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STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
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RALEIGH 27611-5201

JAMES G. MARTIN
GOVERNOR

December 23, 1992

DIVISION OF HIGHWAYS

THOMAS J. HARRELSON
SECRETARY

WILLIAM G. MARLEY, JR., P.E.
STATE HIGHWAY ADMINISTRATOR

MEMORANDUM TO: Mr. Charles Lowdermilk, Member, Board of Transportation
Mr. J. W. Watkins, Division Engineer, Division 7
Dr. L. R. Goode, P.E.
Mr. C. W. Leggett, P.E.
Mr. J. M. Lynch, P.E.
Mr. A. D. Allison, II
Mr. L. J. Ward, P.E. (2)
Mr. D. R. Morton, P.E.
Mr. G. T. Shearin, P.E.
Mr. M. R. Poole, P.E.
Mr. A. L. Avant (2)
Mr. J. D. Lane
Mr. T. A. Peoples, P.E.

FROM: Whitmel H. Webb, P.E. *Whitmel H. Webb*
Head, Feasibility Studies Unit

SUBJECT: Feasibility Study, U-2805, Carrboro, Homestead Road
(SR 1777) From SR 1009 to NC 86, Orange County

Our staff has completed a feasibility study for the subject proposed project. This brief analysis suggests improvements that would be logical if the project were to be funded. A copy of our report is attached for your information.

WHW/joa

Attachment

cc: Mr. W. G. Marley, Jr., P.E.
Mr. J. T. Peacock, Jr., P.E.
Mr. W. J. Watson, P.E.

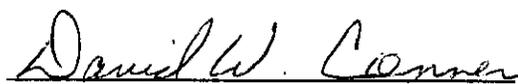
FEASIBILITY STUDY

Carrboro
Homestead Road (SR 1777)
From SR 1009 to NC 86
Orange County
U-2805

Prepared by
Program Development Branch
Division of Highways
N. C. Department of Transportation



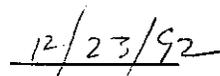
W. J. Watson, P.E.
Highway Planning Engineer



David W. Conner
Highway Planning Engineer



Whitmel H. Webb, III, P.E.
Head of Feasibility Studies



Date

Carrboro
Homestead Road (SR 1777)
From SR 1009 to NC 86
Orange County
U-2805

I. GENERAL DESCRIPTION

This preliminary study describes proposed improvements to Homestead Road (SR 1777) in Orange County. For a location map please see Figure 1. It is proposed to widen Homestead Road from SR 1009 to NC 86, a distance of approximately 3.4 miles. Also, the bridge over Bolin Creek (Bridge No. 94) on SR 1009 will be widened.

The proposed cross section, for the entire project length, is a 5 lane curb and gutter section (68 feet wide from face to face of curbs) providing two travel lanes in each direction and a center turn lane. Wide outside lanes are recommended to accommodate bicycle traffic.

The proposed right of way width is 100 feet. One business relocatee and nine residential relocatees are expected on this project. The total estimated cost including construction and right of way is \$ 8,700,000.

This study is the initial step in the planning and design process for this project and is not the product of exhaustive environmental or design investigations. The purpose of this study is to describe the problem, identify a feasible solution including costs, and identify potential problem areas that require consideration in the planning and construction stages.

II. NEED FOR PROJECT

The purpose of these improvements is to improve the traffic carrying capacity and accident experience of Homestead Road. This project was requested by the Town of Carrboro and should improve traffic flow and congestion on Homestead Road while reducing the accident potential on Homestead Road.

Homestead Road is designated an Urban Collector on the North Carolina Statewide Functional Classification System. East of SR 1843 Homestead Road is classified a minor thoroughfare on the Durham-Chapel Hill-Carrboro Urban Area Thoroughfare Plan. West of SR 1843 Homestead Road is classified a major thoroughfare. Development on Homestead Road is primarily residential, with higher density development east of SR 1843 and less dense development west of SR 1843. Although development is currently less dense west of SR 1843, there is a 95 home subdivision under construction west of SR 1843 and the undeveloped land along this segment is considered prime residential development property. Growth in this area is expected to take place at a rapid pace.

The proposed right of way width is 100 feet. One business and nine residential relocatees are expected on this project. The total estimated cost including construction and right of way is \$ 8,700,000 as follows:

Construction	\$ 5,500,000
Right of Way	3,200,000
Total Cost	8,700,000

IV. OTHER COMMENTS

An environmental screening was not conducted for this project.