

FEASIBILITY STUDY

Washington
Highland Dr. (SR 1501)
From 12th St. (SR 1306) to Slatestone RD. (SR 1507)
Beaufort County
U-2723

Prepared by
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I. GENERAL DESCRIPTION

This preliminary study describes proposed improvements to Highland Drive (SR 1501) in Washington. For a location map see Figure 1. It is proposed to widen Highland Drive from 12th Street (SR 1306) to Slatestone Road (SR 1507), a length of 1.4 miles. A 5 lane curb and gutter cross section on a 90 foot wide right of way is proposed. The total cost for these improvements is estimated to be \$4,300,000.

This study is the initial step in the planning and design process for this project and is not the product of an exhaustive environmental investigation or design effort. The purpose of this study is to describe the problem and an attainable solution, and provide cost estimates for the right of way and construction required to realize the solution.

II. NEED FOR PROJECT

The purpose of these improvements is to increase the traffic carrying capacity and improve the accident experience of Highland Drive. This project was requested by the City of Washington and the Beaufort County Board of Commissioners and is supported by local school officials.

Highland Drive is designated a major thoroughfare on the Washington Thoroughfare Plan and within the study limits is classified an Urban Minor Arterial in the North Carolina Statewide Functional Classification System. Development on Highland Drive is light to medium density residential and institutional development. Beaufort County Hospital is located near the western terminus of the project. Other development on Highland Drive includes two nursing homes, a regional library, a mental health center, two churches and a cemetery. The remaining development on Highland Drive is residential. A new senior high school, built by the City of Washington, is located on Slatestone Road, approximately 1500 feet north of the Highland Drive-Slatestone Road intersection.

Highland Drive is a two lane roadway with a pavement width of 22 feet and 6 feet wide grass shoulders. There is one bridge on Highland Drive that spans Runyon Creek and is 42 feet long with a clear deck width of 30 feet. This bridge was built in 1987 and has

a sufficiency rating of 80.6 out of a possible 100 points. The intersection at each project terminal is controlled with a traffic signal.

The Average Daily Traffic (ADT) on Highland Drive, in the study area, for the years 1991 and 2011 are estimated to be 6,800 vehicles per day (vpd) and 10,700 vpd respectively.

Capacity analysis based on these traffic volumes indicates that Highland Drive is currently operating at level of service D during daily peak hour periods. With the recommended improvements it is estimated that Highland Drive will operate at level of service B through the year 2011.

During the period from January 1, 1988 through December 31, 1990 there were 55 accidents reported on Highland Drive between 12th Street and Slatestone Road. This resulted in an accident rate of 726 accidents per 100 million vehicle miles (Acc/100 MVM), compared to a statewide average of 344.0 Acc/100 MVM for all urban secondary routes during 1990. There were no fatalities reported during the period, but 34 of the accidents resulted in injuries. The most prevalent accident types were left turn (33%), ran-off-road (26%), and rear-end (20%) accidents. The wider cross section with center turn lane proposed for Highland Drive will reduce the potential for these types of accident.

III. RECOMMENDATIONS

It is proposed to widen Highland Drive from 12th Street to Slatestone Road, a length of 1.4 miles. A 5 lane curb and gutter cross section on a 90 foot wide right of way is proposed for Highland Drive. The existing 30 foot wide bridge over Runyon Creek will be widened to a clear deck width of 64 feet. At the western project terminal the proposed 5 lane section on Highland Drive will tie into the 59 foot wide curb and gutter section to be built under project R-2021.

At the eastern project terminal (the Highland Drive-Slatestone Road intersection) the west leg of the intersection should consist of one eastbound through lane, an exclusive left turn lane and two exit lanes for westbound traffic. The east leg consists of one westbound combination thru-right turn lane and one exit lane for eastbound traffic. The east leg will require no widening. The north leg consists of one separate right-turn lane, one separate left-turn lane and one exit lane for northbound traffic. This leg will require no widening. Only minor revisions to the existing traffic signal at this intersection will be required to accommodate the new lanes on Highland Drive.

The total cost for right of way and construction is estimated to be \$4,300,000 as follows:

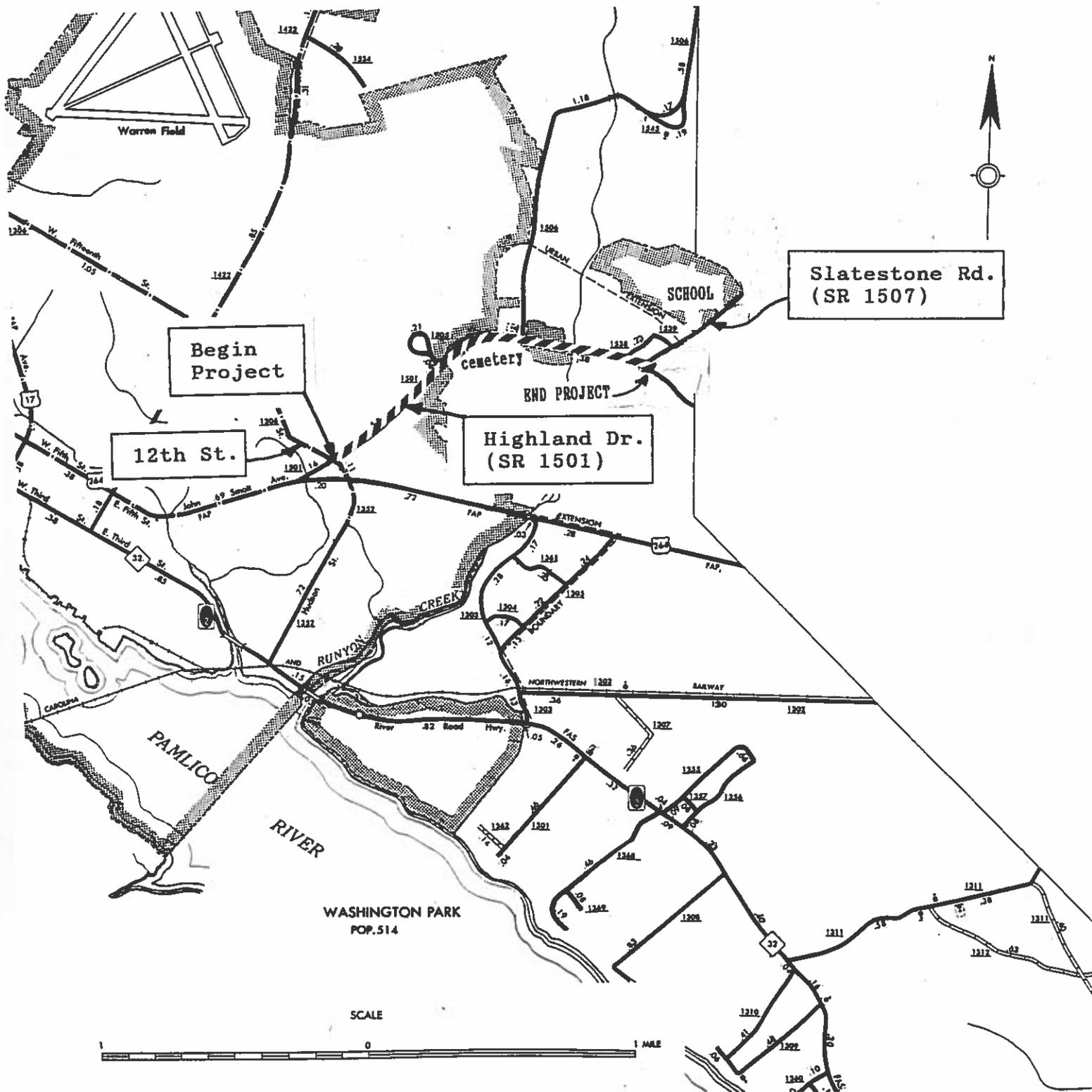
Construction :	\$2,800,000
Right of Way :	1,500,000
Total :	\$4,300,000

IV. OTHER COMMENTS

Early in the study, as an alternative to the proposed improvements, consideration was given to extending Slatestone Road south to intersect US 264 west of SR 1303. Extensive wetlands and residential development were found in the path of this extension and this alternative was not pursued further.

This study included consideration of widening Slatestone Road from Highland Drive northward a distance of approximately one half mile. The new Washington High School is located on the west side of Slatestone Road about 1500 feet north of Highland Drive. A traffic signal was installed at the intersection of Slatestone Road and Highland Drive prior to the school opening in the fall of 1990 and Slatestone Road was widened shortly after the school opened to provide left turn lanes at each of the three entrances to the school. Capacity analyses indicate that Slatestone Road is currently operating at level-of-service A and will operate at level-of-service B through the year 2011, therefore no additional improvements are recommended.

An environmental screening was conducted and no significant environmental impacts are expected as a result of this project. One business relocatee and no residential relocatees are anticipated. Approximately twenty-five graves will likely be relocated from the Cedar Grove Cemetery on Highland Drive.



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FIGURE 1. LOCATION MAP

Highland Drive

from

12th St. to Slatestone Road

Beaufort County U-2723

