FEASIBILITY STUDY

Gastonia

SR 2446 (Hoffman Road)
From NC 279 (New Hope Road)
to SR 2466 (Armstrong Park Road)
Gaston County

FS 35-92-004
(Part of U-2712)

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

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I. GENERAL DESCRIPTION

This is a Feasibility Study for the widening and extension of SR 2446 (Hoffman Road) from NC 279 to SR 2446 in Gastonia, Gaston County (see the attached vicinity map). The length of the studied project is 0.8 mile. The recommended typical cross-section is a five-lane, 64-foot curb and gutter section with 8-foot berms. The recommended right-of-way width is 90 feet, without access control. This study, along with feasibility study U-2712 are parts of T.I.P. project U-2712.

The estimated preliminary cost of the recommended improvements is $2,500,000 ($1,100,000 for right-of-way, and $1,400,000 for construction). A three-lane, 36-foot pavement with 8-foot usable shoulders was also evaluated as an alternative improvement, and is not recommended.

This study is not a detailed planning/environmental investigation. A feasibility study presents recommended typical cross sections, general alignments, and estimated cost of the improvement. The study also attempts to provide an early identification of potential environmental, permitting, or other issues which deserve consideration in the planning and construction stages.

II. EXISTING CONDITIONS & NEED FOR PROJECT

This study was requested by the City of Gastonia. SR 2446 (Hoffman Road) is classified as an Urban Minor Arterial in the statewide functional classification system, and is a part of the federal-aid system (FAU-5423). SR 2446 is classified as a Major Thoroughfare in the 1991 mutually adopted Gaston Urban Area Thoroughfare Plan. The 1,900-foot section of existing Hoffman Boulevard included in this project is a municipal responsibility.
This project is needed to provide Gastonia with an improved north-south traffic corridor, linking NC 279, US 29-70, and I-85.

The south terminal of this study (see Figure 1) is at the NC 279 (New Hope Road) and SR 2446 (Hoffman Road) intersection. This location is also the north terminal for feasibility study U-2712, which recommends the widening of Hoffman Road between Duke Street, and NC 279 to a five-lane 64-foot curb and gutter section.

The north terminal of this study is at the signalized intersection of SR 2446 (Armstrong Park Drive) and SR 2200 (Armstrong Park Road). SR 2200 consists of a 3-lane, 40-foot curb and gutter cross-section.

Land use along existing Hoffman Boulevard, at the south end of the project is mainly commercial. Gaston Memorial Park cemetery is located midway along the recommended new alignment. With the exception of Gardner Park elementary school, land use along the north end of the project is predominantly residential.

The recommended alignment includes approximately 1,900 feet of the existing Hoffman Boulevard, a non-system roadway, consisting of two 22-foot pavements divided by a 16-foot grassed median.

Detailed traffic and turn-movement projections were not available for this study. However, based on earlier studies, it is estimated that the average daily traffic (ADT) in 2012 would be approximately 11,000 vehicles per day for this proposed segment of SR 2446. With the recommended 5-lane cross-section, the roadway would offer LOS B through the year 2012.

III. RECOMMENDATIONS

It is recommended that SR 2446 (Hoffman Road) be widened and extended, partially on a new location, from NC 279 (New Hope Road) to SR 2466 (Armstrong Park Drive). The recommended alignment is as proposed by the City of Gastonia (see Figure 1). Total project length is 0.8 mile, including the 0.3 mile portion along existing Hoffman Boulevard. The recommended typical cross-section is a five-lane, 64-foot roadway with curb and gutters, and 8-foot berms. Recommended right-of-way width is 90 feet, without access control.

Traffic signal revisions will be required at both terminals of the project. All other intersecting roads are to be stop sign controlled.
The 5-lane typical cross-section is recommended to accommodate the anticipated traffic demand, and would represent a continuity of the improvements recommended in feasibility study U-2712. The combination of this project, and U-2712 would offer motorists a continuous 5-lane roadway from Duke Street to NC 279.

Total cost of the project is estimated at:

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
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<tbody>
<tr>
<td>Right-of-way</td>
<td>$1,100,000</td>
</tr>
<tr>
<td>Construction</td>
<td>$1,400,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$2,500,000</strong></td>
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</tbody>
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IV. ALTERNATIVE IMPROVEMENT

An alternative three-lane typical cross-section, with a 36-foot pavement, and 8-foot usable shoulders was also considered, and is not recommended. This alternative improvement follows the recommended alignment, and is identical to the recommended improvement except for the typical cross-section. The Gastonia City Council has endorsed the extension of Boffman Road as a three-lane roadway, and the City of Gastonia staff has requested the recommendation of a three-lane section for this project. However, the three-lane cross-section would offer a LOS D to the estimated year 2012 traffic demand. This would necessitate widening the proposed roadway to five lanes, along with its attendant impacts, and traffic disruptions. A four-lane cross-section is not recommended since it would not accommodate left-turning traffic that will be generated by the adjacent development.

V. OTHER COMMENTS & CONCERNS

An environmental screening was not conducted for this project. However, it is anticipated that the project would require the relocation of five residences.

This improvement is a part of T.I.P. project U-2712 (Cox Road improvement, from Duke Street to SR 2466 Armstrong Park Road). The remainder of project U-2712 is included in feasibility study U-2712, which recommends the widening and partial realignment of SR 2446 (Boffman Road) from Duke Street to NC 279. It should be noted that the City of Gastonia is naming the proposed roadway Cox Road from Duke Street to SR 2466, which includes portions of existing Boffman Road.