

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE: EDS-545(29)(30)(31) & (32) Jefferson **OFFICE:** Engineering Services
BRST-043-1(58) Jefferson
P.I. Nos.: 222120, 222150, 222160, 222170, & 232265
U.S. 1/S.R. 4 Widening/Reconstruction

DATE: January 14, 2008

FROM: Brian K. Summers, PE, Project Review Engineer *REW*
TO: Babs Abubakari, PE, State Program Delivery and Consultant Design Engineer

SUBJECT: IMPLEMENTATION OF VALUE ENGINEERING STUDY ALTERNATIVES

Recommendations for implementation of Value Engineering Study Alternatives are indicated in the table below. Incorporate the VE alternatives recommended for implementation to the extent reasonable in the design of the project.

ALT #	Description	Potential Savings/LCC	Implement	Comments
EDS-545(29)				
29-1	Use 32-ft. median versus 44-ft. median from TS-2 to TS-5	\$92,092	No	The redesign costs from the Design Consultant (attached) would negate the cost savings shown.
29-2	Use 6-ft. shoulders throughout from TS-1 to TS-5	\$142,710	Yes	This should be done.
29-3	Use 11-ft. travel lanes throughout the project	\$1,136,306	No	The Speed Design for this section is 65 mph. There are also 15% trucks.
29-4	Use a common intersection for CR 327/Old US 1 and CR 274/River Road	-\$43,003 (cost increase)	No	Traffic volumes are very low (325 and 675) at the two intersections and the VE Alternative would require more Right of Way.
29-5	Use a common intersection for CR 248/Walden Brett Road and CR 248/Mole Road	-\$455,787 (cost increase)	No	The VE Alternative would require more Right of Way. Both intersections are being realigned to near 90 degrees.

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ALT #	Description	Potential Savings/LCC	Implement	Comments
EDS-545(29) - continued				
29-7	Use a concrete overlay in lieu of asphalt overlay on the Ogeechee River and Overflow Bridges	\$66,131	Yes	This should be done.
EDS-545(30)				
30-1	Eliminate sidewalk paving from beginning of the project to Old SR 17	\$154,022	Yes	This should be done.
30-2	Eliminate sidewalk shoulder from the beginning of the project to Old SR 17 and reduce shoulder width to 12 feet	\$164,805	Yes	This should be done.
30-3	Use a common intersection for Bob Culvern Road and SR 4/US 1 Business South	-\$164,024 (cost increase)	No	This would result in additional Right of Way impacts.
30-4	Close Compton Drive access to mainline	-\$4,932 (cost increase)	No	Would require additional Right of Way to construct a Cul-de-sac.
30-5	Use 12-ft. urban shoulders	\$67,419	No	There is enough existing Right of Way to allow a 16' shoulder to be built.
30-6	Use 11-ft. travel lanes throughout the project	\$548,386	Yes	This should be done. The section is designed at 45 mph.
30-7	Close Old SR 17 West and build a connector to SR 17/Midville Road	-\$132,881 (cost increase)	No	Would result in additional right of way and environmental impacts.

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ALT #	Description	Potential Savings/LCC	Implement	Comments
EDS-545(30) - continued				
30-8	Provide dedicated left turns at School Street	-\$30,924 (cost increase)	Yes	This should be done.
30-9	Eliminate north access drive to the Ingles Market parking lot from the mainline	Design Suggestion	Yes	This should be done.
30-10	Eliminate both access drives to the Ingles Market parking lot from the mainline	Design Suggestion	No	It is not recommended to remove both of the drives.
EDS-545(31)				
31-1	Use 11-ft. travel lanes throughout the project	\$999,582	No	The Speed Design for this section is 65 mph. There are also 15% trucks.
31-2	Use 32-ft. median versus 44-ft. median	\$152,623	No	The redesign costs from the Design Consultant (attached) would negate the cost savings shown.
31-3	Eliminate sidewalk paving from the beginning of the project to STA 581+97.45	\$451,013	Yes	This should be done.
31-4	Use 6-ft. paved shoulder in rural section	\$89,239	Yes	This should be done.
31-5	Eliminate improvements for the parcel at the intersection with CR 325/Clarks Mill Road	(proposed) \$188,353 (actual) \$33,715	Yes	The Curb and Gutter and Sidewalk will be deleted. Minimum improvements will still need to be made to provide access.

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ALT #	Description	Potential Savings/LCC	Implement	Comments
EDS-545(31)				
31-6	Use common intersection for CR 142/Bridges Road and CR 142/Wilchers Road, and tie CR 141/Pineneedle Road into CR 142/Wilchers Road and maintain existing alignment on the mainline	(proposed) \$323,655 (actual) \$136,174	Yes	The existing mainline alignment will be retained and new construction will be minimized on CR 142 and Pineneedle Drive by providing a 75 degree skew with the mainline at this intersection.
31-7	Access mainline from SR 296/Harvey Street south of the cemetery instead of from the north side of the cemetery	\$309,678	Yes	This should be done. Additional Environmental Studies will be needed to determine if there would be any adverse impacts to the cemetery.
EDS-545(32)				
32-1	Use 11-ft. travel lanes throughout the project	\$1,151,060	No	The Speed Design for this section is 65 mph. There are also 15% trucks.
32-2	Use 32-ft. median versus 44-ft. median	\$207,848	No	The redesign costs from the Design Consultant (attached) would negate the cost savings shown.
32-3	Use 6-ft. shoulders in rural section	\$142,803	Yes	This should be done.
32-6	Retain existing alignment/roadway from STA 150+00 to STA 230+00	\$3,353,534	No	See additional response from OEL which is attached that addresses visual impacts to the Historic Resource by using the existing alignment.

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ALT #	Description	Potential Savings/LCC	Implement	Comments
EDS-545(32) - continued				
32-7	Use one way pairs between STA 150+00 to STA 230+00	\$3,129,070	No	See additional response from OEL which is attached that addresses visual impacts and other concerns with going around the Historic Resource.
32-8	Make northbound bridge over Big Creek 38-ft.-wide gutter-to-gutter	\$31,441	Yes	This should be done.
32-9	Begin right-turn lane to Sand Valley Road south of the bridge over Big Creek	\$135,730	Yes	This should be done.
32-10	Begin left- turn lane to Sand Valley Road south of the bridge over Big Creek	\$218,289	Yes	This should be done.
32-11	At the bridges over Big Creek, use three 47-ft., Type I Modified pre-stressed beams and pile bents	\$249,882	No	Based on comments from the Bridge Design firm, there would be a clearance issue from the top of the stream bank to the bent if the shorter spans were used.

A meeting was held on January 9, 2008 and Peter Coakley with Kimley-Horn, Erick Fry with the Washington Group, David Norwood with Consultant Design, and Brian Summers, Ron Wishon and Lisa Myers of Engineering Services were in attendance.

Additional information was provided by the Design Consultant on January 9 and 10, 2008.

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

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Approved: *Gerald M. Ross* Date: 1/25/08
Gerald M. Ross, P. E., Chief Engineer

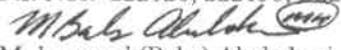
BKS/REW

Attachments

c: Gus Shanine, FHWA
Todd Long
Paul Liles
James Magnus
Mike Haithcock
Rusty Merritt
Lynn Bean
Terrell McMillan
Bill Duval
Jack Muirhead
Ken Werho
Nabil M. Raad
Kristy Langdon
Jennifer Mathis
Amber Perkins
Lisa Myers

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE EDS 545 (29)(30)(31)(32) BRST 43-1(58) OFFICE Consultant Design
 Jefferson County
 P.I. Nos. 222120, 222150, 222160, 222170, 232265 DATE December 11, 2007
 FROM  Mohammed (Babs) Abubakari, P.E., State Consultant Design & Program Delivery Engineer
 TO See Distribution Below
 SUBJECT *Value Engineering Study Report Responses*

EDS-545(29)

29-1	<p><i>Use 32-ft. median versus 44-ft. median for TS-2 to TS-5.</i></p> <p>The savings for reducing the median versus the cost of redesign is negligible. The 44 ft. median is utilized for approximately 3.65 miles on this project. Changing the median width would require the redesign of at least one side of the 3.65 miles. This redesign would include all horizontal and vertical geometry, drainage, maintenance of traffic and signing and marking. This design change would be both costly and time consuming. The original design fee for preliminary plans was nearly \$300,000. the redesign cost would consume any cost savings realized from R/W or construction costs.</p> <p>There would also be a loss of safety in the median since steeper front slopes would be necessary. Presently the front slopes for the median ditches are 8:1. 6:1 if not 4:1 slopes would be necessary if the median were reduced.</p> <p>This alternative is not recommended.</p>
29-2	<p><i>Use 6-ft. paved shoulders throughout from TS-1 to TS-5.</i></p> <p>Shoulders can be changed to 6 ft. This project is not on a State Bike Route. It is recommended to change the shoulder width to 6 ft.</p>
29-3	<p><i>Use 11-ft. travel lanes throughout the project.</i></p> <p>The design speed for this corridor is generally 65 mph. Based on AASHTO guidelines and GDOT Design Manual, the lane widths should be 12 feet. AASHTO only recommends reducing lane widths in urban areas where development or other R/W constrictions apply. The % Trucks along this corridor is 15% presently. Reducing lane widths would reduce clearances between these large vehicles and could increase crash rates. Also, these projects are part of a larger corridor and uniformity along this corridor would be diminished if the lane widths were reduced.</p> <p>This alternative is recommended.</p>
29-4	<p><i>Use a common intersection for CR 327 Old US 1 and CR 274/ River Road.</i></p> <p>The ADT on CR 327/ Old Us 1 is presently 675. The ADT for CR 274/ River Rd. is presently 325. The low volume does not justify the expense of R/W and construction costs. The designed improvements for the intersections require less than 500 ft of new location at each intersection. The VE recommendation would require more new location construction and would have greater impacts to residential property possibly resulting in a "take".</p> <p>This is not recommended.</p>
29-5	<p><i>Use a common intersection for CR 248 Walden Brett Road and CR 248/ Mole Road.</i></p> <p>Turning movements at these intersections are low and the cost of new construction and R/W is not justified. Both intersections are to be realigned to near 90 degree intersection angles and safety will be improved with the designed improvements.</p> <p>This alternative is not recommended.</p>
29-7	<p><i>Use a concrete overlay in lieu of asphalt overlay on the Ogeechee River and Ogeechee Overflow bridges.</i></p> <p>This alternative is recommended.</p>

EDS-545(30)

30-1	<i>Eliminate sidewalk paving from beginning of the project to Old SR 17</i>
	The sidewalk is currently not proposed from the beginning of the project to the relocated intersection of US 1/SR 4 (Bus) Sta. 142+00. The sidewalk will be eliminated from Sta. 142+00 to Old SR17. This alternative is recommended.
30-2	<i>Eliminate sidewalk shoulder from beginning of the project to Old SR 17 and reduce shoulder to 12 feet</i>
	The rural shoulder is currently proposed from the beginning of the project to the relocated intersection of US 1/SR 4 (Bus) Sta. 142+00. The urban shoulder (curb and gutter) will be eliminated from Sta. 142+00 to Old SR17 and replaced with a rural 10' shoulder similar to the shoulder currently proposed from Sta. 120+00 to Sta. 124+40. The longitudinal drainage system will be replaced with ditches. The proposed permanent easements will be changed to propose R/W from the beginning of the project to Old SR17. Additional R/W will be required in order to place the ditches through this section of road. The new limits of R/W will have an additional cost. This alternative is recommended.
30-3	<i>Use a common intersection for Bob Culvern Road and SR4/US1 Business South</i>
	Bob Culvern Rd will not be realigned to meet the proposed SR4/US 1 (Bus) relocation. This will require the taking of private property for R/W and additional cost to relocate the road. SR4/US1 has been relocated to improve safety by correcting the skew at the existing intersection. This option is not recommend.
30-4	<i>Close Compton Drive access to mainline</i>
	At the existing intersection of Bob Culvern Rd and US1/SR4 there is an inadequate vertical curve that contributes to sight distance problems. Compton Drive was originally constructed to allow trucks to access US1/SR4 safely and avoid the deficiencies of the intersection of Bob Culvern and US1/SR4. The proposed vertical alignment associated with project EDS-545(30) will improve the vertical curve at the intersection of Bob Culvern Rd. Compton Drive currently does not have any driveways on the entire length of the road. Closing Compton Rd is an option. It is not recommended to Cull de Sac this road, as the additional cost of the asphalt and R/W will offset the cost benefits of closing the road. The Department and the County can make this decision at a future time. It is not recommended to demolish this intersection and road within this project.
30-5	<i>Use 12 foot urban shoulders</i>
	There is adequate R/W to construct a 16' urban shoulder without a need to acquire additional R/W. The original typical section consisted of a 12' urban shoulder and was changed by the Department to a 16' urban shoulder including the cost of a supplemental to redesign the construction documents. A 16' urban shoulder will accommodate utilities better then a 12' urban shoulder. The existing utilities along the corridor include power, phone, cable tv, gas, water and sewer. It is recommended to maintain the proposed 16' urban shoulder.
30-6	<i>Use 11-foot travel lanes throughout the project</i>
	The design speed for this corridor is generally 45 mph. Based on AASHTO guidelines and GDOT Design Manual, the lane widths should be 12 feet. AASHTO only recommends reducing lane widths in urban areas where development or other R/W constrictions apply. This section is urban but there are not R/W or development constraints present. The % Trucks along this corridor is 15% presently. Reducing lane widths would reduce clearances between these large vehicles and could increase crash rates. Also, these projects are part of a larger corridor and uniformity along this corridor would be diminished if the lane widths were reduced. This project has a R/W date of March 2008. Changing the lane widths would require a major redesign effort. This redesign effort would affect the expected R/W date and would make Program Delivery of this project unachievable. This alternative is not recommended.
30-7	<i>Close Old SR 17 West and build a Connector to SR 17 Midville Road</i>
	A connector from Old SR17 West to SR17 Midville Rd will improve safety along US1/SR4, but the additional cost to construct this connector will include R/W (including displacements), the relocated road cost, and the cost of demolition of the existing intersection. It is not recommended to close Old SR 17 and build a connector to SR 17 Midville Rd.
30-8	<i>Provide dedicated left turns at School Street</i>
	The striping plan will be modified to include a dedicated left turn at School St.

30-9 30-10	<i>Eliminate both access drives to the Ingles parking lot from the mainline</i>
	It is not recommended to close both access drives to Ingles parking from the mainline of US1/SR4. Eliminating the one access closest to Middle Ground Rd. will improve the safety of US1/SR4, particularly at its intersection with Middle Ground Rd. At a minimum this access should be converted to a right in and right out only access. Both of these alternatives will be reevaluated during the PFPR and should not have a significant cost impact to the project.

EDS-545(31)

31-1	<i>Use 11-ft. travel lanes throughout the project.</i>
	The design speed for this corridor is generally 65 mph. Based on AASHTO guidelines and GDOT Design Manual, the lane widths should be 12 feet. AASHTO only recommends reducing lane widths in urban areas where development or other R/W constrictions apply. The % Trucks along this corridor is 15% presently. Reducing lane widths would reduce clearances between these large vehicles and could increase crash rates. Also, these projects are part of a larger corridor and uniformity along this corridor would be diminished if the lane widths were reduced. This alternative is recommended.
31-2	<i>Use 32- ft. median versus 44- ft. median throughout the project.</i>
	The savings for reducing the median versus the cost of redesign is negligible. The 44 ft. median is utilized for approximately 3.85 miles on this project. Changing the median width would require the redesign of at least one side of the 3.85 miles. This redesign would include all horizontal and vertical geometry, drainage, maintenance of traffic and signing and marking. This design change would be both costly and time consuming. The original design fee for preliminary plans was nearly \$350,000. The redesign cost would consume any cost savings realized from R/W or construction costs. There would also be a loss of safety in the median since steeper front slopes would be necessary. Presently the front slopes for the median ditches are 8:1. 6:1 if not 4:1 slopes would be necessary if the median were reduced. This alternative is recommended.
31-3	<i>Eliminate sidewalk paving from beginning of project to Sta. 581+97.45.</i>
	Concur, it is recommended to remove sidewalk from the beginning of the project to Sta. 581+97.45.
31-4	<i>Use 6-ft. paved shoulders in rural section.</i>
	Shoulders can be changed to 6 ft. This project is not on a State Bike Route. It is recommended to change the shoulder width to 6 ft.
31-5	<i>Eliminate improvements for the parcel at the intersection with CR 325/ Clarks Mill Road.</i>
	The improvements to CR 325/ Clarks Mill Road and the adjacent sideroad are due to widening in the area. The profile of CR 325/ Clarks Mill Road must be changed due to the widening. As a result of changing the profile of CR 325/ Clarks Mill Road, the adjacent sideroad profile must also change. Also, the entrance to the sideroad was closed at US 1/ SR 4 for safety purposes. The curb and gutter can be removed from the sideroad and lane width can match existing. Recommendation is to remove curb and gutter along the sideroad (unnamed) and to match existing lane width.
31-6	<i>Use a common intersection for CR 142 /Bridges Road and CR 142 Wilchers/ Road, and tie CR 14 / Pineneedle Road into CR 142 / Wilchers Road and maintain existing alignment on the mainline.</i>
	The new alignment of US 1/ SR 4 in this area allows for realignment of the CR 142 intersection, improved sight distance and the avoidance of a historical property. The existing intersection angle is 53 degrees. The geometry for the proposed alignment uses flatter curves, 3800' +/-, than the VE recommendation alignment, 2000' curves which will provide greater sight distance. This increased sight distance will be beneficial with a less than desirable intersection angle for US 1/ SR 4 and CR 142. It is recommended to retain the new alignment. Existing CR 142 can be utilized with minor improvements to improve the intersection angle to 75 degrees. The original design with the relocation of the CR 142 and US1/ SR 4 intersection provided for a 90 degree intersection angle. A major realignment will not be necessary to achieve a 75 degree intersection angle. This will greatly reduce the construction costs associated with CR 142. The length of improvements would be reduced from 2100' to approximately 800'. Minor R/W purchases would be necessary for the east section of CR 142. Realignment of Pineneedle Drive, a dirt road, may not be necessary if Pineneedle Road intersects US 1/ SR 4 outside of the turn lane. The recommendation is to retain the new alignment for US 1/ SR 4 in this area and to reduce the improvements to CR 142 and Pineneedle Drive. The CR 142 US 1 / SR 4 intersection angle would improve to be 75 degrees.
31-7	<i>Access mainline from SR 296/Harvey Street south of the cemetery instead of from the north side of the cemetery</i>
	This improvement is possible but will require environmental screening. Environmental screening will include archaeology to check for grave sites in this area of the cemetery. Further studies are necessary before recommending this option.

EDS-545-(32)

32-1	<i>Use 11-ft. travel lanes throughout the project</i>
	The design speed for this corridor is generally 65 mph. Based on AASHTO guidelines and GDOT Design Manual, the lane widths should be 12 feet. AASHTO only recommends reducing lane widths in urban areas where development or other R/W constrictions apply. The % Trucks along this corridor is 15% presently. Reducing lane widths would reduce clearances between these large vehicles and could increase crash rates. Also, these projects are part of a larger corridor and uniformity along this corridor would be diminished if the lane widths were reduced.
32-2	<i>Use 32-ft. median versus 44-ft median</i>
	The savings for reducing the median versus the cost of redesign is negligible. The 44 ft. median is utilized for approximately 5.95 miles on this project. Changing the median width would require the redesign of at least one side of the 5.95 miles. This redesign would include all horizontal and vertical geometry, drainage, maintenance of traffic and signing and marking. This design change would be both costly and time consuming. The original design fee for preliminary plans was nearly \$330,000. The redesign cost would consume any cost savings realized from R/W or construction costs. There would also be a loss of safety in the median since steeper front slopes would be necessary. Presently the front slopes for the median ditches are 8:1. 6:1 if not 4:1 slopes would be necessary if the median were reduced. This alternative is recommended.
32-3	<i>Use 6-ft. shoulders in rural section</i>
	Shoulders can be changed to 6 ft. This project is not on a State Bike Route. It is recommended to change the shoulder width to 6 ft.
32-6	<i>Retain Existing alignment/roadway from STA 150+00 to STA 230+00</i>
	This is not recommended due to environmental impacts. See note and comments below.
32-7	<i>Use one way pairs between STA 150+00 to STA 230+00</i>
	This is not recommended due to environmental and safety concerns. Please see attached explanation from OEL concerning this option and impacts on the environmental document.
32-8	<i>Make northbound bridge over Big Creek 38-ft.-wide gutter-to-gutter</i>
	It is recommended to change the bridge gutter to gutter width to 38 ft.
32-9	<i>Begin right-turn lane to Sand Valley Road south of the bridge over Big Creek</i>
	Concur. Recommend to reduce the turn lane length to minimize the bridge width. This reduction in turn lane length will require a variance from GDOT policy and Detail M-3.
32-10	<i>Begin left-turn lane to Sand Valley Road south of the bridge over Big Creek</i>
	Concur. Recommend to reduce the turn lane length to minimize the bridge width. This reduction in turn lane length will require a variance from GDOT policy and Detail M-3.
32-11	<i>At the bridges over Big Creek, Use three spans at 47 ft., Type 1 modified pre-stressed beams and pile bents.</i>
	The bents were originally set to maintain at least 10 feet of clearance from the top of bank. It is possible to adjust the middle span slightly but not enough to use a smaller girder. The end spans can be revised to use Type 1 modified pre-stressed beams but the interior bents will more than likely have to remain concrete bents.

Wishon, Ron

From: Myers, Lisa
Sent: Thursday, January 10, 2008 3:01 PM
To: Wishon, Ron
Subject: FW: EDS-545(29-32) VE Study response question
Attachments: Median redesign costs_VE Study.xls; 222120cc1.pdf; 222160cc1.pdf; 222170cc1.pdf; 222150cc1.pdf

FYI

Lisa Myers ☺
Design Review Engineer Manager/VE Coordinator

*GA DOT - Engineering Services
#2 Capitol Square Room 266
Atlanta, GA 30334*

*404-651-7468
lmyers@dot.ga.gov*

From: Peter.Coakley@kimley-horn.com [mailto:Peter.Coakley@kimley-horn.com]
Sent: Thursday, January 10, 2008 3:01 PM
To: Myers, Lisa
Cc: Norwood, David
Subject: RE: EDS-545(29-32) VE Study response question

Lisa- Here are the redesign costs and the cover sheets. If we were to reduce the median, we would have to redesign the centerline and at least on side (NB or SB) of the project. The centerline had been set to retain existing pavement, either NB or SB. We would have to redesign the profile, cross sections, grading, drainage, staging, signing and marking, erosion control.

These costs are based on a percentage of redesign using the original cost estimates for preliminary design. I did not escalate these numbers to present day salaries and overhead since the redesign was clearly more costly than the VE savings. Also these are minimum redesign costs.

Let me know if you need anything else.

Thank you,
Peter

From: Myers, Lisa [mailto:lmyers@dot.ga.gov]
Sent: Thursday, January 10, 2008 6:53 AM
To: Coakley, Peter
Subject: RE: EDS-545(29-32) VE Study response question

Thanks for the information.

Lisa Myers ☺
Design Review Engineer Manager/VE Coordinator

GA DOT - Engineering Services

#2 Capitol Square Room 266
Atlanta, GA 30334

404-651-7468
lmyers@dot.ga.gov

From: Peter.Coakley@kimley-horn.com [mailto:Peter.Coakley@kimley-horn.com]
Sent: Wednesday, January 09, 2008 3:44 PM
To: Myers, Lisa
Subject: FW: EDS-545(29-32) VE Study response question

Lisa- Here is OEL's response concerning EDS-545(32) as we discussed this afternoon.

Let me know if you need anything else. I will send the estimate for the design costs tomorrow.

Thanks,
Peter

From: Perkins, Amber [mailto:Amber.Perkins@dot.state.ga.us]
Sent: Friday, November 16, 2007 9:07 AM
To: Coakley, Peter
Cc: Posey, Keith; Peters, Dave; Haithcock, Michael
Subject: RE: EDS-545(29-32) VE Study response question

Mr. Coakley, Please find attached our response to the VE recommendation about the one way pair system. If you have any questions please let me know.

Thanks,

Amber L. Perkins
Georgia Department of Transportation
Office of Environment/Location
3993 Aviation Circle
Atlanta GA, 30336
Phone: 404-699-3473
Fax: 404-699-4440

From: Perkins, Amber
Sent: Tuesday, November 13, 2007 3:16 PM
To: 'Peter.Coakley@kimley-horn.com'
Cc: Posey, Keith; Peters, Dave
Subject: RE: EDS-545(29-32) VE Study response question

We are putting together our notes and should e-mail them to you by the end of the week at the latest.

Amber L. Perkins
Georgia Department of Transportation
Office of Environment/Location
3993 Aviation Circle
Atlanta GA, 30336
Phone: 404-699-3473
Fax: 404-699-4440

From: Peter.Coakley@kimley-horn.com [mailto:Peter.Coakley@kimley-horn.com]
Sent: Tuesday, November 13, 2007 3:15 PM
To: Perkins, Amber

Cc: Posey, Keith; Peters, Dave
Subject: RE: EDS-545(29-32) VE Study response question

Amber- Did your group come to a conclusion concerning concerning the question below?

Thank you,
Peter

From: Perkins, Amber [mailto:Amber.Perkins@dot.state.ga.us]
Sent: Thursday, November 01, 2007 11:40 AM
To: Coakley, Peter
Cc: Posey, Keith; Peters, Dave
Subject: RE: EDS-545(29-32) VE Study response question

Please send layouts with what you are discussing showing all historic boundaries and wetland boundaries. I will get together with location and the specialists to see if this was already considered or not and if not what the feasibility is.

Thanks,

Amber L. Perkins
Georgia Department of Transportation
Office of Environment/Location
3993 Aviation Circle
Atlanta GA, 30336
Phone: 404-699-3473
Fax: 404-699-4440

From: Peter.Coakley@kimley-horn.com [mailto:Peter.Coakley@kimley-horn.com]
Sent: Thursday, November 01, 2007 11:30 AM
To: Perkins, Amber
Subject: EDS-545(29-32) VE Study response question

Amber- Good morning. We have received the draft recommendations from the VE Study for the above referenced project. One recommendation was on Unit 32. They had asked if the existing road from the beginning of the project to Nelson Rd. (sta 229+50 +/-) could be part the NB of one way pairs with 2 lanes only of new location being the SB portion of the one way pairs. This would mean the road would be on both sides of the historic property. Can we discuss the feasibility of this? Let me know.

Peter R. Coakley, P.E. (Registered in Montana)
Kimley-Horn and Associates, Inc.
3169 Holcomb Bridge Road
Norcross, Ga. 30071
Office 770-825-0744
Direct Line: 678-533-3906

Project	Original design cost, Preliminary plans	Length of redesign due to median width	Length of project (miles)	% of project to be redesigned	Minimum redesign cost	VE Savings as shown in Report
EDS-545(29)	\$291,576.73	3.65	6.38	57.21%	\$170,000.00	\$92,092.00
EDS-545(31)	\$270,926.98	3.85	5.9	65.25%	\$185,000.00	\$152,623.00
EDS-545(32)	\$321,691.62	5.95	6.47	91.96%	\$300,000.00	\$207,848.00

Wishon, Ron

From: Myers, Lisa
Sent: Thursday, January 10, 2008 6:53 AM
To: Wishon, Ron; Summers, Brian
Subject: FW: EDS-545(29-32) VE Study response question
Attachments: VE response.docx

FYI

Lisa Myers ☺
Design Review Engineer Manager/VE Coordinator

*GA DOT - Engineering Services
#2 Capitol Square Room 266
Atlanta, GA 30334*

*404-651-7468
lm Myers@dot.ga.gov*

From: Peter.Coakley@kimley-horn.com [mailto:Peter.Coakley@kimley-horn.com]
Sent: Wednesday, January 09, 2008 3:44 PM
To: Myers, Lisa
Subject: FW: EDS-545(29-32) VE Study response question

Lisa- Here is OEL's response concerning EDS-545(32) as we discussed this afternoon.

Let me know if you need anything else. I will send the estimate for the design costs tomorrow.

Thanks,
Peter

From: Perkins, Amber [mailto:Amber.Perkins@dot.state.ga.us]
Sent: Friday, November 16, 2007 9:07 AM
To: Coakley, Peter
Cc: Posey, Keith; Peters, Dave; Haithcock, Michael
Subject: RE: EDS-545(29-32) VE Study response question

Mr. Coakley, Please find attached our response to the VE recommendation about the one way pair system. If you have any questions please let me know.

Thanks,

Amber L. Perkins
Georgia Department of Transportation
Office of Environment/Location
3993 Aviation Circle
Atlanta GA, 30336
Phone: 404-699-3473
Fax: 404-699-4440

From: Perkins, Amber
Sent: Tuesday, November 13, 2007 3:16 PM
To: 'Peter.Coakley@kimley-horn.com'

Cc: Posey, Keith; Peters, Dave

Subject: RE: EDS-545(29-32) VE Study response question

We are putting together our notes and should e-mail them to you by the end of the week at the latest.

Amber L. Perkins
Georgia Department of Transportation
Office of Environment/Location
3993 Aviation Circle
Atlanta GA, 30336
Phone: 404-699-3473
Fax: 404-699-4440

From: Peter.Coakley@kimley-horn.com [mailto:Peter.Coakley@kimley-horn.com]

Sent: Tuesday, November 13, 2007 3:15 PM

To: Perkins, Amber

Cc: Posey, Keith; Peters, Dave

Subject: RE: EDS-545(29-32) VE Study response question

Amber- Did your group come to a conclusion concerning concerning the question below?

Thank you,
Peter

From: Perkins, Amber [mailto:Amber.Perkins@dot.state.ga.us]

Sent: Thursday, November 01, 2007 11:40 AM

To: Coakley, Peter

Cc: Posey, Keith; Peters, Dave

Subject: RE: EDS-545(29-32) VE Study response question

Please send layouts with what you are discussing showing all historic boundaries and wetland boundaries. I will get together with location and the specialists to see if this was already considered or not and if not what the feasibility is.

Thanks,

Amber L. Perkins
Georgia Department of Transportation
Office of Environment/Location
3993 Aviation Circle
Atlanta GA, 30336
Phone: 404-699-3473
Fax: 404-699-4440

From: Peter.Coakley@kimley-horn.com [mailto:Peter.Coakley@kimley-horn.com]

Sent: Thursday, November 01, 2007 11:30 AM

To: Perkins, Amber

Subject: EDS-545(29-32) VE Study response question

Amber- Good morning. We have received the draft recommendations from the VE Study for the above referenced project. One recommendation was on Unit 32. They had asked if the existing road from the beginning of the project to Nelson Rd. (sta 229+50 +/-) could be part the NB of one way pairs with 2 lanes only of new location being the SB portion of the one way pairs. This would mean the road would be on both sides of the historic property. Can we discuss the feasibility of this? Let me know.

Peter R. Coakley, P.E. (Registered in Montana)
Kimley-Horn and Associates, Inc.
3169 Holcomb Bridge Road
Norcross, Ga. 30071

Office 770-825-0744
Direct Line: 678-533-3906

EDS-545(32) Jefferson County PI 222170

Draft recommendations from the VE Study for the above referenced project. One recommendation was on Unit 32. They had asked if the existing road from the beginning of the project to Nelson Rd. (Sta. 229+50 +/-) could be part the NB of one way pairs with 2 lanes only of new location being the SB portion of the one way pairs. This would mean the road would be on both sides of the historic property.

Environmental/Safety Concerns with the recommendation:

1. Concerned with increased visual impacts to the three historic resources in this area and concerned with increased physical effects. Also, a one way pair approach would increase indirect impacts to the resources. Indirect and cumulative impacts must be taken into consideration when choosing the preferred alignment for a project. As with all studies we need to try to minimize indirect and cumulative impacts.
2. Concerned with community impacts. A strip of the community along US 1 would be divided both in the front and back of their homes if a one way pair system were constructed.
3. Concerned about community impacts in regards to visiting the two local Churches within this area and visitations to the Cemetery. Locals living in this area would have to drive around 2 miles, if a one way pair system were build, to get to those places currently located next door..
4. Concerned with the 1 mile between cross over's
5. Safety Concerns: Use of a one-way pair facility in an undeveloped, rural area does not meet driver expectations and would in all likelihood lead to higher accident and fatality rates in the area. One-way pairs typically are constructed in more developed areas with a higher number of roadway crossings resulting in better internal circulation and therefore safer conditions than would be possible in the subject location. While proper signing will help to minimize drivers mistakenly traveling in the wrong direction, drivers expect to see divided highways with medians and opposing lanes within lines of sight in rural areas. Not being able to see opposing lanes when entering the directional lanes would lead to higher number of drivers traveling in the wrong direction when compared to a multi-lane, divided median facility, and the minimal development and cross roadway access hampers the opportunities to correct driver error.
6. GRIP Speed Design: GDOT typically constructs one-way pairs in areas where speeds do not exceed 45 mph. GRIP Speed Design is 65 mph in rural areas. If a one-way pair is constructed in this location at a 55 mph or 65 mph speed design, this contributes to the issues in reason 5 above. If the one-way pair is constructed at a 45 mph speed design or lower, this also would not meet driver expectation and many drivers may not reduce their speed through the one way pair section, creating an unsafe condition.