Blackstone Area Bus System Transit Development Plan

Final Report – February 2023

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Chapter 1:
Overview of Public Transportation in the Region

Introduction

A Transit Development Plan (TDP) is a multi-year planning document that is intended to provide direction for a transit system and its community partners. The planning process identifies transit needs, develops potential improvements to meet the needs, prioritizes these potential improvements, and identifies the resources needed to implement the chosen improvements.

The planning process for a TDP is typically guided by transit program staff, with input from an advisory committee made up of transit program stakeholders and community partners. Public and rider input is also sought during the process to ensure the plan reflects the needs of the community.

In Virginia, the Virginia Department of Rail and Public Transportation (DRPT) requires that each transit agency complete a TDP once every six years. DRPT uses the information compiled within the TDPs for programming, planning, and budget activities. Once completed, the Blackstone Area Bus System (BABS) TDP will provide a basis for inclusion of BABS operating and capital program in the commonwealth's Six Year Improvement Plan (SYIP) and Statewide Transportation Improvement Program (STIP). The TDP planning process follows a set of requirements and a report format outlined by DRPT. The current planning horizon for TDPs in Virginia is 10 years.

This BABS TDP is being prepared for the Town of Blackstone as well as portions of Nottoway County and seven adjacent counties including Lunenburg, Cumberland, Buckingham, Amelia, Prince Edward, Dinwiddie and Brunswick. The previous TDP for BABS was completed in 2016. The current TDP planning process was initiated in February 2022 at the February 10th kickoff meeting.

This first chapter of the TDP provides an overview of the transit program and provides background information and data that will be used for the subsequent data collection, analysis, and eventual recommendations for the ten-year plan.

History

The development of the Blackstone Area Bus System began in 2001 when the results of a municipal survey demonstrated that there was sufficient need for transit in Blackstone. The Blackstone Town Council approved the formation of a public transit system with a single deviated fixed route (called the BABS Line) in Blackstone, beginning operations in January 2003. At the time, public transportation

services were only located within the town limits and did not exist in the surrounding areas. Since then, the system expanded from a single locality route to a multi-county and multi-town system as nearby municipalities asked for service or had an existing service that they wished to be administered by BABS.

Since 2003, BABS has overseen the creation or annexation of six public transportation routes resulting in the management of eight routes total. These routes now span a wide geographic area and include the counties of Nottoway, Lunenburg, Brunswick, Prince Edward, Amelia, Buckingham, Cumberland, and Dinwiddie.

Between 2010 and 2015 Blackstone introduced two new routes: BABS Trolley and Fort Pickett Line. While the routes were discontinued during that time, the Fort Pickett Line resumed service as of 2020. Since the 2016 TDP, BABS also added the Buckingham-Cumberland Route formerly run by Piedmont Area Transit.

Governance

BABS operates under the jurisdiction of the Town Council of Blackstone, which is responsible in passing legislation and the general governance of the town. The Town Council consists of seven members who are elected every four years. Five of the members are elected through the town's ward system with an additional two members voted at-large. The council also is tasked with appointing a Town Manager, who reports to the council and is responsible for ensuring the efficient delivery of the town's services, including BABS.

Current members of the Town Council are:

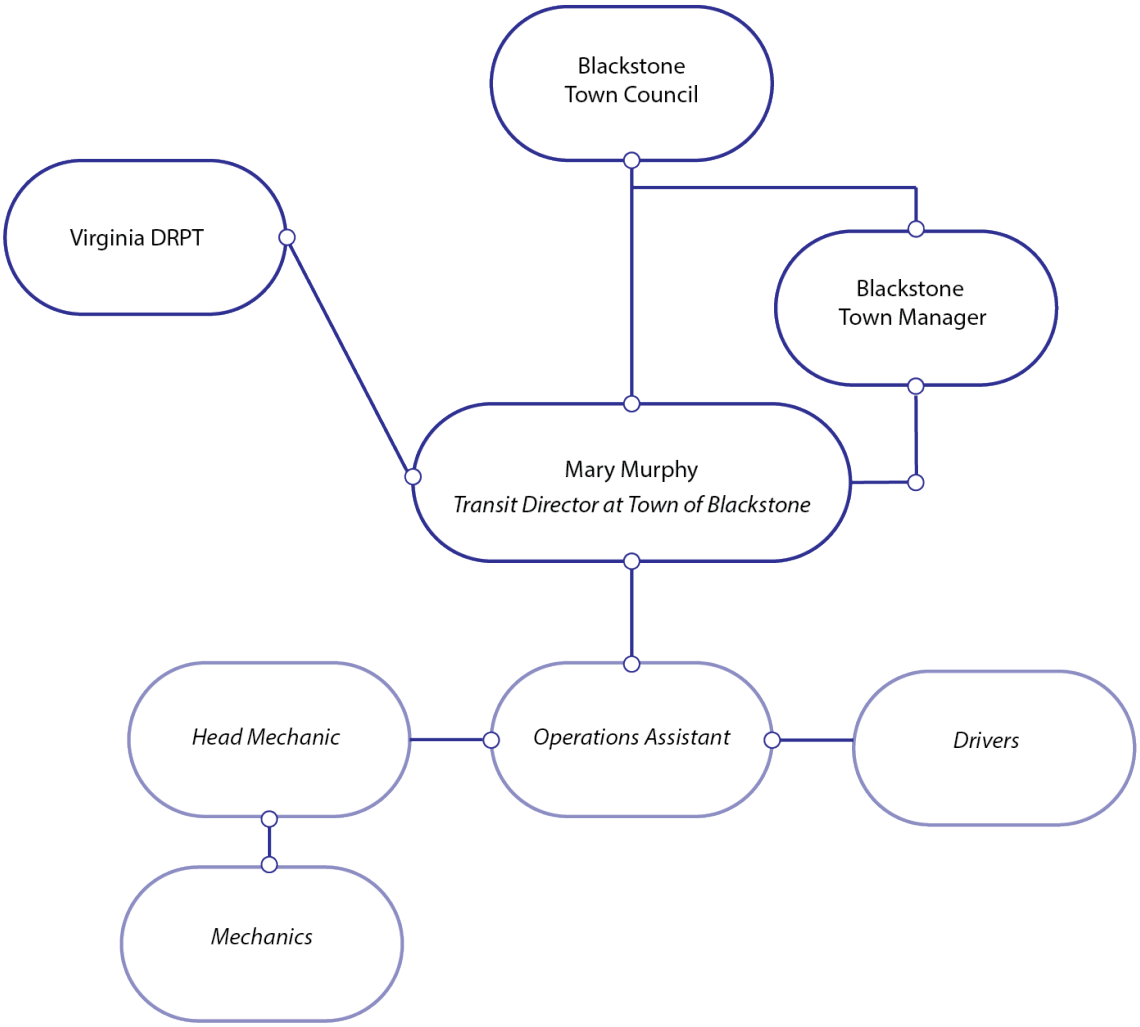
- Philip Vannoorbeeck, Town Manager
- Chris Page, At-Large
- Nathaniel Miller, Ward A
- Jake Allman, Ward C
- Carolyn Williams, Ward D
- Eric Nash, At Large
- Wesley Gormus, Ward B
- Lloyette Wynn Ward E

In addition to serving Blackstone, BABS provides transit service in Nottoway County and seven adjacent counties, including Lunenburg, Cumberland, Buckingham, Amelia, Prince Edward, Dinwiddie, and Brunswick. As a result, representatives from municipalities which are served by BABS are consulted, but not involved in day-to-day BABS operations. In addition, although these services are operated by BABS and Blackstone town employees, they are funded by the municipalities in which the route serves. Places served by BABS include the towns of Blackstone, Crewe, Burkeville, Kenbridge, Victoria, Alberta, McKenney, and part of the city of Petersburg. In regard to funding, capital expenditures for BABS are provided through Federal funding (80%) and a blend of state and local funding (20%). Operating expenditures are provided through the FTA Rural Transportation Assistance Program (Section 5311) funding (50%) and a blend of state and local funding (50%). Local funding comes from a variety of municipalities and organizations, depending on the route.

Organizational Structure

The hierarchical relationship between BABS and the Town of Blackstone is detailed in Figure 1-1. BABS staff currently consists of 20 employees; 15 drivers, 3 mechanics, and 2 administrative staff. There have been no changes in the overall organizational structure since the 2016 TDP. Staff are considered employees of the Town of Blackstone and are non-unionized, while all drivers are part-time employees. Mechanics are full-time employees, but this includes service to Blackstone municipal vehicles at the maintenance facility; as a result, they are only part-time BABS employees. Mary Murphy, Transit Director at Blackstone, oversees the daily operations of BABS. The BABS staff reports to the director with everyday issues, which is then reported to the Town Manager. The Town Manager reports to the Town Council as necessary. In addition, the Director liaisons with a staff member from the Virginia Department of Rail and Public Transportation (DRPT) to assist BABS in coordinating with surrounding transit agencies and ensures that bus service is meeting state and federal requirements.

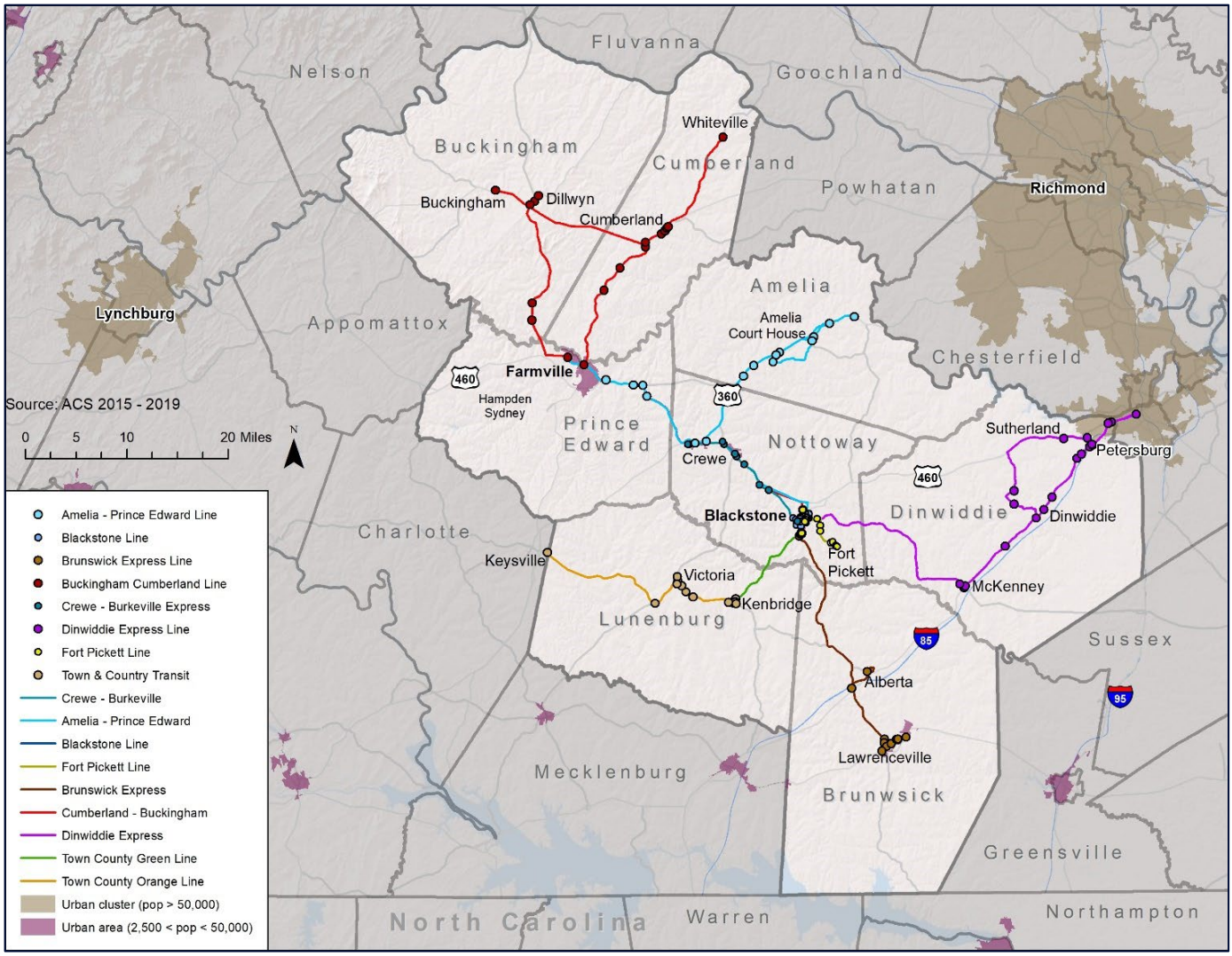
Figure 1-1: BABS Reporting Hierarchy



Transit Services Provided and Areas Served

BABS operates eight fixed routes over a service area that covers a large rural region of Southside Virginia (roughly between Richmond, VA and the North Carolina border) that includes eight counties (Amelia, Brunswick, Buckingham, Cumberland, Dinwiddie, Lunenburg, Nottoway and Prince Edward) and part of the city of Petersburg, Virginia which is part of the greater Richmond, VA Urbanized Area. The service area also includes the following urbanized clusters: Blackstone, Farmville, Crewe, and Lawrenceville. Important travel corridors in the region include I-85, U.S. 460, U.S. 360, State Routes 40, 46, 47 and 49 and the Norfolk Southern Railway. The Dinwiddie Express connects passengers at the Petersburg Transfer Station which is in the Richmond urbanized area. BABS provides deviated fixed route service at approved locations with at least 24-hour notice and within ¾ mile from the fixed route. No exceptions will be made without the express approval of the Transit Manager. A map of the region and the BABS system is provided as Figure 1-2.

Figure 1-2: BABS Service Area and System Map



This section provides a brief overview of the public transit services operated in the region, including deviated fixed route and ADA-compliant complementary paratransit services.

BABS currently offers the following transit services:

- Blackstone Line
- Fort Pickett Line
- Brunswick Express
- Crewe-Burkeville Express
- Town and County Transit
- Dinwiddie Express
- Buckingham / Cumberland Line (Piedmont Area Transit)
- Amelia / Prince Edward Route (Piedmont Area Transit)

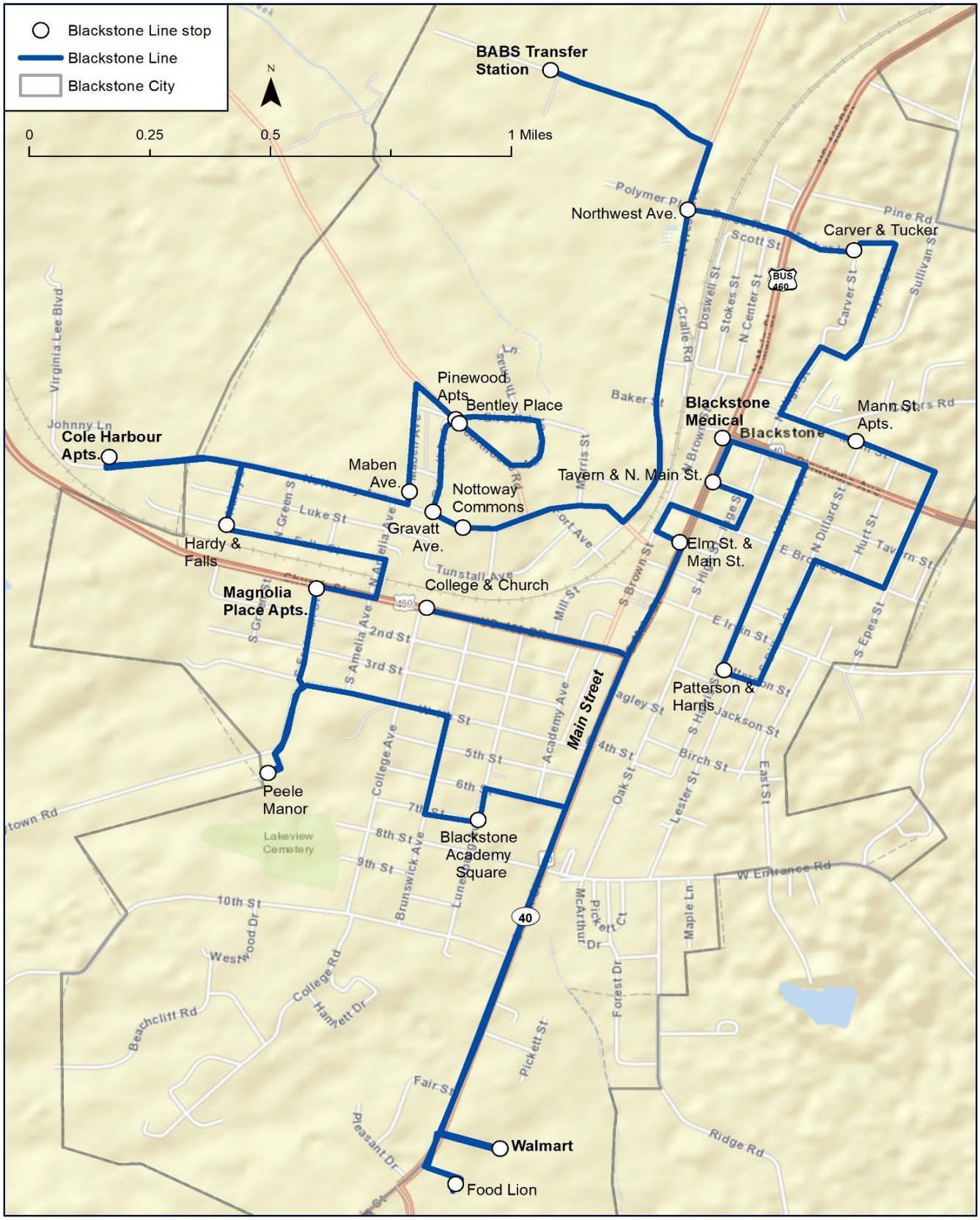
Blackstone Line

The Blackstone Line (previously the BABS Line) operates in a one-way directional loop through the Town of Blackstone and connects passengers with residential neighborhoods and apartments, the medical center, Main Street and shopping destinations at the south end of Main Street such as Goodwill, Food Lion and Walmart. A bus stops at downtown Blackstone at Elm Street and Main at the top of every hour during operating hours and ends at the Walmart, except the last stop of the day at College and Church. The bus will stop at various locations in the city if a passenger is waiting in a safe location where the bus can pull over. Currently, there are two shelters with benches at stops in Blackstone, including the medical center and a new shelter at Cole Harbour Apartments. While most stops have signage, they currently lack other stop infrastructure such as seating or route information. However, BABS is planning to install five new shelters along the Blackstone Line. Outside of Main Street, sidewalk infrastructure is limited or intermittent throughout town, including Cole Harbour or Magnolia Place Apartments. Riders at Walmart can transfer to the Town and County Green Line, Fort Pickett Line, Crewe-Burkeville Express or Brunswick Express. Since the 2016 TDP, Clay's Assisted Living Center closed and will be replaced by Blackstone Academy Square, an extended hotel. Also, a new hotel is being built on the site of the former Blackstone College for Girls. Operations funding for FY2022 is provided by the Federal Transit Administration Federal 5311 funds (47%), state funds (19%), local funds (28%) and fare revenues (5%).

Table 1-1: BABS Line Operating Characteristics

Operating Days	Operating Hours	Number of Trips	Peak Buses
Monday - Friday	6:00 a.m. – 5:00 p.m.	11	1
Saturday	10:00 a.m. – 2:00 p.m.	5	1

Figure 1-3: Blackstone Line Map



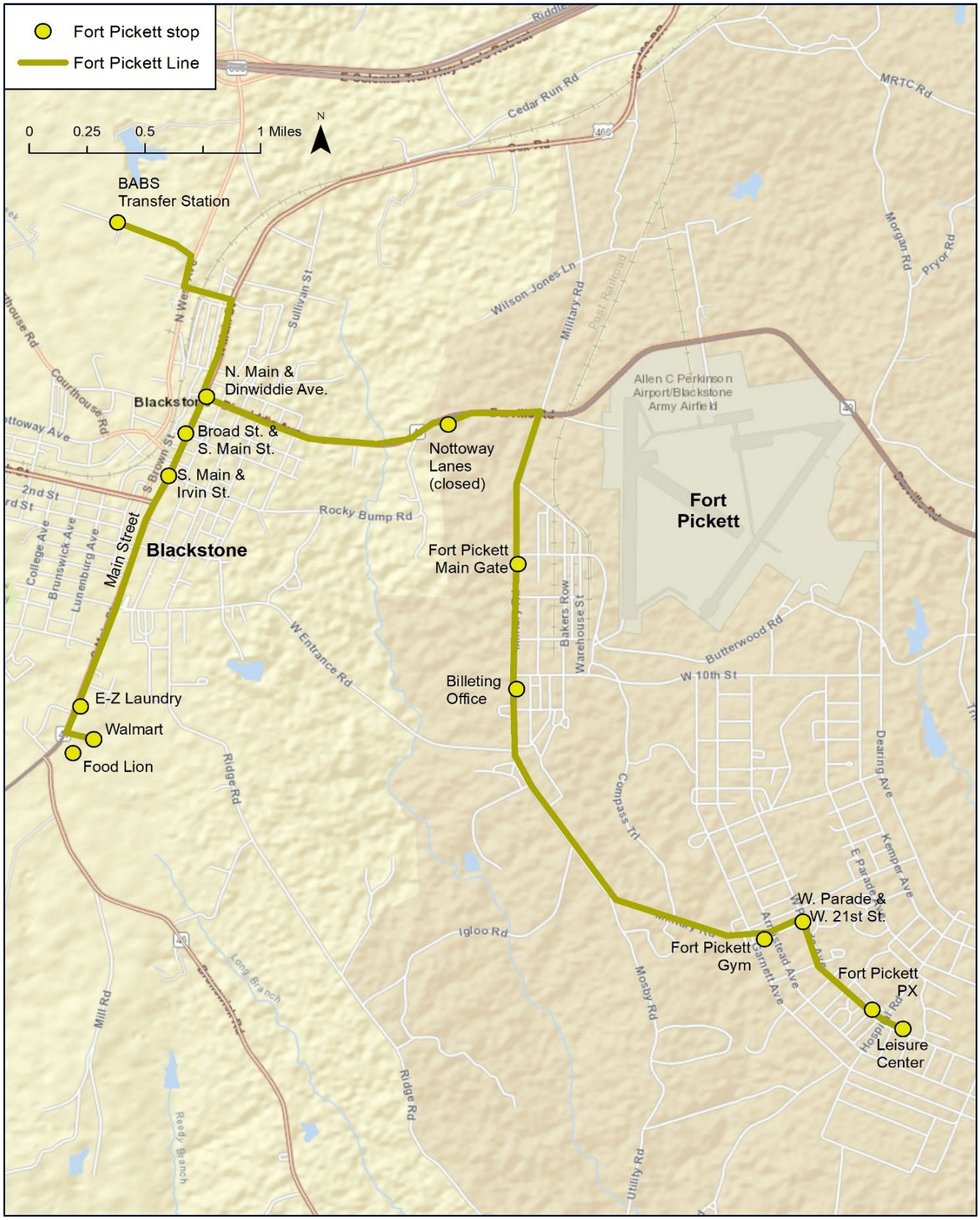
Fort Pickett Line

The Fort Pickett Line provides evening service connecting Main Street in Blackstone with Fort Pickett to the east. In 2013, service to Fort Pickett ceased operations due to low ridership but resumed in January 2020. Beginning at the BABS Transfer Station, the route heads east to the main entrance of Fort Pickett, the town's major employer (of about 800 people) which houses servicemembers and other residents. In Fort Pickett, the bus serves several locations including the Fort Pickett Gym and Leisure Center. The route then returns to Blackstone turning left on Main Street, serving a few stops including the Walmart and Food Lion. Bus stops in Fort Pickett currently do not have signage, shelters or other infrastructure. Operations funding for FY2022 is provided by the FTA Section 5311 funds (47%), state funds (22%), local funds (25%) and fare revenues (6%).

Table 1-2: Fort Pickett Line Operating Characteristics

Operating Days	Operating Hours	Number of Trips	Peak Buses
Monday - Friday	6:00 p.m. – 10:37 p.m.	4	1

Figure 1-4: Fort Pickett Line Map



Brunswick Express

The Brunswick Express operates an irregular route pattern from Blackstone south to Alberta and Lawrenceville in Brunswick County. The major destinations apart from the residential communities are the Southside Virginia Community College campus (SVCC) in Alberta, the Blackstone Walmart and the Food Lion grocery stores in Blackstone and Lawrenceville that anchor both ends of the route. The route also serves several apartment buildings in Lawrenceville.

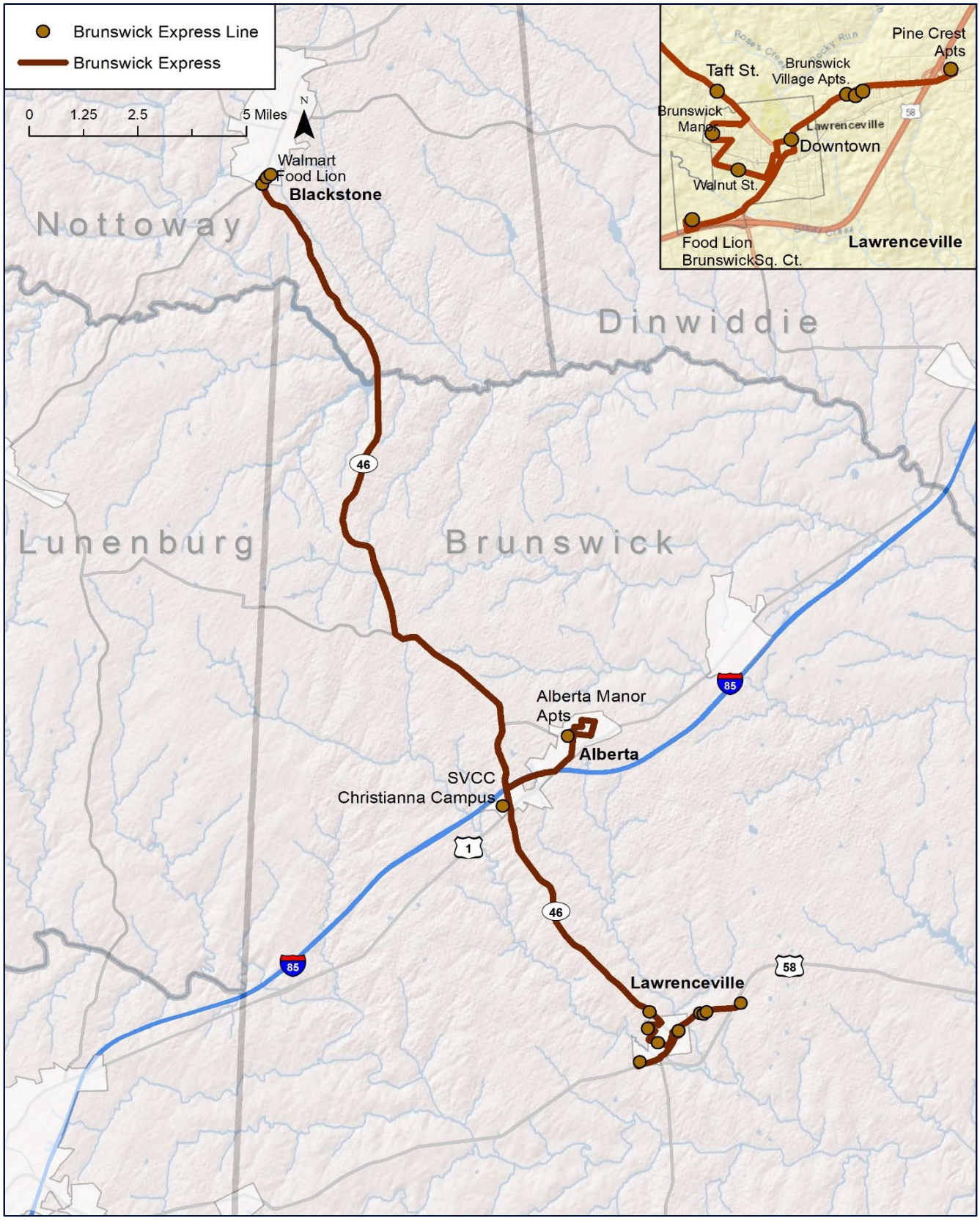
The route's stops vary widely throughout the day. Overall, there are six total trips between 7:57 a.m. and 12:03 p.m. and another four trips between 1:52 p.m. and 4:20 p.m. In the morning, the Brunswick Express serves the SVCC campus in Alberta four times, the Alberta Manor Apts. once, Lawrenceville Food Lion and Blackstone Walmart twice and Downtown Lawrenceville more than eight times. Downtown Lawrenceville is the location of Saint Paul's College and nearby Brunswick Social Services, the County Court, USPS Post Office and library. In the afternoon, there is less stop frequency overall with the bus returning to Blackstone Walmart in about a couple of hours. Apart from the SVCC Christanna Campus, the Town of Alberta is only served twice a day at the Alberta Manor Apartments.

Signage and other bus stop infrastructure is limited for most of the route, though there are some signs in Lawrenceville residential areas. Sidewalks and other pedestrian infrastructure are also generally limited beyond downtown Lawrenceville. Operations funding for FY2022 is provided by Section 5311 funds (47%), state funds (19%), local funds (28%) from SVCC, Brunswick Social Services, and the Town of Lawrenceville and fare revenues (5%).

Table 1-3: Brunswick Express Operating Characteristics

Operating Days	Operating Hours	Number of Trips	Peak Buses
Monday - Thursday	7:57 a.m. – 4:20 p.m.	8	1

Figure 1-5: Brunswick Express Route Map



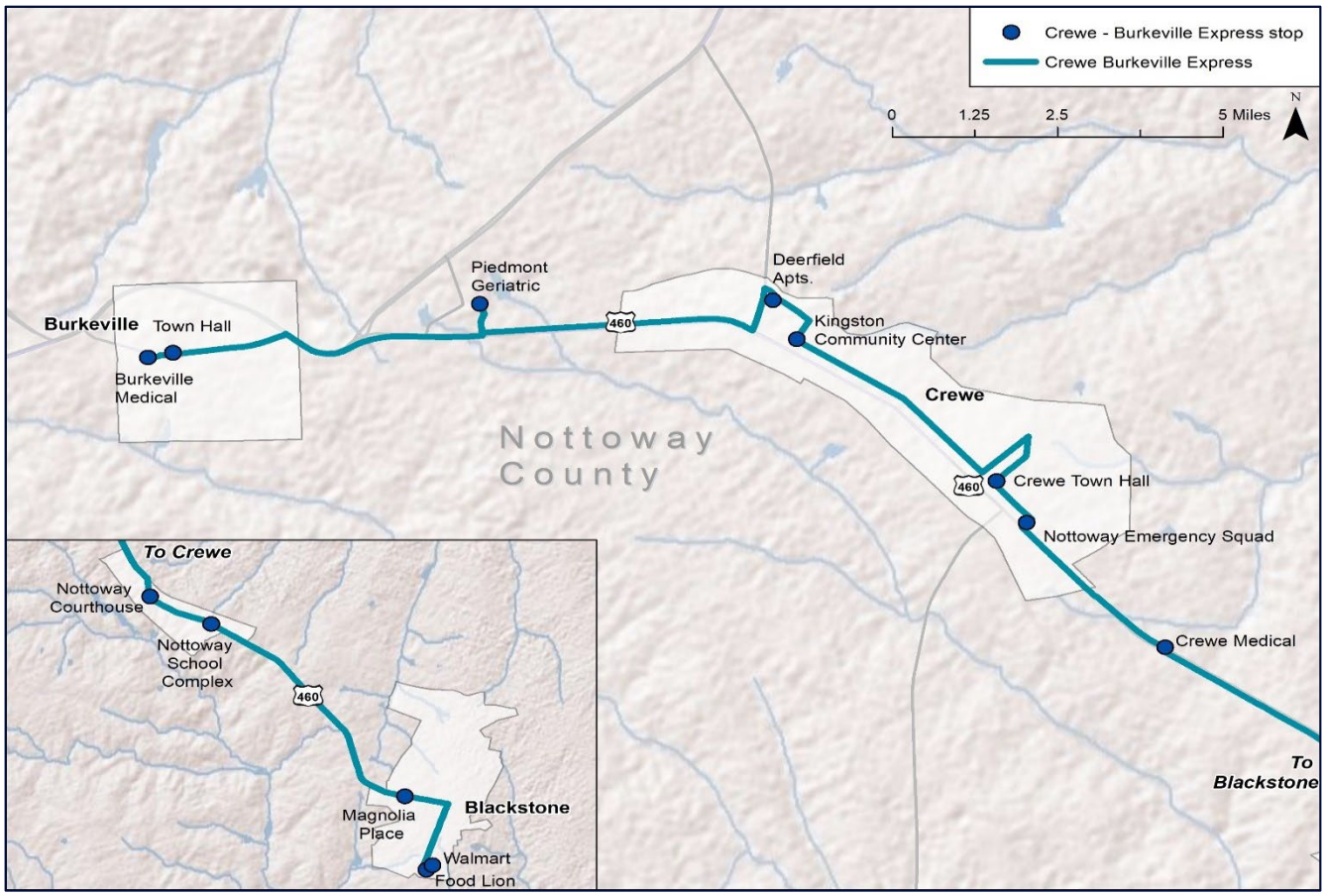
Crewe – Burkeville Express

The Crewe-Burkeville Express route connects Blackstone with Crewe and Burkeville in western Nottoway County. Beginning at the Blackstone Walmart, the route passes Nottoway Courthouse and then through residential neighborhoods in Crewe, ending at Burkeville Medical. Major destinations include the Magnolia Place Apartments in Blackstone and Piedmont Geriatric Hospital (which has seats and a roof for riders). The route has limited signage with very limited pedestrian and sidewalk access, particularly in the areas beyond the town halls. In addition to the Blackstone and Fort Pickett Line, this route is one of three routes that serve Nottoway County exclusively. Operations funding for FY2022 is provided by Section 5311 funds (47%), state funds (19%), local funds from Nottoway County (28%) and passenger fares (5%).

Table 1-4: Crewe-Burkeville Express Operating Characteristics

Operating Days	Operating Hours	Number of Trips	Peak Buses
Monday, Tuesday, Thursday	6:43 a.m. – 5:28 p.m.	5	1

Figure 1-6: Crewe-Burkeville Express Route Map



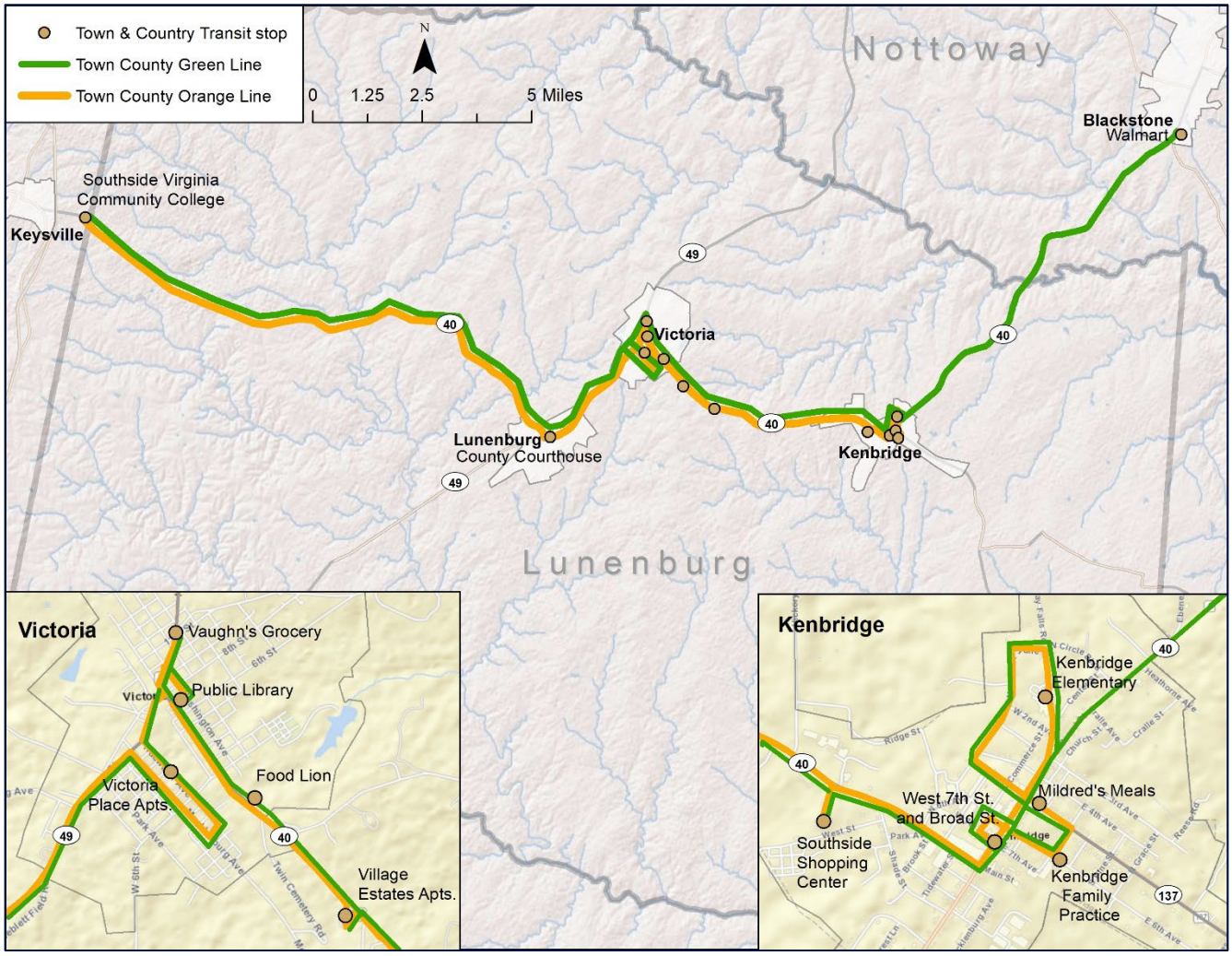
Town and County Transit

Town and County Transit serves Victoria and Kenbridge in Lunenburg County as well as the SVCC Daniel Campus in Keysville. There is limited service to Blackstone (at the Walmart) with the Green Line, which is an extension of the Orange Line to the Blackstone Walmart on Tuesdays and Thursdays. Other destinations include the Victoria Public Library, Victoria Place Apartments, Food Lion, and Lunenburg County Courthouse. The route began in 2003, with BABS taking over administration of the service in 2008. Both signage and pedestrian access is very limited between Lunenburg County and Blackstone, with some signage difficult to see. Operations funding for FY2022 is provided by Section 5311 funds (47%), state funds (19%), local funds from Lunenburg County, and the towns of Kenbridge and Victoria (28%) and passenger fares (5%).

Table 1-5: Town and County Transit Operating Characteristics

Operating Days	Operating Hours	Number of Trips	Peak Buses
Monday, Wednesday, Friday	7:00 a.m. – 4:15 p.m. (Orange Line)	4	1
Tuesday, Thursday	7:00 a.m. – 4:45 p.m. (Green Line)	4	1

Figure 1-7: Town and County Transit Route Map



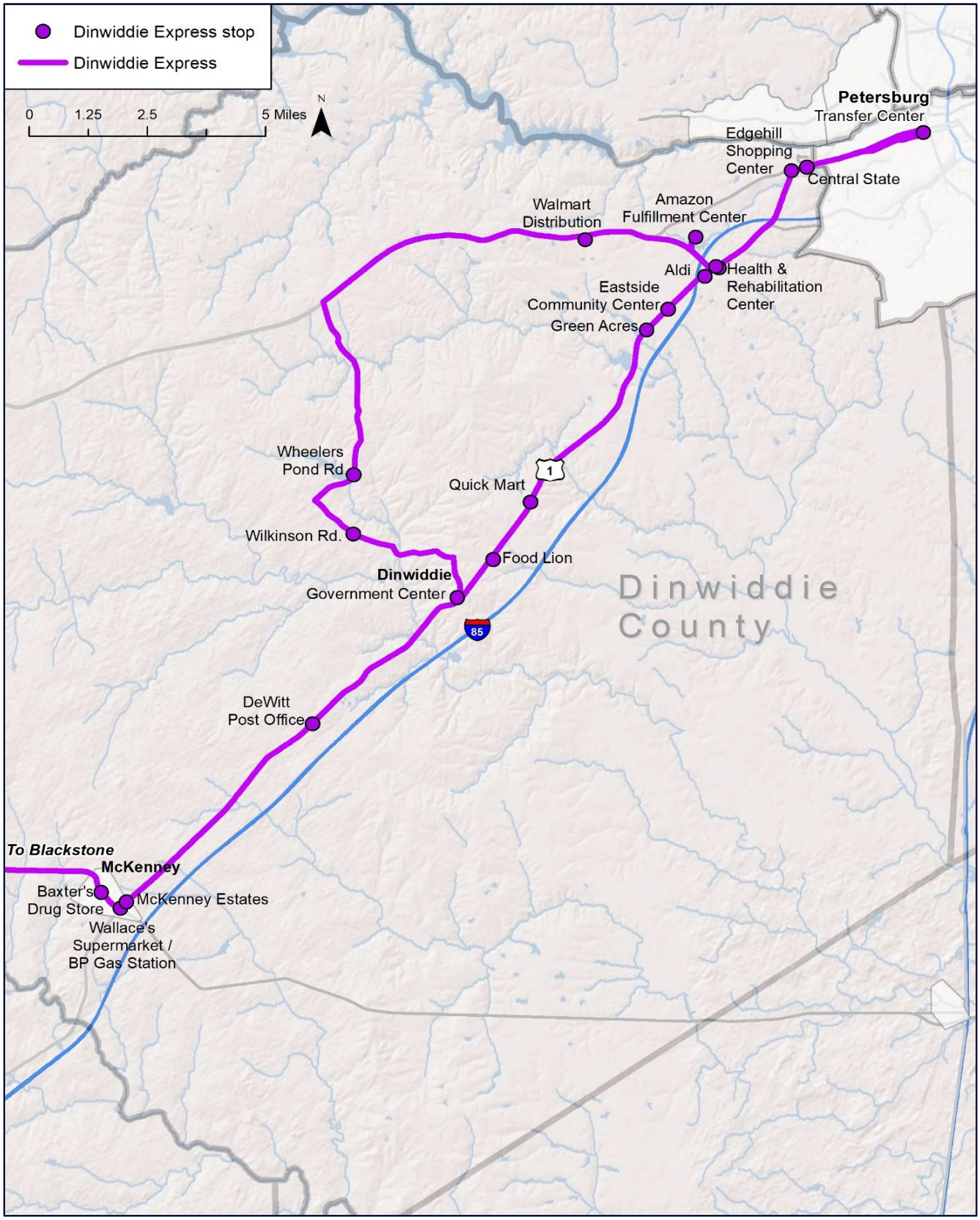
Dinwiddie Express

The Dinwiddie Express connects Blackstone with Dinwiddie County and the city of Petersburg. Currently the second-most popular BABS route after the Blackstone Line, the route operates during the a.m. and p.m. travel peaks, with every trip originating from Blackstone including two looped trips through various parts of Dinwiddie County. Much of the route travels along a few major roads: US Route 1, State Route 40, and State Route 611. Major stops include Wallace's Supermarket in McKenney (also the BP gas station) and Petersburg Transfer Station, where riders can connect to buses traveling further into Petersburg and beyond or connect with the Dinwiddie Express. Other stops include employers in Dinwiddie and Petersburg (the largest urban area in the BABS service area) such as the Walmart Distribution Center and Amazon Fulfillment Center, which provides a shelter. Otherwise, bus stop infrastructure and especially pedestrian access is very limited while the signage can be difficult to see between Petersburg and McKenney. The bus can be flagged down along Route 40 and Route 1 in Dinwiddie County but cannot pick up passengers in Petersburg, which is served by Petersburg Area Transit Operations funding for FY2022 is provided by Section 5311 funds (47%), state funds (19%), local funds from Dinwiddie County (28%) and passenger fares (5%).

Table 1-6: Dinwiddie Express Operating Characteristics

Operating Days	Operating Hours	Number of Trips	Peak Buses
Monday - Friday	5:50 a.m. – 6:05 p.m.	4	1

Figure 1-8: Dinwiddie Express Route Map



Buckingham/Cumberland Line

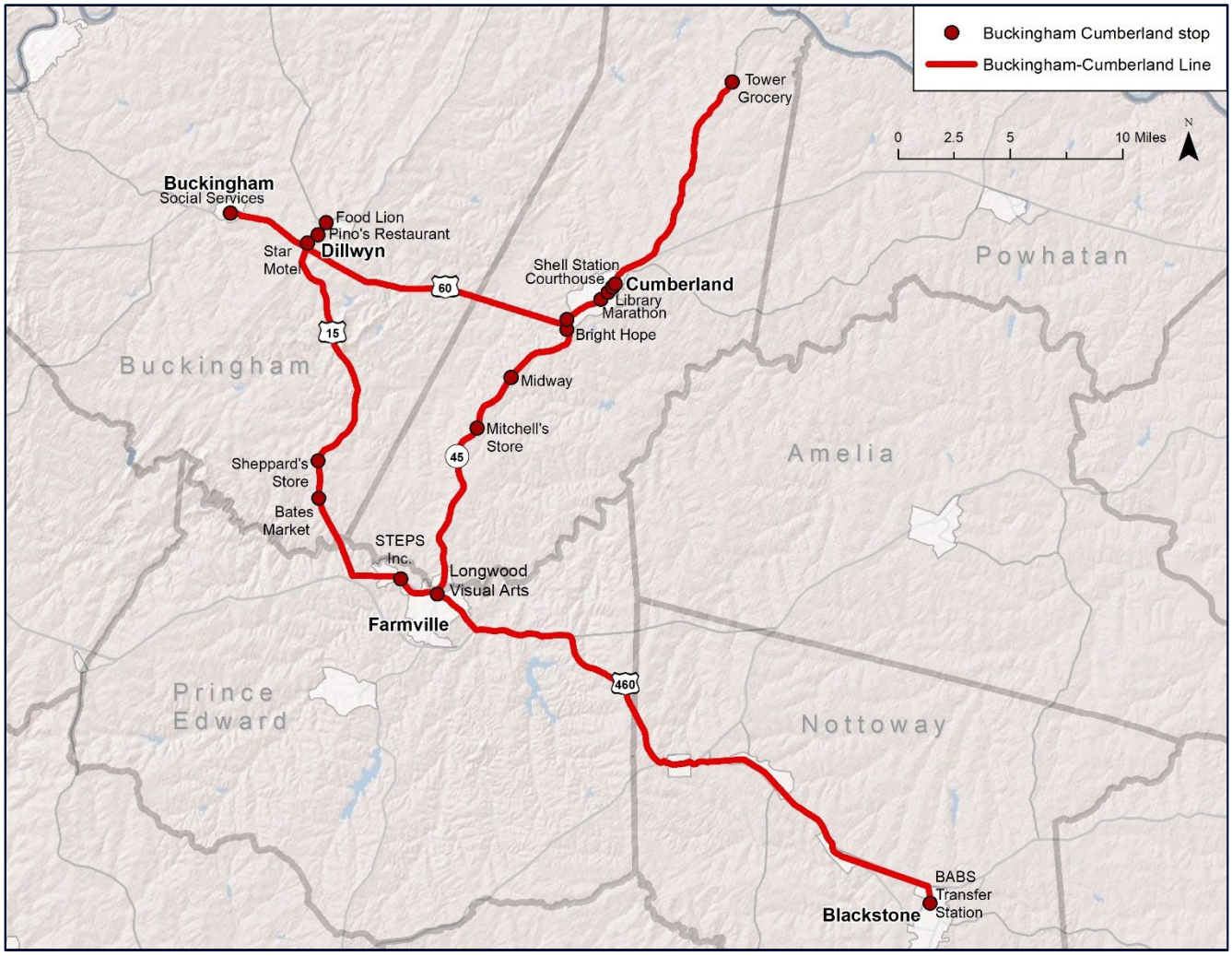
BABS operates two routes under the Piedmont Area Transit (PAT) branding. Service routes are between the Town of Farmville, Blackstone (limited service) and Buckingham, Cumberland, and Amelia Counties. After arriving in Farmville, the bus heads northeast to Cumberland County, west to Buckingham County, then back south to Farmville and Blackstone.

For the Buckingham/Cumberland Line, major destinations include Longwood Visual Arts, STEPS, Inc. in Farmville and Buckingham County Social Services. Outside of Farmville, signage, bus stop infrastructure and sidewalk access are very limited with much of the route traveling on US or State Highways. Operations funding for FY2022 is provided by Section 5311 funds (49%), state funds (28% percent), local funds from Prince Edward, Cumberland, Buckingham, and Amelia (32%) counties and passenger fares (5%).

Table 1-7: Buckingham/Cumberland Line Operating Characteristics

Operating Days	Operating Hours	Number of Trips	Peak Buses
Monday - Thursday	5:15 a.m. – 5:06 p.m.	4	1

Figure 1-9: Buckingham/Cumberland Line Map



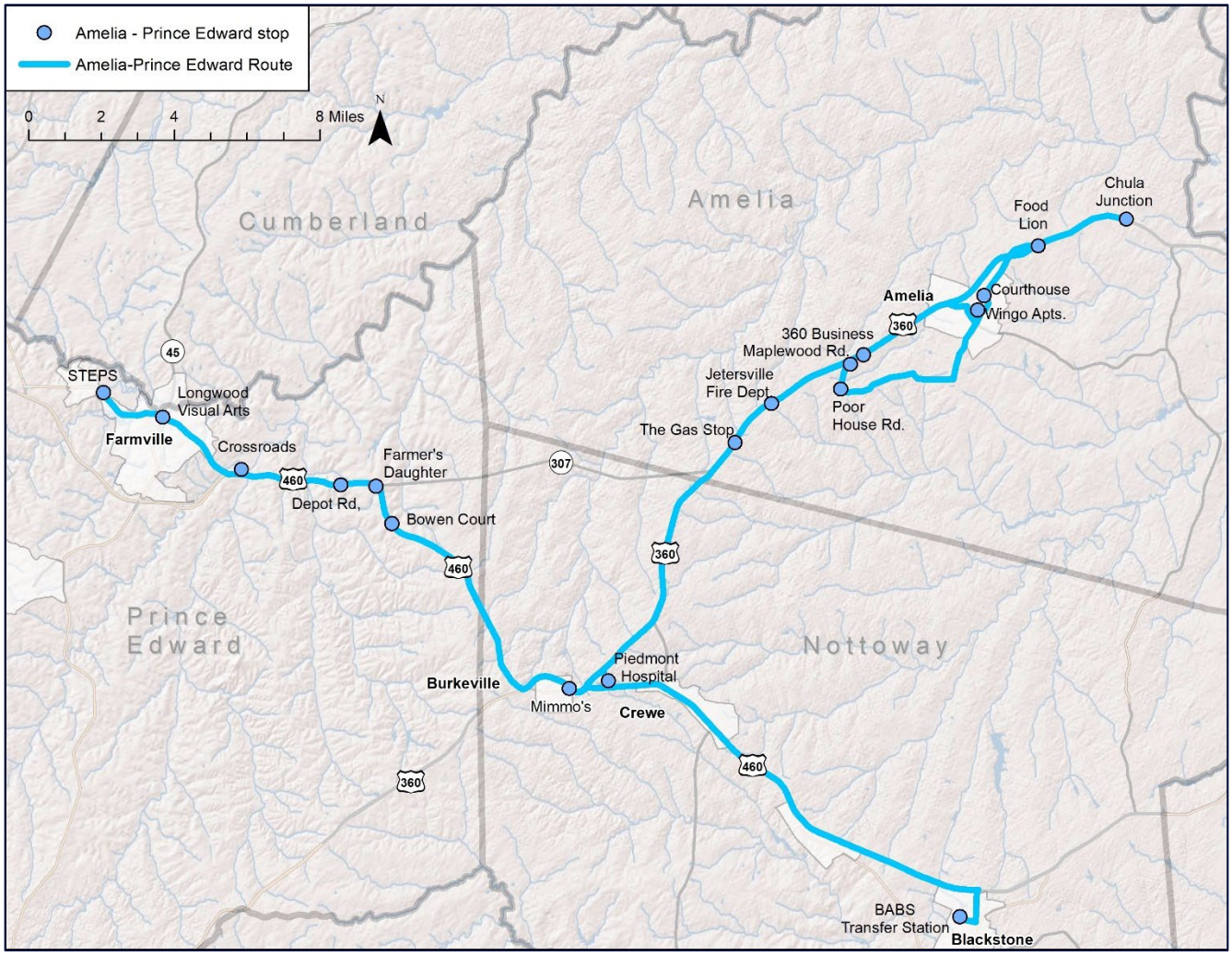
Amelia/Prince Edward Route

The Piedmont Area Transit Amelia/Prince Edward route provides service between the towns of Farmville (Prince Edward County), Blackstone, Burkeville and Crewe (Nottoway County), and Amelia County in an east to west, and south to east pattern. Stops include Longwood Visual Arts and STEPS in Farmville, Food Lion, Piedmont Geriatric Hospital and Amelia Courthouse. Outside of Farmville, signage, stop infrastructure and sidewalk access are absent or very limited with much of the route situated on US or state highways. Operations funding for FY2022 is provided by federal Section 5311 funds (47%), state funds (19%), and local funds from Prince Edward, Cumberland, Buckingham, and Amelia (28%) counties and passenger fares (5%).

Table 1-8: Amelia/Prince Edward Route Operating Characteristics

Operating Days	Operating Hours	Number of Trips	Peak Buses
Monday - Thursday	5:15 a.m. – 6:30 p.m.	2	1

Figure 1-10: Amelia/Prince Edward Route Map



Fare Structure

As seen in Table 1-9 below, BABS routes generally cost $1 per one-way trip, with the exception of the Blackstone, Amelia-Prince Edward and Fort Pickett routes which cost $0.50 per one-way trip. Since 2016, fares have increased by $0.50 for Brunswick, Crewe-Burkeville, Dinwiddie Express and Buckingham-Cumberland. Fare payment is accepted in cash, tokens, or passes. There are two forms of passes. A Punch Pass is a single pass good for ten rides on any BABS route ($5 for Blackstone and FASTC, $10 for all other routes). A Month Pass is a single pass with unlimited rides for a specific month, which costs $25; this must be requested prior to the effective starting date. These passes and tokens may be acquired at the BABS location or at the Town of Blackstone Town Hall. There are no discounts for any passengers, regardless of age or disability. If passengers are paying in cash, they must have exact change. Riders must pay the fare for each one-way trip on a bus and there are no transfers. Increases were considered in the prior Transit Development Plan but were not implemented due to the low-income status of many of passengers.

Table 1-9: BABS Fares by Route

Route	One-Way Fare
Blackstone	$0.50
Brunswick	$1.00
Crewe-Burkeville	$1.00
Dinwiddie Express	$1.00
Amelia – Prince Edward	$1.00
Buckingham – Cumberland	$1.00
Town and County Transit	$1.00
Fort Pickett	$0.50

Fleet

BABS's fleet consists of 16 vehicles, 13 of which are used in revenue service and are identified as "cutaway" vehicles. These vehicles typically carry anywhere from 14 to 19 passengers, and all are ADA accessible. This is a decrease of four revenue vehicles from the 2016 TDP. The cutaways typically service the same route and are branded. If necessary, any cutaway can be implemented to service any route, regardless of the decal on the vehicle. Supplementing regular service by maintenance staff, the drivers are tasked with completing a checklist of assessing the general condition and operability of the bus, prior to each trip. This includes checking the vehicle's fluids and electrical functions (lights, doors, cameras). In the event of a mechanical failure mid-route, one of the mechanics on-site would drive a spare bus to the driver, as BABS does not employ a bus driver on-call. The spare ratio of vehicles (defined as the number of spare vehicles divided by the vehicles required for maximum service) represents the number of vehicles available for service to the number of vehicles in service at maximum pullout. BABS uses seven vehicles during maximum pullout, and an additional ten vehicles are available in the event that a cutaway is unable to service a route. The system's spare ratio is 143 percent, which has not changed from the 2016 TDP. FTA defines the service life of a cutaway revenue vehicle as 100,000 miles or four years of service, whichever comes first. By this metric, the majority of BABS vehicles have exceeded or are soon exceeding their service life. Of the eight revenue vehicles with over 100,000 in mileage, seven were purchased in 2018 or earlier. Sixty-two percent of the revenue fleet has over 100,000 in mileage, compared to 52 percent in the 2016 TDP. However, the average vehicle age of revenue vehicles decreased from 5.1 years to 4.4 years. Table 1-10 provides a detailed fleet inventory.

Table 1-10: BABS Vehicle Inventory, Including Service Vehicles

Make	Model	Year	Fleet Number	Mileage
Chevrolet	Express 4500	2010	16	**139,958**
Ford	E450	2015	5	**212,031**
Ford	E350	2016	19	**132,264**
Ford	E350	2017	21	**282,001**
Ford	E450	2017	20	**113,916**
Ford	E450	2018	22	**256,334**
Ford	E450	2018	23	**189,525**
Ford	E450	2019	24	83,848
Ford	E450	2019	25	43,268
Ford	E450	2019	26	36,533
Ford	E450	2019	27	**171,539**
Ford	E450	2020	28	55,227
Ford	E450	2022	29	41,309
Ford	Explorer	2010	50	60,095
Ford	Expedition	2020	52	7,816
Ford	E250 HD Pick-Up	2014	804	27,310

Existing Facilities

BABS is headquartered at their maintenance facility, located at 101 BABS Lane, Blackstone, Virginia 23824. Constructed in 2008, the facility includes six bays and one wash bay. The high number of bays relative to the fleet size is due to the maintenance facility serving all other Blackstone municipal vehicles. Prior to the construction of the maintenance facility, BABS would have the vehicles serviced at the Town Hall garage and store the vehicles in the Blackstone Police Department lot, with infrequent break-ins and acts of vandalism committed against the vehicles. Today, BABS vehicles are stored at the maintenance facility and have not experienced further criminal acts. BABS stop facilities are mainly located in the Town of Blackstone. Most designated stops within the town have BABS signage, which includes the BABS phone number, but lacks route information. Benches are available at a minority of designated stops, and currently only two BABS shelters are provided in the entire route network. One shelter is at the Blackstone Medical Center and another is at the Cole Harbour Apartments, whose shelter was donated and constructed by the local Rotary Club in 2018. Route segments between communities typically operate on a flag stop system, where passengers wait along a fixed portion of the route and flag the driver to stop. Currently, BABS is in the middle of a bus shelter project which will result in a total of seven shelters along the Blackstone Line route. BABS also plans to add bus route information along with efforts to replace add or replace signage and build new shelters.

Other issues BABS has with rural stop infrastructure is a lack of local funding for infrastructure and issues with Virginia Department of Transportation approving signage and stop infrastructure within state right-of-way on rural routes. Designated stops in communities other than Blackstone and Farmville typically lack stop signage or other infrastructure such as seating or lighting. Shelters and benches also are available at the Petersburg Transit Center, which is the eastbound terminal destination for the Dinwiddie express. With regards to bicycle facilities, some of the vehicles are equipped with front-end bicycle racks.

Figure 1-11: BABS Facility

Transit Security Program

BABS has enhanced its security measures since 2016 by adding surveillance equipment to all revenue vehicles. In addition to the cameras, drivers are trained in how to manage combative passengers at point of hire and on an annual basis. This protocol was breached in April 2014 and led to the dismissal of a driver. During operations, all buses are equipped with first aid supplies in the event of a medical emergency, as well as radios for the drivers to communicate with each other, the maintenance facility, or emergency services.

Intelligent Transportation Systems (ITS) Program

As mentioned in the previous section, apart from the recent addition of on-board cameras, BABS does not employ other ITS technologies like traffic signal priority (TSP), or assistance in scheduling complicated route patterns with Trapeze because there is not a significant need due to the rural nature of the service area. However, some technologies could be beneficial to passengers, such as installing automatic vehicle locator (AVL), which BABS currently lacks. With smart-phone ownership at roughly 80 percent of the American adult rural population according to a 2021 Pew poll, up from 52 percent in 2015, the ability and demand for real-time information will likely increase within the BABS service area. In addition, providing real time information could help BABS attract new riders.

Data Collection, Ridership and Reporting Methodology

Data collection at BABS is primarily a process of manual entries punched into a manual passenger counter, which is then entered into a paper spreadsheet by a member of the administrative staff. Other data, particularly financial, are handled exclusively by the administrative staff.

Ridership

As the buses are not equipped with automatic passenger counters (APCs), ridership data is collected manually by the bus driver on the same inspection sheet used to conduct the safety inspection prior to each work shift. The driver counts passengers as either an adult, child, or wheelchair user, and whether they pay with a punch card or tokens. Punch cards and tokens can be purchased on the bus or at the maintenance facility, although advance notice is required. The third method of payment, by cash, is not recorded by the driver. Cash receipts can be calculated by taking the difference between the number of total passengers minus the total punched cards and token users and multiplying the amount by the fare cost of the route. This amount should equal the amount of cash collected in the farebox. Any difference would indicate either overpayment or underpayment of some passengers as no passengers are exempt from payment. At the conclusion of the route, the completed form is delivered to BABS administrative staff for entry into an electronic spreadsheet. This information is aggregated into a single passenger category. Stop-level activity of passengers is not collected on a regular basis, although some of this information can be gleaned from the survey that accompanies this TDP update.

Operations

Vehicle mileage, hours, and fuel usage are all written down on the same driver sheet as ridership information. BABS does not distinguish between total hours and miles with revenue hours and miles. If there are other service issues, the driver is to record that as well. Fares are collected in a locked farebox and a count of other forms of payment, as discussed above, are entered electronically into computer spreadsheets as a total passenger revenue figure. Costs, such as wages, salaries, fuel, and maintenance, among other operating expenses are detailed in an operating invoice that BABS separates by route. This

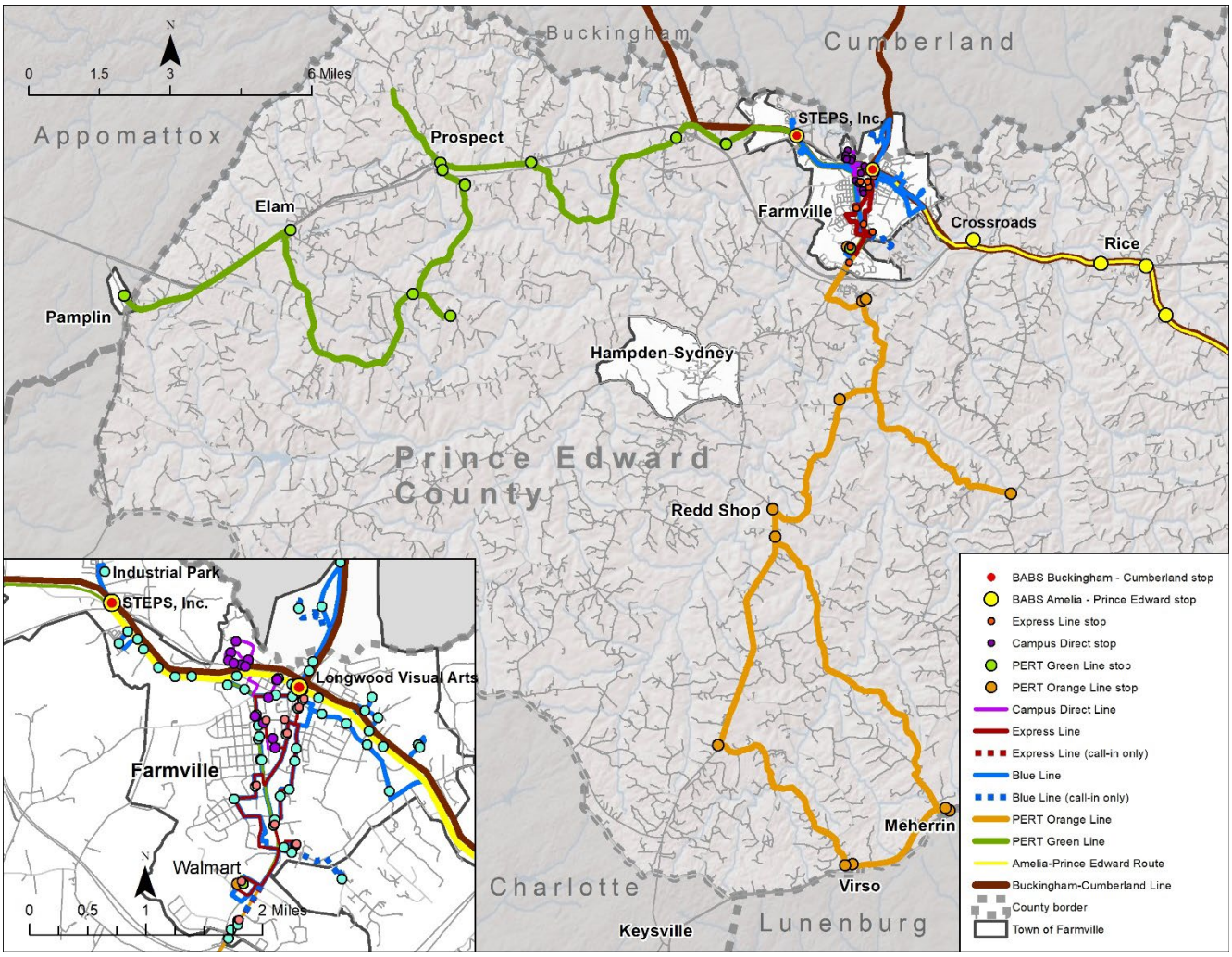
practice is due to the different route funding structures provided by different counties in the BABS service area.

Coordination with other Transportation Service Providers

Farmville Area Bus (FAB)

Farmville Area Bus provides public transportation to the city of Farmville and extends through parts of rural Prince Edward County. Two BABS lines connect at Farmville. The Amelia/Prince Edward Line and the Buckingham/Cumberland Line connects to Farmville at Longwood Visual Arts on Main Street and STEPS, Inc. (nearby the Industrial Park) in the early morning and afternoon. BABS passengers can transfer to the FAB Blue Line at stops along Third or Main Street, with connections to the Walmart.

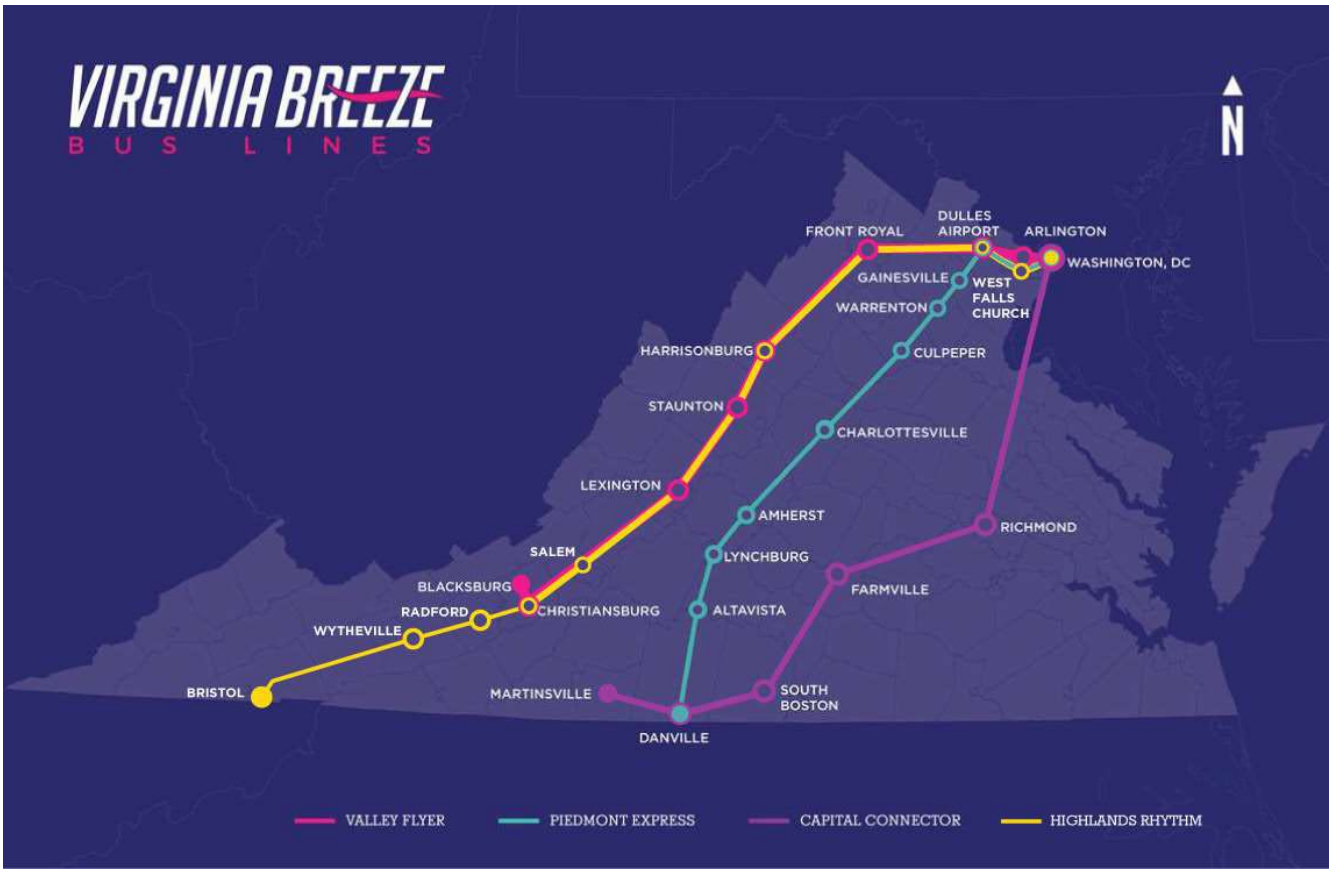
Figure 1-12: FAB Service Area and System Map



Virginia Breeze

Virginia Breeze Bus Lines is an intercity bus service that launched in December 2017 and is managed by DRPT. The service connects rural populations to urban areas and the national intercity bus network through four routes, which include stops at major cities and Union Station in Washington, D.C. The bus serves Farmville (about 32 miles west) and Richmond (about 57 miles northeast) via the "Capital Connector" route, with the northbound bus arriving at the Farmville Walmart at 9:15 a.m. daily and the southbound bus arriving at 4:40 p.m. daily. The northbound bus stops in Richmond at 10:40 a.m. before arriving in Washington D.C. at 1:00 p.m. The southbound bus stops in South Boston, Danville and ends in Martinsville at 7:15 p.m.

Figure 1-13: Virginia Breeze Bus Lines



Petersburg Area Transit (PAT)

Petersburg Area Transit provides public transportation and currently fare-free service for residents, businesses and visitors for the Petersburg Southside region. BABS passengers on the Dinwiddie Express arriving at the Petersburg Station in the morning at 7:05 a.m. can transfer to twelve PAT routes that connect to shopping, medical and other destinations throughout Petersburg with connections to Richmond. Passengers that transfer on the Freedom Express departing at 7:15 a.m. can arrive in downtown Richmond within 1-hour. The last Freedom Express Bus departing Richmond and returning to Petersburg Station leaves at 4:05 p.m. from the corner of 11th and Marshall.

Greyhound

Greyhound is still the only intercity bus operator with a national network, and it continues to provide the connective ticketing and information network for the national interline ticketing system, the National Bus Traffic Association. BABS passengers transferring at the Petersburg Station can transfer to the Greyhound bus and travel with affordable fares to nationwide destinations and major cities such as Washington D.C.

Public Outreach

Public outreach is conducted through advertising and reaching out to social service organizations in the service area, such as STEPS, a community action agency that provides workforce development and other services, and SVCC. BABS administration also is in contact with community development organizations on an annual basis to assess existing and future transit service. The BABS director stated that the agency currently has a good relationship with local businesses including Walmart and Food Lion, although the director stated that it is sometimes hard to get individuals or groups involved as stakeholders of their public transit system.

Chapter 2:
Goals, Objectives, and Standards

Introduction

This chapter of the TDP presents the goals for Blackstone Area Bus System (BABS); documents current issues for BABS as discussed by BABS staff; and updates service standards for the system.

Blackstone Area Bus System Goals and Objectives

Transit Program Goals and Objectives

The following goals and objectives that are currently in place were developed during the 2016 TDP Update. They were reviewed with BABS and DRPT to determine if they are still consistent with the current needs of the system. The current TDP process gives the agency and its community partners an opportunity to refresh and update these metrics. As the BABS service area continues to develop and transform, goals and objectives are expected to change to meet these transit needs. Below are the modified and new goals and objectives.

Goal 1: Provide reliable fixed route public transportation service that meets the transportation needs of the Town of Blackstone; Dinwiddie, Brunswick, Amelia, Buckingham, Cumberland, Lunenburg, and Prince Edward counties; and adjacent areas of Nottoway County

Objective 1.1: Provide transit service connections between residential areas and commercial areas with jobs, education, shopping, and medical services

- Document and record customer service requests.
- Work on a regular basis with the Town and County Economic Development Agency staff to identify planned new developments that might warrant transit service. This also should include establishing criteria for funding and ridership potential when considering service expansion.
- Survey transit riders at least once every six years to determine rider service needs.

Objective 1.2: Provide easy to identify safe stop locations along routes

- Establish safe bus stop locations when modifying an existing bus route alignment or when implementing new service.
- Work with VDOT and DRPT staff in expanding sidewalks, adding benches, and map information at stops with high ridership demands.
- Monitor ridership activity at high demand stops to determine if passenger shelters are needed. If average daily ridership meets or exceeds 25 passengers during a one month survey period, BABS should initiate the process of shelter installation.
- Identify stops that require lighting for safety.
- Shelter installation project.

Goal 2: Market existing transit services

Objective 2.1: Market transit services as a travel option within the Town of Blackstone, Dinwiddie, Brunswick, Amelia, Buckingham, Cumberland, Lunenburg, Prince Edward, and adjacent communities in Nottoway counties

- Maintain a BABS Route and Schedule Guide for users of the transit system.
- Maintain accurate and up-to-date transit information on the BABS website, www.blackstonebus.com.
- Participate in community events to promote public transportation through pamphlets and paraphernalia.
- Maintain a mailing list of organizations and social service agencies that represent markets that are likely to ride transit and provide service information to those organizations and agencies.
- Establish a process for public engagement when exploring service changes and other transit related issues, i.e., Facebook page.

Objective 2.2: Rebrand the system as "Heartland Transit" in order to emphasize the regional mandate of the service

- Rebrand the service to an easily identifiable brand name that informs passengers on regional connections beyond the bus line they currently use.
- Avoid rebranding the system in a way that promotes one bus line or municipality over another.

Goal 3: Deliver fixed route bus services in a cost effective manner

Objective 3.1: Maintain a systemwide farebox recovery ratio (farebox revenues/total operating expenses) that meets or exceed established standards

- Record and monitor year-over-year trends in passenger trips by route.
- Record and monitor year-over-year trends in transit operations expenses and farebox revenues by route.

Objective 3.2: Administrative costs are not to exceed 20 percent of the total operating budget

- Record and monitor monthly transit administration expenses and farebox revenues.

Objective 3.3: Achieve system-wide fixed-route ridership levels that meet or exceed established standards

- Maintain and monitor monthly ridership reports for fixed-route service, with ridership reported on a route segment basis for all fixed-route operations.
- Implement corrective measures if ridership falls below established standards for specific routes for more than twelve months in a row. Such corrective measures may include route re-alignment, service frequency changes, and span of service and/or fare adjustments.

Goal 4: Deliver fixed route bus services in a safe manner

Objective 4.1: Ensure that transit service operators maintain an accident rate and vehicle failure rate of less than the established standard

- Maintain a training program for new employees.
- Review established operating policies and procedures at least once a year and update as necessary.
- Review those policies and procedures as part of all training efforts with new staff. Also review with existing staff at least once every two years.

Objective 4.2: Ensure that an adequate fleet of vehicles is maintained for the fixed-route services

- Identify the potential need for replacement vehicles based on FTA standards for the defined service life of vehicles. For most buses operated by BABS, the defined service life is four years or 100,000 revenue miles of service, whichever comes first.
- Maintain a spare ratio of at least one bus at all times for the BABS fixed route transit services.

Goal 5: Provide transit services that are accessible to all citizens

Objective 5.1: Provide transit services that are accessible to all population groups within the town of Blackstone, Dinwiddie, Brunswick, Amelia, Buckingham, Cumberland, Lunenburg, Prince Edward counties, and adjacent areas of Nottoway counties

- Comply with the applicable requirements of ADA.
- Provide the ADA-eligible population with paratransit service that is comparable to service provided by the fixed-route system.

Goal 6: Explore technology opportunities for the delivery of transit

Objective 6.1: Mobile App for the bus

- Conduct feasibility study for the viability and use of a rider mobile app.
- Explore acquiring GPS tracking, on-time performance software/hardware.

Goal 7: Transit advisory group

Objective 7.1: Ensure that stakeholder interests are being identified

- Form a transit advisory group representing local businesses, current riders, and human service agencies.
- Meet biannually.

Current Issues for Blackstone Area Bus System

There are a number of issues currently facing the system that are noteworthy, and essential to report for the onset of this plan. These are outlined below.

Driver Availability

Similar to many transit agencies in Virginia and across the country, BABS is having a tough time hiring and retaining drivers, which will make it difficult to expand transit services to meet future demand. This driver shortage affects all aspects of service planning decisions for both current and future services.

Transit Demand – Fixed Route

BABS has seen a significant decrease in its fixed route ridership, largely due to the ongoing pandemic.

Rural Stops Infrastructure

BABS is currently in the midst of their bus shelter program; however, this is concentrated along the Blackstone Line route. Much of the service area bus stops require:

- Replacement and/or new stop signage
- Shelters
- Seating
- Lighting

Many factors have played a role in the barren rural stop infrastructure, most prominently:

- Lack of local funding.
- Issues with VDOT approving signage and stop infrastructure within state right-of-way on rural routes.

Service and Performance Standards

Service standards are benchmarks by which service performance is evaluated. Service standards are typically developed in several categories, such as service coverage, passenger convenience, safety, fiscal condition, productivity, and passenger comfort. The most effective service standards are straightforward and relatively easy to calculate and understand.

Service standards are also used as a measure of compliance with Title VI of the Civil Rights Act of 1964, to ensure that services are provided equitably to all persons in the service area, regardless of race, color, or national origin. BABS Title VI Plan details the systemwide service standards meant to ensure this equity, including standards on vehicle load, vehicle headways, on-time performance, and service availability.

The following standards are included in the agency's Title VI Plan:

- **Vehicle load** – Vehicle load is expressed as the ratio of passengers to the total number of seats on a vehicle at its maximum load point. The standard for maximum vehicle load is 21.

- **On-time performance** – On-time performance is a measure of runs completed as scheduled. This criterion first must define what is considered to be "on time." The standard for on-time performance is seven minutes after scheduled stop time.

- **Service availability** – Service availability is a general measure of the distribution of routes within a transit provider's service area or the span of service. The standard for service availability is equally available in all populated geographic areas of BABS service area.

DRPT Performance-Based Allocation Metrics

In FY2020, DRPT implemented a new performance-based methodology for allocating operating assistance funding pursuant to the Code of Virginia and Commonwealth Transportation Board (CTB) policy. The methodology was developed through coordination with Virginia's Transit Service Delivery Advisory Committee (TSDAC) and the CTB, which resulted from a 2018 legislative mandate to base grant amounts on agency performance. The methodology developed considers sizing and performance metrics.

The sizing metrics are intended to base allocations on the size of the agency so that grant funding is proportionate to the level of service operated. The sizing metrics and weights for FY2021 and beyond are:

Operating cost	50%
Ridership	30%
Revenue vehicle hours	10%
Revenue vehicle miles	10%

The five performance metrics and weights are:

1. Passengers per revenue vehicle hour (20%)
2. Passengers per revenue vehicle mile (20%)
3. Operating cost per revenue vehicle hour (20%)
4. Operating cost per revenue vehicle mile (20%)
5. Operating cost per passenger trip (20%)

Blackstone Area Bus System Performance Metrics

Table 2-1 provides the BABS overall operating data and the values for the performance metrics for fiscal years 2018 through 2022. The effect of the Covid-19 pandemic can be seen starting with the FY2020 metrics, as the pandemic disrupted ridership starting in March 2020.

Table 2-1: Blackstone Area Bus System Data and Performance Metrics, FY2018 – FY2022

Metric	FY2018	FY2019	FY2020 (1)	FY2021 (2)	FY2022
Passenger Trips	36,000	38,275	28,736	21,834	24,049
Revenue Hours	14,461	14,627	13,524	14,252	14,394
Revenue Miles	383,394	365,790	388,341	395,902	414,536
Total Operating Costs	$387,191	$413,195	$347,439	$444,937	$562,568
Passenger Trips per Revenue Hour	2.5	2.6	2.1	1.5	1.7
Passenger Trips per Revenue Mile	0.09	0.10	0.07	0.06	0.06
Operating Cost per Revenue Hour	$26.77	$28.25	$25.69	$31.22	$39.08
Operating Cost per Revenue Mile	$1.01	$1.13	$0.89	$1.12	$1.36
Operating Cost per Passenger Trip	$10.76	$10.80	$12.09	$20.38	$23.39

(1) PANDEMIC EFFECTS BEGIN DURING THE END OF THE THIRD QUARTER (MARCH 2020)
(2) COVID-19 EFFECTS FOR THE ENTIRE YEAR

Given that these five metrics are being used by DRPT to allocate funding, it is recommended that BABS adopt these metrics internally when reviewing performance.

Process for Updating Goals, Objectives, and Standards

It is recommended that an annual review of goals, objectives, and service standards take place as part of the grant preparation cycle. If additional goals are envisioned, or if specific goals, objectives, or standards are no longer appropriate, represent under-achievement, or cannot reasonably be attained, BABS can update the measures to reflect current circumstances. Any changes for these measurement tools can be included in the annual TDP update letter.

Since the 2016 TDP, DRPT has also implemented performance-based operating funding, using the five metrics previously described. It is important that BABS track these to see how the services perform as measured by these metrics. If performance goes down, BABS should look to see if there are ways to improve efficiency and/or boost ridership.

Chapter 3:
Service and System Evaluation

Introduction

This chapter of the TDP focuses on two primary analyses. The first focus is a description and analysis of the recent performance of Blackstone Area Bus System (BABS), including analyses of trends, peers, recent ridership, and a Transit Passenger Survey. The second area of focus provides an analysis of transit needs, including a demographic and land use analysis and a review of relevant studies and plans.

Overall, this chapter includes nine major components that are presented in the following order:

- System Evaluation
- Financial Information
- Peer Analysis
- Transit Passenger Survey Results
- Population Profile
- Title VI Demographic Analysis
- Land Use Profile
- Travel Patterns
- Review of Previous Plans and Studies

System Evaluation

Systemwide Trend Data

BABS's ridership trend data as a whole look similar to other transit agencies in Virginia and across the country, with overall ridership increasing slightly after FY2018 due to increased demand for some routes, but then dropping precipitously with the Covid-19 pandemic. The last full year prior to the pandemic (FY2019), BABS's total ridership was 38,275, before dropping to 28,736 in FY2020. Ridership in FY2022 was up slightly from FY2021 but is still down about 37 percent from pre-pandemic levels (i.e., FY2019). Figure 3-1 displays the five-year trend for overall trips in the past five years.

In terms of productivity, the trend is similar, with system-wide productivity declining from 2.5 trips per revenue hour in FY2018 to a low of 1.7 trips per revenue hour in FY2022. Productivity has started to improve in FY2022 compared to FY2021, with slightly higher ridership. However, total operating costs have also increased, up 26 percent since FY2021. The five-year trend for overall operating costs is displayed in Figure 3-2, which shows a substantial increase in costs compared to pre-pandemic levels due to the introduction of the Fort Pickett service and increased staffing expenses (increased hourly pay for drivers).

Table 3-1: Transit Program Trend Data

Metric	FY2018	FY2019	FY2020 (1)	FY2021 (2)	FY2022
Passenger Trips	36,000	38,275	28,736	21,834	24,049
Revenue Hours	14,461	14,627	13,524	14,252	14,394
Revenue Miles	383,394	365,790	388,341	395,902	414,536
Total Operating Costs	$387,191	$413,195	$347,439	$444,937	$562,568
Passenger Trips per Revenue Hour	2.5	2.6	2.1	1.5	1.7
Passenger Trips per Revenue Mile	0.09	0.10	0.07	0.06	0.06
Operating Cost per Revenue Hour	$26.77	$28.25	$25.69	$31.22	$39.08
Operating Cost per Revenue Mile	$1.01	$1.13	$0.89	$1.12	$1.36
Operating Cost per Passenger Trip	$10.76	$10.80	$12.09	$20.38	$23.39
Miles Per Hour	26.51	25.01	28.71	27.78	28.80

(1) PANDEMIC EFFECTS BEGIN DURING THE END OF THE THIRD QUARTER (MARCH 2020)

(2) ONGOING PANDEMIC EFFECTS FOR THE ENTIRE YEAR

Figure 3-1: Passenger Trips, FY2018 – FY2022

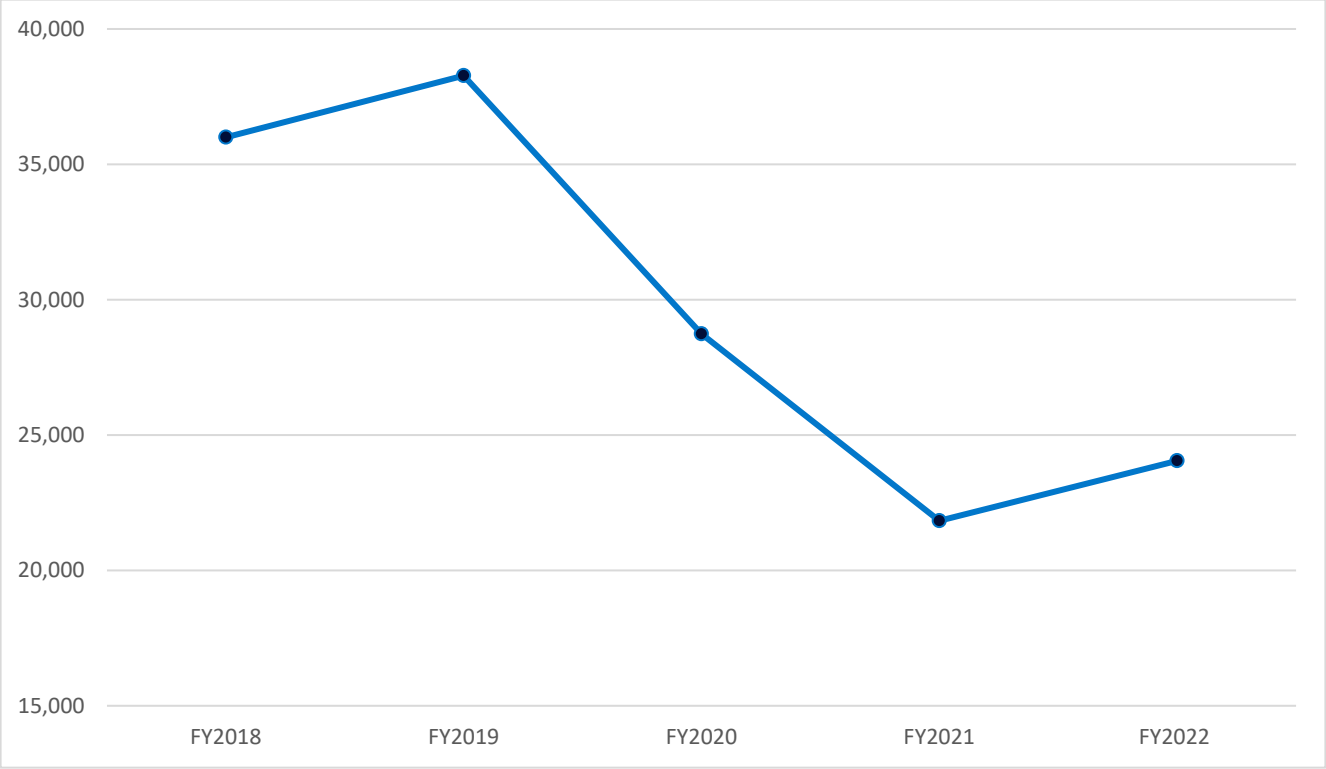
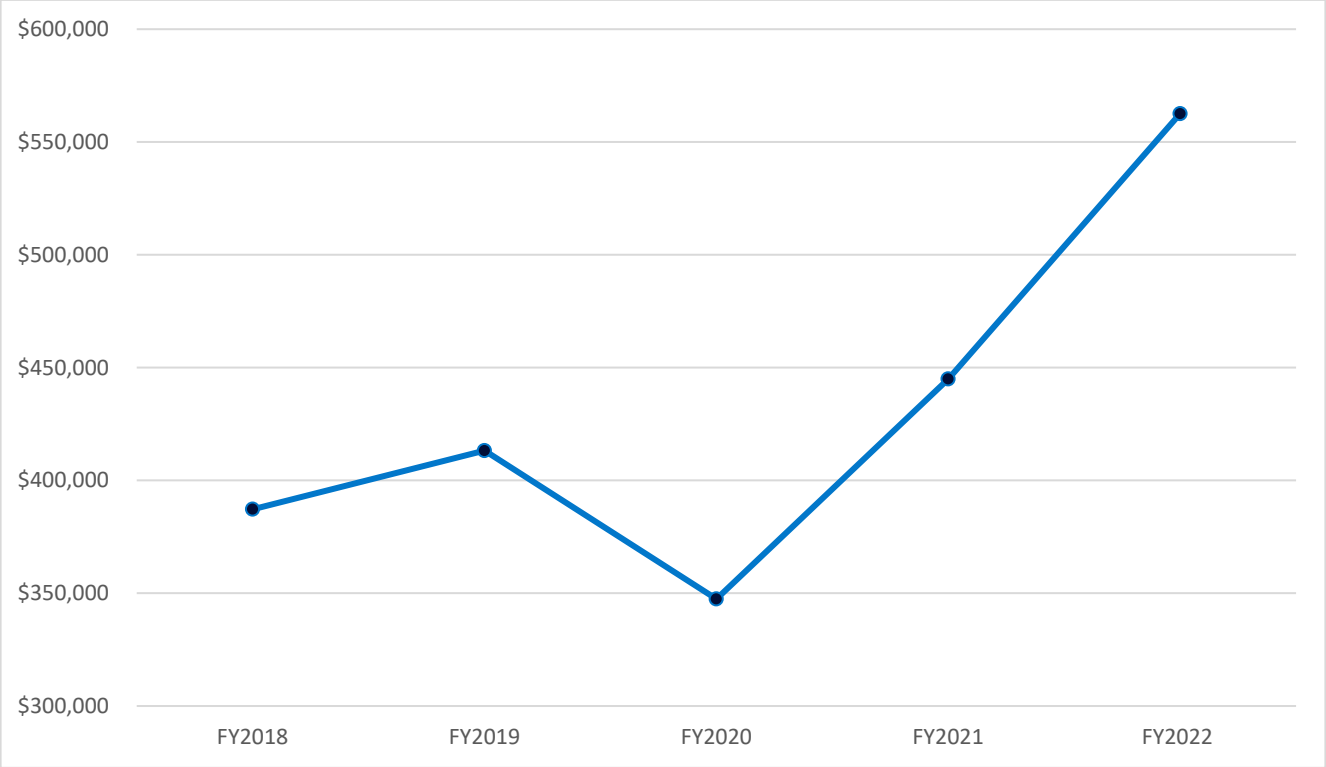


Figure 3-2: Operating Costs, FY2018 – FY2022



Route and Service Level Trend Data

BABS uses up to seven vehicles to operate eight fixed routes within the eight-county BABS service area. Routes vary by operating hours, days, and trips per day. The Blackstone Line is the only route which runs on 1-hour headways Mondays – Fridays.

The following routes operate Monday – Friday:

- Blackstone Line (including Saturdays)
- Dinwiddie Express
- Fort Pickett Line (evenings only)

The following routes operate Monday – Thursday:

- Buckingham – Cumberland Line
- Amelia-Prince Edward Route
- Town and County
- Brunswick Express

The Crewe-Burkeville Express operates three days a week, on Monday, Tuesday and Thursday.

The performance and cost data between FY2018 – FY2022 for each route is analyzed on the following pages.

Blackstone Line

The Blackstone Line connects Blackstone residential areas and apartments with Main Street and the Walmart shopping area. Major stops include Magnolia Place and Cole Harbour Apartments, Food Lion, and Walmart.

The five-year trend data shown in Table 3-2 shows that ridership had been increasing prior to the pandemic and that FY2022 ridership is currently about 40 percent lower than the 2019 pre-pandemic level. Meanwhile, overall revenue hours and miles have remained about the same. Operating costs have increased incrementally over the five-year period, with the largest annual increases seen between 2020 - 2022. Productivity on the route was the highest in 2019, at five passenger trips per revenue hour. In 2022, productivity was 3.3 trips per revenue hour, a 35 percent decrease since 2019. However, productivity has increased slightly after 2021.

Table 3-2: Five Year Trend Data for the Blackstone Line

Metric	FY2018	FY2019	FY2020	FY2021	FY2022
Passenger Trips	14,703	17,193	13,721	9705	10,339
Revenue Hours	3365	3418	2959	3164	3143
Revenue Miles	37,309	37,944	33,971	37,219	37,390
Total Operating Costs	$76,852.63	$65,629.10**	$74,310.52	$90,898.00	$114,345.00
Passenger Trips per Revenue Hour	4.37	5.03	4.64	3.07	3.3
Passenger Trips per Revenue Mile	0.39	0.45	0.40	0.26	0.28
Cost per Revenue Hour	$22.84	$19.20	$25.11	$28.73	$36.38
Cost per Revenue Mile	$2.06	$1.73	$2.19	$2.44	$3.06
Cost per Passenger Trip	$5.23	$3.82	$5.42	$9.37	$11.06
Miles per Hour	11.09	11.10	11.48	11.76	11.90

**Actual operating costs were not available as they were merged with the Crewe-Burkeville operating costs. The FY2019 Budget is estimated by subtracting the combined Blackstone / Crewe-Burkeville operating costs with the FY 2019 Crewe-Burkeville estimated budget.

Fort Pickett Line

The Fort Pickett Line provides evening service connecting Main Street in Blackstone with Fort Pickett. Major stops include the Walmart and Main Street. Complete data is only available since FY 2021 when service resumed after ceasing in 2013 due to low ridership. As displayed in Table 3-3, ridership on this route is relatively low compared to other BABS routes. Productivity is very low with about 1 trip per hour. Overall productivity has stayed about the same since 2021, while overall operating costs have increased slightly.

Table 3-3: Recent Data for the Fort Pickett Line

Metric	FY2021	FY2022
Passenger Trips	935	1111
Revenue Hours	1184	1174
Revenue Miles	18,714	18463
Total Operating Costs	$38,486	$44,606
Passenger Trips per Revenue Hour	0.8	0.9
Passenger Trips per Revenue Mile	0.05	0.06
Cost per Revenue Hour	$32.51	$48.00
Cost per Revenue Mile	$2.06	$2.42
Cost per Passenger Trip	$41.16	$40.15
Miles per Hour	15.8	15.7

Brunswick Express

The Brunswick Express operates between southern Blackstone to Alberta and Lawrenceville in Brunswick County. Major destinations include the Blackstone Walmart and Food Lion groceries in Blackstone and Lawrenceville.

The five-year trend data for the route is provided in Table 3-4. The data shows that 2019 exhibited the highest ridership and productivity with 3 trips per hour. Like most BABS routes, overall passenger trips and productivity was increasing slowly before the 2020 pandemic. Since 2019, productivity decreased by 35 percent to about two trips per hour. However, it is important to note the additional 1082 passenger trips from 2021, which is the largest passenger trip increase of all BABS routes. Operating costs have also increased incrementally over the five-year period, with the largest annual increase seen between 2020 and 2021.

Table 3-4: Five Year Trend Data for the Brunswick Express

Metric	FY2018	FY2019	FY2020	FY2021	FY2022
Passenger Trips	4,024	4,083	2,750	1,990	3,072
Revenue Hours	1,413	1,327	1,341	1,502	1,516
Revenue Miles	33,520	32,609	34,157	38,179	38,537
Total Operating Costs	$46,644	$46,007	$39,010	$53,740	$57,509
Passenger Trips per Revenue Hour	2.9	3.1	2.1	1.3	2
Passenger Trips per Revenue Mile	0.12	0.13	0.08	0.05	0.08
Cost per Revenue Hour	$33.01	$34.67	$29.09	$35.78	$37.94
Cost per Revenue Mile	$1.39	$1.41	$1.14	$1.41	$1.49
Cost per Passenger Trip	$11.59	$11.27	$14.19	$27.00	$18.72
Miles per Hour	23.72	24.57	25.47	25.42	25.42

Crewe – Burkeville Express

The Crewe - Burkeville Express connects Blackstone with Crewe and Burkeville in western Nottoway County. Major destinations include the Magnolia Place Apartments in Blackstone and Piedmont Geriatric Hospital.

In the last five years, the highest ridership was in 2019, while the highest productivity was in 2018. While ridership increased 15 percent from 2018-2019, trips decreased the following year by 44 percent (the highest one year drop in ridership among BABS routes), and trips have continued to decrease in the years since then. Since 2018, overall trips and productivity have decreased by 49 percent. Meanwhile revenue hours, revenue miles and overall costs have remained about the same.

Table 3-5: Five Year Trend Data for the Crewe – Burkeville Express

Metric	FY2018	FY2019	FY2020	FY2021	FY2022
Passenger Trips	2,588	2,988	1,693	1497	1,328
Revenue Hours	1101	1301	1102	1109	1110
Revenue Miles	29,587	29,260	27,699	28,904	28,975
Total Operating Costs	$36,555.51	$40,510*	$29,311.70	$41,765.18	$38,117.14
Passenger Trips per Revenue Hour	2.4	2.30	1.5	1.4	1.2
Passenger Trips per Revenue Mile	0.09	0.10	0.06	0.05	0.05
Cost per Revenue Hour	$33.20	$31.14	$26.60	$37.66	$34.34
Cost per Revenue Mile	$1.24	$1.38	$1.06	$1.44	$1.32
Cost per Passenger Trip	$14.13	$13.56	$17.31	$27.90	$28.70
Miles per Hour	26.87	22.49	25.14	26.06	26.10

*Operating costs were not available as they were merged with the Blackstone operating costs. The FY2019 Budget is provided in place of the FY2019 Actual Operating Costs.

Town and County Transit

The Town and County Transit Lines (Orange and Green) serve Victoria and Kenbridge in Lunenberg County with limited service to Blackstone with the Green Line.

Similar to other BABS routes, ridership for Town and County Transit Lines is in a downtrend in the past five years, decreasing by 20 percent since 2018 to 2776 trips. However, compared to other BABS routes, this is the smallest trip percentage decrease. Overall productivity has decreased from a peak of 1.4 trips per hour to 1.1 trip per hour, a 22 percent decrease, which is again a smaller decrease compared to other routes.

Table 3-6: Five Year Trend Data for Town and County Transit

Metric	FY2018	FY2019	FY2020	FY2021	FY2022
Passenger Trips	3,493	3,064	2,899	2669	2776
Revenue Hours	2526	2489	2342	2548	2578
Revenue Miles	61,287	60,492	56,259	62,655	63879
Total Operating Costs	$59,239.51	$59,526.01	$53,416.21	$72,079.03	$84,584.99
Passenger Trips per Revenue Hour	1.4	1.2	1.2	1.1	1.1
Passenger Trips per Revenue Mile	0.06	0.05	0.05	0.04	0.04
Cost per Revenue Hour	$23.45	$23.92	$22.81	$28.29	$32.81
Cost per Revenue Mile	$0.97	$0.98	$0.95	$1.15	$1.32
Cost per Passenger Trip	$16.96	$19.43	$18.43	$27.01	$30.47
Miles per Hour	24.26	24.30	24.02	24.59	24.78

Dinwiddie Express

The Dinwiddie Express connects Blackstone with Dinwiddie County and the city of Petersburg. Major destinations include the Petersburg Transfer Station that connects with Richmond and Wallace's Supermarket in McKenney.

The five-year trend shows that ridership had already begun to drop slightly after 2018, before the pandemic. The pandemic-related ridership drop in this route was similar to other routes, which is overall second in passenger trips behind the Blackstone Line. Between 2019 and 2022, ridership overall dropped from 6,707 to 3,280 trips, which is a 32 percent decrease, the second-highest drop behind the Crewe-Burkeville Express. Productivity decreased by 52 percent to 1.45 trips per revenue hour. Since 2021, ridership has rebounded slightly by 16 percent, while revenue hours and miles have stayed about the same, and operating costs have increased.

Table 3-7: Five-Year Trend Data – Dinwiddie Express

Metric	FY2018	FY2019	FY2020	FY2021	FY2022
Passenger Trips	7,308	6,707	4,561	2825	3280
Revenue Hours	2273	2238	2089	2182	2267
Revenue Miles	78,421	78,264	72,788	77,625	78,220
Total Operating Costs	$63,487.65	$63,943.85	$54,274.01	$66,468.54	$82,182.33
Passenger Trips per Revenue Hour	3.22	3.00	2.18	1.29	1.45
Passenger Trips per Revenue Mile	0.09	0.09	0.06	0.04	0.04
Cost per Revenue Hour	$27.93	$28.57	$25.98	$30.46	$36.25
Cost per Revenue Mile	$0.81	$0.82	$0.75	$ 0.86	$1.05
Cost per Passenger Trip	$8.69	$9.53	$11.90	$23.53	$25.06
Miles per Hour	34.50	34.97	34.84	35.58	34.50

Buckingham/Cumberland Line

The Buckingham/Cumberland Line operates under the Piedmont Area Transit (PAT) branding, connecting Farmville and Blackstone with the counties of Buckingham, Cumberland and Amelia.

The route has experienced a consistent downtrend in the past five years. The highest ridership was in 2018 at 2,513 trips. Since then, trips have decreased 41 percent, while productivity has decreased 39 percent to 0.8 trips per hour. Meanwhile overall revenue hours and miles have remained about stable while overall costs have increased.

Table 3-8: Five-Year Trend Data – Buckingham-Cumberland Line

Metric	FY2018	FY2019	FY2020	FY2021	FY2022
Passenger Trips	2,513	2,355	1,780	1502	1487
Revenue Hours	1935	1948	1867	1885	1903
Revenue Miles	75,272	75,209	71,350	76,224	76,937
Total Operating Costs	$53,249.64	$48,534.24**	$50,999.90	$63,143.29	$79,056.56
Passenger Trips per Revenue Hour	1.30	1.21	0.95	0.80	$0.78
Passenger Trips per Revenue Mile	0.03	0.03	0.02	0.02	$0.02
Cost per Revenue Hour	$27.52	$24.91	$27.32	$33.50	$41.54
Cost per Revenue Mile	$0.71	$0.65	$0.71	$0.83	$1.03
Cost per Passenger Trip	$21.19	$20.61	$28.65	$42.04	$53.17
Miles per Hour	38.90	38.61	38.22	40.44	40.43

**Actual operating costs were not directly provided as the data was combined with the FY2019 Amelia-Prince Edward line's operating costs. FY2019 Total Operating Costs are estimated by dividing by two the combined Buckingham-Cumberland Line / Amelia-Prince Edward route budget.

Amelia/Prince Edward Route

The Amelia/Prince Edward Route also operates under the Piedmont Area Transit (PAT) branding, connecting Farmville and Blackstone with cities in the counties of Nottoway and Amelia.

Over the past five years, the route has also experienced a consistent downtrend in ridership since 2019 but at a higher rate than all other routes. In the past five years, the highest ridership was in 2019 at 1,885 trips, which was a notable 28 percent increase from 2018. However, since 2019 ridership has dropped significantly, to 656 trips, or a 65 percent decrease. Overall productivity has dropped 65 percent to 0.35 trips per revenue hour. Meanwhile revenue hours have remained about stable, while revenue miles and overall costs have increased slightly.

Table 3-9: Five-Year Trend Data – Amelia/Prince Edward Route

Metric	FY2018	FY2019	FY2020	FY2021	FY2022
Passenger Trips	1,371	1,885	1,332	711	656
Revenue Hours	1848	1906	1824	1862	1877
Revenue Miles	70,976	70,251	65,593	70,783	72,135
Total Operating Costs	$51,161.41	$48,534.24 **	$46,116.54	$56,843.09	$62,167.50
Passenger Trips per Revenue Hour	0.74	0.99	0.73	0.38	0.35
Passenger Trips per Revenue Mile	0.02	0.03	0.02	0.01	0.01
Cost per Revenue Hour	$27.68	$25.46	$25.28	$30.53	$33.12
Cost per Revenue Mile	$0.72	$0.69	$0.70	$0.80	$0.86
Cost per Passenger Trip	$37.32	$25.75	$34.62	$79.95	$94.77
Miles per Hour	38.41	36.86	35.96	38.01	38.43

**Actual operating costs were not directly provided as the data was combined with the FY2019 Buckingham-Cumberland line's operating costs. FY2019 Total Operating Costs are estimated by dividing by two the combined Buckingham-Cumberland Line / Amelia-Prince Edward route budget.

Fixed Route Summary – 2022 Data

The FY2021 route statistics for each of the fixed routes that operate full-day service is provided in Table 3-10. These data show that the Blackstone route is the most productive, providing 3.3 passenger trips per revenue hour, with a cost per passenger trip of $11.06, far below the route average of $37.76 per trip. The second highest performing route is the Brunswick Express providing 2 trips per hour, about 3,000 trips/year (which is the average of all BABS routes) with a cost per trip of $18.72. Note that the Brunswick Express has less passenger trips overall (3,072) than the Dinwiddie Express (3,280), but also has less revenue hours and miles, making it more productive.

The least productive route is the Amelia-Prince Edward route, with a productivity of 0.4 trips per revenue hour and a cost per trip of $94.77, which is significantly higher than the average cost of $37.76. The second-least productive route is the Buckingham-Cumberland route at 0.8 trips per revenue hour. Both of these Piedmont Area Transit (PAT) routes cover a much longer distance, as reflected in both route's average speed of about 40 mph, well above the system average of 27 mph.

Table 3-10: Fixed Route Data Summary – FY2022

Route	Passenger Trips	Rev Hours	Rev Miles	Operating Costs	Trips/ Hour	Cost/Trip	MPH
Blackstone	10,339	3,143	37,390	$114,345	3.3	$11.06	11.90
Dinwiddie Express	3,280	2,267	78,220	$82,182.33	1.4	$25.06	34.50
Crewe-Burkeville	1,328	1,110	28,975	$38,117.14	1.2	$28.70	26.10
Brunswick Express	3,072	1,516	38,537	$57,508.70	2.0	$18.72	25.42
Town & County	2,776	2,578	63,879	$84,584.99	1.1	$30.47	24.78
Buckingham-Cumberland	1,487	1,903	76,937	$79,056.56	0.8	$53.17	40.43
Amelia-Prince Edward	656	1,877	72,135	$62,167.50	0.3	$94.77	38.43
Fort Pickett	1,111	1,174	18,463	$44,606.37	0.9	$40.15	15.72
Totals	24,049	15,568	414,536	$562,568.23	n/a	n/a	n/a
Averages	3,006	1,946	51,817	$70,321	1.4	$37.76	27.2

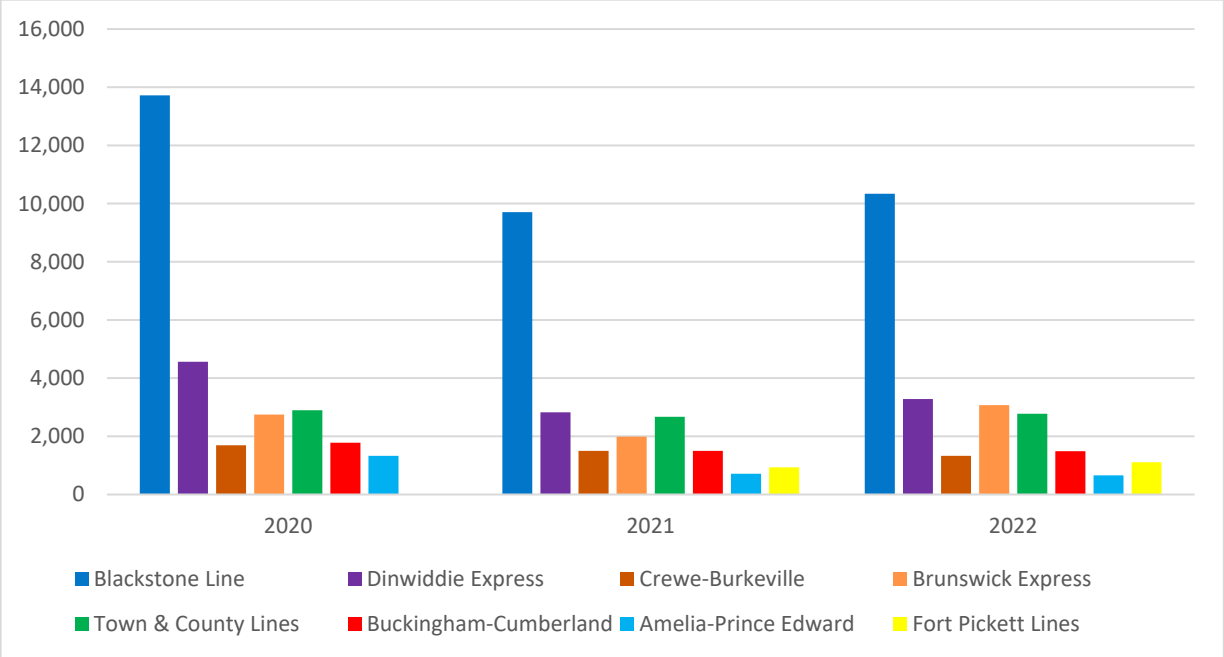
Ridership Trends, 2018 – 2022

Ridership trends (displayed in Table 3-11 and Figure 3-3) show that every route except the Brunswick Express (up 12%) still has lower levels of ridership compared to FY2020 during the onset of the pandemic. The Town and County Lines are just four percent lower than 2020. The routes with the lowest levels of ridership compared to FY2020 are the Amelia-Prince Edward route (down 51%) and the Dinwiddie Express (down 28%). While some routes have a slight increase in ridership since 2021, the Crewe-Burkeville route, Amelia-Prince Edward route and Buckingham-Cumberland Line continue to have a decline in total ridership.

Table 3-11: Ridership by BABS Route FY2018-FY2022

Route	FY2018	FY2019	FY2020	FY2021	FY2022	Difference FY2020 - FY2022
Blackstone	14,703	17,193	13,721	9,705	10,339	-25%
Dinwiddie Express	7,308	6,707	4,561	2,825	3,280	-28%
Crewe-Burkeville	2,588	2,988	1,693	1,497	1,328	-22%
Brunswick Express	4,024	4,083	2,750	1,990	3,072	**12%**
Town & County	3,493	3,064	2,899	2,669	2,776	-4%
Buckingham-Cumberland	2,513	2,355	1,780	1,502	1,487	-16%
Amelia-Prince Edward	1,371	1,885	1,332	711	656	-51%
Fort Pickett	0	0	0	935	1,111	n/a

Figure 3-3: Ridership by BABS Route FY2020-FY2022



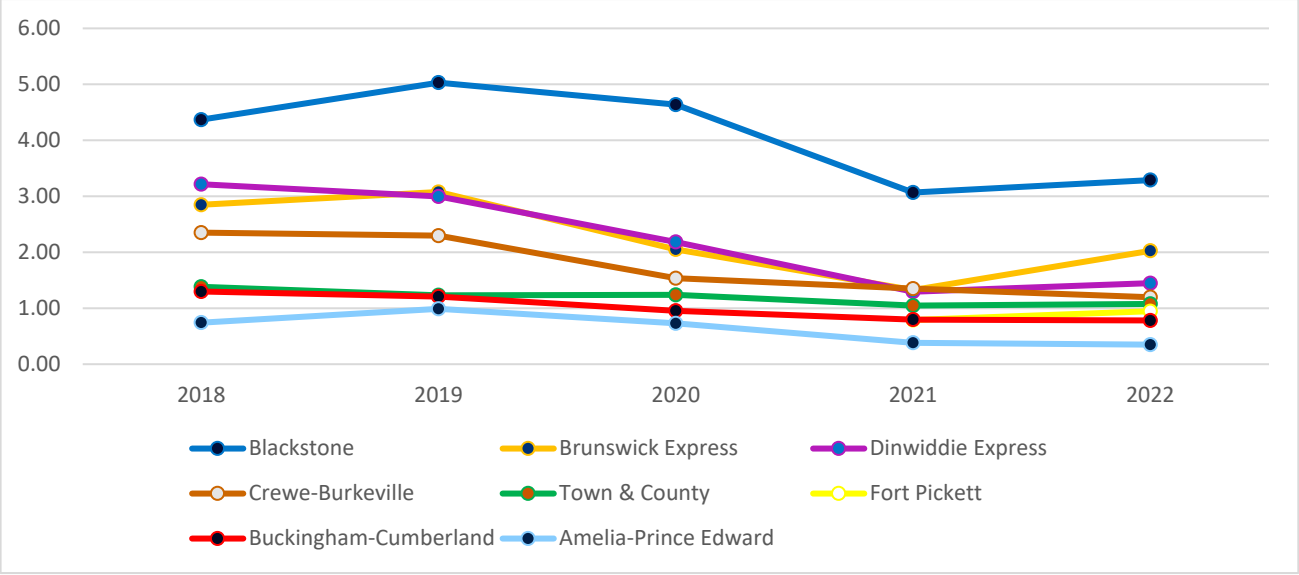
Productivity Trends, FY2018 - FY2022

Overall productivity (passenger trips per revenue hour) for each BABS route in the past five years is displayed in Figure 3-5. Table 3-12 displays FY2022 productivity data and the percentage change since 2020 at the onset of the pandemic. None of the route's current ridership has recovered to levels during 2020 at the onset of the COVID-19 pandemic. The route that has the highest recovery is the Brunswick Express, whose productivity is just ONE percent lower than 2020, while the route with the lowest recovery is the Amelia-Prince Edward route which is 52 percent lower in productivity compared to 2020. Currently, the most productive route is the Blackstone Line which serves about THREE passengers per hour but served 5 passengers per hour in 2019.

Table 3-12: Productivity by BABS Route FY2018 - FY2022

Route	FY2018	FY2019	FY2020	FY2021	FY2022	Percent Change FY2020 - FY2022
Blackstone	4.37	5.03	4.64	3.07	3.29	-29%
Brunswick Express	2.85	3.08	2.05	1.32	2.03	-1%
Dinwiddie Express	3.22	3.00	2.18	1.29	1.45	-34%
Crewe-Burkeville	2.35	2.30	1.54	1.35	1.20	-22%
Town & County	1.38	1.23	1.24	1.05	1.08	-13%
Fort Pickett				0.79	0.95	n/a
Buckingham-Cumberland	1.30	1.21	0.95	0.80	0.78	-18%
Amelia-Prince Edward	0.74	0.99	0.73	0.38	0.35	-52%
Average	**2.32**	**2.40**	**1.90**	**1.26**	**1.39**	**-27%**

Figure 3-4: Productivity by BABS Route FY2018-FY2022



Financial Information

The FY2023 transit budget for BABS Transit is $717,630. The largest single line item is personnel, around $460,000. The line item budget for FY2023 is provided in Table 3-13.

Table 3-13: BABS Operating Budget, FY2023

Expense Category	Amount
Salaries & Wages	$460,210
Fringe Benefits	$65,342
Education/Training	$1,058
Cleaning Supplies	$1,060
First Aid	$600
Motor Fuels	$92,921
Tires & Tubes	$10,177
Parts	$19,294
Office Supplies	$2,018
Travel	$134
Communication	$3,719
Utilities	$10,600
Printing	$2,656
Contract Repairs	$21,200
Advertising	$1,277
Drug Test	$2,120
Insurance	$19,600
Total	**$717,630**

The largest single source of funding assistance for the program is derived from the Federal Transit Administration's (FTA) Section 5311 (formula grants for rural public transit), which is administered through the DRPT. This program generally provides up to 50 percent match to fund the net deficit for rural transit programs. For FY2023, the operating expenses will be funded through the sources listed in Table 3-14.

Table 3-14: BABS Operating Revenues and Funding Assistance, FY2023 Budget

Source	Amount
Passenger Revenue	$35,881.50
Other Revenue	$0.00
Net Deficit	**$681,748.50**
Federal Assistance	$340,874.25
State Assistance	$136,349.70
Local	$204,524.55

The FY2023 capital program will include the following:

- Body-on-chassis bus
- Bus shelters
- Bus sign replacement

The capital budget for FY2023 is $106,004. Funding for the FY2023 capital budget is as follows:

- Federal: $84,803
- State: $16,691
- Local: $4,240

Peer Analysis

While it is most relevant for a transit agency to examine its own performance over time, it is valuable to know the operating statistics for transit programs that could be considered "peers," either by virtue of location, service area characteristics, or size to see if local transit data is "in the ballpark" of typical peer operating data. In light of the ongoing pandemic, we have included peer data from the National Transit Database for FY2019 and FY2020. This allows a comparison of pre-pandemic as well as more current data. The FY2021 National Transit Database information is not yet available.

The following programs were used as peers:

- Farmville Area Bus, serving the city of Farmville and parts of Prince Edward County
- Graham Transit, serving the city of Bluefield, VA
- Radford Transit, serving the city of Radford, VA
- Pulaski Area Transit, serving the city of Pulaski, VA
- Bristol Transit, serving the city of Bristol, VA
- Petersburg Area Transit, serving the Petersburg Tri-cities area.

The peer data compiled show the following:

- BABS productivity was the lowest among peers, behind Pulaski Area Transit, in FY2019 and FY2020.
- BABS cost per trip was higher than the mean, both in FY2019 and FY2020.
- BABS cost per hour was the lowest among peers, both in FY2019 and FY2020.
- The program operated fewer hours but more miles than the mean, while providing the least passenger trips among peer systems. These data reflect the relatively low productivity of the program, but the largest service area among peers as well. This is reflected in the average MPH for BABS vehicles of 26mph which is almost double the next closest peers (Graham Transit).
- The program's overall operating expenses were the lowest among peers in in FY2020, and second-lowest in FY2019, behind Pulaski Area Transit.

The complete peer data are presented in Tables 3-15 and 3-16.

Table 3-15: Selected Peer Comparison – FY2019 National Transit Database

System	UZA	Vehicles in Max. Service	Approx. Service Area Population	Annual Passenger Trips	Total Operating Expenses	Vehicle Rev. Hours	Vehicle Rev. Miles
Blackstone Area Bus (BABS)	No	7	135,461	38,276	$373,725	14,634	384,029
Farmville Area Bus (FAB)	No	11	21,849	122,171	$620,930.00	11,722	172,909
Graham Transit (Bluefield, VA)	No	3	4,907	45,092	$306,544	8,115	133,672
Radford Transit	Yes	20	18,368	268,727	$1,478035	31,215	342,655
Pulaski Area Transit (PAT)	No	10	8799	48,454	614,097	16,642	201,414
Bristol Transit	No	3	17,835	51,542	$389,211	7168	73,866
Petersburg Area Transit (PAT)	Yes	12	72,422	400,443	$3,440,916	50,675	532,160
Mean		**10**	**40,100**	**145,693**	**1,027,262**	**20,208**	**266,253**

System	Trips Per Hour	Trips Per Mile	Cost Per Trip	Cost Per Hour	Cost Per Mile	MPH	
Blackstone Area Bus (BABS)	2.62	0.10	$9.76	$25.54	$0.97	26.24	
Farmville Area Bus (FAB)	10.06	1.47	$5.27	$52.97	$3.59	14.75	
Graham Transit (Bluefield, VA)	5.56	0.34	$6.80	$37.77	$2.29	16.47	
Radford Transit	8.61	0.78	$5.50	$47.35	$4.31	10.98	
Pulaski	2.91	0.24	12.67	36.90	3.05	12.10	
Bristol	7.19	0.70	7.55	54.30	5.27	10.30	
Petersburg Area Transit (PAT)	7.90	0.75	$8.59	$67.90	$6.47	10.50	
Mean	**6.81**	**0.54**	**7.77**	**45.00**	**3.62**	**14.52**	

SOURCE: 2019 NATIONAL TRANSIT DATABASE

Table 3-16: Selected Peer Comparison – FY2020 National Transit Database

System	UZA	Vehicles in Max. Service	Approx. Service Area Population	Annual Passenger Trips	Total Operating Expenses	Vehicle Rev. Hours	Vehicle Rev. Miles
Blackstone Area Bus (BABS)	No	8	132,987	28,786	$296,588	14,584	367,573
Farmville Area Bus (FAB)	No	11	21,849	122,171	$620,930	11,722	172,909
Graham Transit (Bluefield, VA)	No	3	5096	43,414	320,705	7813	131,091
Radford Transit	Yes	20	18,368	185,459	$1,497,428	27,797	302,634
Pulaski Area Transit	No	9	8,744	48,454	$614,097	16,642	201,414
Bristol Transit	No	3	17,835	38,428	$407,282	5,557	66,056
Petersburg Area Transit (PAT)	Yes	12	12	72,422	335,549	$3,255,995	53,538
Mean		**9.43**	**39,614.43**	**114,608.71**	**1,001,860.71**	**19,664.7**	**257,617**

System	Trips Per Hour	Trips Per Mile	Cost Per Trip	Cost Per Hour	Cost Per Mile	MPH
Blackstone Area Bus (BABS)	1.97	0.08	$10.30	$20.34	$0.81	25.20
Farmville Area Bus (FAB)	10.06	1.47	$5.27	$52.97	$3.59	14.75
Graham Transit (Bluefield, VA)	5.56	0.33	$7.39	$41.05	$2.45	16.78
Radford Transit	6.67	0.61	$8.07	$53.87	$4.95	10.89
Pulaski Area Transit	2.91	0.24	12.67	$36.90	3.05	12.10
Bristol Transit	6.92	0.58	10.60	$73.29	6.17	11.89
Petersburg Area Transit (PAT)	6.27	0.60	$9.70	$60.82	$5.80	10.49
Mean	**5.82**	**0.45**	**9.12**	**48.46**	**3.83**	**14.59**

SOURCE: 2020 NATIONAL TRANSIT DATABASE

Transit Passenger Survey Summary

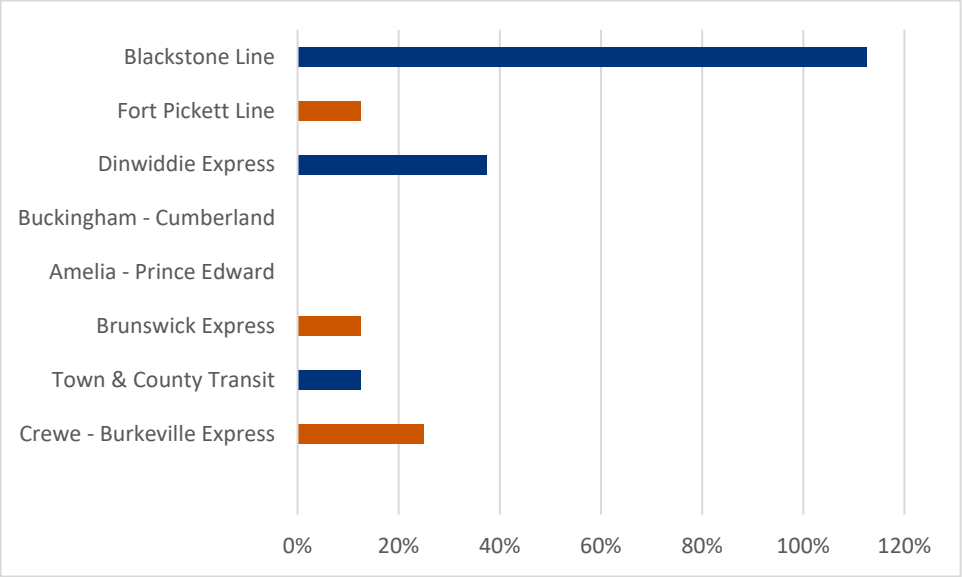
The study team handed out and collected fixed route surveys in person on buses between July 11th and 13th, 2022. Twenty surveys were returned. While passengers also had the option to scan a QR code to take the survey online, all surveys received were from on-board passengers. area copy of the survey is provided in Appendix A.

Route taken

Respondents were asked which BABS route they were currently riding.

A majority (56%) of respondents were riding the Blackstone Line, 38 percent were riding the Dinwiddie Express and 15 percent were riding the Orange Line. Results are displayed in Figure 3-5.

Figure 3-5: Which bus route are you currently riding?



Where passengers boarded the bus

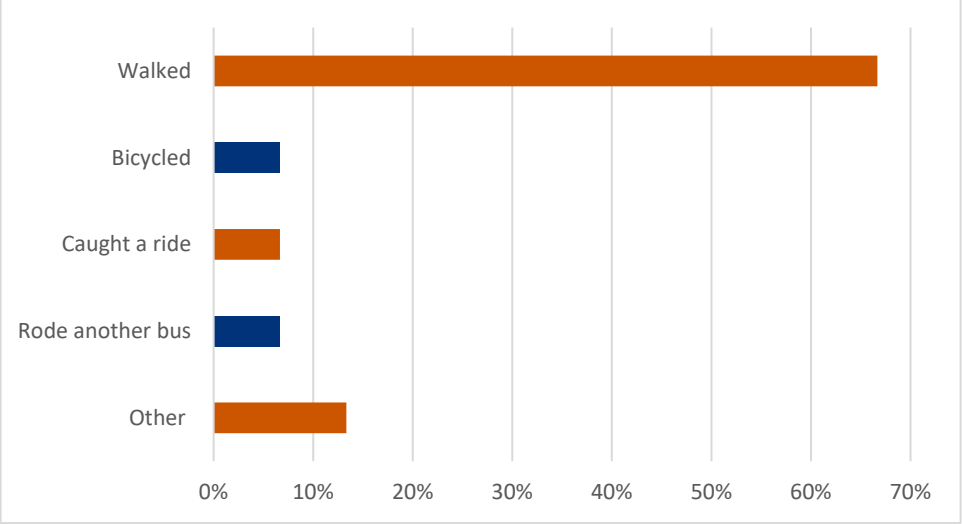
Passengers were asked where they boarded the bus upon receiving the survey, and to indicate a specific intersection or landmark. Fifteen passengers answered the question, with a few sharing their Apartment building and two noting the Courthouse stop.

- Magnolia Place Apts.
- Cole Harbor Apts. (2)
- Walmart (5)
- Wallace's Supermarket
- Leisure Center in Fort Pickett
- Christanna Hwy 46 / Home
- Downtown Petersburg Station (2)
- Highway 40 Village Estate Apts.

How passengers got to their bus stop

Fifteen passengers responded to the question. Ten (67%) passengers said they walked to the bus stop, one (7%) biked, one (7%) caught a ride, one (7%) rode another bus, and two (13%) marked "Other", and arrived another way. For those who marked "Other", one respondent said they rode the Petersburg bus while another said they went to the end of Highway 40. Results are displayed in Figure 3-6.

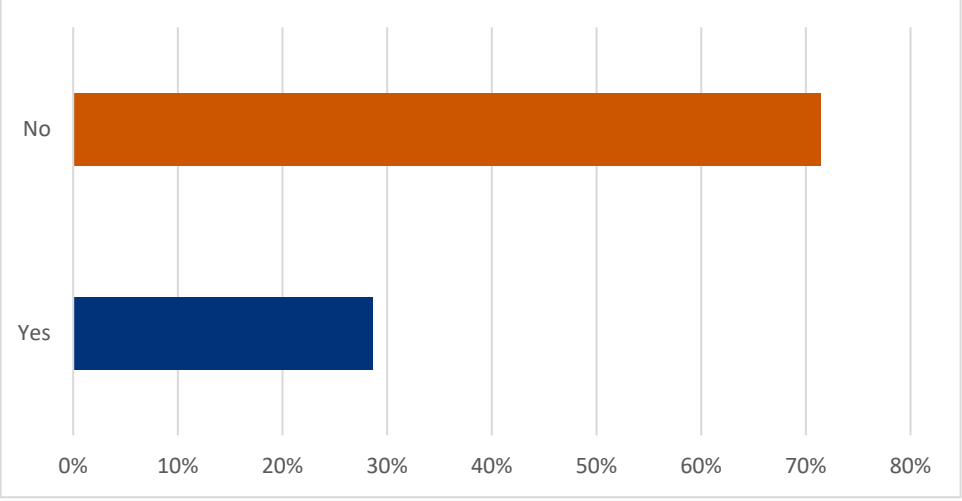
Figure 3-6: Did you or will you TRANSFER to another bus to complete this trip?



Transfers to another bus

Passengers were asked if they transferred or planned to transfer to another bus to complete their trip. Four (about 28%) said "yes", while 10 (72%) said "no". Results are displayed in Figure 3-7.

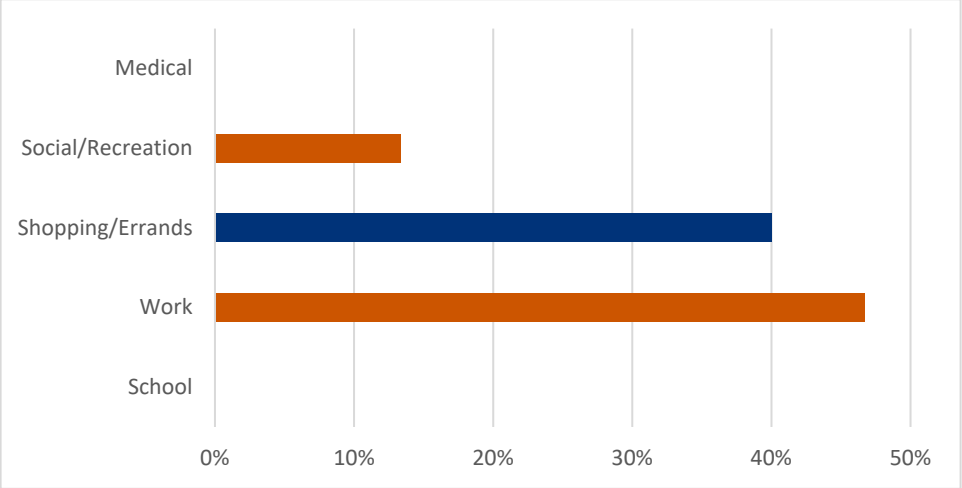
Figure 3-7: Did you or will you TRANSFER to another bus to complete this trip?



Purpose of your trip

Passengers were asked the purpose of their trip. Seven passengers (44%) noted "Work", six (38%) marked "Shopping/Errands", while two passengers (13%) marked "Social/Recreation". Results are displayed in Figure 3-8.

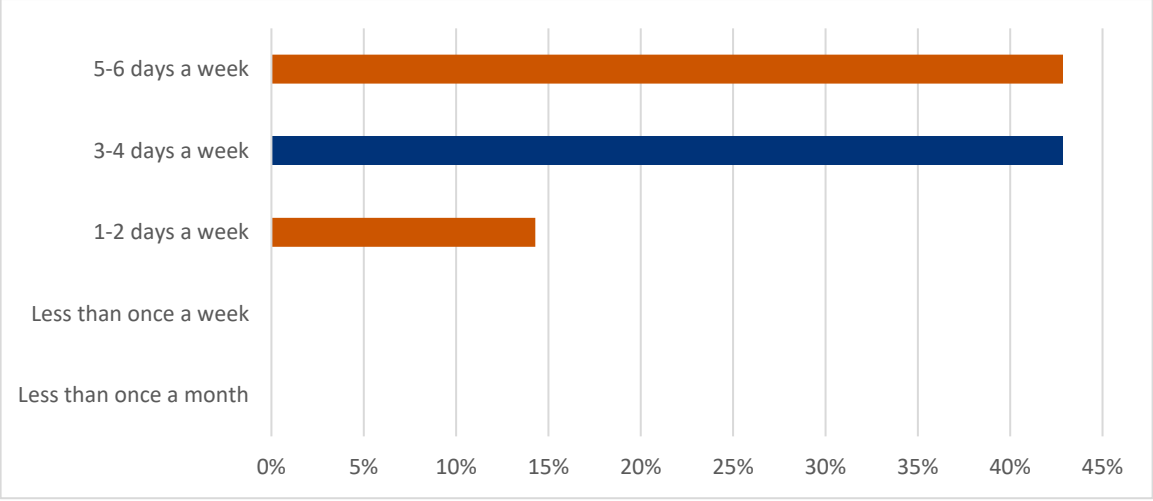
Figure 3-8: What is the purpose of your trip today?



Bus trip frequency

Passengers were asked how often they generally ride the bus. Eight passengers (47%) said they took the bus 3-4 days a week, five (29%) took it 1-2 days a week, two (12%) took it 5-6 days a week, while one (6%) took it less than once a week and another (6%) took it less than once a month. Results are displayed in Figure 3-9.

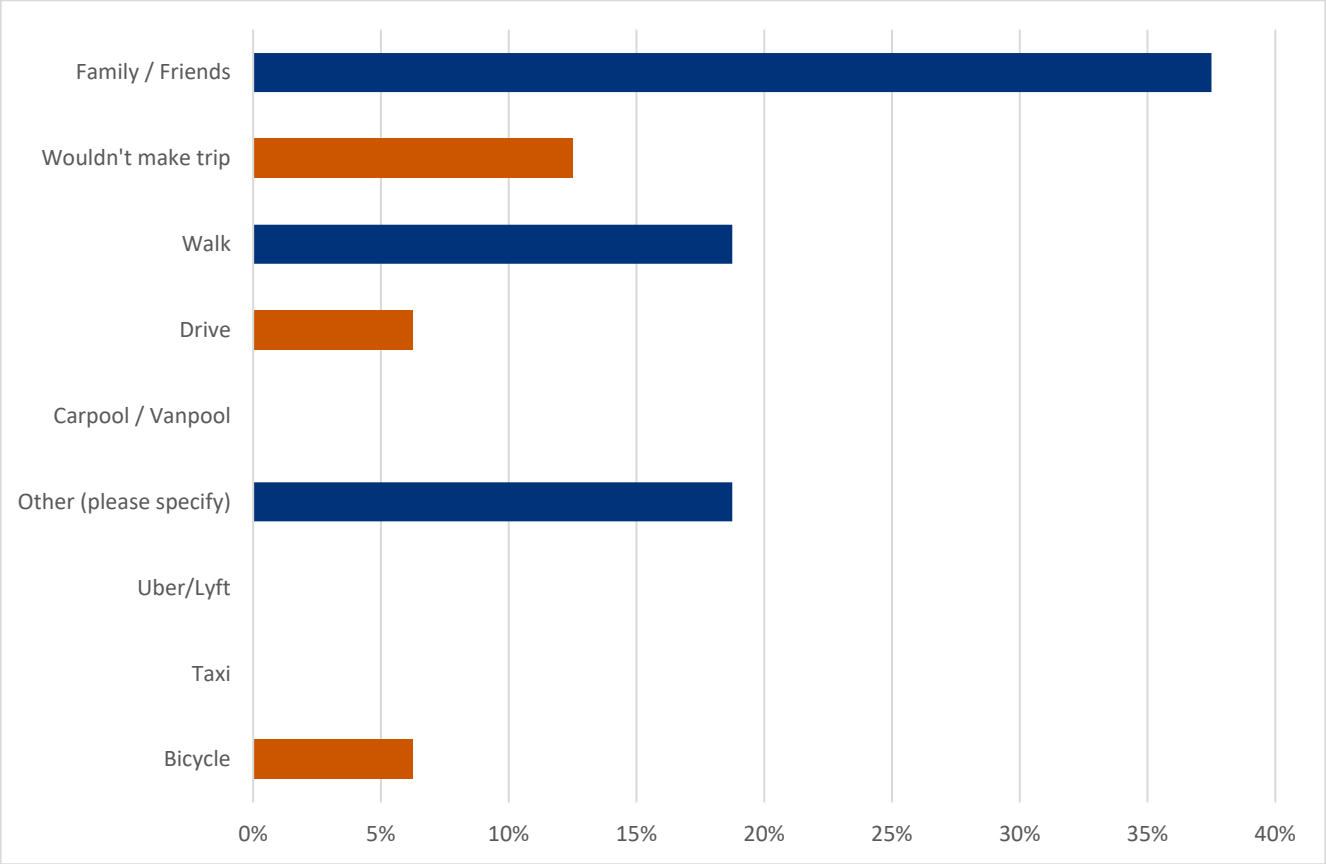
Figure 3-9: How often do you generally ride the bus?



Alternative trip modes

Passengers were asked how they would make their trip if they were not taking the bus today. The most common response was "Family/Friends" with 6 (38%) passengers choosing this option. Three passengers (19%) chose "Walk", one (6%) chose "Drive", one (6%) chose "Bicycle", while two (12%) noted they would not make the trip, and three chose "Other" (19%). For those that chose "Other", some passengers seemed unsure which mode they would take, with one saying "walk or family/friends", one stated "other ride" and another stated "Do not know". Results are displayed in Figure 3-10.

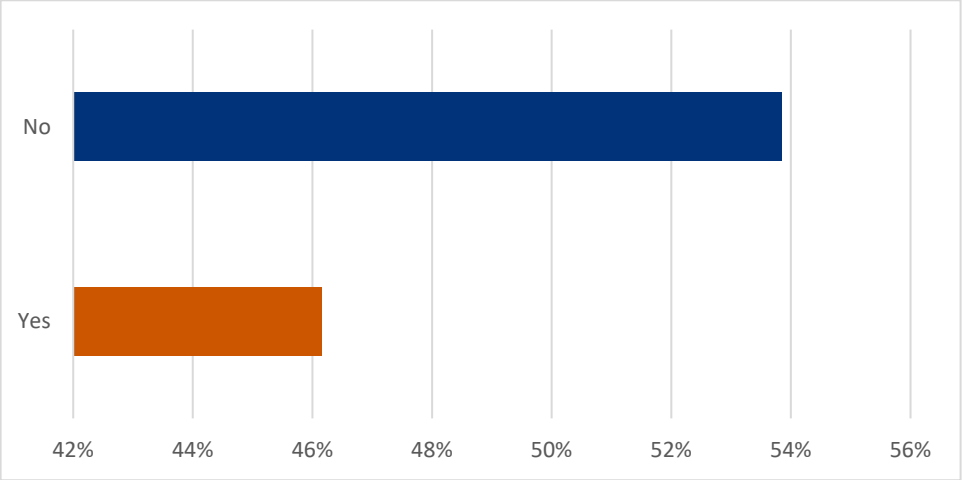
Figure 3-10: If you were not taking the bus, how would you make this trip?



Locations passengers need to go

Passengers were asked if there were locations they needed to go that BABS does not currently serve. Five (33%) said "Yes" while 10 (67%) said "No". Locations shared include a rehabilitation center on 738 N. Main St., Nottoway Courthouse (served by the Crewe-Burkeville Express) and Highway 810. Results are displayed in Figure 3-11.

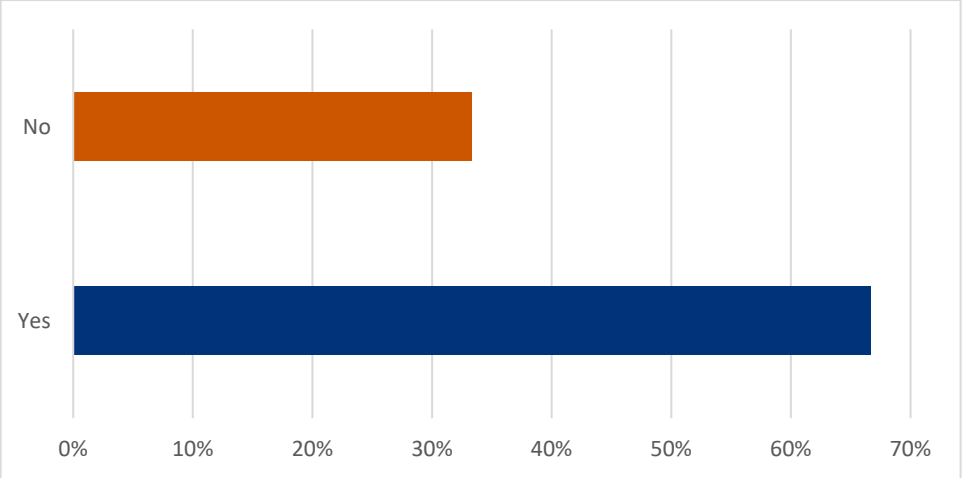
Figure 3-11: Are there locations where you need to go that BABS does not serve?



If the bus was not available

Passengers were asked if they would still have taken their trip if the bus system was not available. Ten passengers (67%) said they would have taken the trip, while five passengers (33%) said they would not have taken the trip. Results are displayed in Figure 3-12.

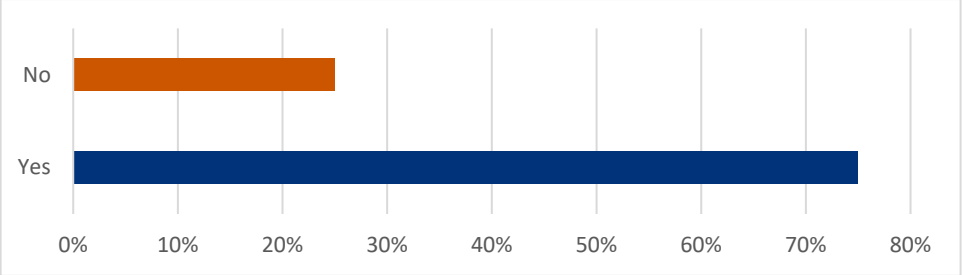
Figure 3-12: If the bus system was not available, would you still have taken this trip?



Ability to live independently

Passengers were asked whether their ability to live independently would be affected by not having the bus available. A majority of twelve respondents (75%) said "Yes" while four (25%) said "No". Results are displayed in Figure 3-13.

Figure 3-13: If the bus system was not available, would it affect your ability to live independently?



Access to driver's license or car

Passengers were asked whether they had a driver's license. As displayed in Figure 3-14, 5 passengers (33%) said yes, while ten (67%) said no. Passengers were also asked if they or anyone in their household had access to a car as displayed in Figure 3-15, 50 percent of respondents said yes.

Figure 3-14: Do you have a driver's license?

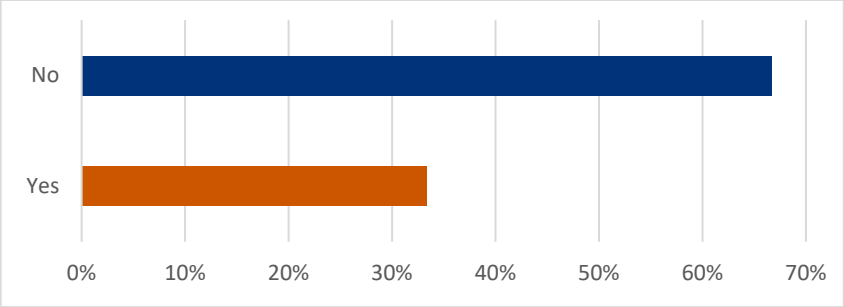
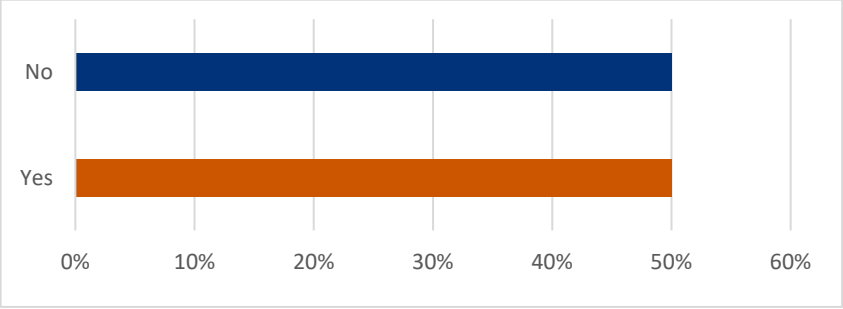


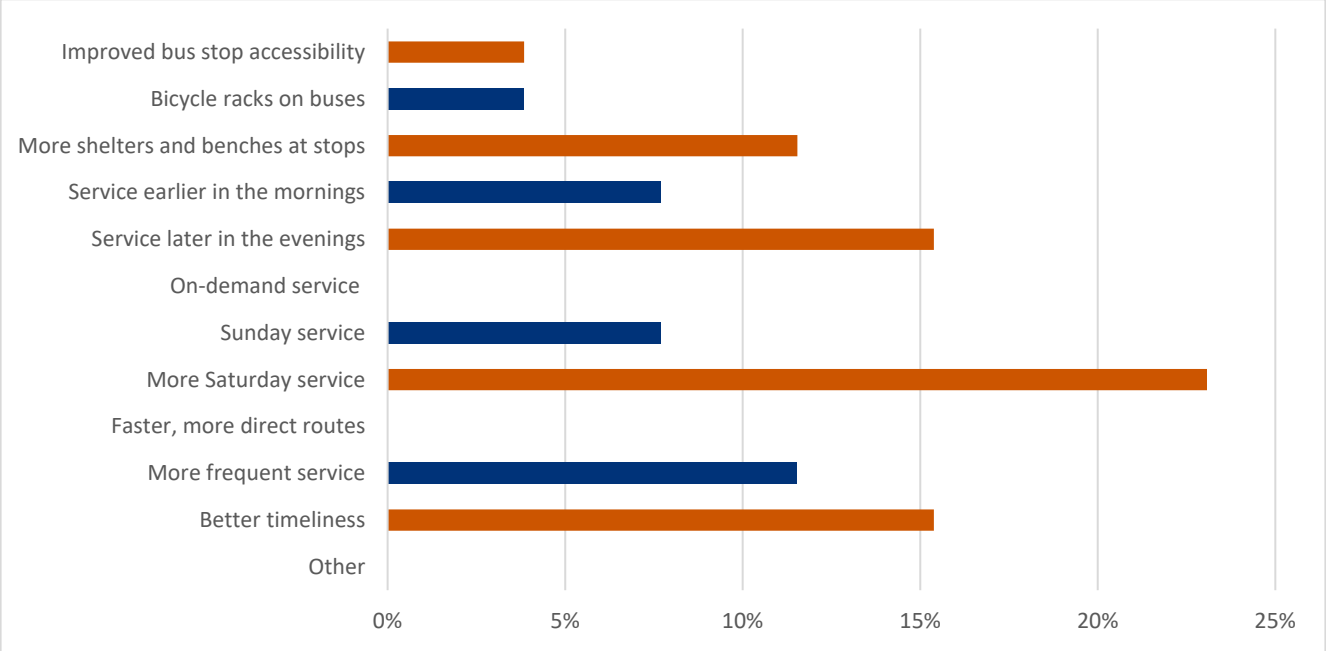
Figure 3-15: Do you, or anyone in your household, own a car?



BABS improvements

Passengers were asked to select their top two improvements they would ask BABS to make. The most popular improvement was "More Saturday service" with six responses (43%), followed by "Service later in the evenings" with four responses (29%) and "Better timeliness" with four responses (29%). Other popular responses were "More shelters and benches at stops" (3 responses) and "More frequent service" (3 responses). Results are displayed in Figure 3-16.

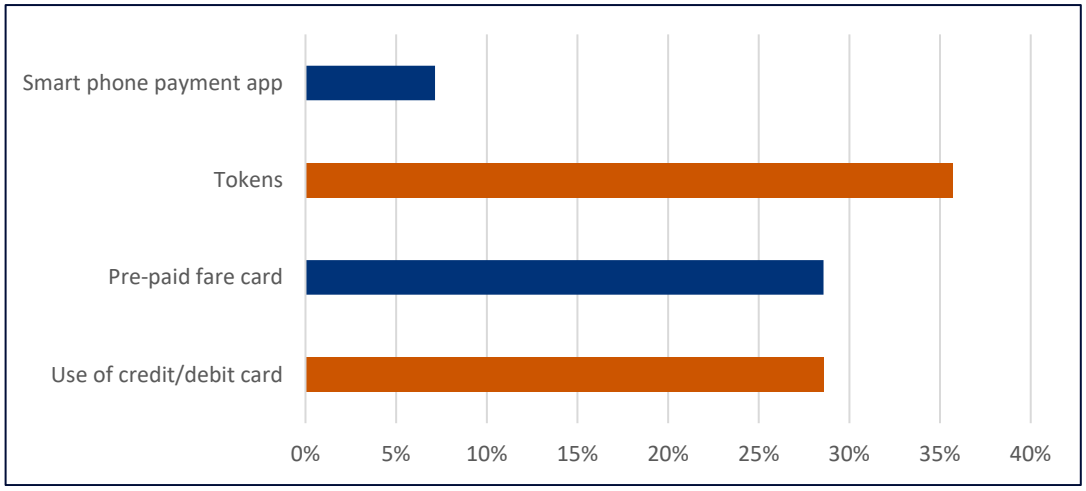
Figure 3-16: If BABS made improvements, what would be most useful to you?



Non-cash fare payment options

Passengers were asked which non-cash fare payment option was the most convenient to them. The most popular option was "Tokens" with 5 responses (35%), followed by a tie for "Use of credit/debit card" and "pre-paid fare card" at four responses (29%) and "Smart phone payment app" (1 response). Results are displayed in Figure 3-17.

Figure 3-17: Of the following non-cash fare payment options, which one would be the most convenient for you?



What passengers like about BABS

Passengers were asked to share what they liked the best about BABS, without any options provided in advance. Here were the thirteen responses:

- Availability
- The price
- (pickup) right at my home
- Transportation
- Fare, convenience
- The polite drivers
- I can keep a job
- Convenience
- Everything
- I got a ride to work / from work
- I have transportation
- The ride

What passengers would like BABS to improve

Passengers were asked to share what they would like BABS to improve, without any options provided in advance. Here were the ten responses:

- Stopping at Food Lions
- Cleanliness inside of bus
- Drivers sometimes rude
- Weekend routes
- Nothing (2)
- Routes on weekends
- Non-polite drivers
- Come on time
- Run during the daytime

Demographics

The survey asked basic demographic questions such as a respondent's age, gender, general income bracket, and zip code (as displayed in Table 3-18 – Table 3-22). In addition, respondents were asked about their access to a smartphone.

Table 3-18: Zip Codes of Survey Respondents

City/Area	Zip Code	Number Responses
Blackstone, VA	23824	8
McKenney, VA	23872	2
Dinwiddie, VA	23841	1
Victoria, VA	23874	1
Triplet, VA	23868	1
Total Valid Responses		13

Table 3-19: Age of Survey Respondents

Age Bracket	Number Responses
Under 18	0
18-24	2
25-34	0
35-54	5
55-64	3
65+	2
Total Valid Responses	12

Table 3-20: Do you have an internet enabled smartphone?

Answer choices	Number Responses
Yes	11
No	2

Table 3-20: Which one of the following best describes your race?

Answer choices	Number Responses
Caucasian/White	0
African American / Black	11
American Indian / Alaska Native	1
Prefer not to answer	0

Table 3-21: What is your employment status?

Answer choices	Number Responses
Employed (Full-time)	5
Employed (Part-time)	2
Student (Full-time)	0
Student (Part-time)	1
Retired	3
Homemaker	0
Unemployed	1
Other	2
Total Respondents	13

Table 3-22: What is your annual household income?

Answer choices	Number Responses
$14,999 or less	6
$15,000 - $29,999	2
$30,000 - $44,999	1
$45,000 - $59,999	0
$60,000 - $74,999	0
$75,000 or higher	0
$75,000 or higher	0
Total Respondents	9

Comments

At the end of the survey, respondents were given an opportunity to provide any additional comments they had about Farmville Area Bus. Below are five comments received:

- Other payment options: tokens
- Lots of improvements needed
- More weekend service and longer hours. I'm disabled
- If not for buses, I have a problem
- Thank you, BABS

Population Profile

The following section provides a general population profile for the BABS service area. The profile also identifies and evaluates underserved population subgroups and reviews the demographic characteristics pertinent to a Title VI analysis.

Historical and Recent Population Trends

As of the 2020 Decennial Census, the total population of the BABS service area was 132,987 persons, an increase of 5,434 persons since 2000, which is partly due to the addition of Dinwiddie County (27,947 persons) to the service area. Since 2010, all counties had flat or negative population growth, the only exception being Amelia which increased slightly. Brunswick is estimated to have the largest population decline (10%) both in amount and share of its population. In the same time period, the state of Virginia grew by about 7 percent. As a whole the BABS service area saw a population decline of 4.3 percent.

Since 2000, population trends by county varied more widely, with Amelia, Dinwiddie and Prince Edward having double digit percentage growth, while Brunswick and Lunenburg had a double-digit percentage decline. Meanwhile, the population of the Town of Blackstone has decreased by almost 12 percent since 2010 and 20 percent since 2000. Table 3-23 and Figure 3-18 displays the historical population data for the BABS service area. Figure 3-19 displays the urbanized areas (population greater than 50,000) and urban clusters (population between 2,500 and 50,000) in the BABS service area, including the Richmond and Lynchburg urbanized areas, and the Blackstone and Farmville urban clusters.

Table 3-23: Historical Populations for BABS Service Area

County / Area	2000	2010	2020	Percent Change 2010 - 2020	Percent Change 2000 - 2020
Amelia	11,378	12,690	13,265	4.3%	16.6%
Brunswick	18,395	17,434	15,849	-10%	-16%
Buckingham	15,614	17,146	16,824	-1.9%	7.8%
Cumberland	9,017	10,052	9,675	-3.9%	7.3%
Dinwiddie	24,540	28,001	27,947	-0.2%	13.9%
Lunenburg	13,152	12,914	11,936	-8.2%	-10.2%
Nottoway	15,738	15,853	15,642	-1.3%	-0.6%
Prince Edward	19,719	23,368	21,849	-7.0%	10.8%
BABS Service Area Total	127,553	137,458	132,987	-3.4%	4.3%
Town of Blackstone	3,893	3,621	3,304	-11.8%	-20.2%
Virginia	7,078,515	8,001,024	8,590,563	7.0%	21.4%

Figure 3-18: Historical Populations for Blackstone Area Bus System Region by County

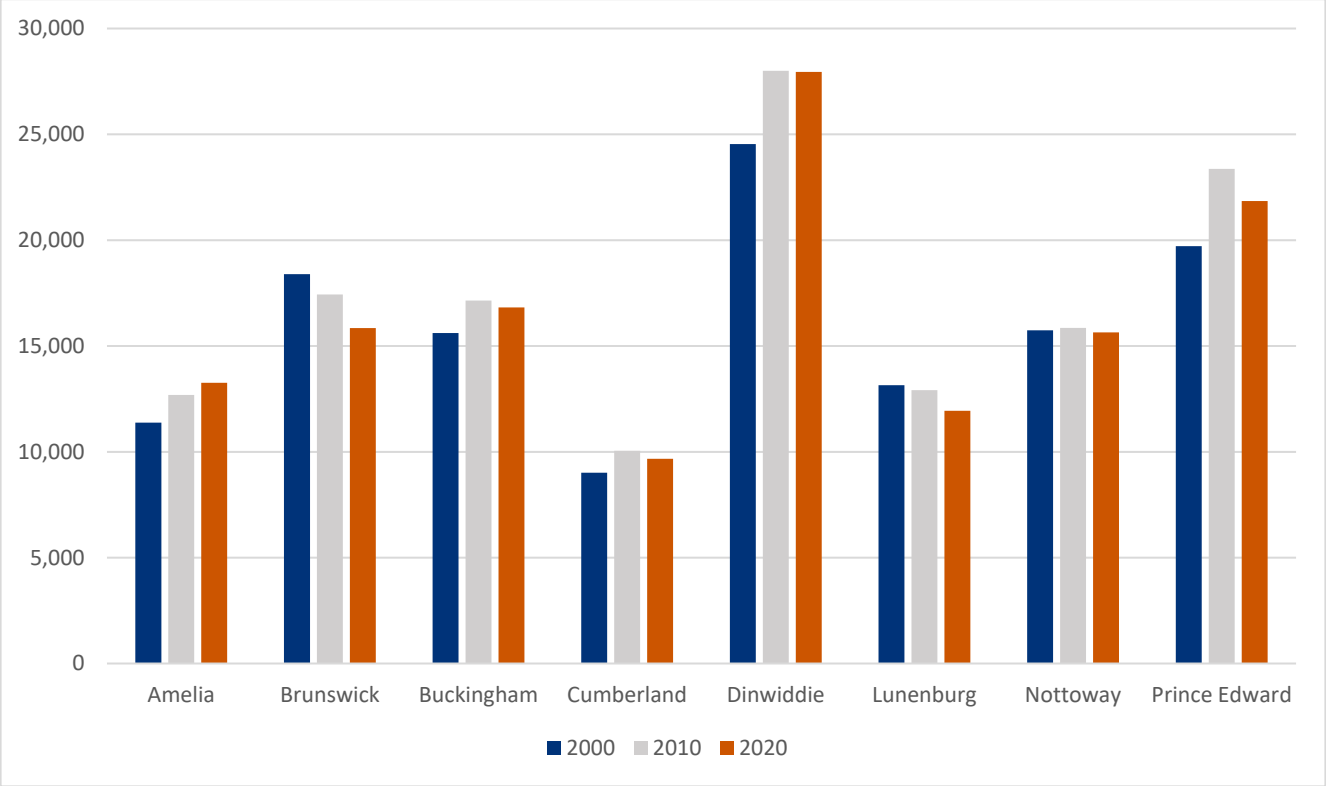
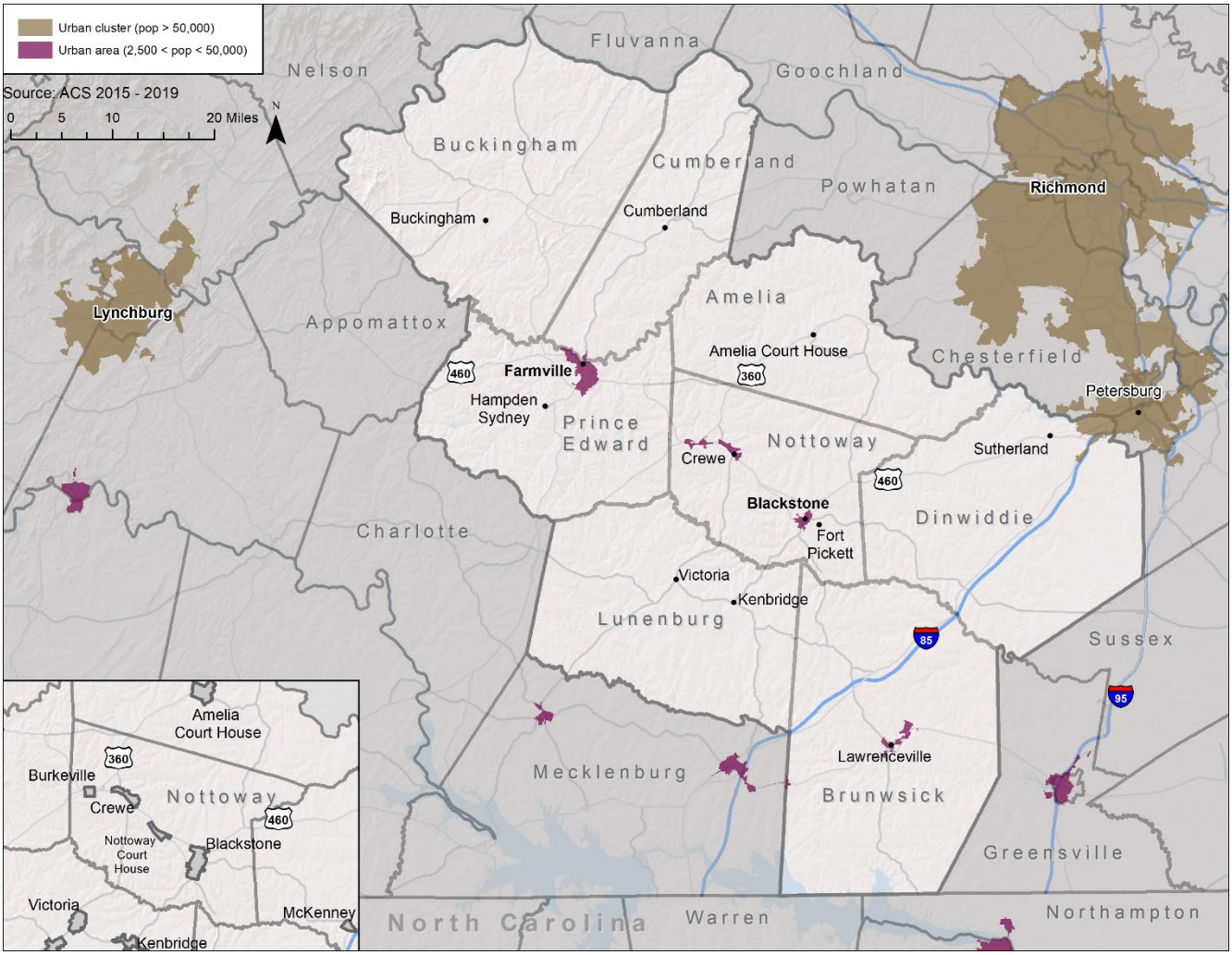


Figure 3-19: Blackstone Area Bus System Service Region and Urbanized Areas



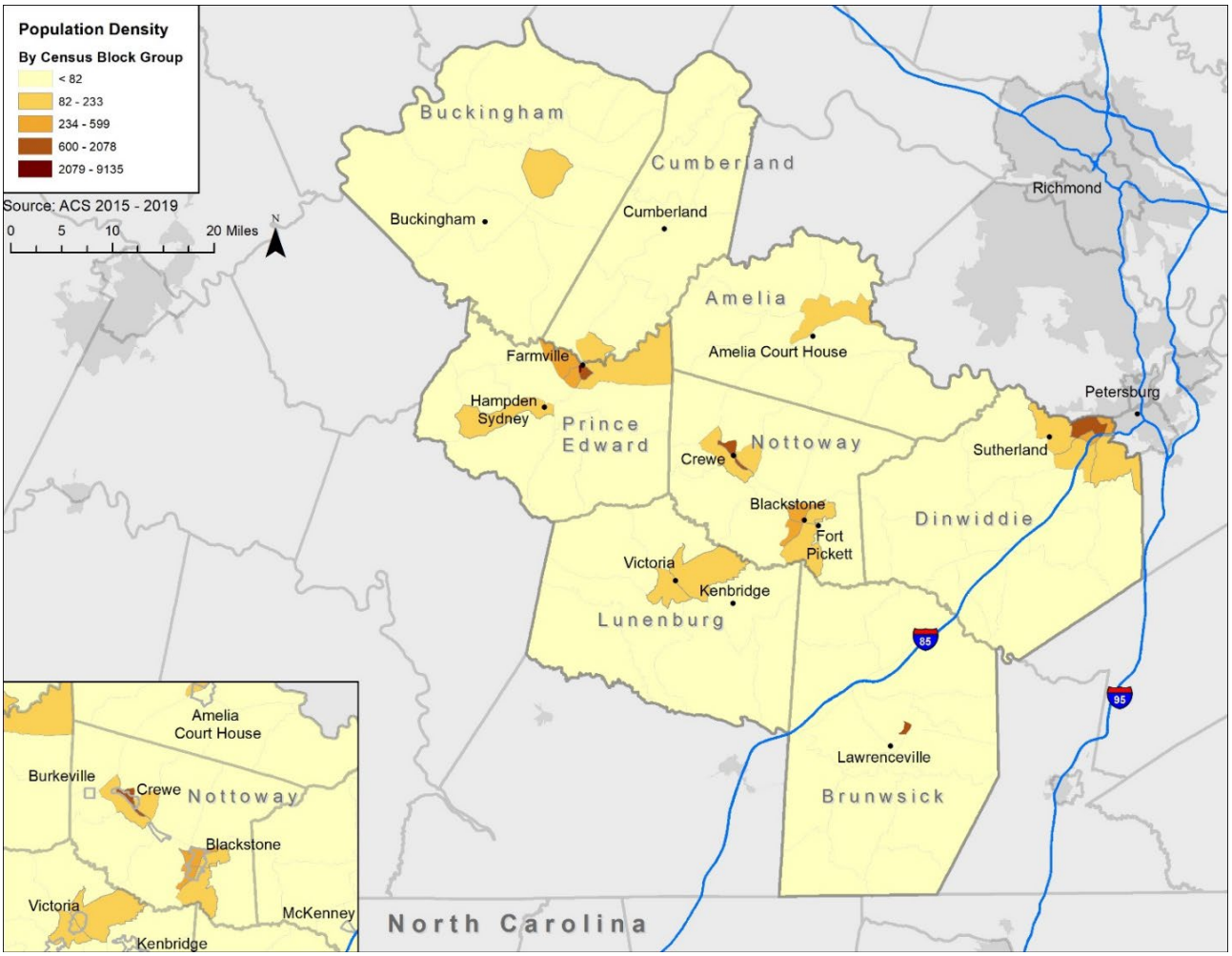
Population Density

Population density is often an effective indicator of the types of public transit services that are most feasible within a study area. While exceptions always exist, an area with a density of 2,000 persons per square mile will generally be able to sustain frequent, daily fixed-route transit service. Conversely, an area with a population density below this threshold but above 1,000 persons per square mile may be better suited for flex route or microtransit services.

Of the 102 block groups comprising the BABS service region, there are two block groups that have this required level of population density to support a fixed route service. One is located in Farmville in Prince Edward County (9135 persons / sq. mile), while the other is located in Lawrenceville at the correctional center (2078 persons/sq. mile) in Brunswick County.

The next highest levels of population density can be found in Crewe (1102 persons/sq. mile) and a block group in Petersburg (1612 persons/sq. mile) which overlaps partly with Dinwiddie County. Figure 3-20 portrays the BABS region's population density at the census block group level.

Figure 3-20: Population Density for BABS Service Area



Future Population Projections

Projections developed by the *University of Virginia Weldon Cooper Center* shown in Table 3-24, estimate that the overall population of the eight-county BABS region will decrease by about three percent over the next thirty years, while the state is projected to grow by about 25 percent. Three counties are projected to have a population increase, particularly Dinwiddie (6.2%), and Cumberland (4.3%) while Buckingham (0.3%) is projected to increase slightly. Other counties are projected to decrease, with the highest population decreases in Brunswick (-42%) and Lunenberg (-30%).

Table 3-24: Future Population Projections for Blackstone Area Bus System Region

County	2020	2030	2040	2050	Percent Change 2020-2030	Percent Change 2030-2040	Percent Change 2020-2050
Dinwiddie	28,688	27,493	28,770	30,477	4.3%	4.6%	6.2%
Prince Edward	23,006	20,039	20,792	21,856	-14.8%	3.7%	-5.2%
Buckingham	17,168	16,265	16,617	17,218	-5.5%	2.2%	0.3%
Brunswick	16,037	14,060	12,586	11,301	-14%	-11.7%	-42%
Nottoway	15,160	15,210	14,945	14,903	0.3%	-1.7%	-1.7%
Amelia	13,014	13,642	14,359	15,292	4.8%	5.2%	17.5%
Lunenburg	12,267	10,801	10,046	9,441	-13.6%	-7.5%	-30%
Cumberland	9,933	9,165	10,057	10,362	-8.3%	9.7%	4.3%
Study Area Total	135,273	126,675	128,172	130,850	-7.0%	1.0%	-3.0%
Virginia	8,417,651	9,129,002	9,759,371	10,535,810	8.4%	6.9%	25.2%

SOURCE: UNIVERSITY OF VIRGINIA WELDON COOPER CENTER FOR PUBLIC SERVICE, DEMOGRAPHICS RESEARCH GROUP. (JULY 2022). POPULATION PROJECTIONS FOR VIRGINIA AND ITS LOCALITIES, 2030-2050

Senior Citizen Population

The senior citizen population (those ages 65 and older) in the BABS service area is projected to grow to 30,391 persons, which is a 22 percent increase in the next twenty years, and four percent higher than the state's projected increase of 18 percent. Every county's senior citizen population is expected to grow slightly in the next ten to twenty years. In 2040, the counties with the highest projected percentage of older adults are Amelia and Lunenberg at 25 percent. The counties with the lowest projected percentage of older adults are Dinwiddie (in line with the state's average) and Prince Edward at 21 percent. The population forecast for senior citizens is displayed in Table 3-25.

Table 3-25: Senior Citizen Population Forecast – BABS Service Area

	2020 Population Estimate*		2030 Population Projection		2040 Population Projection	
Area	**Population**	**Percent**	**Population**	**Percent**	**Population**	**Percent**
Virginia	**8,655,021**	-	**9,331,666**	-	**9,876,728**	-
65+	1,352,448	16%	1,723,382	18%	1,809,787	18%
Amelia County	**13,088**		**13,792**		**14,310**	
65+	2,716	21%	3,526	26%	3,544	25%
Brunswick County	**16,320**		**15,045**		**13,617**	
65+	3,363	21%	3,639	24%	3,163	23%
Buckingham County	**16,946**		**17,455**		**17,736**	
65+	3,314	20%	4,033	23%	4,033	23%
Cumberland County	**9,792**		**10,105**		**10,286**	
65+	2,142	22%	2,433	24%	2,329	23%
Dinwiddie County	**28,669**		**30,473**		**31,857**	
65+	5,003	17%	6,019	20%	5,785	18%
Lunenberg County	**12,122**		**11,465**		**10,685**	
65+	2,738	23%	2,974	26%	2,628	25%
Nottoway County	**15,651**		**15,411**		**14,988**	
65+	3,088	20%	3,675	24%	3,513	23%
Prince Edward County	**23,272**		**24,905**		**26,190**	
65+	4,372	19%	5,247	21%	5,396	21%
BABS Service Area	135,860		138,651		139,669	
65+	26,736	20%	31,546	23%	30,391	22%

SOURCE: UNIVERSITY OF VIRGINIA WELDON COOPER CENTER, DEMOGRAPHICS RESEARCH GROUP. (2019). VIRGINIA POPULATION PROJECTIONS. *NOTE: AS OF JANUARY 2023, THE VIRGINIA POPULATION PROJECTIONS BY DEMOGRAPHIC CHARACTERISTICS, SUCH AS BY AGE GROUP AND SEX, RELY ON THE 2020 CENSUS DATA AS A BENCHMARK, AND ARE THEREFORE NOT AVAILABLE BECAUSE THE U.S. CENSUS BUREAU HAS NOT RELEASED THE 2020 CENSUS DATA BY FIVE-YEAR AGE GROUPS AND BY SEX.

Transit Dependent Populations

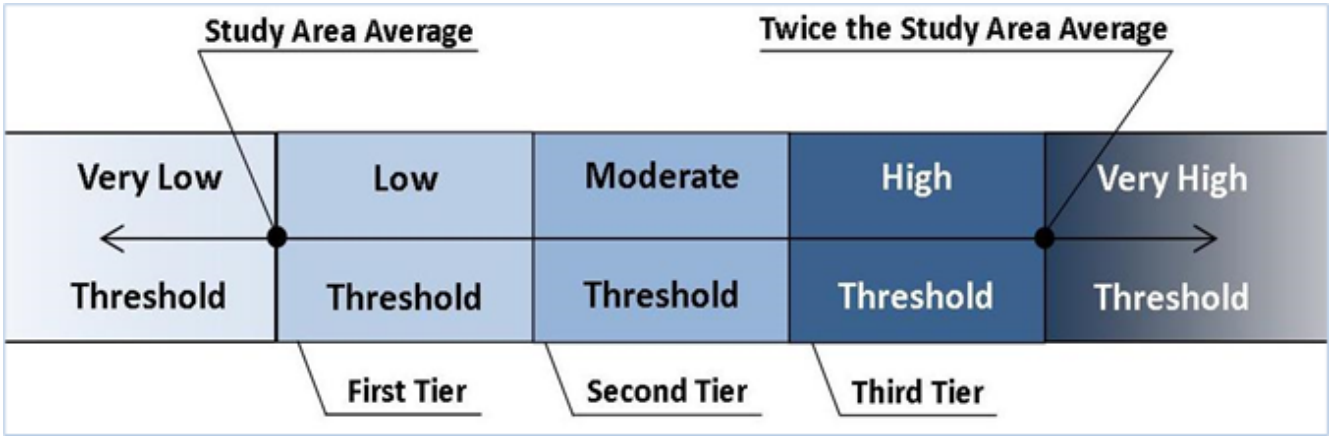
Public transportation needs are defined in part by identifying the relative size and location of those segments within the general population that are most likely to use transit services. These transit dependent populations include individuals who may not have access to a personal vehicle or are unable to drive themselves due to age or disability. Determining the location of these populations assists in the evaluation of current transit services and the extent to which the services meet community needs.

The Transit Dependence Index (TDI) is an aggregate measure displaying relative concentrations of transit dependent populations. Five factors make up the TDI calculation: population density, autoless households, elderly populations (ages 65 and over), youth populations (ages 10-17), and below poverty populations.

The factors above represent specific socioeconomic characteristics of area residents. For each factor, individual block groups were classified according to the prevalence of the vulnerable population relative to each county's average, as well as to the regional average. The factors were then put into the TDI equation to determine the relative transit dependence of each block group.

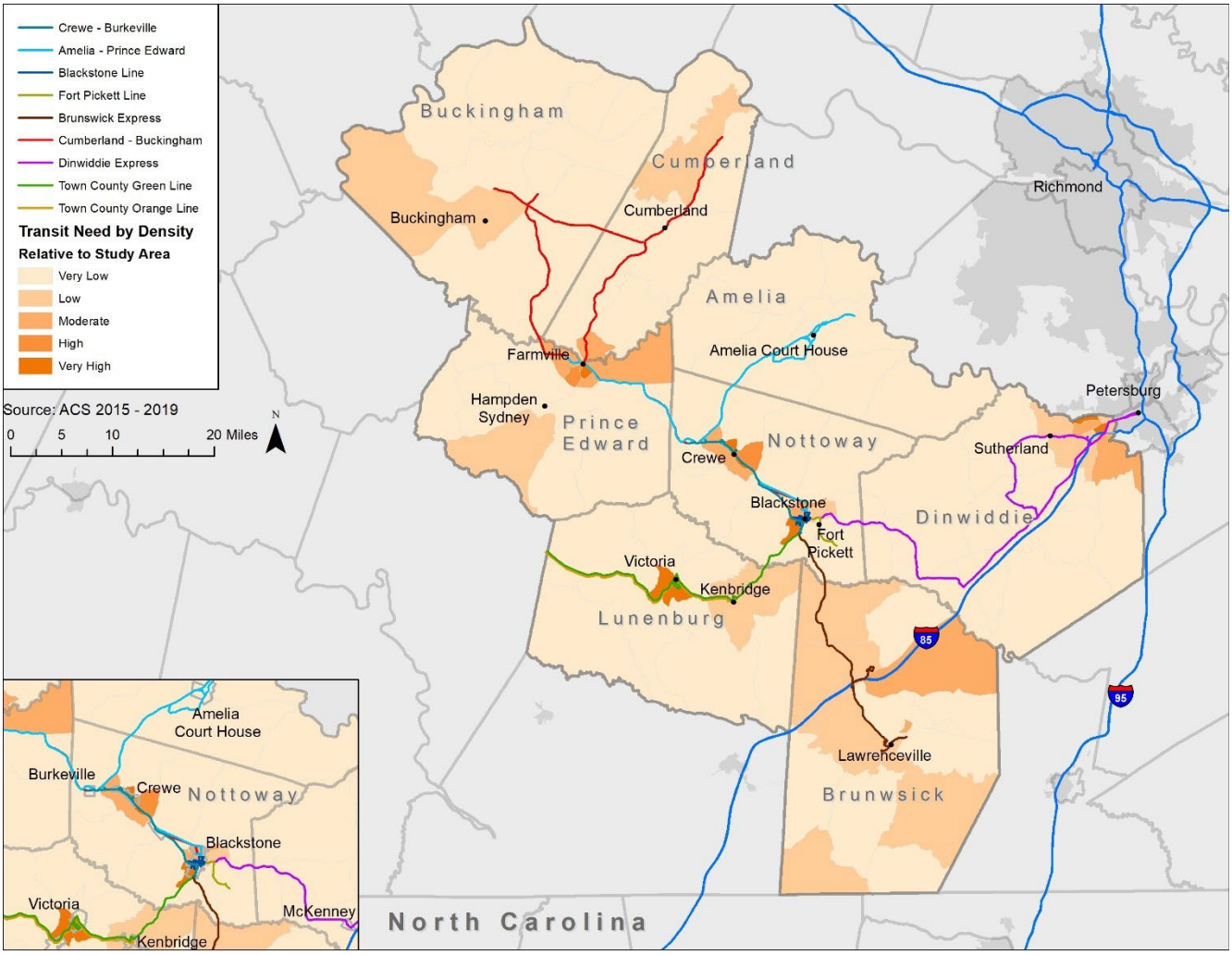
As illustrated in Figure 3-21, the relative classification system utilizes averages in ranking populations. For example, areas with less than the average transit dependent population fall into the "very low" classification, where areas that are more than twice the average will be classified as "very high." The classifications "low, moderate, and high" all fall between the average and twice the average; these classifications are divided into thirds.

Figure 3-21: Transit Dependent Populations Classification System



TDI rankings for the BABS Region is represented in Figure 3-22. Those block groups with a high TDI score are in the following places: Farmville, Blackstone, Crewe, Victoria, and Petersburg.

Figure 3-22: Transit Dependence Index for BABS Region



Transit Dependence Index Percentage

The Transit Dependence Index Percent (TDIP) provides a complementary analysis to the TDI measure. It is nearly identical to the TDI measure except for the exclusion of population density. The TDIP evaluates the total amount of transit dependent individuals in each block group, calculates the percentage of dependent individuals, and gives a score based on how that percentage relates to the study area average. The TDIP is useful in showing the block groups with a high degree of transit dependence, rather than a high number of transit dependent populations. Block groups with a moderate to high TDIP score are found in nearly every county in the BABS region, including:

Buckingham

- In the northwest.

Cumberland

- North of Cumberland. The Buckingham-Cumberland route serves this area.

Prince Edward

- West of Hampden Sydney near Five Forks.

Lunenberg

- Victoria, Kenbridge and the area surrounding Kenbridge. These places are served by the Town and County Transit Line, however much of greater Victoria and Kenbridge are not.

Brunswick

- In the northern region, east of Lawrenceville, and the southwest.

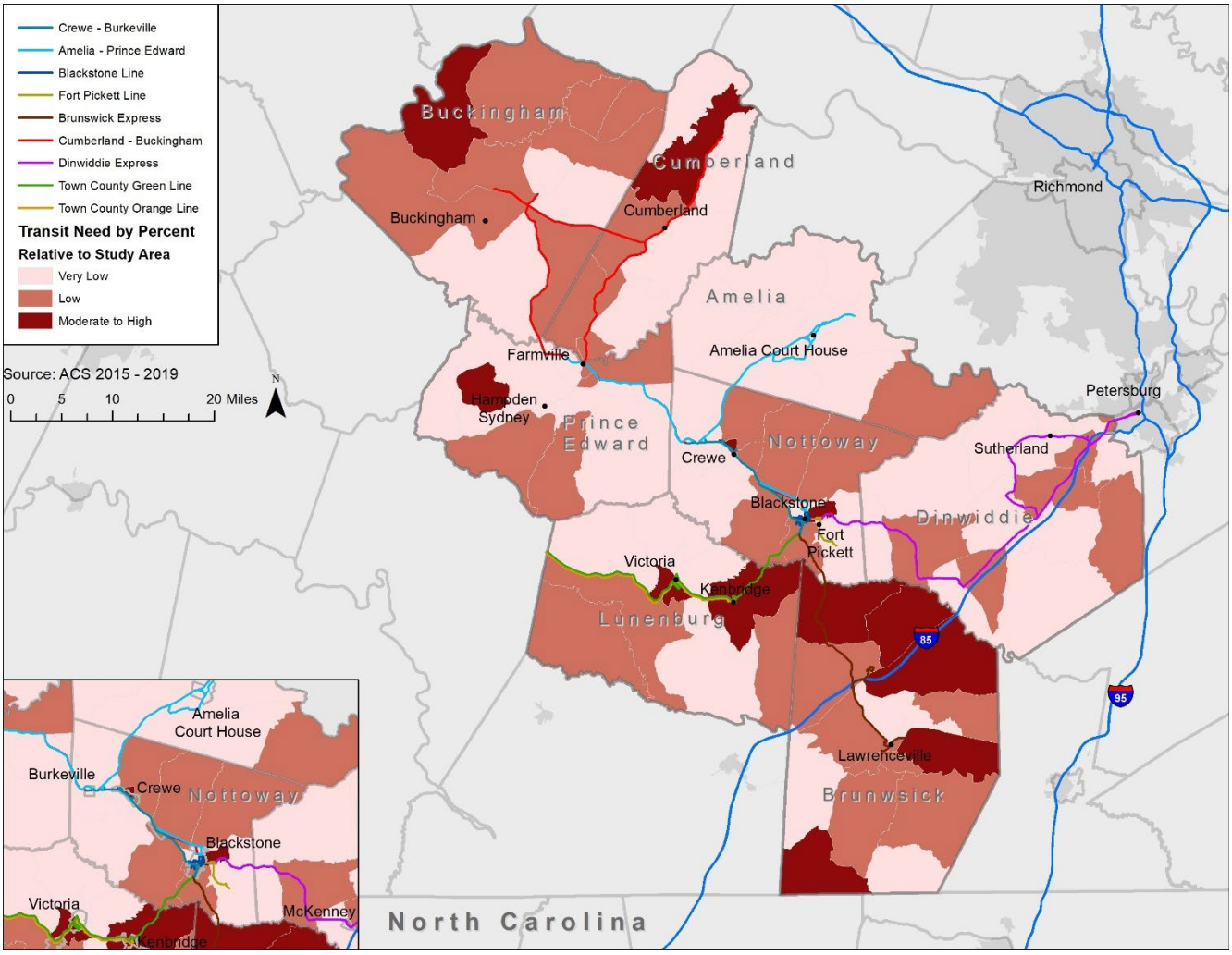
Nottoway

- Crewe and northeast of Blackstone.

Counties with no block groups with a high TDIP score: Amelia and Dinwiddie.

TDIP rankings for the BABS Region is represented in Figure 3-23.

Figure 3-23: Transit Dependence Index Percentage for BABS Region



Autoless Households

Households without at least one personal vehicle are more likely to depend on the mobility offered by public transit than those households with access to a car. Figure 3-24 displays the relative number of autoless households for the BABS service area. Block groups with a higher concentration of autoless households are in the following counties:

Buckingham

- In the central region in Buckingham and Dillwyn, which is served by the Buckingham-Cumberland Line.

Cumberland

- In the north near Whiteville which is served by the Buckingham-Cumberland Line.

Amelia

- In the northwest.

Prince Edward

- In the south and Farmville, which is served by the Buckingham-Cumberland Line and the Amelia-Prince Edward Line.

Lunenberg

- In the north and greater Victoria which is served by the Town and County Line.

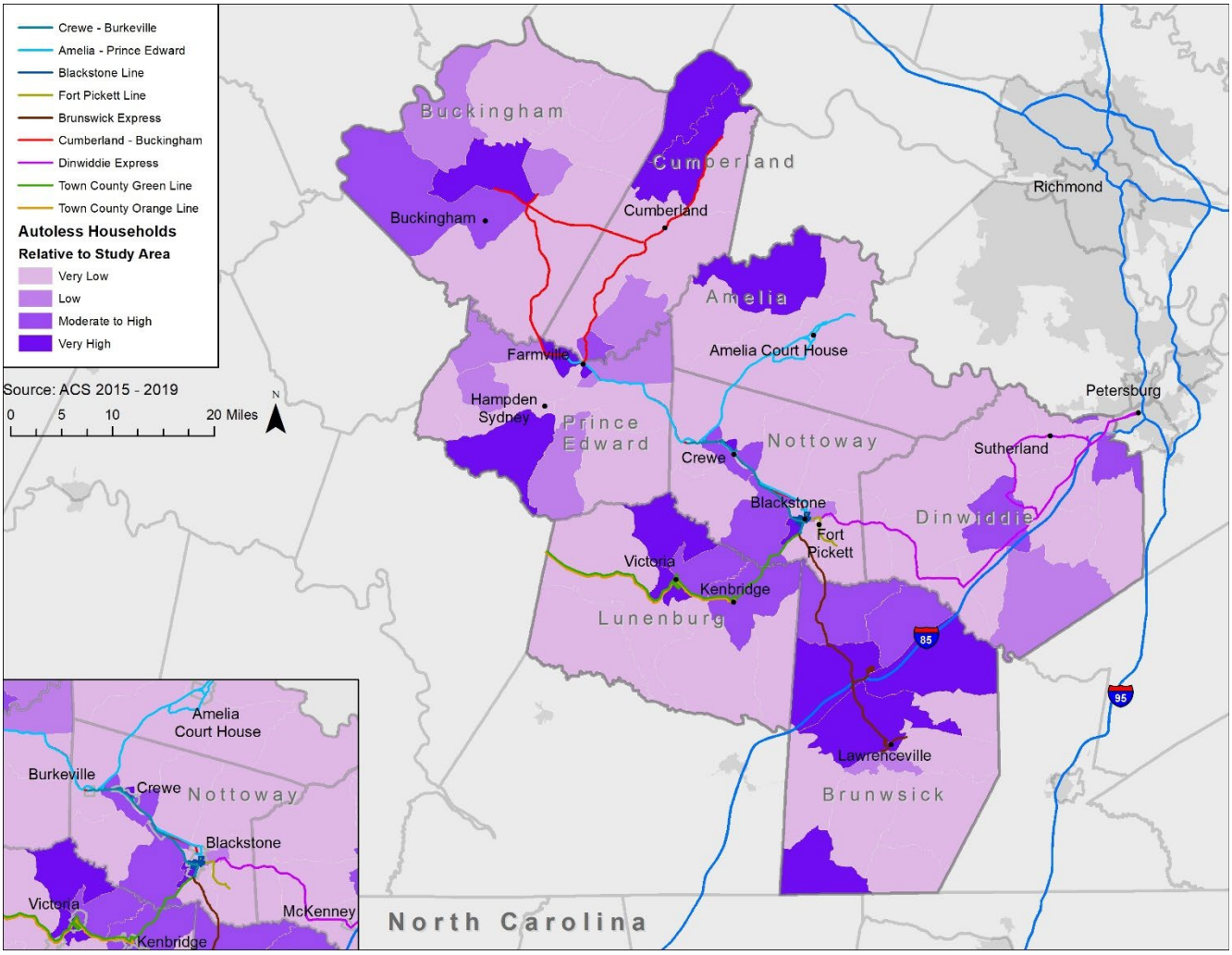
Brunswick

- In the northern half of the county, served by the Brunswick Express, and the southwest.

Nottoway

- Crewe and southwest Blackstone.

Figure 3-24: Autoless Households in BABS Region



Older Adult Population

Individuals ages 65 and older, as seen in Figure 3-25, may scale back their use of personal vehicles as they age, leading to greater reliance on public transportation compared to those in other age brackets. Block groups in Brunswick, Nottoway and Lunenberg counties have the most block groups with at least moderate or high levels of older adults relative to the region, particularly in the following areas:

Brunswick

- Southern Lawrenceville, served partially by the Brunswick Express, and part of the northern region.

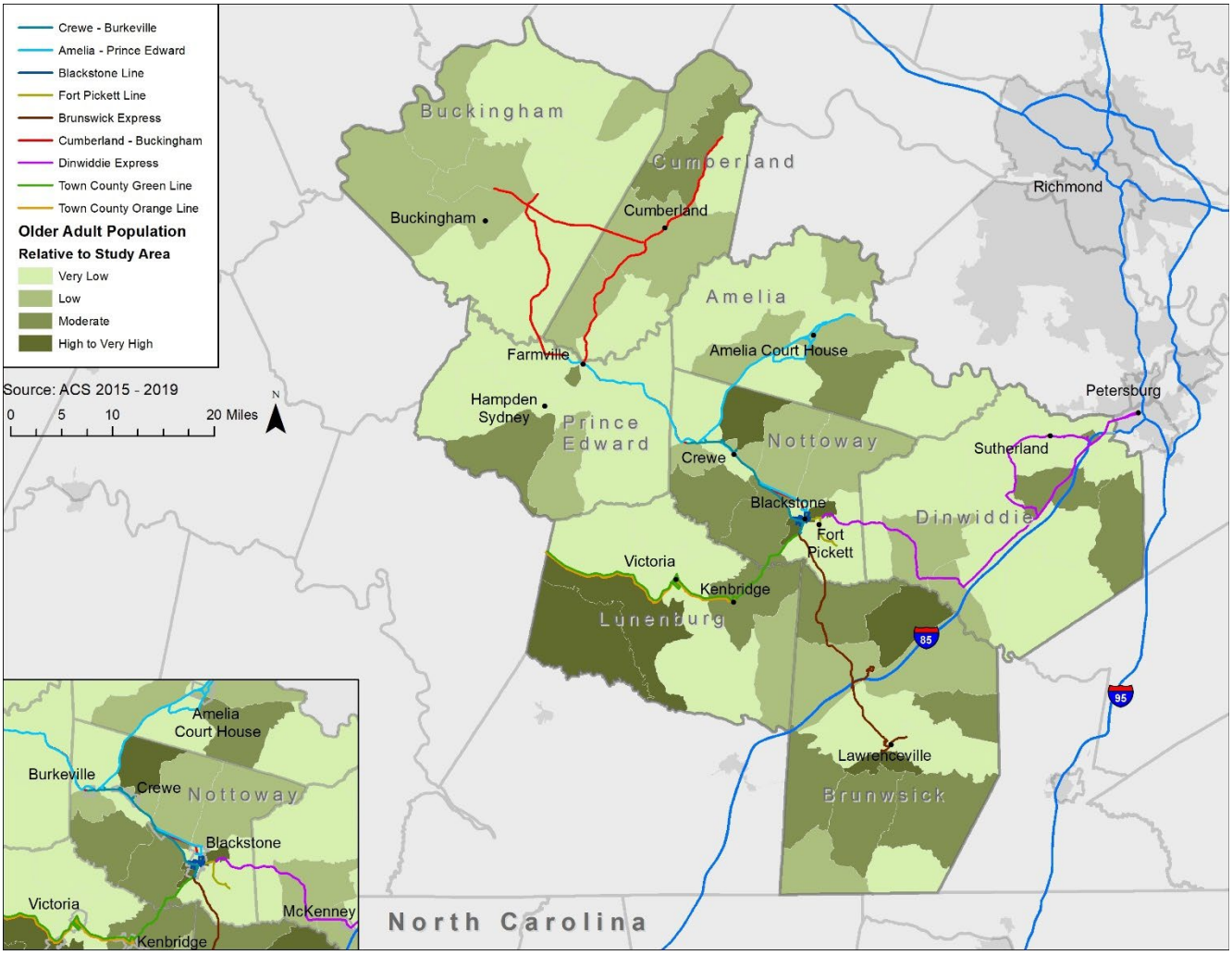
Nottoway

- North of Crewe and Blackstone.

Lunenberg

- In the southwest region.

Figure 3-25: Older Adult Population in BABS Region



Youth Population

Youths and teenagers, ages 10 to 17 years, who cannot drive or are just beginning to drive but do not have an automobile available, appreciate the continued mobility from public transportation groups, with the highest levels of the youth population located in the following counties (see Figure 3-26):

Buckingham

- In the west and central region including Buckingham, served by the Buckingham-Cumberland Line.

Cumberland

- In the northeast including Whiteville and southwest Cumberland, served by the Buckingham-Cumberland Line.

Prince Edward

- In the northwest including parts of Farmville and the southeastern region.

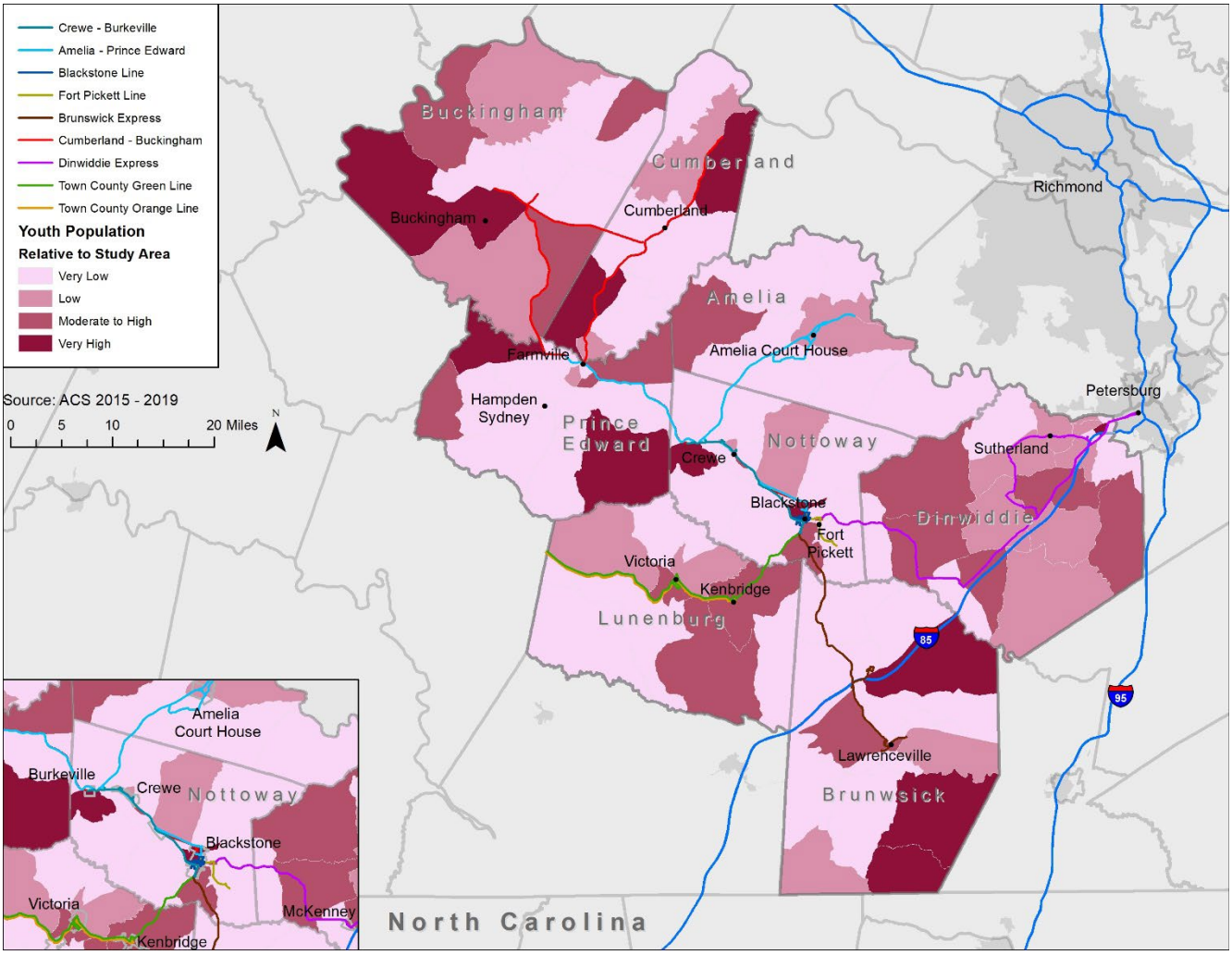
Brunswick

- In the northeast region east of I-85 (served by the Dinwiddie Express) and the southeast region.

Nottoway

- Southern Burkeville and northern Blackstone, parts of which are served by the Blackstone Line and Crewe-Burkeville Line,

Figure 3-26: Youth Population in BABS Region



Individuals with Disabilities

Individuals with disabilities may be unable to operate a personal vehicle and consequently more likely to rely on public transportation. Figure 3-27 displays block groups with higher concentrations of individuals with disabilities, which are located in the following counties:

Prince Edward

- West of Hampden Sydney near Five Forks.

Brunswick

- South of Lawrenceville.

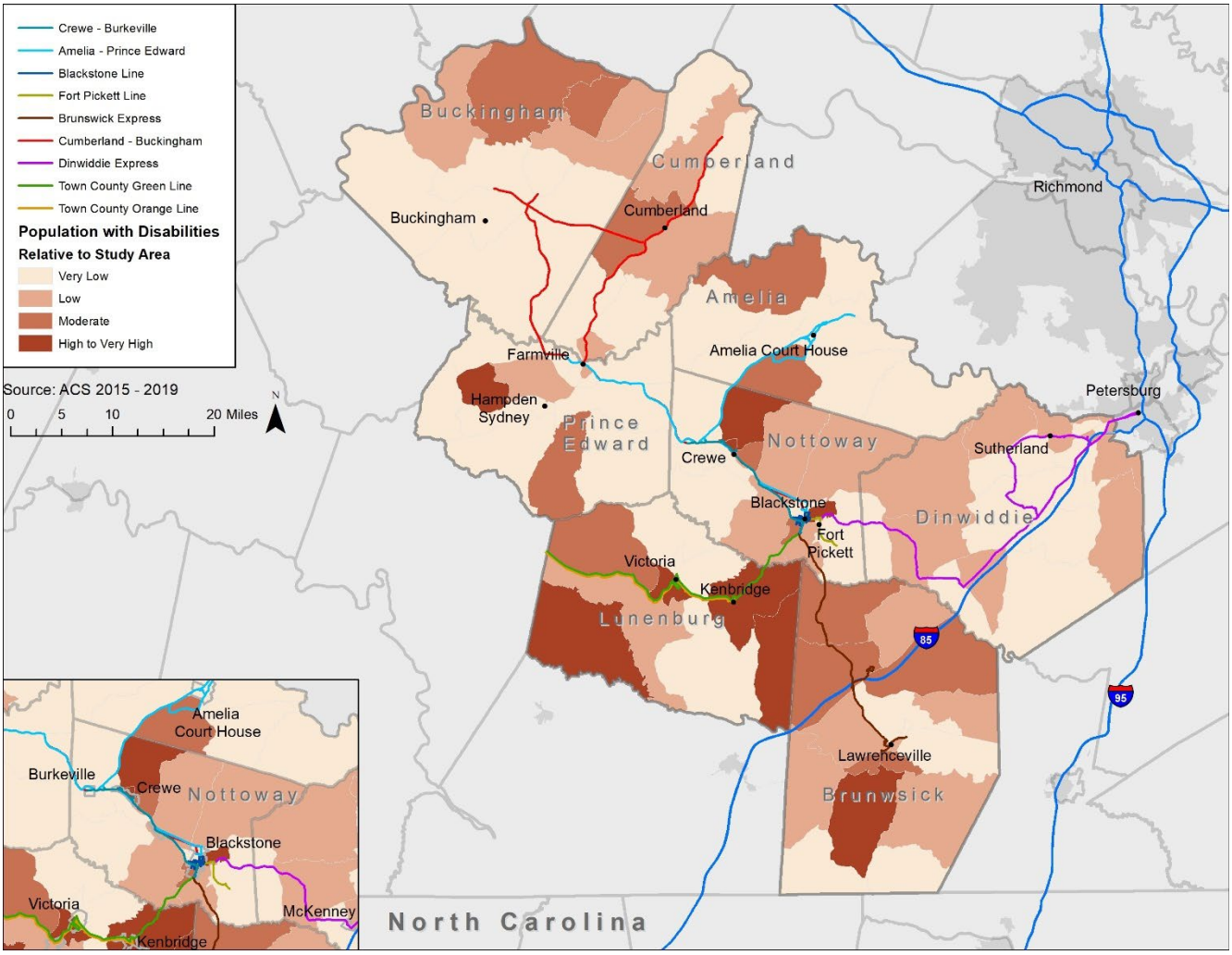
Lunenburg

- Victoria, and the southwestern and eastern area of the county including Kenbridge. Much of this area is served by the Town and County Line.

Nottoway

- Crewe and northeast of Blackstone.

Figure 3-27: Individuals with Disabilities in BABS Region



Title VI Demographics Analysis

As part of the Civil Rights Act of 1964, Title VI prohibits discrimination based on race, color, or national origin in programs and activities receiving federal subsidies. This includes agencies providing federally funded public transportation. The following section examines the minority and below poverty populations of Augusta County. It then summarizes the prevalence of residents with Limited-English Proficiency (LEP). Blackstone Area Bus System is not required to evaluate its service and fare changes under Title VI because it does not meet the FTA thresholds regarding urbanized area (UZA) population and the number of vehicles operated in peak service. However, it should still consider the following analysis before implementing any changes as a part of this TDP.

Minority Population

It is important to ensure that areas with an above average percentage of racial and/or ethnic minorities are not disproportionately impacted by any proposed alterations to existing public transportation services. Figure 3-28 depicts block groups with higher concentrations of minority populations in the study area. The average percentage of minority persons per block group is 38.9%. Of the 47 block groups in the county with an above average percentage of minority persons, 8 are in three counties (Prince Edward, Nottoway and Brunswick), 7 are in Dinwiddie, 6 are in Buckingham, 5 are in Lunenburg and 4 are in Cumberland.

Low-Income Population

The second socioeconomic group included in the Title VI analysis represents those individuals who earn less than the federal poverty level. These individuals face financial hardships that may make the ownership and maintenance of a personal vehicle difficult. In such cases, they may be more likely to depend on public transportation. Figure 3-29 depicts block groups with higher concentrations of low-income populations in the study area. The average percentage of persons living below the poverty line per block group is 14.3 percent. Of the 42 block groups in the county with an above average percentage of individuals living below the poverty level, nine are in Nottoway, seven are in Buckingham and Cumberland, five are in Dinwiddie and Prince Edward, four are in Brunswick, three are in Lunenburg and wo are in Amelia.

Figure 3-28: Minority Population in BABS Region

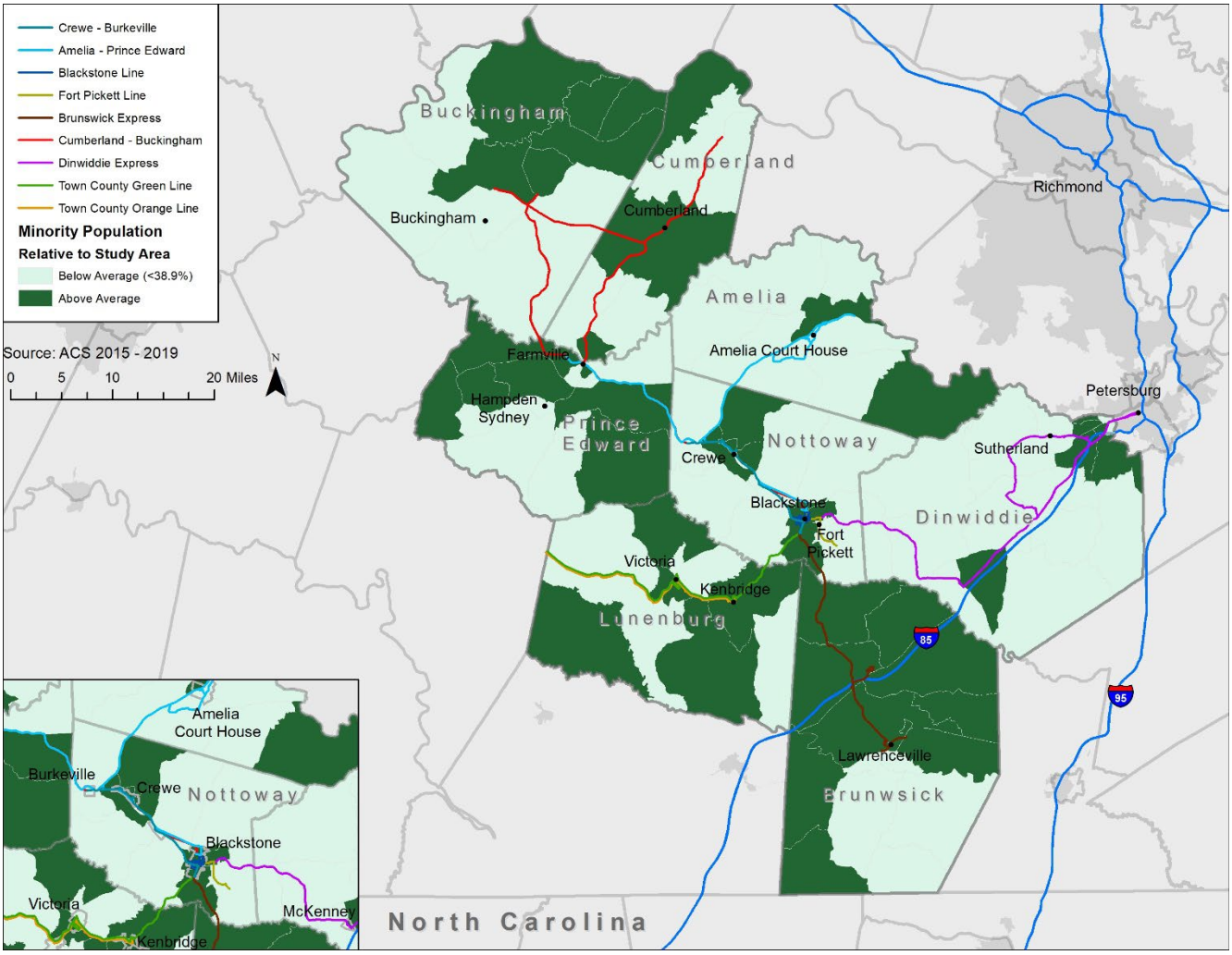
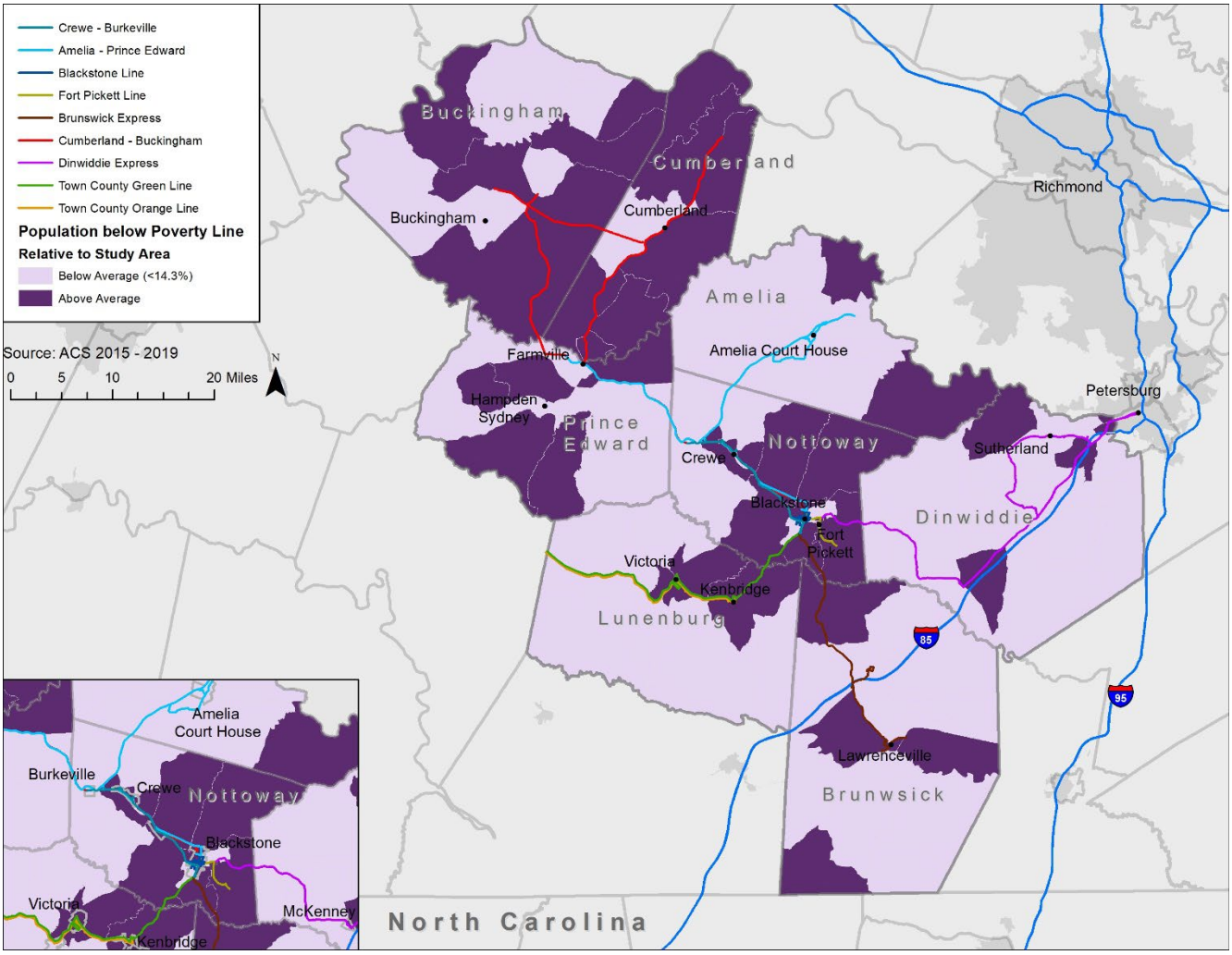


Figure 3-29: Low-Income Population in BABS Region



Land-Use Profile

Major land-uses are identified as origins from which a concentrated transit demand is generated and destinations to which both transit dependent persons and choice riders are attracted. This analysis will focus on the location of major employers and commuter travel patterns.

Major Employers

Providing transit services to major employment locations is advantageous to both the employee, as the individual is provided with direct access to their occupation and subsequent source of income, and the employer, as this entity will have assurance that their current or potential workforce will have diverse options of accessing the destination. The top five employers in the BABS service area (by county) are displayed in Table 3-26.

Table 3-26: Top Five Employers in the BABS Service Area by County

Dinwiddie County	Served by BABS	Lunenberg County	Served by BABS
Amazon Fulfillment Services	Yes	Lunenburg County Public School	No
Walmart	No	Virginia Marble Manufacturing	No
Central State Hospital	Yes	Lunenburg Correctional Center	No
Dinwiddie County School Board	No	Benchmark Community Bank	No
Chaparral (Steel Plant)	No	Three Rivers Treatment Center	No
Prince Edward County	**Served by BABS**	**Buckingham County**	**Served by BABS**
Longwood University	Yes	Buckingham County School Board	No
Centra Health	Yes	Buckingham Correctional Center	No
Prince Edward County Public Schools	No	Dillwyn Correctional Center	No
Walmart	Yes	County of Buckingham	No
Hampden-Sydney College	No	Kyanite Mining Corporation	No
Nottoway County	**Served by BABS**	**Amelia County**	**Served by BABS**
Virginia Center for Behavioral Rehabilitation	No	Amelia County School Board	No
Nottoway County Public School Board	No	County of Amelia	Yes
Nottoway Correctional Center	No	Wellsprings at Amelia Rehabilitation and Nursing Center	No

Piedmont Geriatric Hospital	Yes	Food Lion	No
Virginia Department of Military Affairs	No	Swift Creek Forest Products	No
Brunswick County	**Served by BABS**	**Cumberland County**	**Served by BABS**
Brunswick County School Board	No	Cumberland County School Board	No
Geo Corrections & Detention, Inc.	No	County of Cumberland	No
Southside Virginia Community College	Yes	Tindol Construction	No
County of Brunswick	No	Gemini	No
Meherrin River Regional Jail	No	Johnny R. Asal Lumber Company	No

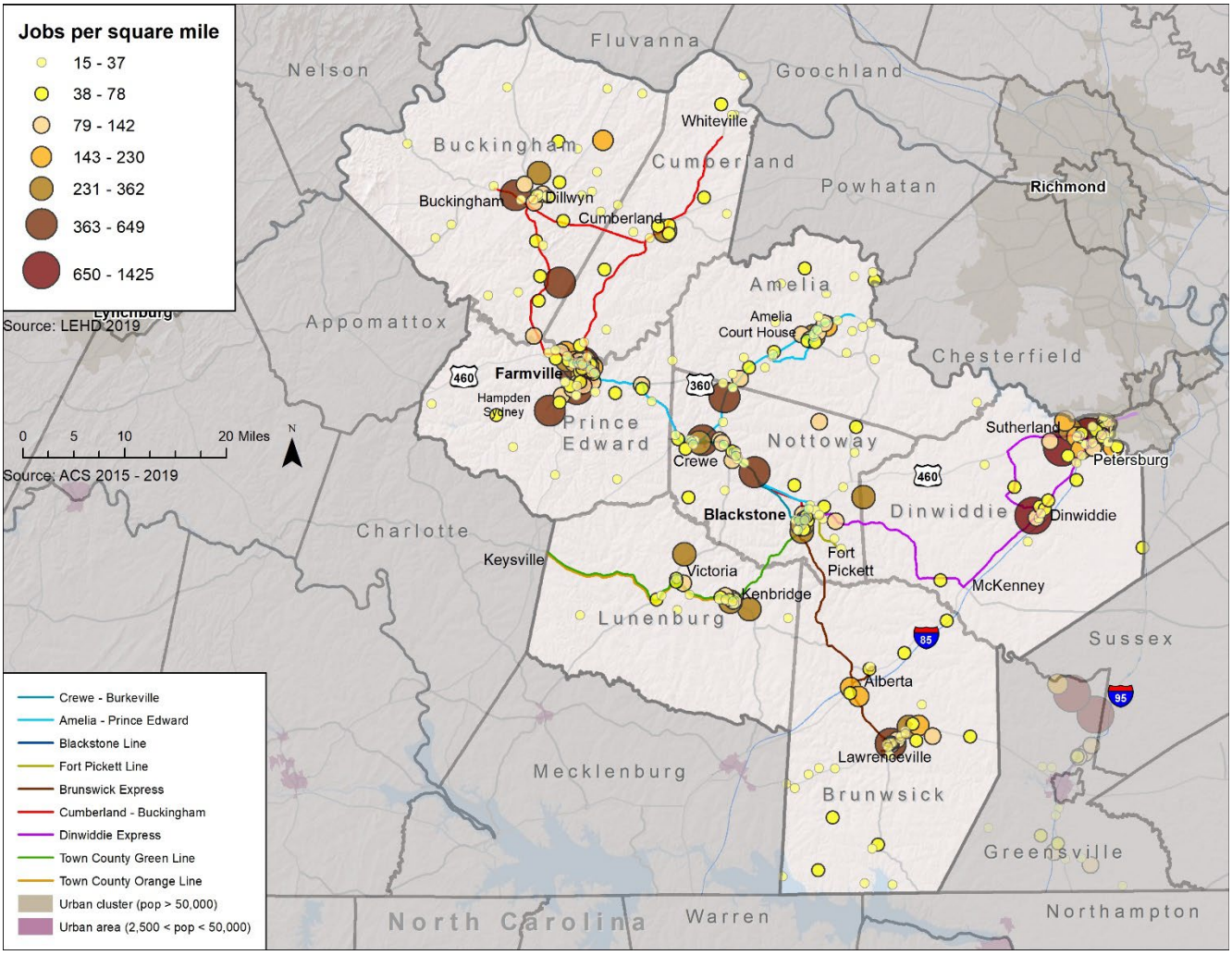
SOURCE: VIRGINIA EMPLOYMENT COMMISSION, ECONOMIC INFORMATION & ANALYTICS, 1ST QUARTER 2022

In Dinwiddie, the Amazon Fulfillment Services warehouse and Central State Hospital stands out as top employers. Even though they are both served by the Dinwiddie Express, they generally have very few passengers, indicating bus schedules could be better aligned with employer schedules.

Employment Density

An employment density map for the BABS service area was downloaded from the Census Bureau's OnTheMap program. It is provided as Figure 3-30. This map shows that there is a high concentration of jobs particularly in Farmville, Petersburg, Dinwiddie, Lawrenceville, and Burkeville. The places with the most jobs per square mile are in Petersburg (1100 – 1400 jobs/per sq. mile), Farmville (650 - 1300 jobs/per sq. mile), Dinwiddie (1047 jobs per sq. mile), followed by Lawrenceville and Crewe (both about 500 jobs/per sq. mile).

Figure 3-30: Job Counts in BABS Service Area



Travel Patterns

In addition to considering the city's major employers and job centers, it is also important to consider the commuting patterns of residents and workers. According to ACS five-year estimates for 2015-2019, about 33 percent of the BABS service area's employed residents stays within the service area to work. In contrast, 47 percent of those employed in the BABS service area live elsewhere. The most common workplace destination for BABS service area residents is Richmond (6.4%), followed by Farmville (6.1%) and Petersburg (2.9%). These data are shown in Table 3-27.

Table 3-27: Work Locations for BABS Service Area Workers

Work Locations for BABS Residents	Number	Percent
All Places (Cities, CDPs, etc.)	57,688	100%
Richmond, VA	8,475	14.7%
Farmville, VA	3,526	6.1%
Petersburg, VA	1,648	2.9%
Lynchburg, VA	994	1.7%
Blackstone, VA	991	1.7%
South Hill, VA	878	1.5%
Colonial Heights, VA	792	1.4%
Kenbridge, VA	759	1.3%
Charlottesville, VA	695	1.2%
Amelia Court House, VA	601	1.0%
All Other Locations	6,290	74.8%

SOURCE: US CENSUS, ONTHEMAP APPLICATION AND LEHD ORIGIN-DESTINATION EMPLOYMENT STATISTICS (2019)

The BABS service area is a net exporter of workers, meaning that there are less jobs in the county than there are people in the regional workforce. Of the estimated 35,374 jobs in the BABS service area, about 53.2 percent are filled by BABS residents. The top ten home locations for people who work in the BABS service area are shown in Table 3-52. The top three cities (Farmville, Petersburg, Blackstone) make up 7.5 percent of workers.

Table 3-28: Home Locations for BABS Workers

Home Locations for BABS Workers	Number	Percent
All Places (Cities, CDPs, etc.)	35,374	100%
Farmville, VA	1,249	3.5%
Petersburg, VA	695	2%
Blackstone, VA	670	1.9%
Richmond, VA	467	1.3%
Crewe, VA	366	1.0 %
Lynchburg, VA	307	0.9%
Virginia Beach, VA	293	0.8%
Hopewell, VA	278	0.8%
Victoria, VA	277	0.8%
Colonial Heights, VA	264	0.7%
All Other Locations	30,508	86.2%

As shown in Table 3-29, most residents drive alone to work (79%). About 10.3 percent carpool to work and about 3.2 percent use public transportation. About 2.9 percent of workers don't travel anywhere and work from home, a percentage which is likely higher now due to the rise of telecommuting after the COVID-19 pandemic. The mean travel time to work is 18.6 minutes, which is ten minutes less than the Virginia statewide mean travel time to work of 28.6 minutes.

Table 3-29: Journey to Work Travel Patterns

Travel Pattern	Number	Percent
Workers 16 years and over	15,692	100%
Car, truck, or van -- drove alone	12,397	79.0%
Car, truck, or van -- carpooled	1,619	10.3%
Public transportation (excluding taxicab)	503	3.2%
Walked	430	2.7%
Other means	293	1.9%
Worked from home	450	2.9%
Mean travel time to work (minutes)	18.6	

SOURCE: 2020 ACS 5-YEAR ESTIMATES, COMMUTING CHARACTERISTICS

Review of Previous Plans and Studies

This section reviews some major plans and studies that are relevant either to BABS or to the provision of public transportation in the region and have been completed since the 2015 TDP. Other plans that will be relevant but have not been completed yet include the 2045 Tri-Cities Plan for Chesterfield County which includes Petersburg and Dinwiddie. A comprehensive plan was not found for Nottoway County or the town of Blackstone.

2014 Dinwiddie County Comprehensive Plan

The most recent version of Dinwiddie County's Comprehensive Plan was adopted in 2014. Currently, the county is updating their comprehensive plan, which is scheduled to be fully completed by April 2023.

This Plan is intended to serve as a guide for the physical development of the County up to 2024. In the Transportation section, the plan says the County "should aspire to expand mobility and reduce reliance on single-occupancy vehicles, thus creating a more sustainable and resilient transportation infrastructure for the future".

Trends and opportunities identified for public transportation include:

- Aging population may result in growing public transportation and on-demand service.
- A large percentage of residents work outside of the County.
- There is limited bicycle and pedestrian infrastructure.
- Safety is a major concern.

The plan notes the County can benefit from partnering with BABS, PAT and VDOT to conduct a county-wide public transit study, while marketing services more effectively. Demand responsive service is also provided by the Crater District Area Agency on Aging (CDAAA, which serves the Counties of Dinwiddie, Greensville, Prince George, Surry and Sussex and the City of Emporia. A high-speed rail network, the Southeast Corridor, is proposed to run through the central area of the County with proposed stations in nearby Petersburg and Richmond.

Prince Edward County 2014 Comprehensive Plan

This plan was prepared and adopted as an update to the County's previous plan adopted in 2005, under the direction of the Prince Edward County Planning Commission.

In terms of transportation, the county's goal is to "provide for the efficient, safe and economical movement of people and goods within the County." Objectives that pertain to public transportation include:

- Promote transportation system improvements that are beneficial to the economic health of the County.

- Promote a multi-modal transportation system within the County that complies with Chapter 729. Strategies include encouraging the provision of demand responsive transit services and to work with VDOT and local advocacy groups to develop and implement a bike/trail system within the County.

- Coordinate land use and transportation decisions.

In terms of land use, the county's goal is to "ensure the optimal use of land resources" within the county, and "promote and support an environmentally sound future land use pattern that provides for a variety of community needs.

Brunswick County Comprehensive Plan 2037

This plan was prepared and adopted in 2017, replacing the 2006 Comprehensive Plan Update. According to the plan, many things have changed in the County over the past ten years, as the agricultural economy with small farms has shifted to more large-scale farming and forestry operations. In addition, the County has seen reductions in small businesses downtown and along highway corridors.

The plan inaccurately describes BABS as operating on call public transportation for the eight-county region, while "only private, non-profit organizations operate public transportation services in the region". The Lake Country Area Agency on Aging provides transit services to senior citizens for nutrition sites, medical appointments, service agencies and recreation sites.

The plan describes the high-speed rail project as being viewed by government and economic development officials as an important step in improving the region's economy. As the project progresses, the County will need careful planning along potential growth areas for businesses and residential development.

Buckingham County Comprehensive Plan 2015 - 2020

This plan was prepared and adopted in 2015, replacing the 2008 Comprehensive Plan. For public transportation, residents of the County have limited access and have been served by both JAUNT and Piedmont Area Transit (whose routes were taken over by BABS). In 2013 a Public Transit Connectivity Study noted that funding was one of the main issues that they struggle with, and that localities often do not realize how many citizens depend on public transit until funding is threatened to cease. The plan notes it may be useful to consider a joint study/survey among residents to determine what services residents would use and find beneficial. The plan notes that the County is also served by Centra PACE, a nonprofit which provides service vans for adults 55 years of age and older who meet certain criteria.

Lunenberg County / Town of Kenbridge / Town of Victoria Joint Comprehensive Plan 2019 - 2024

This plan was prepared and adopted in 2019 with the Town Managers and Planning Commissioners from Kenbridge and Victoria, and County Commissioners and officials from the County of Lunenberg. The first joint plan between the towns the County was made in 2006.

The plan notes that residents of the County have limited access to public transportation, which is provided by BABS as a deviated-fixed route and was an extension of the Central Virginia Transit System (no longer operational). The route is described as serving the County Courthouse area, the Town of Kenbridge and the Town of Victoria.

The plan also mentions the STEPS nonprofit and community action agency which provides van service to and from work. The plan notes that a joint transportation study/survey among residents might be useful to determine what services residents would use and find beneficial.

Amelia County Comprehensive Plan 2017

This plan was prepared and adopted in 2017 with County Planning Commissioners, Planning Committee, and Board of Supervisors, replacing the last full re-write of the County Plan from 1995, which won an award from the Virginia Chapter of the American Planning Association in 1996.

The 2016 plan aims to encourage more development in the County's core economic development areas; the Courthouse village and Route 360 east of the Courthouse. The plan note development should focus on these areas where Route 360 can serve its transportation needs, especially given the poor outlook for transportation funding for residential or rural crossroads development in outlying areas.

The county's stated Transportation goal is to "Maintain the capacity and quality of the Route 360 corridor throughout the County; ensure that future development patterns do not further diminish the levels of service and safety of the County's rural road system. Strategies do not mention public transportation but include: "preserving the level of service, functional characteristics, and aesthetics of the Route 360 corridor" and preparing a Route 360 corridor access plan. Other strategies are ensuring coordination and land use decisions, and improving the monitoring and communications process with VDOT; while working with VDOT on a regular basis to ensure the compatibility of County transportation priorities and initiatives and the VDOT planning process.

Cumberland County Comprehensive Plan 2013 - 2018

This plan was prepared and adopted in 2013 with County Planning Commissioners, Board of Supervisors, replacing the last plan from September 2006. The plan notes that the largest community in the County is Farmville, which is located in both Cumberland and Prince Edward County, with the Cumberland portion reported to be 531 persons. The plan suggests the county will experience significant growth in the next two decades.

In regard to transportation, the plan notes several existing plans that address or indirectly influence transportation in the county, noting they set conditions on what the County can do, how plans might lead to impacts on Cumberland's transportation system, or identify existing roadway data and project recommendations. Plans include: VTrans2035 (no specific goals or objectives for Cumberland), the Rural Long Range Plan 2011 which includes transportation goals and the comprehensive plans of bordering counties.

For public transportation, the plan notes most residents have no access, which is common to the region as a whole. The Farmville Area Bus (FAB) serves the portion that extends into Cumberland County, but notes that the rest of the County is unserved. In addition, there is intercity bus service in Farmville. The plan notes public transportation within the County would assist with many workers to and from work places. There are also no Park and Ride lots in the County.

Chapter 4:
Service and Capital Improvements

Introduction

The purpose of this chapter is to present a series of service and capital improvements for BABS to consider for implementation during the ten-year planning horizon covered by the TDP. These potential improvements were developed based on the data compiled and analyzed in Chapters 1-3, together with input from BABS and DRPT staff. The potential service improvements are presented first, followed by the capital projects.

Service Improvements

The following potential service improvements were developed through a review of the gaps in current services identified through input from riders and area stakeholders. Each of the service concepts is detailed in this section and includes:

- A summary of the service concept
- Potential advantages and disadvantages
- An estimate of the operating and capital costs
- Ridership estimates

The cost information for these proposals is expressed as the fully allocated costs, which means all program costs on a per unit basis are considered when contemplating expansions. This overstates the incremental cost of minor service expansions, as there are likely to be some administrative expenses that would not be increased with the addition of a few service hours. These cost estimates were based on FY2022 operating expenses (using the Blackstone Line as the baseline), thus $36.38 cost per hour is used in our projections.

The proposed service improvements include potential options for each of the eight BABS routes. They focus on fixed route options and capital improvements:

- Fixed Route Options
  - Saturday service
  - Later evening hours
  - Route segment modifications or removals
- Capital Improvements
  - Shelters
  - Bus stop signs
  - Smartphone app
  - Microtransit

Operate More Service Every Saturday for Blackstone

This service improvement would increase Saturday service for the Blackstone Line (which currently ends at 2:00 p.m. on Saturdays) to 5:00 p.m. Pilot evening service could be added to other routes considering productivity and given demand from residents.

In order of productivity, the following routes should be prioritized for potential pilot evening service: Brunswick Express, Dinwiddie Express, Crewe-Burkeville, Town & County Lines.

Table 4-1: Potential Impacts of Saturday Evening Service

Advantages	Disadvantages
• Addresses the priorities expressed by current riders in Blackstone. • Provides mobility options for riders to use every Saturday for employment and shopping. • Would not require additional capital to run the service.	• Will result in additional operating expenses. • May reduce route productivity on the weekdays. • Would require BABS to update its print and web materials.
Operating Hours and Cost Estimates	**Ridership Impacts**
• If the Saturday routes each operate an additional three hours of service (plus an hour for deadheads), the annual operating expenses are estimated to be about $7,275 per route.	• Untested service - current Saturday service data is unavailable so extended service estimates cannot be projected.

Later Evening Hours

This service improvement would provide evening service (until 9:00 p.m.) for the Blackstone Line, which currently runs Monday – Friday from 6:00 a.m. – 5:00 p.m. Service could be expanded to other lines given demand from residents.

Table 4-2: Potential Impacts of Later Evening Service for Blackstone Line

Advantages	Disadvantages
• Addresses a need for later evening hours from rider surveys. • More attractive to workers. • Increases social opportunities. • Does not require additional capital.	• Increases annual operating expenses. • Still might not be enough to capture untraditional working hour employees. • May reduce route productivity on the route during the daytime. • Replicates some service provided by Fort Pickett route (which can be adjusted if this service improvement is implemented).
Operating Hours and Cost Estimates	**Ridership Impacts**
• Four additional hours of service for the Blackstone Line will total around $36,500 annually under the current hourly frequency.	• Ridership per hour will be slightly lower since it is on the peripheral. For the Blackstone Line, if we predict service will be 75% as successful – 1.48 trips per hour is used totaling 1,480 trips per year (hour headways).

Blackstone Line

The Blackstone Line currently operates in a one-way directional loop through the Town of Blackstone including Walmart with one-hour headways from 6:00 a.m. – 5:00 p.m., Monday – Friday, and from 10:00 a.m. – 2:00 p.m. on Saturdays. The bus will also stop if passengers are standing at a safe location along the route, where the bus can pull out of traffic. The major stop is Walmart at the south end of Main Street, and which also is a transfer point to the other routes. The proposed service improvements would reduce the time passengers spend on the bus, making it more efficient and a preferable transportation mode for residents to reach shopping centers and other key destinations.

Split Blackstone Line on Main Street

Another option is to alternate Blackstone Line routes west and east of Main Street. The proposed map is shown in Figure 4-1.

- With one bus, the first hour of service would cover the east side of Main Street including Mann St. Apts., Brettwood Apartments. and additional areas. The second hour of service would cover the west side of Main Street including Cole Harbour and Magnolia Place.

- With two buses, there would be two separate lines running every hour on each side of Main Street

Figure 4-1: Proposed Blackstone West and Blackstone East Line

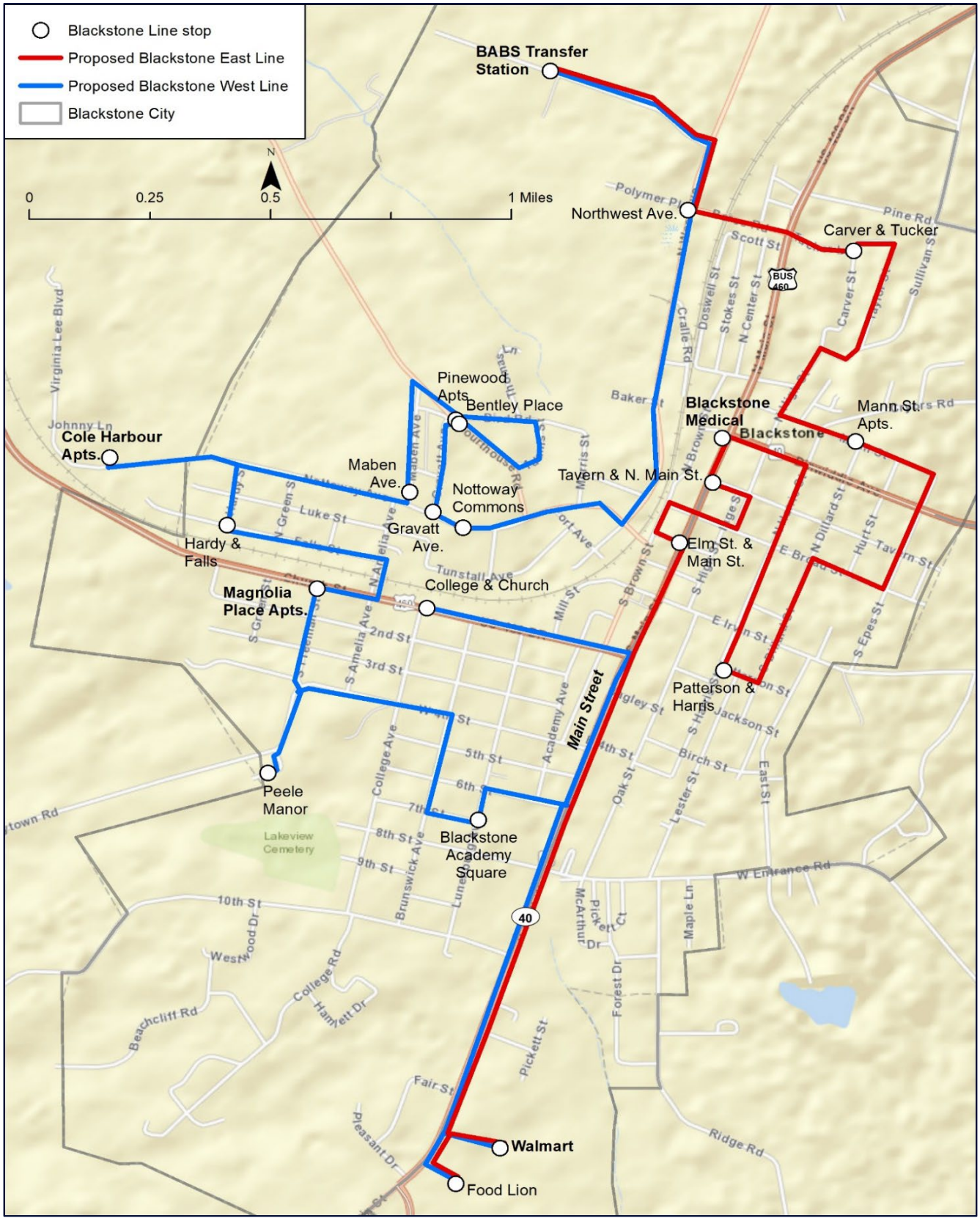


Table 4-3: Potential Impacts of Splitting the Blackstone Line into Two

Advantages	Disadvantages
• Reduces time spent on bus to return home and to reach destinations, making BABS more convenient and efficient for riders. • Expands potential stops west and particularly east of Main Street. • Increases potential pool of bus riders due to increased service frequency and quality.	• With one bus, reduces frequency of service. Riders returning home from Walmart must wait two hours to return home or walk from Main Street. • Additional cost of new vehicle and staff • Would require BABS to update its print and web materials. • With two buses, annual operating expenses would be increased significantly.
Operating Hours and Cost Estimates	**Ridership Impacts**
• **One vehicle** – The route adjustments are designed to be cost-neutral. • **Two vehicles** - Using the fully allocated cost per hour of $36.38, and assuming about 14,584 annual service hours, the total cost is estimated to be about $530,600 annually. Cost for a new bus: $80,000.	• It is estimated that ridership increases modestly, as increased convenience and route frequency attracts more riders.

Crewe – Burkeville Route

The Crewe-Burkeville route serves Nottoway County and the towns of Crewe and Burkeville, three days a week (Monday, Tuesday and Thursday). The proposed service improvement will expand service to five days a week, adding Wednesday and Friday. This improvement was suggested in the 2016 TDP, which noted conversations with stakeholders. Additionally, an analysis of survey results indicated the need for service on all weekdays but was not implemented.

Table 4-4: Potential Impacts of Crewe – Burkeville Service Expansion

Advantages	Disadvantages
• Responds to a need that has been previously identified by residents in Crewe and Burkeville. • Attracts commuters who need service five days a week instead of just three.	• May reduce route productivity and add to annual operating costs. • Existing route productivity is already low and may require more modifications to increase ridership.
Operating Hours and Cost Estimates	**Ridership Impacts**
• The total cost of two additional days of service (Wednesdays and Fridays) using the fully allocated cost per hour of $36.38, and assuming about 740 annual service hours, is estimated to be about $27,000 annually.	• For the Crewe-Burkeville Express, if we predict service will be 100% as successful – 1.2 trips per hour is used totaling 888 trips per year (hour headways).

Town and County Transit

This service improvement would make slight changes to the route. Service to the Southside Virginia Community College (SVCC) campus in Keysville would be suspended due to absence of ridership. However, should demand from students return or should there be more investment from SVCC, service could be restored. The time saved from the trip to the SVCC to Victoria is approximately 40 minutes, which would allow the bus to increase service frequency and slightly expand its range of stops throughout Kenbridge and Victoria.

Another service improvement suggestion is to merge the Orange Line with the Green Line, so that Walmart would be served five days a week (instead of two), as the stop has a higher demand compared to other stops.

Table 4-5: Potential Impacts of Town and County Modifications

Advantages	Disadvantages
• Frees up bus to potentially serve other areas of town. • Decreases time between stops, increasing the route's convenience. • Reduces operating expenses of reaching Keysville SVCC campus.	• Loses potential rebound in ridership from students.
Operating Hours and Cost Estimates	**Ridership Impacts**
• The route adjustments are designed to be cost-neutral.	• Increases ridership modestly due to increased service frequency.

Brunswick Express

This service improvement would expand service to Fridays, increasing service to five days a week. The 2016 TDP recommended this improvement, citing that it would have a similar increase in ridership as when Monday service was added in FY2015, benefitting full-time workers and SVCC students that have Friday classes.

Table 4-6: Potential Impacts of Brunswick Express Modifications

Advantages	Disadvantages
• Provides increased convenience and for riders, especially commuters from Alberta and Lawrenceville.	• Increases annual operating costs. • Would require BABS to update its print and web materials.
Operating Hours and Cost Estimates	**Ridership Impacts**
• The total cost of one additional day of service (Fridays) using the fully allocated cost per hour of $36.38, and assuming about 425 annual service hours, is estimated to be about $15,500 annually.	• Increases ridership – assuming the same ridership per day levels, 850 new trips per year is projected.

Dinwiddie Express

This service improvement would increase service frequency along more productive portions of the route while suspending or removing service to stops that have almost no ridership.

Stops that should be considered for removal:

- Walmart Distribution Center
- Amazon
- Route 1 & 460
- Central State
- Wheelers Pond Road
- Wilkinson Road

If these stops are removed, the approximately 32 minutes spent between Edgehill Shopping Center and Dinwiddie Government Center along Highway 460 and Courthouse Road could instead be spent providing an additional run between Petersburg Transfer Center and McKenney along Route 1. A one-way trip between Petersburg Transfer Center and Wallace's Supermarket in McKenney would take about 25 minutes. Service could be restored in the future should employer schedules be better aligned with bus schedules. Currently there is a nearly complete absence of ridership from Walmart and the Amazon Fulfillment Center. Additionally, a demand response or microtransit service could be explored to serve this region which could provide some transit service to nearby workplace destinations such as the Amazon Fulfilment Center, while aligning with their employees' shift schedules.

A second adjustment would be for the Dinwiddie Express to implement a pilot to run five minutes earlier at Elm Street and Main Street at 5:45 a.m. for the first run and 2:15 p.m. for the second run while ending at the same location five minutes later at 9:50 a.m. and 6:10 p.m., which would better serve Blackstone riders boarding from a central location downtown, or who are parked in a downtown parking lot. Currently, the bus begins at Rt. 40 and High Street, but lacks a bus stop or boarding platform, making it unclear where to board.

Another service improvement would be to implement a pilot for a second morning run for the Dinwiddie Express, starting at 6:45 a.m., which would allow riders to arrive at Petersburg Transfer Station at 8:05 a.m. This additional run would allow more residents to access jobs or other destinations in Petersburg, Richmond and beyond. This bus would return to Blackstone at 10:50 a.m.

These two pilots would need to be publicized in order to gauge interest from residents in Blackstone and surrounding areas and so the route can be adjusted if necessary.

Figure 4-2: Proposed Dinwiddie Express Modification

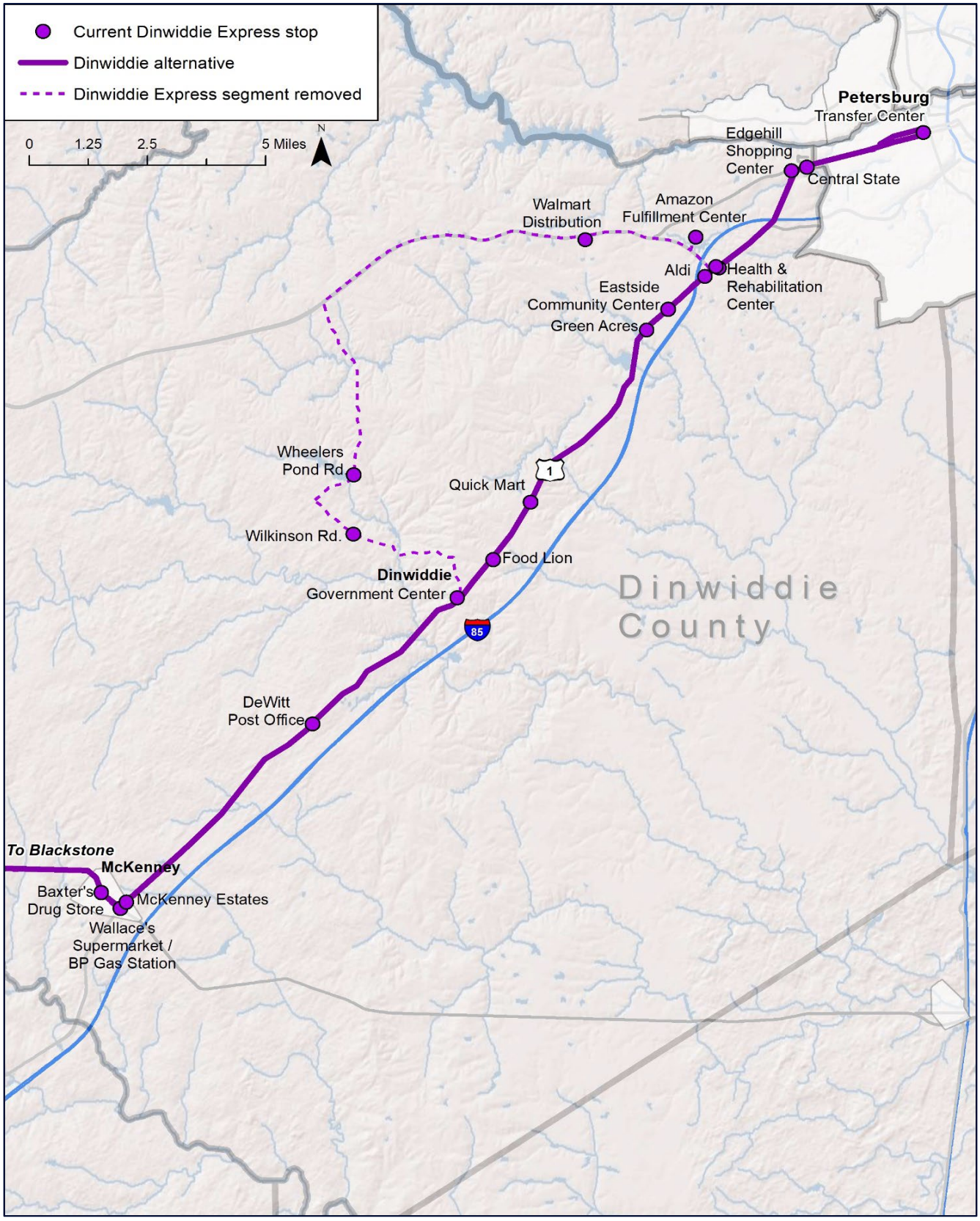


Table 4-7: Potential Impacts of Dinwiddie Express Modifications

Advantages	Disadvantages
• Improves service frequency, timeliness and convenience between McKenney and Petersburg Transfer Station on State Highway 1. • Improves route accessibility by starting and ending in a central location for Blackstone residents. • Eliminates fixed route service segments with very low performance as buses do not currently align with riders/employees' work schedules.	• Removes or reduces all transit service from key employers. • Needs public awareness of route adjustment so Blackstone residents are aware of downtown transfer connection to Petersburg. • Starting earlier and ending later would add minor operational costs. • Adding an additional morning run would add significant operational costs.
Operating Hours and Cost Estimates	**Ridership Impacts**
• The route adjustments are designed to be cost-neutral for the route segment removal. • The total cost of ten additional minutes of service, for five days a week, using the fully allocated cost per hour of $36.38, and assuming about 2125 annual service hours, is estimated to be about $12,885 annually. • The cost of one additional morning run for five days a week, using the FY2022 Total Operating Cost is about $82,000.	• Increases overall route ridership in areas which do have stop activity, especially to/from Petersburg Transfer station and McKenney. • Increases convenience and accessibility of Dinwiddie Express

Fort Pickett Line

This service improvement would reduce or remove service from Fort Pickett given lower route productivity. By reducing the Fort Pickett portion of the line, more service could be allocated to residential areas of Blackstone. Currently, there is very low ridership for this line. Bus stop signage and benches or shelters are also absent along the route in Fort Pickett. This line would need to be rebranded if service is to be reallocated elsewhere.

Service Reduced to Fort Pickett, Expanded to Blackstone

This service improvement would reduce service to/from Fort Pickett from five days a week to two days a week (Monday, Wednesday). On Tuesdays and Thursdays, the Fort Pickett route would provide no service to Fort Pickett, but reroute to provide evening service to Blackstone Academy Square (the extended hotel) and apartments such as Cole Harbour and Magnolia Place Apartments before proceeding on the same route to Walmart.

Figure 4-3: Proposed Fort Pickett Modifications

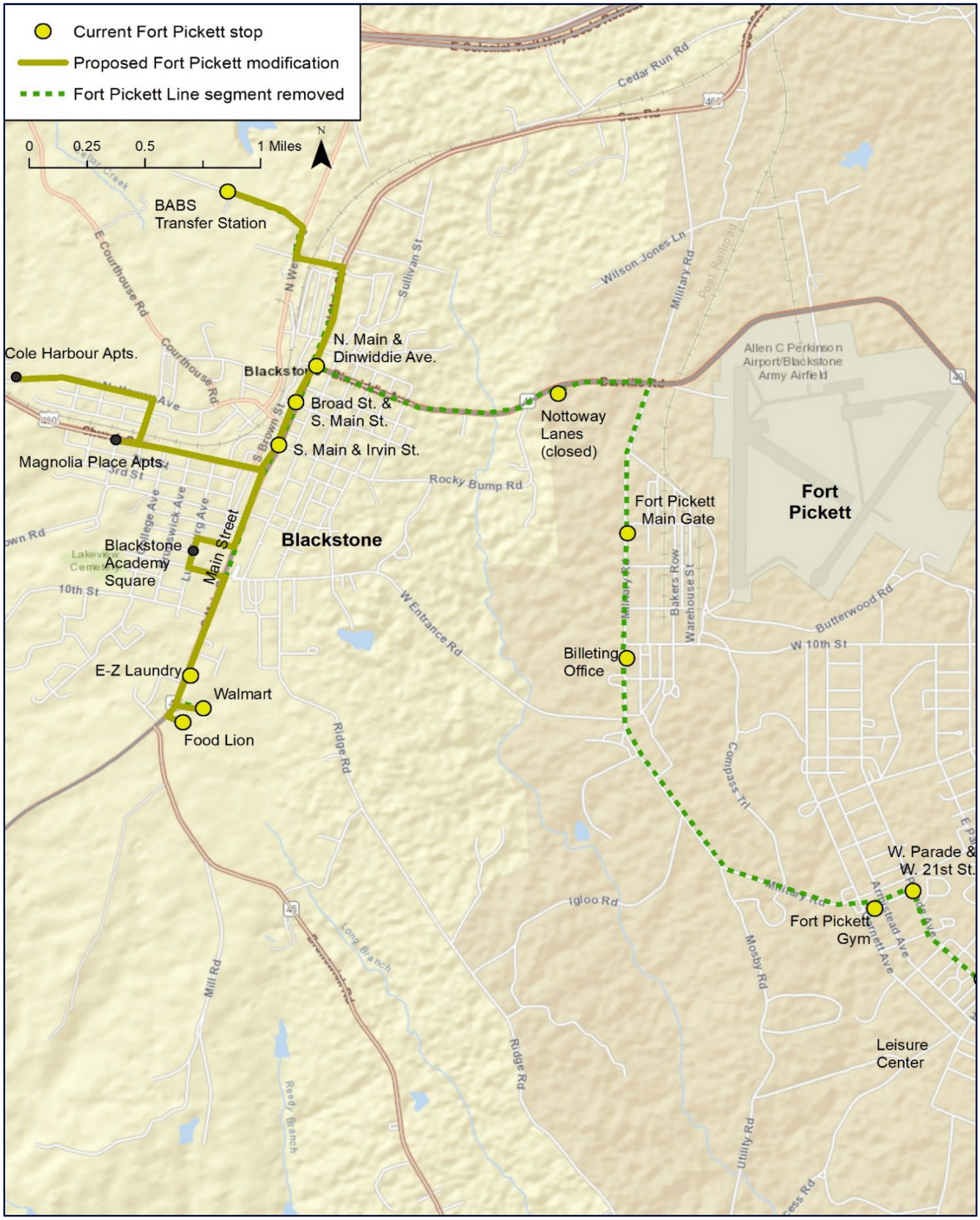


Table 4-8: Potential Impacts of Fort Pickett Modifications

Advantages	Disadvantages
• Frees up BABS service vehicle which could be used in Blackstone residential areas with more active riders. • Reduces operational costs. • Increases route productivity.	• Transit dependent riders would lose transit access from Fort Pickett partially and might need alternative means of transportation to visit and shop at Blackstone. • Would require BABS to update its print and web materials.
Cost Estimates	**Ridership Impacts**
• The route adjustments are designed to be cost-neutral. • Schedule redesign and printing would incur minimal costs.	• It is estimated that ridership increases modestly, as increased convenience and route frequency attracts more riders.

Capital Improvements

Additional Shelters and Benches

Bus benches and shelters are very limited along BABS routes, with just two found in Blackstone. The rider survey and staff input indicated that customers would like to have additional bus shelters and benches. While new passenger shelters are budgeted in the BABS Capital Improvement Plan for the Blackstone Route, Town and County Lines, Brunswick Express, and Crewe/Burkeville Route, the total costs are a significant investment. Though the cost of additional benches should be much lower and quicker to install. Installing benches at key stops without shelters and high stop activity or where riders may need them the most (such as residential areas or locations with older adults) will generate more ridership along BABS routes, by providing more comfort and accessibility for seniors and individuals with disabilities, and making BABS bus stops more visible along key corridors such as Main Street in Blackstone.

Table 4-9: Potential Impacts of Additional Shelters and Benches at Stops

Advantages	Disadvantages
• Responds to need expressed by 1/3 riders in the Rider survey. • Benches only option - quicker and cheaper to install than shelters. • Improves accessibility, safety and comfort for transit dependent riders. • Provides visibility of riders to drivers. • Improves visibility of the transit system and offers marketing and partnership opportunities.	• Adds significant capital costs - purchasing, installing, and maintaining shelters. • Implementation issues – it can be difficult to work out agreements with property owners to site shelters.
Cost Estimates	**Ridership Impacts**
• A concrete pad with a shelter and a bench is likely to cost between $10,000 and $15,000, depending upon the site[1].	• Should have modest increase in ridership due to increased comfort and safety of riders.

Bus Stop Signs

Additional bus stop signs would help riders identify stop locations and improve the visibility of BABS within the community. It is proposed that BABS bus stop signs be installed at each of the stops listed with time points on the printed schedules. Some of these are already signed, but many are not.

[1] BABS' Transit Development Plan estimates $14,000 per passenger shelter.

Table 4-10: Potential Impacts of Additional Bus Stop Signs

Advantages	Disadvantages
• Eliminates any confusion with regard to stop locations. • Increases the visibility of the transit system.	• There are costs associated with purchasing, installing, and maintaining signs.
Cost Estimates	**Ridership Impacts**
• The total cost for a sign, post (if needed, depending upon location) and installation is about $150.	• The higher visibility provided through the installation of bus stop signs may increase ridership incrementally.

Real-Time Transit Information/Smartphone App

IMAGE SOURCE: GCN.COM

Real-time transit information refers to a system whereby the actual location of a transit vehicle can be accessed by the public as it travels along its route. Customers can typically use smart phones, tablets, computers, or information kiosks to access this information. This technology has been used by urban transit programs for many years. As the technology has become more available, small urban and rural systems are increasingly making this information available for their fixed routes and deviated fixed routes.

This technology typically relies on automatic vehicle location (AVL) devices onboard the vehicles that relay the location back to an interface that displays it for either management or the public, or both. Often these systems are tied to other technology management tools used by transit programs, such as routing and scheduling software.

The next generation of this technology would be a BABS smartphone app. This would provide BABS route schedules, maps, an e-fare payment option and real-time transit information that can be accessed by the public as buses travel along its routes. While BABS may not quite be ready to implement this technology, it is reasonable to include it as an initiative to pursue for the later years of the plan.

Table 4-11: Potential Impacts of Providing a Real-Time Transit Information/Smartphone App

Advantages	Disadvantages
• Responds to rider input for better timeliness by communicating real-time information on bus locations. • Allows possibility for an e-fare option, further improving bus timeliness and bus convenience for cashless riders. • Allows riders to know when the next bus is coming to their stop, thus alleviating the anxiety of wondering when it will come, by alerting passengers of bus statuses, route modifications and other changes. • Improves visibility of the transit system and offers marketing and partnership opportunities. • Allows the operations manager to know where all of the vehicles are, which provides a way to track on-time performance.	• Expenses for procuring and there are ongoing maintenance costs. Staff resources and time is needed to develop. • Not all riders will have devices that will allow them to use the app or real-time transit information.
Cost Estimates	**Ridership Impacts**
• Real-time transit information varies in cost depending upon the system, as well as whether or not the vehicles are already equipped with AVL technology. • The cost is about $15,000 per vehicle (capital/ technology), plus a monthly fee (typically in the $1,200 range). • Microtransit implementation: one-time startup cost of $200,000[2], plus a monthly fee $500 per vehicle (2 vehicles proposed).	• Real-time transit information can improve ridership incrementally as customers feel more secure knowing when the vehicle will be arriving at their stop.

[2] Startup cost typically includes planning and technical assistance, microtransit simulation, onsite training & installation, setup fees, customer support, software license, hardware, marketing & design, and analytics & reporting.

Summary of TDP Proposals

A summary of the Transit Development Plan proposals is provided in Table 4-12.

Table 4-12: Summary of TDP Proposals

Service and Capital Improvement Proposals	Total Annual Cost – FY2023 Dollars	Capital Cost
Operating Proposal		
Blackstone Line – Increased Saturday Service	$7,275	$0
Blackstone Line – Later Evening Hours	$36,500	$0
Blackstone Line – Split into Two Routes One Vehicle Two Vehicles	 $0 $530,600	 $0 $80,000
Crewe – Burkeville Route – Add Service Wednesday and Friday	$27,000	$0
Town and County Transit – Route Adjustments	$0	$0
Brunswick Express – Add Friday Service	$15,500	$0
Dinwiddie Express – Route Adjustments • Ten Additional Minutes of Service • One Additional Morning Run	 $12,885 $82,000	 $0 $0
Fort Pickett Line – Route Adjustments	$0	$0
Subtotal Operating	**$711,730**	**$80,000**
Capital/Infrastructure/Technology Proposal	**Total Annual Cost**	**Total Capital Cost**
Additional Shelters	$0	$307,000
Bus Stop Signs	$0	$5,700
Real-Time Transit Information	$14,400	$195,000
Microtransit	$12,000	$200,000
Subtotal Capital/Infrastructure/Technology	**$26,400**	**$707,700**
Total Cost of All Potential TDP Proposals	**$734,130**	**$787,700**

Funding Sources

The funding scenario for operating expenses typically involves first calculating the net deficit, which is defined as the difference between the sum of all allowable expenses minus all operating revenues (fares, advertising, any others). The net deficit is then usually eligible to be funded through FTA's Section 5311 program (50% of the net deficit); and DRPT's state assistance program (25%), with the remaining 25 percent coming from local funds.

Capital costs in Virginia are typically funded using the following formula: 80 percent federal; 16 percent state; 4 percent local.

It is anticipated that any new services proposed for implementation will be funded through these same programs, with the local match required being provided by the local jurisdiction based on their previously agreed-upon formula.

Chapter 5:
Implementation Plan

Introduction

The Implementation Plan provides a general outline of the steps required to implement the Service and Capital Improvement Plan described in Chapter 4. The first section in this chapter includes a discussion of the major activities for each year of the plan, followed by a capital replacement plan for vehicles, passenger amenities and technology systems.

Transit Development Plan Initiatives by Year

Each planning year covered by the BABS 2022 TDP is listed below (FY2024 – FY2033), followed by the list of improvements scheduled for the year, along with some general implementation steps. Greater detail is provided for short-term projects than for longer-term projects. It should be noted that this schedule has been constructed using currently available information with regard to service priorities and funding constraints. Additional resources or shifting priorities may change this schedule and BABS can address these changes through the annual TDP update process.

FY2024

- Develop list with priority locations for bus stop signs and benches at key stops without shelters.
- Conduct planning and preparations for Saturday service for Blackstone Line.
- Conduct planning and preparations for Town and County Lines, and work with stakeholders to identify potential new stops in Victoria or Kenbridge.
- Conduct planning and preparations for rebranding and modifying Fort Pickett Line.
- Promote new route changes and timetables.

FY2025

- Begin installation of bus stop signs and benches at key stops without shelters.
- Implement Saturday service for Blackstone Line.
- Implement modifications to Fort Pickett Line.
- Implement service reduction for Town and County Lines to SVCC and any other changes within Victoria or Keysville.
- Conduct planning and preparations for later evening hours for Blackstone Line.

- Conduct planning and preparations for a pilot to modify Dinwiddie Express stops and the start/end times and location.
- Promote new route changes and timetables.

FY2026

- Implement later evening hours for Blackstone Line.
- Implement the Dinwiddie Express pilot to 1) modify the route and 2) to change the start/end time and the start location in downtown.
- Implement stop removals and timetable for Dinwiddie Express.
- Conduct planning and preparations for splitting Blackstone Line on Main Street, including timetable changes.
- Conduct planning, outreach, and preparations for a pilot additional morning run for Dinwiddie Express.
- Conduct planning and preparations for Brunswick Express Friday service.
- Conduct planning, outreach, and preparations for a pilot additional morning run for Dinwiddie Express.
- Monitor ridership from FY2025 changes, including Blackstone Line Saturday service.
- Continue installation of bus stop signs and benches at key stops without shelters and continue to assess other locations as appropriate.
- Promote new route changes and timetables.

FY2027

- Implement split of Blackstone Line on Main Street.
- Implement service expansion for Brunswick Express, adding Friday service.
- Implement pilot for an additional morning run for Dinwiddie Express.
- Implement Crewe-Burkeville service expansion to five days a week
- Conduct planning and preparations for Crewe-Burkeville service expansion.
- Contact vendors and peer agencies to gauge capital and operating costs for real-time transit information / smartphone app and work with DRPT to obtain funding if needed.
- Assess need for second vehicle to Blackstone Line and conduct any planning and preparations.
- Monitor changes implemented in FY2026, particularly with Blackstone Line later hours and the Dinwiddie Express pilot.
- Assess whether Dinwiddie Express additional morning run should be continued.

FY2028

- Add second vehicle to Blackstone Line.
- Begin adding real-time transit information.

FY2029

- Prepare for a full TDP Update.

FY2030

- Conduct a full TDP Update.

FY2031- FY2033

- Begin implementing projects recommended within the FY2030 TDP.

Capital Needs

Vehicle Replacement and Expansion Plan

This section presents details of the vehicle replacement and expansion plan, including vehicle useful life standards and estimated costs. A vehicle replacement and expansion plan is necessary to maintain a high-quality fleet and to dispose of vehicles that have reached their useful life. The capital program for vehicles was developed by applying FTA/DRPT vehicle replacement standards to the current vehicle fleet which was presented in Chapter 1.

Useful Life Standards

The useful life standards used by the FTA were developed based on the manufacturer's designated vehicle life cycle and the results of independent FTA testing. The standards indicate the expected lifespans for different vehicle types. If vehicles are allowed to exceed their useful life, they become much more susceptible to break downs, which may increase operating costs and decrease the reliability of scheduled service. With some exceptions for defective vehicles, DRPT/FTA funds are not typically available to replace vehicles that have not yet met the useful life criteria. The FTA's vehicle useful life policy for a number of different vehicle types is shown in Table 5-1. DRPT's useful life policy mirrors the FTA useful life policy.

Table 5-1: FTA Rolling Stock Useful Life Policy

Vehicle Type	Useful Life
Light Duty Vans, Sedans, Light Duty Buses and All Bus Models Exempt from Testing Under 49 CFR, part 665	Minimum of 4 Years or 100,000 Miles
Medium, Light Duty Transit Bus	Minimum of 5 Years or 150,000 Miles
Medium, Medium Duty Bus	Minimum of 7 Years or 200,000 Miles
Small, Heavy Duty Transit Bus	Minimum of 10 Years or 350,000 Miles
Large, Heavy Duty Transit Bus, including over the road coaches	Minimum of 12 Years or 500,000 Miles

SOURCE: FTA CIRCULAR 5100.1: BUS AND BUS FACILITIES FORMULA PROGRAM GUIDANCE

Vehicle Replacement Plan – Baseline Estimate

All of BABS's revenue service vehicles are cutaway vehicles, with a minimum useful life of five to seven years. These vehicles have gasoline engines. Table 5-2 provides the existing fleet inventory with the estimated calendar year that each vehicle is eligible for replacement. The operating condition of the vehicles and the availability of funding will dictate the actual replacement year.

In addition to helping BABS and DRPT plan future fleet needs, this vehicle replacement plan will also feed DRPT's transit asset management plan (TAM), which is an FTA-required plan that must include an asset inventory; condition assessments of inventoried assets; and a prioritized list of investments to improve the state of good repair of its capital assets.[1] The TAM requirements establish state of good repair standards and four state of good repair performance measures.

Table 5-2: BABS Transit Vehicle Inventory and Replacement Schedule

Vehicle/Equipment Description	Year	Fleet Number	Mileage	Estimated Replacement Year
Chevrolet Express 4500	2010	16	139,958	2026
Ford E450	2015	5	212,031	2025
Ford E350	2017	21	282,001	2024

[1] Federal Register, Volume 81, No. 143, Tuesday July 26, 2016, Rules and Regulations, DOT, FTA, 49 CFR Parts 625 and 630, Transit Asset Management; National Transit Database.

Vehicle/Equipment Description	Year	Fleet Number	Mileage	Estimated Replacement Year
Ford E450	2018	22	256,334	2024
Ford E450	2018	23	189,525	2025
Ford E450	2019	27	171,539	2024
Ford Explorer (support vehicle)	2010	50	60,095	2031
Ford Expedition (support vehicle)	2020	52	7,816	*
Ford E250 HD Pick-Up (support vehicle)	2014	804	27,310	*
Ford E350	2016	19	132,264	2026
Ford E450	2019	24	83,848	2026
Ford E450	2017	20	113,916	2027
Ford E450	2019	25	43,268	2028
Ford E450	2019	26	36,533	2028
Ford E450	2022	29	41,309	2027
Ford E450	2020	28	55,227	2027

* PROJECTED MILEAGE UNDER THE USEFUL LIFE THRESHOLD SO NO REPLACEMENT DATE WAS LISTED.

Vehicle Replacement Plan

The annual schedule for vehicle replacement, based on the implementation schedule provided in this chapter and the FTA's vehicle useful life standards, is shown in Table 5-3. No expansion vehicles are expected.

This vehicle replacement schedule is based on estimates; actual vehicle purchases may vary depending upon service changes, funding availability, and unexpected economic shifts. Changes to this vehicle replacement schedule can be made by Graham Transit within its annual TDP update letter to DRPT, if needed.

Table 5-3: BABS Transit Vehicle Replacement Schedule

Number of Vehicles	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032	FY2033
Replacement	3	2	3	3	2					
Expansion					1					
Non-Revenue									1	
Total Vehicles	**3**	**2**	**3**	**3**	**3**	**0**	**0**	**0**	**1**	**0**

Estimated Vehicle Costs

The estimated vehicle replacement costs are presented in Table 5-4. These costs are based on vehicle costs experienced by BABS in FY2019. The town did not purchase vehicles in FY2020. For FY2021 to FY2030 a four percent inflationary factor was applied each year. These cost estimates were used to develop the capital budget, which is included with the Financial Plan in Chapter 6. The plan includes the replacement of four revenue vehicles (one of them twice), and one non-revenue vehicle. Potential funding programs for replacement vehicles include Federal Appalachian Development Assistance Program; DRPT's Capital Assistance Program; and local funds. All service vehicles purchased will be lift- or ramp-equipped.

Table 5-4: Estimated Costs of New Vehicles

Fiscal Year	Body-On-Chassis	Support Vehicle
2024	$80,000	$35,000
2025	$83,200	$36,400
2026	$86,528	$37,856
2027	$89,989	$39,370
2028	$93,589	$40,945
2029	$97,332	$42,583
2030	$101,226	$44,286
2031	$105,275	$46,058
2032	$109,486	$47,900
2034	$113,865	$49,816

Passenger Amenities

Passenger Shelters

The TDP includes the addition of five shelters that are to be funded through BABS's Capital Reserve Fund and FTA Section 5311 grants. These are included within BABS's ten-year TDP capital budget (Chapter 6). These are the funds allocated for shelters by route:

- Blackstone Route (7 shelters for $98,000)
- Town and County Lines and Brunswick Express ($76,000)
- Crewe/Burkeville Route ($57,000)
- Amelia-Prince Edward PAT and Buckingham-Cumberland PAT Routes ($76,000)

Passenger Stop Signs

The TDP includes the addition of stop signs that are to be funded through BABS's Capital Reserve Fund and FTA Section 5311 grants. These are included within BABS's ten-year TDP capital budget (Chapter 6). These are the funds allocated for stop signs by route:

- Town and County Line and Brunswick Express (18 new signs for $2,700)
- Amelia-Prince Edward PAT and Buckingham-Cumberland PAT (Replace 20 stop signs for $3,000)

Technology and Equipment

The routine replacement of computer hardware and software is included in the plan, as are shop equipment and spare parts. The TDP includes the addition of technology upgrades that are to be funded through BABS's Capital Reserve Fund and FTA Section 5311 grants. These are included within BABS's ten-year TDP capital budget (Chapter 6). Upgrades include:

- GPS tracking for buses ($75,000)
- New phones ($10,000)

Chapter 6:
Financial Plan

Introduction

This chapter provides a financial plan for funding existing and proposed BABS transit services for the TDP's ten-year planning period. The projects indicated in Years 1-3 should be considered short-term, those in Years 4-7 are considered mid-term, and those planned for Years 8-10 should be considered long-term projects. The financial plan addresses both operations and capital budgets, focusing on the project and capital recommendations that were highlighted in Chapter 4 and the implementation schedule and capital needs highlighted in Chapter 5.

It should be noted that over the course of the ten-year period there are a number of unknown factors that could affect transit finance, including: the future economic condition of the Blackstone area region and the local funding partners; the availability of funding from the Federal Transit Administration; and the availability of funding from the Commonwealth Transportation Fund.

Operating Expenses and Funding Sources

Table 6-1 provides the financial plan for the operation of BABS services under the ten-year plan. The table summarizes the annual operating expenses for the existing transit program; provides operating cost estimates for the service projects that are recommended; and identifies the funding sources associated with these service projects.

A number of assumptions used in developing the operating cost estimates:

- The projected cost per revenue hour and the operating costs to maintain the current level of service assume a 4 percent annual inflation rate. Note that the fiscal year the proposed service improvement is planned for utilizes current dollar projections.

- For FY2024, the first year of the plan, the expenses and revenues are based on BABS FY2024 budget and then the 4 percent annual inflation increase the subsequent years.

- It is understood that none of the funding partners are committing to these funding levels, but that they are planning estimates. Specific funding amounts for each year will be determined during the annual SYIP adoption and budget cycle for the Commonwealth and the local funding partners.

Potential Operating Funding Support

Both FTA and DRPT provide a myriad of funding for operating expenses for eligible public transportation services. Currently, BABS applies FTA Section 5311: Formula Grants for Rural Areas. DRPT uses a performance-based methodology to determine the specific allocation of operating assistance funds to each operating transit agency. The program funds no more than 30 percent of all operating expenses borne by public transportation operators. Demonstration project assistance as well as technical assistance grant support are available.

Demonstration Project Assistance

DRPT's demonstration project assistance program is a competitive grant program that supports local efforts to improve transit reliability, access to housing and employment centers, and public transportation mobility options.

The projects that are eligible for the program include:

- ***New Service:*** The deployment of new traditional public transportation services in an area not currently served by public transportation or in a currently served area that will provide additional connections.

- ***Technology and Innovation:*** The deployment of projects designed to test the "proof of concept" for new technologies used in the provision of public transportation services, including deployment or testing of autonomous vehicle technology, a microtransit demand response system, and new Intelligent Transportation Systems (ITS) solutions that would augment the provision of service and/or data collections.

Technical Assistance

DRPT's technical assistance grant program supports studies, plans, research, data collection, and evaluation projects to help improve public transportation services. This includes providing technical analysis and guidance on operations, service delivery, customer service, expansions of service, and program delivery.

Table 6-1: BABS TDP Financial Plan for Operations

Projects	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032	FY2033
Projected Operating Expenses (1)										
Current Level of Service	$717,630	$746,335	$776,189	$807,236	$839,526	$873,107	$908,031	$944,352	$982,126	$1,021,411
TDP Improvements (2)										
Blackstone Line – Increased Saturday Service		$7,275	$7,566	$7,869	$8,183	$8,511	$8,851	$9,205	$9,573	$9,956
Fort Pickett Line – Route Adjustments		$0	$0	$0	$80	$0	$0	$0	$0	$0
Town and County Transit – Route Adjustments		$0	$0	$0	$80	$0	$0	$0	$0	$0
Blackstone Line – Later Evening Hours			$36,500	$37,960	$39,478	$41,058	$42,700	$44,408	$46,184	$48,032
Dinwiddie Express – Route Adjustments			$12,885	$13,400	$13,936	$14,494	$15,074	$15,677	$16,304	$16,956
Blackstone Line – Split into Two Routes				$0	$80	$0	$0	$0	$0	$0
Brunswick Express – Add Friday Service				$15,500	$16,120	$16,765	$17,435	$18,133	$18,858	$19,612
Dinwiddie Express – Additional Morning Run				$82,000	$85,280	$88,691	$92,239	$95,928	$99,766	$103,756
Crewe - Burkeville Route – Weekly Service				$27,000	$28,080	$29,203	$30,371	$31,586	$32,850	$34,164
Blackstone Line – Add Second Vehicle					$530,600	$551,824	$573,897	$596,853	$620,727	$645,556
Total Projected Operating Expenses	**$717,630**	**$753,610**	**$833,140**	**$990,965**	**$1,561,204**	**$1,623,652**	**$1,688,598**	**$1,756,142**	**$1,826,388**	**$1,899,443**

Projects	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032	FY2033
Percent Change Year by Year		**5%**	**11%**	**19%**	**58%**	**4%**	**4%**	**4%**	**4%**	**4%**
Anticipated Revenue and Subsidies	**FY2024**	**FY2025**	**FY2026**	**FY2027**	**FY2028**	**FY2029**	**FY2030**	**FY2031**	**FY2032**	**FY2033**
Passenger Revenue	$42,644	$31,983	$33,262	$34,593	$35,977	$37,416	$38,912	$40,469	$42,087	$43,771
Subtotal, Revenue	$42,644	$31,983	$33,262	$34,593	$35,977	$37,416	$38,912	$40,469	$42,087	$43,771
Net Deficit	$674,986	$721,627	$799,877	$956,372	$1,525,227	$1,586,236	$1,649,686	$1,715,673	$1,784,300	$1,855,672
Federal Funds	$337,493	$360,814	$399,939	$478,186	$762,614	$793,118	$824,843	$857,837	$892,150	$927,836
State Funds	$168,747	$180,407	$199,969	$239,093	$381,307	$396,559	$412,421	$428,918	$446,075	$463,918
Local Funds	$168,747	$180,407	$199,969	$239,093	$381,307	$396,559	$412,421	$428,918	$446,075	$463,918
Subtotal, Subsidies	***$674,986***	***$721,627***	***$799,877***	***$956,372***	***$1,525,227***	***$1,586,236***	***$1,649,686***	***$1,715,673***	***$1,784,300***	***$1,855,672***
Total Projected Operating Revenue and Subsidies	**$717,630**	**$753,610**	**$833,140**	**$990,965**	**$1,561,204**	**$1,623,652**	**$1,688,598**	**$1,756,142**	**$1,826,388**	**$1,899,443**

(1) BASED ON FY2023 BUDGET TIMES INFLATION RATE.

(2) PLANNED IMPROVEMENT EXPENSE USES CURRENT DOLLARS AND SUBSEQUENT YEARS TIMES INFLATION RATE.

Capital Expenses and Funding Sources

DRPT has implemented a capital assistance prioritization process that allows DRPT to allocate and assign limited resources for projects that are deemed the most critical.[1] DRPT's capital program now classifies, scores, and prioritizes projects into the following categories:

- **State of Good Repair (SGR) -** Includes projects and programs that replace or rehabilitate existing assets.

- **Minor Enhancement (MIN) -** Includes projects and programs to add capacity, new technology, or a customer facility, and meet the following criteria:
  - Total project cost of less than $2 million; or
  - Vehicle expansion of not more than 5 vehicles or 5% of the existing fleet size, whichever is greater.

- **Major Expansion (MAJ) -** Includes projects or programs that add, expand, or improve service with a cost exceeding $2 million or for expansion vehicles, an increase of greater than 5 vehicles or 5 percent of fleet size, whichever is greater.

The following three types of projects are exempt from the prioritization scoring process:

- Capital projects that do not receive any state transit capital funding contribution.
- Debt service agreements approved in previous fiscal years.
- Track lease payments and capital cost of contracting requests.

The TDP for BABS includes projects in the SGR and MIN categories, as described below.

State of Good Repair

Eligible activities for funding under State of Good Repair Include[2]:

Replacement/Rehabilitation of:

- Vehicles/rolling stock (buses, vans, rail cars, support vehicles, etc.)
- Administrative/maintenance facilities
- Customer amenities (parking facilities, bus shelters, benches, signage)
- Any other specific existing pieces of equipment and/or technology that **do not** fall into the Special Asset Categories**

[1] DRPT, Making Efficient Responsible Investments in Transit (MERIT), Capital Assistance – Program Prioritization, FY 23 Technical Documentation.

[2] DRPT, Making Efficient Responsible Investments in Transit (MERIT), Capital Assistance – Program Prioritization, FY 21 Technical Documentation.

**** Special Asset Categories:**

- Tools: All tools needed to provide maintenance services (i.e., new/replacement tools, tool cabinets).
- Maintenance Equipment: All equipment needs to maintain vehicles, infrastructure, and/ or other assets (i.e., bus lift, tire mounting device, forklifts).
- Spare Vehicle/Rail Parts: All spare vehicle and rail parts that will be used to maintain assets in working order that are not part of a larger rehabilitation project (i.e., alternators, transmissions, engines, seats, windows, gas tanks).
- Building/Facility Items and Fixtures: All individual, small facility parts and fixtures that are being replaced outside of a larger rehabilitation project (i.e., concrete floors, stairs, escalators, hand dryers, fans, lighting systems).
- Grouped Assets/Programs of Projects (less than $2 million): Includes large groups of assets that cannot be broken down into subcomponents (i.e., general SGR purchase of parks or track). Does not include grouped or program of projects for vehicle rehab or replacement.
- Other Financial Tools: Includes funds for needed capital investments that cannot be scored as a replacement/rehabilitation (i.e., capital cost of contracting, track lease payments, debt service on previously approved projects).

Federal and state matching ratios for SGR projects are currently as follows: federal – 80 percent; state – 16 percent. The estimated expenses and funding sources for the SGR projects for the TDP period are provided in Table 6-2. Technical assistance grants are 50 percent state and 50 percent local.

Minor Enhancements

Eligible investments under the Minor Enhancement (MIN) category include:

- Fleet expansion (fewer than 5 vehicles or 5% of fleet)
- New customer amenities (parking facilities, bus shelters, benches, accessibility improvements, signage)
- New equipment and technology
- New small real estate acquisition
- Capital project development less than $2 million (engineering and design, construction management)
- All assets that fall in the Special Assets Categories (listed below)

Additional Funding Sources

There are multiple funding options beyond what has been identified earlier in the chapter that could help bring costs down for the proposed improvements – though some might require a local match.

Virginia SMART SCALE

SMART SCALE is a process that helps Virginia meet its most critical transportation needs using limited tax dollars. It evaluates potential transportation projects based on key factors like how they improve safety, reduce congestion, increase accessibility, contribute to economic development, promote efficient land use, and affect the environment. The anticipated benefits are calculated and the projects are scored and ranked. This information is used by the Commonwealth Transportation Board to help guide and inform their project selection decisions.

SMART SCALE projects are mostly capital, but BABS could work with the localities to include sidewalk improvements and bus stop infrastructure if they are submitting funding for a project through an applicable corridor. Projects must meet a VTrans Need to be eligible for this funding, but some VTrans needs do exist in Blackstone. This program has no local match requirement and is 100 percent funding if selected.

Virginia DOT Transportation Alternatives Program (TAP)

The program is intended to help local sponsors fund community based projects that expand nonmotorized travel choices and enhance the transportation experience by improving the cultural, historical and environmental aspects of the transportation infrastructure. The program does not fund traditional roadway projects or provide maintenance for these facilities. Instead it focuses on providing pedestrian and bicycle facilities, community improvements and mitigating the negative impacts of the highway system. This program is 80 percent state and 20 percent local match dependent.

Table 6-2: BABS - State of Good Repair Projected Capital Expenses and Funding

	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032	FY2033
Vehicle Replacements										
Body-on-Chassis	3	2	3	3	2					
Vans					1					
Support Vehicles									1	
Sub-Total Replacement Vehicles	**3**	**2**	**3**	**3**	**3**	**0**	**0**	**0**	**1**	**0**
Replacement Vehicles Costs	**$240,000**	**$166,400**	**$259,584**	**$280,766**	**$303,677**	**$0**	**$0**	**$0**	**$47,900**	**$0**
Other Replacement/Rehabilitation										
Computer/Technology Replacements	$2,000	$2,080	$2,163	$2,250	$2,340	$2,433	$2,531	$2,632	$2,737	$2,847
Total SGR Expenses	**$242,000**	**$168,480**	**$261,747**	**$283,016**	**$306,016**	**$2,433**	**$2,531**	**$2,632**	**$50,637**	**$2,847**
Anticipated Funding Sources - Current Federal/State/Local Matching Ratios										
Federal	$193,600	$134,784	$209,398	$226,413	$244,813	$1,947	$2,025	$2,105	$40,510	$2,277
State	$38,720	$26,957	$41,880	$45,283	$48,963	$389	$405	$421	$8,102	$455
Local	$9,680	$6,739	$10,470	$11,321	$12,241	$97	$101	$105	$2,025	$114
Total Funding	**$242,000**	**$168,480**	**$261,747**	**$283,016**	**$306,016**	**$2,433**	**$2,531**	**$2,632**	**$50,637**	**$2,847**

NOTES:

- FUTURE VEHICLE REPLACEMENT PURCHASES ARE ASSUMED TO BE FUNDED AS FOLLOWS: 80% FEDERAL; 16% STATE; AND 4% LOCAL.
- VEHICLE PRICES INCLUDE INFLATION AND ARE BASED ON THE VEHICLES DESCRIBED IN CHAPTER 5.

Table 6-3: BABS - Minor Enhancements Projected Capital Expenses and Funding

Capital Need	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032	FY2033
Bus Stop Signs	$27,000	$30,000								
Bus Shelters and Benches	$98,000	$76,000	$57,000	$76,000						
GPS Tracking for Buses				$75,000						
Office Phones	$10,000									
Real-Time Schedule Information					$254,400	$14,400	$14,976	$15,575	$16,198	$16,846
Microtransit					$208,000	$8,000	$8,320	$8,653	$8,999	$9,359
Total MIN Expenses	**$135,000**	**$106,000**	**$57,000**	**$151,000**	**$462,400**	**$22,400**	**$23,296**	**$24,228**	**$25,197**	**$26,205**
Anticipated Funding Sources- Current Federal/State/Local Matching Ratios (1)										
Federal	$108,000	$84,800	$45,600	$120,800	$369,920	$17,920	$18,637	$19,382	$20,158	$20,964
State	$21,600	$16,960	$9,120	$24,160	$73,984	$3,584	$3,727	$3,876	$4,032	$4,193
Local	$5,400	$4,240	$2,280	$6,040	$18,496	$896	$932	$969	$1,008	$1,048
Total Funding	**$135,000**	**$106,000**	**$57,000**	**$151,000**	**$462,400**	**$22,400**	**$23,296**	**$24,228**	**$25,197**	**$26,205**

NOTE: FUNDING SPLIT ASSUMED TO REMAIN 80% FEDERAL; 16% STATE; AND 4% LOCAL.

Total Capital Expenses over TDP Timeframe

The combined SGR and MIN budgets for the TDP period are provided in Table 6-4.

Table 6-4: BABS Capital Budget – FY2024 - FY2033

SGR	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032	FY2033
Replacement Vehicles	$240,000	$166,400	$259,584	$280,766	$303,677	$0	$0	$0	$47,900	$0
Computer/Technology Replacements	$2,000	$2,080	$2,163	$2,250	$2,340	$2,433	$2,531	$2,632	$2,737	$2,847
Total SGR Expenses	**$242,000**	**$168,480**	**$261,747**	**$283,016**	**$306,016**	**$2,433**	**$2,531**	**$2,632**	**$50,637**	**$2,847**
MIN										
Bus Stop Signs	$27,000	$30,000	$0	$0	$0	$0	$0	$0	$0	$0
Bus Shelters and Benches	$98,000	$76,000	$57,000	$76,000	$0	$0	$0	$0	$0	$0
GPS Tracking for Buses	$0	$0	$0	$75,000	$0	$0	$0	$0	$0	$0
Office Phones	$10,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
Real-Time Schedule Information	$0	$0	$0	$0	$209,400	$14,400	$14,976	$15,575	$16,198	$16,846
Microtransit	$0	$0	$0	$0	$212,000	$12,000	$12,480	$12,979	$13,498	$14,038
Total MIN Expenses	**$135,000**	**$106,000**	**$57,000**	**$151,000**	**$421,400**	**$26,400**	**$27,456**	**$28,554**	**$29,696**	**$30,884**
TOTAL CAPITAL EXPENSES	**$377,000**	**$274,480**	**$318,747**	**$434,016**	**$727,416**	**$28,833**	**$29,987**	**$31,186**	**$80,333**	**$33,731**
Anticipated Funding Sources- Current Federal/State/Local Matching Ratios (1)										
Federal	$301,600	$219,584	$254,998	$347,213	$581,933	$23,067	$23,989	$24,949	$64,267	$26,985
State	$60,320	$43,917	$51,000	$69,443	$116,387	$4,613	$4,798	$4,990	$12,853	$5,397
Local	$15,080	$10,979	$12,750	$17,361	$29,097	$1,153	$1,199	$1,247	$3,213	$1,349
Total Funding	**$377,000**	**$274,480**	**$318,747**	**$434,016**	**$727,416**	**$28,833**	**$29,987**	**$31,186**	**$80,333**	**$33,731**

NOTE: FUNDING SPLIT ASSUMED TO REMAIN 80% FEDERAL; 16% STATE; AND 4% LOCAL.

Appendix A
Blackstone Area Bus System Survey - Transit Passenger Survey

Blackstone Area Bus System Survey

Scan for survey

1. Which bus route are you riding?

- ❑ Blackstone
- ❑ Crewe-Burkeville Express
- ❑ Town & County Transit
- ❑ Buckingham-Cumberland
- ❑ Brunswick Express
- ❑ Amelia-Prince Edward
- ❑ Dinwiddie Express
- ❑ Fort Pickett Line

2. Where did you board the bus? Indicate an intersection or place (such as Walmart).

_____

3. How did you get to this bus stop?

❑ Walked ❑ Caught a ride ❑ Rode another bus: _____
❑ Bicycle ❑ Other: _____

4. Did you or will you TRANSFER to another bus today?

❑ Yes ❑ No

5. What is the purpose of your trip today?

❑ Work ❑ School ❑ Shopping/Errands ❑ Social/Recreation
❑ Medical ❑ Governmental/Social Service ❑ Other: _____

6. How often do you generally ride the bus?

❑ 5-6 days a week ❑ 3-4 days a week ❑ 1-2 days a week
❑ Less than once a week ❑ Less than once a month

7. If you were not taking the bus, how would you make this trip?

❑ Drive ❑ Walk ❑ Bicycle ❑ Family/Friends ❑ Wouldn't make trip
❑ Taxi ❑ Uber/Lyft ❑ Carpool/Vanpool ❑ Other: _____

8. Are there locations where you need to go that BABS does not serve?

❑ Yes (where?_____) ❑ No

9. If the bus system was not available, would you still have taken this trip?

❑ Yes ❑ No

10. If the bus system was not available, would it affect your ability to live independently?

❑ Yes ❑ No

continued on back ☞

11. Do you have a driver's license?

❑ Yes ❑ No

12. Do you, or anyone in your household, own a car?

❑ Yes ❑ No

If Yes, was a car available today for this trip?

❑ Yes ❑ No

13. If BABS made improvements, what would be most useful to you? Please choose up to 2.

❑ Better timeliness
❑ More frequent service
❑ Faster, more direct routes
❑ More Saturday service
❑ Sunday service
❑ Service later in the evenings
❑ Service earlier in the mornings
❑ More shelters and benches at stops
❑ Bicycle racks on buses
❑ Improved bus stop accessibility
❑ On-demand service using my smartphone
❑ Other: _____

14. Of the following non-cash fare payment options, which one would be the most convenient for you?

❑ Use of credit/debit card
❑ Tokens
❑ Pre-paid fare card
❑ Smart phone payment app

15. What do you like BEST about BABS?_____

16. What would you like BABS to improve?_____

17. Any other comments?

Please answer a few questions about yourself. These are for reporting purposes only.

What is your zip code? _____

How old are you?

❑ Under 18 ❑ 18-24 ❑ 25-34 ❑ 35-54 ❑ 55-64 ❑ 65+

Do you have an internet enabled "smart" phone? ❑ Yes ❑ No

Which one of the following best describes your race? (check all that apply)

❑ White/Caucasian ❑ African American/Black ❑ Asian ❑ Prefer not to answer
❑ American Indian/Alaskan Native ❑ Native Hawaiian/Pacific Islander ❑ Hispanic/Latino

What is your employment status? (check all that apply)

❑ Employed (Full-time) ❑ Student (Full-time) ❑ Retired ❑ Unemployed
❑ Employed (Part-time) ❑ Student (part-time) ❑ Homemaker ❑ Other

What is your annual household income? (optional)

❑ $14,999 or less ❑ $15,000 - $29,999 ❑ $30,000 - $44,999

Thank you!