

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

**INTERDEPARTMENT CORRESPONDENCE**

**FILE:** MSL-1226-00(300) Elbert  
P.I. No. 122630  
S.R. 72 Widening/Reconstruction

**OFFICE:** Engineering Services

**DATE:** July 31, 2006

**FROM:** *BKS*  
Brian K. Summers, PE, Project Review Engineer

**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
<b>CONSTRUCTABILITY</b>				
A	Eliminate Right Turn Lanes where possible on side road approaches to the mainline	\$115,177	Yes	This will be done.
<b>MATERIALS</b>				
A	Verify availability and cost of Earthwork	Design Suggestion	Yes	This will be done.
B	Adjust the profile grade to minimize the amount of Waste	\$824,149	Yes	This will be done.
c	Use concrete or rubber for CSX railroad crossing	-\$25,880 Cost Increase	Yes	This will be done.
<b>TRAFFIC CONTROL</b>				
A-1	Cul-de-sac CR 396/Heard Road for better vehicle access	-\$22,457 Cost Increase	No	There are only two residences that are served by this road.

ALT #	Description	Potential Savings/LCC	Implement	Comments
A-2	Tie existing east and west ends of S.R. 72 to proposed median openings. The east end would have a Jenkins Road Connector.	-\$84,609 Cost Increase	Yes/No	The proposed new connection on the east end will be done. The connection on the west end results in undesirable alignment tying back to S.R. 72 so it will not be done.
B	Take the CSX Spur Line out of operation and relocate business that utilizes the Spur Line.	\$168,216	No	This would result in relocation expenses to relocate the business that utilizes the Spur Line.
C	Revise side road staging to include temporary pavement in lieu of closing during Staging.	-\$338,702 Cost Increase	No	It was felt that closing the side roads and including Liquidated Damages would ensure the work gets accomplished sooner.
D	Use MUTCD standards for Signing and Marking.	Design Suggestion	Yes	This will be done.
<b>CONTRACTOR WORK HOURS</b>				
A	Use Restrictive Working Hours of 7:00 am to 9:00 am and 4:00 pm to 6:00 pm and no work allowed on weekends and holidays.	Design Suggestion	Yes	This will be done.
<b>CONSTRUCTION TIME</b>				
A	Recommend that the overall contract time be set up as two years.	Design Suggestion	No	Construction Office will make the final determination on Contract Time.

ALT #	Description	Potential Savings/LCC	Implement	Comments
<b>CONSTRUCTION TIME</b>				
B	Include minimum time frame for side road closures of 14 days and include the Special Provision for Liquidated Damages for not completing the work within the timeframe specified.	Design Suggestion	Yes	Duration of Road Closures should be handled on a case by case basis. Some may require less than 14 days and some may require more than 14 days.
C	Include Intermediate Completion Date of 9 months for the completion of the portion of the project from the S.R. 17 intersection to the end of the curb and gutter section at CR 45/Mobley Road.	Design Suggestion	Yes	The timeframe will be determined at a later date.
<b>STAGE CONSTRUCTION</b>				
A	Eliminate Stage 3 construction by including it into Stage 2	Design Suggestion	No	The Contractor can always propose this during construction.
B	Include a full width section further into the adjacent project rather than tapering the pavement.	-\$54,490 Cost Increase	Yes	This will be done.

MSL-1226-00(300) Elbert

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Implementation of Value Engineering Study Alternatives

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A meeting was held on July 24, 2006 to discuss the above recommendations. Joe Leoni and Jim Aitken with Arcadis, Keith Franklin with Florence & Hutcheson, Inc., Omar Zaman and Simeon Robinson with Wilbur Smith Associates, Stanley Hill of Consultant Design, and Brian Summers and Ron Wishon of Engineering Services were in attendance.

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

Approved:  Date: 8/2/06  
David E. Studstill, Jr., P. E., Chief Engineer

BKS/REW

Attachments

c: Gus Shanine, FHWA  
Sandy Moore  
Todd Wood  
Randy Hart  
Alexis John  
Doug Franks  
Otis Clark  
Lisa Myers

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

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**INTERDEPARTMENT CORRESPONDENCE**

**FILE** MSL-1226-00 (300), Elbert County  
P.I. No. 122630

**OFFICE** Consultant Design  
**DATE** June 27, 2006

Widening and reconstruction of SR 72 beginning at SR 17 to and ending at CR 245/Pearl Mill Road

*M. Babs Abubakari*

**FROM** Mohammed (Babs) Abubakari, P.E.  
State Program Delivery and Consultant Design Engineer

**TO** Brian Summers, P.E. State Project Review Engineer  
Attn: Lisa Myers

**SUBJECT** REPONSES TO VALUE ENGINEERING STUDY (March 22, 2006)

Please refer to the enclosed attachment for the responses to the Value Engineering Study conducted on the above project.

This project is located in Elbert County and consists of the widening of SR 72 beginning at SR 17 and ending at the intersection with CR 245/Pearl Mill Road. This project does not have any bridges. The project length is 7.02 miles.

The above project is being designed by the consultant firm of Florence and Hutcheson Inc. as a sub to ARCADIS. This project is in the preliminary design phase and is waiting for environmental approval before requesting a PFPR. The construction (CST) phase of this project is currently in LR.

Please contact Otis Clark at (404) 463-7486 or Steve Callis, with ARCADIS, at 770-431-8666 for any additional information or clarification you may need.

MBA:SH:OC

**Response to VE Study Recommendations**  
**Study Date: March 22, 2006**  
**MSL-1226(300), PI No. 122630**  
**Elbert County**  
**Widening and Reconstruction of SR 72**  
**from SR 17 to CR 245 Pearl Mill Road**

**VII.I.A. Local Road Turn Lanes (Pages 16-18)** – Concur; will need to get the approval of Traffic Operations since they recommended that the turn lanes be put in. All of these county roads have low traffic volumes. According to the VE study, eliminating the right turn lane on 11 of the 14 side roads can save \$115,000 in construction cost and also will save ROW costs due to requiring less ROW on each side road. On some of the side roads, the length of construction for the road can be reduced by eliminating the turn lane since the lane is the controlling factor for the length of roadway being reconstructed. There will also be a cost savings due to the elimination of some signing and striping for each side road that has a right turn lane eliminated.

**VII.II.A & B. Material for Staging and Haul Length of Material (Pages 19-25)** – We do not concur ... at this stage of project design (the plans are ready for PFPR); it will be very difficult to raise the grade to eliminate this waste. Not only will the profile need to be reworked on the mainline, the side road profiles will need to be reworked also. In addition all of the drainage will require redesign. The erosion control plans and staging plans will need to be redesigned if the profile is changed to eliminate waste. These changes would require a supplemental agreement and cost additional engineering fees which would effectively reduce the cost savings that is shown in the VE Report for this item. As part of the coordination between this project and project number MSL-1226(200), the waste on this project could be stockpiled near the tie between the two projects and used as embankment on the unit (200) project, thus saving money on earthwork and reducing the size and number of borrow pit(s) required to construct this project.

**VII.II.C. Railroad Crossing Material (Pages 26-30)** – Concur; at the time of the VE study, no material had been chosen for the railroad crossing and coordination with the railroad is ongoing. This office concurs with the VE Team recommendation of using Commercial Precast Reinforced Concrete Slabs for the crossing.

**VII.III.A. Cul-De-Sac CR 396/Heard Road (Pages 31-33)** – We do not concur; this office does not concur with the recommendation of the VE team for CR 396/Heard Road. The portion of the road that will remain after construction will serve only 2 residences and the increased construction and ROW costs to build a cul-de-sac is not justifiable for 2 residences.

**VII.III.A.3 Existing SR 72 STA 200+00 to STA 260+00 (Pages 34-39)** – Partially concur with this recommendation.

We concur with adding the new tie-in to existing SR 72 near station 200+00 to the plans. Depending on which way they are going to be traveling it would enable the residents that reside along existing SR 72 in this area to avoid driving an additional 1.75 miles out of there way to access the new SR 72.

We do not concur with the new tie-in proposed by the VE Team near station 260+00 and the elimination of CR 47 north of the new alignment for SR 72. As presently designed the maximum distance that a resident living at the end of this road would have to travel is approximately 0.5 miles. In addition, if CR 47 to the north is eliminated, you will still need the median crossover and the new connector shown in the VE Report will require additional right-of-way that is not needed as shown in the plans. Plus the connector as shown has two sharp curves that would make the connection not as safe as the one proposed in the plans.

**VII.III.B. Railroad Crossing (Pages 40-43)** – GDOT needs to make this decision; the VE Study Team recommends to move the business that this railroad crossing serves in order to eliminate the crossing. Several factors come into play for doing this. Is there an available suitable location for the business with rail service? The expenses shown on the cost comparison sheet for the right-of-way appear low. In addition, can this business realistically be relocated for \$200,000? Whether or not to concur to this recommendation should be determined by GDOT management.

**VII.III.C. Detours/Road Closings (Pages 44-49)** – Do not concur; during the construction of any roadway, there will always be some inconvenience to the traveling public. The roads that are proposed to be closed on this project have minimal traffic and can easily be detoured. They also contain very few residences/businesses (less than 15 for all side roads that a slated to be closed during construction) in the areas to be reconstructed. In addition, by limiting the contractor to how long a side road can be closed, this will help to limit the inconvenience to the public. It also may be possible to limit how many side roads that the contractor can close at on time to help lesson the inconvenience to the public. The recommendation of the VE Team to construct the side roads by adding temporary pavement will significantly increase the cost of the project. In addition this will also require additional ROW/Easements and disturb additional land and property unnecessarily.

**VII.III.D. Signing and Marking (Pages 50-55)** – Concur; these changes will be made during the design of the final construction plans.

**VII.IV.A. Contractor Work Hours - Closures (Pages 56-57)** – Partially concur – We concur with the requirement not to allow lane closures between 7:00 and 9:00 am and 4:00 and 6:00 pm and on holidays. Not allowing lane closures on all Saturday and Sunday should be revised to allowing lane closures on Saturday and Sunday except when there is a home football game at the University of Georgia on that weekend.

**VII.V.A. Length of Time (Pages 58-59)** – Concur; this length of time appears adequate for this project.

**VII.V.B. Road Closures (Pages 60-61)** – Concur; any county road that is closed during construction should have a time limit set up that it can be closed. The GDOT Construction Office will be contacted to get their input on the maximum amount of time each county road slated for closing should be closed to traffic. In addition, liquidated damages should be set up for not completing the construction of a county road in the time allotted. All county roads that are shown to be closed have viable detours available.

**VII.V.C. Five Lane Section (Pages 62-63)** – Concur; an intermediate completion date should be established in the five lane section of the project from SR 17 to CR 45. At the PFPR we will ask the construction office for their recommendation on how long the contractor should have to complete that section of roadway excluding the placement of the final topping.

**VII.VI.A. Number of Stages (Pages 64-65)** – Do not concur; the staging as shown for stage 3 includes more work than just removing temporary crossovers. Changing the number of stages would not save any construction cost. The sequence of staging will be discussed with the Construction personnel at the PFPR and those recommendations will be considered.

**VII.VI.B. Project Terminus (Pages 66-70)** – Do not concur. The temporary tie-in as proposed in the plans coincides with the grade for project MSL-1226(200) and will not require any reconstruction. Even if roadbed is extended as shown in the VE Study recommendation, the temporary crossover will still need to be constructed and then removed if project MSL-1226(300) is constructed first. If unit (200) is constructed first, then the construction east of CR 45 is not necessary. The construction east of CR 45 will only be necessary if unit (300) is constructed first. The temporary tie-in at this location will be discussed with Construction personnel at the PFPR and a decision will be made as to the best design to construct the temporary tie-in.