



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY  
GOVERNOR

1534 MAIL SERVICE CENTER, RALEIGH, N.C. 27699-1534

W. LYNDO TIPPETT  
SECRETARY

February 11, 2005

**MEMORANDUM TO:** Mr. Thomas Betts, Jr., Member, Board of Transportation  
Mr. Jim H. Trogdon, PE., Division Engineer, Division 4  
Mr. David King  
Mr. Calvin Leggett, P.E.  
Mr. Kevin Lacy, P.E. (3) Attention: Jim Dunlop, P.E.  
Mr. John Williamson  
Dr. Gregory Thorpe (2)  
Ms. Deborah Barbour, P.E.  
Mr. Jay Bennett, P.E.  
Mr. Mike Bruff, P.E.  
Mr. Art McMillan, P.E.  
Mr. A. L. Avant  
Mr. Ray McIntyre, P.E.  
Mr. Doug Lane  
Mr. Omar Sultan  
Mr. Mr. John Robert League, MPO  
**FROM:** Mr. R. N. Prince  
Feasibility Studies Unit

**SUBJECT:** Feasibility Study **FS-0204D**; SR 1250 (Springfield Road) from US 64Alt. (Raleigh Street) to SR 1243 (Leggett Road), Rocky Mount, Edgecombe County.

Our staff has completed a feasibility study for the proposed project referenced above. 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.

RNP/rnp

Attachment

cc: Mr. Len Sanderson, P.E.

**FEASIBILITY STUDY**

**City of Rocky Mount**

**Improvements to Springfield Road (SR 1250)  
from Raleigh Street (US 64 Alt.)  
to Leggett Road (SR 1243).**

**Edgecombe County**

**Division 4**

**FS -0204D**



**Prepared by the  
Program Development Branch  
N. C. Department of Transportation**



**R. N. Prince  
Feasibility Studies Engineer**

  
**Derrick W. Lewis, P.E.  
Head of Feasibility Studies**

  
**Date**

City of Rocky Mount  
Improvements to Springfield Road (SR 1250)  
from Raleigh Street (US 64 Alt.)  
to Leggett Road (SR 1243),  
Edgecombe County

**I. General Description**

This feasibility study describes the improvements to Springfield Road (SR 1250) from Raleigh Street (US 64 Alt.) to Leggett Road (SR 1243), a distance of approximately 1.3 miles. The project location is shown on Figure 1. As part of the study, two different cross-sections were considered, the details of which are as follows:

- ◆ **ALTERNATIVE 1:** Three-lane curb and gutter section, 40 feet wide face-to-face of curbs on 100' of right-of-way. The alignment will be symmetrical about the centerline throughout the entire project.
  
- ◆ **ALTERNATIVE 2:** Four-lane divided curb and gutter section, 75 feet wide face-to-face of curbs with a 23' raised grass median on 110' of right-of-way. The alignment will be symmetrical about the centerline throughout the entire project.

This 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 proposed project including cost, and to identify potential problems that may require consideration in the planning and design phases.

**II. Background**

The purpose of this project is to improve the traffic carrying capacity and promote a safer environment as well as provide improved access from Leggett Road (SR 1243) to Raleigh Street (US 64 Alt.).

The City of Rocky Mount, Edgecombe County, the Rocky Mount area Municipal Planning Organization (MPO) and North Carolina Department of Transportation Division Four, Division Engineer supports this project.

The North Carolina Moving Ahead Program for Division 4 has included Springfield Road (SR 1250) from Leggett Road (SR 1243) to NC 97 on the project list for widening and resurfacing.

Springfield Road is designated as a Major Thoroughfare in the Rocky Mount Urban Area Thoroughfare Plan and as a Minor Arterial in the North Carolina Statewide Functional Classification System.

Springfield Road is currently a two-lane shoulder facility with 21' of pavement along most of the project, except at the intersection of US 64 Alt., in which the terminus is a four-lane, curb and gutter section with 47' of pavement.

Springfield Road at the Leggett Road Intersection consists of two-lanes shoulder section with 21' of pavement.

US 64 Alt. at the Springfield Road intersection consist of five-lanes curb and gutter section with 60' of pavement.

Leggett Road (SR 1243) at the Springfield Road (SR 1250) Intersection consists of two-lanes shoulder section with 21' of pavement

The development along Springfield Road is primarily residential along the 1.3-mile project with the exception of a fire station, two small businesses located near the US 64 Alt. Intersection and J&J Quick Mart (now know as "Devine Design Beauty Shop"), located in the southeast quadrant of the SR 1250 and SR 1243 intersection.

### **III. Traffic and Safety**

There is one existing traffic signal within the project limits, located at Raleigh Street (US 64 Alt.) and Springfield Road (SR 1250).

The current year Average Daily Traffic (ADT) along Springfield Road (SR 1250) within the project limits is 4500 vehicles per day (vpd) in 2004 and is projected to be 6200 vpd in the Design Year (DY) 2025. Truck traffic is estimated to make up approximately 6 percent of the daily traffic.

Currently Springfield Road is operating at Level of Service (LOS) C or higher for the entire project limit. If no improvements are made, it is projected that Springfield Road will continue to operate at a LOS "C" or better in the 2025 design year.

Between 2000 and 2003, 27 accidents occurred within the project limits. There were 10 injury accidents, 17 property damage accidents and no fatalities as a result of these incidents. The accident rate for this 1.3-mile portion of roadway is 520.64 accidents per 100 million vehicle miles of travel (acc/100mvm), which is 18.86% higher than the 2000-2002 statewide rate of 422.44 accidents/100mvm for two-lane undivided secondary routes.

It should be noted that 13 of the total 27 accidents occurred at the intersection of Springfield Road and Raleigh Street.

#### IV. Description of Alternatives

It is proposed to improve Springfield Road (SR 1250) from Raleigh Street (US 64 Alt.) to Leggett Road (SR 1243), a distance of approximately 1.3 miles. The project location is shown on Figure 1. Two cross-sections were evaluated in this study.

The cost estimates below include sidewalks on both sides of the roadway at an estimated cost of 150,000.00 dollars per side.

The details of both proposed sections are as follows:

**ALTERNATIVE #1:** Three-lane curb and gutter section, 40 feet wide face-to-face of curbs and 15-foot berms on 100 feet of right-of-way.

- Under the Alternative #1 proposal, it is anticipated there will be 0 (zero) residential and 0 (zero) businesses relocated. The total cost of this alternative is estimated to be \$6,500,000.00.

Construction	3,300,000.00
Right-of-Way (100')	2,900,000.00
Sidewalks (Both sides) entire length of project	300,000.00
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Estimated Project Cost (Alternative 1)	6,500,000.00

**ALTERNATIVE 2:** Four-lane divided curb and gutter section with a 23 foot raised grass median, 75 feet wide face-to-face of curbs, and 15 foot berms, on 110 feet of right-of-way.

- Under the Alternative #2 proposal, it is anticipated there will be 0 (zero) residential and 0 (zero) businesses relocated. The total cost of this alternative is estimated to be \$9,300,000.00.

Construction	5,500,000.00
Right-of-Way (110')	3,500,000.00
Sidewalks (Both sides) entire length of project	300,000.00
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Estimated Project Cost (Alternative 2)	9,300,000.00

#### V. Community Issues

A detailed investigation was not conducted for this feasibility study, however no impacts to schools, parks, recreation areas, or community facilities are anticipated with this project.

The North Carolina Archives & History of Cultural Resources identifies J&J Quick Mart (now know as "Devine Design Beauty Shop"), located in the southeast quadrant of the SR 1250 and SR1243 intersection as a potential historic site.



The facility was actually built in 1954; the store resembles many others from the 1920s and 1930s with proportions and battered posts on brick piers typical of the bungalow style. C. A. Moore had a grocery store on Benvenue Road on the Nash County side of Rocky Mount. Widening of the road in 1954 by the State compensated Moore's loss of that store by building this one. At this time "Divine Design Beauty Shop" occupies the building.

The proposed upgrade to Springfield Road will have property impact, however the project should not impact the structure itself. A detailed investigation during the planning and design stages will be necessary to determine the need to avoid and/or minimize the anticipated impact to this parcel.

## **VI. Natural and Environmental Issues**

A detailed environmental study was not conducted for this feasibility study. However, existing information available for this project area has been screened for environmental and historic concerns and no impacts to streams or wetlands are anticipated.

There is no indication of threatened or endangered species within the project area based on maps developed by the Department of Environmental, Health & Resources and Natural Heritage Section.

## VII. Recommendations

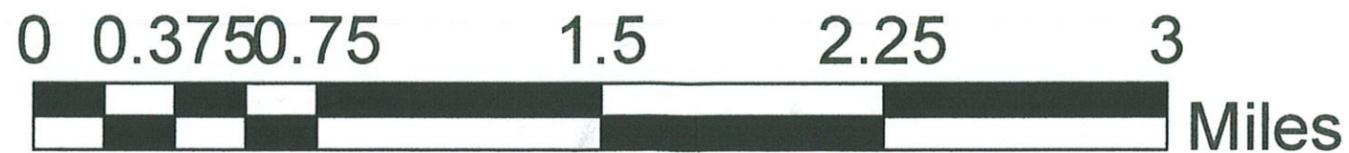
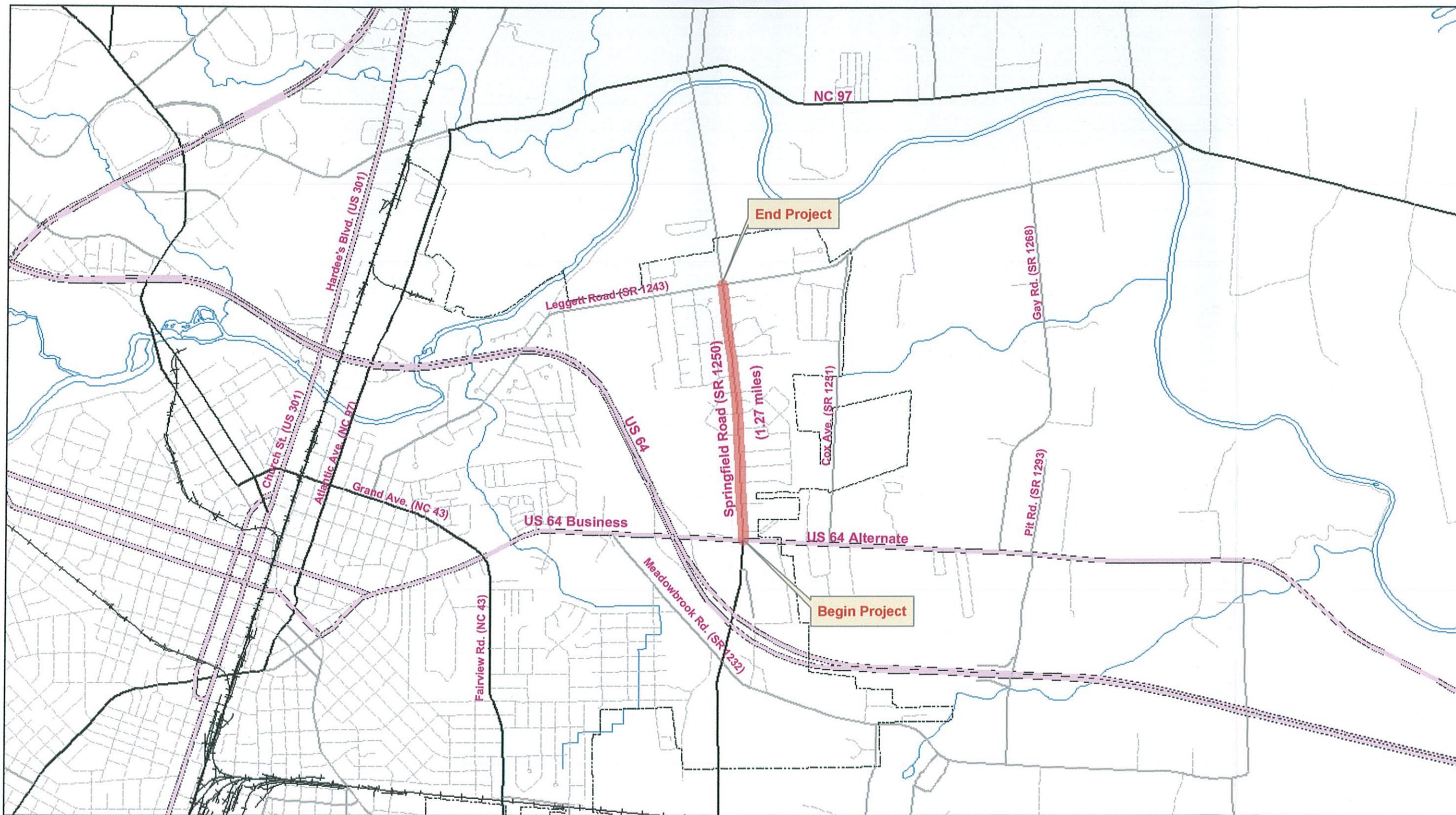
**ALTERNATIVE No.1:** After analyzing the information available, it was concluded the addition of a three-lane curb and gutter section with two-way left turn-lane would offer direct access to adjacent properties and improve the traffic safety and operations by reducing the conflicts with through traffic. The installation of a sidewalk and curb and gutter would also improve drainage and the safety of pedestrian traffic throughout the project limits. Although design year traffic projections do not currently support the need for additional through capacity, **the three-lane improvements proposed in this alternative are recommended in order to provide improved traffic and safety operation, pedestrian safety and drainage on this facility.**

**ALTERNATIVE No.2:** This alternative was developed because the thoroughfare plan recommended this section of SR 1250 be ultimately widened to a four-lane undivided urban section. Given the traffic safety and operational issues with four-lane undivided sections, a four-lane divided curb and gutter section with a narrow raised grass median was considered as an appropriate alternative. Analyzing all the information available for the four-lane divided curb and gutter section, it was concluded this alternative would accommodate the projected traffic volumes well beyond the design year 2025 volumes. In addition these improvements would improve motorist and pedestrian safety, and reduce traffic congestion by increasing the road capacity and providing positive control of left turn access. The median would also provide a pedestrian refuge. However, we do not recommend this alternative because the projected demand on this facility does not support the need for improvements of this magnitude.

## VIII. Additional Comments

No special bicycle accommodations were investigated for this project.

**FS - 0204D**  
**Rocky Mount / Edgecombe County**  
**FIGURE #1**





Existing Centerline	---
Existing 60' RW	---
Alt. #1 Proposed 100' RW	---
Alt. #2 Proposed 110' RW	---

**Project End**

**Project Begin**

STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RAILROAD

Project Number: PS-0204D  
Description: Springfield Road (SR 1250) from Raleigh Street (US 64 Alt.) to Leggett Road (SR 1243)  
City: Rocky Mount  
County: Edgecombe  
Division: 04

REVISIONS		SHEET	
NO.	BY	DATE	NO
1	RNP	12/3/04	3
2			4

1 of 1  
SCALE  
1" = 500'

DRAWN BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
CHECKED BY: \_\_\_\_\_ DATE: \_\_\_\_\_