



Alternate Street Design, P.A.

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Copy to Dr. Lindsay Holliday

Mr. Charles W. Bishop, Chairman,
Bibb County Board of Commissioners
601 Mulberry Street
Macon Georgia 31201

RE: Forest Hill Road

Dear Chairman Bishop:

I would like to thank you for letting me speak at the MATS Policy Committee meeting on February 1, 2006. The support for roundabouts was greater than I had encountered in many other communities.

As mentioned during my short talk, the use of roundabouts instead of signalized intersections along Forest Hill Road could provide many benefits to the Georgia Department of Transportation, Bibb County, the City of Macon, residents and users of Forest Hill Road. These benefits would be expected to include reduced construction and maintenance costs, fewer crashes, reduced vehicle speeds, increased road capacity while decreasing travel time. Above all, roundabouts would be more attractive than signalized intersections.

I understand your concern over design costs but during my 8 years with the South Carolina and Florida Departments of Transportation road funds are allocated to a road project then spilt into various sub-categories to assist with project management. Whenever additional funds may be required for additional design services, a common occurrence, those funds were easily transferred from another area of the project. Transfer of funds was quite easy when the modifications to the design would reduce the overall cost of the project or improve the project.

If the Georgia Department of Transportation has similar project management systems to other Departments of Transportation the transfer of funds from construction to design should be quite easy, especially since the changes would reduce construction and maintenance costs many times greater than the additional design fee. I discussed the possible transfer of funds with a friend at the Federal Highway Administration (FHWA) office in Atlanta and he said that the FHWA would accept a transfer of funds within a project and would be quite receptive to the use of roundabouts in this project because roundabouts are encouraged by the FHWA. Therefore, replacing signalized intersections along Forest Hill Road with roundabouts should free more than sufficient funds for to modify the design to add roundabouts and medians to this project. Because the FHWA has asked for a re-evaluation of the environmental impacts, funds will have to be transferred to pay for the re-evaluation of these impacts. Therefore funds could be transferred at the same time to modify the

road design to add roundabouts. Because roundabouts typically require less pavement than signalized intersections replacing signalized intersections with roundabouts should reduce the water run-off and the size and cost of retention ponds.

Design fees for a roundabout are quite low, should be less than \$20,000 per roundabout. Therefore three roundabouts should be able to be designed for less than the cost saving from replacing just one signalized intersection with a roundabout.

As mentioned during my talk, a three lane road with a series of short medians and roundabouts should enable a higher volume of vehicles to use Forest Hill Road while providing a safer environment for users, especially residents of Forest Hill Road while enabling the construction of a more attractive road, at a lower overall cost, a much lower maintenance cost and less right-of-way acquisition.

With many cities facing a lower income it is becoming increasingly important to consider not only the initial construction cost of a road project but also its long term maintenance cost. For instance, signalized intersections typically cost \$3,000 to \$5,000 per year for electricity, controller maintenance, loop repairs, bulb replacements etc. and another \$150,000 every 10 to 20 years to replace the signals. Only now are communities starting to understand the huge burden they accept every time a new signal is installed. Roundabouts only need a few hundred dollars a year for maintenance of the landscaping, weeding and tree trimming. In some cases local community groups will take over the maintenance of the landscaping and remove this burden from the City/County. If a cost evaluation is taken a step further to include a lifetime costing over twenty years is undertaken, roundabouts become even more even more cost effective. For instance, roundabouts have a vastly lower crash cost because of a much lower crash rate, shorter delays, less gas consumption, reduced air pollution, etc. Whenever I have prepared a lifetime cost evaluation comparing roundabouts to signalized intersections roundabouts had a higher benefit cost ratio. Typically, roundabouts pay for themselves in only a few years, while signalized intersections are a constant and growing financial burden on a community.

If you have any questions please call as I am always ready to help communities achieve a safer and prettier community.

Sincerely,
Alternate Street Design, P.A.



Michael J. Wallwork, P.E.
President

cc. Honorable C. Jack Ellis, Mayor of Macon
cc. Dr. Lindsay Holliday