

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE: STP00-00-0000-00(421) Glynn **OFFICE:** Engineering Services
P.I. No.: 0000421
SR 25 Spur from Cate Road to SR 99 **DATE:** March 8, 2010

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

TO: Bobby K. Hilliard, PE, State Program Delivery Engineer
Attn.: Matt Bennett

SUBJECT: IMPLEMENTATION OF VALUE ENGINEERING STUDY ALTERNATIVES

The VE Study for the above project was held January 11-14, 2010. Responses were received on March 5, 2010. Recommendations for implementation of Value Engineering Study Alternatives are indicated in the table below. The Project Manager shall incorporate the VE alternatives recommended for implementation to the extent reasonable in the design of the project.

ALT #	Description	Potential Savings/LCC	Implement	Comments
RD-1	Eliminate the Field Office and use the Area Office instead	\$85,250	Yes	This will be done.
RD-2	Reduce work on SR 99 (Eliminate 500 ft of paving)	\$260,877	Yes	This will be done.
RD-5	Utilize 32 ft depressed median instead of 44 ft depressed median	\$131,955	Yes	This will be done.
RD-6	Utilize Type A median crossovers instead of Type B (15 locations)	\$622,292	No	On high speed corridors, Type B median openings have a much improved operational efficiency, mainly due to the offset nature of the left turn lane, which improves sight distance. GDOT has programmed dozens of safety projects throughout the state to convert existing Type A median openings to Type B median openings. Modifying the crossovers within existing projects is more cost effective than retrofitting the intersections in future stand alone projects.

RD-7	Utilize triple 48" pipe at Sta. 99+80 instead of the proposed 8' x 4' box culvert	\$77,805	No	A box culvert requires much less maintenance and operates more efficiently at low flows than the multiple lines of pipe proposed by the VE Team. This is important in coastal areas to accommodate the large number of small, intense rain events in the summer. Additionally, culverts tend to have much less settlement in wet, low lying areas in the coastal regions.
RD-8	Utilize Type A median crossovers instead of Type B at Cate Road and SR 25 Spur (2 locations)	\$316,884	No	On high speed corridors, Type B median openings have a much improved operational efficiency, mainly due to the offset nature of the left turn lane, which improves sight distance. GDOT has programmed dozens of safety projects throughout the state to convert existing Type A median openings to Type B median openings. Modifying the crossovers within existing projects is more cost effective than retrofitting the intersections in future stand alone projects.
RD-10	Use 11 ft inside and 12 ft outside lanes throughout the project	\$117,813	Yes	This will be done.
RD-13	Reduce the number of median outfalls	\$62,607	No	With the acceptance of recommendation RD-5, this recommendation no longer applies. RD-5 will require regarding of the median ditch to account for the narrower median. The ditch will not be as deep as currently proposed. The flat grades and shallower ditch warrant all proposed median inlets.

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

Approved:  Date: 3/8/10
Gerald M. Ross, PE, Chief Engineer

REW/LLM

Attachments

c: Ben Buchan
Bobby Hilliard/Michael Haithcock/Matt Bennett
Larry Bowman
Will Murphy/Brian Scarbrough
Ken Werho
Lisa Myers
Matt Sanders

THOMAS & HUTTON ENGINEERING CO.

50 PARK OF COMMERCE WAY
POST OFFICE BOX 2727
SAVANNAH, GEORGIA 31402-2727
TELEPHONE (912) 234-5300
FAX (912) 234-2950
March 4, 2010

Mr. Matt Bennett
Georgia Department of Transportation
District 5
204 North Highway 301
Jesup, GA 31546

Re: STP00-00-0000-00(421) Glynn County
SR 25 Spur from Cate Road along
CR 588/Canal Road to SR 99
P. I. No. 0000421
Value Engineering Study Final Report

Dear, Mr. Bennett:

On behalf of our client Glynn County, please see the following responses to the Value Engineering Study Report Recommendations dated January 28, 2010:

Recommendations:

RD-1 Eliminate project office, use GDOT Area office onsite

- VE Recommendation RD-1 is accepted.

RD-2 Reduce work on SR-99

- VE Recommendation RD-2 is accepted.

RD-5 Utilize 32' median in-lieu of 44' median

- VE Recommendation RD-5 is accepted.

RD-6 Use Type "A" in-lieu of a Type "B" median crossovers

The current plans proposes to replace the existing Cate Road Type "A" median crossover with a Type "B" median crossover and to construct all Type "B" median crossovers with eyebrows at all intersections.

This recommendation would be to retain the existing Cate Road Type "A" median crossover and to construct all Type "A" median crossovers for the project.

The total potential savings if accepted is \$639,933.00.

- VE Recommendation RD-6 is not accepted.

On high speed corridors, the Type B median openings have a much improved operational efficiency. Attached is an email from Ms. Kathy Zahul providing input

from the Traffic Operations Office regarding the use of a Type "B" versus Type "A" median.

RD-7 Utilize a multi-barrel pipe at Station 99+80+/-

The current plan proposes a 155' 8' x 4' box culvert.

This recommendation would propose using a triple 48" RCP.

The total potential savings if accepted is \$77,805.00.

➤ VE Recommendation RD-7 is not accepted.

A box culvert requires much less maintenance and also operates more efficiently at low flows than the multi-barrel pipes which are important in coastal areas to accommodate the large number of small, intense rain events in the summer. Also, culverts tend to have much less settlement in wet, low lying areas in the coastal region which creates additional maintenance issues.

RD-8 Use a Type "A" in-lieu of a Type "B" median cross over at Cate Road and SR 25 Spur

The current plans proposes to replace the existing Type "A" median cross over with a Type "B" median cross over and to construction a Type "A" median crossover with an eyebrow at the existing northern portion of the intersection to allow southbound traffic to make a "U" turn.

This recommendation would be to maintain the existing intersection alignment and retain the existing intersection, as is, including the existing Type "A" median cross over, and the existing southbound right turn lane. New construction would only be for a "U" turn land for the southbound lane utilizing a Type "A" median crossover in-lieu of a Type "B".

The total potential savings if accepted is \$316,884.00.

➤ VE Recommendation RD-8 is not accepted.

On high speed corridors, the Type B median openings have a much improved operational efficiency. Attached is an email from Ms. Kathy Zahul providing input from the Traffic Operations Office regarding the use of a Type "B" versus Type "A" median.

RD-10 Use 11' inside, 12' outside travel lanes throughout project

➤ VE Recommendation RD-10 is accepted.

RD-13 Reduce the number of median inlets and outfalls

The current plans calls for median inlets at Stations 22+10, 68+50, 99+50, 177+50 and 178+50.

The original design also includes a longitudinal drainage system from P1-P2-Q1.

Mr. Matt Bennett
Georgia Department of Transportation
March 4, 2010
Page 3

This recommendation proposes eliminating those inlets and their corresponding outfall at or extremely close to a crest vertical curve. It would also propose eliminating the closed drainage system P1-P2-Q1 and draining these inlets to the side ditch.

The total potential savings if accepted is \$62,607.00.

➤ VE Recommendation RD-13 is not accepted.

The acceptance of RD-5 will require the median ditch to be re-graded to account for a smaller median. Due to the acceptance of RD-5 the median ditch will not be able to be as deep as currently proposed. Flat grades and limited areas to control and contain watershed warrant all proposed median inlets.

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

Sincerely,

THOMAS & HUTTON



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

DDK/sawr

cc Mr. Jim Bruner, Glynn County

Haithcock, Michael

To: Zahul, Kathy
Subject: RE: 0000421 - VE

From: Zahul, Kathy
Sent: Friday, February 19, 2010 8:49 AM
To: Bennett, Matt
Subject: RE: 0000421 - VE

Matt,

I think I remember hearing that this has come up on other VE studies recently. Lisa may have some language from another report that you could recycle. The narrowed lane will be fine, but I don't have the source info at hand.

From: Bennett, Matt
Sent: Friday, February 19, 2010 8:45 AM
To: Zahul, Kathy
Subject: RE: 0000421 - VE

One other question, is there any criteria that we are using for narrowing lanes as we've recently seen in VE Studies where the inside lane is reduced to 11' and the outside stays 12'? I'm not aware of any reason we can't do this on this project but just wanted to make sure. I have seen it done on 4 lane GRIP's with 65 MPH speed designs.

THANKS,

***MATT BENNETT**
PROJECT MANAGER
OFFICE OF PROGRAM DELIVERY
MOBILE - (912)271-7404*

From: Zahul, Kathy
Sent: Thursday, February 18, 2010 4:55 PM
To: Bennett, Matt
Subject: RE: 0000421 - VE

Traffic Operations does not recommend implementing Type A median crossovers on this project.

Type B median openings perform better from a safety and operational standpoint, particularly on high speed corridors. This is mainly due to the offset nature of the left turn lane, which improves sight distance.

Georgia Department of Transportation has programmed dozens of safety projects throughout the state to convert existing type A median openings to type B median openings. Modifying the crossovers within existing projects is more cost effective than retrofitting the intersections in a future stand-alone project.

Haithcock, Michael

From: Scarbrough, Brian
Sent: Thursday, February 18, 2010 3:41 PM
To: Bennett, Matt
Subject: RE: Glynn County, P.I. No. 0000421

As far as justification of a box culvert over RCP Pipe, the biggest advantage of a box culvert is that you don't have the settlement issues like you do with pipe. Pipe is more likely to settle in low lying wet areas like the swampy area as described below. This would cause major maintenance headaches because you would probably have to mud jack under the pipe and then the overlay the roadway where it settled. Do this a few times and you will easily see the make-up in the cost of the culvert. If it is not in low lying or wet areas, then I would go with the pipe every time because the material and installation cost is so much lower and maintenance on the inlet and outlet is not that much different.

Thank you,
Brian H. Scarbrough
Area Engineer
District 5, Area 3 - Brunswick
(912) 264-7247 (Office)
(912) 424-9081 (Cell)

From: Bennett, Matt
Sent: Thursday, February 18, 2010 3:09 PM
To: Scarbrough, Brian
Subject: RE: Glynn County, P.I. No. 0000421

That is correct and I have no correspondence stating that we are doing a SR delineation trade.

I will check the agreement and find out why Jim is saying this.

THANKS,

*MATT BENNETT
PROJECT MANAGER
OFFICE OF PROGRAM DELIVERY
MOBILE - (912)271-7404*

From: Scarbrough, Brian
Sent: Thursday, February 18, 2010 2:42 PM
To: Bennett, Matt
Subject: RE: Glynn County, P.I. No. 0000421

Matt,

I will think on that one, but when I talked to Glenn a couple weeks ago about that project, he said that we wouldn't be taking over responsibility for that section of the road. He said normally for us to take on additional mileage then we would have to give up the same amount to the county on another road. So, I guess my question is, why does the county assume we will be maintaining it?

Thank you,

Brian H. Scarbrough
Area Engineer
District 5, Area 3 - Brunswick
(912) 264-7247 (Office)
(912) 424-9081 (Cell)

From: Bennett, Matt
Sent: Thursday, February 18, 2010 2:37 PM
To: Scarbrough, Brian
Cc: 'jbruner@glynncounty-ga.gov'; 'kelley.d@thomas-hutton.com'; 'williams.d@thomas-hutton.com'
Subject: FW: Glynn County, P.I. No. 0000421

Brian,

Since GDOT will take over the maintenance of this, can you give me your input? This is the SR 25 project that runs right in front of the office and I have a VE recommendation that states we can save money by using pipe rather than a box culvert. I realize that we prefer a culvert but I can't just turn in a response that states we prefer a culvert, I need some supporting documentation on why we prefer a culvert and justify it based on particular conditions in that area. Can you tell me any justifiable reason why a culvert would be absolutely needed at the creek bottom just before the sharp curve?

If you can, please be very specific and detailed.

THANKS,

*MATT BENNETT
PROJECT MANAGER
OFFICE OF PROGRAM DELIVERY
MOBILE - (912)271-7404*

From: Jim Bruner [mailto:jbruner@glynncounty-ga.gov]
Sent: Thursday, February 18, 2010 6:57 AM
To: Bennett, Matt
Subject: RE: Glynn County, P.I. No. 0000421

Matt,

We always prefer a box culvert over several pipe culverts for large culverts because of maintenance issues. Several small pipes generally require more maintenance and are more easily clogged than a box culvert. Since DOT will be providing maintenance we do not care if the change is made from a box culvert to a triple pipe culvert as long as they are hydraulically equivalent.

Jim

From: Bennett, Matt [mailto:mabennett@dot.ga.gov]
Sent: Wednesday, February 17, 2010 3:46 PM
To: Bennett, Matt; 'williams.d@thomas-hutton.com'
Cc: 'kelley.d@thomas-hutton.com'; Jim Bruner
Subject: RE: Glynn County, P.I. No. 0000421

Donnie,

I have rec'd the responses and I have my cover letter ready to send up. I now need to check with Traffic Ops to ensure that we can say yes to RD 6 , RD 8 and RD 10 and get supporting documentation for them.

Also, I want to make sure that y'all checked the pipe against the culvert to ensure the hydraulic equivalence of the two (RD 7) and also make sure that Mr. Jim didn't know any maintenance issues in the area that would have originally required the culvert rather than the pipe (RD 10)?

Please let me know about RD 7 & RD 10 and I'll be working on 6, 8 & 10.

THANKS,

***MATT BENNETT
PROJECT MANAGER
OFFICE OF PROGRAM DELIVERY
MOBILE - (912)271-7404***

From: Bennett, Matt
Sent: Thursday, February 11, 2010 9:57 AM
To: 'williams.d@thomas-hutton.com'
Cc: 'kelley.d@thomas-hutton.com'; 'jbruner@glynncounty-ga.gov'
Subject: FW: Glynn County, P.I. No. 0000421

Donnie,

Below and attached, you will find the latest procedure to handle VE Study responses. Basically, it says that you need to submit the responses to me on your letter head and I will then forward them to Engineering Services on my letter head.

Also, we need to set up a meeting or at least get Mr. Jim's feedback on this before I submit them.

If you want to go ahead and send me your letter head for submission, please do so and I will hold until we get concurrence from Mr. Jim on the responses.

Mr. Jim – we have already discussed the responses in the VE Study summary meeting, however, we did talk about getting back together when we were ready to submit the responses. We can do this any way you would like, you can look them over and email us back any concerns you have or concurrence, whichever applies. Or, we can meet and discuss each response, just let us know. We will have the responses ready to send upon your concurrence.

THANKS,

***MATT BENNETT
PROJECT MANAGER
OFFICE OF PROGRAM DELIVERY
MOBILE - (912)271-7404***

PRECONSTRUCTION STATUS REPORT FOR PI:0000421

PROJ ID : 0000421
COUNTY : Glynn
LENGTH (MI) : 2.10
PROJ NO. : STP00-0000-00(421)
PROJ MGR : Bennett, J. Matt
AOHD Initials : MAH
OFFICE : Program Delivery
CONSULTANT : Local Design, Local PE funds
SPONSOR : Glynn County
DESIGN FIRM : Thomas & Hutton Engineering Co.

SR 25 SPUR FM CATE RD ALONG CR 588/CANAL RD TO SR 99
MPO : Brunswick
TIP # : BATS01-02
MODEL YR :
TYPE WORK : Widening
CONCEPT : ADD 4R(MED 44)
PROG TYPE : Reconstruction/Rehabilitation
Prov. for ITS : N
BOND PROJ. :

MGMT LET DATE : 09/15/2012
MGMT ROW DATE : 03/15/2011
BASELINE LET DATE : 09/07/2012
SCHED LET DATE : 10/19/2012
WHO LETS? : GDOT Let
LET WITH :

PRIORITY CODE :
DOT DIST : 5
CONG. DIST : 1
BIKE : Y
MEASURE : E
NEEDS SCORE : 04
BRIDGE SUFF :

BASE START	BASE FINISH	LATE START	LATE FINISH	TASKS	ACTUAL START	ACTUAL FINISH	%	PROGRAMMED FUNDS				Date Auth		
								Activity	Approved	Proposed	Cost		Fund	Status
3/12/2010	5/6/2010	4/23/2010	6/17/2010	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, GEPA) Mapping Field Surveys/SDE	5/15/2003 2/27/2004 7/26/2004 8/4/2004 8/25/2004 9/30/2009 5/11/2004 4/8/2009	9/2/2004 2/27/2004 7/27/2004 8/18/2004 9/2/2004	100 100 100 100 100 83 35	PE	2003	2003	70,000.00	Q20	AUTHORIZED	2/5/2003
1/29/2010	8/23/2010	3/12/2010	10/1/2010	Preliminary Plans Underground Storage Tanks 404 Permit Obtainment PPPR Inspection	9/2/2004 6/28/2007 10/1/2004 3/23/2005	7/25/2007 7/25/2007 7/25/2006	0 100 66	PE	2003	2003	420,000.00	Q20	PRECST	
8/20/2010	11/29/2010	10/5/2010	1/10/2011	R/W Plans Preparation R/W Plans Final Approval	7/5/2006		0	ROW	2014	2013	11,790,743.85	L200	PRECST	
11/30/2010	1/28/2011	1/11/2011	11/12/2010	L & D Approval R/W Authorization Stake R/W			0	CST	2014	2013		L200		
9/29/2010	10/1/2010	11/10/2010	11/10/2010	Soil Survey			88							
2/28/2011	3/25/2011	4/11/2011	8/26/2011	Final Design PPPR Inspection			11							
7/4/2011	2/19/2010	8/15/2011	3/11/2010	Submit FPR Responses (OES)			0							
10/4/2010	3/2/2012	11/15/2010	4/13/2012											
4/2/2012	4/3/2012	5/14/2012	5/15/2012											
4/17/2012	4/30/2012	5/29/2012	6/11/2012											

PDD: OCT 1999 LR ASSIGNED URBAN DESIGN 11/12/99 Glynn needs to better coord env. & concept 3/3/04
Bridge: NO BRIDGE REQUIRED
Design: Preparing plans for PPR and VE implementation
EIS: EAINotAppvdNoScheduleILB 2.15.10
LGPA: PMA SGN GLYNN DO PEROWUTIL 3-21-00
Programming: #1 2-05
Traffic Op: CAHSND I.C.L CNSLTNT PLNS FR REVW/030503
UTILITY: One haz waste site found
EMG: 1st subm plans to design, 8-27-2007 ready for PPR 1-14-08
RECSTR/HAB (WIDENING), PE BY COUNTY

STIP AMOUNTS		District Comments	
Activity	Cost	Activity	Fund
PE Cost Est Amt		PE	Q20
ROW Cost Est Amt	7,247,004	ROW	LOC
CST Cost Est Amt	4,116,2068	CST	L200

Acquired by: LOC
Acquisition MGR: Cravey, Mack (LOC)
R/W Cert Date:

DEEDS CT:

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

PLAN AND PROFILE OF PROPOSED STATE ROUTE 25 SPUR EXTENSION FROM CATE ROAD TO STATE ROUTE 99

FEDERAL AID PROJECT
STPO0-0000-000421
GLYNN COUNTY

FEDERAL ROUTE • N/A
STATE ROUTE • 25 SPUR
P.L.N.O. 00000421

NOTE:
ALL REFERENCES IN THIS DOCUMENT WHICH INCLUDES ALL PAPER REVISIONS, DOCUMENTS, DRAWINGS OR PHOTOGRAPHS USED OR TO BE USED IN CONNECTION WITH THIS DOCUMENT TO "STATE HIGHWAY DEPARTMENT" SHALL BE CONSIDERED AS REFERENCES TO "STATE HIGHWAY DEPARTMENT OF GEORGIA" UNLESS OTHERWISE SPECIFIED. THE STATE HIGHWAY DEPARTMENT OF GEORGIA SHALL BE DEEMED TO MEAN THE DEPARTMENT OF TRANSPORTATION.



PREPARED BY: _____ DESIGN

RECOMMENDED FOR SUBMISSION BY: _____ DESIGN

SUBMITTED BY: _____ STATE DESIGN ENGINEER

DATE	CHIEF ENGINEER
PLANS COMPLETED	
REVISIONS	



LOCATION SKETCH

DESIGN DATA:	6000 (2010)
TRAFFIC ADJ.:	20000 (2030)
TRAFFIC ADJ.:	60 40
DIRECTIONAL DJST:	4.0%
% TRUCKS:	24
HRT/ TRUCKS %:	55 MPH
SPEED DESIGN:	

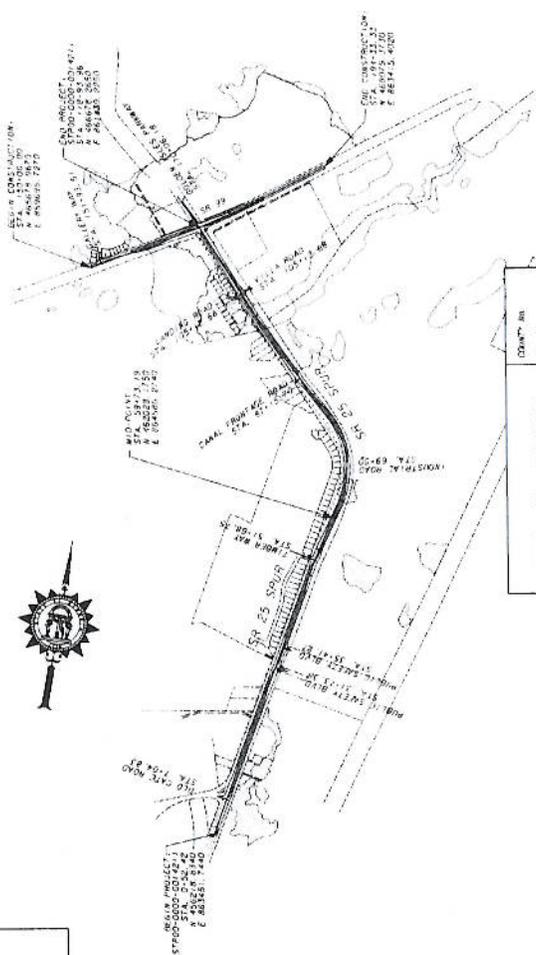
LOCATION & DESIGN APPROVAL DATE: _____

FUNCTIONAL CLASS: URBAN COLLECTOR

THIS PROJECT IS 100% IN GLYNN COUNTY AND IS 100% IN CONG. DIST. NO. 1.

PROJECT DESIGNATION: FOS DESIGNED IN ENGLISH UNITS.

THIS PROJECT HAS BEEN PREPARED USING THE HORIZONTAL GEOMETRIC DESIGN SYSTEM AND THE APPROXIMATE VERTICAL DATUM (MVD) OF 1988.



THOMAS J. HILTON ENGINEERING CO.

1000 W. 12th Street
Glynn County, GA 31523
Phone: 912-261-2000
Fax: 912-261-2000
www.thomashilton.com

LENGTH OF PROJECT

STATE ROUTE	2.24
NET LENGTH OF ROADWAY	0.00
NET LENGTH OF BRIDGES	2.24
NET LENGTH OF PROJECT	2.24
NET LENGTH OF EXCAVATIONS	0.00
GROSS LENGTH OF PROJECT	2.24

THE DATA TOGETHER WITH ALL OTHER INFORMATION SHOWN ON THESE PLANS OR IN ANY OF THE FIELD INVESTIGATIONS AND NOT INTENDED TO BE A SUBSTITUTE FOR THE FIELD INVESTIGATIONS AND NOT INTENDED TO BE A SUBSTITUTE FOR THE FIELD INVESTIGATIONS. THE SAME ARE SHOWN AS INFORMATION ONLY AND NOT GUARANTEED AND DO NOT BIND THE DEPARTMENT OF TRANSPORTATION IN ANY WAY. THE ATTENTION OF OWNER IS SPECIFICALLY DIRECTED TO SUBSECTIONS 6024, 6025, AND 6026 OF THE "REGULATIONS...