

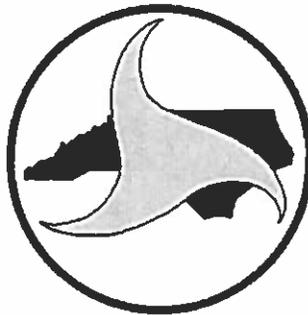
**FEASIBILITY STUDY**

**Salisbury**

**Airport Parkway  
from SR 2539 (Peach Orchard Rd.) at I-85  
to US 70-601 (Jake Alexander Blvd.)  
Rowan County**

**Division 9**

**U-3821**



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

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2/26/98  
Date

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## **I. General Description**

This feasibility study describes constructing the proposed Airport Parkway from SR 2539 (Peach Orchard Rd.) at I-85 to US 70-601 (Jake Alexander Blvd.), a distance of 4.8 miles (7.7 km). The project location and the studied alignments are shown on Figure 1. The recommended cross-section is a two-lane shoulder section, 24 feet (7.3 m) wide with 4-foot (1.2-m) paved shoulders, on 100 feet (30.5 m) of right-of-way with no access control. It is not anticipated that there will be any residences or businesses relocated due to this project. The total cost of the project, including construction and right-of-way, is estimated to be \$12,200,000.

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

## **II. Need for Project**

The purpose of this project is to provide improved access to the Rowan County Airport and to alleviate traffic congestion on US 70-601 (Jake Alexander Blvd.). This project is supported by the Rowan County Board of Commissioners.

The proposed Airport Parkway is designated as a proposed major thoroughfare in the Salisbury Thoroughfare Plan.

The studied alternates would utilize several local roadways as a part of this project. SR 2539 (Peach Orchard Rd.) is currently a two-lane roadway with a pavement width of 22 feet (6.7 m) with soil shoulders. Development along this roadway is a combination of single family residences and industrial sites. Bridge No. 200 carries SR 2539 over Town Creek, and is 42 feet (12.8 m) long with a clear deck width of 29.3 feet (8.9 m). The structure was built in 1964 as a reinforced concrete deck on I-beams and currently has a sufficiency rating of 77.6.

SR 1625 (National Guard Rd.) is a two-lane roadway with a pavement width of 24 feet (7.3 m) with soil shoulders. This roadway provides access to the Rowan County Airport and to the local National Guard station. The former Rowan County Landfill is located on the west side of this roadway.

Candlewick Street is a two-lane roadway with a pavement width varying between 18 and 20 feet (5.5-6.1 m) with soil shoulders. Development along this roadway consists primarily of single family residences. North of NC 150, Candlewick Street is SR 1825.

TIP Project I-2511 BB will widen I-85 to an eight-lane facility and replace Bridge No. 112, which carries SR 2539 (Peach Orchard Rd.) over I-85. It is currently scheduled for construction in March 1998.

This project crosses a Norfolk Southern railway, which is located parallel to US 29-601. This railway carries 36 trains per day at an average speed ranging between 50 and 79 mph (80.5-127.2 kph). This crossing would have an estimated exposure index of 378,000 in the design year 2020. This railway is designated as part of North Carolina's High Speed Rail Corridor and will require crossing with a grade separation.

The projected 1997 Average Daily Traffic (ADT) along the proposed Airport Parkway varies from 5,100 to 10,200 vehicles per day (vpd). For the design year 2020, the estimated traffic volumes on the proposed Airport Parkway will range between 7,400 and 15,400 vpd. Truck traffic is estimated to make up eight percent of daily traffic.

If the proposed Airport Parkway is constructed as a two-lane shoulder section, the facility will operate at LOS A in the current year and at LOS B in the design year 2020. This assessment is based upon an urban arterial analysis with limited access points within the project limits.

### **III. Recommendations**

It is recommended to construct the proposed Airport Parkway from SR 2539 (Peach Orchard Rd.) at I-85 to US 70-601 (Jake Alexander Blvd.), a distance of 4.8 miles (7.7 km). The project location is shown on Figure 1. The recommended cross-section is a two-lane shoulder section, 24 feet (7.3 m) wide with 4-foot (1.2-m) paved shoulders, on 100 feet (30.5 m) of right-of-way with no access control.

The recommended alignment as shown on Figure 1 starts from the I-85 southbound ramp terminal at the I-85 interchange with SR 2539 (Peach Orchard Rd.). It is recommended to realign SR 1526 (Henderson Grove Rd.)

with existing SR 2539 in order to improve the existing spacing with the I-85 southbound ramp terminal. Alternate 1 follows new location from this interchange to SR 1516 (Airport Rd.). This will require a new structure over Town Creek, which will be approximately 70 feet (21.3 m) long with a clear deck width of 40 feet (12.2 m).

A new structure will be required to cross the Norfolk Southern Railway and US 29-601. Due to conflicts with the railway and an industrial complex, it is recommended to construct this interchange as a single-quadrant two-lane ramp via SR 1517 (Airport Loop). This grade separation will allow for the closing of the existing access of SR 2539 (Peach Orchard Rd.) at its existing rail crossing in order to accommodate the future High Speed Rail Corridor. This new structure will be approximately 200 feet (61.0 m) long with a clear deck width of 40 feet (12.2 m).

It is recommended to realign SR 1516 (Airport Rd.) with SR 1625 (National Guard Rd.) as a T-intersection in order to accommodate the projected flow of traffic through the intersection. North of SR 1625, the project follows new location to SR 1710 (Harrison Rd.), where the project intersects with US 70-601 (Jake Alexander Blvd.). This alignment will require a new bridge at Grant's Creek and a new culvert at Draft Branch. The new bridge at Grant's Creek will be approximately 120 feet (36.6 m) long with a clear deck width of 40 feet (12.2 m). The culvert at Draft Branch will be a triple-barrel 8-foot by 10-foot (2.4 x 3.0 m) reinforced concrete box culvert. This alignment will require the realignment of SR 1710 into the proposed Airport Parkway in order to accommodate the projected flow of traffic. This alignment will also require minor modifications to the alignment of Draft Branch.

It is not anticipated that any residences or businesses will be relocated due to the project. The total cost of the project is as follows:

Construction.....	\$ 11,400,000
Right-of-way.....	\$ 800,000
<b>Total Cost .....</b>	<b>\$ 12,200,000</b>

#### IV. Alternates

Two different alignments were evaluated for portions of this project. The first option follows existing SR 2539 (Peach Orchard Rd.) from I-85 to US 29-601, and then is on new location from US 29-601 to SR 1525 (National Guard Rd.). The existing Bridge No. 200 at Town Creek will require replacing with a new structure approximately 45 feet (13.7 m) long with a clear deck width of 40 feet (12.2 m). This option will require a bridge approximately 400 feet (122.0 m) long in order to span the Norfolk Southern Railway and US 29-601.

This option will also require the complete relocation of the Circle Drive Mobile Home Park, which represents a more substantial right-of-way impact than the recommended alignment.

It is anticipated that eighteen residences and one business will be relocated under this alternate. The total cost of this alternate is as follows:

Construction.....	\$ 11,700,000
Right-of-way.....	\$ 1,800,000
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Total Cost .....	\$ 13,500,000

The second option follows an alternate alignment north of SR 1625 (National Guard Rd.), which is consistent with the local thoroughfare plan. This alignment follows existing Candlewick Street from SR 1526 (Rowan Mill Rd.) to north of NC 150, and then is on new location until it ties into SR 1710 near its intersection with US 70-601. This alignment will require several additional residential relocations, as well as the relocation of a small graveyard. The number and size of structures for this option are identical to those included on the recommended alignment.

It is anticipated that seven residences and two businesses will be relocated under this alternate. The total cost of this alternate is as follows:

Construction.....	\$ 11,100,000
Right-of-way.....	\$ 1,800,000
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Total Cost .....	\$ 12,900,000

## V. Additional Comments

This project has been coordinated with the Division of Aviation. No conflicts are anticipated with the Rowan County Airport with respect to runway clear zones and future airport development.

The use of a shoulder section is required in the vicinity of the Rowan County Landfill in order to allow adequate dispersion of methane gases. If a multilane section is considered during the project planning stages, either an open-grate curb and gutter section or a shoulder section is permissible. The former Rowan County Landfill is currently listed as a Superfund Site (NCD 980 557 748).

The Abex Corporation building located in the southwest corner of the intersection with US 29-601 and SR 1516 (Airport Rd.) is also currently listed as a Superfund Site (NCD unknown).

An environmental screening was not conducted for this study. However, no impacts to historic properties are anticipated.

Approximately 6.8 acres of wetlands are expected to be impacted in the vicinity of Town Creek, Grant's Creek, and Draft Branch. A Corps of Engineers Section 404 Permit is anticipated.

Based on maps at the Department of Environment, Health & Natural Resources - Natural Heritage Section, no threatened or endangered species were identified in the project corridor.

The sections of Town Creek, Grant's Creek, and Draft Branch within the project corridor are classified as Class C waterways and are part of the Yadkin Creek Basin.

No special accommodation for bicycles is recommended on this project.

