## PURPOSE AND NEED AND STUDY AREA DEFINED

New Route (Airport Parkway) from US 70/US 601 (Jake Alexander Boulevard) to SR 2538 (Peeler Road) at US 29 in Salisbury Rowan County STIP Project U-5901

North Carolina Department of Transportation
Division 9


## MERGER CONCURRENCE POINT NUMBER 1

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## 1. Introduction

The purpose of this meeting is to review information related to Concurrence Point (CP) 1, Purpose and Need and Study Area Defined, for the proposed Airport Parkway (State Transportation Improvement Program [STIP] Project No. U-5901, WBS No. 44705.1.1) in Rowan County. The lead federal agency for the proposed project is the Federal Highway Administration (FHWA).

The primary points of contact for the subject project are:

| Agency | Name |
| :--- | :--- |
| Federal Highway Administration (FHWA) | Donnie Brew |
| U.S. Army Corps of Engineers (USACE) | Steve Brumagin |
| North Carolina Department of Water Resources (NCDWR) | Ryan Conchilla |
| North Carolina Department of Transportation | Ryan Newcomb |
| NV5 | Eric Midkiff |

### 1.1 Project Description

The North Carolina Department of Transportation (NCDOT) proposes to construct the Airport Parkway in Rowan County. As described in the approved NCDOT 2024 to 2033 Current STIP (February 2024), the proposed Airport Parkway (STIP No. U-5901, WBS No. 44705.1.1) would be a new route from US 70/ US 601 (Jake Alexander Boulevard) to SR 2538 (Peeler Road) at US 29 (S. Main Street) in Salisbury. The proposed project is approximately 3.6 miles long and is anticipated to be a two-lane roadway. The project's proposed study area is shown on Figure 1 and Figure 2.

The NEPA documentation is anticipated to be a Type III CE.

### 1.2 Project History in Local Planning

The initial depiction of the proposed Airport Parkway was endorsed in the November 1995 Thoroughfare Plan for Salisbury on approximately the same alignment as the recommended 1998 Feasibility Study alignment (discussed below). At that time, the project was located in Rowan County's planning jurisdiction. Since then, urbanization and annexations surrounding the proposed project have largely transitioned the area into Salisbury's corporate limits or planning jurisdiction.

A Feasibility Study titled Airport Parkway from SR 2539 (Peach Orchard Road) at I-85 to US 70-601 (Jake Alexander Boulevard), Rowan County was completed in February 1998 by NCDOT's Program Development Branch. The feasibility study indicated that the purpose of the proposed Airport Parkway was to "provide improved access to the Rowan County Airport and to alleviate traffic congestion on US 70-601 (Jake Alexander Blvd.)." The feasibility study recommended constructing the proposed project from Peach Orchard Road at I-85 to Harrison Road at US 70/US 601 (Jake Alexander Boulevard) as a two-lane shoulder section on 100-foot right-of-way with no access control.

The proposed project was also shown on the April 1999 Thoroughfare Plan for Rowan County, as well as the March 2000 Rowan County Thoroughfare Plan and Report, on approximately the same alignment as the recommended Feasibility Study alignment.

The Rowan County Land Use Plan for Areas West of I-85 (April 2009) identifies the proposed Airport Parkway as a needed road improvement to provide economic development opportunities for properties in the vicinity of the Mid-Carolina Regional Airport, as well as for areas along US 29 (S. Main Street) and
the adjacent rail corridor that would benefit from improved access to I-85. The Plan shows the northern terminus of the proposed project at the Jake Alexander Boulevard (US 70/US 601)/Harrison Avenue intersection. It also shows the proposed project following National Guard Road to Airport Road, then continuing south on new location to US 29 (S. Main Street) and across the railroad tracks, before following Peach Orchard Road to I-85.

The proposed Airport Parkway was included in the CRMPO 2040 Metropolitan Transportation Plan (MTP) (April 2014) as a needed roadway improvement for the 2040 horizon year. It is also shown on the updated January 2017 CRMPO Plan map as a needed improvement for the 2035 horizon year.

The proposed project is also identified in the 2017 Cabarrus-Rowan Metropolitan Planning Organization Comprehensive Transportation Plan (CRMPO CTP) (September 2016). The CTP alignment for the proposed project shows the northern terminus at the Jake Alexander Boulevard (US 70/US 601)/Brenner Avenue intersection, and the southern terminus at the Peeler Road/Cedar Springs Road overpass on US 29 (S. Main Street). Peeler Road was realigned in September 2015 to tie into Cedar Springs Road with a new bridge over US 29 (S. Main Street) and the Norfolk Southern Railroad. The proposed CTP alignment for Airport Parkway also includes portions of Cedar Springs Road and Candlewick Drive.

The proposed project is included in the CRMPO's 2050 Metropolitan Transportation Plan (March 2022). The 2050 MTP identifies it as a regionally significant project.

Chapter 3 (Responsibly Managed Growth) of the City of Salisbury's Forward 2040 Comprehensive Plan (February 2023) includes a Growth Strategies Map which provides the City's vision for where and how to promote growth. The map shows the proposed Airport Parkway as a future corridor. The Future Land Use Map in Chapter 4 (Context-Based Urban Design) of Salisbury's 2040 Comprehensive Plan also shows the proposed Airport Parkway as a future corridor.

### 1.3 Project Studies 2017 to 2018

NCDOT originally initiated STIP No. U-5901 project studies in 2017. Initial agency scoping outreach was conducted in 2017 and preliminary alternatives were generated. In July, 2018 an Open House Public Meeting was held to introduce the project to the public and to receive feedback on the preliminary alternatives (see Exhibit A below). Most of the alternative alignments were located west of the MidCarolina Regional Airport, located within a larger study area than is now proposed. Meeting participants were adamantly opposed to any of the alternatives located west of the airport and overwhelmingly favored alignments located east of the airport. Rowan County and the City of Salisbury subsequently provided a joint resolution endorsing an alternative located east of the airport, citing the impacts of the western alternative alignments to residents, businesses, the airport, and the environment. Project studies were put on hold in late-2018.


Exhibit A - Preliminary Alternatives 2018 Public Outreach

### 1.4 NCDOT Actions during Scoping

NCDOT re-initiated project studies in late 2022. Agency scoping outreach occurred in April 2023.
A Merger Screening Meeting for the proposed Airport Parkway project was held on October 12, 2023. Attendees at the meeting included representatives from the USACE, NCDWR, NCDOT Environmental Policy Unit, and NCDOT Division 9. It was determined at the meeting that the proposed project would proceed through the Merger Process.

### 1.5 Current Project Costs and Schedule

The project is included in NCDOT's approved 2024-2033 STIP (February 2024) as Project No. U-5901 and is being managed by NCDOT Division 9. Right-of-way acquisition and construction are scheduled to begin in Fiscal Year (FY) 2027 and 2030, respectively. The current costs for the project as estimated in the approved STIP are shown in Table 1. The draft project schedule is included in Table 2. The schedule and cost estimates are draft and subject to change.

Table 1. 2024-2033 STIP U-5901 Cost Estimate

| Phase | Estimated Costs |
| :--- | :---: |
| Prior Years Cost (from 2020-2029 STIP) | $\$ 1,000,000$ |
| Right of Way | $\$ 8,900,000$ |
| Utilities | $\$ 6,900,000$ |
| Construction Total | $\$ 39,502,000$ |
| Total | $\$ 56,302,000$ |

Table 2. Draft U-5901 Project Schedule*

| Milestone | Anticipated <br> Date |
| :--- | :--- |
| CP 1 (Purpose and Need and Study Area Defined) | April 2024 |
| CP 2 (Detailed Study Alternatives Carried Forward) | July 2024 |
| CP 2A (Bridging Decisions and Alignment Review) | March 2025 |
| Public Meeting | April 2025 |
| CP 3 (Proposed LEDPA/Preferred Alternative Selection) | June 2025 |
| Type III CE | January 2026 |
| CP 4A (Avoidance and Minimization) | TBD |
| CP 4B (Hydraulic Design Review) | TBD |
| CP 4C (Permit Drawings Review) | TBD |
| Begin ROW Acquisition | FY 2027 |
| Begin Construction | FY 2030 |

*Draft, subject to change

### 1.6 Other Projects Nearby

There are four additional transportation projects from the approved 2024-2033 STIP (February 2024) in the proposed study area, as well as one approved residential development:

- STIP No. U-5738 - SR 2528 (Julian Road) from US 601 (Jake Alexander Blvd) to SR 2667 (Summit Park Drive) in Salisbury. Widen to multi-lanes. Under construction.
- STIP No. HL-0049 - Brenner Avenue from US 70/US 601 (Jake Alexander Blvd) to Milford Hills Road in Salisbury. Construct median; construct roundabout at Milford Hills Road. Right-of-way in FY 2024 and construction in FY 2024.
- STIP No. BL-0034 - US 70/US 601 (Jake Alexander Blvd) from west of Kelsey Scott Park Greenway to end of Salisbury Mall Greenway/Carolina Thread Trail. Construct sidewalk. Right-of-way in FY 2025 and construction in FY 2025.
- STIP No. Y-5500IA - SR 1526 (Henderson Grove Church Road) in Salisbury. Close railroad crossing No. 724 362M and construct new location to SR 2528 (Julian Road). Construction in FY 2024.
- Grants Landing is an approved 126-acre single-family residential development located within the proposed study area in the southwest quadrant of the Mooresville Road/Rowan Mill Road/Sherrills Ford Road intersection. The site plan for the development includes 234 lots.


## 2. Existing Conditions

### 2.1 Transportation Features

There are several United States and North Carolina routes in the proposed study area. US 70 and US 601 follow Jake Alexander Boulevard along the northeastern edge of the proposed study area. Jake Alexander Boulevard (US 70/US 601) is a five-lane, undivided facility with a two-way-center-turn-lane through the study area. It transitions to a four-lane divided facility with partial/full access control to the south of Castlewood Drive. Jake Alexander Boulevard (US 70/US 601) is a heavily traveled connector between I-85 to the south and northwestern Salisbury and has intensive commercial development within the proposed study area. US 70 connects Salisbury to Statesville to the west and Lexington to the northeast. US 601 connects Salisbury to Mocksville to the north and Kannapolis/Concord to the south.

US 29 follows S. Main Street along the southeastern edge of the proposed study area. US 29 (S. Main Street) is a five-lane, undivided facility with a two-way-center-turn-lane throughout the study area. US 29 (S. Main Street) parallels the Norfolk Southern Railroad through the study area, and I-85 also parallels US 29 (S. Main Street) further to the south. With the recent widening of I-85 and multiple I-85 interchanges in southwestern Salisbury, much of the traffic previously using US 29 (S. Main Street) as an alternative route to avoid congestion on I-85 has shifted to I-85. The US 29 (S. Main Street) corridor through the proposed study area has not seen the growth in development that has occurred along Jake Alexander Boulevard (US 70/US 601), rather many of the industrial sites along the corridor are currently partially or completely vacant. US 29 connects Salisbury to Lexington to the northeast and Kannapolis/ Concord to the south.

NC 150 (Mooresville Road) runs east-west through the center of the proposed study area. Mooresville Road is a five-lane, undivided facility with a two-way-center-turn-lane between Jake Alexander Boulevard (US 70/US 601) and just east of SR 1825 (Candlewick Drive), at which point it becomes a twolane road to the western proposed study area boundary. NC 150 connects Salisbury to Mooresville to the west and Winston-Salem to the northeast.

The area along Jake Alexander Boulevard (US 70/US 601) in the vicinity of the Brenner Avenue intersection has the most intense commercial development in the proposed study area, and Brenner Avenue is planned to be extended for a short distance to the west of Jake Alexander Boulevard (US 70/US 601) for future development.

Table 3 summarizes basic information about the United States, North Carolina, and other existing roadways in the proposed study area, including NCDOT's functional classification, 2023 Average Annual Daily Traffic (AADT), existing lanes, lane width, existing right-of-way width, and posted speed limit.

Table 3. Existing Roadway Characteristics

| Facility | Existing Feature |  |  | Functional Classification | $\begin{aligned} & 2023 \text { AADT } \\ & \text { (vpd }^{*} \text { ) } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. of Lanes | ROW (est. in ft) | Speed <br> Limit <br> (mph) |  |  |
| US 29 (S. Main Street) | 5 | 100 | 55 | Other Principal Arterial | $\begin{aligned} & 8,500- \\ & 16,100 \end{aligned}$ |
| US 70/US 601 (Jake Alexander Blvd) | 5 | 100 | 45 | Other Principal Arterial | $\begin{gathered} 26,000- \\ 34,400 \end{gathered}$ |
| NC 150 (Mooresville Road) | 5/2 | Variable (60-120) | 45/50 | Minor Arterial | $\begin{aligned} & 8,000- \\ & 17,100 \end{aligned}$ |
| SR 1710 (Harrison Road) | 2 | 60 | 45 | Minor Arterial | 6,600** |
| Brenner Avenue | 3 | 80 | 35 | Major Collector | 11,800 |
| Lincolnton Road | 5 | Variable (60-125) | 35 | Major Collector | 7,100-7,200 |
| SR 2539 (Peach Orchard Road) | 2 | 40 | 45 | Local Street | 3,400** |
| SR 2538 (Peeler Road) | 2 | $\begin{aligned} & \text { Variable } \\ & (200-250) \end{aligned}$ | 45 | Local Street | 4,200 |
| SR 1560 (Cedar Springs Road) | 2 | Variable (60-200) | 55 | Local Street | 3,900 |
| SR 1516 (Airport Road) | 2 | 50 | 45 | Local Street | 3,400-5,600 |
| SR 1625 (National Guard Road) | 2 | 60 | Unposted | Local Street | 200 |
| SR 1526 (Rowan Mill Road) | 2 | Variable (40-55) | 35/45 | Local Street | 4,100-4,400 |
| SR 1825 (Candlewick Drive) | 2 | Variable (40-60) | 25 | Local Street | 400 |
| SR 1571 (Red Acres Road) | 2 | 40 | 35 | Local Street | 100 |
| NA = Not Available *"vehicles per day" <br> **2021 NCDOT AADT |  |  |  |  |  |

### 2.2 Natural Environmental Features

The proposed study area is located in central Rowan County, approximately two miles west-southwest of downtown Salisbury (see Figure 1). The proposed study area is located mostly within either the City of Salisbury city limits, or the City's extraterritorial jurisdiction (ETJ), although a small portion is located within unincorporated Rowan County. The topography of the area is generally rolling hills interspersed with level areas.

Environmental resources within the proposed study area are shown on the Environmental Features Map (Figure 2). The proposed study area is part of the Yadkin-Pee Dee River Basin (U.S. Geological Survey [USGS] Hydrologic Unit [HUC] 03040103). There are no state regulated riparian buffer rules in the proposed study area. There are no water supply watersheds (WS-I or WS-II) within or within 1.0 mile
downstream of the proposed study area. There are no trout waters, primary nursery areas (PNA), or anadromous fish within the proposed study area.

The NC 2022 Final 303(d) list of impaired waters identifies two streams (Grants Creek and Town Creek) that are within, or within 1.0 mile downstream, of the proposed study area. For the segment(s) of Grants Creek that are present within the proposed study area, this stream is 303d listed for two parameters: Fish Community (Nar, AL, FW)/5 - Exceeding Criteria; and Fecal Coliform (GM 200/400, REC, FW)/4t - Exceeding Criteria. For the segment(s) of Town Creek that are present within the proposed study area, this stream is 303d listed for: Benthos (Nar, AL, FW)/5 - Exceeding Criteria (Fair, Poor or Severe Bioclassification); and Fish Community (Nar, AL, FW)/5 - Exceeding Criteria (Fair, Poor or Severe Bioclassification).

The proposed study area is bisected by Grants Creek and its tributaries, including Draft Branch and several unnamed tributaries. Grants Creek flows from southwest to northeast through the center of the proposed study area with the northeastern portion being mostly undeveloped. The creeks bisecting the proposed study area are generally bordered by wooded areas and wetlands. There are areas of FEMAdesignated 100-year floodplain and floodway, as well as NWI wetlands, present along substantial portions of Grants Creek, Draft Branch, and their tributaries within the proposed study area.

As of December 21, 2023, the USFWS Information for Planning and Consultation (IPaC) tool lists two federally protected species for Rowan County within the proposed study area. The Schweinitz's sunflower (Helianthus schweinitzii) is listed as Endangered, and the tricolored bat (Perimyotis subflavus) was listed as Proposed Endangered in December 2023. There are no designated critical habitats listed within the proposed study area.

As shown on Figure 2, the old Rowan County Landfill occupies several large parcels of land west and north of the Armory.

### 2.3 Human Environmental Features

The proposed study area's southern portion (south of Airport Road), as well as the US 29 (S. Main Street) corridor, are characterized primarily by a mix of industrial and institutional development. Many of the industrial sites are currently partially or completely vacant. The railroad tracks serving the industrial areas south of Airport Road have been abandoned. The Mid-Carolina Regional Airport and adjacent National Guard Armory Army Aviation Support Facility are located north of Airport Road, between Airport Loop and National Guard Road.

Based on demographic data, low income and minority populations exist in the study area. There are lowincome housing developments, including mobile home parks, and associated supporting businesses along Airport Road south and west of the airport, as well as along US 29 (S. Main Street).

The NC 150 corridor, particularly to the northwest of the airport along Grants Creek, is characterized primarily by upscale residential development. The Jake Alexander Boulevard (US 70/US 601) corridor along the northeastern edge of the proposed study area is characterized by relatively intense commercial development. The Rolling Hills Golf Course is privately-owned and is located on Par Drive to the northeast of the airport.

An architectural survey of the Area of Potential Effects (APE) for the proposed project conducted by NCDOT in May 2023 indicated there are no properties present which are eligible for National Register listing or that warrant further investigation. An archaeological survey will be conducted pursuant to

Section 106 after the selection of the Least Environmentally Damaging Practicable Alternative (LEDPA). Based on a tribal coordination response letter from the Catawba Indian Nation in May 2023, there are no American Indian tribal lands in the proposed study area.

## 3. Project Purpose and Need

### 3.1 Identified Needs

The primary need of the proposed action is:
A lack of roadway network connectivity exists between Jake Alexander Boulevard (US 70/US 601) and Cedar Springs Road/Peeler Road within the proposed study area, which results in deficiencies in system linkage, access to the Mid-Carolina Regional Airport and surrounding development, and travel capacity.

## System Linkage

The Norfolk Southern Railroad, which runs parallel to US 29 (S. Main Street) in the proposed study area presents a barrier for transportation between the proposed study area and I-85. Due to recent and planned closings of at-grade crossings of the railroad, there are only two roads that will cross the railroad in the proposed study area: Peeler Road/Cedar Springs Road and Jake Alexander Boulevard (US 70/US 601). Both of these roads have interchanges with I-85, and serve as the main access routes from I-85 to the proposed study area. The existing roadway network west of US 29 (S. Main Street) does not provide a connection between Cedar Springs Road and Jake Alexander Boulevard (US 70/US 601). Access to the Mid-Carolina Regional Airport and surrounding development is therefore limited to NC 150, Airport Road, Red Acres Road, and Rowan Mills Road. These facilities provide only partial access to the area due to the lack of connectivity between them. Therefore, travel options for neighborhoods located west and northwest of the Mid-Carolina Regional Airport in the project vicinity, and access to I-85 and to major commercial and employment destinations like the airport, the VA Medical Center, and Novant Health Rowan Medical Center is very limited. The proposed project would provide a more direct connection for the travelling public in the proposed study area between Jake Alexander Boulevard (US 70/US 601) and Cedar Springs Road, improving system linkage between these two facilities with direct access to I-85.

## Access to the Mid-Carolina Regional Airport and Surrounding Development

The Mid-Carolina Regional Airport and adjacent National Guard Armory Army Aviation Support Facility are located north of Airport Road, between Airport Loop and National Guard Road.

Figure 3 shows the Future Land Use as referenced in Salisbury's 2040 Comprehensive Plan. The proposed Airport Parkway alignment as endorsed by Rowan County and the City of Salisbury is included on the figure. As shown on the Future Land Use Map, the proposed project would provide a link between large, planned Employment Centers located to the southwest (along US 29 [S. Main Street]) and northwest of Salisbury (along US 601/US 70 [Jake Alexander Boulevard]). The 2040 Comprehensive Plan defines Employment Centers as areas that are "focused at strategic locations where there is access to regional transportation infrastructure, and where large scale employment opportunities exist." The proposed project is a key component of the transportation infrastructure that will serve these Employment Centers. In addition, much of the land located just to the west of the future corridor for the proposed Airport Parkway that is within the Salisbury ETJ is identified by the Future Land Use Map as Residential Areas, including large existing, emerging, and future neighborhood areas. In particular, there
are large areas identified as Future Neighborhood in the vicinity of the NC 150/Rowan Mill Road/Sherrills Ford Road intersection, as well as along Harrison Road. The proposed project would improve access for residents in these existing and planned residential areas in the proposed study area, as well as provide needed connectivity from these residential areas to the planned employment centers.

The CRMPO noted multiple industrial and commercial properties located in or near the proposed project area that could benefit from the improved access and overall logistical advantages that this project offers. These properties include:

- Henderson Grove Church Road Site - Trammel Crow, a leading real estate developer, has acquired 96 acres of land on Henderson Grove Church Road. The company has announced plans to build a 500,000 square foot speculative building on the property. Trammel Crow plans to invest $\$ 35$ million in the construction of the facility, which will be marketed for industrial and distribution uses.
- Glass Family Site - A major industrial real estate developer is currently performing due diligence on 70 acres of land on Peach Orchard Road. The company is attempting to determine the site's viability for a 300,000 square foot speculative building. An estimate of capital investment has not yet been determined, but the building would be marketed for industrial and distribution uses.
- Zimmerman Site - The owners of approximately 19 acres of land, located at the intersection of Airport Loop and Airport Road, have retained Colliers International to market the property to industrial real estate developers. The property owners have drafted a conceptual plan of the site which shows the potential for a 120,000 square foot facility.
- Delgado Site - Approximately 11 acres of land at the intersection of Peach Orchard Lane and Hader Street is currently being marketed to industrial and commercial users. A major industrial real estate developer is currently performing due diligence on the site, which is located approximately 0.75 miles from the project. An estimate of capital investment and buildable square footage has not yet been determined, but any new facility would be marketed for industrial and distribution uses.
- Platinum Site - Approximately 360 acres of land which has been dubbed the 'Platinum Site' is located 1.3 miles from the project site. Though currently not available for sale, the Platinum Site is considered by several industrial real estate brokers to potentially be one of the premiere industrial sites in the southeast. It is one of the few remaining large sites along the Interstate 85 corridor that offers rail access and heavy industrial zoning.
- Livingstone College Site - This commercial land, owned by Livingstone College, would likely increase in value after the project's completion due to its prime location at the intersection of Jake Alexander Boulevard (US 70/US 601) and the new Airport Parkway.


## Traffic Carrying Capacity

As stated in the System Linkage section above, there is no direct connection between the two roads that provide access to the project study from l-85, Peeler Road/Cedar Springs Road and Jake Alexander Boulevard (US 70/US 601), west of US 29 (S. Main Street). This system linkage deficiency results in an over-reliance on Jake Alexander Boulevard, NC 150, and US 29, causing several signalized intersections in the project area to experience significant delay and poor level of traffic service. The proposed project is expected to divert traffic from the congested intersections along Jake Alexander Boulevard (US 70/US 601) between US 29 (S. Main Street) and Brenner Avenue, as the proposed project would help facilitate
another outlet for traffic in the project area to access I-85 at Cedar Springs Road/Peeler Road. In addition, based on the location of planned future residential and commercial development in western Salisbury as identified on the Future Land Use Map in the City's 2040 Comprehensive Plan (see Figure 3), the project will provide an easily accessible, direct route to serve the traffic generated by this development rather than having to rely on congested Jake Alexander Boulevard (US 70/US 601) or circuitous existing local roads. The existing and future (2045) traffic forecasts for proposed study area roadways, as well as the signalized and unsignalized intersection traffic capacity analysis, are discussed in more detail below.

Table 4 shows the existing (2023) and future (2045) forecast average annual daily traffic (AADT) volumes in the proposed study area for No-Build and Build conditions. The existing (2023) and future (2045) NoBuild and Build conditions traffic forecasts for the proposed study area are shown on Figures 4 through 7. The future (2045) Build conditions forecast traffic volumes in Table 4 are shown for both an Eastern Alignment (see Figure 6) and a Western Alignment (see Figure 7) for the proposed project.

Table 4. Existing (2023) and Future (2045) Traffic Volumes

| Roadway Segment | No-Build Existing | No-Build Future | Build Future (2045) AADT (vpd) |  |
| :--- | :---: | :---: | :---: | :---: |
|  | (2023) AADT <br> (vpd) | (2045) AADT <br> (vpd) | Eastern <br> Alignment | Western <br> Alignment |
| US 29 (S. Main Street) | $8,500-16,100$ | $10,600-20,000$ | $8,800-16,800$ | $9,400-17,600$ |
| US 70/US $601 ~(J a k e ~ A l e x a n d e r ~$ <br> Blvd) | $26,000-34,400$ | $32,300-42,800$ | $32,400-35,300$ | $32,400-38,000$ |
| NC 150 (Mooresville Road) | $8,000-17,100$ | $9,900-21,400$ | $9,900-19,900$ | $9,900-21,400$ |
| Brenner Avenue | 11,800 | 14,700 | 14,700 | 14,700 |
| Lincolnton Road | $7,100-7,200$ | $8,800-9,000$ | 5,600 | 5,600 |
| SR 1516 (Airport Road) | $3,400-5,600$ | $4,200-7,000$ | $4,200-7,300$ | $4,200-6,600$ |
| SR 1526 (Rowan Mill Road) | $4,100-4,400$ | $5,100-5,500$ | $4,900-5,200$ | $4,400-5,200$ |
| Sunset Drive | $1,900-2,800$ | $2,200-3,500$ | $2,100-3,100$ | $2,000-3,100$ |
| SR 2538 (Peeler Road) | 4,200 | 5,200 | 7,200 | 6,500 |
| SR 1560 (Cedar Springs Road) | 3,900 | 4,900 | $4,300-7,700$ | $4,300-6,600$ |
| SR 1625 (National Guard Road) | 200 | 200 | 200 | $\mathrm{~N} / \mathrm{A}$ |
| SR 1825 (Candlewick Drive) | 400 | 500 | $500-700$ | $500-700$ |

As shown in Table 4, traffic volumes are expected to increase substantially on the major roadways in the proposed study area under the No-Build condition between the existing (2023) and future (2045) years. Under the Build condition in 2045, several of the area roadways are forecast to experience a reduction in traffic compared to the 2045 No-Build condition with either potential alignment for the proposed project. With an Eastern Alignment, the following proposed study area roadways are forecast to experience a considerable reduction in traffic compared to 2045 No-Build conditions traffic volumes: Jake Alexander Boulevard (US 70/US 601) (18 percent reduction), US 29 (S. Main Street) (16 percent reduction), NC 150 (7 percent reduction), Lincolnton Road (38 percent reduction), and Sunset Drive (38
percent reduction). Peeler Road and Cedar Springs Road will experience traffic increases in the amounts of 38 percent and 57 percent, respectively, with the Eastern Alignment. The Western Alignment would result in a reduction of traffic along some of the proposed study area roadways compared to the 2045 No-Build traffic volumes, but to a lesser extent than the Eastern Alignment.

Table 5 summarizes the results of the signalized intersection traffic capacity analysis performed for the proposed project for existing (2023) No-Build, future (2045) No-Build, and Future (2045) Build conditions.

Table 5. Existing (2023) and Future (2045) Signalized Intersection Level-of-Service Summary

| Intersection | Existing (2023) No-Build Delay in Seconds (LOS) ${ }^{1}$ |  | Future (2045) No-Build Delay in Seconds (LOS) ${ }^{1}$ |  | Future (2045) Build Delay in Seconds (LOS) for Eastern Alignment ${ }^{1}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | AM | PM | AM | PM | AM | PM |
| US 29 (S. Main St)/Long Meadow Dr | 7.4 (A) | 8.4 (A) | 9.8 (A) | 24.6 (C) | 19.0 (B) | 9.6 (A) |
| US 29 (S. Main St)/Cedar Springs Rd | 19.2 (B) | 22.0 (C) | 17.8 (B) | 21.1 (C) | 15.6 (B) | 17.8 (B) |
| $\begin{aligned} & \text { US } 29 \text { (S. Main St)/ } \\ & \text { Airport Rd } \end{aligned}$ | 9.0 (A) | 6.6 (A) | 9.8 (A) | 8.6 (A)* | 11.7 (B) | 9.9 (A) |
| NC 150/Lincolnton Rd | 16.1 (B) | 20.7 (C) | 36.5 (D)* | 40.9 (D)* | 11.9 (B) | 14.2 (B) |
| Jake Alexander Blvd (US 70/US 601)/Brenner Ave | 15.8 (B) | 24.0 (C) | 24.4 (C)* | 22.8 (C)* | 26.8 (C) ${ }^{*}$ | 26.4 (C)* |
| Jake Alexander Blvd (US 70/US 601)/Lincolnton Rd | 43.8 (D)* | 41.3 (D)* | 80.1 (F)** | 62.6 (E)** | 49.5 (D)* | 45.4 (D)* |
| Jake Alexander Blvd (US 70/US 601)/NC 150 | 45.5 (D)* | 44.6 (D)* | $72.2(E)^{* *}$ | 76.4 (E)** | 49.8 (D)** | 47.6 (D)** |
| US 29/US 70 (S. Main St)/ Jake Alexander Blvd (US 70/US 601) NB Ramp | 18.4 (B)* | 12.2 (B) | 18.8 (B) | 26.6 (C) | 15.6 (B) | 20.6 (C) |
| US 29 (S. Main St)/Jake Alexander Blvd (US 601) SB Ramp/Sunset Drive | 35.8 (D) | 43.1 (D) | 51.1 (D)** | 70.3 (E)** | 29.0 (C) | 29.0 (C) |
| US 29 (S. Main St)/Rowan Mill Rd | 15.4 (B) | 14.7 (B) | 17.6 (B) | 18.0 (B) | 12.9 (B) | 12.4 (B) |

${ }^{1}$ Overall LOS is presented for the signalized intersections. Asterisks denote one or more approaches during one of the peak hours are LOS E (*) or LOS $F\left({ }^{* *}\right)$. Shading denotes the intersections expected to exceed capacity limits in the year indicated

Under existing (2023) No-Build conditions, all of the signalized intersections analyzed in the proposed study area operate at LOS D or better in both the AM and PM peak periods. All of the unsignalized intersections analyzed are also expected to operate acceptably under existing conditions, with the exception of the Mooresville Road/Candlewick Drive intersection which has one approach (southbound on Candlewick Drive) that operates at LOS F in both the AM and PM peak periods.

As shown in the results of the capacity analysis for future (2045) No-Build conditions, the expected increase in traffic volumes in the proposed study area is expected to lead to operational degradation at several of the intersections analyzed without construction of the proposed project. For 2045 No-Build conditions, three of the signalized intersections analyzed (Jake Alexander Boulevard [US 70/US 601]/ Lincolnton Road, Jake Alexander Boulevard [US 70/US 601]/Mooresville Road, and US 29 [S. Main Street]/Jake Alexander Boulevard [US 601] Southbound Ramp/Sunset Drive) are expected to exceed capacity (LOS E or LOS F). A fourth signalized intersection (NC 150/Lincolnton Road) will be approaching capacity (LOS D) in 2045 under No-build conditions. Additionally, all four of these intersections are expected to have one or more approaches operating at LOS F during both peak periods. All of the unsignalized intersections analyzed are expected to continue to operate acceptably under 2045 No-Build conditions, with the exception of the Mooresville Road/Candlewick Drive intersection which is expected to have severe delays on both Candlewick Drive approaches in both the AM and PM peak periods.

For 2045 Build conditions, none of the signalized intersections in the proposed study area will experience a failing level of service (LOS E or F). Construction of the project (Build condition) will divert traffic from the surrounding roadways, improving operations at all signalized intersections. Additionally, peak hour delay and queuing along the NC 150 and US 601 corridors will be reduced by over 30 percent. This improvement in level of service along these roadways would be the result of the project diverting traffic away from Jake Alexander Boulevard and other major roadways and would occur without any roadway improvements to those facilities (i.e. adding additional lanes or storage).

City of Salisbury Fire Department officials have indicated that because of the congested and dangerous nature of the Jake Alexander Boulevard (US 70/US 601) corridor, the proposed project would help the City provide efficient emergency services in the project area. The proposed project would greatly increase emergency services access within the proposed study area, as well as connectivity to healthcare facilities in the vicinity of the proposed study area such as the VA Medical Center and Novant Health Rowan Medical Center, both of which are located just to the northeast of the proposed study area. Fire Department officials indicated they would use the proposed project extensively to serve the proposed study area to avoid the congestion along Jake Alexander Boulevard (US 70/US 601).

### 3.2 Proposed Purpose

The purpose for the proposed action is as follows:
Improve roadway network connectivity between Jake Alexander Boulevard (US 70/US 601) and Cedar Springs Road/Peeler Road within the proposed study area, thereby providing improved access to the Mid-Carolina Regional Airport and surrounding residential and commercial development.

### 3.3 Proposed Purpose and Need Statement

The purpose of the proposed action is to improve roadway network connectivity between Jake Alexander Boulevard (US 70/US 601) and Cedar Springs Road/Peeler Road within the proposed study area, thereby providing improved access to the Mid-Carolina Regional Airport and surrounding residential and commercial development. The factors contributing to the need of the project include:

- Lack of connectivity on the roadway network in the proposed study area.
- Poor access to the Mid-Carolina Regional Airport and surrounding development.
- Poor intersection level-of-service along the roadway network within the proposed study area, including Jake Alexander Boulevard (US 70/US 601), US 29 (S. Main Street), and NC 150


## 4. Project Study Area Defined

The proposed study area developed to address the Purpose and Need for the Proposed Airport Parkway (STIP No. U-5901) is shown on Figures 1 and 2. The proposed study area boundary was created to accommodate potential alternative corridors located along both the western and eastern sides of the Mid-Carolina Regional Airport, as well as to accommodate existing roads that could be utilized for improvements, and multiple potential tie-in options to Jake Alexander Boulevard (US 70/US 601) at the northeastern terminus.

As shown on Figures 1 and 2, the southwestern extent of the proposed study area boundary is located just to the south of the US 29 (S. Main Street)/Cedar Springs Road interchange. From this point, the western proposed study area boundary extends to the northwest located approximately 1,000 feet to the west of Cedar Springs Road, turns slightly to the northeast through the Cedar Springs Road/Airport Road and NC 150/Rowan Mill Road intersections, and then turns sharply to the northeast towards the northeastern extent of the proposed study area boundary near the Jake Alexander Boulevard (US 70/ US 601)/Harrison Road intersection. From the southwestern extent near the US 29 (S. Main Street)/ Cedar Springs Road intersection, the eastern proposed study area boundary basically follows the eastern side of US 29 (S. Main Street) (and the adjacent Norfolk Southern Railroad Tracks) to that road's intersection with Jake Alexander Boulevard (US 70/US 601). The boundary follows the eastern side of Jake Alexander Boulevard (US 70/US 601) to the northeastern extent of the proposed study area boundary near the Jake Alexander Boulevard (US 70/US 601)/Harrison Road intersection. The proposed study area encompasses approximately 2,478 acres in total.

## 5. Avoidance and Minimization

The western boundary of the proposed study area was developed to minimize potential alternative impacts to Draft Branch and the residential areas located off of NC 150, such as the Summerfield and Forest Glen neighborhoods, where residents in these areas voiced opposition to any alternatives in this area during earlier public outreach. The western boundary would allow the identification of alternatives to the west of the airport, but minimize impacts to residential areas and Draft Branch. Based on traffic studies to-date, alternatives located to the west of the airport were not as effective in pulling traffic away from Jake Alexander Boulevard (US 70/US 601) and other nearby roads as alternatives located to the east of the airport. It is anticipated that any western alignments located outside the western boundary of the proposed study area would prove even less effective to address the roadway capacity component of the purpose and need.

The eastern boundary was developed to include Jake Alexander Boulevard (US 70/US 601) and US 29 (S. Main Street), while minimizing potential alternative impacts to Town Creek further to the east. Jake Alexander Boulevard (US 70/US 601) and US 29 (S. Main Street) are the two major roads in the area that provide access to southwest Salisbury. The proposed study area includes other existing roads that could be used as alignments for potential alternatives, such as Cedar Springs Road and Airport Loop, allowing for the identification of potential alternatives that utilize parts of existing infrastructure. The area between US 29 (S. Main Street) and I-85 was considered for inclusion in the proposed study area. However, any alternatives generated in this area would require a new crossing of Town Creek and a new grade-separated crossing of the Norfolk Southern Railroad. Due to the potential cost and environmental impacts of any alternatives within this area, the proposed study area was developed to exclude the area between US 29 (S. Main Street) and I-85.

## 6. Merger Plan Review/Next Steps

Based on the Merger Plan for the project, NCDOT proposes the next Merger Meeting will be CP 2 (Detailed Study Alternatives Carried Forward), likely to be held in July 2024, or three months after CP 1 concurrence. Following the identification of the detailed study alternatives at CP 2, NCDOT will complete the Hydraulic Planning Report, natural systems studies, functional roadway design plans, and preliminary cost estimates in preparation for the CP 2A (Bridging Decisions and Alignment Review) meeting, likely to be held in March 2025.








