

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

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**INTERDEPARTMENT CORRESPONDENCE**

**FILE:** STP00-0151-01(005) Murray **OFFICE:** Engineering Services  
P.I. No.: 631550  
SR 225/Spring Place Bypass **DATE:** April 22, 2010

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

**TO:** Russell R. McMurray, PE, State Roadway Design Engineer  
Attn.: Brad McManus

**SUBJECT: IMPLEMENTATION OF VALUE ENGINEERING STUDY ALTERNATIVES**

The VE Study for the above project was held December 1-4, 2008. Responses were received on June 30, 2009. An implementation meeting was held on July 10, 2009. Brad McManus, Nasser Rad, Brent Story and Jason McCook with GDOT Design, MJ Sheehan with Moreland Altobelli, David Ridley and Tommy Parker with Murray County, and Matt Sanders and Lisa Myers with GDOT Engineering Services were in attendance.

In March 2010 a decision was made between GDOT and Murray County officials to reduce the scope of the project. A part of that decision was to reduce the length of project by eliminating the proposed improvement to the urban section along SR 225 from CR 104/New Hope Road to Imperial Blvd. The proposed project will now begin on new location at the Imperial Blvd. intersection and will follow the same alignment as presented in the original concept to the existing US 76/SR 52 intersection. The reduced project length will be approximately 2.9 miles. The proposed four-lane rural typical section for this section will also be reduced, as recommended in the VE Study (Alternative RD-12), to a two lane rural section with provisions for both left and right turn bays at each intersection. There will also be a reduction in the required right of way width to 100 feet total along the corridor.

The decision to reduce the scope and the recommendation to implement Alternative R-12 is supported by the results of both HCS and SYNCHRO traffic analysis which indicate that a two lane facility would operate at an acceptable level of service for both the AM and PM peak time periods for the design year (2030). Based on the results of the SYNCHRO analysis, it is recommended that the intersections along SR 225 at both the Spring Place Road Connector and SR 52 Alt. be signalized in order to provide a higher level of service to both the main roadway and the cross streets.

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.

ROADWAY (RD)				
ALT #	Description	Potential Savings/LCC	Implement	Comments
RD-2	Use two lanes on new alignment with a center two way left turn lane	\$3,777,886	No	Due to the implementation of RD-12, this no longer applies.
RD-4	Reduce median from 44' to 32'	\$454,167	No	Due to the implementation of RD-12, this no longer applies.
RD-9	Delete sidewalks in urban section	\$435,091	No	Due to the implementation of RD-12, this no longer applies.
RD-12	Use two lanes on new alignment with left turn bays at key intersections	Proposed = \$5,174,180 Actual = \$12,183,591	Yes	This will be done. In addition, the project length will be shortened by approximately 0.8 mile. The revised savings incorporates the VE recommendation and the project changes as described on the first page of this letter.
RD-14	Signalize the intersection of SR 52 Alt. and Old SR 225	(\$-77,000) Cost increase	No	Due to the implementation of RD-12, this no longer applies.
RD-15	Use two way stop sign at SR 52 Alt. and Old SR 225	Design Suggestion	No	Due to the implementation of RD-12, this no longer applies.
RD-16	Use 11 foot travel lanes in urban section	\$130,399	No	Due to the implementation of RD-12, this no longer applies.
BRIDGES (BR)				
BR-1	Reduce width of the bridges to match rural section	\$282,481	No	Due to the implementation of RD-12, this no longer applies.
BR-2	Reconfigure span arrangement to four equal spans	\$276,109	No	This bridge was designed with 5 spans to create beam chords while staying within overhang guidelines. A 4 span bridge requires the use of steel beams. Steel beams are considerably higher in initial cost and have higher maintenance costs.
BR-3	Combine two bridges to one bridge with positive separation	\$649,836	No	Due to the implementation of RD-12, this no longer applies.

The results above reflect the consensus of those in attendance and those who provided input.

Approved:  Date: 4/27/10  
Gerald M. Ross, PE, Chief Engineer

REW/LLM

Attachments

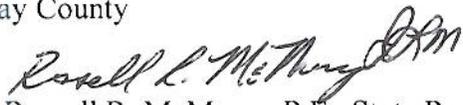
c: Ben Buchan  
Paul Liles/Bill Duvall/Bill Ingalsbe/Vo Nguyen  
Jason McCook/Brad McManus/Frantz Boileau/Nasser Rad  
Patrick Bowers/Kenny Beckworth  
Ken Werho  
Paul Alimia  
Lisa Myers  
Matt Sanders

DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE



**FILE** STP00-0151-01(005) **OFFICE** Roadway Design  
P.I. 631550  
Murray County **DATE** April 20, 2010

**FROM**   
Russell R. McMurry, P.E., State Roadway Design Engineer

**TO** Ron Wishon, State Project Review Engineer

**SUBJECT** VE Study Responses

A Value Engineering (VE) Study was held on project STP00-0151-01(005) from December 1 through December 4, 2008. Attached are Roadway Design's responses and recommendations to the *10 Alternative Ideas* derived from the VE Study Report dated December 18, 2008.

In March 2010 a decision was made between GDOT and Murray County Officials to reduce the scope of the project. A part of that decision was to reduce the length of project by eliminating the proposed improvement to the urban section along SR 225 from CR 104/New Hope Road to Imperial Blvd. The proposed project will now begin on new location at the Imperial Blvd. intersection and will follow the same alignment as presented in the original concept to the existing US 76/SR 52 intersection. The reduced project length will be approximately 2.9 miles. The proposed four-lane rural typical section for this section will also be reduced, as recommended in the VE Study (Alternative R-12), to a two lane rural section with provisions for both left and right turn bays at each intersection. There would also be a reduction in the required right of way width to approximately 100 feet total along the corridor.

The decision to reduce the scope and the recommendation to implement Alternative R-12 is supported by the results of both HCS and SYNCHRO traffic analysis which indicate that a two lane facility would operate at an acceptable level of service for both the AM and PM peak time periods for the design year (2030). Based on the results of the SYNCHRO analysis, it is recommended that the intersections along S.R. 225 at both the Spring Place Road Connector and SR 52 Alt. be signalized in order to provide a higher level of service to both the main roadway and the cross streets.

Please schedule an implementation meeting at your earliest convenience in order to discuss the Departments decisions regarding these recommendations.

RRM: MBM: nfr

Attachments

cc: Ben Buchan, P.E. Director of Engineering

**Office of Roadway Design's Responses to the VE Study Report on  
GDOT project STP00-0151-01(005) Murray County  
PI No. 631550**

**Alternative RD-2**

**Description:** Use two lanes on new alignment with a center two way left turn lane.

**Cost savings:** \$3,777,886

**Response:** With the proposed implementation of VE alternative R-12, this alternate was no longer considered.

**The recommendation of the Roadway Design Office is:** No, due to implementation of RD 12.

**Alternative RD-4**

**Description:** Reduce the median from 44' to 32'.

**Cost Savings:** \$454,167

**Response:** With the proposed implementation of VE alternative R-12, this alternate was no longer considered.

**The recommendation of the Roadway Design Office is:** No, due to implementation of RD 12.

**Alternative RD-9**

**Description:** Delete sidewalks in urban section.

**Cost Savings:** \$435,091

**Response:** With a March 2010 decision between GDOT and Murray County to reduce the project scope and eliminate the urban section, this alternate was no longer considered.

**The recommendation of the Roadway Design Office is:** No, due to implementation of RD 12.

### **Alternative RD-12**

**Description:** Use two lanes on new alignment with left turn bays

**Cost Savings:** \$5,174,180

**Response:** Results of both HCS and SYNCHRO traffic analysis indicate that a two lane facility would operate at an acceptable level of service for both the AM and PM peak time periods for the design year (2030) along the new location alignment. The proposed project will now begin at the Imperial Blvd. intersection and will follow the same alignment to the existing US 76/SR 52 intersection. The reduced project length will be approximately 2.9 miles. The proposed four-lane rural typical section for this section will be reduced to a two lane rural section with provisions for both left and right turn bays at each intersection. There would also be a reduction in the required right of way width to 100 feet total along the corridor.

**The recommendation of the Roadway Design Office is:** Yes, Will implement.

### **Alternative RD-14**

**Description:** Signalize intersection at SR 52A and old SR 225

**Cost Savings:** \$(77,000)

**Response:** Due to the fact that the existing intersection is located outside the scope of this project, a study of the intersection should be conducted by the District 6 Traffic Operations Office after this project is open to traffic. Upon the results of that study, a decision should be made to consider the best alternate for the conditions.

**The recommendation of the Roadway Design Office is:** No, due to implementation of RD 12.

### **Alternative RD-15**

**Description:** Use two way stop sign at SR 52A and old SR 225

**Cost Savings:** \$0

**Response:** Due to the fact that the existing intersection is located outside the scope of this project, a study of the intersection should be conducted by the District 6 Traffic Operations Office after this project is open to traffic. Upon the results of that study, a decision should be made to consider the best alternate for the conditions.

**The recommendation of the Roadway Design Office is:** No, due to implementation of RD 12.

**Alternative RD-16**

**Description:** Use 11 foot travel lanes in the urban section

**Cost Savings:** \$130,399

**Response:** With a March 2010 decision between GDOT and Murray County to reduce the project scope and eliminate the urban section, this alternate was no longer considered.

**The recommendation of the Roadway Design Office is:** No, due to implementation of RD 12.

**Alternative BR-1**

**Description:** Reduce width of the bridges to match rural section

**Cost Savings:** \$282,481

**Response:** With the proposed implementation of VE alternative R-12, this alternate was no longer considered. The bridge width will be revised to accommodate a typical rural 2 lane roadway with two 12 foot lanes and 10 foot shoulders.

**The recommendation of the Roadway/Bridge Design Office is:** No, due to implementation of RD 12.

**Alternative BR-2**

**Description:** Reconfigure span arrangement to four equal spans

**Cost Savings:** \$276,109

**Response:** The bridge was designed with 5 spans to create beam chords while staying within overhang guidelines. A 4 span bridge requires the use of steel beams. Steel beams are considerably higher in initial costs and have higher maintenance costs.

**The recommendation of the Roadway/Bridge Design Office is:** No, will not implement.

**Alternative BR-3**

**Description:** Combine two bridges to one bridge with positive separation

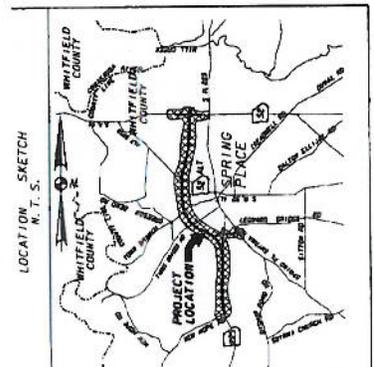
**Cost Savings:** \$649,836

**Response:** With the proposed implementation of VE alternative R-12, this alternate was no longer considered. The bridge width will be revised to accommodate a typical rural 2 lane roadway with two 12 foot lanes and 10 foot shoulders. Cost Estimate for single bridge is \$ 1,260,000.00.

**The recommendation of the Roadway/Bridge Design Office is:** No, due to implementation of RD 12.

# DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

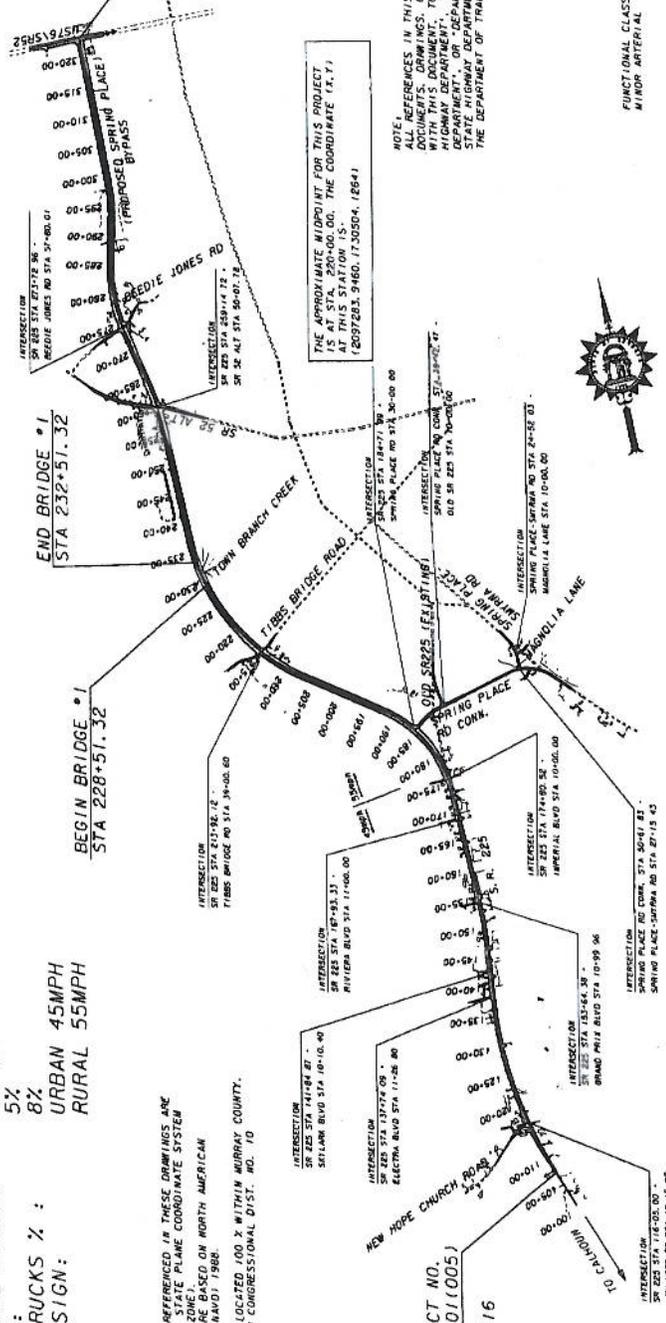
## PLAN AND PROFILE OF PROPOSED WIDENING AND RECONSTRUCTION OF STATE ROUTE 225 MURRAY COUNTY



DESIGN DATA:  
 TRAFFIC A. D. T. : 16000 (2009)  
 TRAFFIC A. D. T. : 20900 (2029)  
 TRAFFIC D. H. V. : 1475  
 DIRECTIONAL DIST. : 60/40  
 % TRUCKS : 5%  
 24 HR. TRUCKS % : 8%  
 SPEED DESIGN : URBAN 45MPH  
 RURAL 55MPH

PROJECT NO. STP00-0151-01(005)  
 FEDERAL ROUTE NO. US 76  
 STATE ROUTE NO. SR 225  
 P. I. NO. 631550  
 PROJECT DESIGNATION: EXEMPT

END PROJECT NO.  
 STP00-0151-01(005)  
 SR225 STA 322+61.95  
 US76/SR52 STA 67+94.49



NOTE: REFERENCES IN THIS DOCUMENT, WHICH INCLUDES ALL PAPERS, WRITINGS, DOCUMENTS, DRAWINGS, OR PHOTOGRAPHS USED, OR TO BE USED IN CONNECTION WITH THIS DOCUMENT, TO STATE HIGHWAY DEPARTMENT OF GEORGIA, STATE HIGHWAY DEPARTMENT, GEORGIA, MEANS THE COMPLEX OF THE STATE HIGHWAY DEPARTMENT OF GEORGIA MEAN, AND SHALL BE DEEMED TO MEAN THE DEPARTMENT OF TRANSPORTATION.



DATE	STATE ROAD AND HIGHWAY ENGINEER	DATE
DATE	CHIEF ENGINEER	DATE
LOCATION AND DESIGN APPROVED: 06-12-2008		
P. I. P. A. DATE	01-28-2008	
P. I. P. R. DATE		
PLANS COMPLETED		REVISIONS DATES:

FUNCTIONAL CLASSIFICATION:  
 MINOR ARTERIAL

MURRAY COUNTY R. 213	STP00-0151-01(005)
LENGTH OF PROJECT	MILES
NET LENGTH OF ROADWAY	4.02*
NET LENGTH OF BRIDGES	0.07*



SCALE IN FEET

NOTE: THESE PLANS ARE DESIGNED USING ENGLISH UNITS. THE DATA, TOGETHER WITH ALL OTHER INFORMATION SHOWN ON THESE PLANS, OR IN ANY WAY INDICATED THEREBY, WHETHER BY DRAWINGS OR NOTES, OR IN ANY OTHER MANNER, ARE BASED UPON

NOTE: THE COORDINATES REFERENCED IN THESE DRAWINGS ARE BASED ON THE GA. STATE PLANE COORDINATE SYSTEM (MAD 1983, WEST ZONE). THE ELEVATIONS ARE BASED ON NORTH AMERICAN VERTICAL DATUM (NAVD) 1988. THIS PROJECT IS LOCATED 100 X WITHIN MURRAY COUNTY, AND 100 X WITHIN CONGRESSIONAL DIST. NO. 70

BEGIN PROJECT NO.  
 STP00-0151-01(005)  
 SR225  
 STA 105+76.16  
 M.P. 9.07

PRECONSTRUCTION STATUS REPORT FOR PI:631550-

MGMT LET DATE : 01/15/2012  
 MGMT ROW DATE : 01/15/2009  
 BASELINE LET DATE: 01/12/2012  
 SCHED LET DATE : 4/5/2012  
 WHO LETS?: GOOT Let  
 LET WITH :

PRIORITY CODE:  
 DOT DIST: 6  
 CONG. DIST: 9  
 BIKE: Y  
 MEASURE: E  
 NEEDS SCORE: 5  
 BRIDGE SUFF: 92.50, 91.31

SR 225/SPRING PL BYP FM NEW HOPE RD TO SR 52/US 76 -PHASE I  
 MPO: Not Urban  
 TIP #: Roadway Project  
 MODEL YR : ADD 4R(MED 44)  
 TYPE WORK: New Construction  
 CONCEPT: N  
 PROG TYPE: Prov. for ITS:  
 BOND PROJ.:

631550- Murray  
 LENGTH (MI) 3.72  
 PROJ NO.: STP00-0151-01(005)  
 PROJ MGR: Fadool, Douglas  
 AOH Initials: MAH  
 OFFICE : Program Delivery  
 CONSULTANT: Local Design, Local PE funds  
 SPONSOR : Murray County  
 DESIGN FIRM: GDOT Road Design B McManus

BASE START	BASE FINISH	LATE START	LATE FINISH	TASKS	ACTUAL START	ACTUAL FINISH	%	PROGRAMMED FUNDS				Date Auth		
								Activity	Approved	Proposed	Cost		Fund	Status
6/13/2011	9/23/2011	9/19/2011	12/30/2011	Concept Development Concept Meeting PM Submit Concept Report Receive Preconstruction Concept Approval Management Concept Approval Complete Value Engineering Study Environmental Approval Public Information Open House Held Pub Hear Held/Comm Resp (EA/FONSI, GEPA) Mapping Field Surveys/SDE Preliminary Plans Preliminary Bridge Design Underground Storage Tanks 404 Permit Obtainment PFPR Inspection R/W Plans Preparation R/W Plans Final Approval L & D Approval Stake R/W Soil Survey Bridge Foundation Investigation Final Design Final Bridge Plans Preparation PFPR Inspection Submit PFPR Responses (OES)	12/22/1999	9/6/2002	100	PE	1996	1996	461,700.00	Q24	AUTHORIZED	12/18/1995
5/7/2010	6/3/2010	7/30/2010	8/26/2010		1/10/2001	1/10/2001	100	ROW	2018	2018	21,060,553.29	L240	PRECST	
9/10/2010	9/23/2010	12/3/2010	12/16/2010		8/21/2002	8/22/2002	100	CST	2020	2020	23,169,068.49	L240	PRECST	
4/23/2010	6/10/2011	7/30/2010	9/16/2011		8/27/2008	9/6/2002	86							
7/4/2011	7/5/2011	10/10/2011	10/11/2011		10/22/2008	10/23/2008	100							
7/19/2011	8/1/2011	10/25/2011	11/7/2011		1/2/1997	12/20/2000	100							
					12/20/2000	12/20/2000	100							
					12/1/2003	12/19/2003	100							
					12/1/2003	12/26/2003	100							
					2/1/2004	2/24/2005	88							
					3/17/2003	3/23/2003	100							
					5/22/2007	8/10/2007	100							
					1/26/2005	1/26/2005	100							
					2/22/2008	6/20/2008	100							
					2/26/2008	12/22/2008	100							
					6/5/2008	6/12/2008	100							
					2/6/2006	2/8/2006	100							
					8/25/2006	9/26/2008	100							
					1/4/2008	10/9/2008	100							
							0							
							0							
							0							
							11							
							0							
							0							

STIP AMOUNTS		Activity	Cost	Fund
PE Cost Est Amt:	461,700.00	PE	0.00	Q24
ROW Cost Est Amt:	14,382,000.00	ROW	3,892,000.00	L240
CST Cost Est Amt:	14,197,000.00	CST	10,696,000.00	L240

**District Comments**  
 BM Working on setting up project transition meeting (DF 3-22-10).

Prel. Parcel CT:	118	Total Parcel in ROW System:	121	Cond. Filed:	0	Acquired by:	DOT	DEEDS CT:	0
Under Review:	0	Options - Pending:	0	Relocations:	22	Acquisition MGR:	Digsby, Pam		
Released:	0	Condemnations- Pend:	0	Acquired:	0	R/W Cert Date:			