

The proposed typical section for this corridor is four (4) 13-ft travel lanes, two (2) 4-ft bike lanes and a 16-ft flush median. As traffic increased in the future, the four (4) 13-ft travel lanes would be re-stripped to four (4) 12-ft travel lanes and the 16-ft flush median replaced with a 20-ft wide raised median. Due to this proposed future design, this office recommends reducing the width of the travel lanes from 13 ft. to 12 ft. with a 15 ft. wide flush median. This will allow for a future typical section of four (4) 11 ft wide travel lanes and a 19 ft wide raised median.

The revised cost saving is \$130,889. (Approximately one half of initial cost saving of \$261,778)

- 2. Recommendation RW-2: Reduce width of travel lanes from 12 ft. to 11 ft. (Sta 10+80 to Sta 82+93).**

Initial cost savings is \$264,032

Response: Urban Design Recommends implementing

- 3. Recommendation RW-3: Reduce median width at stations 19+88 to 22+80 to 18'**

Initial cost savings is \$3,904

Response: Urban Design recommends implementing

- 4. Recommendation RW-4: Eliminate bike lanes and build an 8-ft-wide multi-use trail (both sides)**

The alternative RW-4 proposes a 12-ft-wide urban shoulder with 2.5-ft-wide curb and gutter, no grass strip, 8-ft-wide asphalt multi-use trail, and a 1.5 ft-wide grass shoulder. This alternative eliminates both 4-ft-wide bike lanes.

Initial cost savings is \$590,245

Response: Urban Design recommends not implementing

The design consultant reviewed the bike path and shared-use path (multi-use) standards per the AASHTO Guide for the Development of Bicycle Facilities. In the design consultant's judgment, the use of multi-use paths for this project will not comply with the AASHTO Guide for the Development of Bicycle Facilities and would be unsatisfactory for both bicyclists and motorists.

Flowing Wells Road was adopted as a bike route in 1993 and is identified in the Transportation Plan of 1997. The bike route starts at Wheeler Road and extends to Columbia Road. The facility is listed as a

Separate Bike Lane (outside right lane striped exclusively for bicycles, within the existing alignment. Favorable support of the bike lanes from the public was expressed at the Public Hearing Open House, March 2005.

The project corridor is 1.677 miles long and has 16 intersections with 9 median openings. The project has 7 signalized intersections. The corridor consists mainly of residential houses with 36 driveways. The project has 13 commercial driveways. Two schools are within the project corridor.

The guide states that “shared use paths should not be used to preclude on-road bicycle facilities, but rather to supplement a system of on-road bike lanes, wide outside lanes, paved shoulders and bike routes.

The AASHTO Guide for the Development of Bicycle Facilities, 1999, recommends the following dimensions for a shared-use path: A ten (10) foot paved width for a two-directional shared used path, a two (2) foot graded area on both sides with 6:1 maximum slopes.

According to the AASHTO Guide for the Development of Bicycle Facilities, “intersections between path and roadways are often the most critical issue in shared use path. Due to the potential conflicts at these junctions, careful design is of paramount importance to the safety of path users and motorists alike”

This project has 18-side road crossing, 13 commercial drives and 36 residential driveways that would be considered complex intersection crossings. These crossings would require a unique design and special treatment such as new signal timing, signage, dedicated signals, etc insure a safe crossing. Even with mitigation, these crossings may still have adverse safety issues.

5. Recommendation RW-5: Use a 14-ft-wide flush two-way left-turn median from stations 82+93 to 93+96

Initial cost savings is \$39,148

Response: Urban Design recommends partial implementation

The travel lane width would be reduced to 12-ft wide per recommendation RW-1 if this office’s partial recommendation is implemented. A future raised median of 19 ft. requires a current minimum width of 15-feet. Therefore this office recommends reducing the current 16-ft-wide flush median to a 15-ft-wide flush median in lieu of the recommended 14-ft-wide flush median.

6. Recommendation RW-7: Reduce commercial property slopes to 2:1

Initial cost savings is \$261,044

Response: Urban Design recommends not implementing

This office recommends maintaining the 4:1 slopes on the seven (7) commercial properties in lieu of the recommended 2:1. This will allow the slopes to be better maintained and allow for tying into header curb in areas where there are parking lots. In order to save money on these parcels, this office

recommends shifting the proposed right of way to the shoulder break point, and then acquire easements outside of the right of way.

7. Recommendation ROW-1: Reduce right – of-way footprint

Initial cost savings is \$89,295

Response: Urban Design recommends implementing

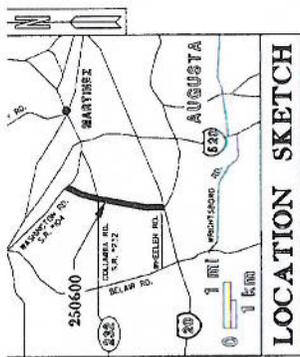
This is a good cost savings recommendation; however this office believes the VE Study consultants did not completely recognize the entire value that could be added if the proposed right of way was reduced to the shoulder break point and then easements used outside of the proposed right of way.

JBB: JCH

Cc: Ronnie Hutto, Preconstruction Engineer, Columbia County

STATE OF GEORGIA PLAN AND PROFILE OF PROPOSED FLOWING WELLS ROAD IMPROVEMENTS

FEDERAL AID PROJECT
SIP-7062(1) STP00-7062-00(001)
"EXEMPT"
COLUMBIA COUNTY
P. I. NO. 250600
STATE ROUTE # 1017



LOCATION SKETCH

SEE SHEET 2 FOR INDEX

SURVEY AND COORDINATE DATA	
HORIZONTAL DATUM:	NAD 1983
VERTICAL DATUM:	NAVD 1988
COORDINATE ZONE:	GA EAST

FLOWING WELLS ROAD	
DESIGN DATA -	
TRAFFIC A.D.T.:	20,000 (2001 ADT) WHEELER RD. TO COLUMBIA RD. (S.R. 232)
	3,980 (2021 ADT) WHEELER RD. TO COLUMBIA RD. (S.R. 232)
TRAFFIC A.D.T.:	9,840 (2008 ADT) COLUMBIA RD. (S.R. 232) TO WASHINGTON RD. (S.R. 104)
	20,000 (2028 ADT) COLUMBIA RD. (S.R. 232) TO WASHINGTON RD. (S.R. 104)
FUNCTIONAL CLASS.:	URBAN MINOR ARTERIAL
24 HR. TRUCKS %:	3% SLL 3/4, COMB. 0%
SPEED DESIGN:	45 M.P.H.

LENGTH OF PROJECT	
NET LENGTH OF ROADWAY	1.077 MILES
NET LENGTH OF LOGS	1.077
NET LENGTH OF EXCEPTIONS	0.0
GROSS LENGTH OF PROJECT	1.077
Z. LENGTH OF PROJECT COUNTY	1.000

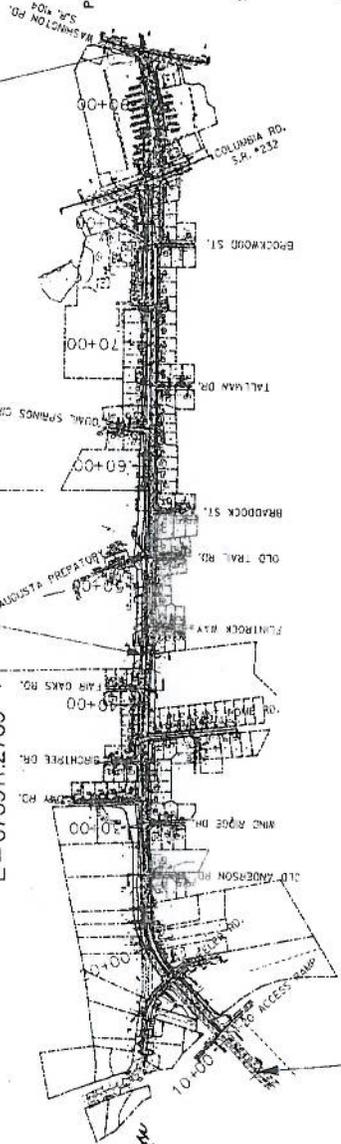
THIS PROJECT IS LOCATED 100 PERCENT WITHIN CONGRESSIONAL DISTRICT NO. 9 WITHIN COLUMBIA COUNTY (COUNTY #073).

NOTE: ALL REFERENCES IN THIS DOCUMENT WHICH INCLUDES ALL PARAGRAPHS, SECTIONS, AND FIGURES, SHALL BE REFERRED TO AS "THIS DOCUMENT". THIS DOCUMENT SHALL BE USED IN CONNECTION WITH THIS DOCUMENT, TO THE STATE HIGHWAY DEPARTMENT OF GEORGIA, STATE HIGHWAY DEPARTMENT, GEORGIA STATE HIGHWAY DEPARTMENT, HIGHWAY DEPARTMENT, OR DEPARTMENT, WHEN THE CONTEXT THEREOF MEANS THE DEPARTMENT OF TRANSPORTATION.

NOTE: THIS DATA, TOGETHER WITH ALL OTHER INFORMATION SHOWN ON THESE PLANS OR IN ANYWAY INDICATED THEREON, WHETHER BY REFERENCES OR NOTES, OR IN ANY OTHER MANNER, ARE BASED UPON FIELD INVESTIGATIONS AND ARE BELIEVED TO BE INDICATIVE OF ACTUAL CONDITIONS. HOWEVER, THE SAME ARE SHOWN AS INFORMATION ONLY, ARE NOT GUARANTEED, AND DO NOT BE RELIED UPON FOR ANY PURPOSES OTHER THAN THAT SPECIFICALLY DIRECTED TO, SUBSECTIONS 102.04, 102.05, AND 104.03 OF THE SPECIFICATIONS.

PROJECT MIDPOINT
STA: 42 + 38.91
N = 1272307.7597
E = 673911.2789

END PROJECT
STA: 94 + 78



BEGIN PROJECT
STA: 6 + 24.97

LOCATION AND DESIGN APPROVAL DATE: _____



PREPARED BY:
W. R. TOOLE
ENGINEERS, INC.
1005 BROAD STREET
AUGUSTA, GA. 30901
(706) 722-4814

SUBMITTED BY:
ROBERT A. BAIDEN, P.E.

RECOMMENDED FOR
SUBMISSION BY:
OFFICE OF URBAN DESIGN

DATE	CHIEF ENGINEER
PLANS COMPLETED	
REVISIONS	



PRECONSTRUCTION STATUS REPORT FOR PI:250600-

SR 1017/FLOWING WELLS RD FM I-20 TO SR 104/WASHINGTON RD
PROJ ID : 250600-
COUNTY : Columbia
LENGTH (MI) : 1.60
PROJ NO.: STP00-7062-00(001)
PROJ MGR: Hilliard, Jan
AOHD Initials: DMR
OFFICE : Urban Design
CONSULTANT: Local Design, Local PE funds
SPONSOR : Columbia County
DESIGN FIRM: W.R. Toole Engineers, Inc.

DOT DIST: 2
CONG. DIST: 10
BIKE: Y
MEASURE: E
NEEDS SCORE: 07
BRIDGE SUFF:

MGMT LET DATE :
MGMT ROW DATE :
BASELINE LET DATE:
SCHED LET DATE : 4/20/2012
WHO LETS?: GDOT Let
LET WITH :

MPO: Augusta TMA
TIP #: STP-7
MODEL YR : Widening
TYPE WORK: ADD 4U(MED 20)
CONCEPT: Reconstruction/Rehabilitation
PROG TYPE: N
Prov. for ITS:

LATE START	LATE FINISH	TASKS	ACTUAL START	ACTUAL FINISH	%	PROGRAMMED FUNDS				Date Auth		
						Activity	Approved	Proposed	Status		Fund	Cost
9/25/2009	2/4/2010	Concept Development Concept Meeting PM Submit Concept Report Receive Preconstruction Concept Approval Management Concept Approval Complete Value Engineering Study Public Information Open House Held Environmental Approval Pub Hear Held/Comm Resp (EA/FONSI, GEIPA) Field Surveys/SDE Preliminary Plans Underground Storage Tanks PFPR Inspection R/W Plans Preparation R/W Plans Final Approval L & D Approval R/W Acquisition Stake R/W Soil Survey Final Design FFPR Inspection Submit FFPR Responses (OES)	5/20/1997 1/6/1998 4/3/1998 4/7/1998 6/3/1998 3/21/2008 12/7/1998 11/1/2000 3/1/2005 8/19/2000 11/1/2000 11/2/2006 2/14/2007 9/25/2007 1/10/2008 10/30/2007 10/29/2003	6/9/1998 1/6/1998 4/3/1998 4/7/1998 6/9/1998 12/7/1998 1/19/2006 3/1/2005 9/19/2000 10/1/2006 11/2/2006 9/21/2007 1/25/2008 2/2/2007	100 100 100 100 100 86 100 100 100 100 71 0 100 100 50 17 0 100 0 0 0	PE ROW CST	1997 2009 LR	1997 2014 LR	Q23 L230S L230S	7/8/1996		
1/4/2010						PE Cost Est Amt:	23,499,000.00	Date:	5/12/2008	Activity	Cost	Fund
9/25/2009	9/12/2011					ROW Cost Est Amt:	10,506,000.00	Date:	1/25/2008	PE	5,450,000.00	Q23
9/27/2011	10/10/2011					CST Cost Est Amt:		Date:		ROW	0.00	L230S
										CST		L230S

STIP AMOUNTS
Activity **Cost** **Fund**
 PE 5,450,000.00 Q23
 ROW 0.00 L230S
 CST 0.00 L230S

District Comments
 3/12/99 Co has reconsidered 3 in sect & now supports DOT pro, offered to contribute 3 in monies to DOT (Hutto) 4/2/02 Rev concept approved, 5 in section from SR 232 - SR 104, Const=\$5,657,115 9/10/02 Co asks H.E.L. to revise LGPA to reflect \$818,000 max 2/27/03 Envir doc will be EA due to number of displacements 2/9/04 P plans=95% 5/4/04 Sponsor: ARTS: local PE; locals want 3/1/05 PIOH

Acquired by: DOT
Acquisition MGR: Hollie, Renee
R/W Cert Date:

Cond. Filed: 0
Relocations: 0
Acquired: 0

Pre. Parcel CT: 130 **Total Parcel in ROW System:** 101
Under Review: 0 **Options - Pending:** 0
Released: 0 **Condemnations- Pend:** 0

DEEDS CT: 0