

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE: STP-155-1(23) Twiggs
P No.: 322470
S.R. 96 widening/reconstruction

OFFICE: Engineering Services

DATE: December 21, 2004

FROM: David Mulling, Project Review Engineer *REW*

TO: Gerald Ross, State Road Design Engineer

SUBJECT: IMPLEMENTATION OF VALUE ENGINEERING STUDY ALTERNATIVES

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

ALT No.	Description	Savings PW & LCC	Implement	Comments
1	Use 4:1 front slope	\$1,211,440	No	Corridor has a high accident history. The 6:1 slopes shown are desirable in order to maximize the recovery area.
2	Make selective improvements to the corridor in lieu of widening the entire corridor	\$31,306,976	No	Does not address the need and purpose for the project.
4	Grade separate S.R. 87 from S.R. 96	-\$3,161,583*	No	Results in a substantial cost increase for the project.
5/6	Signalize critical intersections	-\$255,040*	Yes	
7	Maintain existing alignment on S.R. 96 at lake	\$233,780	No	Results in the use of a sub-standard horizontal curve.
9	Maximize the use of existing pavement and right of way	Design Suggestion	Yes	
11/14	Allow right ins/right outs at Citgo and Walthall Service Stations	Design Suggestion	No	Violates GDOT policy concerning Access Breaks at Interstate Interchanges.
12	Relocate access road to CR 100 behind Walthall Service Station	\$119,116	Yes	

Implementation of Value Engineering Study Alternatives
STP-155-1(23) Twiggs
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ALT No.	Description	Savings PW & LCC	Implement	Comments
13	Relocate CR 100 connection to Missile Base Road	\$229,768	Yes	
18	Bypass the lake with a new alignment for S.R. 96	-\$398,551*	No	Could result in additional Environmental impacts.
21	Selectively use rigid pavement	-\$87,223*	Yes	

Note: Items with an asterisk result in a cost increase.

A meeting was held on December 21, 2004 to discuss the above recommendations. Jim Simpson, Nasser Rad and John Baxter of Road Design, and Ron Wishon of the Office of Engineering Services were in attendance.

Approved: 
Paul V. Mullins, P. E., Chief Engineer

Date: 12/22/04

DTM/REW

Attachment

- c: Gus Shanine
Jim Simpson
John Baxter
Nasser Rad
Lyn Clements
Lamar Pruitt
Brink Stokes
Corey Carter
Lisa Myers

S.R. 96 TWIGGS COUNTY
VALUE ENGINEERING STUDY RESPONSES
OFFICE OF ROAD AND AIRPORT DESIGN

November 12, 2004

PROJECT: STP-155-1(23)
PI NO. 322470
COUNTY: TWIGGS

Project Manager Jim Simpson
Design Engineers Nasser Rad, John Baxter

VE study held October 12-14, 2004
VE Report Received November 5, 2004

ALTERNATIVE RECOMMENDATIONS:

Alt. No. 1 - Use 4:1 front slope.

Value Engineering Alternative – The 4:1 slope is an acceptable and maintainable side slope; the advantages of the 4:1 slope would be reduced earthwork, reduced right-of-way requirements, and common practice.

Comments: We do not recommend the use of 4:1 slopes because of the high history of accidents along the project corridor, it will reduce recovery area in cut sections, and the 6:1 front slope will provide an aesthetic consistent section that will match the 6:1 fill slopes used in shallow fills. Furthermore, the 6:1 front slope is consistent with the design on projects of this type, especially in the middle and southern parts of the state.

Alt. No. 2 – Make selective improvements to the corridor in lieu of widening the entire corridor.

Value Engineering Alternative – 1. Improve the intersection of SR 96/SR 87 for safety and operation; 2. Improve alignment between churches to correct geometric deficiency; 3. Improve the intersection of SR 96/SR 358 for safety operations; 4. Reduce frontage roads at I-16.

Comments: We do not recommend this alternative because the capacity of the corridor would not be addressed and a future project would have to be programmed to address the additional widening. Furthermore, SR 96 is planned to be widened the entire corridor from I-75 to I-16, with the route possibly becoming an Interstate or part of the Fall Line Freeway in the future. The local governments and citizens in Houston, Peach and Twiggs Counties are strongly in favor of advancing these needed projects.

Alt. No. 4 – Grade separate SR 87 from SR 96

Value Engineering Alternative – Grade separate SR 87 over SR 96.

Comments: We do not recommend because the increase in cost of the project and, also, the safety of the intersection can be addressed with signalization and the widening associated with the project will improve the intersection sight distance for both the State Routes, 96 and 87.

Alt. No. 5/6 – Signalize critical/dangerous intersections.

Value Engineering Alternative – Signalize the two critical intersections SR 96/SR 87 and SR 96/SR 358.

Comments – We recommend this alternative, if both intersections meet the applicable factors contained in the traffic signal warrants and other factors related to the operation and safety of the intersections.

Alt. No. 7 – Maintain existing alignment for SR 96 at Lake.

Value Engineering Alternative – Maintain existing alignment and realign curve to improve alignment.

Comments – We do not recommend because the curve needed to accomplish the realignment would exceed the maximum degree of curvature allowable and would not help to eliminate the sharp curves along the project corridor. Design speed for this corridor is 65 mph.

Alt. No. 9 – Maximize use of existing Pavement and Right of Way.

Value Engineering Alternative – Use the existing pavement in more areas and reduce the right of way requirements.

Comments – We agree and recommend this alternative.

Alt. No. 11/14 – Use Right-In/Right-Outs at Citgo and Walthall Service Stations

Value Engineering Alternative – It is suggested to allow right-in/right-out access to these two businesses along SR 96 in the vicinity of the I-16/SR 96 Interchange.

Comments – This will be considered but it conflicts with the proposed GDOT proposal that requires all access rights to be acquired for 1000 feet from ramp terminals where a State route crosses an Interstate.

Alt. No. 12 – Relocate Access Road to County Road 100 Behind Walthall Oil Company

Value Engineering Alternative - Provide access for CR 100 and CR 173 to SR 96 by moving the road closer to the SR 96 interchange though still outside the 1000 foot separation zone for the I-16 ramp termini. Provide the same radius curve as the original design.

Comments – We agree and recommend this alternative.

Alt. No. 13 – Relocate CR 100 connection to Missile Base Road.

Value Engineering Alternative - Construct CR 100 from SR 96 on the new alignment south of the electrical transmission line, proceed approximately 300 feet to a horizontal curve, and then run 1200 feet to intersect with the existing CR 100 which connects to missile based road.

Comments – We agree and recommend this alternative.

Alt. No. 18 – By-Pass Lake with a new alignment for SR 96.

Value Engineering Alternative – Realign mainline further to the east around the lake and avoid the private lake in its entirety.

Comments – A lot of unknown environmental factors are involved with this proposal. We will investigate this recommendation with Office of Environmental and Location and, if feasible, will be considered further.

Alt. No. 21 – Selectively use Rigid Pavement.

Value Engineering Alternative – Selectively incorporate rigid pavement at certain locations that could be prone to excessive stress fatigue from truck traffic, and turning maneuvers.

Comments – We agree and recommend this alternative.