TRANSIT STRATEGIC PLAN

FAIRFAX COUNTY

FISCAL YEAR 2023 THROUGH FISCAL YEAR 2033

APPROVED BY THE FAIRFAX COUNTY BOARD OF SUPERVISORS ON DECEMBER 5, 2023

Transit Strategic Plan Overview

The Fairfax County Transit Strategic Plan (TSP) is a comprehensive roadmap for improving transit services over 10 years. It aims to create an equitable, safe, reliable, clean, and effective public transportation system that benefits Fairfax County residents, workers, and visitors. The plan is a culmination of community engagement and planning efforts undertaken by the Fairfax County Department of Transportation (FCDOT) over several years to improve its Fairfax Connector fixed-route bus transit system.

The TSP is designed as a dynamic and adaptable document, subject to annual updates and a revision every five years. This allows for flexibility and continuous improvement in response to changing mobility needs. The plan incorporates input gathered through multiple rounds of public engagement and collaboration with Technical Advisory and Community Stakeholder Advisory groups. The plan also considers recent and upcoming regional initiatives that will affect the provision of transit service in Fairfax County in the next decade.

The TSP recommends service improvements across Fairfax County to address the community priorities, including increased bus frequency, extended service hours, more direct routes for faster travel, and improved connectivity across the county. The improvements will create more transit options and foster stronger connections among communities, businesses, essential services, education, employment and retail in the region.

Chapter 1 provides an overview of Fairfax Connector's services and strategic initiatives. This includes the strategic vision, goals, and objectives; transit service standards and guidelines; and performance standards.

Chapter 2 presents a system performance and operations analysis that was used to identify opportunities for improvement, such as better service to underserved areas and collaboration with neighboring transit providers.

Chapter 3 outlines planned service improvements and modifications based on the strategic vision, community priorities, and analysis from previous chapters. Recommendations were identified through FCDOT's iterative and performance-based Bus Service Review Studies.

Chapter 4 summarizes an implementation plan for the capital improvements, such as vehicles, facilities, and technology, needed to support the existing and planned service.

Chapter 5 contains a financial plan of projected costs and anticipated funding sources.

Appendices to the TSP contain background information, summary sheets and maps of bus route improvements, financially unconstrained service improvements, and summaries of public outreach conducted throughout the planning process.

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System Overview and Strategic Vision

1. System Overview and Strategic Vision

This chapter provides a high-level overview of Fairfax Connector's services and strategic priorities.

1.1 System Overview

Located in Fairfax County fewer than 15 miles west of Washington, D.C., Fairfax Connector (Connector) is a locally owned and controlled fixed-route bus transit system. The transit system is managed by the Fairfax County Department of Transportation (FCDOT) with day-to-day operations, supervision, and maintenance provided by a private contractor. Connector provides services covering the majority of Fairfax County, Virginia, with a land area of 407 square miles, and an estimated population of 1,164,025 as of 2022[1]. Fairfax County includes the three incorporated towns of Clifton, Herndon, and Vienna, as well as several notable census-designated places such as Huntington, Franconia, Reston, Springfield, and Tysons. The independent cities of Fairfax and Falls Church are not included in these demographics, although Connector does operate service through those municipalities as well as through neighboring jurisdictions such as Arlington County, the City of Alexandria, and the District of Columbia.

Fairfax County is home to many large employment centers with seven companies employing more than 5,000 employees each, including Inova Health System with more than 10,000 employees[2]. The Federal government is the largest employer in Fairfax County, with Fort Belvoir being the county's single largest location of federal employment. Additionally, Fairfax County is home to several other federal institutions and facilities, most notably the Central Intelligence Agency (CIA) Headquarters in McLean (Langley) in addition to Fort Belvoir. Other noteworthy federal agencies headquartered in the County include the United States Fish & Wildlife Service in Bailey's Crossroads, the National Reconnaissance Office (NRO) in Chantilly, and the United States Geological Survey (USGS) in Reston.

Connector is a fixed-route bus system, funded by County General Funds that are partially reimbursed by grants from the Virginia Department of Rail and Public Transportation (DRPT), Northern Virginia Transportation Commission's (NVTC) Commuter Choice Program, and supplemented by fare revenue and other funding partners such as the Wolf Trap Center for the Performing Arts (Route 480) and the Central Intelligence Agency (partially funding Routes 721 and 722). The following subsection describes existing Connector services, as well as other regional transportation services. Additional details about the services provided and areas served can be found in **Appendix A**.

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[1] Fiscal Year 2022 National Transit Database (NTD) Report

[2] Major Employers in Fairfax County Fact Sheet (January 2023), Fairfax County Economic Development Authority

1.1.1 Services Provided and Areas Served

EXISTING FAIRFAX CONNECTOR SERVICES

Fairfax Connector implements service changes, often several times a year, to respond to changes in demand and opportunities for improvement. For example, recent service changes included new Reston-Herndon bus service that began on November 16, 2022 and the new Route 660 that began on February 4, 2023. Service summary measures presented here represent a snapshot of service during the development of the Transit Strategic Plan (TSP).

As of April 2023, Fairfax Connector operated 94 fixed bus routes—23 routes in the Reston-Herndon area, 36 routes in the Chantilly-Centreville-Vienna-Tysons area, 27 routes in the Franconia-Springfield area, and 8 routes in the Huntington area. **Figure 1-1** shows the coverage provided by existing Connector bus routes and locations of transit services provided by other operators in the region. It should be noted that Route 480 (Wolf Trap Express) operates only during special events and does not offer regular weekday service. Of the 93 routes that offered regular weekday service, 38 routes offered rush hour or peak-only service compared to 46 routes that offered all-day service. Additionally, 41 routes offered Saturday service and 38 routes offered Sunday service (see **Table 1-1**).

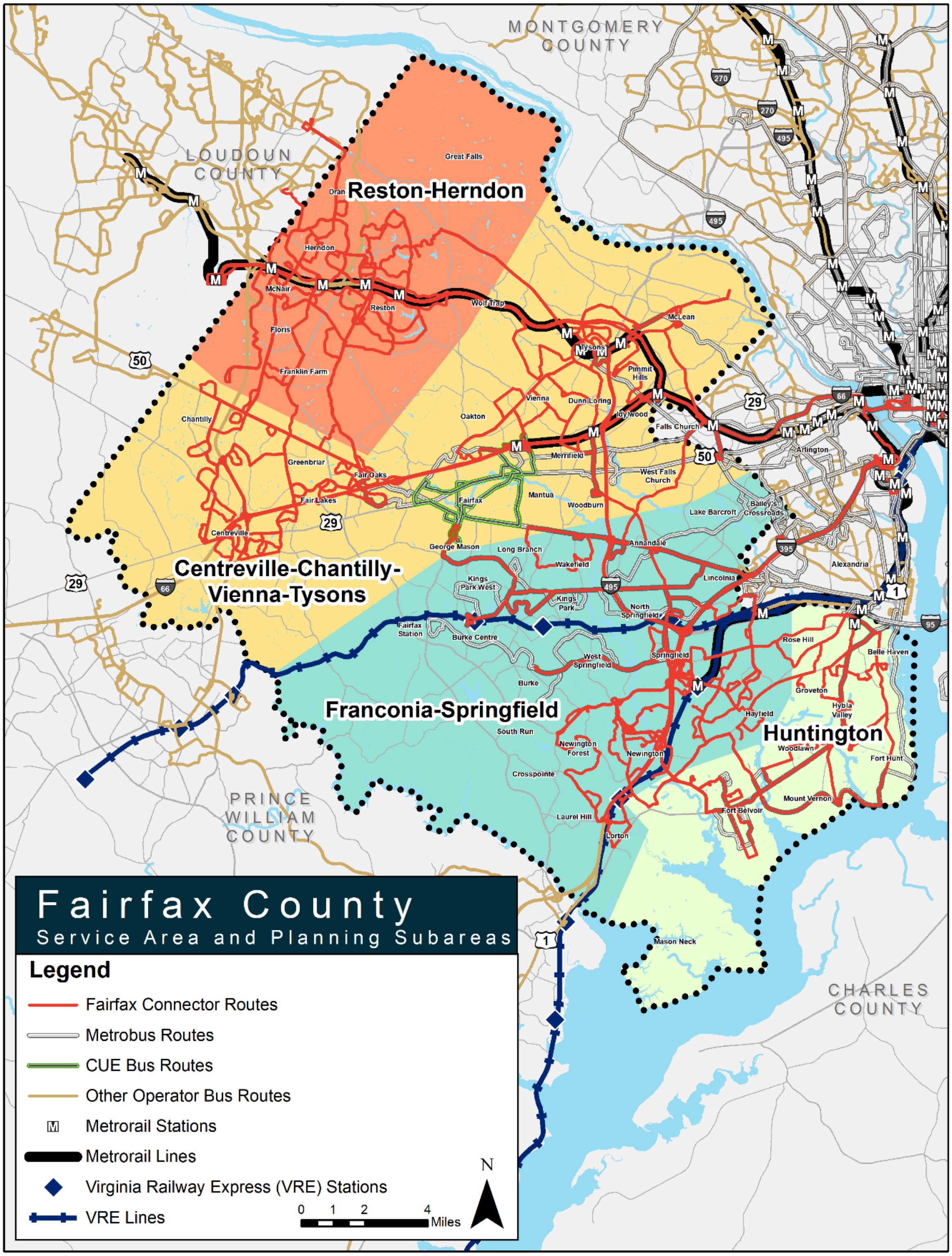
TABLE 1-1: FAIRFAX CONNECTOR ROUTE BY SERVICE TYPE

Route Type	Number of Routes
Weekday	93
All-Day	46
Peak-Only	38
Saturday	41
Sunday	38
Special	1

Source: Fairfax County DOT, April 2023.

Fairfax Connector serves most residential and commercial areas within the County; however, service does not extend to the lowest-density residential areas of the County which are difficult to serve by fixed-route transit cost-effectively. In compliance with the Americans with Disabilities Act (ADA) requirements, all Fairfax Connector vehicles are low-floor and equipped with wheelchair-accessible ramps. These systems are routinely tested by operations and maintenance staff to ensure a safe and equitable rider experience for all Connector passengers.

FIGURE 1-1: FAIRFAX CONNECTOR SERVICE AREA



Sources: Fairfax County DOT and Kimley-Horn, April 2023.

OTHER FAIRFAX COUNTY TRANSPORTATION SERVICES

Fairfax County Neighborhood and Community Services (Human Services Transportation)

The County's Neighborhood and Community Services department provides transportation services and resources for older adults, low-income individuals, individuals with disabilities, and individuals accessing Fairfax County Human Services who need transportation assistance. These transportation services include Fastran and the Taxi Voucher Program.

Fastran offers transportation to and from critical medical care facilities and provides other vital resources for older adults and individuals with intellectual or physical disabilities[3]. Destinations include adult day health care centers, the Recovery Women's Center, senior centers and residences, support services and worksites, and recreational activities for individuals with intellectual or physical disabilities. Services may have associated fees based on a sliding scale.

The Taxi Voucher Program provides discounted taxi vouchers for eligible residents of Fairfax County and the City of Fairfax, allowing qualified users access to affordable, safe, and flexible transportation[4]. The program includes three qualifying options:

- **Seniors On-The-Go!** – for Fairfax County and City of Fairfax residents aged 65 or older with individual incomes at or below $40,000 ($50,000 for a married couple)
- **TaxiAccess** – for Fairfax County and City of Fairfax residents who are registered MetroAccess users
- **Dial-A-Ride** – for Fairfax County and City of Fairfax residents with annual income at or below 225% of the current poverty level

REGIONAL TRANSPORTATION SERVICES

Washington Metropolitan Area Transit Authority

The Washington Metropolitan Area Transit Authority (WMATA) operates heavy rail, bus, and paratransit services in Fairfax County via Metrorail, Metrobus, and MetroAccess, respectively.

METRORAIL

WMATA's Metrorail provides service along four heavy rail lines in Fairfax County—Blue Line, Orange Line, Silver Line, and Yellow Line. The Blue and Yellow Lines each provide service at one station within Fairfax County at each line's southern terminus—Franconia-Springfield station on the Blue Line and Huntington station on the Yellow Line. Additionally, the Van Dorn Street station on the Blue Line is located on the County's boundary with the independent City of Alexandria. The Orange Line provides service at three stations in Fairfax County including Vienna/Fairfax-GMU (western terminus), Dunn Loring-Merrifield, and West Falls Church stations before joining the Silver Line to operate on concurrent tracks east toward the District of Columbia. The Silver Line currently provides service at eight stations in Fairfax County including the Innovation Center, Herndon, and Reston Town Center stations that opened in November

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[3] Fastran: https://www.fairfaxcounty.gov/neighborhood-community-services/transportation/fastran

[4] Taxi Voucher Program: https://www.fairfaxcounty.gov/neighborhood-community-services/transportation/tops

2022, and the Wiehle-Reston East, Spring Hill, Greensboro, Tysons, and McLean stations that opened in July 2014.

METROBUS

WMATA's Metrobus currently provides fixed-route bus service for 31 routes in Fairfax County[5]. Many of these routes connect to Metrorail stations and provide parallel service along high-capacity corridors such as US Route 1, Columbia Pike, US Route 50, US Route 29, and Little River Turnpike. Major areas served include Tysons-McLean, Annandale, Fairfax-Vienna, Burke, and Huntington[6].

METROACCESS

WMATA's MetroAccess provides shared-ride, door-to-door, paratransit service for users who are unable to independently navigate bus and/or rail service due to a disability. Trips must begin or end within a ¾-mile distance from the nearest bus stop or Metrorail station in the "Transit Zone" which consists of the District of Columbia, Montgomery and Prince George's Counties in Maryland, Arlington and Fairfax Counties in Northern Virginia, and the independent cities of Alexandria, Fairfax, and Falls Church. Additional information can be found in the MetroAccess Customer Guide[7].

Virginia Railway Express

The Virginia Railway Express (VRE) is a commuter rail operator providing service on two lines (Fredericksburg Line and Manassas Line), which provide service in the I-95 and I-66 travel sheds from the periphery of the Washington, D.C., metropolitan area primarily during weekday peak periods[8]. Within Fairfax County, VRE provides service at five stations with the Fredericksburg Line serving the Lorton and Franconia-Springfield stations and the Manassas Line serving the Burke Centre, Rolling Road, and Backlick Road stations. Free surface and/or garage parking is available at all stations except for Franconia-Springfield, which has paid parking maintained by WMATA.

Passengers transferring from the VRE system to a Fairfax Connector bus are allowed a free, one-way transfer when boarding at a VRE station. Passengers must display valid VRE fare media (passes, tickets). Passengers returning on a Fairfax Connector bus to a VRE station are required to pay the full, applicable bus fare.

VRE additionally offers a cross honor agreement with Amtrak[9] to allow VRE multi-ride passengers the ability to use Amtrak-operated trains listed on VRE schedules. VRE riders must have a valid Virginia Railway Express – Transit Link Card or Monthly, Five-Day, or Ten-Trip

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[5] As of June 2023

[6] WMATA Virginia System Map: https://www.wmata.com/schedules/maps/upload/WEB_WMA_MAG_VA_21x34_230625.pdf

[7] WMATA MetroAccess Customer Guide: https://www.wmata.com/service/accessibility/metro-access/upload/MetroAccess-Customer-Guide.pdf

[8] VRE System Map: https://www.vre.org/service/map/

[9] VRE Cross Honor Agreements: https://www.vre.org/service/amtrak/

tickets accompanied by a Step-Up ticket to board Amtrak trains. The sole Amtrak station in Fairfax County is located at Burke Centre.

City-University Energysaver

The City of Fairfax operates the City-University Energy Saver (CUE) bus system, providing fixed-route bus service to George Mason University, various retail locations in the City of Fairfax, and the Vienna/Fairfax-GMU Metrorail station[10]. CUE operates four routes (Green 1, Green 2, Gold 1, and Gold 2), and all vehicles are fully accessible to persons with disabilities.

OmniRide

The Potomac and Rappahannock Transportation Commission (PRTC) operates OmniRide transit services from Prince William County into Fairfax County. This includes separate routes from Woodbridge, Gainesville, and Manassas to Tysons and from Dale City/Woodbridge to Franconia-Springfield Metrorail station. These provide connection opportunities to Fairfax Connector at the Metrorail station.

Loudoun County Transit

Loudoun County Transit also provides service into Fairfax County. This includes Silver Line bus routes and local routes from various locations in Loudoun County to Innovation Center and Reston Town Center Metrorail stations and a local route connection to Dranesville. These provide connection opportunities to Fairfax Connector routes in Reston, Herndon, and Dranesville.

Shuttle Services

Multiple organizations operate shuttle services in Fairfax County, including businesses, residences, and educational institutions. One such example is the George Mason Shuttle Service which provides free transportation for students, faculty, and staff with a valid Mason ID.

1.1.2 Current/Recent Initiatives

The development of the Transit Strategic Plan was largely conducted during the proliferation of the novel coronavirus (COVID-19) throughout the United States and the world in 2020 and 2021. While these impacts may be reflected in shorter-term planning, the TSP is largely a high-level, long-term strategic visioning document. The overarching priorities reflected in this document will remain constant, regardless of specific objectives that may need to be adjusted at a future time to reflect the uncertain long-term changes to the provision of transit services that may arise from the COVID-19 public health emergency.

COVID-19 has had several recent operational impacts on Fairfax Connector service that were considered in the context of this plan. Connector reduced service levels effective Saturday April 11, 2020. Connector continued to provide regular service on 38 routes; provided reduced service on 14 routes; and discontinued service on 41 routes at that time. Full service resumed on all routes beginning on Saturday, August 29, 2020 including implementation of two new

[10] CUE System Map: https://www.fairfaxva.gov/government/public-works/transportation-division/cue-bus-system/cue-bus-map-and-schedule

routes—697 and 722. As a result, service data for fiscal year 2020 represent atypical conditions due to reduced ridership levels while travel behaviors for many people were altered. Ridership trends are explored further in **Chapter 2 - System Performance and Operations Analysis.**

Beginning Tuesday, March 24, 2020, Connector customers were required to enter and exit the bus using the rear doors. This did not apply to customers who need to use a wheelchair ramp. Fare collection on buses was also temporarily suspended due to the location of fareboxes at the front entrance of buses. Fare collection and front door boarding resumed normal operations on January 4, 2021. Resumption of fare collection was made possible with the installation of protection barriers between the bus driver and passengers at the farebox in 2020.

Table 1-2 summarizes Connector's ongoing and recent initiatives which impact the provision of transit services. Additional details can be found in **Appendix A**.

TABLE 1-2: SUMMARY OF FAIRFAX CONNECTOR INITIATIVES

Initiative	Summary
Marketing Survey (2018-2019)	A marketing survey of Fairfax County residents to evaluate ridership changes and to ascertain the attitudes of Connector riders and non-riders toward the system and its strategies
On-Board Survey (2019)	An on-board survey of Fairfax Connector customers in the Vienna, Tysons, Huntington, Franconia-Springfield, and Reston-Herndon areas to collect demographic, travel pattern, passenger behavior and tendencies, and origin-destination information for future planning purposes
Bus Service Review Studies	Studies to understand how shifting demographics and employment have affected travel patterns and to evaluate efficient and effective service opportunities for improvements to bus routes. Subareas of the county are studied on a recurring basis and service improvements are incorporated into the Transit Strategic Plan.
Franconia-Springfield (2018)	Preferred Plan developed
Reston-Herndon (2019)	Preferred Plan developed
Centreville-Chantilly-Vienna-Tysons (2020/2021)	Preferred Plan developed. Alternative development began in December 2020 and Preferred Plan developed concurrently with the TSP process.
Huntington (2020/2021)	Preferred Plan developed. Long-term recommendations made as part of the Richmond Highway Bus Rapid Transit (BRT) feeder plan (short- and mid-term recommendations developed as part of the TSP)

Initiative	Summary
Richmond Highway Bus Rapid Transit Project (Ongoing)	A plan for the design and construction of a bus rapid transit system along the Richmond Highway (US Route 1) Corridor from Fort Belvoir to the Huntington Metrorail station
Alternative Transit Study (2020)	A study to identify flexible transit options which could be implemented in areas of Fairfax County where traditional fixed-route transit is not an efficient means of providing service
Title VI Program Update (2023)	A revisit of the Major Service Change and Disparate Impact and Disproportionate Burden (DI/DB) policies every three years and revisions as necessary.
Autonomous Electric Shuttle Pilot Project (2020-2023)	Public-private partnership with Dominion Energy and other local and state entities to test an autonomous electric shuttle between the Mosaic District and the Dunn Loring Metrorail station, which concluded in June 2023. Fairfax County is considering options for future autonomous pilot services.
Metrorail Silver Line – Phase II (2022)	Final construction phase of the WMATA Metrorail Silver Line, extending the existing rail line from Reston through the Dulles International Airport to its western terminus in Ashburn (Loudoun County), which opened on November 15, 2022.

Fairfax Connector has been a stakeholder for several regional transit initiatives that influence future provisions of transit services in the County. **Table 1-3** summarizes these other regional transit initiatives.

TABLE 1-3: SUMMARY OF REGIONAL INITIATIVES

Initiative	Summary
Washington Area Bus Transformation Project	Plan to transform bus service in the Washington region and improve service and customer experience, creating a more cohesive system that works for riders. The Strategy and Action Plan outline a new vision and series of recommendations to guide the future of bus service in the region.
Better Bus Network Redesign	A collaborative planning effort led by WMATA to design and deliver a bus network that better meets customer needs and expectations. The Bus Network Redesign will deliver a near-term package of service changes as well as a mid-range Visionary Network that advances community and regional goals. Implementation of the new network is expected to begin in 2025.
Commuter Choice	Program administered by the Northern Virginia Transportation Commission (NVTC) that invests toll revenues in public transit and other multimodal projects along two expressway corridors, I-66 and I-395/95. Projects are selected through a competitive process.
I-495/American Legion Bridge Transit/Transportation Demand Management (TDM)	A joint study conducted by Virginia Department of Rail and Public Transportation (DRPT) and Maryland Department of Transportation Maryland Transit Administration (MDOT MTA) of current and potential future multimodal solutions that could be implemented to enhance travel across the American Legion Bridge.
I-495 Southside Transit/TDM Study	A study conducted by DRPT of potential future multimodal solutions that could be implemented to enhance travel on the I-495 Southside corridor between the Springfield interchange and Maryland Route 210.

1.2 Strategic Vision

Fairfax County's 2013 Comprehensive Plan provided the basis for the goals, objectives, and strategies that were adopted in Connector's FY 2016-2022 Transit Development Plan (TDP) which have been updated within this Transit Strategic Plan. Updates were informed by both past and ongoing public engagement as well as the 2017 update to the Comprehensive Plan and One Fairfax, a joint social and racial equity policy of the Fairfax County Board of Supervisors and School Board. This policy commits the County to considering equity in the provision of its services to ensure that all residents have equitable opportunities, regardless of race, color, sex, nationality, sexual orientation, religion, disability, income, or where they live, and Connector strives for its strategic visioning to reflect those same commitments.

Fairfax Connector's vision is to provide equitable, safe, reliable, clean, and effective public transportation service that complements the other elements of the multi-modal transportation system in Fairfax County.

Previous and recurring public survey efforts, discussed in greater detail in **Section 2.1**, identified the primary service improvement needs: frequency, service hours, travel time, connectivity, and information.

- Riders and non-riders alike desire **increased frequency** of buses
- **Increased span of service** outside of peak commuting hours
- More direct routes and fewer transfers for **faster travel times**
- More cross-county connections and reverse-commute routes for **increased coverage and connectivity**
- Accurate real-time information

These takeaways from the public and stakeholder outreach conducted in Winter 2020/2021 for the TSP, past Marketing and On-Board surveys, and multiple rounds of outreach through the Bus Service Review Studies from 2019 to 2023 informed the updates to Connector's goals and objectives in this section.

1.2.1 Goals and Objectives

Four themes, each with corresponding goals and objectives, have been identified that support Fairfax Connector's strategic vision:

CHOICE

Goal 1: Accommodate both through and local movement of people via Fairfax Connector as a component of a multi-modal transportation system that provides transportation choices and, consequently, reduces single-occupancy vehicle usage and improves air quality

- **Objective 1.1**: Increase transit access to large employment sites and retail centers
- **Objective 1.2**: Support the County's designated higher-density, mixed-use developments through the provision of transit service that facilitates internal and external trips

QUALITY

Goal 2: Provide high-quality public transportation service that meets the needs of County residents, workers, and visitors

- **Objective 2.1**: Increase the use of Fairfax Connector for all types of trips, including during both peak commute periods and off-peak periods
- **Objective 2.2**: Increase the proportion of commute trips made by transit, contributing to a reduction in the use of single-occupancy vehicles for commuting
- **Objective 2.3**: Improve the speed, quality, reliability, and convenience of transit service
- **Objective 2.4**: Increase awareness of public transportation

EFFICIENCY

Goal 3: Facilitate efficient and cost-effective movement of people as part of a multi-modal transportation system that provides transportation choices

- **Objective 3.1**: Enhance access to Fairfax Connector
- **Objective 3.2**: Reduce travel times for trips made by Fairfax Connector
- **Objective 3.3**: Maintain and enhance cost-effectiveness of Fairfax Connector service
- **Objective 3.4**: Increase on-time performance
- **Objective 3.5**: Maintain and enhance connections to other local and/or regional public transportation providers

SAFETY

Goal 4: Ensure safety for users of Fairfax Connector facilities and services and for the general public

- **Objective 4.1**: Adequately maintain County transit vehicles and other County transit facilities in a state of good repair
- **Objective 4.2**: Actively promote a safety culture
- **Objective 4.3**: Maintain a low number of safety and security-related incidents
- **Objective 4.4**: Enhance maintenance resources wherever possible
- **Objective 4.5**: Utilize best practices and provide the best available safety and security training for all employees

1.2.2 Transit Service Standards and Guidelines

In order to guide the equitable provision of services and amenities and to ensure sustained operations, Fairfax Connector has developed a set of service standards and policies. These service standards are used for service monitoring under Title VI of the Civil Rights Act of 1964 (as amended).

In addition, the County has service design guidelines that it uses to inform the provision of transit service. While it is always the goal of Connector to adhere to these guidelines, doing so can be limited by financial constraints as well as the overall transit environment. As such, these guidelines are benchmarks rather than requirements. They provide an objective basis for decision-making and are composed of criteria that measure both the quantity and quality of Connector services.

Service standards and guidelines are organized into four categories: (1) coverage, scheduling, and route planning; (2) transit amenities; (3) reliability; and (4) safety and security.

COVERAGE, SCHEDULING, AND ROUTE PLANNING

Service Availability *(Standard)*

Service availability is a measure of coverage, indicating how many residents in a service area have access to fixed-route transit. FCDOT sets a standard whereby **at least 50 percent of the Fairfax County's population are within a quarter-mile walking distance of a local route alignment or express route stop**. In terms of trade-offs, service availability is often a balance of coverage versus frequency. As the total service area increases, the cost of maintaining higher frequencies often increases accordingly.

Span (Guideline)

Fairfax Connector's spans of service generally reflect the system hours and the periods of time in which bus services are available. **Table 1-4** summarizes the spans of service Connector offers for each type of route.

TABLE 1-4: SPAN OF SERVICE GUIDELINE

Route Type	Span of Service
Full-Day Routes	
Weekday	5:00 a.m. – 10:00 p.m.
Saturday	6:00 a.m. – 9:00 p.m.
Sunday	8:00 a.m. – 8:00 p.m.
Weekday Peak-Only Routes	
Morning	5:00 a.m. – 9:00 a.m.[11]
Afternoon	3:00 p.m. – 7:00 p.m.[12]

Since the spans of service above are guidelines and not standards, Fairfax County has flexibility to apply them based on the purpose of the route and the connections it provides. For example,

[11] These reflect arrival times at the relevant Metrorail station. Note that buses need to arrive shortly before 5:00 a.m. at the outer terminal stations and slightly later at the downstream stations.

[12] These reflect departure times from the relevant Metrorail station.

a weekday peak-only route may provide service to a trip generator that generates demand at specific times within the peak period.

Vehicle Headway *(Standard)*

Vehicle headway, or frequency, represents the amount of time between two vehicles traveling in the same direction on a given route. While higher frequencies result in shorter customer wait times and are thus desirable, they are costly due to the required amount of buses and operators to maintain the desired headways. As such, balancing frequency and cost-effectiveness are important. **Table 1-5** summarizes the minimum frequency Fairfax Connector has set for each type of route. These vehicle headway standards were developed as part of Fairfax Connector's previous Transit Development Plan (TDP) for fiscal years 2016-2022 and are maintained in this superseding Strategic Plan. They are also used for Fairfax County's Title VI service monitoring[13].

TABLE 1-5: MINIMUM VEHICLE HEADWAYS

Route Type	Minimum Frequency	
	Peak	Off-Peak
Full-Day Routes		
Weekday	30 minutes	30 minutes (60 minutes after 9:00 p.m.)
Saturday	30 minutes (base[14])	60 minutes (fringe[15])
Sunday	60 minutes	60 minutes
Weekday Peak-Only Routes		
Morning	20 minutes (peak of the peak)	30 minutes (fringe of the peak)
Afternoon		

Road Types and Routing *(Guideline)*

Fairfax Connector generally strives to operate its buses on arterial streets with adequate pedestrian infrastructure (e.g., sidewalks) and limited on-street parking. Direct routing is desirable, except in unique circumstances when significant generators are present away from main corridors.

Bus Stop Locations *(Guideline)*

Connector bus stops are located following the *Fairfax County Bus Stop Guidelines* published in July 2004. Bus stops are located to maximize pedestrian access whenever possible. **Table 1-6** provides a summary of bus stop spacing criteria.

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[13] https://www.fairfaxcounty.gov/connector/titlevi

[14] Saturday base is defined as 9:00 a.m. to 5:00 p.m.

[15] Saturday fringe is defined as before 9:00 a.m. and after 5:00 p.m.

TABLE 1-6: BUS STOP SPACING GUIDELINES

Density Class	Criteria
High density (750-foot spacing)	Primarily commercial with a high concentration of employment, or with a population density of more than five per acre
Moderate density (1,000-foot spacing)	Population density of two to five people per acre
Low density (spacing based on activity centers rather than distance)	Population density of less than 2 people per acre

TRANSIT AMENITIES

Bus Shelters *(Guideline)*

A bus shelter may be installed at stops with an average of **50 or more boardings per day**, at a transit center or park and ride lot owned by Fairfax County, or if the stop is at a major activity center.

Benches (Guideline)

Benches with pads may be installed if the stop is located at a transit center or park and ride lot or if the stop is a major activity center, generating **25 or more passenger boardings per day**, or at stops located near significant populations of seniors, the disabled, students, or other special uses (e.g., tourist attractions).

Passenger Information *(Guideline)*

Bus stop signs should be installed at all locations. These signs consist of two variations: local and regional (for stops jointly served by WMATA's Metrobus) designs. Each bus stop has a unique bus stop ID that can be used for BusTracker real-time arrival and route information available via phone and internet applications. Rider information displays containing schedule and system maps should be installed at all transit stations and park and ride lots with designated Fairfax Connector service bays.

Escalators and Elevators *(Guideline)*

Fairfax Connector does not generally provide or maintain escalators or elevators at any bus stops with a few exceptions. Fairfax County maintain escalators and elevators at the Wiehle-Reston East Metrorail station garage and elevators at the Innovation Center Station garage, Herndon-Monroe garage, and Burke Centre garage. The County will also maintain elevators at the new Monument Drive Commuter Parking Garage and the Springfield Community Business Center (CBC) Commuter Parking Garage which are both anticipated to open in 2023.

Waste Receptacles *(Guideline)*

Waste receptacles are installed at all stops with a demonstrated issue with littering.

RELIABILITY

On-Time Performance *(Standard)*

For all Fairfax Connector riders, particularly those who rely on it as their main mode of transportation, it is essential that buses show up at their scheduled and anticipated times. Late buses inconvenience riders and can have serious ramifications for riders traveling to major appointments like job interviews and medical exams. On-time performance is a measure of this expectation of reliability.

Connector requires its operating contractor to maintain a systemwide standard of **85 percent of all trips for each route** to be "on-time," which is defined as being **between one minute early and six minutes late** at each timepoint. Maintaining this standard is essential to a positive customer experience and ensuring that Connector has a reputation for consistently reliable service.

SAFETY AND SECURITY

Vehicle Load *(Standard)*

Vehicle load is the level of passenger crowding that is acceptable for a safe and comfortable ride. This is expressed as a ratio of the number of passengers on the vehicle to the number of seats on the vehicle averaged over the peak one-hour in the peak direction. Fairfax Connector uses different vehicle load factors for its commuter/express and local services. **Table 1-7** shows the maximum load factors for both commuter and local services. **The standard for commuter/express services is 1.00**, representing one passenger per seat because these services often operate on limited-access highways which would pose a safety hazard for standing passengers. **The load factor for local services is 1.25**, as these services generally do not operate on limited access highways and the safety hazard to standing passengers is somewhat reduced.

TABLE 1-7: MAXIMUM ACCEPTABLE VEHICLE LOADS

Service Type	Maximum Load Factor
Commuter Services	1.00
Local Services	1.25

1.2.3 Performance Standards

Fairfax Connector uses a two-tiered approach to performance monitoring. Connector routinely conducts systemwide and route-level performance monitoring.

SYSTEMWIDE PERFORMANCE MONITORING (TIER ONE)

A performance-based evaluation methodology—or *six-band analysis*—has been developed to identify operational inefficiencies. This six-band analysis incorporates a scoring structure that can be used to evaluate performance across any metric and rank the top and bottom-performing routes in the system. Connector uses the following metrics in its six-band analysis:

- Passengers per Vehicle Revenue Hour
- Passengers per Vehicle Revenue Mile
- Passengers per Trip
- On-Time Performance

The scoring procedure is as follows:

- For each metric, a systemwide mean and standard deviation is defined
- Each route receives a score of 0, 2, 4, 6, 8, or 10 for each metric, with 0 being the worst and 10 the best
- The score attributed to each metric is based on the following methodology, which forms the six bands:
  - More than two standard deviations below the average = 0 points
  - Between one and two standard deviations below the average = 2 points
  - Between the average and one standard deviation below the average = 4 points
  - Between the average and one standard deviation above the average = 6 points
  - Between one and two standard deviations above the average = 8 points
  - More than two standard deviations above the average = 10 points

SUBAREA PERFORMANCE MONITORING (TIER TWO)

While Connector routinely monitors route-level productivity, a more detailed route evaluation methodology is also used in recurring Bus Service Review studies. This process is more applicable to planning potential route changes, but it can also be used as a benchmark to evaluate the performance of existing service. The methodology evaluates the following:

- **Facilities Accessibility**: The number of key points of interest (job centers, education facilities, hospitals, transit centers, Metrorail stations, VRE stations, and park and ride lots) within a walkable service area, define as areas within a quarter mile of one or more local route alignments (or quarter mile of express route stops)
- **Transit Origin-Destination Travel Time**: The estimated transit travel times between popular origin-destination pairs based on route alignment and assumed travel speeds of various transit modes
- **Ridership Potential**: The estimated number of transit riders living within a quarter mile of a local route alignment (or quarter mile of express route stops)

PERFORMANCE STANDARDS SUMMARY

Both tiers of performance monitoring help Connector identify operational inefficiencies, whether at the route level or across a group of routes, in order to meet the performance standards summarized in **Table 1-8**. These standards align with the goals, objectives, and service standards and guidelines set out in previous sections. Several of the key performance indicators rely on a quantitative comparison of a route's performance to the performance of the overall system. These benchmarks are calculated as one standard deviation below or (above in the case of cost efficiency) the average systemwide measure and are evaluated for local and express routes separately as the two types of service have different operating characteristics. For the purposes of performance evaluation, routes are classified as:

- **Local**: service focused on providing connectivity within and between activity centers, as well as between residential areas and activity centers or Metrorail stations.
- **Express**: service focused on long trips or limited stop service delivering commuters more directly to high-employment areas without making regular stops over the trunk of the route.

Routes that do not meet a benchmark may be flagged as an opportunity to improve service; however, low-performing routes by one indicator may also be important for the overall system goals of Connector, like choice. FCDOT typically takes a deeper look at routes with performance outside of two standard deviations. This methodology helps Connector make data-driven and targeted improvements that better serve customers. Performance standards are further discussed and applied in **Chapter 2**.

TABLE 1-8: SUMMARY OF FAIRFAX CONNECTOR PERFORMANCE BENCHMARKS

Service Aspect	Key Performance Indicator	Route Classification	Benchmark
System Accessibility	Fairfax County Population Within Service Area	Systemwide	50% within ¼-mile of local route alignments or express route stops
Ridership	Passengers per Vehicle Revenue Hour	Local	Greater than (systemwide local route average – one standard deviation)
		Express	Greater than (systemwide express route average – one standard deviation)
	Passengers per Vehicle Revenue Mile	Local	Greater than (systemwide local route average – one standard deviation)
		Express	Greater than (systemwide express route average – one standard deviation)
	Passengers per Trip	Local	Greater than (systemwide local route average – one standard deviation)
		Express	Greater than (systemwide express route average – one standard deviation)
	Maximum Vehicle Load Factor	Local	1.25
		Express	1.00
Reliability	On-Time Performance	Local	85% at scheduled time points
		Express	
Cost Efficiency	Operating Cost per Passenger	Local	Less than (systemwide local route average + one standard deviation)
		Express	Less than (systemwide express route average + one standard deviation)
Safety	Bus Collisions	Systemwide	< 2.0 per 100,000 miles
	Customer Injuries	Systemwide	0 requiring immediate medical attention away from the scene
Customer Service	Customer Complaints	Systemwide	< 2.5 complaints per 10,000 passenger trips

2

System Performance and Operations Analysis

2. System Performance and Operations Analysis

2.1 System and Service Data

Connector undergoes service changes multiple times a year so the number of routes can also change over time. For the purpose of the Transit Strategic Plan (TSP), the latest fiscal year (FY) data available at the time of analysis, or FY 2022, was considered as a baseline. All system and service data presented in this section is therefore reflective of FY 2022. The performance and operating and network efficiency evaluation in **Sections 2.3 and 2.4**, however, utilized calendar year (CY) 2019 data to account for seasonal fluctuations in transit use throughout the year and avoid the service and performance anomalies of years impacted by COVID-19.

With a service area of 407 square-miles, Fairfax Connector (Connector) provides fixed-route bus service to the majority of Fairfax County with an estimated population of 1,164,025 as of 2022[16] and population density of approximately 2,860 people per square mile. Fairfax County includes the three incorporated towns of Clifton, Herndon, and Vienna, as well as several notable census-designated places such as Huntington, Franconia, Reston, Springfield, and Tysons. Connector also operates service through the independent cities of Fairfax and Falls Church as well as neighboring jurisdictions such as Arlington County, the City of Alexandria, and the District of Columbia. A detailed analysis of current and future regional population density is included in **Section 2.2.1**.

During FY 2022, Connector's fixed-route bus service consisted of 100 routes. Since then, service adjustments have occurred, particularly in the Reston and Herndon area, and Fairfax Connector operated 94 fixed bus routes as of April 2023. Connector does not operate paratransit, but additional services are provided in the area by Fairfax County Neighborhood and Community Services (Fastran), Washington Metropolitan Area Transit Authority (WMATA), Virginia Railway Express (VRE), and Fairfax City-University Energysaver (CUE), as discussed in **Chapter 1**.

Connector had a total of 341 revenue vehicles compared to 284 vehicles operated in annual maximum service in FY 2022, as shown in **Table 2-1**.

TABLE 2-1: REVENUE FLEET AND PEAK VEHICLE NEED

Mode	Fleet Size	Peak Vehicle Need
Bus	341	284

Source: FY 2022 National Transit Database Report

2.1.1 Fixed-Route Bus Service

The following section summarizes information on Connector's fixed-route services, including level of service, operating costs, ridership, revenue hours, total hours, revenue miles, and directional route mileage from FY 2022. This is contrasted with the same information after the

[16] FY 2022 National Transit Database Report

Silver Line extension opened and the new Reston and Herndon area bus service began operating on November 16, 2022.

Connector operates fixed-route service seven days a week. In FY 2022, weekday service ran from 3:20 a.m. to 2:29 a.m. with morning and afternoon peak period headways as low as 10 minutes. The most common headway during the peak periods was 30 minutes, though the average headway was lower than that. The most common headway during the midday was 40 minutes. Weekend service was more limited but still operated between 4:25 a.m. and 3:26 a.m. (2:16 a.m. on Sundays). Weekend headways ranged from 20 minutes to 75 minutes. More details on route-level service are provided in **Section 2.4.1**.

Connector defines time periods when designing headways and span of service as follows:

- **AM Early:** 4:00-5:59 a.m.
- **AM Peak:** 6:00-8:59 a.m.
- **Midday:** 9:00 a.m.-2:59 p.m.
- **PM Peak:** 3:00-5:59 p.m.
- **Evening:** 6:00-8:59 p.m.
- **Late Night:** 9:00-11:59 p.m.
- **Other:** 12:00-3:59 a.m.

OPERATING STATISTICS

Fairfax Connector currently conducts all bus operations and maintenance activities from its three operating facilities, including repairing, cleaning, fueling, storing, and staging buses. All three facilities are open 24 hours a day. While one facility is open five days per week, the other two facilities are open seven days a week.

In FY 2022, Fairfax Connector reported operating just over 10.8 million revenue miles and nearly 841,000 revenue hours[17]. **Table 2-2** summarizes daily operational statistics for the October 2022 service schedule, which operated before the Silver Line extension opened and Reston and Herndon area bus route changes were made in November 2022. This information is also summarized in **Table 2-3** for service as of April 2023.

[17] *FY 2022 National Transit Database Report*

TABLE 2-2: OPERATING STATISTICS BY SUBAREA (FY 2022 – PRE-SILVER LINE EXTENSION)

Subarea	Weekday			Total Trips Per Day			Directional Route Mileage
	Total Hours	Revenue Hours[1]	Revenue Miles	Weekday	Saturday	Sunday	
Franconia-Springfield	969	874	11,537	911	297	210	562
Reston-Herndon	855	803	9,767	1,188	631	574	471
Chantilly-Centreville-Vienna-Tysons	787	689	9,869	1,113	393	269	797
Huntington	458	421	5,010	447	281	253	154
Strategic Vehicles	30	25	N/A	N/A	N/A	N/A	N/A
Total	**3,099**	**2,812**	**36,183**	**3,659**	**1,602**	**1,306**	**1,984**

[1]Defined by Fairfax County as the total revenue hours that it pays its contractor for service

Sources: Service Schedule for October 2022. Fairfax County DOT and Kimley-Horn, 2023.

TABLE 2-3: OPERATING STATISTICS BY SUBAREA (FY 2023 – POST-SILVER LINE EXTENSION)

Subarea	Weekday			Total Trips Per Day			Directional Route Mileage
	Total Hours	Revenue Hours[1]	Revenue Miles	Weekday	Saturday	Sunday	
Franconia-Springfield	969	875	11,588	911	297	210	566
Reston-Herndon	848	793	10,018	1,039	651	598	429
Chantilly-Centreville-Vienna-Tysons	858	754	11,426	1,199	393	269	808
Huntington	458	421	5,010	447	281	253	154
Strategic Vehicles	30	25	N/A	N/A	N/A	N/A	N/A
Total	**3,163**	**2,868**	**38,042**	**3,596**	**1,622**	**1,330**	**1,957**

[1]Defined by Fairfax County as the total revenue hours that it pays its contractor for service

Sources: Service Schedule for April 2023. Fairfax County DOT and Kimley-Horn, 2023.

Routes in the Franconia-Springfield area operated the greatest number of weekday total hours and revenue hours of the four subareas. While the longest one-way trip was Route 599 at 23.5 miles, the Chantilly-Centreville-Vienna-Tysons area had the longest overall average one-way trip length due to more long-distance express routes than the other subareas. Further route-level operational analysis is discussed in **Section 2.3.1**. In addition, annual data from historical and FY 2022 National Transit Database (NTD) reports is presented in **Section 2.3.2**.

OPERATING COSTS

An analysis of operating expenses and revenues can help evaluate the cost efficiency of Fairfax Connector operations. **In FY 2022, total operating expenses were approximately $106.2 million, with farebox revenue generating approximately $6.3 million, covering approximately 5.9 percent of the operational costs[18].**

ANNUAL RIDERSHIP

Fairfax Connector served an estimated 7.2 million trips in FY 2022[18]. Ridership in both FY 2018 and FY 2019 leading up to COVID-19 was approximately 8.3 million. Ridership by route is discussed in **Section 2.3.1**.

2.1.2 Route Design and Schedule Standards

Fairfax Connector uses service standards and guidelines as well as performance standards to provide an objective framework for designing and modifying service. The different standards and guidelines plus systemwide and route-level performance monitoring methodologies used by Fairfax Connector are discussed in **Sections 1.2.2** and **1.2.3**. Together, these result in the key performance benchmarks that are used to evaluate routes, as presented in **Table 1-8**. Performance evaluation according to these standards is included in **Section 2.3**.

2.1.3 Survey Results

During the past few years, Fairfax County conducted major survey efforts to understand the current and future community needs related to the Connector system. Two major surveys recently completed were the market survey and the on-board survey. Additional surveys and outreach efforts were conducted via the Bus Service Review studies for various subareas in the County. The 2021 TSP public survey gathered high-level feedback regarding Fairfax Connector services. Findings from the 2021 TSP survey helped validate the vision, goals, and objectives of the TSP. The following section provides an overview of the results and outcomes of each survey effort. Additional details of public outreach conducted to inform the TSP are included in **Appendix F**.

Market Survey and On-Board Survey

The market survey focused on gathering feedback from riders and non-riders regarding Connector service. This survey was conducted in the Fall of 2018 and resulted in 2,624 responses. The results from this survey were used to determine how to attract non-riders and reconnect with lapsed riders.

[18] *FY 2022 National Transit Database Report*

Results from the market survey identified the following quantitative results:

- 1 percent of the County residents see Connector as their primary mode of transportation
- 50 percent of respondents identified Connector as a means of connecting to other public transportation rather than as the sole mode of getting to a final destination
- 68 percent of current users view Connector as a smart way to commute, 53 percent believe it is at a good price, 52 percent view it as a clean mode, and 47 percent view it as reliable

The on-board survey focused on gathering more detailed information on rider use of the system. The County performed an on-board survey from March to May 2019 to understand the demographic of bus riders, determine the origin/destination of the rides, and gather information on service preferences. There were 3,672 respondents to this survey.

Results from the on-board survey identified the following quantitative results:

- 88 percent of the trips occur during the weekday
- 76 percent of riders live in the County
- 71 percent of the trips on a weekday are considered home-based work trips (home to/from work)
- 88 percent of riders walk to transit
- 49 percent of riders use only one Connector route to get to final destination, 36 percent transfer once, and 12 percent transfer twice
- 67 percent of riders identified as minorities (i.e., Black/African American, Hispanic or Latino, Asian, or other)
- 66 percent of riders make a household income of $60,000 or less and are considered low-income
- 59 percent of riders did not have access to a vehicle to make a trip on the day they were surveyed

Overall, the following findings were determined from these two surveys:

- There is a need to realign routes with travel patterns and key community locations
- There is a need to adjust routes to be more direct and reduce unneeded travel patterns
- There is a need to increase service hours on key routes to improve access and mobility
- There is a need to provide additional buses to key routes to increase frequency

Bus Service Review Studies

Additional recurring efforts are the Bus Service Review studies focusing on the Franconia-Springfield, Reston-Herndon, Centreville-Chantilly-Vienna-Tyson (CCVT), and Huntington subareas. Public surveys are an important element of these studies and are used to gather input on specific routes in the subarea to arrive at a preferred overall service plan. Surveys were conducted from 2018 through 2023 for these studies.

2021 TSP Survey

The 2021 TSP survey gathered feedback from January 1, 2021 to February 19, 2021. There was a total of 2,901 respondents. The survey was available online and allowed community members to ask further questions or provide comments via phone call, email, and mail. The survey was tailored to frequent, non-frequent, and non-riders in Fairfax County. It consisted of three major sections: travel patterns, opportunities for improvements, and optional demographic information. While the market and on-board surveys utilized statistical sampling, the TSP survey did not and was intended to solicit opinions and preferences from participants.

The travel patterns section of the survey identified how often the respondent currently uses Connector, will use Connector in the future, their origin/destination zip codes, and reasons why they may not ride Connector. Overall, the results showed:

- Roughly equal number of frequent, occasional, and non-riders responded to the survey
- Respondents expect to ride Fairfax Connector more in the future
- The top reasons occasional and non-rider respondents do not use Fairfax Connector were (1) the bus does not come frequently enough, (2) preference of other travel modes, (3) the bus does not travel when they want, and (4) service is not available where they start or end their trips
- The majority of frequent rider respondents (75 percent) were satisfied or very satisfied with Connector service

The opportunities for improvement section helped identify features of Connector service that would make Connector a more appealing travel option. Ideally, all forms of transit service would be available to everyone. However, the reality is that there are constraints with budget, operations, capacity, etc. Tradeoff questions were used to understand what the community would prioritize or prefer if a decision had to be made about providing certain transit services. Overall, the results showed:

- A slight preference for frequency over coverage especially among frequent riders (see **Figure 2-1)**
- A slight preference for walking over waiting especially among frequent riders (see **Figure 2-2**)
- A preference for all-day service over peak-only service especially for occasional riders (see **Figure 2-3**)
- A willingness to transfer buses if a shorter overall trip time can be achieved (see **Figure 2-4**)
- A moderate preference for local service over inter-jurisdictional service (see **Figure 2-5**)

FIGURE 2-1: PREFERENCE OF FREQUENCY OR COVERAGE

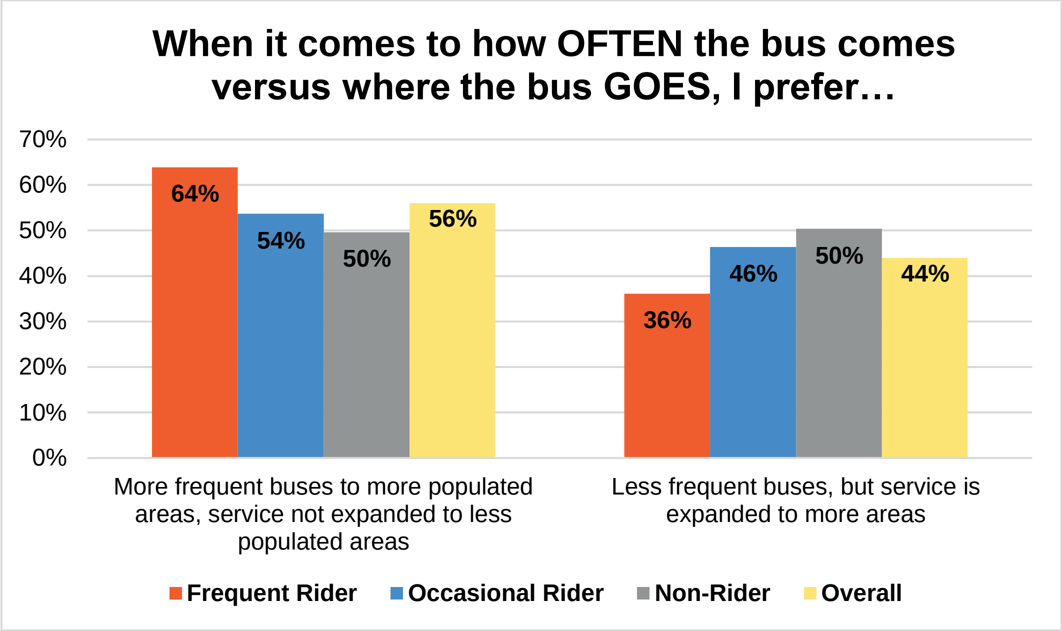


FIGURE 2-2: PREFERENCE OF WALKING TO THE BUS STOP OR WAITING FOR THE BUS

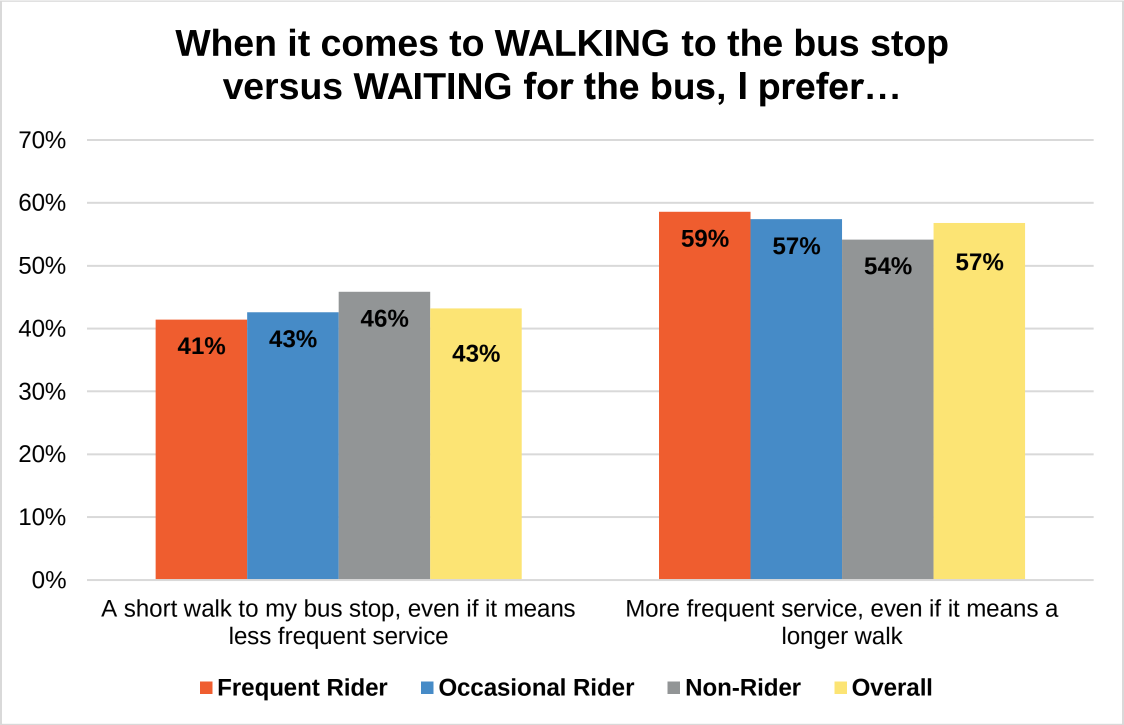


FIGURE 2-3: PREFERENCE OF PEAK OR ALL-DAY SERVICE

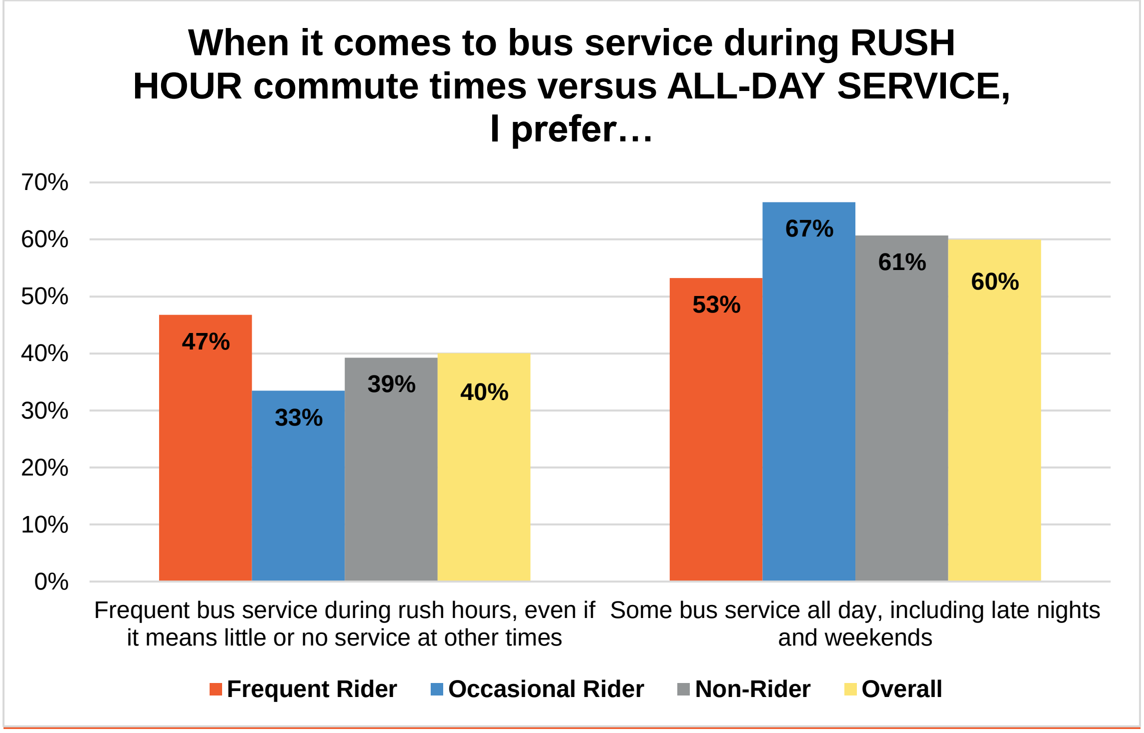


FIGURE 2-4: PREFERENCE OF TRANSFERRING BUSES OR A DIRECT RIDE

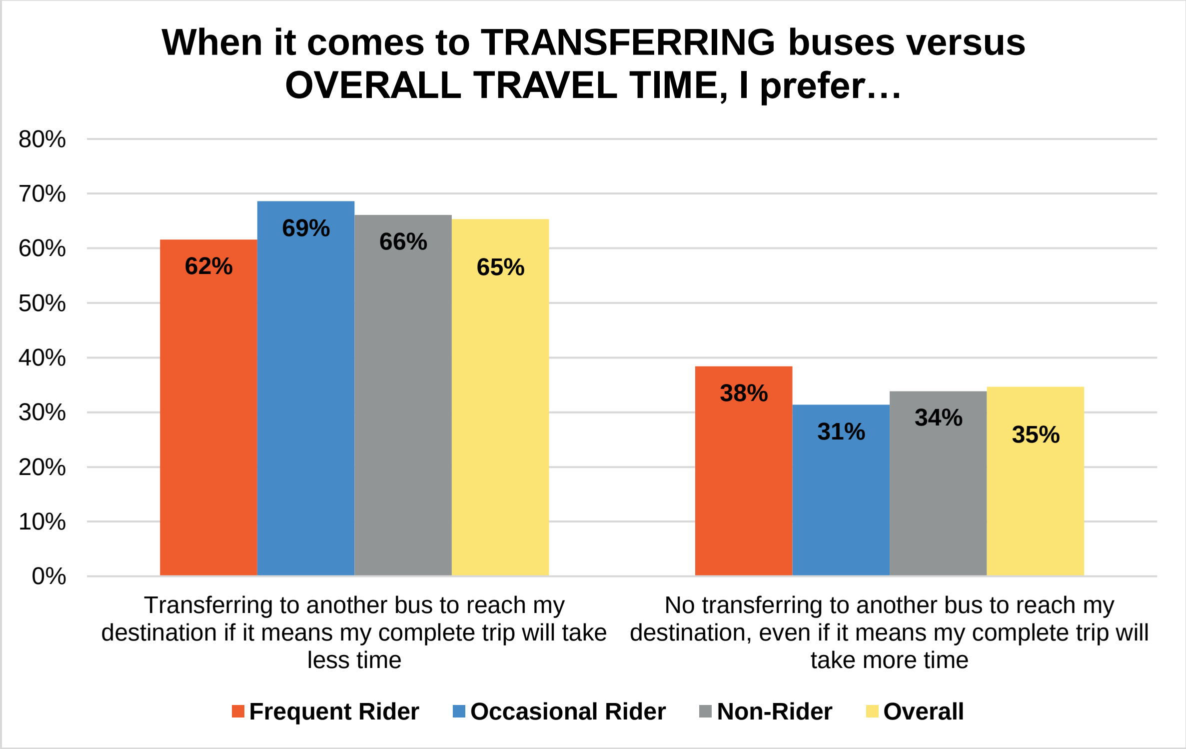
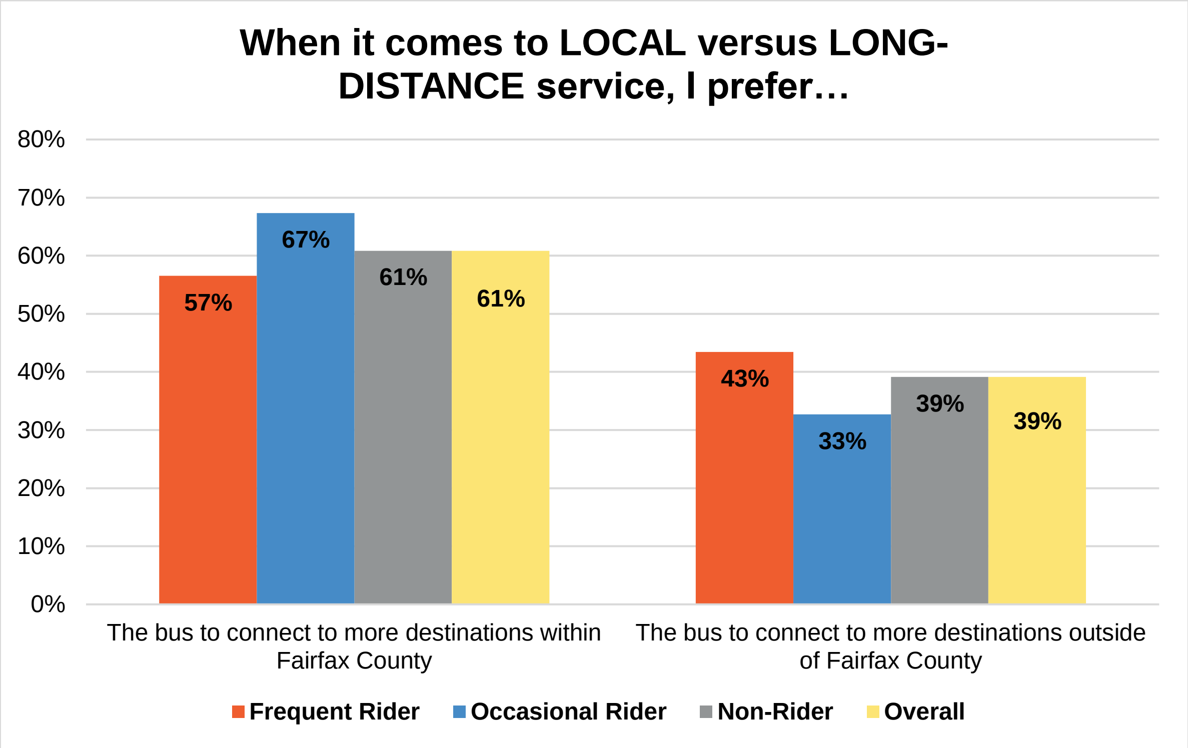


FIGURE 2-5: PREFERENCE OF LOCAL SERVICE OR INTER-JURISDICTIONAL SERVICE



2.1.4 Support for Transit

Within the region, there is strong support for transit overall and specifically for Fairfax Connector service. Localities within and surrounding the Fairfax Connector service area have transit-supportive land use policies or strategies in their comprehensive plans, reflecting a regional desire to link land use and transportation.

Current efforts to improve and transform transit service, including bus service, within the region are also reflected in several of the Fairfax Connector initiatives and regional initiatives mentioned in **Table 1-2** and **Table 1-3**. For example, the Autonomous Electric Shuttle Pilot Project was in partnership with Dominion Energy and other local and state entities and shows support for improving transit connections in the Fairfax Connector service area through innovative approaches. Furthermore, partnerships with other transit agencies in the area such as WMATA demonstrate regional support for comprehensive and well-connected transit service.

Fairfax Connector also has ongoing initiatives to gauge support for transit from key stakeholders and the public. As discussed in **Section 2.1.3**, Fairfax Connector has conducted major surveys, studies, and public outreach efforts over the past several years. Connector routinely engages with business and community stakeholder groups, as was done during the development of this TSP. The results of these efforts have helped shape Fairfax Connector's actions, including service changes. As part of this TSP, the involvement of over 3,000 individuals, companies and organizations during community engagement showed support for transit within the community.

2.2 Evaluation of Transit Market Demand and Underserved Areas

2.2.1 Transit Demand and Underserved Area Evaluation

The following market analysis maps the current and projected population and employment density of Fairfax County to determine demand for different types of transit services throughout Fairfax County. The market analysis includes:

- Population/Employment Trends
- Transit-Oriented Population Origins Propensity Index
- Commuter Origins Propensity Index
- Workplace Destinations Propensity Index
- Activity Destinations Propensity Index

This analysis was conducted for the TSP prior to the opening of the Silver Line extension and the associated Fairfax Connector service changes in the Reston and Herndon area that began on November 16, 2022.

TRANSIT DEMAND

This section provides an overview of how population and employment densities in Fairfax County will likely change over time. These metrics are not only a good indicator of where transit makes the most sense now, but also where a transit system could successfully grow in the future. Current land use designations (**Figure 2-6**) correlate with existing population and employment densities. Designated employment centers such as Tysons, Merrifield, and Reston-Herndon are where higher levels of employment density exist. The majority of the county is designated as low to medium-density residential, and this is reflected in the population densities being less than 15 people per acre within these areas.

2020 Population Density

Public transportation is most efficient when it connects population and employment centers where people can easily walk to and from bus stops. Transit accessibility is generally limited to within one-quarter mile to one-half mile of a bus stop, or a 10-minute walk. For this reason, the size of a transit travel market is directly related to an area's total population and population density. According to the Transit Cooperative Research Program (TCRP) *Transit Capacity and Quality of Service Manual, 2nd Edition*, densities of three households per acre (approximately six people per acre) or four jobs per acre can support hourly fixed-route transit service.

Figure 2-7 shows the population density at the Traffic Analysis Zone (TAZ) level of geography based on Metropolitan Washington Council of Governments (MWCOG) Cooperative Forecast Round 9.1 population and employment growth projections for the Washington, DC region.[19] Yellow areas indicate places where fixed-route service could be feasible; areas with darker colors have the potential to support more frequent service. Many areas with moderate density exist throughout Fairfax County. Pockets of higher density can be found in Tysons, Merrifield, and Belle Haven as well as along the county's border with Alexandria and Arlington, throughout

[19] *This data was prepared prior to COVID-19.*

the I-495 and I-66 corridors, and along Richmond Highway (US Route 1) between Belle Haven and Mount Vernon.

Regional rail service does not serve all high-density areas. Areas not served by regional rail include the east side of I-495 around Annandale, I-66 from Fair Oaks to Centreville, and along Richmond Highway.

2030 Population Density Growth

Figure 2-8 shows 2030 projected population density in Fairfax County. Areas projected to experience a 20 percent increase or decrease in population density from 2020 to 2030 are highlighted in red and blue, respectively. Over the next decade, the county's population is expected to grow by around 9 percent according to MWCOG's 2020 and 2030 population projections. No areas indicated significant population loss. Major population growth is projected in the Reston-Herndon area, along Route 28 in Chantilly, Tysons, Falls Church, Fair Oaks, Springfield, and along Richmond Highway from North Gateway to Beacon/Groveton, at Fort Belvoir, and in Lorton.

2020 Employment Density

The location and number of jobs in a region are strong indicators of transit demand, as traveling to and from work accounts for the largest single segment of transit trips in most markets. Transit that serves areas of high employment density also provides key connections to job opportunities. As mentioned earlier, the *Transit Capacity and Quality of Service Manual* suggests that an employment density of four jobs per acre or more can typically support base-level fixed-route service.

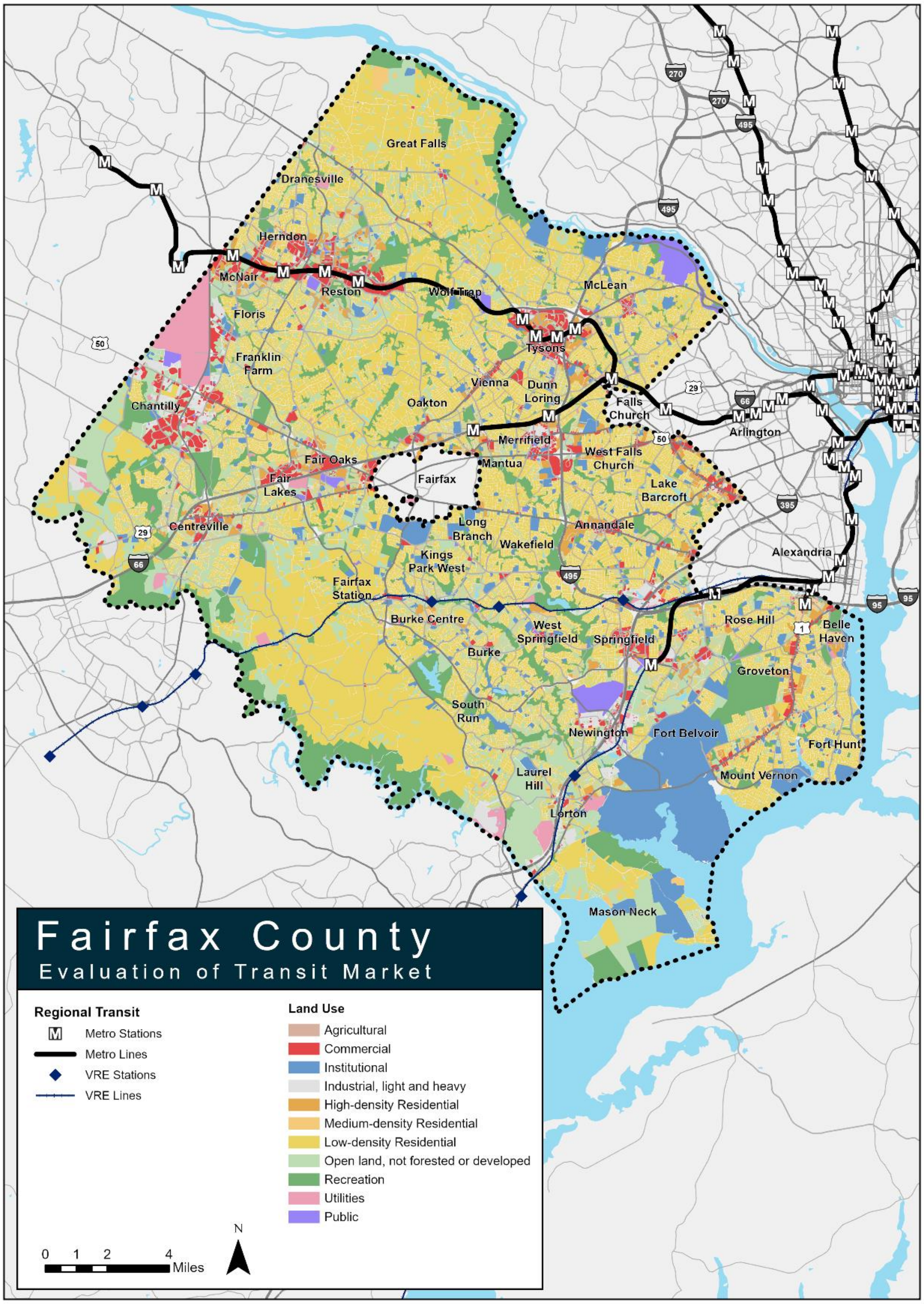
Figure 2-9 shows employment density at the TAZ level of geography based on MWCOG Cooperative Forecast Round 9.1 population and employment growth projections for the Washington, DC region. The county has three main employment centers: Reston-Herndon (along the Dulles Toll Road and within the Reston Town Center), Tysons (south of the Dulles Toll Road), and Merrifield along I-495. The Silver Line has improved transit access to employment centers along the Dulles Toll Road and transit connections between Reston-Herndon and Tysons, the county's largest employment centers.

2030 Employment Density Growth

Figure 2-10 shows 2030 projected employment density in Fairfax County. Areas projected to experience a 20 percent increase or decrease in population density from 2020 to 2030 are highlighted in red and blue, respectively. Over the next decade, the county's employment is expected to grow by approximately 12 percent according to MWCOG's 2020 and 2030 projections.

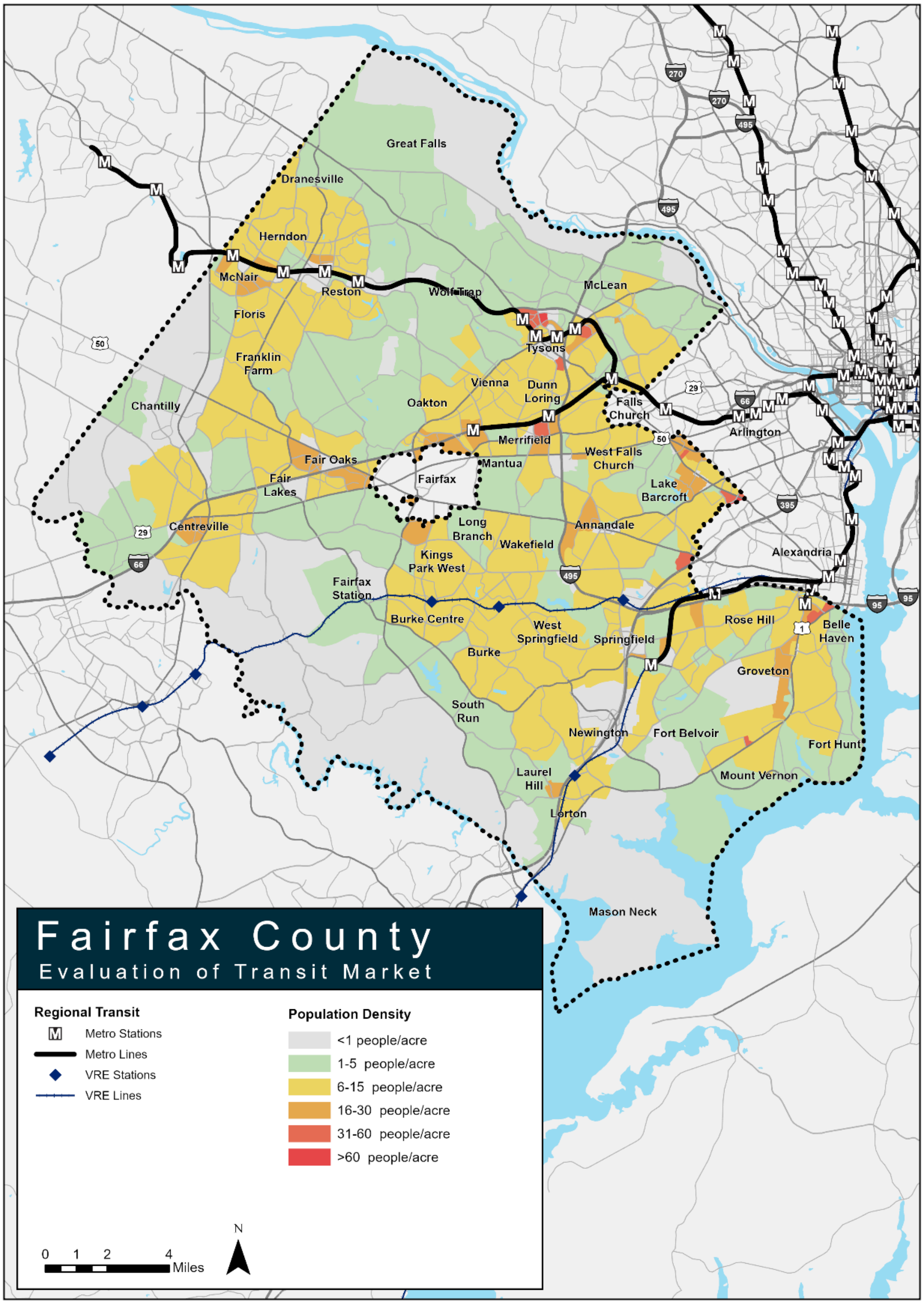
The only area of the county projected to lose a notable percentage of employment is a portion of Tysons, south of Maple Avenue, which is mostly residential. However, Tysons as a whole is projected to grow in employment. In addition to Tysons, major employment growth is projected in Reston-Herndon along the Dulles Toll Road. The employment growth projected in Chantilly, Merrifield, Springfield, and Newington will turn these areas into key employment centers.

FIGURE 2-6: CURRENT LAND USE IN FAIRFAX COUNTY



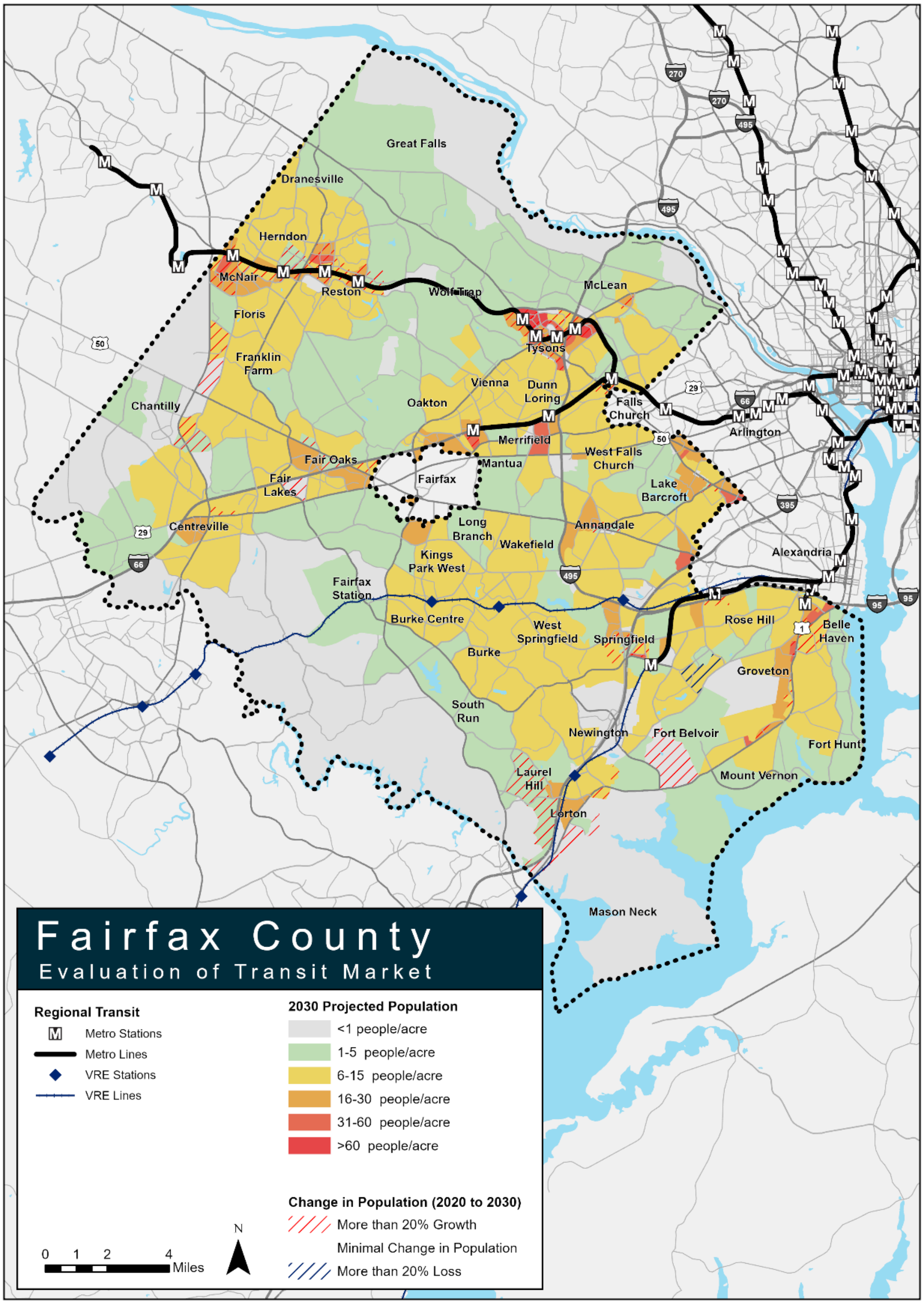
Source: Fairfax County. February 2021.

FIGURE 2-7: 2020 POPULATION DENSITY



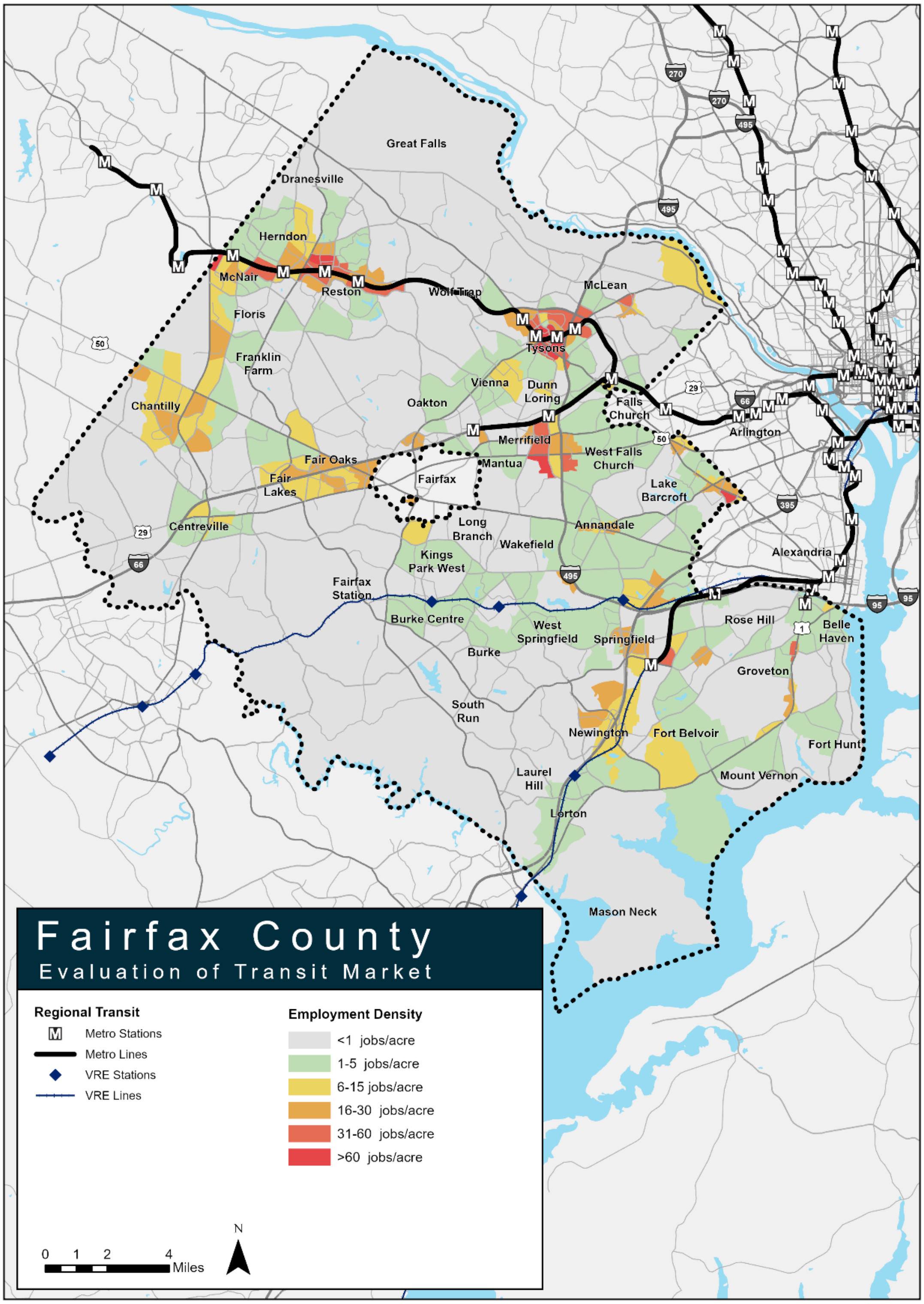
Source: Metropolitan Washington Council of Governments Round 9.1 Cooperative Forecasting. 2020.

FIGURE 2-8: 2030 POPULATION DENSITY PROJECTION



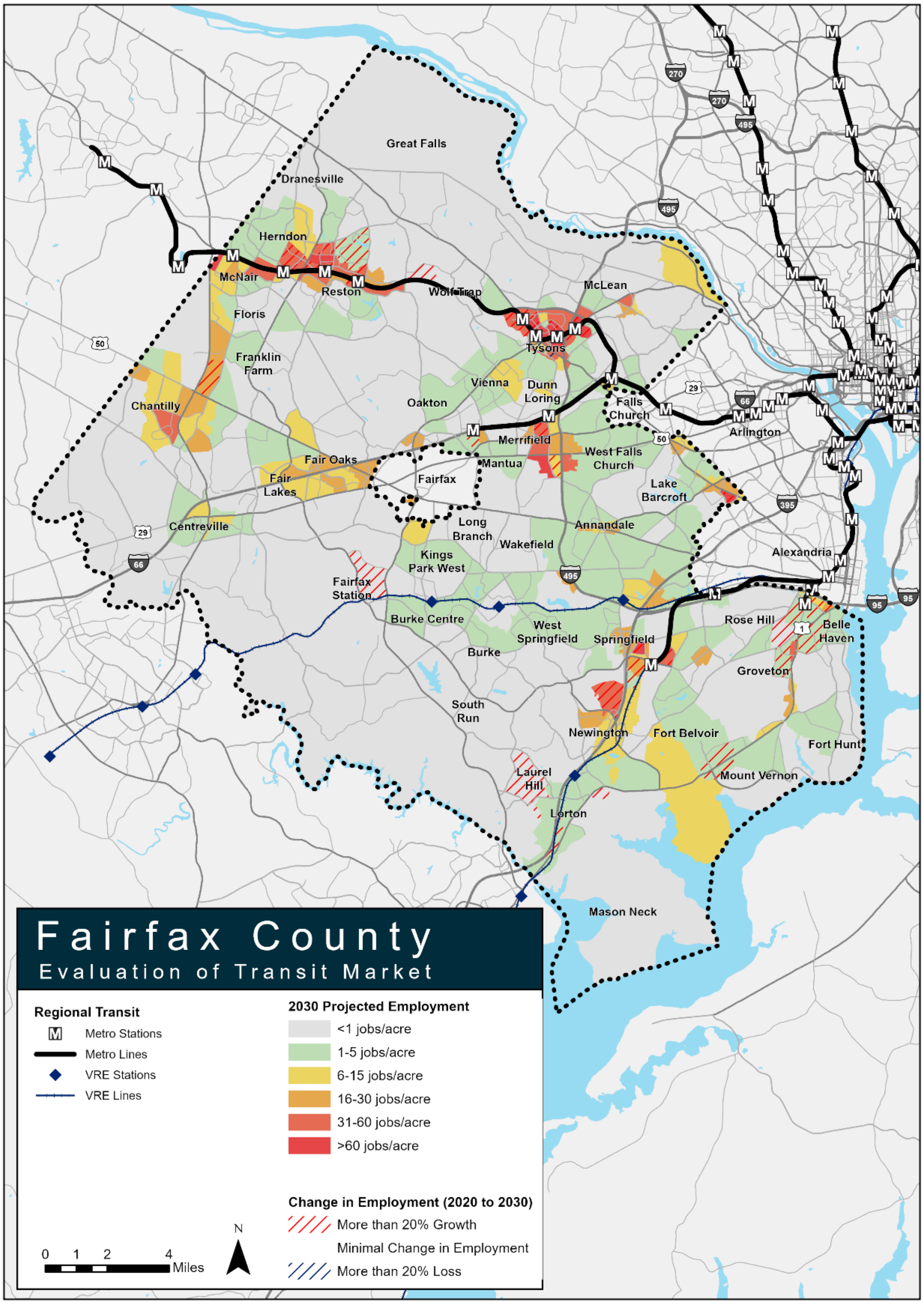
Source: Metropolitan Washington Council of Governments Round 9.1 Cooperative Forecasting. 2020.

FIGURE 2-9: 2020 EMPLOYMENT DENSITY



Source: Metropolitan Washington Council of Governments Round 9.1 Cooperative Forecasting. 2020.

FIGURE 2-10: 2030 EMPLOYMENT DENSITY PROJECTION



Source: Metropolitan Washington Council of Governments Round 9.1 Cooperative Forecasting. 2020.

TRANSIT POTENTIAL

In general, higher concentrations of residents and/or jobs tend to correlate with higher transit ridership. Transit potential combines the population and employment densities of each TAZ to indicate the viability of fixed-route transit service in an area. Although population and employment density are not the sole factors in selecting where to operate transit, typically, transit is most viable in areas with population densities of six people per acre and job densities of four jobs per acre. Simplified, the transit potential model assumes that regions where residents plus jobs total more than five per acre are transit supportive.

Concentrated employment centers and large areas with moderate population density provide much of Fairfax County with moderate transit potential. As shown in **Figure 2-11**, transit potential in Fairfax County is highest in the following locations:

- Along the Dulles Toll Road around the Reston Town Center and Herndon Metrorail stations
- In the Tysons area, especially around Metrorail stations
- South of Dunn-Loring Merrifield Metrorail station
- In the Fair Oaks region along the I-66 corridor
- Bailey's Crossroads adjacent to the county's border with Arlington
- Near Franconia-Springfield Metrorail station
- Huntington and Belle Haven along the Richmond Highway corridor

Correlating with density, transit potential decreases as one moves away from the county's urban centers. Areas showing moderate transit potential include:

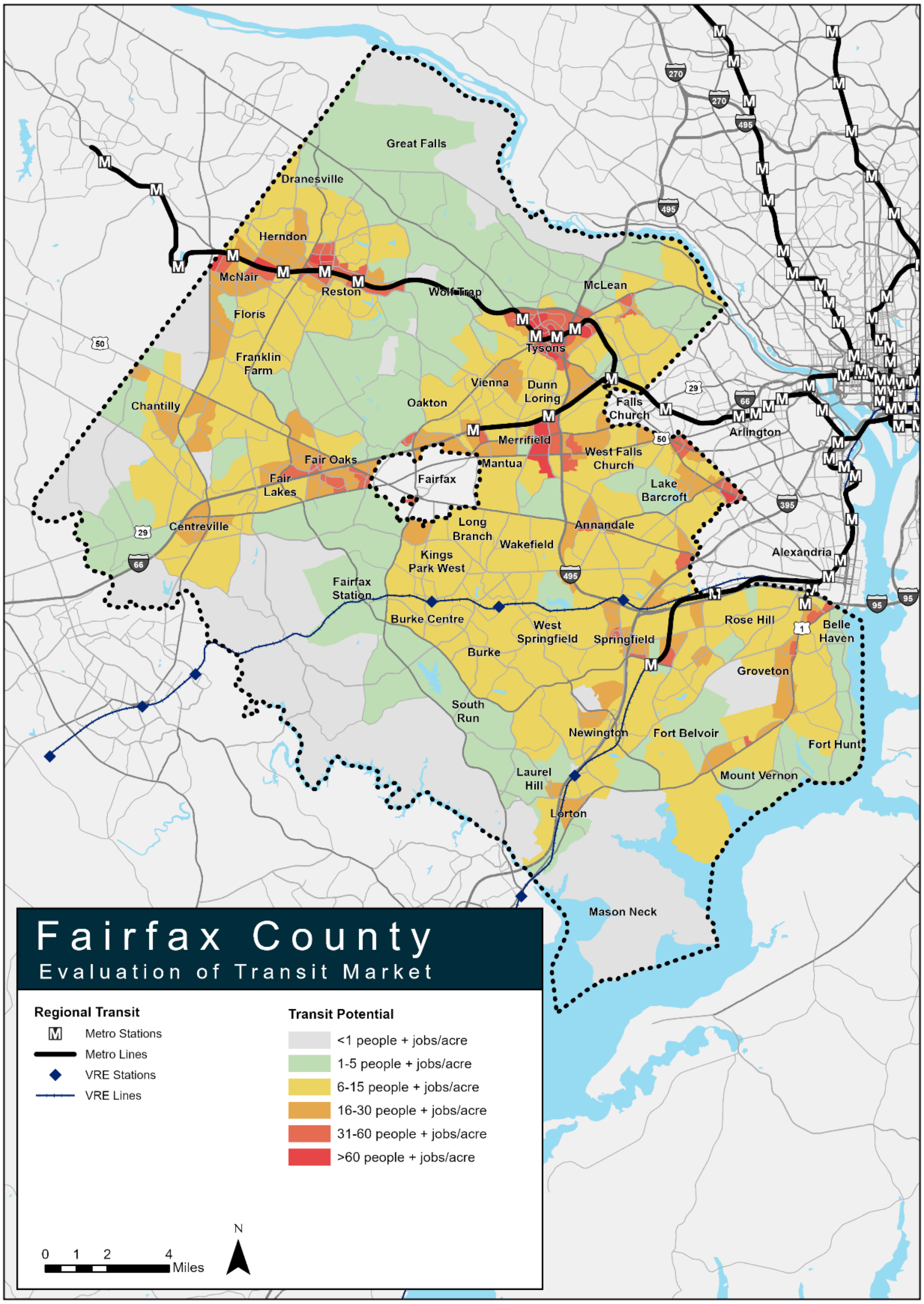
- Centreville around the intersection of US 29 and I-66;
- Chantilly south of US 50
- Newington east of I-95
- South of Lorton VRE Station
- Richmond Highway corridor north of Mount Vernon
- Eastern portion of McLean
- West Falls Church along the US 50 corridor

Outlying, low-density areas, including Mason Neck, South Run, Fairfax Station, and Great Falls, have relatively low transit potential.

TABLE 2-4: TRANSIT POTENTIAL THRESHOLDS

Category	People and Jobs per Acres
Low	1-5
Low-Moderate	6-15
Moderate	16-30
Moderate-High	31-60
High	>60

FIGURE 2-11: TRANSIT POTENTIAL



Source: Metropolitan Washington Council of Governments Round 9.1a Cooperative Forecasting. 2020.

TRANSIT PROPENSITY

Like transit potential, transit propensity indices use a series of demographic and employment statistics to identify geographic areas with high demand and need for fixed-route transit service. Index models assume that certain demographic subgroups may be more inclined to use transit. For example, a location with a high number of zero-car households will be more likely to have potential transit users than a location with relatively more multi-car households.

Each index is created using 2018 U.S. Census American Community Survey and 2017 Longitudinal Employer-Household Dynamics (LEHD)/LEHD Origin Destination Employment Statistics (LODES) data. Within each index model, block groups are ranked based on demographic or employment characteristics (such as total population or total jobs). Each block group is subsequently assigned a score for each characteristic based on its rank. Scores are then multiplied by weights and combined across the index to generate a propensity score for each block group index. Each index and its results are described in the sections that follow.

Transit-Oriented Population Origins Propensity Index

The transit-oriented population origins index runs on the assumption that areas with higher total population or household densities, as well as higher concentrations of seniors, youth, persons living in poverty, households with reduced vehicle access, and disabled persons, will have a greater propensity to use transit. The weights of each of the factors in the transit-oriented populations origin index model are listed in **Table 2-5**.

TABLE 2-5: TRANSIT-ORIENTED POPULATION ORIGINS INDEX INPUTS

Category	Weight
Total Population	30%
Youth Population	5%
Senior Population	5%
Low-Income Households[20]	20%
Zero-Car Households	20%
One-Car Households	10%
Persons with Disabilities Population	10%

Figure 2-12 illustrates the results of the transit-oriented population origins index.

[20] *Low-income was defined as having a household income less than or equal to 150 percent of the U.S. federal poverty guideline.*

Areas with a high propensity toward transit based on this index include:

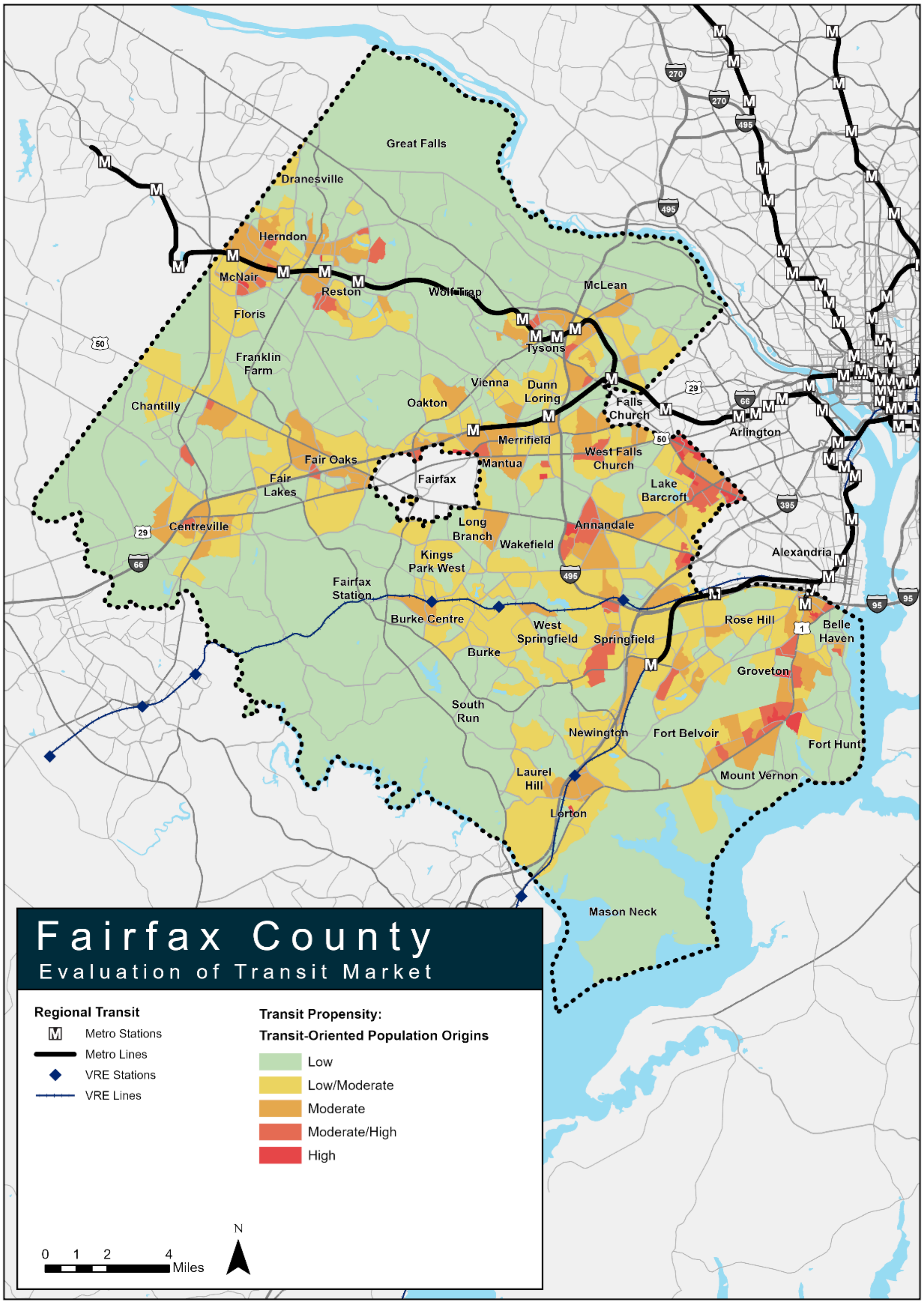
- Centreville around the intersection of US 29 and I-66
- The Dulles Toll Road corridor surrounding the Herndon and Reston Town Center Metrorail stations
- Areas surrounding Tysons area Metrorail stations
- Annandale along the Little River Turnpike corridor
- East of I-495
- West Falls Church along the US 50 corridor
- Springfield north of Franconia-Springfield Parkway
- Bailey's Crossroads adjacent to the county's border with Arlington
- Along the Richmond Highway corridor from Groveton to Mount Vernon

Transit propensity based on transit-oriented populations tends to decrease as one moves away from regional urban centers and major corridors. Areas with moderate transit propensity include:

- Kings Park West
- The vicinity of Burke Centre VRE Station
- The vicinity of Lorton VRE Station
- George Mason University

Transit propensity is lowest in lower-density areas such as South Run, Fairfax Station, northern McLean, Franklin Farm, Mason Neck, and Great Falls.

FIGURE 2-12: TRANSIT-ORIENTED POPULATION ORIGINS PROPENSITY INDEX



Sources: U.S. Census Bureau 2018 American Community Survey, 2017 LEHD/LODES data

Commuter Origins Propensity Index

The commuter origins index consists of two categories: labor force population (weighted for 70 percent of the model) and population of non-single occupancy vehicle commuters (weighted for 30 percent of the model). Employed persons, commuters, and transit commuters all contribute to this index, which is indicative of where traditional peak-hour commuters live, and where those that currently use transit to commute live. Areas with a high commuter index tend to have both a higher employed population as well as a higher percentage of residents commuting by transit.

Pockets of high transit propensity based on the commuter origins index (**Figure 2-13**) largely overlap with high propensity areas based on the transit-oriented populations index. They include:

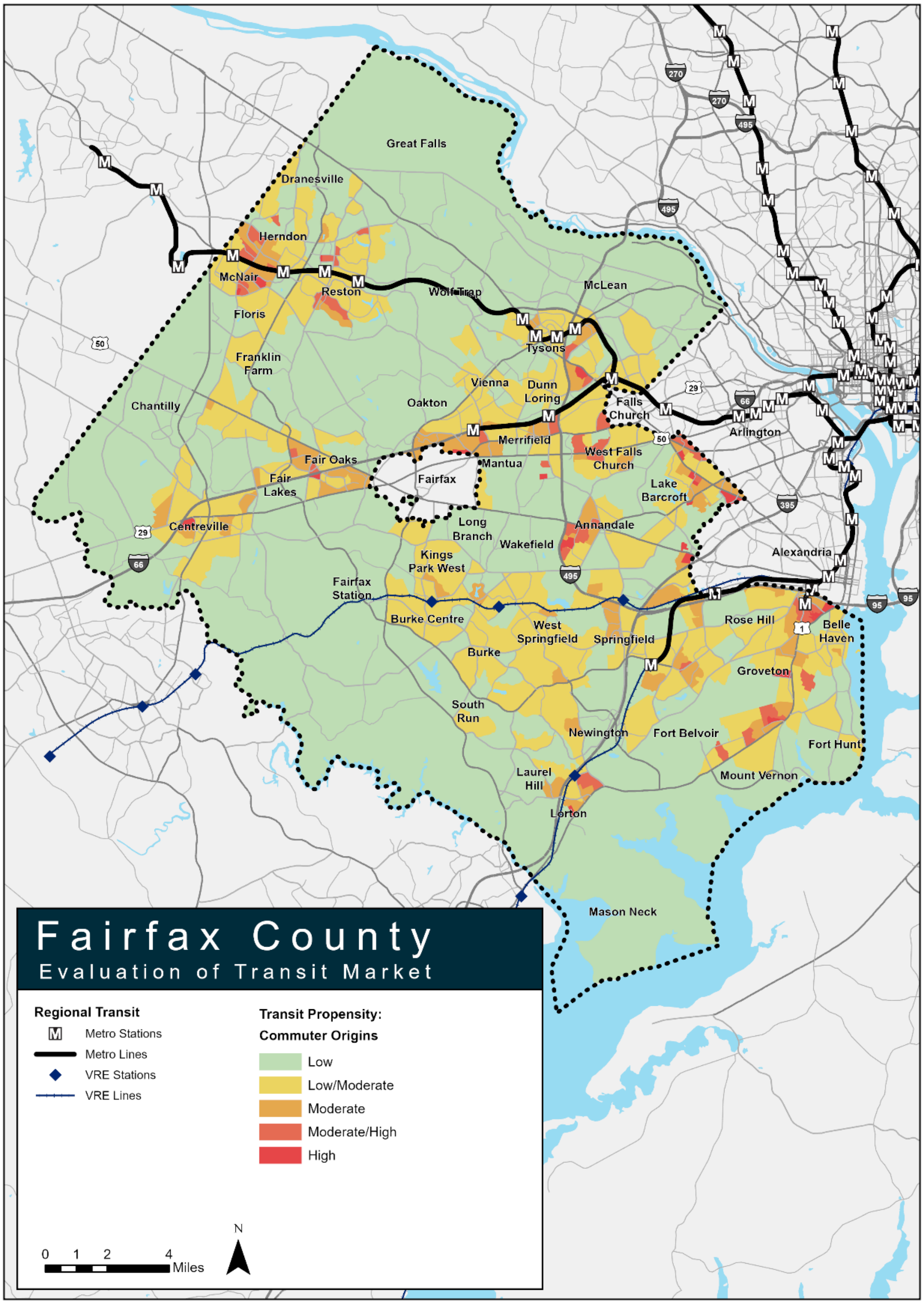
- Centreville around the intersection of US 29 and I-66
- Surrounding the Herndon and Reston Town Center Metrorail stations
- South Reston
- Fair Oaks along the US 50 corridor
- The area surrounding Dunn Loring-Merrifield Metrorail station
- Annandale along the Little River Turnpike corridor
- East of I-495
- West Falls Church along the US 50 corridor
- Around Lorton VRE Station
- Bailey's Crossroads adjacent to the county's border with Arlington
- Along the Richmond Highway corridor from Belle Haven to Mount Vernon

Low to moderate transit propensity based on this index is found:

- In the Springfield/West Springfield area
- Around Burke Centre VRE Station
- The Rose Hill area
- Vienna north of the Metrorail station

Like the transit-oriented populations index, transit propensity based on commuter origins is lowest in outlying areas of Fairfax County such as Great Falls, McLean, western Chantilly, Fairfax Station, Fort Belvoir, and Mason Neck.

FIGURE 2-13: COMMUTER ORIGINS PROPENSITY INDEX



Sources: U.S. Census Bureau 2018 American Community Survey, 2017 LEHD/LODES data

Workplace Destinations Propensity Index

The workplace destinations index identifies areas with high levels of employment activity; its only input is the total number of jobs. It is used as an indicator of employment density. **Figure 2-14** displays the results of this index.

Higher transit propensity areas based on total jobs tend to cluster in employment centers, including:

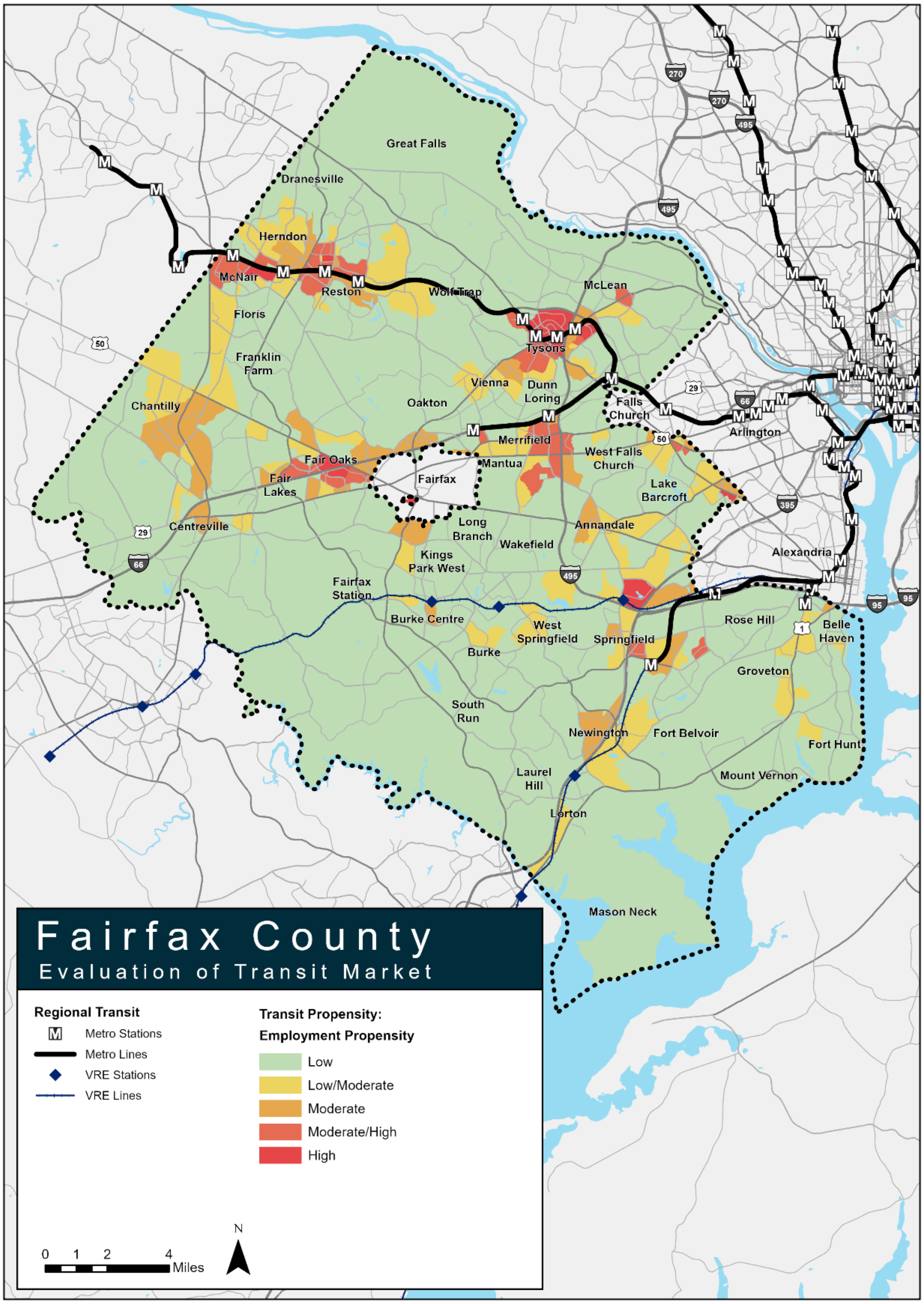
- Fair Oaks
- North Springfield
- Around the Dunn Loring-Merrifield Metrorail station
- Along the Dulles Toll Road corridor, especially in the vicinity of the Herndon and Reston Town Center Metrorail stations
- In the Tysons area
- Eastern portion of McLean

Areas with moderate transit propensity based on workplace destinations include:

- Chantilly
- Centreville around the intersection of US 29 and I-66
- Newington off the I-95 corridor
- Annandale along the Little River Turnpike corridor
- East of I-495
- Herndon north of the Metrorail station
- Springfield north of I-495

Given that jobs are fairly spread out in large swaths of Fairfax County, lower transit propensity areas fill a relatively high percentage of the region, including Great Falls, Dranesville, Franklin Farm, Oakton, Fairfax Station, Burke, Groveton, South Run, Mount Vernon, and Mason Neck.

FIGURE 2-14: WORKPLACE DESTINATIONS PROPENSITY INDEX



Sources: U.S. Census Bureau 2018 American Community Survey, 2017 LEHD/LODES data

Activity Destinations Propensity Index

The non-work destination index uses the number of retail/restaurant, recreation, healthcare/social assistance, education, and government jobs as a proxy to evaluate transit propensity based on the density of "non-work" or activity-based destinations. The weights of each of the factors in the model are listed in **Table 2-6. Figure 2-15** summarizes the results of this index.

TABLE 2-6: ACTIVITY DESTINATIONS INDEX INPUTS

Category	Weight
Retail/Restaurant Jobs	30%
Education Jobs	20%
Healthcare/Social Assistance Jobs	30%
Entertainment/Recreation Jobs	10%
Public Sector Jobs	10%

Transit propensity based on activity destinations correlates closely with propensity based on workplace destinations. Higher propensity areas appear to cluster in job centers such as:

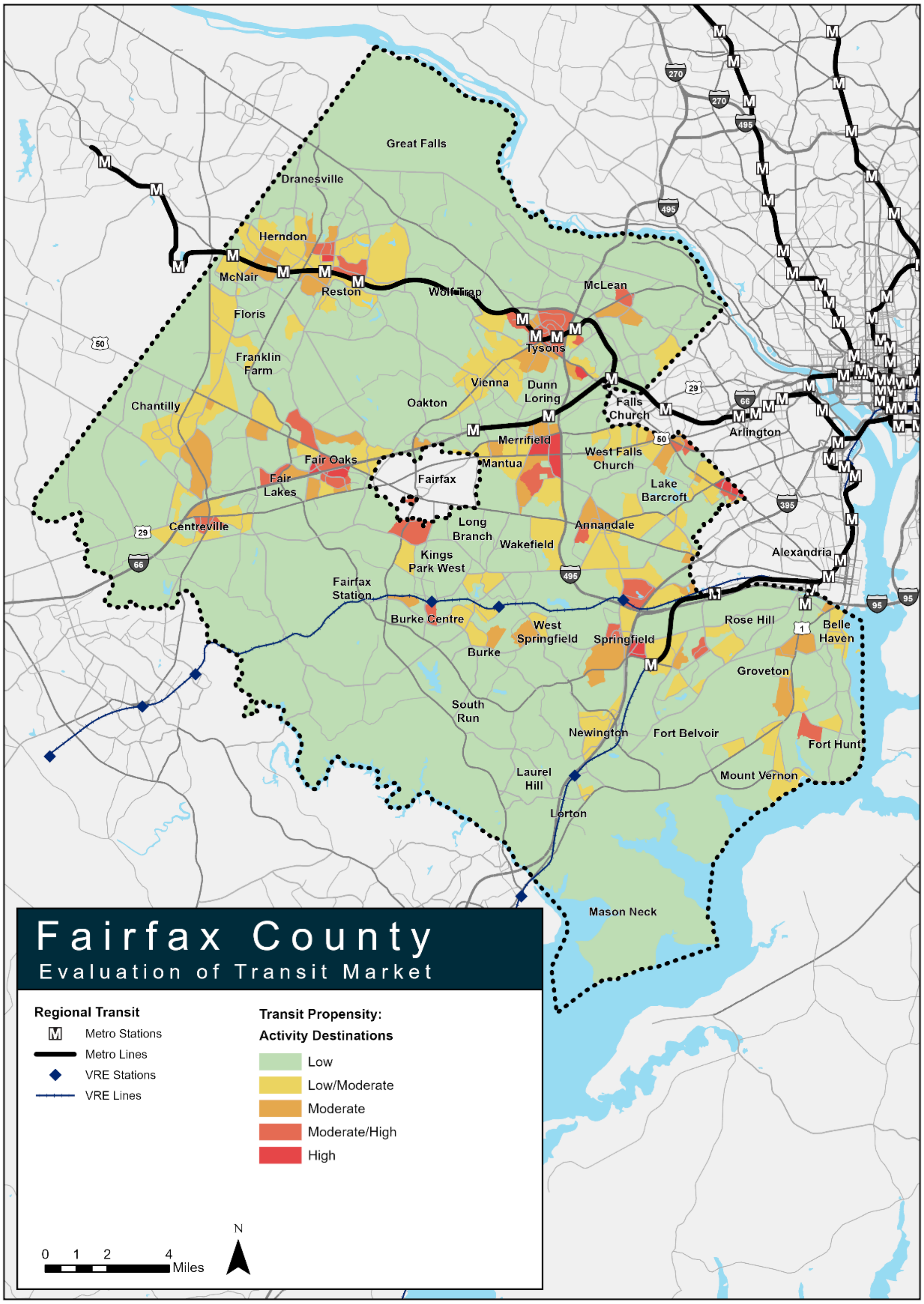
- Fair Oaks
- Fair Lakes
- Reston Town Center (especially north of the Metrorail station)
- Tysons
- Merrifield west of I-495
- Springfield along the I-95 corridor
- South of Burke Centre VRE Station
- Centreville along the US 29 corridor
- Bailey's Crossroads
- Western portion of Fort Hunt

Low to moderate transit propensity pockets based on this index can be found in regions such as:

- Chantilly along the US 50 corridor
- Newington along the I-95 corridor
- Mount Vernon southeast of Richmond Highway
- Along the Richmond Highway corridor from Groveton to Belle Haven

Low propensity areas based on this index cluster in regions with relatively low job density, such as Mason Neck, Lorton, Fort Belvoir, Laurel Hill, South Run, Fairfax Station, Oakton, Dranesville, and Great Falls.

FIGURE 2-15: ACTIVITY DESTINATIONS PROPENSITY INDEX



Sources: U.S. Census Bureau 2018 American Community Survey, 2017 LEHD/LODES data

2.2.2 Transit Demand and Underserved Area Opportunities for Improvement

LEVEL OF SERVICE ANALYSIS

This analysis was conducted for the TSP prior to the opening of the Silver Line extension and the associated Fairfax Connector service changes in the Reston and Herndon area that began on November 16, 2022. Maps and details presented here represent a snapshot of service during the development of the TSP. In some cases, route alignments and route numbers have changed for Connector and Metrobus services since the time of analysis.

All-Day Propensity Service Index

The all-day transit propensity analysis identifies areas most suitable for all-day transit service. The all-day service index reflects where there are higher levels of transit-oriented populations and activity destinations as described in **Section 2.2.1**. **Figure 2-16** through **Figure 2-20** illustrate all-day transit propensity in each subarea of Fairfax County. For this level of service analysis, the Tysons and Centreville-Chantilly-Vienna subareas are shown separately. Gaps in service were indicated by areas with moderate to high propensities that were not served by transit midday, or areas with moderate/high and high propensities served by routes with more than 30-minute midday headways.

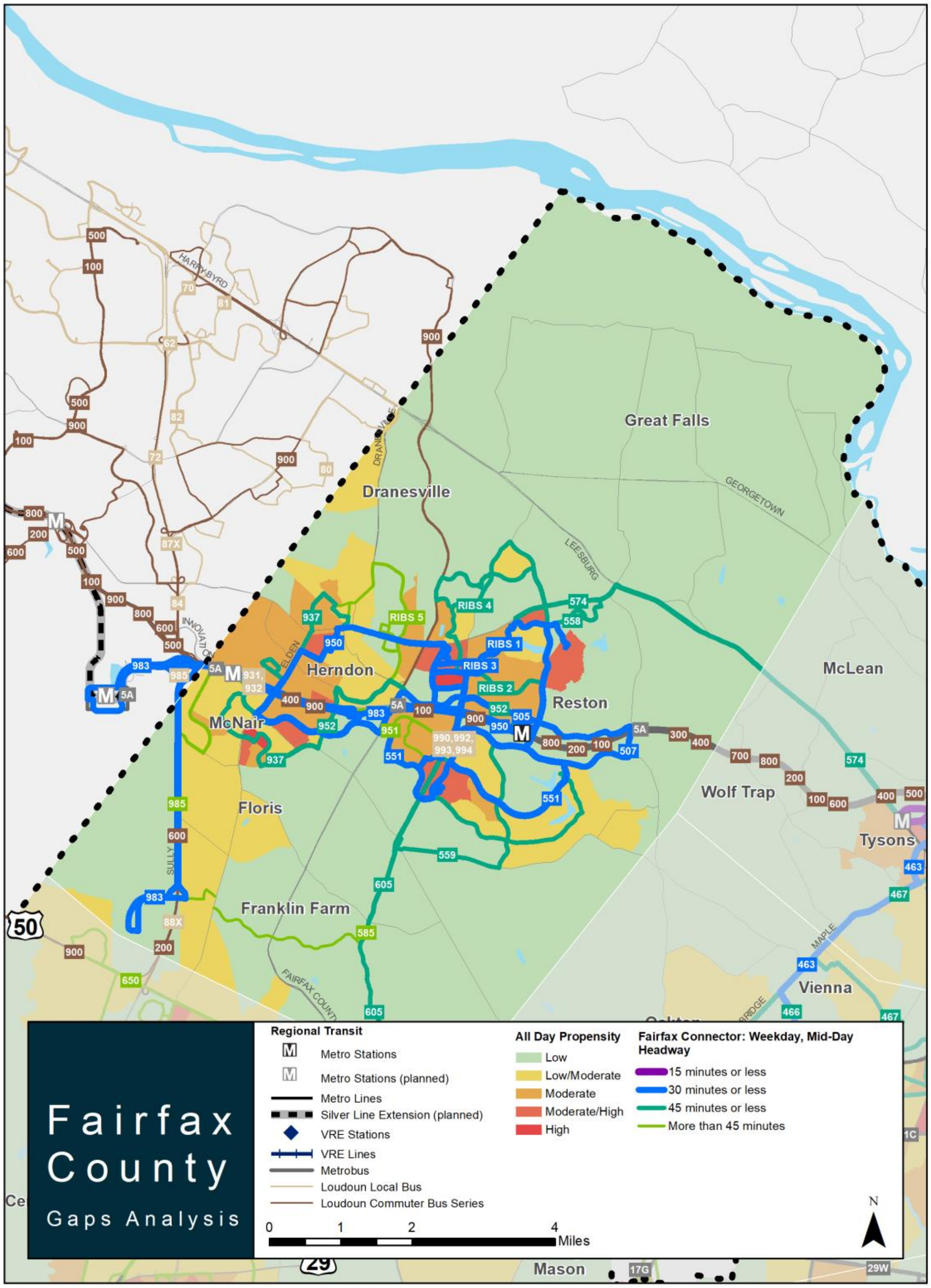
Gaps in services were identified for each subarea:

- The Reston-Herndon subarea's all-day service propensity is shown in **Figure 2-16.** Despite exhibiting moderate and moderate/high propensity, the area west of Elden Street and north of the Dulles Access Road, which is mostly residential, was not served during the midday by transit. This includes neighborhoods along the Herndon Parkway that were served during peak periods. A few areas of low/moderate propensity were also not covered by midday service including the southside of Route 608 (southeast of Floris) and the area to the west of Route 228 in Dranesville. All-day propensities in both areas can be attributed to residential developments.
- The Tysons subarea's all-day service propensity is shown in **Figure 2-17.** High propensity areas north of the Metrorail line were served frequently by Fairfax Connector routes. A few areas of moderate all-day propensity were not well-served by Fairfax Connector and Metrobus service including the area east of Great Falls Street and west of Westmoreland Street, and the area to the west of the Greensboro Metrorail station along Old Courthouse Road.
- The Centreville-Chantilly-Vienna subarea's all-day service propensity is shown in **Figure 2-18**. Moderate and moderate/high propensity areas in Centreville and Chantilly were not provided with frequent midday service. Headways in these areas were more than 45 minutes. High propensity scores in Centreville and Chantilly can be attributed to retail. Merrifield and Woodburn are one of the subarea's highest propensity regions and were well-served by transit. The propensity at this location can be attributed to the concentration of apartments and the Inova Hospital complex.
- The Franconia-Springfield subarea's all-day service propensity is shown in **Figure 2-19**. High and moderate/high propensity areas were well-served by Fairfax Connector and Metrobus. Many areas of low/moderate propensity exist throughout

the subarea. Areas of low/moderate propensity not served by transit included Newington Forest and south of Laurel Hill. Areas of moderate propensity not well-served by midday transit included Lincolnia Heights particularly along Lincolnia Road and the Old Colombia Pike. Propensity in Lincolnia Heights can be attributed to residential developments.

- The Huntington subarea's all-day service propensity is shown in **Figure 2-20**. The area east of the Inova Mount Vernon Hospital complex, along Collingswood Road, exhibited a moderate level of propensity for all-day transit service.

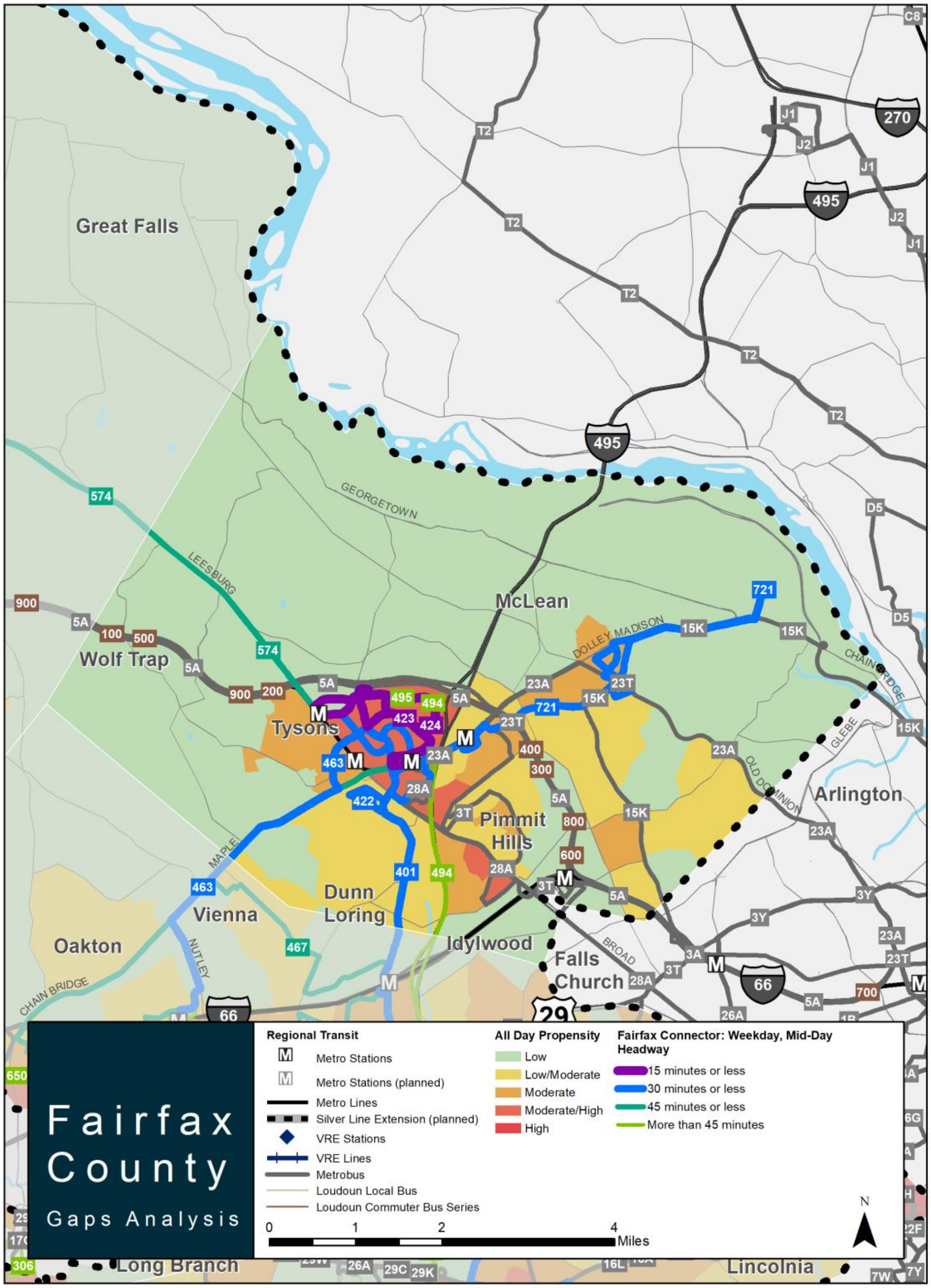
FIGURE 2-16: RESTON-HERNDON SUBAREA ALL-DAY PROPENSITY INDEX (PRE-SILVER LINE EXTENSION)



Note. Service changes have occurred for Fairfax Connector and Metrobus since the time of analysis.

Sources: U.S. Census Bureau 2018 American Community Survey, 2017 LEHD/LODES data, August 2020 Fairfax Connector Service Schedule.

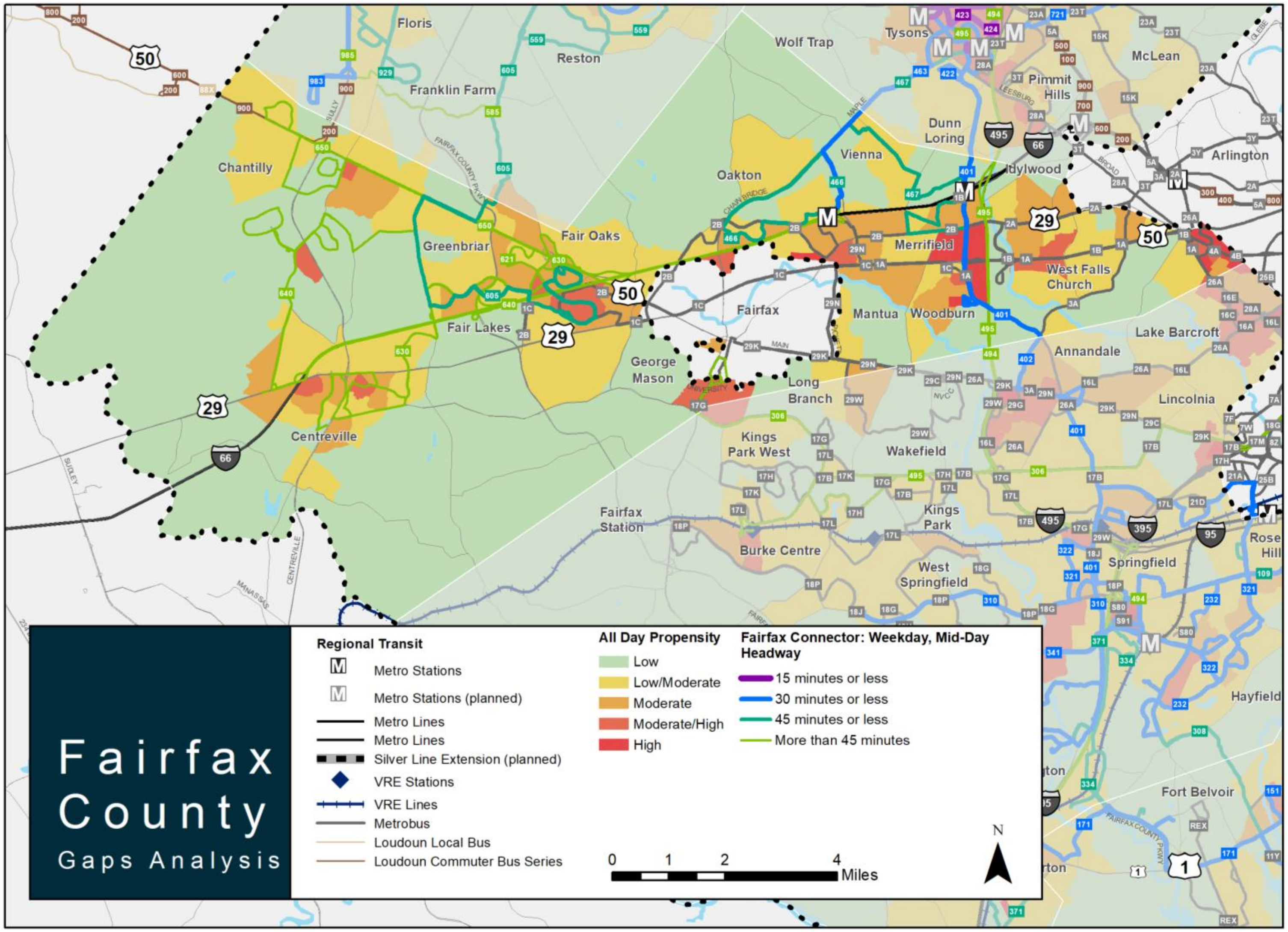
FIGURE 2-17: TYSONS SUBAREA ALL-DAY PROPENSITY INDEX (PRE-SILVER LINE EXTENSION)



Note. Service changes have occurred for Fairfax Connector and Metrobus since the time of analysis.

Sources: U.S. Census Bureau 2018 American Community Survey, 2017 LEHD/LODES data, August 2020 Fairfax Connector Service Schedule.

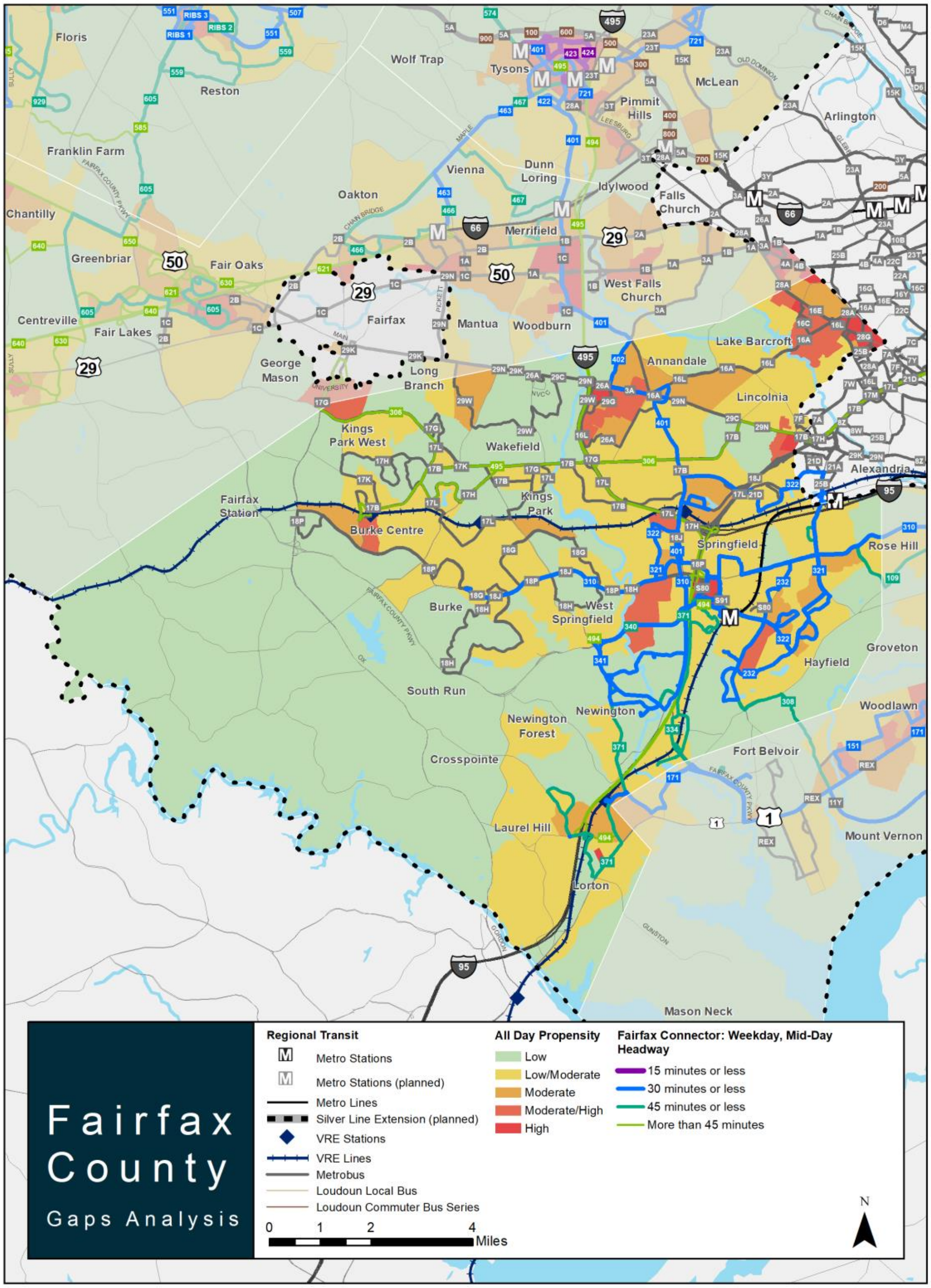
FIGURE 2-18: CENTREVILLE-CHANTILLY-VIENNA SUBAREA ALL-DAY PROPENSITY INDEX (PRE-SILVER LINE EXTENSION)



Note. Service changes have occurred for Fairfax Connector and Metrobus since the time of analysis.

Sources: U.S. Census Bureau 2018 American Community Survey, 2017 LEHD/LODES data, August 2020 Fairfax Connector Service Schedule.

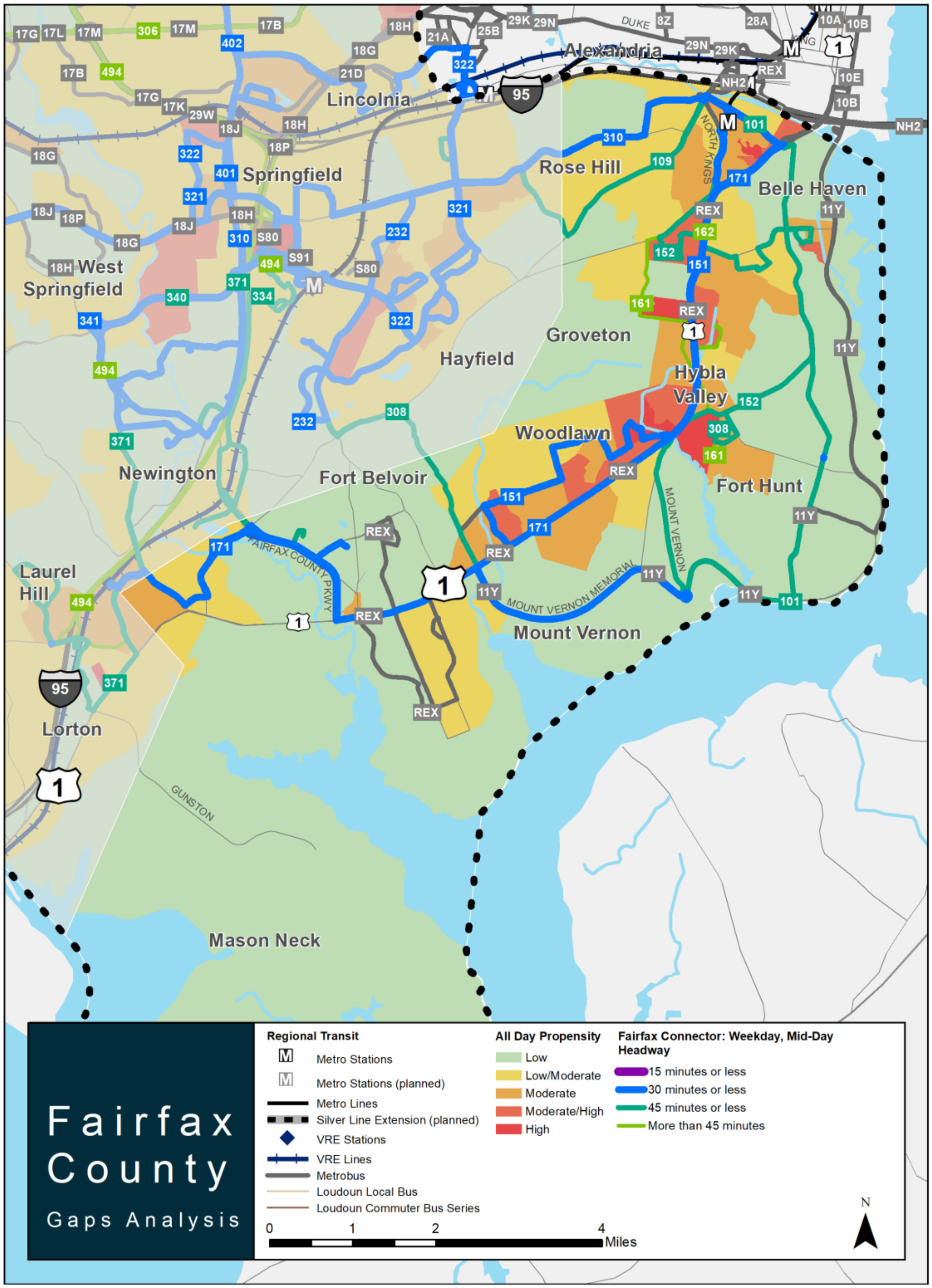
FIGURE 2-19: FRANCONIA-SPRINGFIELD SUBAREA ALL-DAY PROPENSITY INDEX (PRE-SILVER LINE EXTENSION)



Note. Service changes have occurred for Fairfax Connector and Metrobus since the time of analysis.

Sources: U.S. Census Bureau 2018 American Community Survey, 2017 LEHD/LODES data, August 2020 Fairfax Connector Service Schedule.

FIGURE 2-20: HUNTINGTON SUBAREA ALL-DAY PROPENSITY INDEX (PRE-SILVER LINE EXTENSION)



Note. Service changes have occurred for Fairfax Connector and Metrobus since the time of analysis.

Sources: U.S. Census Bureau 2018 American Community Survey, 2017 LEHD/LODES data, August 2020 Fairfax Connector Service Schedule.

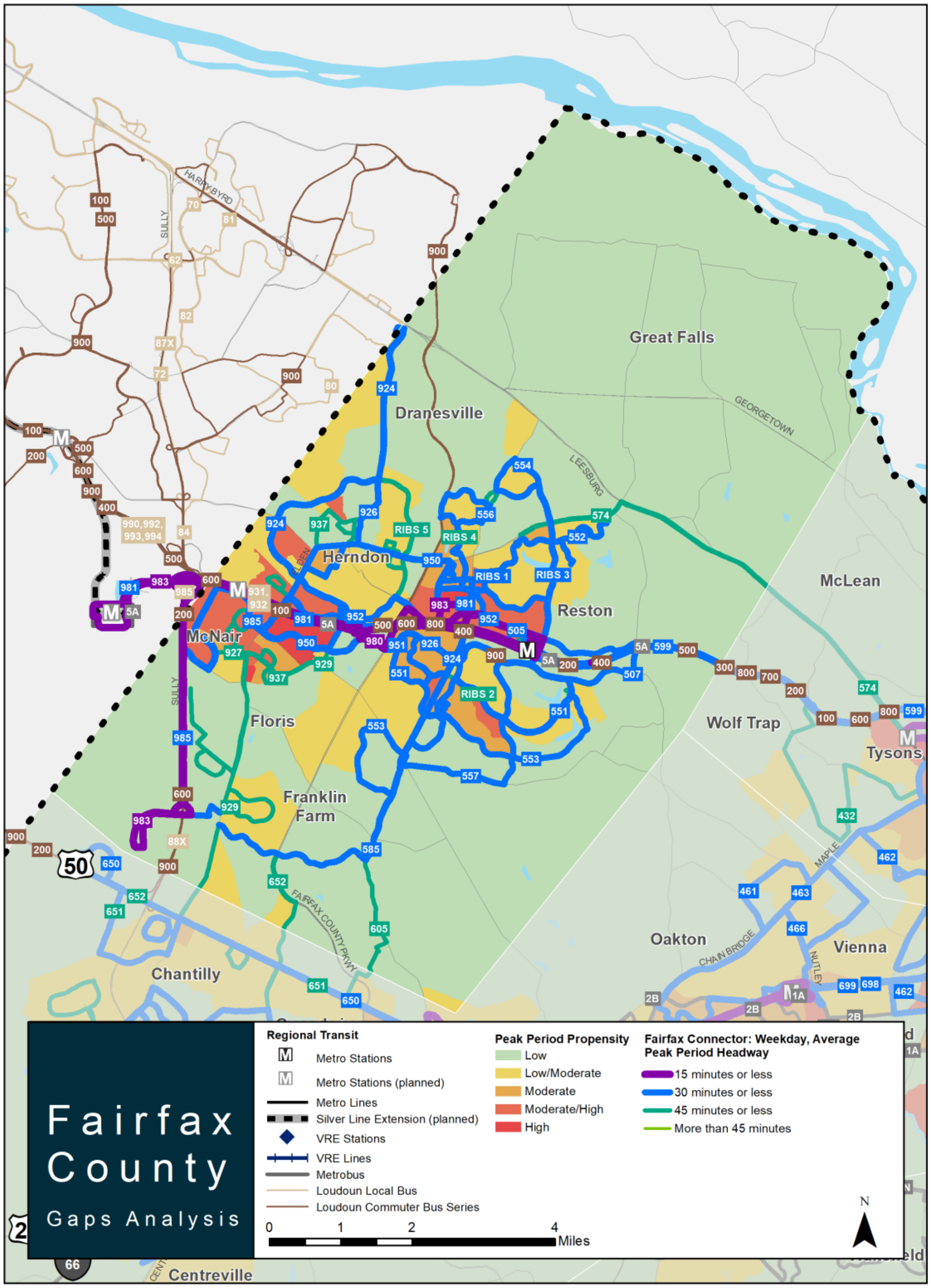
Peak Service Propensity Index

The peak service propensity analysis identifies areas most suitable for commuter-oriented service during peak periods or typical rush hour commuting periods. The peak service index reflects where there are higher levels of commuter origins and workplace destinations as described in **Section 2.2.1**. **Figure 2-21** through **Figure 2-25** illustrate peak period transit service and peak period propensity in each subarea of Fairfax County. Gaps in service were indicated by areas with moderate to high propensities that were not served by transit during peak periods, or areas with moderate/high and high propensities served by routes with more than 30-minute period headways.

Gaps in services were identified for each subarea:

- The Reston-Herndon subarea's peak service propensity is shown in **Figure 2-21**. High and moderate/high propensity areas were well-served by Fairfax Connector including along the Dulles Toll Road corridor. One area of moderate/high to high propensity served by routes with 30 minute or longer headways was the McNair Farms Community.
- The Tysons subarea's peak service propensity is shown in **Figure 2-22**. High and moderate/high propensity areas were well-served by Fairfax Connector and Metrobus. Many services were concentrated north of the Metrorail line.
- The Centreville-Chantilly-Vienna subarea's peak service propensity is shown in **Figure 2-23**. Woodburn is a high propensity area that was well-served by transit. High propensity at this location can be attributed to the concentration of apartments and Inova Hospitals. Given the lack of Metrorail or Metrobus service in Centreville, Fairfax Connector service is needed in this area. Areas of high, moderate, and low/moderate propensity existed in Centreville. Moderate propensity areas served by headways greater than 30 minutes included areas along Stone Road and Braddock Road.
- The Franconia-Springfield subarea's peak service propensity is shown in **Figure 2-24**. High and moderate/high propensity areas were well-served by Fairfax Connector and Metrobus. Springfield and Annandale had significant coverage and were served by routes with headways of 15 minutes or less. Many areas of low/moderate propensity in the subarea were not served by transit or only served in a limited capacity along the major corridors. One such area was Lincolnia Heights along Braddock Road and the Old Columbia Pike. Higher propensity at this location can be attributed to residential density.
- The Huntington subarea's peak service propensity is shown in **Figure 2-25**. The moderate, moderate/high, and high propensity areas in Huntington were served by 16-30 minute headways. The Richmond Highway/US 1 corridor had frequent service due to the presence of both Metrobus and Fairfax Connector routes. One area of Huntington with less frequent service included Rose Hill and Groveton. This region consisted of low and low/moderate propensity areas and was served by 31-45 minute headways.

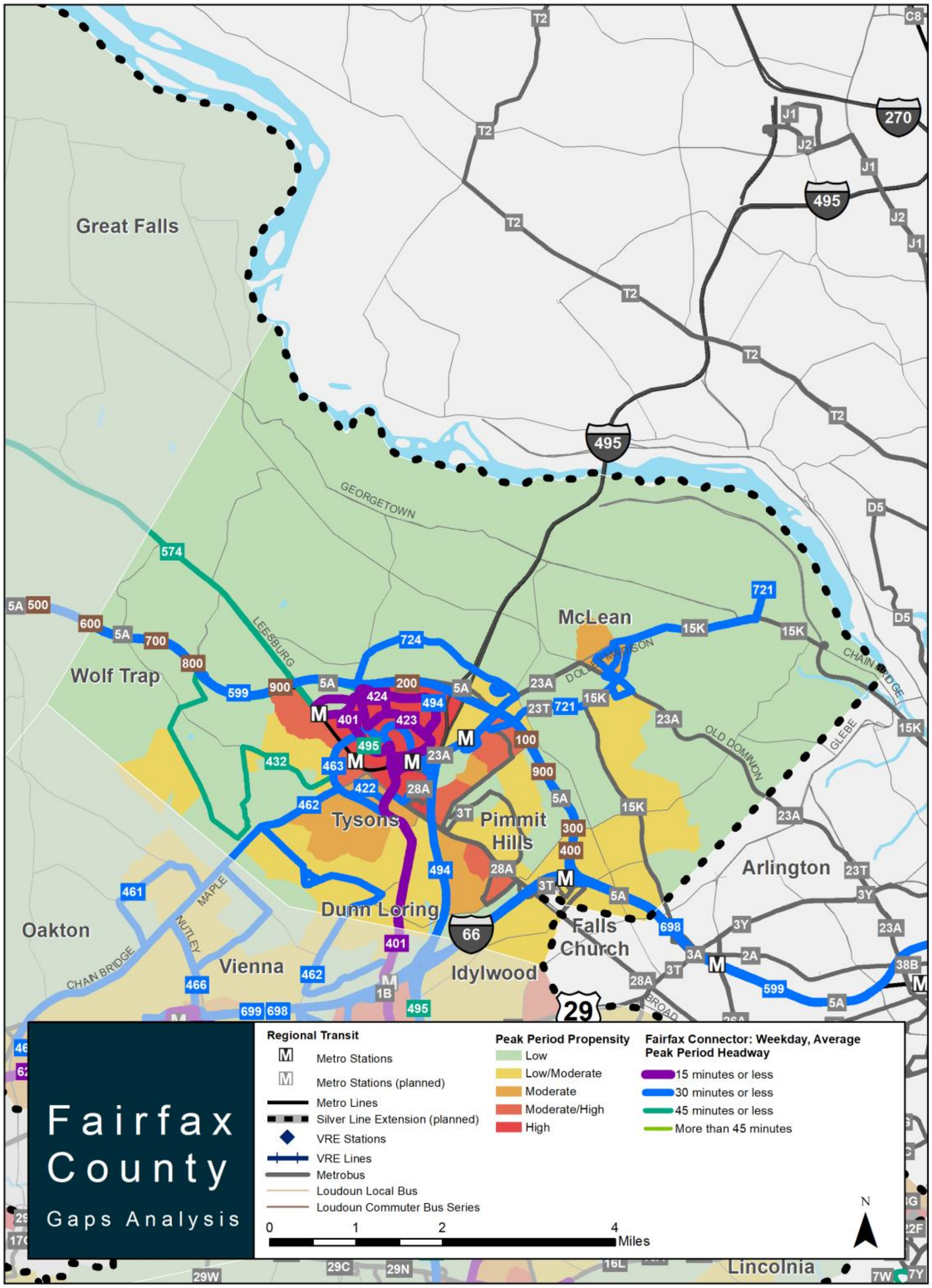
FIGURE 2-21: RESTON-HERNDON SUBAREA PEAK SERVICE PROPENSITY INDEX (PRE-SILVER LINE EXTENSION)



Note. Service changes have occurred for Fairfax Connector and Metrobus since the time of analysis.

Sources: U.S. Census Bureau 2018 American Community Survey, 2017 LEHD/LODES data, August 2020 Fairfax Connector Service Schedule.

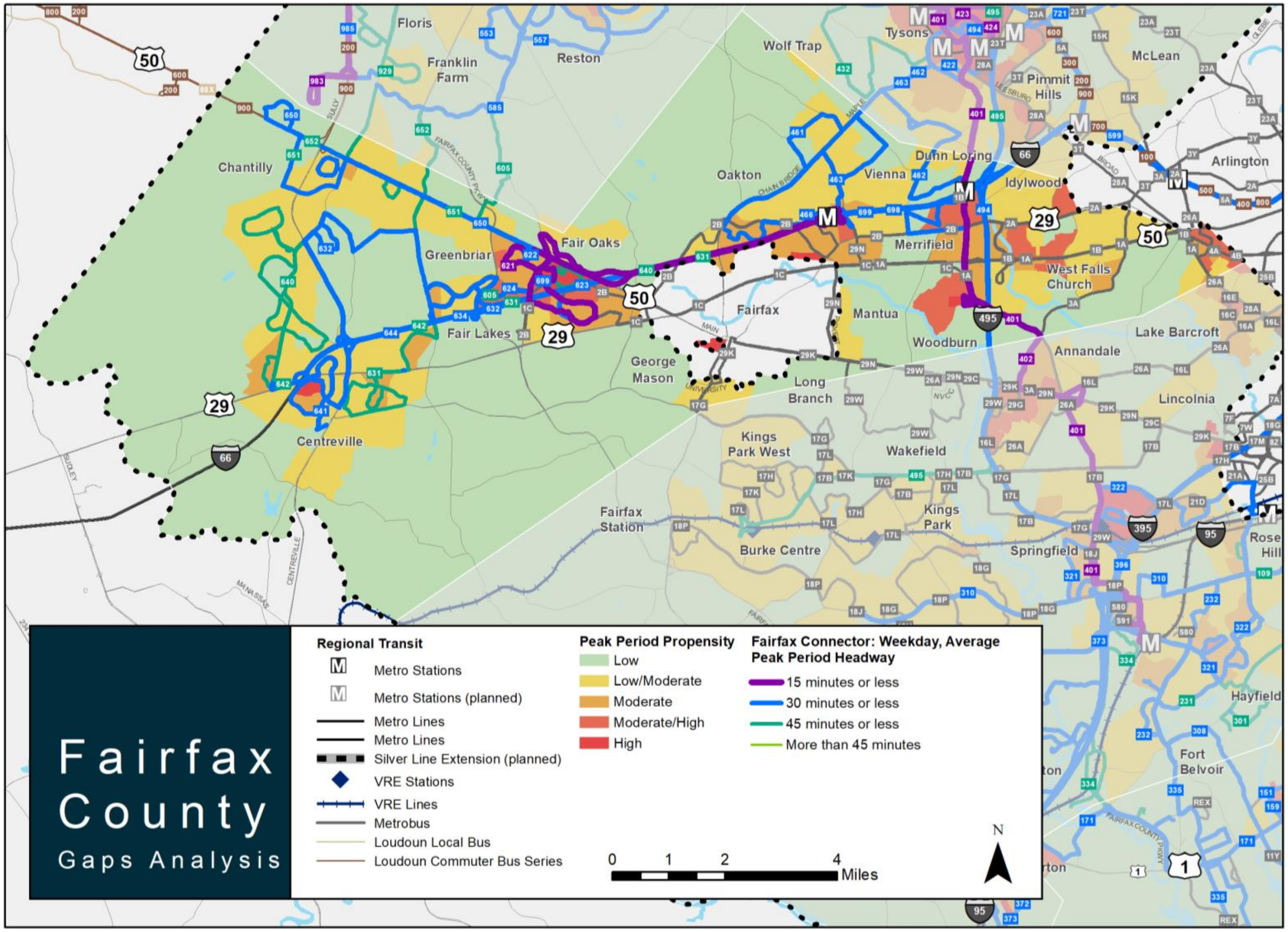
FIGURE 2-22: TYSONS SUBAREA PEAK SERVICE PROPENSITY INDEX (PRE-SILVER LINE EXTENSION)



Note. Service changes have occurred for Fairfax Connector and Metrobus since the time of analysis.

Sources: U.S. Census Bureau 2018 American Community Survey, 2017 LEHD/LODES data, August 2020 Fairfax Connector Service Schedule.

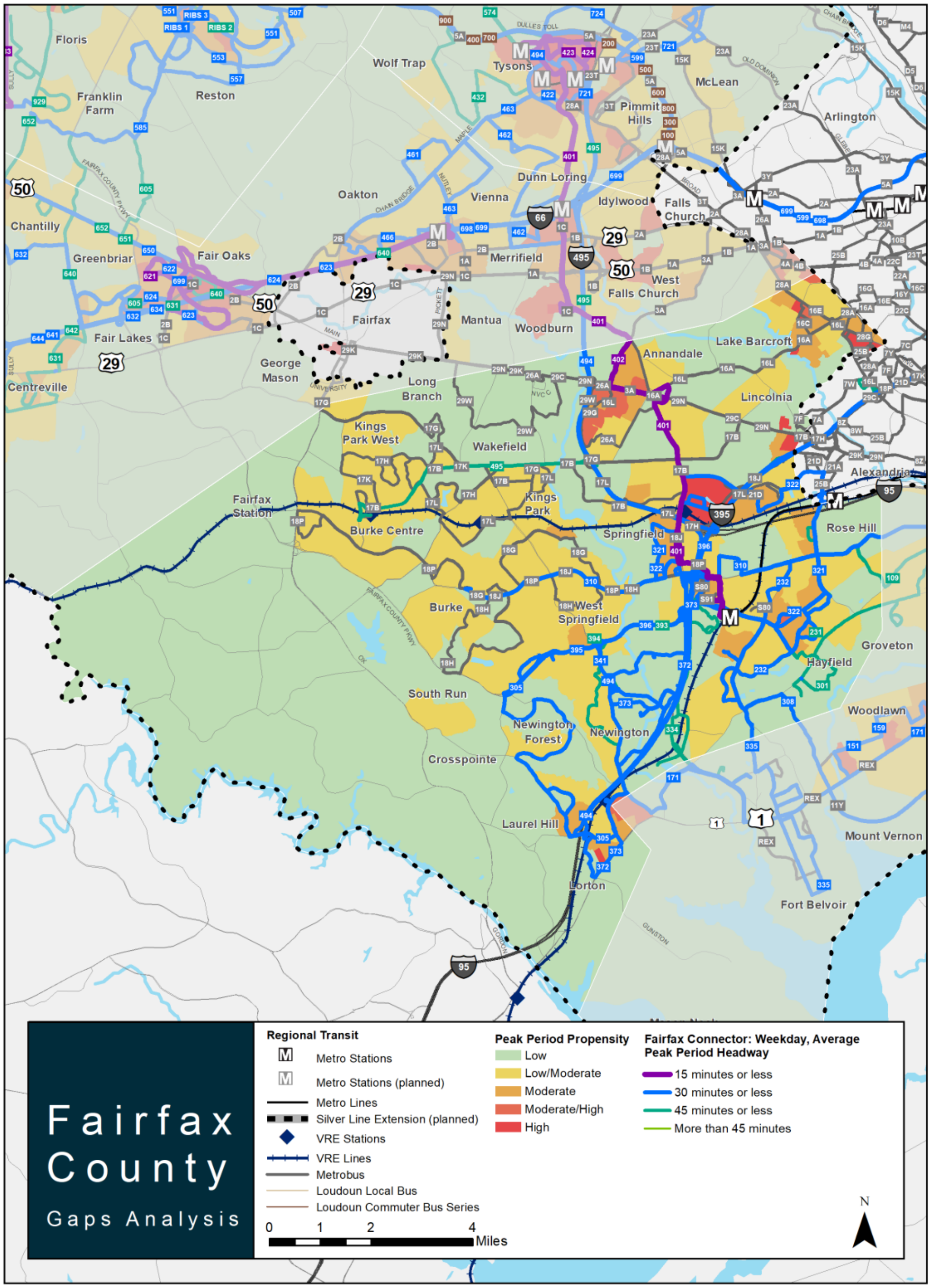
FIGURE 2-23: CENTREVILLE-CHANTILLY-VIENNA SUBAREA PEAK SERVICE PROPENSITY INDEX (PRE-SILVER LINE EXTENSION)



Note. Service changes have occurred for Fairfax Connector and Metrobus since the time of analysis.

Sources: U.S. Census Bureau 2018 American Community Survey, 2017 LEHD/LODES data, August 2020 Fairfax Connector Service Schedule.

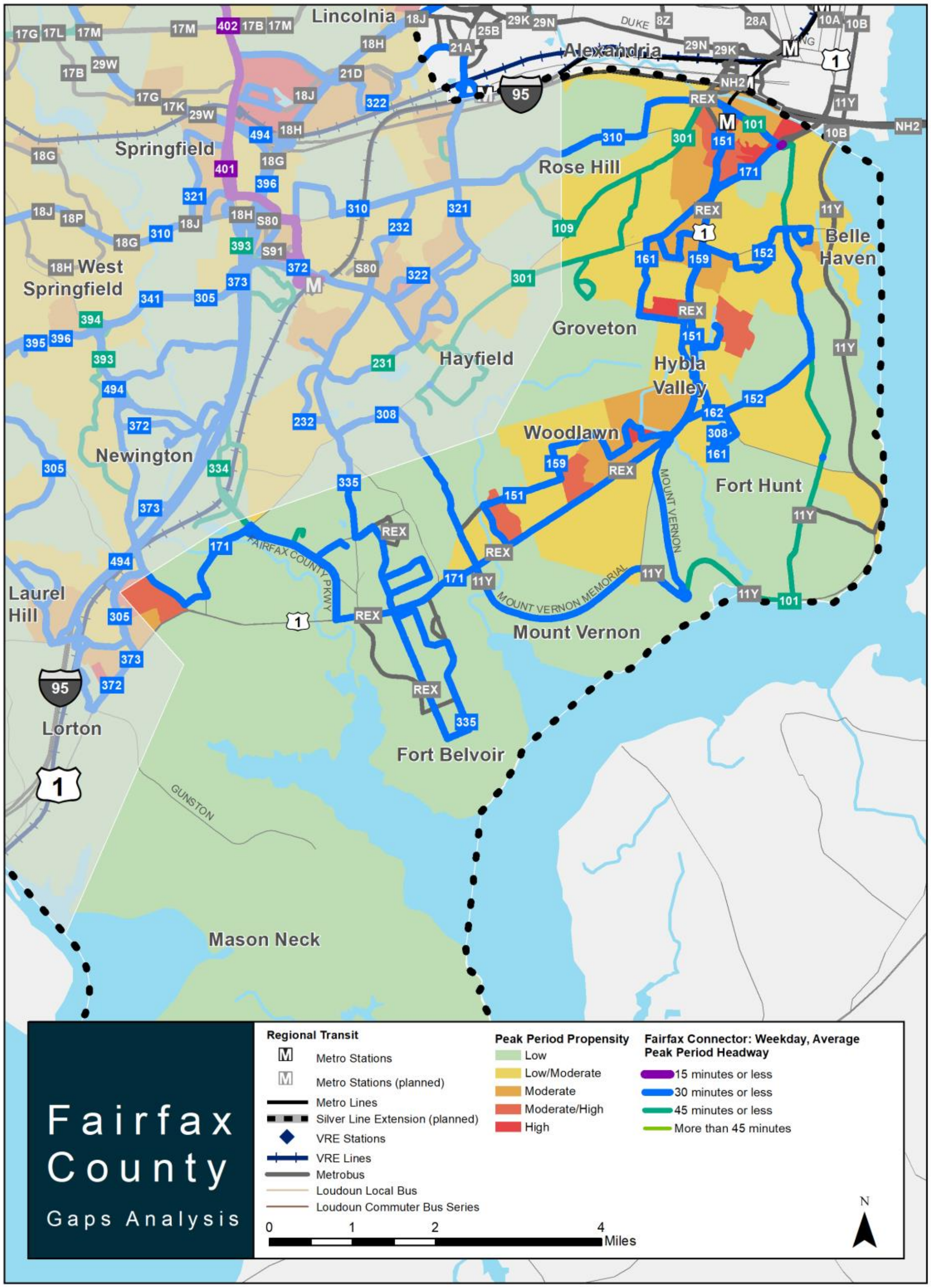
FIGURE 2-24: FRANCONIA-SPRINGFIELD SUBAREA PEAK SERVICE PROPENSITY INDEX (PRE-SILVER LINE EXTENSION)



Note. Service changes have occurred for Fairfax Connector and Metrobus since the time of analysis.

Sources: U.S. Census Bureau 2018 American Community Survey, 2017 LEHD/LODES data, August 2020 Fairfax Connector Service Schedule.

FIGURE 2-25: HUNTINGTON SUBAREA PEAK SERVICE PROPENSITY INDEX (PRE-SILVER LINE EXTENSION)



Note. Service changes have occurred for Fairfax Connector and Metrobus since the time of analysis.

Sources: U.S. Census Bureau 2018 American Community Survey, 2017 LEHD/LODES data, August 2020 Fairfax Connector Service Schedule.

Enhanced Propensity Service Index

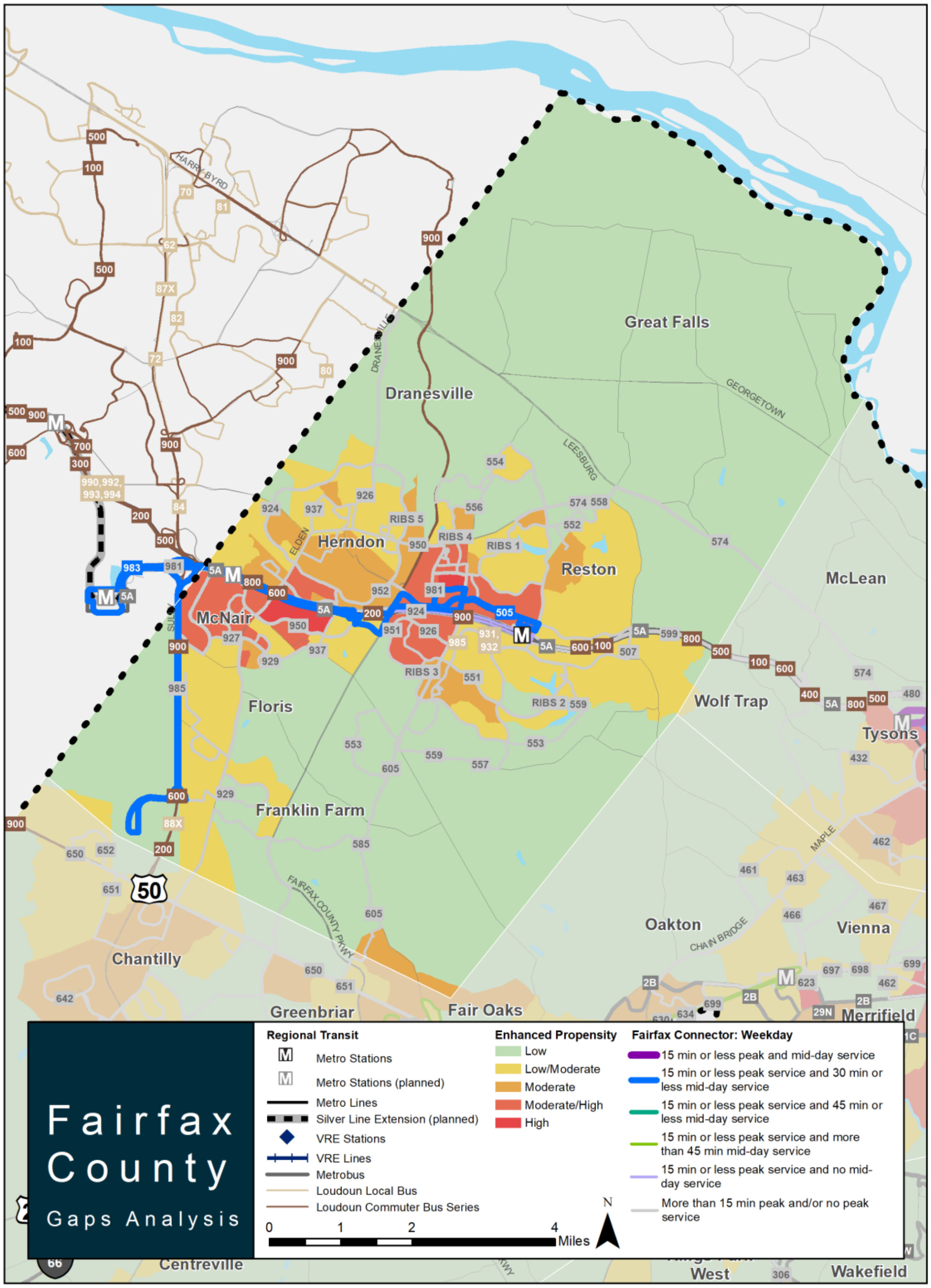
The enhanced transit propensity analysis identifies areas most suitable for frequent service, or service with a 15-minute or less headway. The enhanced service propensity index identifies areas with both high levels of transit-oriented population and commuter origins, as well as high levels of activity and employment destinations as presented in **Section 2.2.1**. **Figure 2-26** through **Figure 2-30** illustrate where higher frequency transit service, 15-minute or better service, make the most sense in each subarea of Fairfax County. In these figures, gaps in service were indicated by areas with moderate to high propensities with more than 15-minute peak service.

Gaps in services were identified for each subarea:

- The Reston-Herndon subarea's enhanced propensity is shown in **Figure 2-26**. High and moderate/high propensity areas were concentrated in Reston and McNair. These areas were served by three Connector routes that operated high-frequency service during peak periods: 983, 505, and 980. Route 980 operated during peak periods only. Route 983 served moderate/high, low/moderate, and low propensity areas and operated with 30-45 minute headways during mid-day periods. Both Reston and McNair had a significant density of Connector services but a limited number of high-frequency routes operating during peak periods. McNair could support additional high-frequency service along existing Connector routes 927 and 950.
- The Tysons subarea's enhanced propensity is shown in **Figure 2-27**. High and moderate/high propensity areas north of the Metrorail line were served by high-frequency services during peak and midday periods. Metrobus Lines 3T, and 28A served the high propensity area in Pimmit Hills. The area south of the Leesburg Pike and Chain Bridge Road was of moderate/high propensity and was not covered by frequent services. Routes 422, 462, and 463 operated in the areas but exhibited headways greater than 15 minutes during peak periods. The area of moderate/high propensity north of Old Dominion Drive, in McLean, was served by several Fairfax Connector and Metrobus routes but no high-frequency Connector services.
- The Centreville-Chantilly-Vienna subarea's enhanced propensity is shown in **Figure 2-28.** High and moderate/high propensity was concentrated in Centreville, Fair Oaks, George Mason, Merrifield, and Woodburn. High-frequency peak period service operated on Connector Route 401 through Merrifield and Woodburn, but propensity levels suggested the area could support all-day high-frequency service. High propensity in this area can be attributed to the concentration of apartments and Inova Hospitals. Fair Lakes north of I-66 was served by many Connector routes but none operated at high-frequency during peak periods and midday.

- The Franconia-Springfield subarea's enhanced propensity is shown in **Figure 2-29**. High and moderate/high propensity was concentrated in Burke Center, Annandale, and Springfield. Springfield and Annandale were served by routes with high-frequency peak period service and all-day 30-minute or less service. One area of moderate/high propensity in the subarea was attributed to Kingstowne Towne Center, which was served by multiple Connector routes but no high-frequency services.
- The Huntington subarea's enhanced propensity is shown in **Figure 2-30**. Moderate/high, and high propensity areas were located along Richmond Highway with concentrations in Huntington and Hybla Valley. This area of Richmond Highway was served by many Fairfax Connector routes and Metrobus Richmond Highway Express (REX) but was not served by any high-frequency Connector routes. Instead, several routes in the corridor combine to provide effective frequency of 15 minutes or less during peak periods and all-day. Existing services along the route provided the corridor with frequent service.

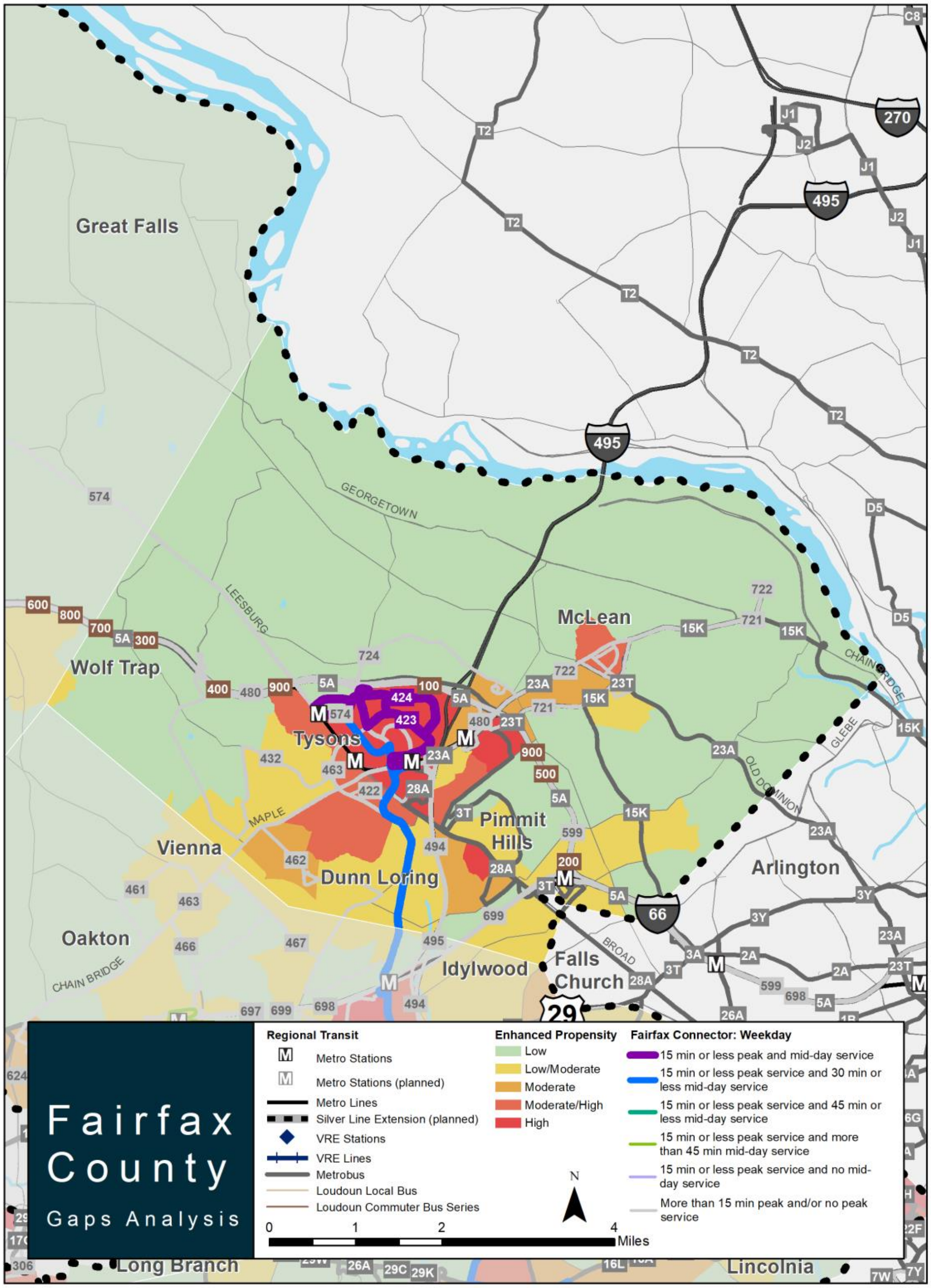
FIGURE 2-26: RESTON-HERNDON SUBAREA ENHANCED PROPENSITY INDEX (PRE-SILVER LINE EXTENSION)



Note. Service changes have occurred for Fairfax Connector and Metrobus since the time of analysis.

Sources: U.S. Census Bureau 2018 American Community Survey, 2017 LEHD/LODES data, August 2020 Fairfax Connector Service Schedule.

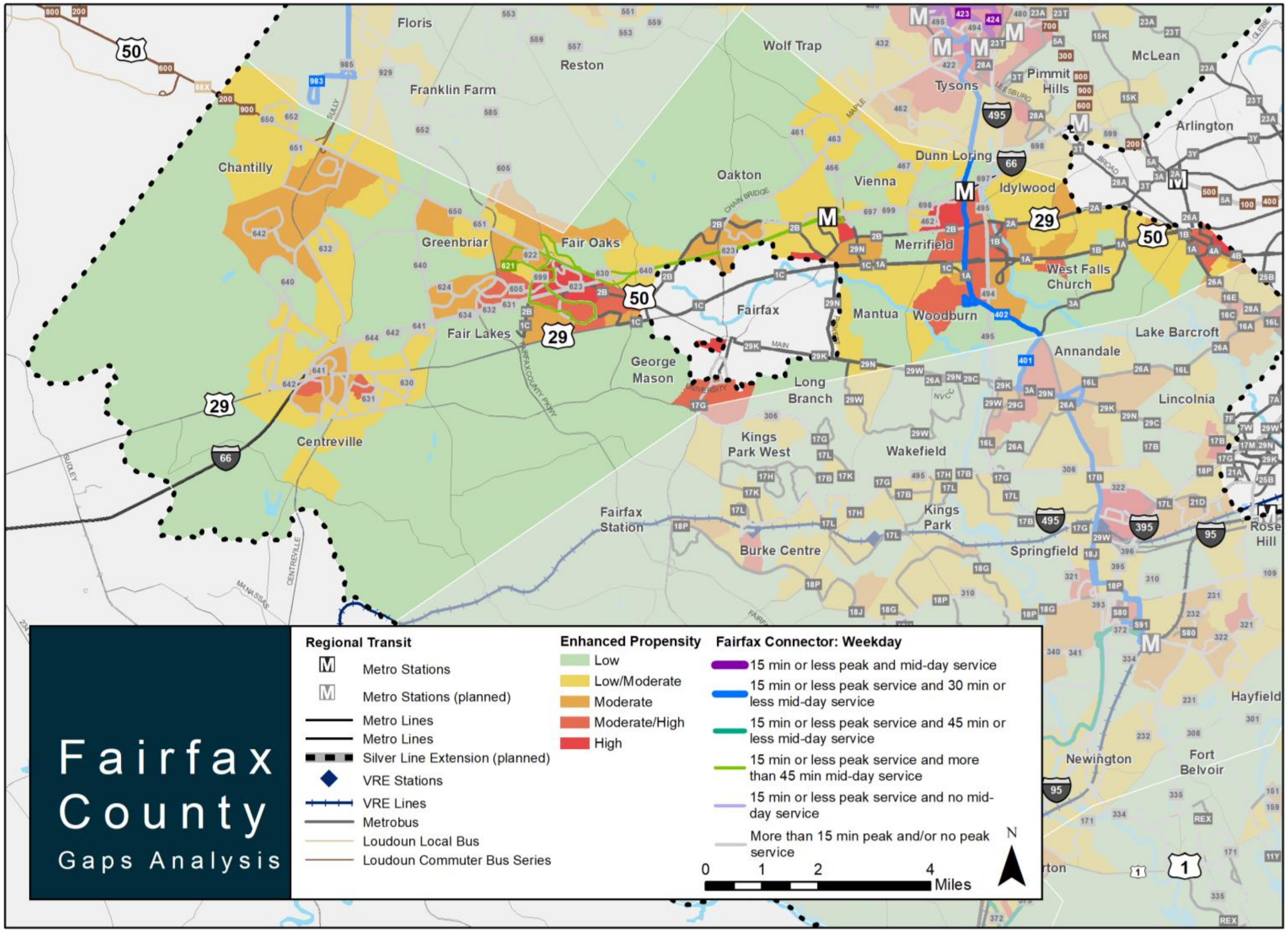
FIGURE 2-27: TYSONS SUBAREA ENHANCED PROPENSITY INDEX (PRE-SILVER LINE EXTENSION)



Note. Service changes have occurred for Fairfax Connector and Metrobus since the time of analysis.

Sources: U.S. Census Bureau 2018 American Community Survey, 2017 LEHD/LODES data, August 2020 Fairfax Connector Service Schedule.

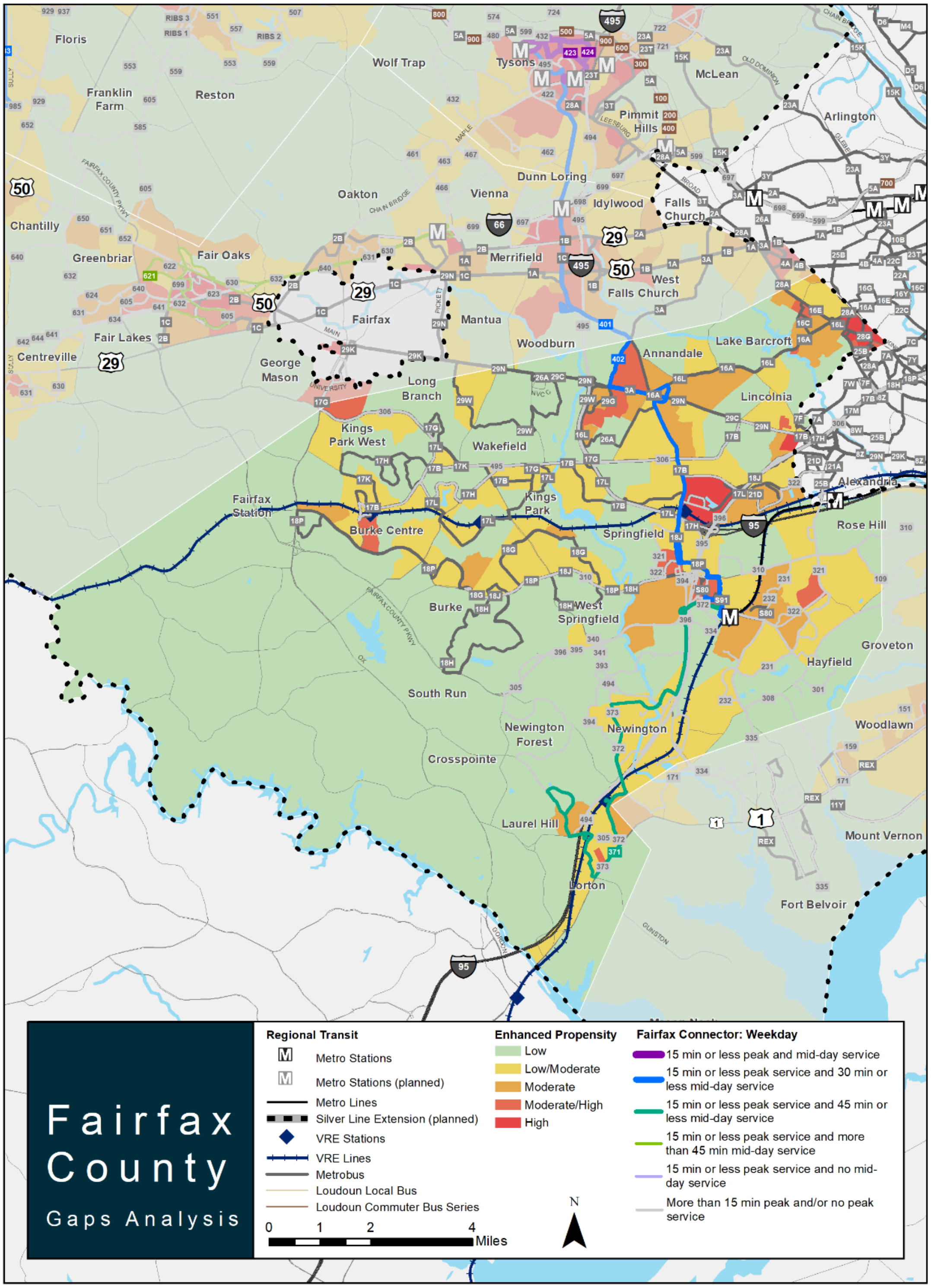
FIGURE 2-28: CENTREVILLE-CHANTILLY-VIENNA SUBAREA ENHANCED PROPENSITY INDEX (PRE-SILVER LINE EXTENSION)



Note. Service changes have occurred for Fairfax Connector and Metrobus since the time of analysis.

Sources: U.S. Census Bureau 2018 American Community Survey, 2017 LEHD/LODES data, August 2020 Fairfax Connector Service Schedule.

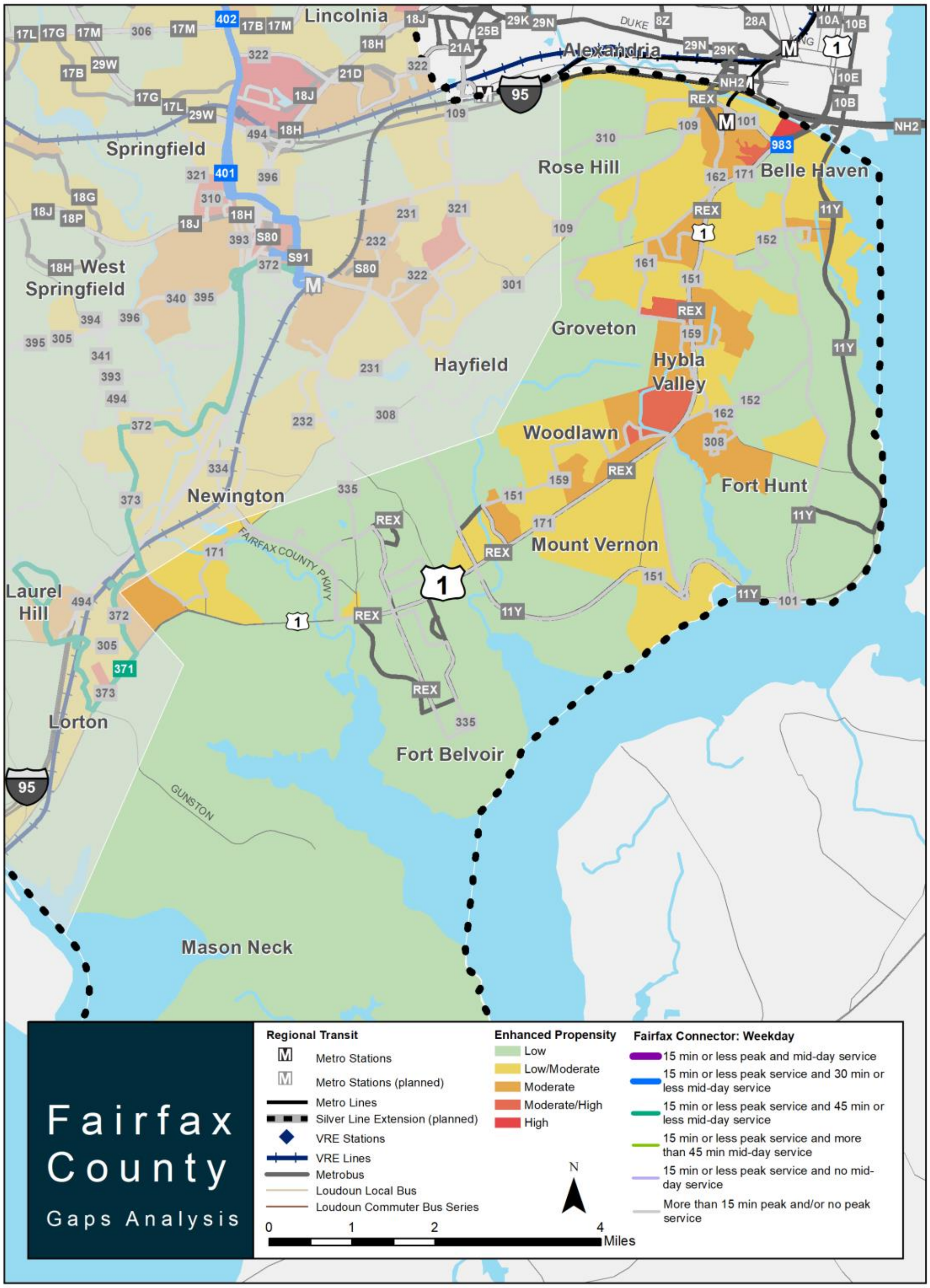
FIGURE 2-29: FRANCONIA-SPRINGFIELD SUBAREA ENHANCED PROPENSITY INDEX (PRE-SILVER LINE EXTENSION)



Note. Service changes have occurred for Fairfax Connector and Metrobus since the time of analysis.

Sources: U.S. Census Bureau 2018 American Community Survey, 2017 LEHD/LODES data, August 2020 Fairfax Connector Service Schedule.

FIGURE 2-30: HUNTINGTON SUBAREA ENHANCED PROPENSITY INDEX (PRE-SILVER LINE EXTENSION)



Sources: U.S. Census Bureau 2018 American Community Survey, 2017 LEHD/LODES data, August 2020 Fairfax Connector Service Schedule.

Note. Service changes have occurred for Fairfax Connector and Metrobus since the time of analysis. Effective frequency of 15 minutes or less for peak and mid-day service is provided by multiple overlapping routes on segments of Richmond Highway.

SUMMARY OF GAPS

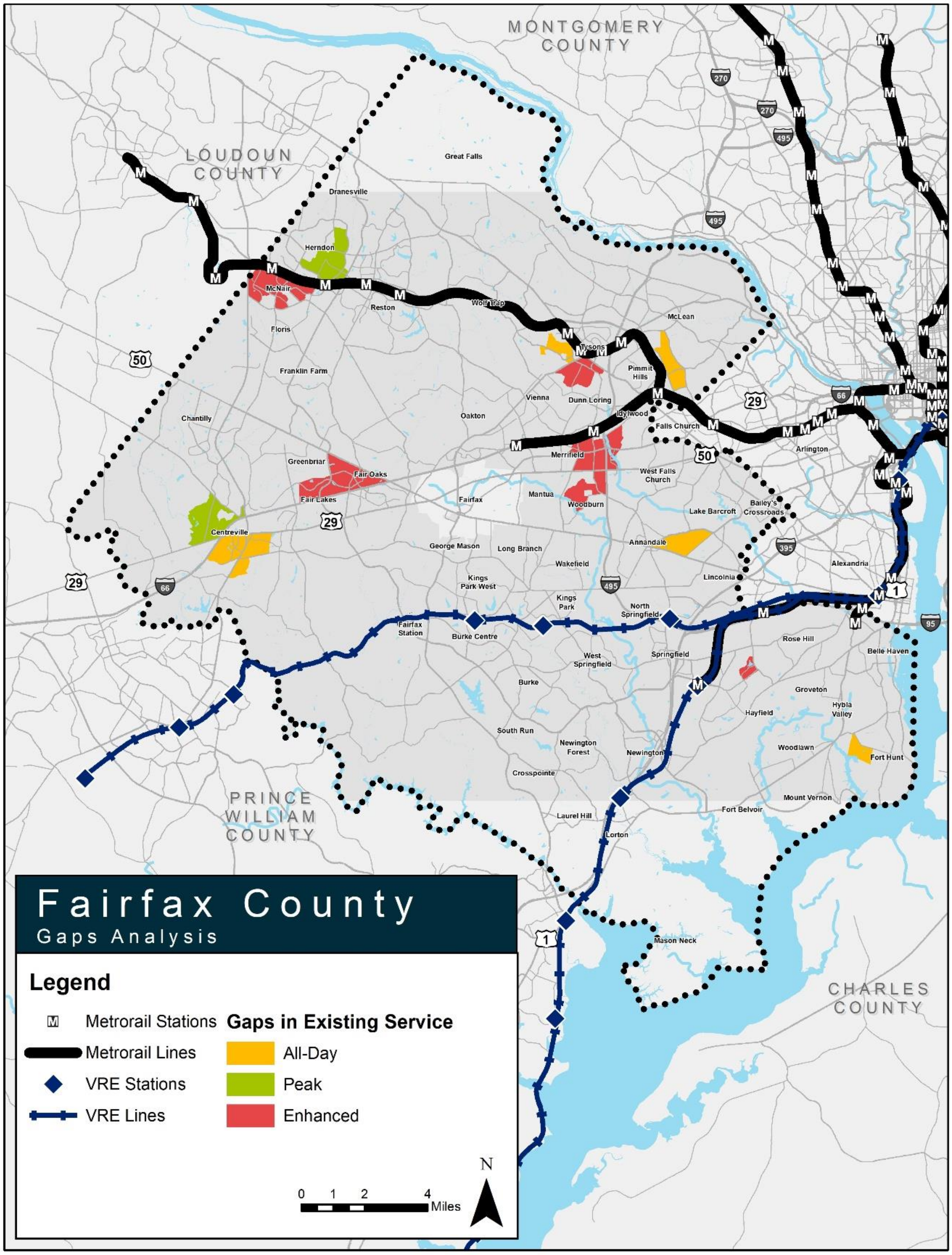
Table 2-7 and **Figure 2-31** provides a summary of the most significant transit service gaps that were identified in Fairfax County. More detail regarding each service type and subarea can be found in the preceding sections. Gaps in the Reston-Herndon subarea were addressed by the bus service changes that started on November 16, 2022.

TABLE 2-7: GAPS IN EXISTING SERVICE (PRE-SILVER LINE EXTENSION)

Subarea	All-Day Index *Areas that could support more midday service*	Peak Service Index *Areas that could support more peak period service*	Enhanced Service Index *Areas that could support more frequent service*
Reston-Herndon		Residential neighborhoods west of the Fairfax County Parkway.	McNair could support additional high-frequency service.
Tysons	East of Great Falls Street and west of Westmoreland Street West of the Greensboro Metrorail station along Old Courthouse Road		South of the Leesburg Pike and Chain Bridge Road.
Centreville-Chantilly-Vienna	Centreville between US 29 and New Braddock Road, and along Centreville Road	Centreville along Stone Road and Braddock Road, near US 29.	Merrifield and Woodburn could support all-day high-frequency service. Fair Lakes north of I-66
Franconia-Springfield	Lincolnia Heights particularly along Lincolnia Road and the Old Colombia Pike		Kingstowne Towne Center
Huntington	Between Fort Hunt and Hybla Valley		

Note. Service changes have occurred for Fairfax Connector and Metrobus since the time of analysis.

FIGURE 2-31: GAPS IN EXISTING SERVICE (PRE-SILVER LINE EXTENSION)



Note. Service changes have occurred for Fairfax Connector and Metrobus since the time of analysis.

2.3 Performance Evaluation

2.3.1 Performance Evaluation

This section evaluates performance in calendar year (CY) 2019 against the performance standards defined at the end of **Chapter 1** (see **Table 1-8**). CY 2019 data was used in the evaluation to account for seasonal fluctuations in transit use throughout the year and avoid the service and performance anomalies of years impacted by COVID-19. As a result, some of the routes referenced in this section no longer operate due to service changes that have occurred since 2019.

Performance was evaluated for the following aspects of service: system accessibility, ridership, reliability, cost efficiency, safety, and customer satisfaction. **Table 2-8** contains systemwide averages for the measures that were evaluated, and comparisons to the benchmarks set in **Chapter 1** are included in the following subsections. Performance-based opportunities for improvement are identified in **Section 2.3.3** based on this analysis.

TABLE 2-8: PERFORMANCE SUMMARY

Service Aspect	Key Performance Indicator	Route Classification	Measure (CY 2019)
System Accessibility	Fairfax County Population Within Service Area	Systemwide	54%
Ridership	Passengers per Revenue Hour (average weekday)	Local	11.6
		Express	14.5
		Systemwide	12.5
	Passengers per Revenue Mile (average weekday)	Local	1.0
		Express	1.0
		Systemwide	1.0
	Passengers per One-Way Trip (average weekday)	Local	9.6
		Express	12.2
		Systemwide	10.4
	Maximum Vehicle Load Factor (average weekday)	Local	0.26
		Express	0.41
		Systemwide	0.31
Reliability	On-Time Performance (average weekday)	Local	80%
		Express	77%
		Systemwide	79%
Cost Efficiency	Operating Cost per Passenger (average weekday)	Local	$9.58
		Express	$12.17
		Systemwide	$10.41
Safety	Bus Collisions	Systemwide	0.28 per 100,000 miles
	Customer Injuries	Systemwide	32
Customer Service	Customer Complaints	Systemwide	3.6 per 10,000 passenger trips

Note. Service changes have occurred for Fairfax Connector since the time of analysis.

Sources: Fairfax Connector's fleet Intelligent Transportation System, Service Schedules for 1/20/2019 to 1/24/2020, 2020 Fairfax County DOT Title VI Plan, FY 2019 National Transit Database Report. Fairfax County DOT and Kimley-Horn, 2021.

SYSTEM ACCESSIBILITY

Fairfax Connector seeks to maintain at least fifty percent of Fairfax County's population within a quarter-mile walking distance of a local route alignment or express route stop. According to the analysis conducted in the 2020 Fairfax County Title VI Program Update, **fifty-four percent of the population has access to Connector service**—exceeding the performance benchmark. About fifty-nine percent of the minority population and forty-nine percent of the non-minority population is within a quarter mile of the service, respectively.

RIDERSHIP

Fairfax Connector evaluates four key ridership metrics: passengers per revenue hour, passengers per revenue mile, passengers per one-way trip, and maximum vehicle load factor. These metrics are evaluated for local and express routes separately as the two types of service have different operating characteristics. As presented in **Chapter 1**, the benchmark for the first three metrics is one standard deviation below the systemwide average for local or express routes, as applicable. Routes that fall below this benchmark may be flagged as an opportunity to improve ridership performance; however, it is important to remember that low-performing routes may still be important components of the system for meeting Connector's goals of choice and access. FCDOT typically takes a deeper look at routes with performance outside of two standard deviations. The benchmark for maximum vehicle load factor is 1.25 for local routes and 1.0 for express routes. Routes that fall above this benchmark may be flagged as an opportunity to alleviate passenger crowding.

For this analysis, ridership metrics were evaluated using average weekday performance data from CY 2019, calculated based on the schedule periods for January 20, 2019, through January 24, 2020. There were no disruptions of service due to COVID-19 during this time period.

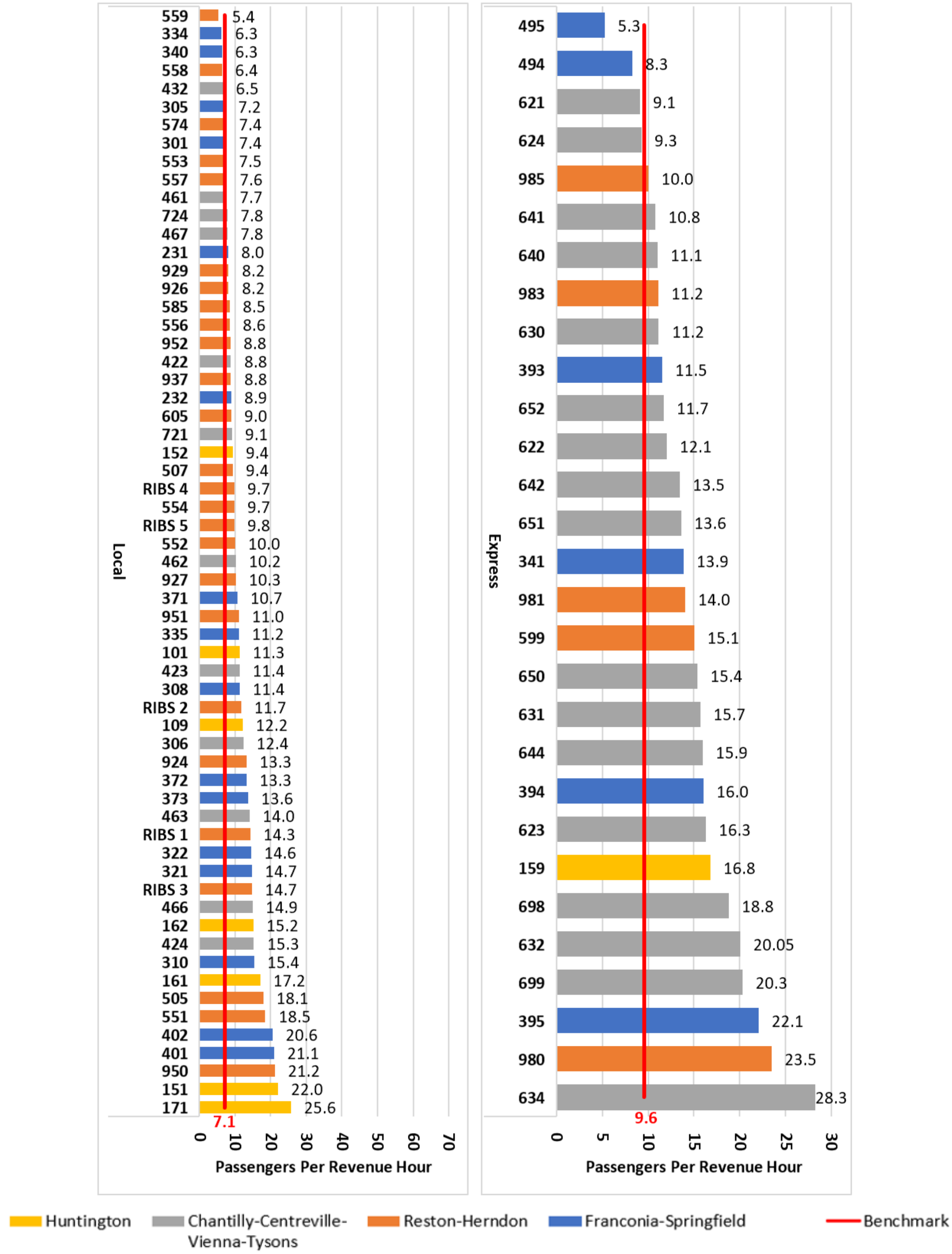
Passengers per Revenue Hour

Passengers per revenue hour compares the total ridership on a route to the total number of revenue hours operated by the route. This is a measure of the productivity of a route's average passengers per revenue hour. **Figure 2-34** shows the route-level weekday passengers per revenue hour for CY 2019 as well as the benchmark level of one standard deviation below the systemwide average for either local or express routes.

Overall, express routes were more productive than local routes with an average of 14.5 passengers per revenue hour compared with a local route average and a combined systemwide average of 11.6 and 12.5 passengers per revenue hour, respectively. The most productive express route was Route 634 (Stringfellow Road – Fair Lakes), followed by Routes 980 (Herndon – Monroe), 395 (Gambrill Road – Pentagon), 699 (Government Center – Downtown D.C.) and 632 (Westfields – Vienna). The most productive local route was Route 171 (Richmond Highway), followed by Routes 151 (Engleside – Mt. Vernon), 950 (Herndon – Reston), 401 (Backlick – Gallows Northbound), and 402 (Backlick – Gallows Southbound). These routes each had an average of 20 or more passengers per revenue hour.

Huntington subarea routes were the most productive of the subareas, for both local and express routes, with a local route average of 16.1 passengers per revenue hour and an express route average of 16.8 passengers per revenue hour. However, there were only seven local routes and one express route in this subarea. Franconia-Springfield local routes had an average of 11.9 passengers per revenue hour, while Reston-Herndon and Chantilly-Centreville-Vienna-Tysons had averages of 10.6 and 10.5 passengers per hour for local routes, respectively. For express routes, Chantilly-Centreville-Vienna-Tysons and Reston-Herndon each had 14.9 and 14.8 passengers per revenue hour, respectively, with Franconia-Springfield express routes having an average of 12.8 passengers per revenue hour.

FIGURE 2-32: PASSENGERS PER REVENUE HOUR, CY 2019 WEEKDAY



Note. Service changes have occurred for Fairfax Connector since the time of analysis.

Sources: Fairfax Connector's fleet Intelligent Transportation System, Service Schedules for 1/20/2019 to 1/24/2020. Fairfax County DOT and Kimley-Horn, 2021.

Excludes seasonal Route 480 (Wolf Trap Express) and existing routes that did not operate during CY 2019.

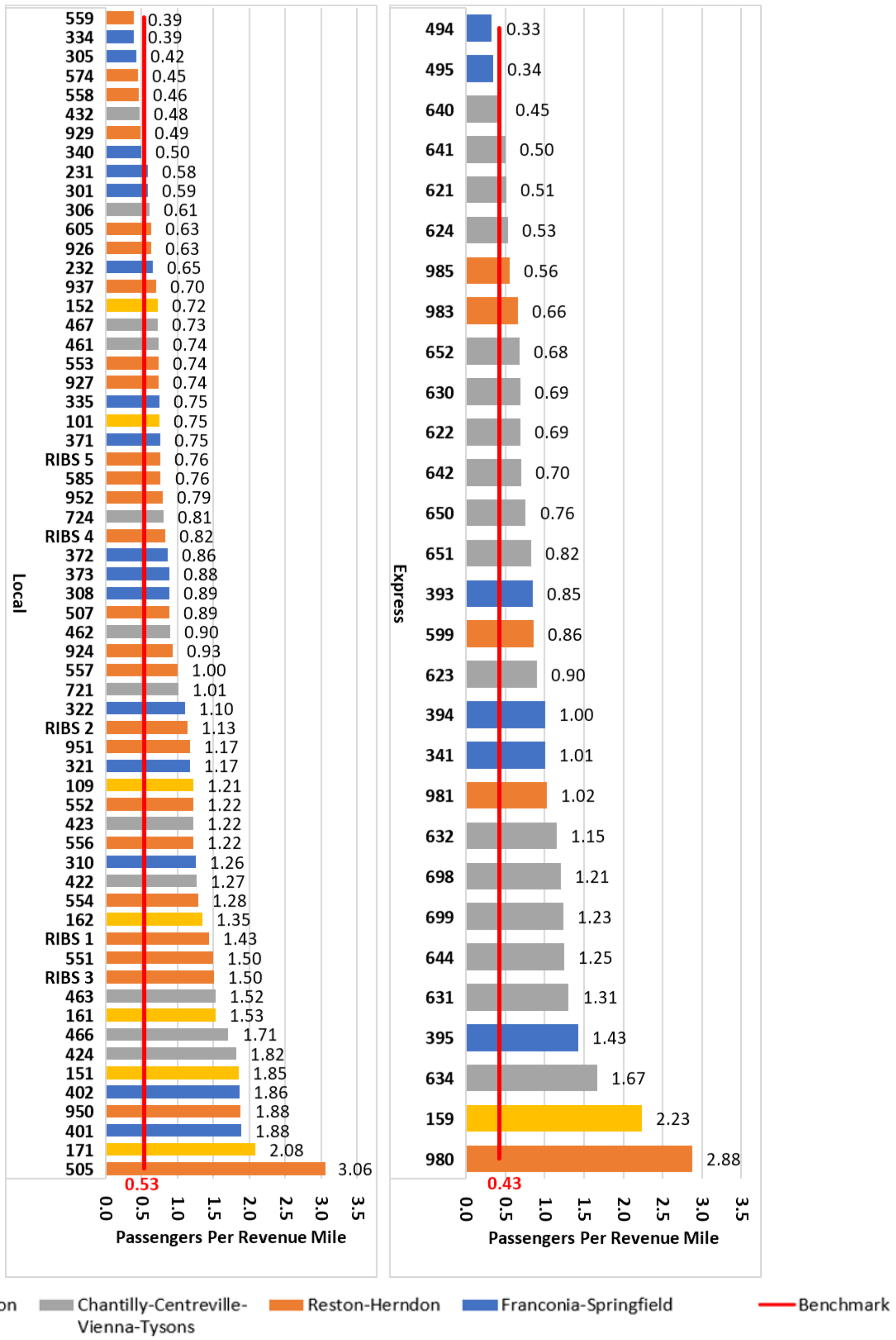
Passengers per Revenue Mile

Similar to passengers per revenue hour, passengers per revenue mile compares total ridership on a route to the total number of revenues miles operated by the route and is a measure of the productivity of a route's average revenue mile. **Figure 2-35** shows the route-level weekday passengers per revenue mile for CY 2019 as well as the benchmark level of one standard deviation below the systemwide average for either local or express routes.

The highest performing route was Route 505 (Reston Town Center), a local route with 3.1 passengers per revenue mile. The next two highest performing routes were both express routes—Route 980 (Herndon – Monroe) and Route 159 (Engleside Limited-Stop) at 2.9 and 2.2 passengers per revenue mile, respectively, followed by local Route 171 (Richmond Highway) at 2.1 passengers per revenue mile. **Overall, the systemwide averages for local routes, express routes, and all routes combined were 1.0 passengers per revenue mile**.

Again, Huntington was the highest-performing subarea with averages of 1.4 and 2.2 passengers per revenue mile for local and express routes, respectively. This was primarily driven by the high performance of Route 159 (Engleside Limited-Stop), which is the only express route in the subarea. The other three subareas all had average passengers per revenue mile between 0.8 and 1.2 for both local and express routes.

FIGURE 2-33: PASSENGERS PER REVENUE MILE, CY 2019 WEEKDAY



Note. Service changes have occurred for Fairfax Connector since the time of analysis.

Sources: Fairfax Connector's fleet Intelligent Transportation System, Service Schedules for 1/20/2019 to 1/24/2020. Fairfax County DOT and Kimley-Horn, 2021.

Excludes seasonal Route 480 (Wolf Trap Express) and existing routes that did not operate during CY 2019.

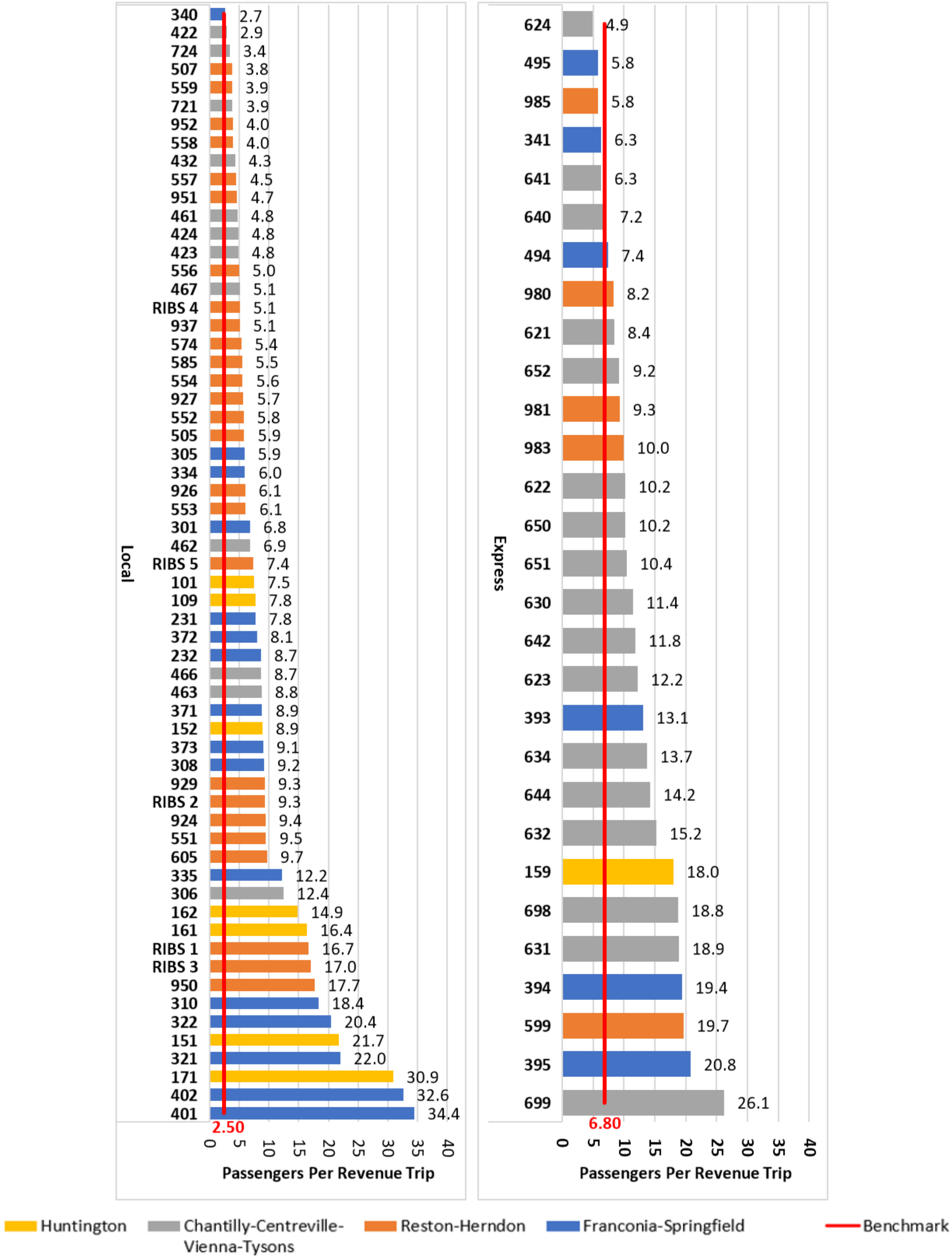
Passengers per One-Way Trip

Passengers per revenue trip or one-way trip is the third ridership metric and compares the total ridership on a route to the total number of vehicle trips on the route. **Figure 2-34** shows the route-level weekday passengers per one-way trip for CY 2019 as well as the benchmark level of one standard deviation below the systemwide average for either local or express routes.

The highest performing routes on a passengers per trip basis were Routes 401 and 402, which are the northbound and southbound Backlick – Gallows routes, with 34 and 33 passengers per trip, respectively. The next highest-performing route was Route 171 (Richmond Highway), also a local route, with 31 passengers per trip. The last route with more than 25 passengers per trip was express Route 699 (Government Center – Downtown D.C.) with 26 passengers per trip. Although these local routes were amongst the highest performing in the system, **overall local routes had an average of 9.6 passengers per trip compared to an average of 12.2 passengers per trip for express routes.**

Huntington was the highest-performing subarea for both local and express routes. After Huntington, the Franconia-Springfield subarea had the highest performing local routes with an average of 13.3 passengers per trip. The local route averages were much lower in the Reston-Herndon and Chantilly-Centreville-Vienna-Tysons subareas (7.4 and 5.9 passengers per revenue trip, respectively). However, for express routes, the Chantilly-Centreville-Vienna-Tysons subarea had the second-highest number of passengers per trip at 12.3, closely followed by the Franconia-Springfield area at 12.1 passengers per revenue trip.

FIGURE 2-34: PASSENGERS PER ONE-WAY TRIP, CY 2019 WEEKDAY



Note. Service changes have occurred for Fairfax Connector since the time of analysis.

Sources: Fairfax Connector's fleet Intelligent Transportation System, Service Schedules for 1/20/2019 to 1/24/2020. Fairfax County DOT and Kimley-Horn, 2021.

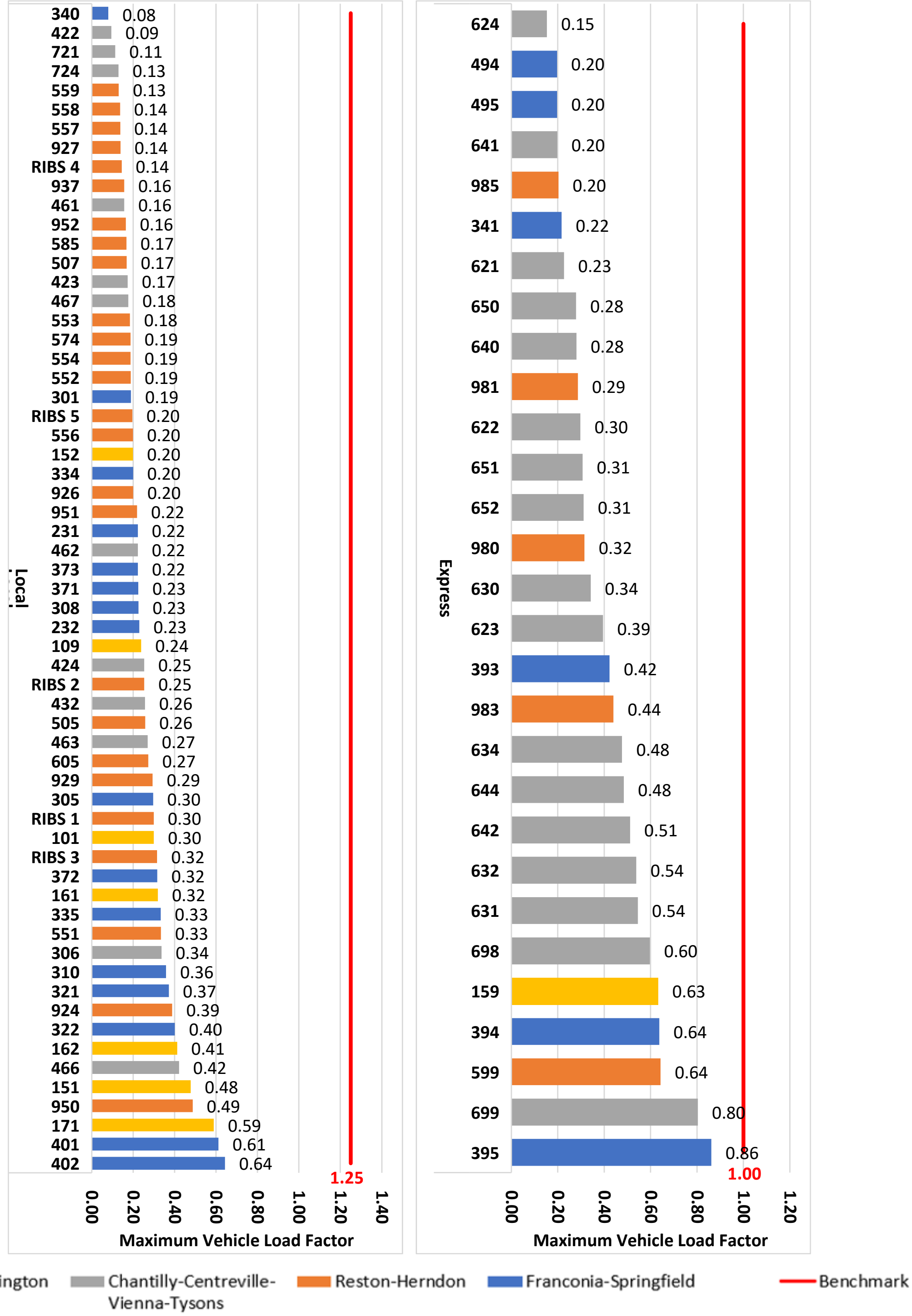
Excludes seasonal Route 480 (Wolf Trap Express) and existing routes that did not operate during CY 2019.

Maximum Vehicle Load Factor

Maximum vehicle load factor compares the maximum passenger load on a route to the average number of available seats in order to evaluate the level of passenger crowding. **Figure 2-35** shows the weekday maximum vehicle load factors for each route as well as the benchmark levels for both local and express routes. Overall, local routes had an average maximum load factor of 0.26 compared to an average of 0.41 for express routes.

None of the routes exceeded the benchmark values in CY 2019. Express Route 395 (Gambrill Road – Pentagon) had the highest load factor at 0.86, closely followed by another express route, Route 699 (Government Center – Downtown D.C.) at 0.80. The highest maximum load factor on a local route was 0.64 on Route 402 (Backlick – Gallows Southbound), closely followed by Route 401 (Backlick – Gallows Northbound) at 0.61. This means that all routes—both local and express—had a maximum load of less than one passenger per seat for weekday service. There were no routes that exceeded a maximum load factor of one passenger per seat for Saturday or Sunday service.

FIGURE 2-35: WEEKDAY MAXIMUM VEHICLE LOAD FACTOR, CY 2019 WEEKDAY



Note. Service changes have occurred for Fairfax Connector since the time of analysis.

Sources: Fairfax Connector's fleet Intelligent Transportation System, 2020 Fairfax County DOT Title VI Plan. Fairfax County DOT and Kimley-Horn, 2021.

Available seats for local RIBS routes were assumed to be 37 based on the average available seats for trips systemwide. Excludes seasonal Route 480 (Wolf Trap Express) and existing routes that did not operate during CY 2019.

RELIABILITY

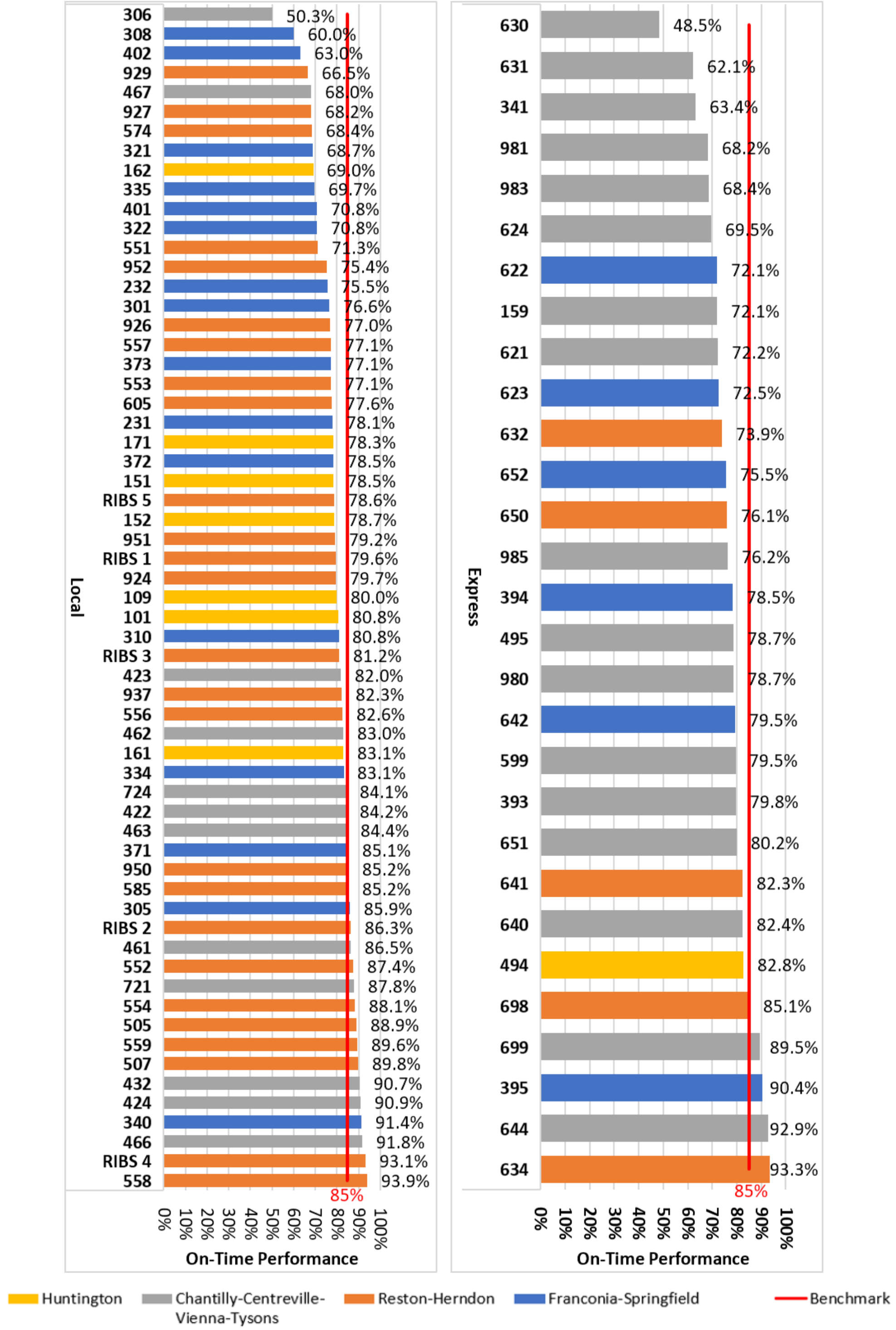
On-Time Performance

Fairfax Connector evaluates reliability in terms of on-time performance. Connector requires its operating contractor to maintain a minimum standard of at least 85 percent of trips for each route being “on-time,” which is defined as being between one minute early and six minutes late at time points. **The average weekday on-time performance for all routes in CY 2019 was 79 percent**. Local routes were slightly better, with an average on-time performance of 80 percent compared to 77 percent for express routes. **Figure 2-36** shows the route-level weekday on-time performance for each route as well as the benchmark level of 85 percent. On-time performance has improved since the onset of the COVID-19 pandemic and has trended upward since the CY 2019 data.

There were 18 local routes and 5 express routes with on-time performance of 85 percent or more. The highest performing route was local Route 558 (Center Harbor – Lake Fairfax) with 94 percent on-time performance. This was followed by the highest performing express route, Route 634 (Stringfellow Road – Fair Lakes), and then local route RIBS 4 (North Point) and express Route 644 (Centreville [Stone Road] Park and Ride), all of which had on-time performance rates of 93 percent.

Overall, Reston-Herndon had the highest on-time performance of all of the subareas at 81 percent. Chantilly-Centreville-Vienna-Tysons had an average on-time performance of 74 percent for express routes, which was the lowest of all of the subareas. This was attributed to the unreliability of I-66 during congested peak periods for routes going to and from the Vienna Metrorail station. This reliability is expected to be improved with the construction of Express Lanes on I-66 that opened fully in November 2022. The Franconia-Springfield subarea had the lowest on-time performance for local routes at 76 percent compared to the other subareas.

FIGURE 2-36: ON-TIME PERFORMANCE, CY 2019 WEEKDAY



Note. Service changes have occurred for Fairfax Connector since the time of analysis.

Sources: Fairfax Connector's fleet Intelligent Transportation System. Fairfax County DOT and Kimley-Horn, 2021.

Excludes seasonal Route 480 (Wolf Trap Express) and existing routes that did not operate during CY 2019.

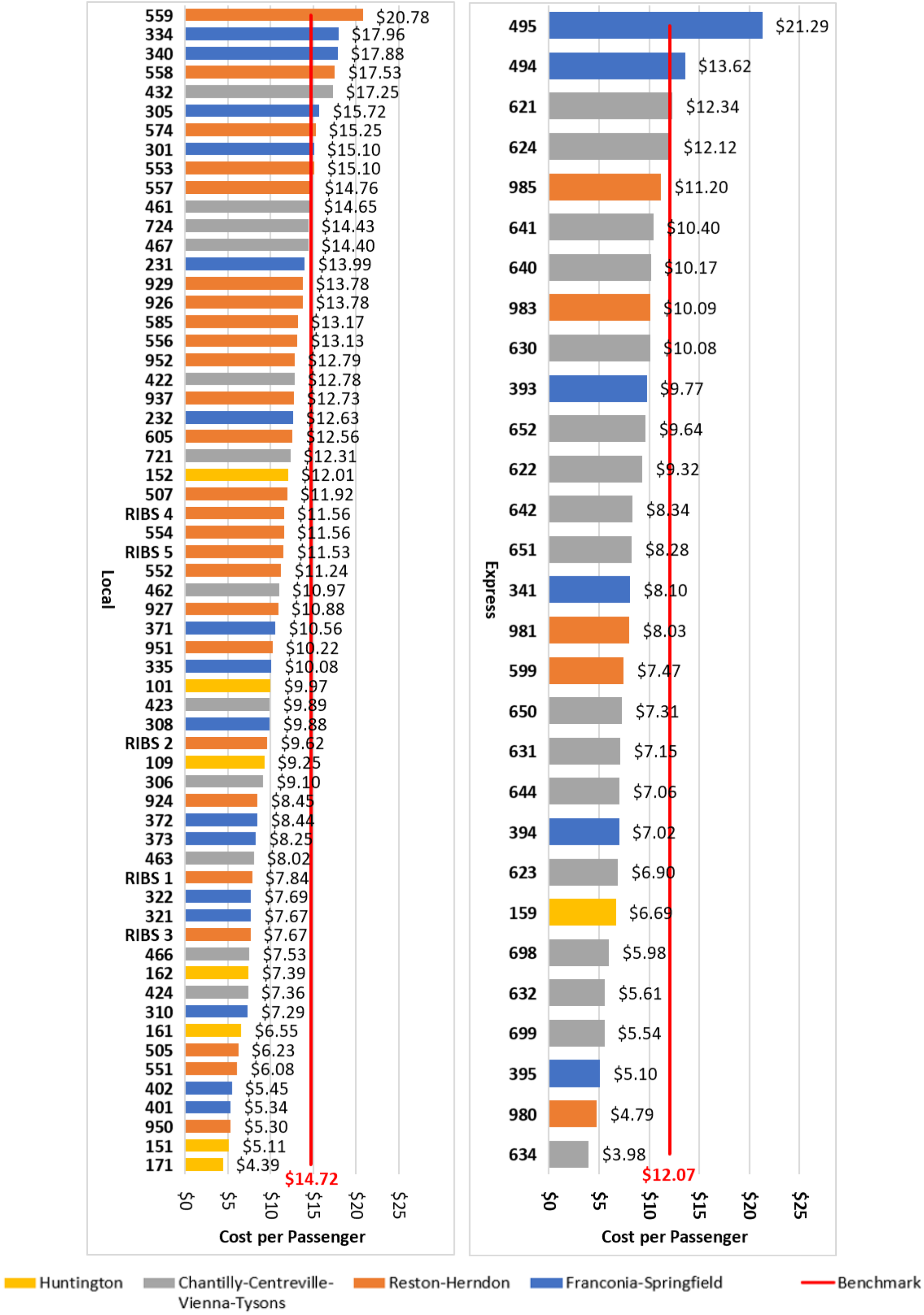
COST EFFICIENCY

Operating cost per passenger is a measure of the cost efficiency of service on a route that compares operating costs for a route to total ridership on the route. For this analysis, annual operating costs by route were estimated by first calculating Fairfax Connector's operating costs per revenue hour (based on total operating costs and vehicle revenue hours reported in the FY 2019 NTD Report) and applying this to the total CY 2019 annual revenue hours operated on each route estimated from service schedules. For the purpose of this calculation, the fully-allocated cost was used, as the resources invested in activities like administration and planning are all necessary to put service on the street. Unlike the previous ridership and reliability measures, for this cost efficiency measure, a *lower* number means better performance and routes should operate *below* the benchmark level. **Figure 2-37** shows the route-level operating cost per passenger for FY 2019 as well as the benchmark level of one standard deviation above the systemwide average for either local or express routes. Routes that have higher costs than this benchmark may be flagged as an opportunity to improve efficiency; however—like ridership—low-performing routes from a cost-efficiency standpoint may still be important components of the system for meeting Connector's goals of choice and access.

Express routes had a lower average operating cost per passenger at $8.74 per passenger compared to an average cost of $11.03 for local routes. The highest performing routes with operating costs less than $5.00 per passenger were express Routes 634 (Stringfellow Road – Fair Lakes) and 980 (Herndon – Monroe), with costs per passenger of $3.98 and $4.79, respectively, as well as local Route 171 (Richmond Highway) with a cost per passenger of $4.39. The highest operating cost per passenger in the system was for Route 495 (Burke Centre – Tysons). Three other express routes had costs per passenger greater than the express route benchmark of $12.07, including Routes 494 (Lorton – Springfield – Tysons), 621 (Fairfax County Government Center), and 624 (Stringfellow Road – Fair Lakes). There were 10 local routes with costs per passenger greater than the local route benchmark of $14.72, starting with Route 559 (Reston South – Glade – Soapstone), followed by Routes 334 (Newington Circulator), 340 (Patriot Ridge – Saratoga), 558 (Center Harbor – Lake Fairfax), 432 (Old Courthouse – Beulah), 305 (Newington Forest – Silverbrook Road), 574 (Reston – Tysons), 301 (Telegraph Road), 553 (Reston South – Viking – Pinecrest), and 557 (Reston South – Soapstone).

The Huntington subarea had the lowest operating costs per passenger of all the subareas, with a combined local and express route average cost per passenger of $7.67. For local routes, the subarea with the next lowest average operating cost per passenger was Franconia-Springfield at $10.87 per passenger, while the other subareas were over $11.50 per passenger. For express routes, Chantilly-Centreville-Vienna-Tysons and Reston-Herndon had similar costs per passenger at $8.25 and $8.32, respectively, while Franconia-Springfield had the highest average operating cost per passenger at $10.82 per passenger.

FIGURE 2-37: OPERATING COST PER PASSENGER, CY 2019



Note. Service changes have occurred for Fairfax Connector since the time of analysis.

Sources: Fairfax Connector's fleet Intelligent Transportation System. FY 2019 National Transit Database Report. Fairfax County DOT and Kimley-Horn, 2021.

Excludes seasonal Route 480 (Wolf Trap Express) and existing routes that did not operate during CY 2019.

SAFETY

There are several factors that can be considered when measuring safety. The two that are considered in this performance evaluation are bus collisions and customer injuries reported.

Bus Collisions

The bus collision safety measure identifies the number of bus collisions and incidents occurring in a year. In CY 2019, there were 36 bus collisions. Normalizing by vehicle mileage, there were **0.28 collisions per 100,000 miles in CY 2019**, which is well below the benchmark of 2.0 per 100,000 miles.

Customer Injuries

The customer injuries safety measure looks at the number of customer injuries identified, where injuries are defined as any damage or harm done to a person as a result of an event that requires immediate medical attention away from the scene. In CY 2019, there were **32 injuries identified**. This number was higher than the benchmark of zero injuries that Connector strives to achieve. Many of these injuries were a result of incidents that were non-preventable, such as another vehicle coming into contact with the bus.

CUSTOMER SERVICE

Customer complaints per 10,000 passenger trips is used as a measure of customer satisfaction. This metric uses passenger trips as a base for comparing across time periods with different ridership levels. In CY 2019, there were **3.6 customer complaints for every 10,000 passenger trips**. This measure was slightly higher than the benchmark of 2.5 customer complaints for every 10,000 passenger trips.

2.3.2 Trend Analysis

This trend analysis reports on and assesses Fairfax Connector's routes during a seven-year period spanning FY 2016 to FY 2022. Such an evaluation allows for an assessment of transit services over time and sheds light on how development and changing demographics have impacted transit performance and system growth. This analysis looks at performance metrics for service area characteristics, operational statistics, ridership, and revenue and cost. In accordance with DRPT's *Performance Based Operating Assistance Allocation Guidance*, this analysis includes the following performance metrics:

- Ridership
- Passengers per Vehicle Revenue Mile
- Passengers per Vehicle Revenue Hour
- Operating Cost
- Operating Cost per Vehicle Revenue Mile
- Operating Cost per Vehicle Revenue Hour
- Operating Cost per Passenger

SERVICE AREA CHARACTERISTICS

A review of service area characteristics allows an agency to assess how the scale of its operations and its constituency size have evolved along with the service provided. As shown in **Table 2-9**, there was an increase in service area population over the past seven years. Overall, from FY 2016 to FY 2022, there was a 3 percent increase in population. There was no change in the service area square mileage.

TABLE 2-9: TREND ANALYSIS SERVICE AREA STATISTICS

Service Area Statistics	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Square Miles	407	407	407	407	407	407	407
Population	1,131,886	1,138,652	1,125,385	1,152,873	1,152,873	1,150,856	1,164,025

Source: FY 2016 – FY 2022 National Transit Database Reports

OPERATIONAL STATISTICS

A review of operational statistics describes the level of service Fairfax Connector has provided from FY 2016 to FY 2022. **Table 2-10** presents the vehicles operated in maximum service as well as the revenue hours and revenue miles operated by Connector during the past seven years. As shown in **Table 2-11**, all three operational measures have increased since FY 2016 as a result of expanding Connector service, particularly in the years following the COVID-19 pandemic.

TABLE 2-10: TREND ANALYSIS OPERATIONAL STATISTICS

Operational Statistics	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Vehicles Operated in Maximum Service (VOMS)	226	235	245	264	237	276	284
Vehicle Revenue Miles (VRM)	9,191,836	9,574,848	9,865,555	10,047,341	9,519,621	9,989,631	10,863,043
Vehicle Revenue Hours (VRH)	721,190	735,918	749,786	759,778	783,021	777,466	840,571

Source: FY 2016 - 2022 National Transit Database Reports

TABLE 2-11: TREND ANALYSIS OPERATIONAL STATISTICS PERCENT CHANGE

Operational Statistics	FY2016 – FY2022
Vehicles Operated in Maximum Service (VOMS)	+26%
Vehicle Revenue Miles (VRM)	+18%
Vehicle Revenue Hours (VRH)	+17%

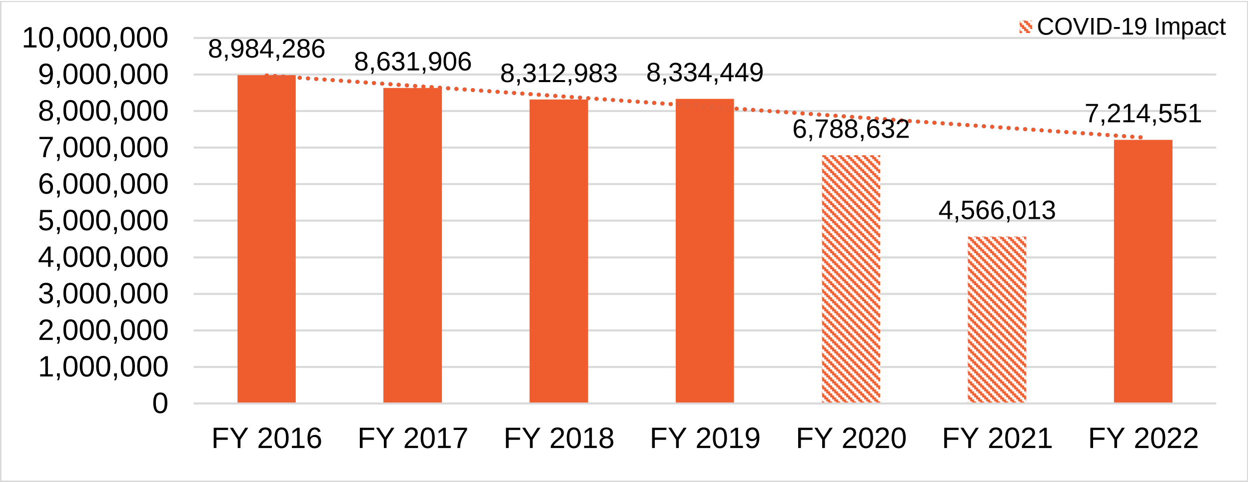
Source: FY 2016 - FY 2022 National Transit Database Reports. Kimley-Horn, 2023.

RIDERSHIP

An assessment of ridership reveals how the usage of Fairfax Connector services has changed over the seven-year analysis period. This analysis looks at unlinked passenger trips, or the total number of boardings on vehicles, regardless of how many transfers were made during any single trip.

As shown in **Figure 2-38**, there has been a decrease in ridership since FY 2016. **Table 2-12** shows that between FY 2016 and FY 2018, there was a gradual decrease in ridership of about 4 percent per year, but ridership was leveling out and even increasing between 2018 and 2019 prior to the COVID-19 pandemic. This is similar to the national trend of a decline in bus ridership of 6.3 percent from 2015 to 2019 as reported by the American Public Transportation Association (APTA)[21]. FY 2020 brought a 19 percent decrease in ridership compared to FY 2019 due to impacts of the COVID-19 pandemic on transit usage. While ridership has rebounded significantly from the pandemic decline, FY 2022 ridership remained 13% below that of FY 2019. **Figure 2-39** shows all of Northern Virginia's transit ridership since FY 2016, which shows a similar trend.

FIGURE 2-38: TREND IN TOTAL RIDERSHIP



Source: FY 2016 - FY 2022 National Transit Database Reports

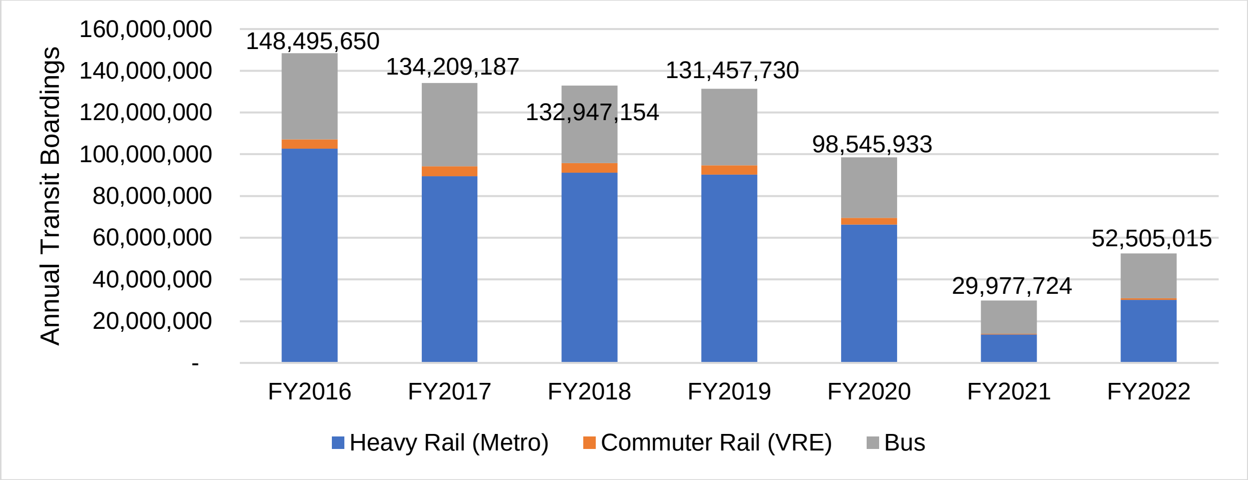
[21] https://www.apta.com/research-technical-resources/transit-statistics/ridership-report/

TABLE 2-12: TOTAL RIDERSHIP PERCENT CHANGE

Year Range	Percent Change
FY 16 – FY 22	-20%

Sources: FY 2016 – FY 2022 National Transit Database Reports. Kimley-Horn, 2023.

FIGURE 2-39: NORTHERN VIRGINIA ANNUAL TRANSIT BOARDINGS (ALL MODES), FY 2016 - FY 2022



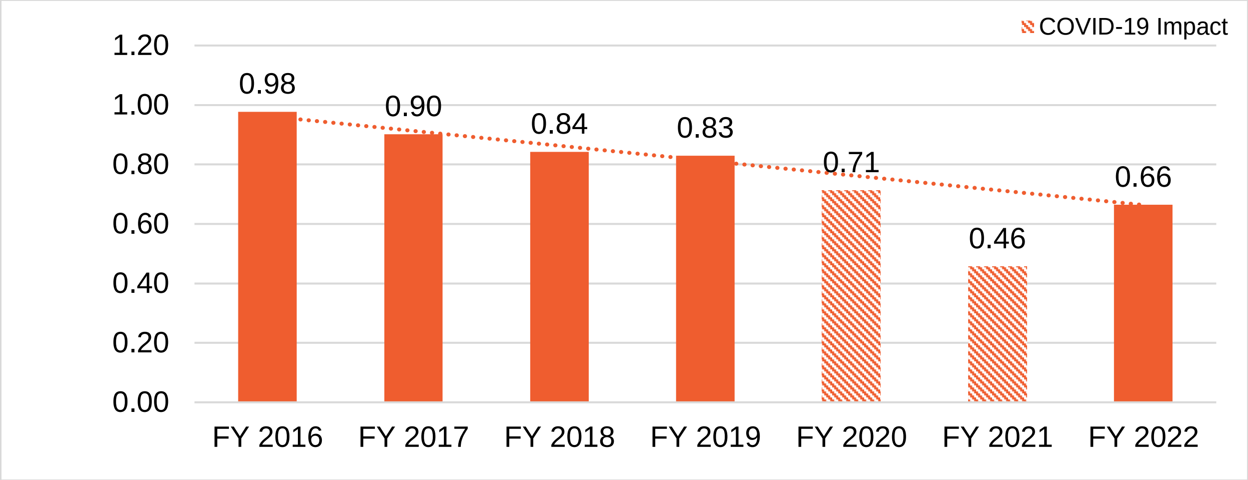
Source: Northern Virginia Transportation Commission[22]

[22] *https://novatransit.org/data-archive/*

Passengers per Revenue Mile

Passengers per revenue mile measures the productivity of Fairfax Connector in transporting its passengers. This measure is often, but not always, linked with trends in total ridership. Similar to the recent trend in total ridership, there was a decrease in passengers per revenue mile from FY 2016 to FY 2020, as shown in **Figure 2-40**, but the total decrease was more significant than the decrease in ridership, as shown in **Table 2-13**. This reflects the fact that while ridership decreased—especially between 2019 and 2020 due to the COVID-19 pandemic—revenue miles increased as new and enhanced services were introduced. Like ridership, this measure was leveling out between FY 2018 and FY 2019 prior to COVID-19 impacts. Similarly, passengers per revenue mile have recovered significantly from the pandemic decline and remained 20% below FY 2019 levels as of FY 2022.

FIGURE 2-40: TREND IN PASSENGERS PER REVENUE MILE



Source: FY 2016 – 2022 National Transit Database Reports

TABLE 2-13: PASSENGERS PER REVENUE MILE PERCENT CHANGE

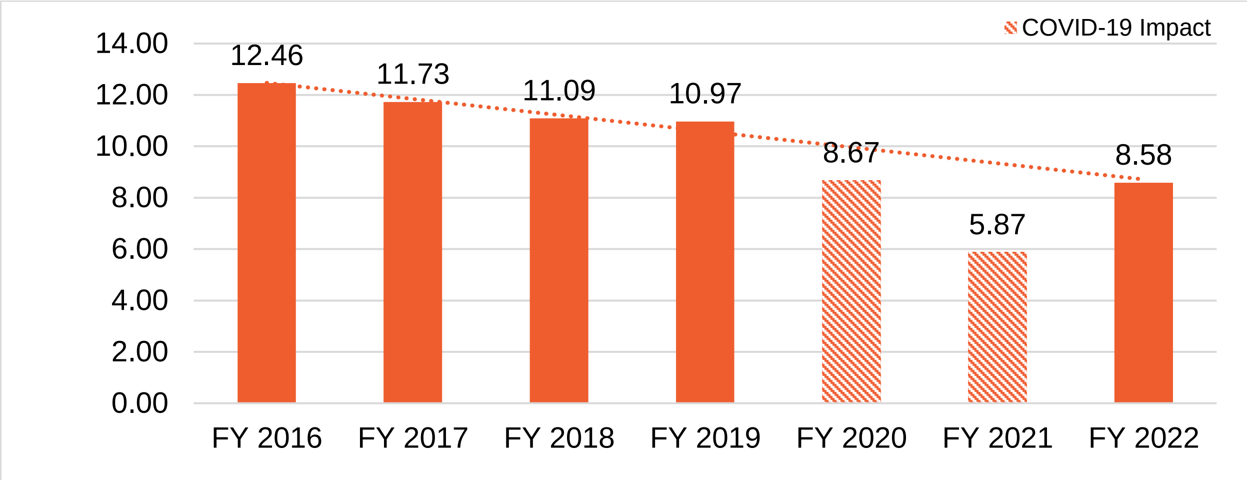
Year Range	Percent Change
FY 16 – FY 22	-32%

Sources: FY 2016 – FY 2022 National Transit Database Reports. Kimley-Horn, 2023.

Passengers per Revenue Hour

Passengers per revenue hour is another metric used to evaluate how productively Fairfax Connector vehicles spend their time (rather than distance) in service. As was the case with other ridership metrics covered in this section, passengers per revenue hour decreased from FY 2016 to FY 2019 with a steeper decrease in FY 2020 and FY 2021 attributed to the COVID-19 pandemic, as shown in **Figure 2-41** and **Table 2-14**. Between 2018 and 2019 passengers per revenue hour was leveling off compared to slight declines in prior years. Here too, passengers per revenue hour for FY 2022 showed a significant improvement over the declines induced by the pandemic and remained 22% lower than in FY 2019.

FIGURE 2-41: TREND IN PASSENGERS PER REVENUE HOUR



Source: FY 2016 – FY 2020 National Transit Database Reports

TABLE 2-14: PASSENGERS PER REVENUE HOUR PERCENT CHANGE

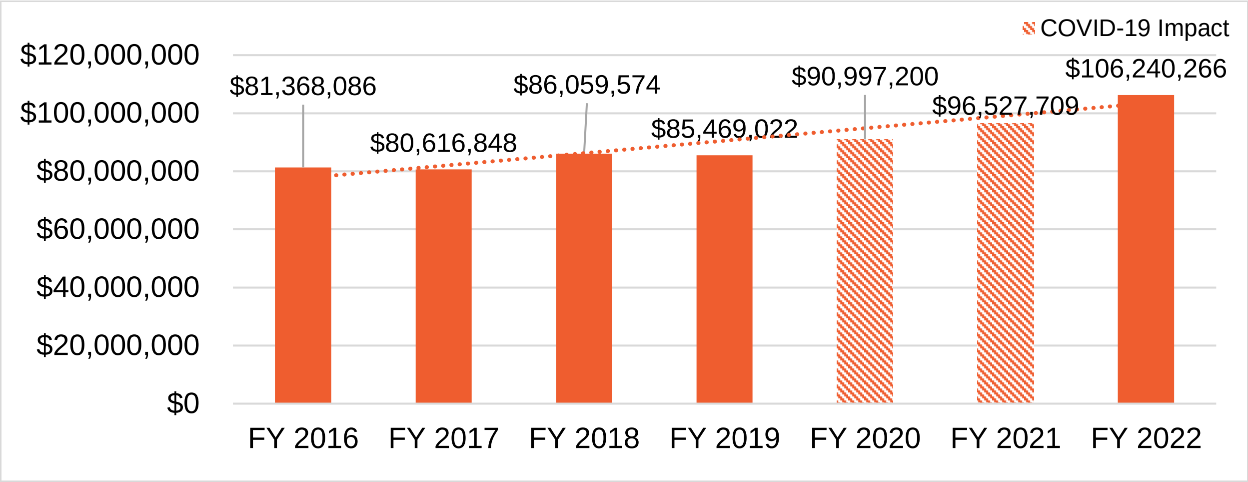
Year Range	Percent Change
FY 16 – FY 22	-31%

Sources: FY 2016 – FY 2022 National Transit Database Reports. Kimley-Horn, 2023.

REVENUE AND COST

An analysis of operating expenses over time can elicit an understanding of how much money Fairfax Connector expends to operate its services each fiscal year. This analysis looked at fully-allocated costs in order to incorporate all costs necessary to provide service, including costs such as administration and planning costs. Unlike ridership data, the percent change in operating expenses was neither consistently negative nor positive across the analysis time frame as **Figure 2-42** shows. Overall, there was a 5 percent increase in operating expenses from FY 2016 to FY 2019 and an additional 6 percent increase in operating expenses in from FY 2019 to FY 2020. There were several factors that contributed to increased expenses between FY 2019 and FY 2022 including a new service contract being initiated, which set new hourly rates paid to the contractor for operating Connector service, and increased expenses due to COVID-19 (deep cleaning, masks, etc.). Since the pandemic started, operating expenses have continued to increase, with FY 2022 up 24% over FY 2019.

FIGURE 2-42: TREND IN OPERATING EXPENSES



Source: FY 2016 - 2022 National Transit Database Reports

TABLE 2-15: OPERATING EXPENSES PERCENT CHANGE

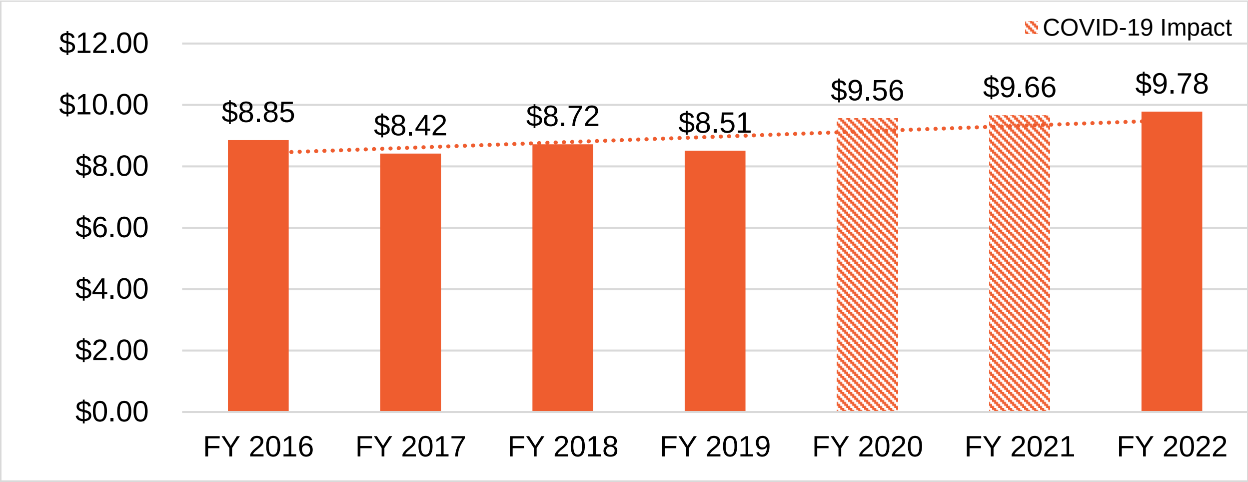
Year Range	Percent Change
FY 16 – FY 22	+31%

Sources: FY 2016 – FY 2022 National Transit Database Reports. Kimley-Horn, 2023.

Operating Expenses per Revenue Mile

Analyzing operating expenses per vehicle revenue mile allows for an evaluation of the efficiency of revenue miles operated by the service. While vehicle revenue miles increased each year from the prior year, with the exception of FY 2020 due to COVID-19, operating expenses did not consistently increase or decrease. As a result, operating expenses per revenue mile oscillated between FY 2016 and FY 2020, as seen in **Figure 2-43**. In total, operating expenses per vehicle revenue mile were down from FY 2016 to FY 2019, but the increase from FY 2019 to FY 2022 resulted in an overall increase over the period, as shown in **Table 2-16**. Operating expenses per revenue mile increased 12% in FY 2019 and have continued to slowly increase.

FIGURE 2-43: TREND IN OPERATING EXPENSES PER REVENUE MILE



Source: FY 2016 - 2020 National Transit Database Reports

TABLE 2-16: OPERATING EXPENSES PER REVENUE MILE PERCENT CHANGE

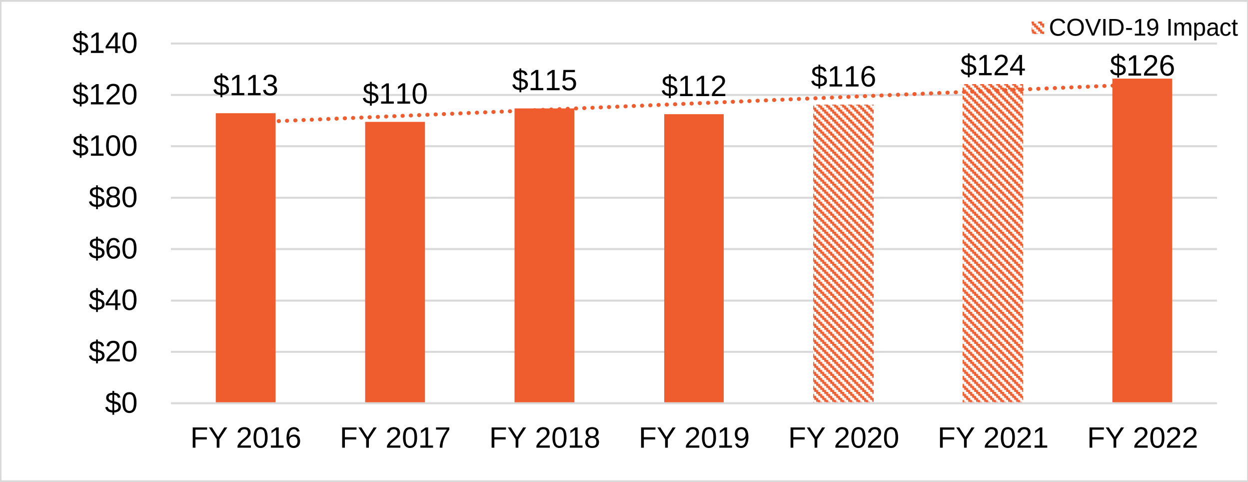
Year Range	Percent Change
FY 16 – FY 22	+10%

Sources: FY 2016 – FY 2022 National Transit Database Reports. Kimley-Horn, 2023.

Operating Expenses per Revenue Hour

Operating expenses per vehicle revenue hour is similar to operating expenses per vehicle revenue mile, but it looks at the efficiency of vehicle time rather than distances traveled. **Figure 2-44** shows that again this metric increased and decreased slightly over the past several years. **Table 2-17** shows that from FY 2016 to FY 2019 operating expenses per vehicle hour was ultimately flat despite the changes in the interim years, but operating expenses per vehicle hour increased in FY 2020 through FY 2022 relative to previous years due to the changes in operating expenses and revenue hours discussed above.

FIGURE 2-44: TREND IN OPERATING EXPENSES PER REVENUE HOUR



Source: FY 2016 - 2020 National Transit Database Reports

TABLE 2-17: OPERATING EXPENSES PER REVENUE HOUR PERCENT CHANGE

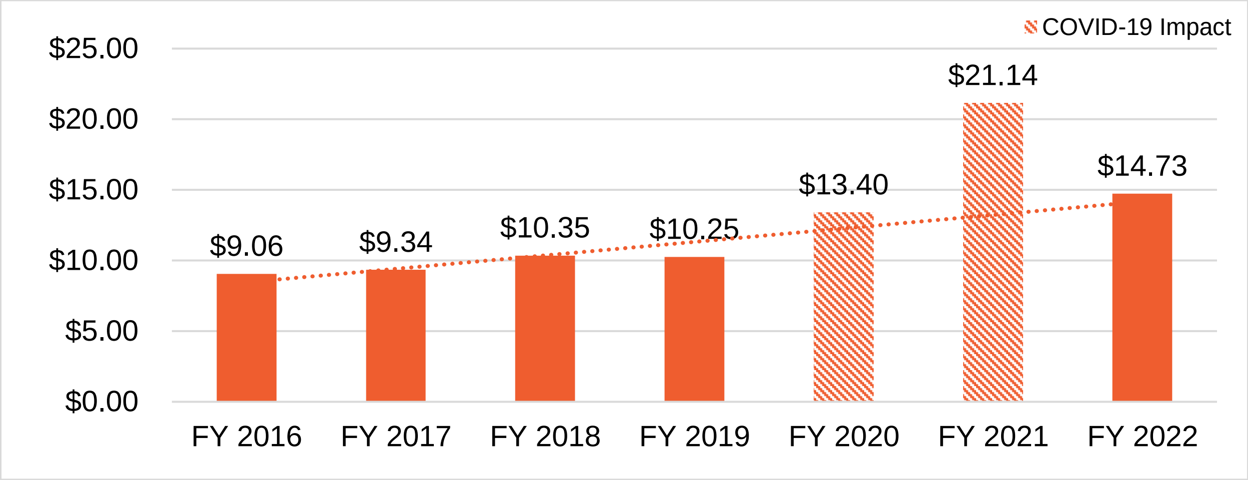
Year Range	Percent Change
FY 16 – FY 22	+12%

Sources: FY 2016 – FY 2022 National Transit Database Reports. Kimley-Horn, 2023.

Operating Expenses per Passenger

Operating expenses per passenger trip can provide insight into how efficiently an agency is utilizing its operating resources. This analysis can also shed light on whether a transit system's cost changes are correlated with ridership trends, in which case this measure would remain relatively flat year to year. **Figure 2-45** and **Table 2-18** show the change in operating expenses per passenger trip from FY 2016 to FY 2022. Between 2018 and 2019 operating expenses per passenger trip decreased compared to slight increases in prior years. In FY 2020, operating expenses increased 6 percent while ridership decreased 19 percent from FY 2019 due to reduced transit use during COVID-19. In response to the ridership impacts of the pandemic, operating expenses per passenger trip increased 58% in FY 2021 before declining 30% for FY 2022. In terms of recovery post-pandemic, FY 2022 figures remained 44% higher than in FY 2019.

FIGURE 2-45: TREND IN OPERATING EXPENSES PER PASSENGER TRIP



Source: FY 2016 - 2022 National Transit Database Reports

TABLE 2-18: OPERATING EXPENSES PER PASSENGER TRIP PERCENT CHANGE

Year Range	Percent Change
FY 16 – FY 22	+63%

Sources: FY 2016 – FY 2022 National Transit Database Reports. Kimley-Horn, 2023.

2.3.3 Performance Based Opportunities for Improvement

This section summarizes opportunities for improvement based on unmet performance benchmarks discussed in the previous section. CY 2019 data was used in the evaluation to account for seasonal fluctuations in transit use throughout the year and avoid the service and performance anomalies of years impacted by COVID-19. As a result, some of the routes referenced in this section no longer operate due to service changes that have occurred since 2019.

SYSTEM ACCESSIBILITY

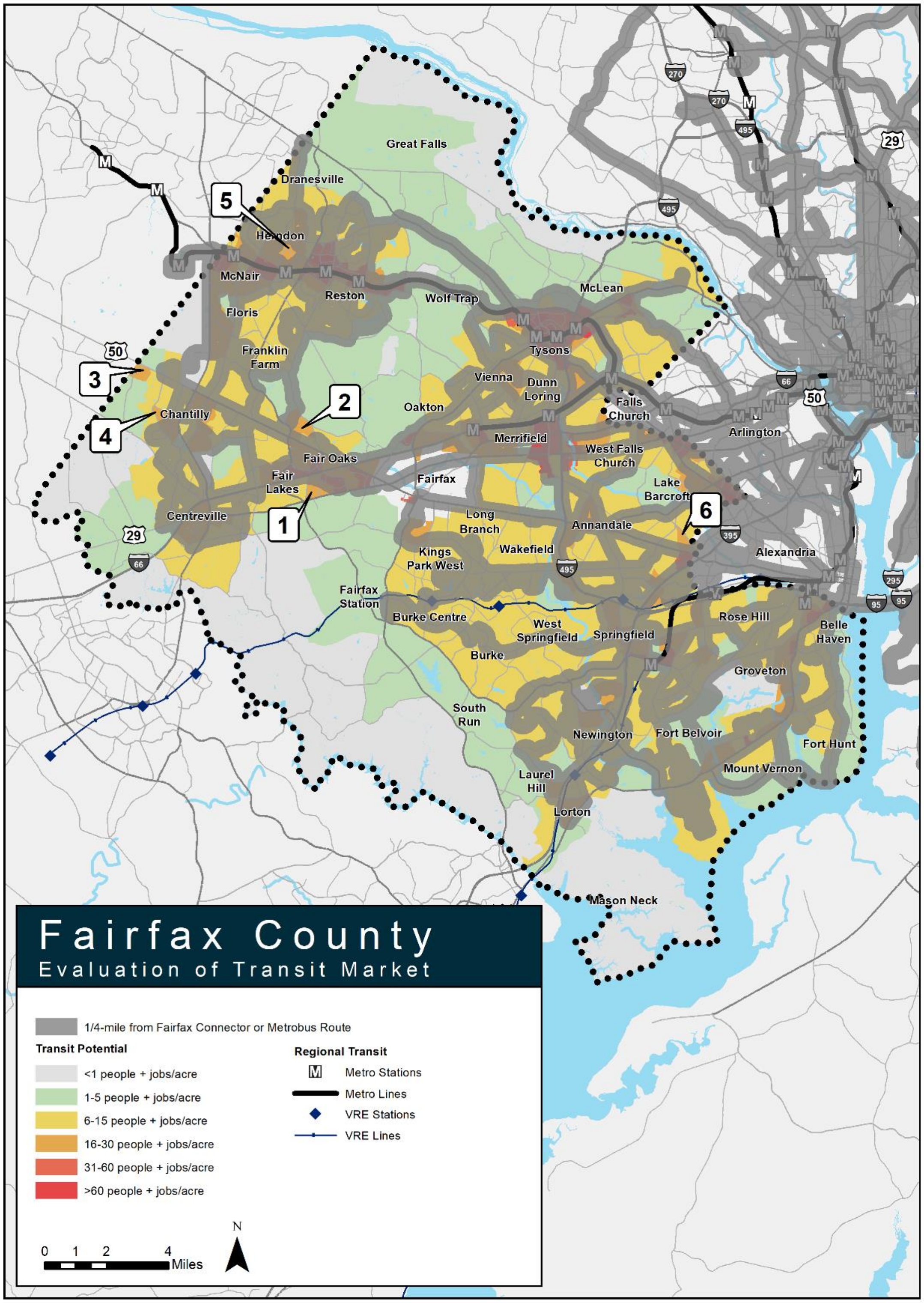
While Connector meets its benchmark of providing access to at least 50 percent of Fairfax County residents, there are opportunities to improve connections to fixed-route bus service in areas that have traditionally been unserved or difficult to service with bus service given the road networks and development patterns. Many of the areas outside of Connector's existing service area have low transit potential, as presented in **Section 2.2**. This includes areas such as Clifton, the Fairfax County Parkway corridor, South Run, and Great Falls. However, some areas have moderate transit potential, as shown in orange in **Figure 2-46**, that are adjacent to the service area represented as a ¼-mile buffer from existing routes. These areas include:

1. Along Legato Road north of US 29
2. Fair Oaks between Penderbrook Drive and Ox Trail
3. Lafayette Business Center at US 50 and Pleasant Valley Road
4. Chantilly along Stonecroft Boulevard near Westfield High School
5. Town of Herndon along Spring Street
6. Along Lincolnia Road in Lincolnia Heights

Additionally, areas of low-moderate transit potential, shown in yellow in the figure, are often lower density residential areas with road networks less conducive to fixed-route transit. However, these have transit supportive densities based on the transit potential model in **Section 2.2.1**.

In the future, Connector can consider innovative ways for expanding access to more locations that warrant connections through different types of service. This could include more flexible route or demand-response service types using smaller vehicles. Fairfax County completed a feasibility study on alternative transit services that could be operated either by Connector or through partnership with another mobility provider to connect customers from lower-density areas to fixed-route service.

FIGURE 2-46: OPPORTUNITIES TO EXPAND SYSTEM ACCESSIBILITY (PRE-SILVER LINE EXTENSION)



Note. Service changes have occurred for Fairfax Connector since the time of analysis.

RIDERSHIP

Routes that did not meet the benchmarks in CY 2019 in this category based on passengers per revenue hour were:

- **Local**: 334, 340, 432, 558, 559
- **Express**: 494, 495, 621, 624

Routes that did not meet the benchmarks in CY 2019 in this category based on passengers per revenue mile were:

- **Local**: 305, 334, 340, 432, 558, 574, 559, 929
- **Express**: 494, 495

Routes that did not meet the benchmarks in CY 2019 in this category based on passengers per one-way trip were:

- **Express:** 341, 495, 624, 641, 985

Connector can consider what strategies might be most effective for increasing ridership along these routes. Strategies for maximizing ridership include updating route alignments to streamline service and improve travel time, providing new connections to demand generators, and improving overall quality of service (for example, reliability). Additionally, increased awareness of service availability and customer convenience aspects of service such as easy-to-understand and reliable real-time information can support healthy ridership.

All routes met maximum load factor benchmarks in CY 2019 in this category.

RELIABILITY

There were many routes that did not meet the benchmark in this category in CY 2019. The routes with the worst on-time performance (70 percent or less) included:

- **Local**: 162, 306, 308, 321, 335, 402, 467, 574, 927, 929
- **Express**: 341, 494, 495, 624, 641, 985

Strategies that Connector can consider for improving on-time performance include adjusting schedules to add running time or recovery time or realigning routes.

COST EFFICIENCY

Routes that did not meet the benchmarks in CY 2019 in this category were:

- **Local**: 301, 305, 334, 340, 432, 553, 557, 558, 559, 574
- **Express**: 494, 495, 621, 624

Cost efficiency is correlated to ridership productivity, so strategies for improving cost efficiency are similar to those for ridership presented above. Connector should evaluate these strategies for all of the routes that did not meet the operating cost per passenger benchmark, even if they met all ridership benchmarks.

SAFETY

Connector met its safety benchmark for bus collisions in CY 2019. However, it exceeded its benchmark for customer injuries. In the past, many of the injuries were a result of incidents that were non-preventable, such as another vehicle coming into contact with the bus. Connector will continue to promote a safety culture, utilize best safety practices, and provide the best available safety and security training for all employees.

CUSTOMER SERVICE

Connector exceeded its benchmark for customer complaints in CY 2019. Strategies for improving customer service are related to many of the service aspects already presented on quality, reliability, and safety.

2.4 Operating and Network Efficiency Evaluation

2.4.1 Efficiency Evaluation

This section evaluates the operating efficiency of Connector service. When appropriate, measures were evaluated against the performance standards or guidelines as defined in **Chapter 1**. Efficiency was evaluated for the following aspects of service: frequency, span, ridership by time period, speed, and reliability. The analysis was conducted for CY 2019 using the schedule for the September 2019 service period and data for the January, March, May, and September 2019 service periods. CY 2019 data was used in the evaluation to account for seasonal fluctuations in transit use throughout the year and avoid the service and performance anomalies of years impacted by COVID-19. As a result, some of the routes referenced in this section no longer operate due to service changes that have occurred since 2019.

SERVICE DESIGN

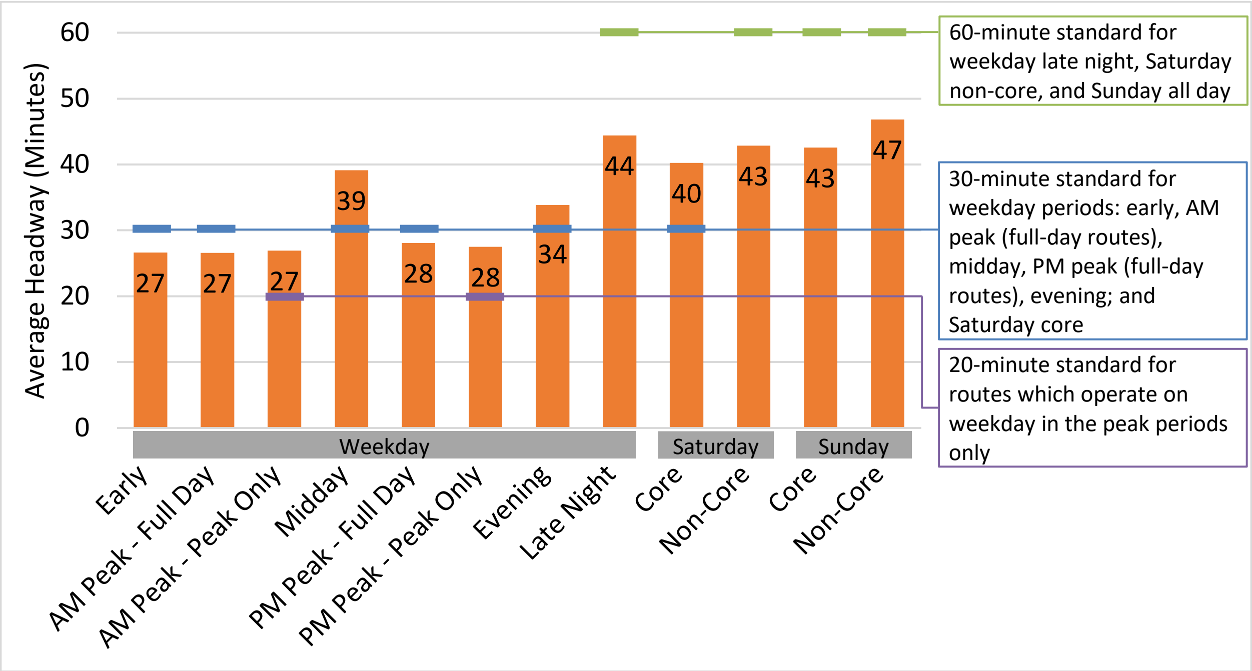
The service design measures evaluated in this section include frequency and span of service. These aspects of service design are important aspects of Connector's goal to provide high-quality transportation service and facilitate an efficient and cost-effective multi-modal transportation system. These design measures were evaluated the last service period of CY 2019 which operated from September 9, 2019, through January 24, 2020.

Headway

Vehicle headway, or frequency, is correlated with passenger wait times and therefore is an important service consideration. On the other hand, although shorter headways result in shorter customer wait times, they also result in higher costs due to greater demand for vehicles and operators as well as more revenue hours and miles. As a result, it is important to balance the tradeoff between shorter customer wait times and higher costs. The service standards for minimum vehicle headways are provided in **Table 1-5** in **Chapter 1**. There are different standards for full-day routes versus weekday peak-only routes and for peak and off-peak time periods.

Figure 2-47 shows the variation in average headways by day of week and time of day compared to the applicable standards. The standards that were not met based on these averages were morning and afternoon weekday peak-only routes, weekday midday, weekday evening, and Saturday Core. Average headways in these periods were 7 to 10 minutes longer than the standard. At current funding levels, attaining the headway standard for every route is cost-prohibitive, so Connector must prioritize its resources when setting route headways. Additionally for weekday peak-only routes, Connector uses a 20-minute headway standard for the peak of the peak only, so the average headway calculated over the overall peak period may exceed this. Multiple routes may also work together along a shared corridor to provide a combined effective headway that meets standards.

FIGURE 2-47: AVERAGE HEADWAYS COMPARED TO STANDARDS



Note. Service changes have occurred for Fairfax Connector since the time of analysis.

Source: 2020 Fairfax County Title VI Program Update

Span

Span of service is important to ensuring that service is available when passengers need it so that Connector can be a trusted transportation alternative. Connector's span of service guidelines are provided in **Table 1-4** in **Chapter 1**. For weekday service in CY 2020, there were 49 routes classified as full-day routes and the remaining 42 were considered weekday peak-only routes. Only full-day routes operate on weekends. This analysis excludes Route 480 (Wolf Trap Express).

While there was a lot of variability in span of service, this is often intentional as Connector has routes that supplement each other and therefore do not need to run simultaneously to achieve the span guideline. For example, full-day Route 371 (Lorton – Franconia-Springfield Metro) operated during the midday on weekdays and did not meet the full-day span of service guidelines, but during the morning and evening peak periods Routes 372 (Lorton – Alban Road) and 373 (Lorton – Fullerton Road) operated along a similar route in order to provide nearly uninterrupted service throughout the day.

The span of service for each full-day and weekday peak-only route as well as the start and end of the span of service guidelines are shown in **Figure 2-48**. For weekdays, the full-day route service guidelines are for service between 5:00 a.m. and 10:00 p.m. Of the 49 full-day routes included in the analysis, 32 of them started later than 5:00 a.m., but only 11 started after 6:00 a.m. Most of the remaining routes started at 8:30 a.m. or later, so they had limited to no morning peak service and were complemented by one or more peak-only routes. Only 12 of the 49 full-day routes did not have service after 10:00 p.m., with four ending service between 9:00 p.m. and 10:00 p.m., and another three ending service between 8:00 p.m. and 9:00 p.m. Route 306 (GMU – Pentagon) only operated midday service from 8:50 a.m. to 3:53 p.m. and was the only full-day route that ended service before 7:30 p.m. This route, previously supplemented by Metrobus 17A until its suspension by WMATA, is now supplemented by Metrobus 17G which provides morning and afternoon peak service for the majority of the Route 306 alignment except for Braddock Road inside the Capital Beltway (I-495).

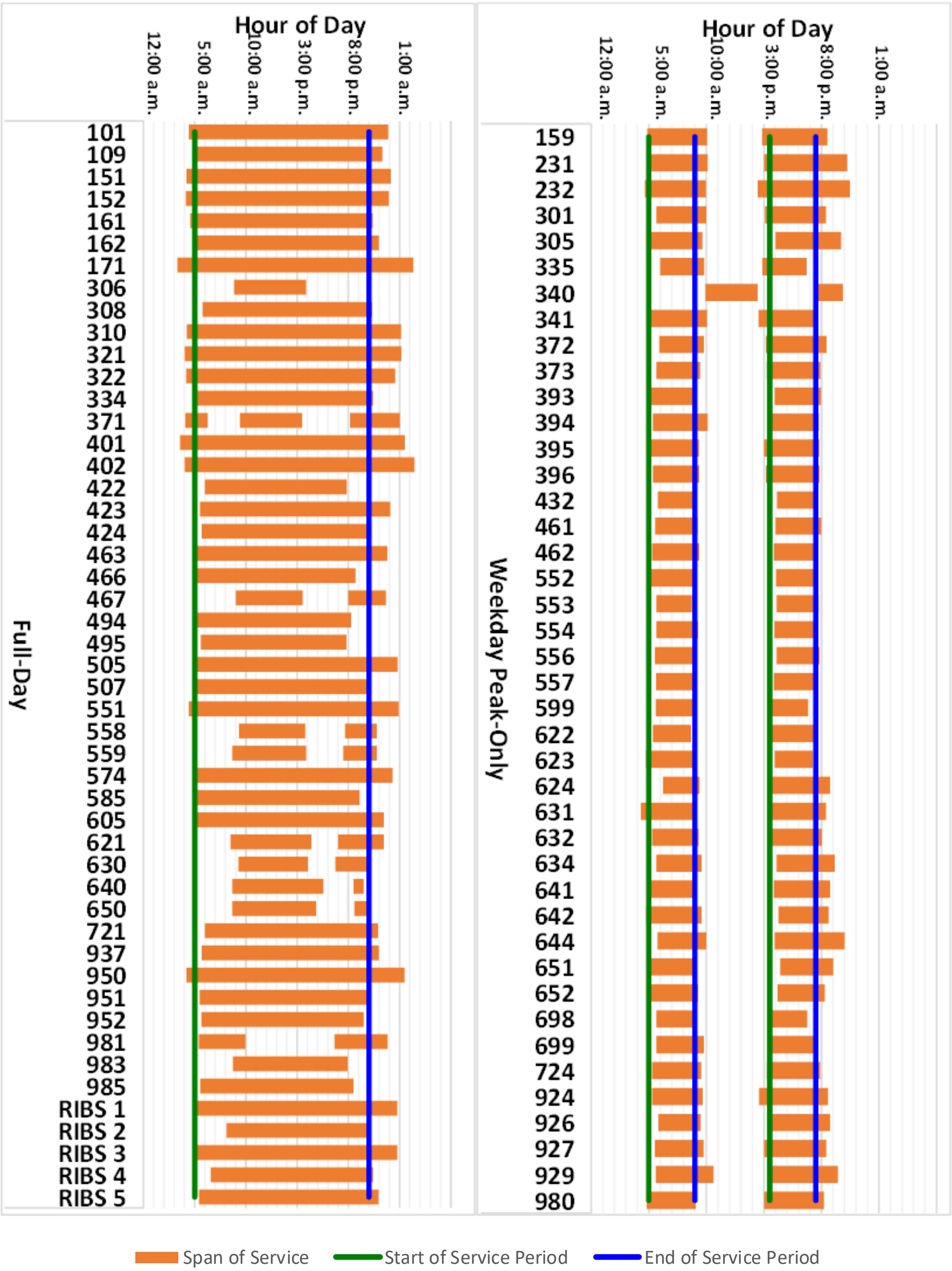
The span of service guidelines for weekday peak-only routes are 5:00 a.m. to 9:00 a.m. for the morning peak and 3:00 p.m. to 7:00 p.m. for the afternoon peak. However, the service guidelines recognize that for many routes service is tied to Metrorail service and therefore the ideal Connector span of service may be slightly different at certain Metrorail stations in order to maximize connectivity. Four routes met the guidelines in both the morning and afternoon periods: Routes 159 (Engleside Limited-Stop), 232 (Kingstowne Circulator), 341 (Patriot Ridge – Saratoga), and 980 (Herndon – Monroe).

In the morning peak, 11 routes met the service guideline and began service by 5:00 a.m. However, all but two routes (Routes 340 and 624) began service by 6:00 a.m. All but six routes operated through the end of the morning service period at 9:00 a.m., and the earliest a route ended was only 8:40 a.m., or just 20 minutes before the guideline time.

Again, in the afternoon peak most routes did not begin service until after the guideline start time, but most did operate after the guideline end time. Eight of the 42 peak-only routes began service by 3:00 p.m. Another 25 of the routes began service between 3:00 p.m. and 4:00 p.m. This left only nine routes that started after 4:00 p.m. This included Route 340 which was intended to operate midday and evening service while Route 341 provided peak service. Only three routes ended service before 7:00 p.m., and they all ended service less than 20 minutes before the guideline time (the earliest was Route 335 at 6:43 p.m.).

Only routes classified as full-day routes operate on weekends, and they can differ on Saturdays and Sundays. **Figure 2-49** shows the weekend spans of service and guideline start and end times. There were 37 routes in the analysis that operated on Saturdays, and 14 of those met the service guidelines (6:00 a.m. to 9:00 p.m.). None of the remaining 23 routes began service before 6:00 a.m., although 14 began service by 7:00 a.m. However, only six of the routes did not meet the Saturday end of service guideline. There are 34 routes that operated on Sundays, and 31 of them met the span of service guidelines (8:00 a.m. – 8:00 p.m.). Of the remaining three routes, Route 109 (Rose Hill) and Route 937 (Coppermine – Elden) ended service at 7:52 p.m. and 7:48 p.m., respectively, and Route 983 (Udvar-Hazy Center – Wiehle-Reston East) only operated 8:43 a.m. – 7:54 p.m. but had Route 981 serving most of the route during a longer span of service.

FIGURE 2-48: WEEKDAY SPAN OF SERVICE

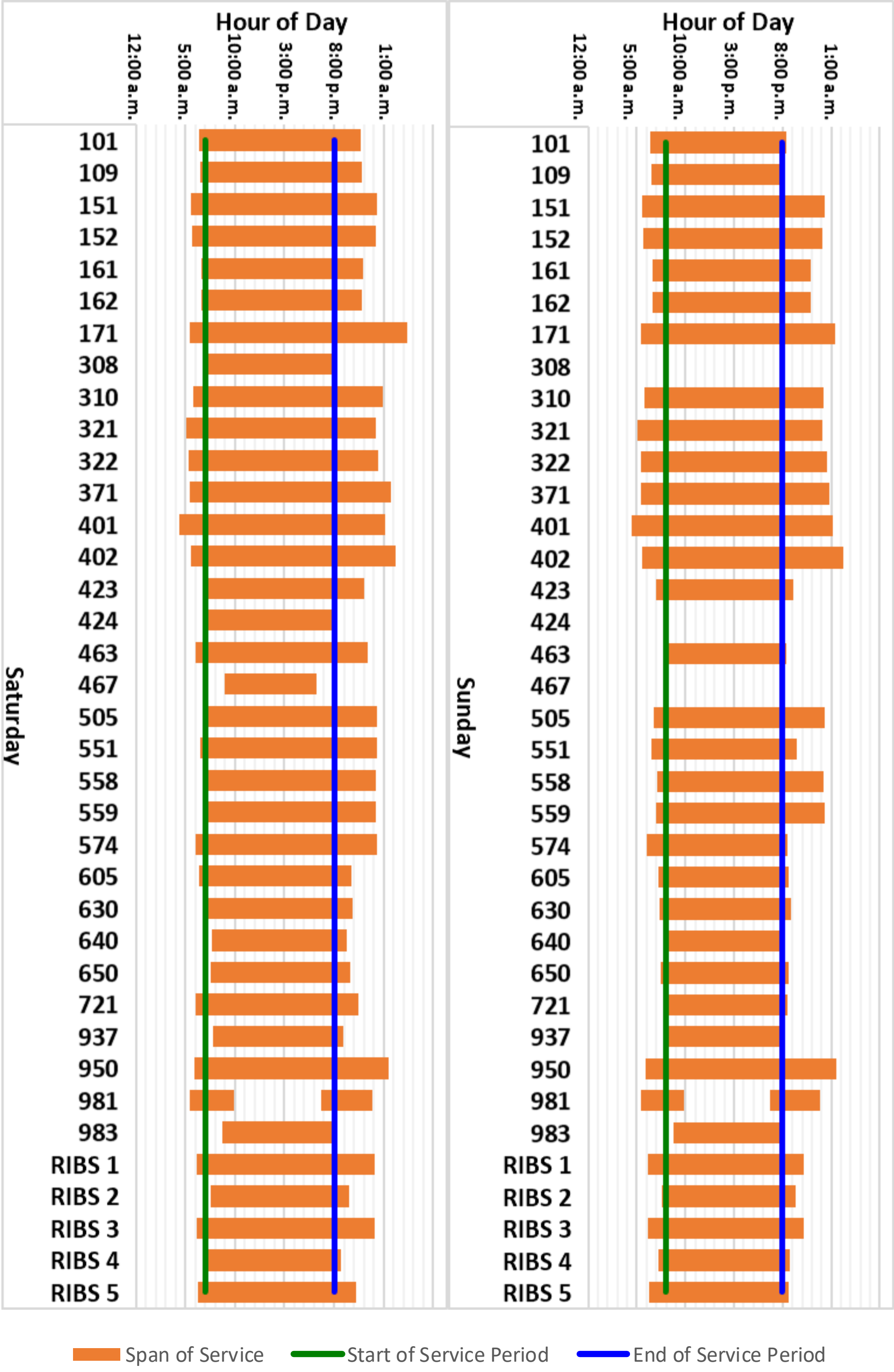


Note. Service changes have occurred for Fairfax Connector since the time of analysis.

Sources: General Transit Specification Feed (GTFS) for service week of 1/25/2020. Kimley-Horn, 2021.

Excludes Route 480 (Wolf Trap Express) and routes that did not operate in January 2020.

FIGURE 2-49: WEEKEND SPAN OF SERVICE



Note. Service changes have occurred for Fairfax Connector since the time of analysis.

Sources: General Transit Specification Feed (GTFS) for service week of 1/25/2020. Kimley-Horn, 2021.

Includes only routes with Saturday or Sunday service and excludes routes that did not operate in January 2020.

RIDERSHIP BY TIME OF DAY

Understanding ridership by time of day is important for aligning service with demand. **Figure 2-50** shows the percent distribution of ridership across the different times of day for local and express routes in CY 2019. The ridership patterns were relatively consistent across the different subareas, but the patterns were different between local and express routes. For local routes, ridership was greatest during the midday period, closely followed by the morning peak and then the afternoon peak. Systemwide, 76 percent of ridership on local routes was during the midday and peak periods with an additional 13 percent of ridership occurring during the evening period. Express service was more heavily weighted towards ridership in the morning and afternoon peak periods. Early morning ridership was also generally greater on express routes than local routes.

FIGURE 2-50: PERCENT OF WEEKDAY AVERAGE DAILY RIDERSHIP BY TIME OF DAY

Note. Service changes have occurred for Fairfax Connector since the time of analysis.

Sources: Fairfax Connector's fleet Intelligent Transportation System for 1/20/2019 to 1/24/2020. Fairfax County DOT and Kimley-Horn, 2021.

Excludes seasonal Route 480 (Wolf Trap Express) and existing routes that did not operate during CY 2019.

SPEED

Average weekday speeds by time of day are presented in **Table 2-19**. **Figure 2-51** shows histograms of the percentage of routes that operated in each speed range during each time period. Express routes generally experienced faster average speeds (23 mph), regardless of the time of day, compared to local routes (15 mph). Speeds were also slightly lower during the peak periods when road congestion was greatest and higher in the early morning and late night. The routes with the lowest overall average speeds were 423, 467, 505, and 556 which all ranged from 11 to 12 mph. These local routes operated in the Reston-Herndon or Tysons areas.

TABLE 2-19: SPEED BY TIME OF DAY (IN MPH)

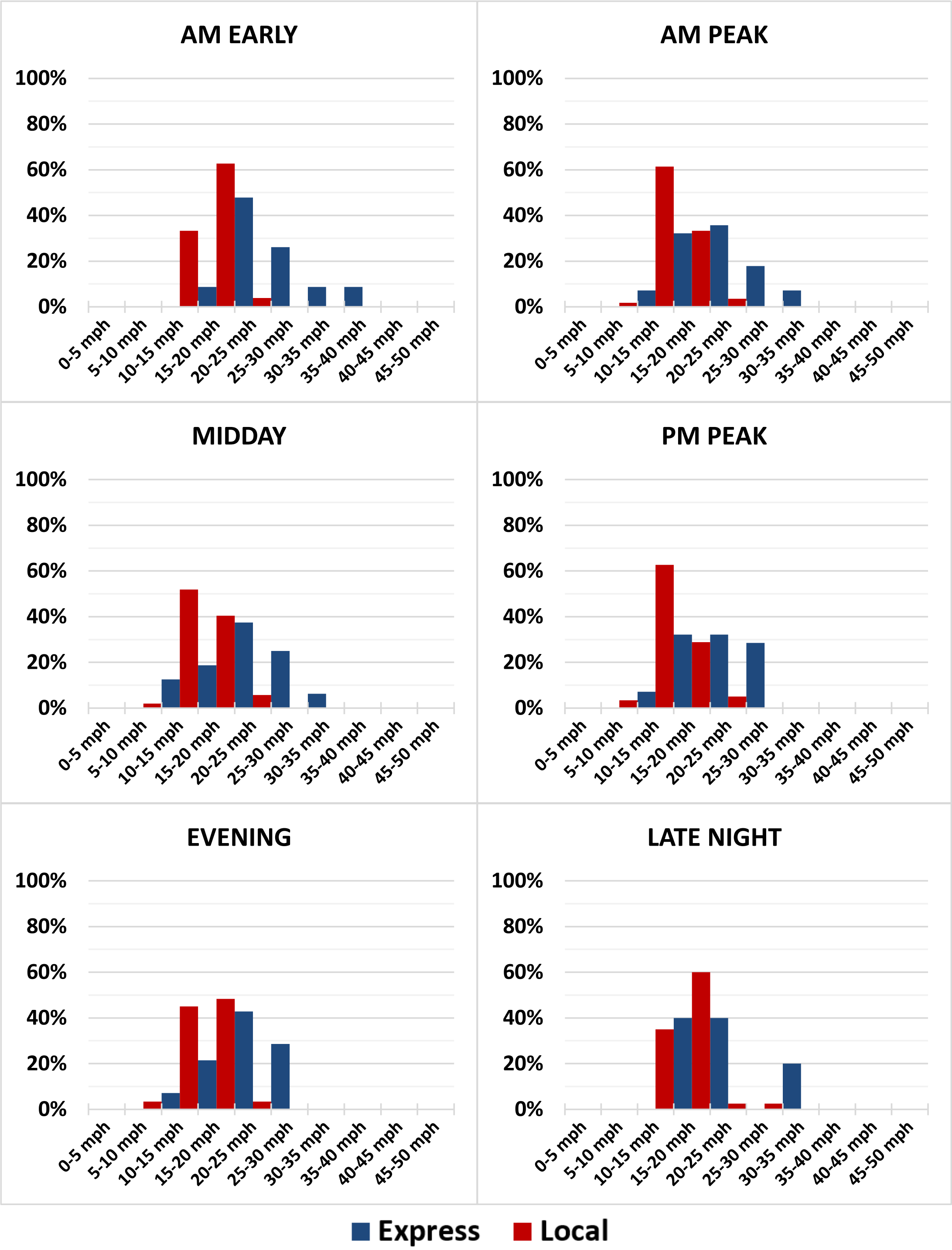
Time Period	Express Routes	Local Routes
AM Early	25	16
AM Peak	22	15
Midday	22	15
PM Peak	21	14
Evening	22	15
Late Night	20	16
Other	N/A	15
Overall	**23**	**15**

Note. Service changes have occurred for Fairfax Connector since the time of analysis.

Sources: Fairfax Connector's fleet Intelligent Transportation System for 1/20/2019 to 1/24/2020. Fairfax County DOT and Kimley-Horn, 2021.

Excludes seasonal Route 480 (Wolf Trap Express) and existing routes that did not operate during CY 2019.

FIGURE 2-51: SPEED BY TIME OF DAY



Note. Service changes have occurred for Fairfax Connector since the time of analysis.

Sources: Fairfax Connector's fleet Intelligent Transportation System for 1/20/2019 to 1/24/2020. Fairfax County DOT and Kimley-Horn, 2021.

Excludes seasonal Route 480 (Wolf Trap Express) and existing routes which did not operate during CY 2019.

RELIABILITY

On-time performance as a measure of reliability is discussed in **Section 2.3.1**.

2.4.2 Efficiency Based Opportunities for Improvement

This section summarizes opportunities for improvement based on routes that did not meet the standards or guidelines for efficiency-based measures as discussed in the previous section. CY 2019 data was used in the evaluation to account for seasonal fluctuations in transit use throughout the year and avoid the service and performance anomalies of years impacted by COVID-19. As a result, some of the routes referenced in this section no longer operate due to service changes that have occurred since 2019.

In order to better meet vehicle headway standards, Connector can consider increasing the frequency of the routes shown in **Table 2-20** in the future, if warranted by demand. These were routes for which average headways were more than 10 minutes greater than the standard for any given time period, with the specific time period highlighted in yellow.

TABLE 2-20: OPPORTUNITIES FOR IMPROVED HEADWAY (PRE-SILVER LINE EXTENSION)

Legend: **Headway exceeds standard in this time period by more than 10 minutes**

Route	Route Type	Early AM	Peak AM	Midday	Peak PM	Evening	Late	Saturday	Sunday
101	Full-Day								
109	Full-Day								
152	Full-Day								
161	Full-Day								
162	Full-Day								
301	Peak-Only								
306	Full-Day								
308	Full-Day								
321	Full-Day								
322	Full-Day								
334	Full-Day								
371	Full-Day								
393	Peak-Only								
394	Peak-Only								
432	Peak-Only								
463	Full-Day								
467	Full-Day								
494	Full-Day								
495	Full-Day								

Route	Route Type	Early AM	Peak AM	Midday	Peak PM	Evening	Late	Saturday	Sunday
559	Full-Day								
585	Full-Day								
605	Full-Day								
621	Full-Day								
630	Full-Day								
631	Peak-Only								
640	Full-Day								
642	Peak-Only								
650	Full-Day								
651	Peak-Only								
652	Peak-Only								
927	Peak-Only								
929	Peak-Only								
951	Full-Day								
985	Full-Day								
RIBS 2	Full-Day								
RIBS 4	Full-Day								
RIBS 5	Full-Day								

Note. Service changes have occurred for Fairfax Connector since the time of analysis.

Sources: General Transit Specification Feed (GTFS) for service week of 1/25/2020. Kimley-Horn, 2021.

In order to better meet the span of service guidelines, Connector can consider adding additional trips in the future for the following routes if warranted by demand and the route makes logical connections during earlier or later hours:

All-Day Routes

- Additional a.m. trip(s) to extend service earlier: **308, 423, 424, 495, 558, 721, 937, 985, RIBS 4**
- Additional p.m. trips(s) to extend services later: **466, 494, 495, 585, 985**

Peak-Only Route:

- Additional a.m. trip(s) to extend service earlier: **301, 335, 432, 461, 553, 554, 557, 599, 624, 634, 698, 699, 927, 929**
- Additional p.m. trip(s) to extend service later: **305**, **393, 432, 461, 624, 634, 642, 644, 652, 698, 699, 929**

Saturday Routes

- Additional a.m. trip(s) to extend service earlier: **109, 308, 423, 424, 467, 505, 551, 558, 559, 630, 640, 650, 937, RIBS 4**
- Additional p.m. trips(s) to extend services later: **308**

The lists above do not include routes that may not meet the span of service guidelines but that operated along shared corridors with other routes so that comprehensive service is provided along the majority of the route throughout the periods identified by the span of service guidelines.

Although there are no benchmarks for speed, Connector can continue to review route alignments in the Bus Review Studies for each subarea to identify opportunities for improving speeds. Other opportunities for improving reliability are included in **Section 2.3.3**.

2.5 Analysis of Opportunities to Collaborate with Other Providers

2.5.1 Collaboration Analysis

Fairfax Connector operates service alongside other transit providers in the greater Washington region. This includes WMATA Metrorail and Metrobus, VRE, CUE, Arlington Transit (ART), Alexandria DASH, OmniRide, and Loudoun County Transit. With the exception of VRE, all of these transit systems operate on the regional smartcard-based fare system, SmarTrip®, which allows customers to seamlessly travel throughout the regional transit system using a single fare media. Connector honors free bus-to-bus transfers and $2.00 discounts for bus-to-rail transfers. For passengers transferring from the VRE system to a Fairfax Connector bus, a free one-way transfer is allowed when the passenger displays valid VRE fare media (passes, tickets).

Connector provides service to and from all Metrorail and VRE stations in Fairfax County, with the exception of the VRE Rolling Road Station. When possible, Connector service is coordinated with these services—for example with Metrorail start and end times and VRE train schedules at connection points. Coordination is also required with WMATA for Metrobus service in Fairfax County, particularly when there are planned Metrobus service changes that impact travel opportunities for Fairfax County residents, workers and visitors.

The regional Bus Transformation Project also contained 26 recommendations[23]—many of which will require collaboration among transit operators in the region. The 26 recommendations all fell under four main recommendations:

1. Provide frequent and convenient bus service that connects communities and promotes housing affordability, regional equity, and economic growth.
2. Give buses priority on roadways to move people quickly and reliably.
3. Create an excellent customer experience to retain and increase ridership.
4. Empower a publicly appointed task force to transform bus and lead the implementation of a truly integrated regional system.

2.5.2 Collaboration Based Opportunities for Improvement

The following are opportunities for collaboration-based improvements which could benefit Fairfax Connector and other transit providers:

Coordination with WMATA on Metrobus routes: Fairfax Connector has a longstanding relationship with WMATA to operate fixed-route bus service in Fairfax County alongside Metrobus. Fairfax County is also collaborating through WMATA's Better Bus Network Redesign project. Over the years, operations for some routes that were historically operated as Metrobus have been transferred to Fairfax Connector. Recent examples of this include Routes 350, 351, 352, and 353 (formerly TAGS Routes S80 and S91, operated by WMATA) as well as Routes 703 (Metrobus 3T), Route 715 (Metrobus 15K), Route 803 (Metrobus 3A), 834 (Metrobus 29C) and 835 (Metrobus 29W). Additional route transfers are likely to continue in the future as Fairfax County has found it can achieve greater efficiency and control of service levels when routes are operated by Fairfax Connector than when they are operated by WMATA. Close collaboration

[23] https://bustransformationproject.com/resources/#strategy

with WMATA should continue as future reductions or eliminations of Metrobus service in Fairfax County are considered in order for Fairfax Connector to ensure that ongoing service continues to be provided to these areas.

Coordination with OmniRide and Loudoun County Transit on future transit services in the Route 28 and Route 7 corridors: Route 28 is a major north-south travel corridor that connects Manassas, Manassas Park, Centreville, Chantilly, Dulles, and Sterling. It crosses between Prince William, Fairfax, and Loudoun counties. Route 7 is a major east-west corridor connecting Ashburn, Sterling, Reston, Great Falls, Vienna and Tysons. Fairfax Connector should collaborate with neighboring transit provides on future connections along this corridor.

Coordination with OmniRide on future connections between Western Prince William County and Fairfax County: Connector service in the Centreville area stops less than five miles from the regional activity centers of Manassas, Manassas Park and Yorkshire. Although these activity centers are in a different county, daily transportation needs rarely conform to political boundaries. Many Fairfax County workers are residents of neighboring jurisdictions and vice versa. This is true of these activity centers, and many of their residents work in Fairfax County (approximately 30 to 40 percent according to 2018 U.S. Census Bureau data[24]). Fairfax County should collaborate with OmniRide on future transit connections in order to provide a robust transit network in the region.

Coordination with OmniRide on future connections between Eastern Prince William County and Fairfax County: Fairfax County should collaborate with OmniRide on future transit connections that span Prince William County and Fairfax County. Examples include connecting Prince William County to Fort Belvoir via the US Route 1 corridor, and Dale City/Woodbridge to George Mason University, Fairfax County Government Center, and Fair Oaks.

Coordination with regional partners on future transit service across the American Legion Bridge between Fairfax County and Maryland: The Virginia Department of Rail and Public Transportation (DRPT) and Maryland Department of Transportation (MDOT) embarked on a study in 2020 to find potential multimodal solutions to reduce congestion, improve trip reliability and regional connections, and enhance existing and planned multimodal mobility and connectivity across the American Legion Bridge. In the draft summary report, future potential transit connections were identified between locations in Fairfax County (Tysons, Reston, Dulles, Dunn Loring) and Maryland (Bethesda, Gaithersburg, Silver Spring, Germantown, Frederick). The most near-term potential service identified was bi-directional bus service between Bethesda and Tysons. The Fairfax County Board of Supervisors endorsed the draft report in January 2021. Fairfax Connector should collaborate with regional and state partners as they determine the necessary operator(s) and associated infrastructure required to support the new service.

Support the regional Bus Transformation Project Action Plan: Fairfax Connector should support or lead, as applicable, elements of the Action Steps of the Bus Transformation Project in collaboration with WMATA and other bus operating agencies. Details on recommendations and roles are contained in the Action Plan[25].

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[24] *Longitudinal Employer-Household Dynamics (LEHD) program*
[25] *https://bustransformationproject.com/wp-content/uploads/2019/12/Action-Plan-2019-12-06-SECURE.pdf*

3

Planned Improvements and Modifications

3. Planned Improvements and Modifications

This chapter describes Connector's planned service improvements and modifications based on the strategic vision, public priorities, and opportunities for improvement identified in **Chapters 1 and 2**.

- **Section 3.1** describes specific service changes, level of service, and impacts on operations, ridership, and service efficiency. Each project description also includes how it supports the needs of the system.
- **Section 3.2** describes the prioritization of financially constrained planned service improvements and places each of the projects into short-term (through fiscal year [FY] 2025), mid-term (FY 2026 through FY 2029), and long-term (FY 2030 through FY 2033) timeframes, highlighting the associated capital and operating costs.
- **Section 3.3** summarizes service development and the prioritized projects by operational requirements such as annual service hours.

All improvements outlined in this chapter are financially constrained, meaning that funding for them is reasonably expected to be available over the timeframe of the plan. **Appendix C** contains financially unconstrained improvements that do not have identified funding but could be considered for implementation if funding becomes available in the future.

3.1 Planned Service Improvements

This section presents specific route improvements or modifications based on the needs identified in **Chapters 1 and 2**. The section is grouped into three subsections by geography of Fairfax County:

- **Section 3.1.1**— Reston and Herndon area routes
- **Section 3.1.2**—Centreville, Chantilly, Vienna, and Tysons area routes, including Annandale, Falls Church, and neighboring areas
- **Section 3.1.3**—Franconia, Springfield, and Huntington area routes

While routes are assigned to one of three geographies, routes that operate across multiple areas of the county are cross-referenced in each section. The end of each section also contains a list of routes that do not have changes and routes that are planned to be eliminated through streamlining service, right-sizing to demand, and maintaining service in those areas with other new or modified routes.

Planned service improvements were primarily identified through Fairfax County's recurring transit planning processes and Bus Service Review Studies. Improvements and modifications of routes in the Huntington area were identified through the Richmond Highway BRT feeder plan and were refined through the TSP process. Additional improvements were identified through the TSP process beyond these previous area plans to fill gaps or address needs.

The following subsections present recommendations in a standard format.

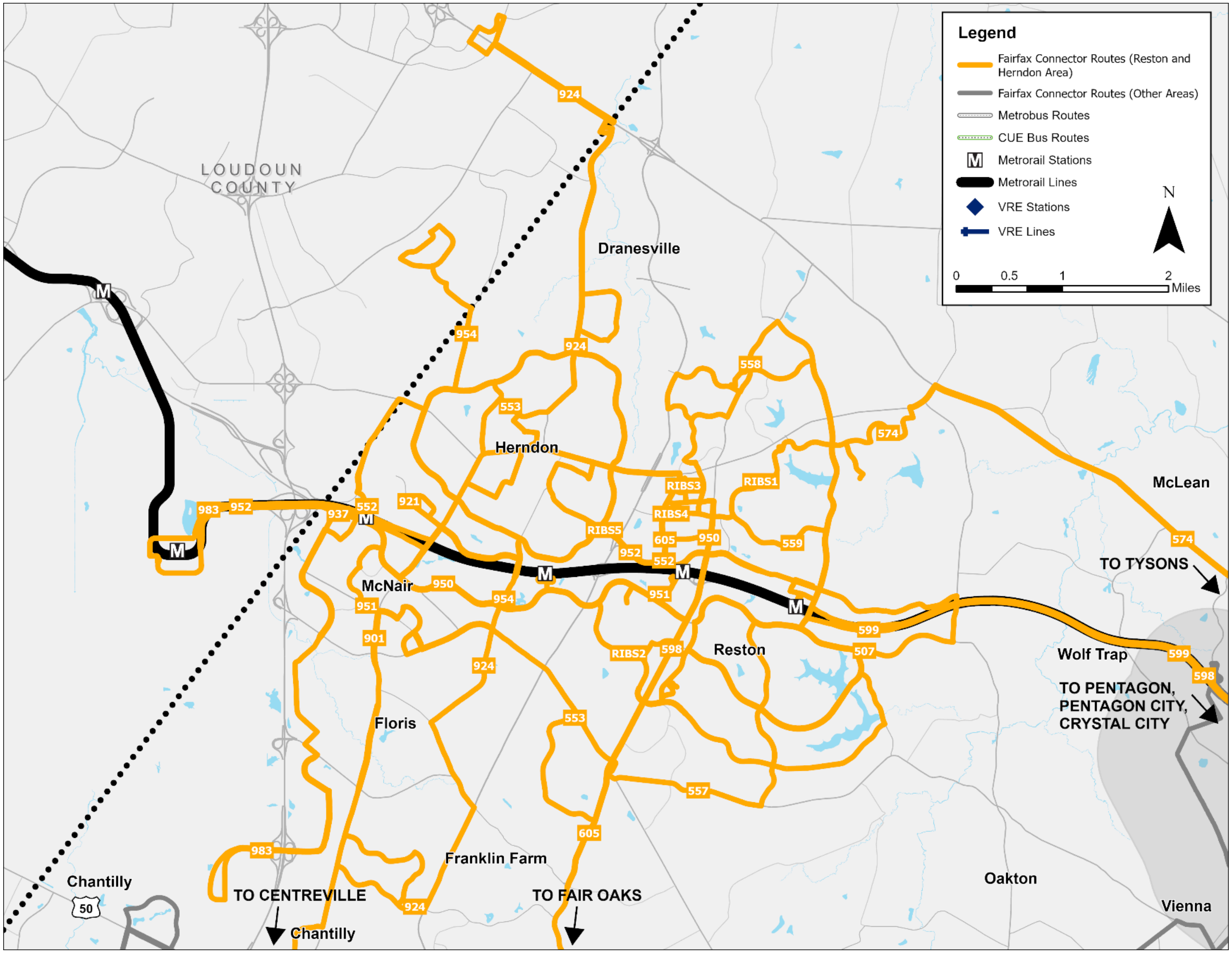
- **Recommendation ID**: routes that have multiple improvements at different times over the 10-year horizon of the TSP are numbered consecutively
- **Improvement Type**: identifies if the recommendation is a new route or a modified route
- **Financial Status**: identifies if the recommendation is financially constrained (funding is reasonably expected to be available over the timeframe of the plan) or unconstrained. **Section 3.2** describes the methodology for how recommendations were prioritized, phased, and identified as financially constrained or unconstrained. All improvements in this chapter are financially constrained while those in **Appendix C** are financially unconstrained.
- **Timeframe**: short-term, mid-term, or long-term. **Section 3.2** describes the methodology for how recommendations were prioritized and phased.
- **Description**: a description of the service changes and level of service. Rush hour refers to peak commuting travel periods while non-rush hour refers off-peak travel periods. One-page route sheets for every planned route are included in **Appendix E**, and contain additional details such as maps, transfer connections, and span of service.
- **Justification**: why the service change is needed.
    - **Goals**: applicable goals and objectives of **Section 1.2.1** that the recommendation helps meet
    - **Public Priorities**: applicable priorities and service improvement needs identified through public survey efforts—increased frequency, increased span of service, faster travel, and increased coverage and connectivity
    - **Opportunities for Improvement**: applicable opportunities for improvement identified in **Chapter 2**—travel demand and underserved areas, performance-based, and efficiency-based
- **Estimated annual riders**: estimate of future ridership developed from Fairfax County's validated TBEST (Transit Boardings Estimation and Simulation Tool) model. Estimates are for a 2032 long-term analysis scenario that contains all financially constrained service improvements in one network.
- **Annual revenue hours**: approximate annual service hours the route is planned to operate, which relates to operating cost, bus operator needs, and peak vehicle requirements

3.1.1 Reston and Herndon Area Service

This section summarizes service improvements and modifications for routes that primarily operate in the Reston and Herndon area. Many of the improvements are service changes associated with the opening of the Metrorail Silver Line extension from Wiehle-Reston East to Ashburn station in Loudoun County. **Figure 3-1** highlights the locations of the financially constrained service improvements, and **Appendix D** contains a full system map.

All recommendations described in this section for the Reston-Herndon area, with the exception of recommendations 615 – 2 for Route 615 and 598 – 1 for Route 598, were implemented in the service changes that started on November 16, 2022.

Figure 3-1: Reston and Herndon Area Routes



ROUTE 507—WIEHLE-RESTON EAST METRO TO PARKRIDGE BLVD

Recommendation 507 - 1		**Improvement Type**: Modified Route	**Financial Status**: Constrained
Timeframe		Short-Term	
Description		Adjust route for a shifted span of service to match demand. Operate all day on weekdays with 25-minute frequency.	
Justification	**Goals**	Choice, Quality, Efficiency	
Annual Estimated Riders		16,600	
Annual Revenue Hours		3,634	

More recommendation details can be found in ***Appendix E.***

ROUTE 552—WIEHLE-RESTON EAST METRO TO INNOVATION CENTER METRO

Recommendation 552 - 1		**Improvement Type**: Modified Route	**Financial Status**: Constrained
Timeframe		Short-Term	
Description		Adjust route for improved connectivity with several medium-density residential areas and three Metrorail stations. Operate on weekdays with 20-minute frequency during rush hour.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Faster Travel, Increased Coverage and Connectivity	
Annual Estimated Riders		98,200	
Annual Revenue Hours		7,667	

More recommendation details can be found in ***Appendix E.***

ROUTE 553—RESTON TOWN CENTER METRO TO HERNDON HIGH SCHOOL

Recommendation 553 - 1		**Improvement Type**: Modified Route	**Financial Status**: Constrained
Timeframe		Short-Term	
Description		Adjust route for improved connectivity between Fox Mill Road to Reston Town Center and Herndon Metrorail station south of the Dulles Toll Road. Operate on weekdays with 20-minute frequency during rush hour.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Faster Travel, Increased Coverage and Connectivity	
	Opportunities for Improvement	Performance-Based (Cost Efficiency)	
Annual Estimated Riders		81,600	
Annual Revenue Hours		9,099	

*More recommendation details can be found in **Appendix E.***

ROUTE 557—RESTON SOUTH TO WIEHLE-RESTON EAST METRO

Recommendation 557 - 1		**Improvement Type**: Modified Route	**Financial Status**: Constrained
Timeframe		Short-Term	
Description		Adjust route to maintain peak-period connection between Reston South Park and Ride and Wiehle-Reston East Metrorail station via Soapstone Road. Operate on weekdays with 40-minute frequency during rush hour.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Opportunities for Improvement	Performance-Based (Cost Efficiency)	
Annual Estimated Riders		10,700	
Annual Revenue Hours		1,573	

*More recommendation details can be found in **Appendix E.***

ROUTE 558/559—RESTON TOWN CENTER TRANSIT TO CENTER HARBOR RD AND WIEHLE AVE

Recommendation 558/559 - 1		**Improvement Type**: Modified Route	**Financial Status**: Constrained
Timeframe		Short-Term	
Description		Adjust route for improved connectivity with North Shore Drive and Reston Town Center. Route 558 operates between Wiehle-Reston East Metrorail station and Center Harbor Road via Wiehle Avenue, and Route 559 operates between Wiehle-Reston East Metrorail station and Reston Town Center via North Shore Drive. Operate all day seven days a week with 20-minute frequency during rush hour and 60-minute frequency during non-rush hour and weekends.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Faster Travel, Increased Coverage and Connectivity	
	Opportunities for Improvement	Performance-Based (Ridership, Reliability, Cost Efficiency) Efficiency-Based (Gap in Headway Standard)	
Annual Estimated Riders		66,400	
Annual Revenue Hours		3,770 (Route 558) 5,021 (Route 559)	

More recommendation details can be found in ***Appendix E.***

ROUTE 574—RESTON TOWN CENTER TRANSIT CENTER TO TYSONS WEST*PARK TRANSIT CENTER

Recommendation 574 - 1		**Improvement Type**: Modified Route	**Financial Status**: Constrained
Timeframe		Short-Term	
Description		Adjust route for reduced travel time between Reston Town Center and Tysons. Operate all day seven days a week with 30-minute frequency during rush hour and 45-minute frequency during non-rush hour and weekends.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Faster Travel	
	Opportunities for Improvement	Performance-Based (Ridership, Reliability, Cost Efficiency) Efficiency-Based (Gap in Headway Standard)	
Annual Estimated Riders		72,500	
Annual Revenue Hours		14,175	

More recommendation details can be found in ***Appendix E.***

ROUTE 598—RESTON SOUTH PARK AND RIDE TO PENTAGON / CRYSTAL CITY

Recommendation 598 - 1		**Improvement Type**: New Route	**Financial Status**: Constrained
Timeframe		Short-Term	
Description		Add new express route connecting Reston South Park and Ride to the Pentagon, Pentagon City, and Crystal City. Operate weekdays with 20-minute frequency during rush hour.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Faster Travel, Increased Coverage and Connectivity	
Annual Estimated Riders		44,600	
Annual Revenue Hours		7,715	

More recommendation details can be found in ***Appendix E.***

ROUTE 599—RESTON NORTH PARK AND RIDE TO PENTAGON / CRYSTAL CITY

Recommendation 599 - 1	**Improvement Type**: Modified Route	**Financial Status**: Constrained
Timeframe	Short-Term	
Description	Adjust route for a shifted span of service to match demand. Operate on weekdays with 25-minute frequency during rush hour.	
Justification **Goals**	Choice, Quality, Efficiency	
Annual Estimated Riders	53,800	
Annual Revenue Hours	4,358	

*More recommendation details can be found in **Appendix E.***

ROUTE 605—RESTON TOWN CENTER TRANSIT TO FAIRFAX COUNTY GOVERNMENT CENTER

Recommendation 605 - 1		**Improvement Type**: Modified Route	**Financial Status**: Constrained
Timeframe		Short-Term	
Description		Adjust route for increased connectivity and faster travel time between Reston and Fair Oaks Mall. Operate all day seven days a week with 30-minute frequency during rush hour and 45-minute frequency during non-rush hour and weekends.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Faster Travel, Increased Coverage and Connectivity	
	Opportunities for Improvement	Performance-Based (System Accessibility) Efficiency-Based (Gap in Headway Standard, Gap in Span Guideline)	
Annual Estimated Riders		89,300	
Annual Revenue Hours		12,303	

*More recommendation details can be found in **Appendix E.***

ROUTE 615—FAIR OAKS HOSPITAL TO MONUMENT DRIVE PARK AND RIDE

Recommendation 615 - 1		**Improvement Type**: New Route	**Financial Status**: Constrained
Timeframe		Short-Term	
Description		Add new local route to replace the section of Route 605 currently operating between Fair Oaks Hospital and Fair Oaks Mall, via Stringfellow Road and Fair Lakes Parkway. Operate all day seven days a week with 30-minute frequency during rush hour and 45-minute frequency during non-rush hour and weekends.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Faster Travel	
	Opportunities for Improvement	Efficiency-Based (Gap in Headway Standard, Gap in Span Guideline)	
Annual Estimated Riders		See 615 - 2	
Annual Revenue Hours		12,033	

Recommendation 615 - 2		**Improvement Type**: Modified Route	**Financial Status**: Constrained
Timeframe		Short-Term	
Description		Adjust route to connect to the Stringfellow Road Park and Ride. Operate all day seven days a week with 30-minute frequency during rush hour and 45-minute frequency during non-rush hour and weekends.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Coverage and Connectivity	
	Opportunities for Improvement	Efficiency-Based (Gap in Headway Standard, Gap in Span Guideline)	
Annual Estimated Riders		130,700	
Annual Revenue Hours		13,042	

*More recommendation details can be found in **Appendix E.***

ROUTE 901—HERNDON METRO TO CENTREVILLE UMC PARK AND RIDE

Recommendation 901 - 1		**Improvement Type**: New Route	**Financial Status**: Constrained
Timeframe		Short-Term	
Description		Add new cross county route connecting Herndon, Centreville, and Chantilly areas. Operate all day seven days a week with 30-minute frequency during rush hour and 60-minute frequency during non-rush hour and weekends.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Faster Travel, Increased Coverage and Connectivity	
	Opportunities for Improvement	Efficiency-Based (Gap in Headway Standard, Gap in Span Guideline)	
Annual Estimated Riders		163,200	
Annual Revenue Hours		17,361	

More recommendation details can be found in ***Appendix E.***

ROUTE 921—HERNDON METRO TO HERNDON TOWN HALL

Recommendation 921 - 1		**Improvement Type**: New Route	**Financial Status**: Constrained
Timeframe		Short-Term	
Description		Add new local route operating as a loop through the Town of Herndon, connecting Herndon downtown and historical areas to the Herndon Metrorail station. Operate all day seven days a week with 40-minute frequency.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Coverage and Connectivity	
	Opportunities for Improvement	Performance-Based (System Accessibility) Efficiency-Based (Gap in Headway Standard)	
Annual Estimated Riders		22,700	
Annual Revenue Hours		4,593	

More recommendation details can be found in ***Appendix E.***

ROUTE 924—NOVA - LOUDOUN - HERNDON - FRANKLIN FARM

Recommendation 924 - 1		**Improvement Type**: Modified Route	**Financial Status**: Constrained
Timeframe		Short-Term	
Description		Adjust route for improved connectivity to NOVA Loudoun Campus, Herndon Metrorail station, and Franklin Farm; and for improved access to employment, shopping, and Loudoun County Transit. Operate all day seven days a week with 20-minute frequency during rush hour and 60-minute frequency during non-rush hour and weekends.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Frequency, Faster Travel, Increased Coverage and Connectivity	
	Opportunities for Improvement	Efficiency-Based (Gap in Headway Standard, Gap in Span Guideline)	
Annual Estimated Riders		249,800	
Annual Revenue Hours		17,902	

*More recommendation details can be found in **Appendix E.***

ROUTE 937—HARBOR HOUSE TO HERNDON METRO

Recommendation 937 - 1		**Improvement Type**: Modified Route	**Financial Status**: Constrained
Timeframe		Short-Term	
Description		Adjust route for shifted span of service to match demand. Operate seven days a week with 40-minute frequency during weekday midday and all day on weekends.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Opportunities for Improvement	Efficiency-Based (Gap in Headway Standard)	
Annual Estimated Riders		49,000	
Annual Revenue Hours		6,721	

*More recommendation details can be found in **Appendix E.***

ROUTE 950—RESTON TOWN CENTER METRO TO HERNDON METRO

Recommendation 950 - 1		Improvement Type: Modified Route	Financial Status: Constrained
Timeframe		Short-Term	
Description		Adjust route for increased frequency. Operate all day seven days a week with 15-minute frequency during rush hour and 20-minute frequency during non-rush hour and 20- to 30-minute frequency on weekends.	
Justification	Goals	Choice, Quality, Efficiency	
	Public Priorities	Increased Frequency	
Annual Estimated Riders		582,900	
Annual Revenue Hours		28,145	

More recommendation details can be found in ***Appendix E.***

ROUTE 951—WIEHLE-RESTON EAST METRO TO INNOVATION CENTER METRO

Recommendation 951 - 1		Improvement Type: Modified Route	Financial Status: Constrained
Timeframe		Short-Term	
Description		Adjust route for increased frequency and improved connectivity between commercial and residential areas south of the Dulles Toll Road. Operate on weekdays with 20-minute frequency during rush hour.	
Justification	Goals	Choice, Quality, Efficiency	
	Public Priorities	Increased Frequency, Increased Coverage and Connectivity	
	Opportunities for Improvement	Efficiency-Based (Gap in Span Guideline)	
Annual Estimated Riders		120,600	
Annual Revenue Hours		9,223	

More recommendation details can be found in ***Appendix E.***

ROUTE 952—WIEHLE-RESTON EAST METRO TO DULLES AIRPORT

Recommendation 952 - 1		**Improvement Type**: Modified Route / **Financial Status**: Constrained
Timeframe		Short-Term
Description		Adjust route for increased frequency and improved connectivity along the north side of the Dulles Toll Road corridor. Operate all day seven days a week with 20-minute frequency during rush hour and 60-minute frequency during non-rush hour and weekends.
Justification	**Goals**	Choice, Quality, Efficiency
	Public Priorities	Increased Frequency, Increased Coverage and Connectivity
Annual Estimated Riders		34,800
Annual Revenue Hours		9,219

More recommendation details can be found in ***Appendix E.***

ROUTE 954—HERNDON METRO TO STERLING PLAZA

Recommendation 954 - 1		**Improvement Type**: New Route / **Financial Status**: Constrained
Timeframe		Short-Term
Description		Add new local route connecting Herndon Metrorail station and Sterling Plaza. Operate all day seven days a week with 30-minute frequency during rush hour and 60-minute frequency during non-rush hour and weekends.
Justification	**Goals**	Choice, Quality, Efficiency
	Public Priorities	Increased Coverage and Connectivity
Annual Estimated Riders		97,600
Annual Revenue Hours		7,129

More recommendation details can be found in ***Appendix E.***

ROUTE 983—DULLES AIRPORT TO AIR AND SPACE MUSEUM (UDVAR-HAZY CENTER

Recommendation 983 - 1		**Improvement Type**: Modified Route	**Financial Status**: Constrained
Timeframe		Short-Term	
Description		Adjust route for improved connectivity with Innovation Center Metrorail station, Dulles Airport, Udvar-Hazy Center, and Park Center Road. Operate all day seven days a week with 25-minute frequency during rush hour and 60-minute frequency during non-rush hour and weekends	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Coverage and Connectivity	
	Opportunities for Improvement	Efficiency-Based (Gap in Span Guideline)	
Annual Estimated Riders		184,300	
Annual Revenue Hours		8,340	

More recommendation details can be found in ***Appendix E.***

ROUTE RIBS 1—RESTON TOWN CENTER TRANSIT STATION TO WIEHLE-RESTON EAST METRO

Recommendation RIBS 1 - 1		**Improvement Type**: Modified Route	**Financial Status**: Constrained
Timeframe		Short-Term	
Description		Adjust route for increased frequency. Operate all day seven days a week with 25-minute frequency on weekdays and 20- to 30-minute frequency on weekends.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Frequency	
	Opportunities for Improvement	Efficiency-Based (Gap in Headway Standard, Gap in Span Guideline)	
Annual Estimated Riders		104,100	
Annual Revenue Hours		16,345	

More recommendation details can be found in ***Appendix E.***

ROUTE RIBS 2—RESTON TOWN CENTER TRANSIT STATION TO HERNDON METRO

Recommendation RIBS 2 - 1		**Improvement Type**: Modified Route	**Financial Status**: Constrained
Timeframe		Short-Term	
Description		Adjust route for increased frequency and improved connectivity by merging current RIBS 2 and Route 551 to form a new RIBS 2, operating on a bidirectional basis. Operate all day seven days a week with 20-minute frequency during rush hour and 30-minute frequency during non-rush hour and weekends.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Frequency, Faster Travel	
	Opportunities for Improvement	Efficiency-Based (Gap in Headway Standard, Gap in Span Guideline)	
Annual Estimated Riders		267,200	
Annual Revenue Hours		22,190	

*More recommendation details can be found in **Appendix E.***

ROUTE RIBS 3—RESTON TOWN CENTER TRANSIT STATION TO WIEHLE-RESTON EAST METRO

Recommendation RIBS 3 - 1		**Improvement Type**: Modified Route	**Financial Status**: Constrained
Timeframe		Short-Term	
Description		Adjust route for increased frequency. Operate during the day and evening on weekdays with 25-minute frequency. Operate all day seven days a week with 25-minute frequency on weekdays and 20- to 30-minute frequency on weekends.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Frequency	
	Opportunities for Improvement	Efficiency-Based (Gap in Headway Standard, Gap in Span Guideline)	
Annual Estimated Riders		113,800	
Annual Revenue Hours		16,359	

*More recommendation details can be found in **Appendix E.***

ROUTE RIBS 4—RESTON TOWN CENTER METRO TO NORTH POINT VILLAGE CENTER

Recommendation RIBS 4 - 1		**Improvement Type**: Modified Route	**Financial Status**: Constrained
Timeframe		Short-Term	
Description		Adjust route for increased frequency and improved connectivity by replacing Route 556 and connecting with Reston Town Center Metrorail station. Operate all day seven days a week with 20-minute frequency during rush hour and 40-minute frequency during non-rush hour and weekends.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Frequency	
	Opportunities for Improvement	Efficiency-Based (Gap in Headway Standard, Gap in Span Guideline)	
Annual Estimated Riders		29,800	
Annual Revenue Hours		7,671	

More recommendation details can be found in ***Appendix E.***

ROUTE RIBS 5—RESTON TOWN CENTER TRANSIT STATION TO NORTH HERNDON

Recommendation RIBS 5 - 1		**Improvement Type**: Modified Route	**Financial Status**: Constrained
Timeframe		Short-Term	
Description		Adjust route for more direct service between Harbor House and Elden Street shopping centers, while continuing to link to Reston Town Center Transit Station. Operate all day seven days a week with 45-minute frequency.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Faster Travel	
	Opportunities for Improvement	Efficiency-Based (Gap in Span Guideline)	
Annual Estimated Riders		25,300	
Annual Revenue Hours		6,164	

More recommendation details can be found in ***Appendix E.***

UNCHANGED OR ELIMINATED ROUTES IN THE RESTON AND HERNDON AREA

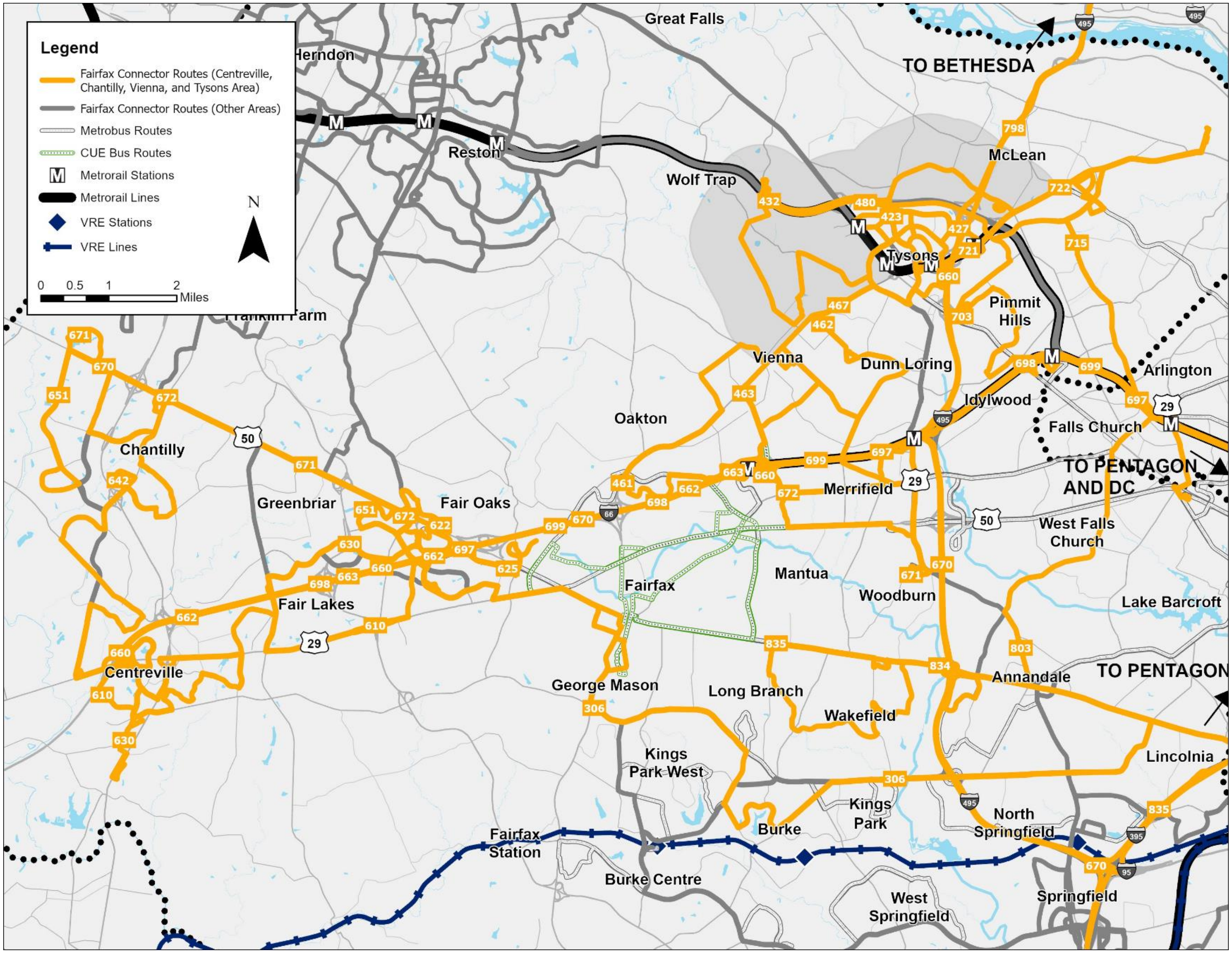
The following existing routes will be eliminated when previously described short-term service improvements are implemented.

- Route 505—replacement service provided by Routes 952 and RIBS 2
- Route 551—replacement service provided by RIBS 2
- Route 554—replacement service provided by Route 558
- Route 556—replacement service provided by RIBS 4
- Route 559—replacement service provided by Routes 557, RIBS 1, and RIBS 3
- Route 585—replacement service provided by Routes 553, 605, and 924
- Route 926—replacement service provided by Routes 553, 921, 924, and 952
- Route 927—replacement service provided by Routes 901, 950, 951, and 983
- Route 929—replacement service provided by Routes 901, 924, 951, and 983
- Route 980—replacement service provided by Metrorail Silver Line
- Route 981—replacement service provided by Routes 952, 983, RIBS 2, and Metrorail Silver Line
- Route 985—replacement service provided by Route 983 and Metrorail Silver Line

3.1.2 Centreville, Chantilly, Vienna, and Tysons Area Service

This section summarizes service improvements and modifications for routes that primarily operate in the Centreville, Chantilly, Vienna, and Tysons area. Service is this area will be modified to better align with travel patterns and utilize the I-66 Express Lanes for faster and more reliable travel. Realigned routes will be a mix of trunk lines and local routes. Trunk lines will use the express lanes to make regional connections, and local routes will operate all day, serve neighborhoods, and provide connections to the trunk lines. **Figure 3-2** highlights the locations of the financially constrained service improvements, and **Appendix D** contains a full system map.

FIGURE 3-2: CENTREVILLE, CHANTILLY, VIENNA, AND TYSONS AREA ROUTES



ROUTE 423—CENTRAL TYSONS - TYSONS METRO STATION

Recommendation 423 - 1		**Improvement Type**: Modified Route	**Financial Status**: Constrained
Timeframe		Short-Term	
Description		Adjust route for improved connectivity and increased frequency. Operate all day on weekdays with 10-minute frequency during rush hour and 20-minute frequency during non-rush hour. Operate all day on weekends with 20-minute frequency.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Frequency, Faster Travel	
	Opportunities for Improvement	Efficiency-Based (Gap in Headway Standard)	
Annual Estimated Riders		74,200	
Annual Revenue Hours		7,010	

*More recommendation details can be found in **Appendix E.***

ROUTE 427—NORTH TYSONS - SPRING HILL METRO STATION

Recommendation 427 - 1		**Improvement Type**: New Route	**Financial Status**: Constrained
Timeframe		Short-Term	
Description		Add new feeder route connecting North Tysons and Spring Hill and McLean Metrorail stations. Operate on weekdays during rush hour with 20-minute frequency.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Coverage and Connectivity	
Annual Estimated Riders		55,300	
Annual Revenue Hours		3,434	

*More recommendation details can be found in **Appendix E.***

ROUTE 432—OLD COURTHOUSE - FARM CREDIT

Recommendation 432 - 1		Improvement Type: Modified Route	Financial Status: Constrained
Timeframe		Short-Term	
Description		Adjust route for improved connectivity to Lewinsville Road and Farm Credit Drive and increased span of service. Operate on weekdays during rush hour with 40-minute frequency.	
Justification	Goals	Choice, Quality, Efficiency	
	Public Priorities	Increased Coverage and Connectivity, Increased Span of Service	
	Opportunities for Improvement	Perofrmance-Based (Ridership, Cost Efficiency) Efficiency-Based (Gap in Span Guideline)	
Annual Estimated Riders		6,400	
Annual Revenue Hours		3,660	

More recommendation details can be found in ***Appendix E.***

ROUTE 461—VIENNA - OAKTON

Recommendation 461 - 1		Improvement Type: Modified Route	Financial Status: Constrained
Timeframe		Short-Term	
Description		Adjust route for increased frequency. Operate all day on weekdays with 20-minute frequency during rush hour and 40-minute frequency during non-rush hour.	
Justification	Goals	Choice, Quality, Efficiency	
	Public Priorities	Increased Frequency, Increased Span of Service	
Annual Estimated Riders		20,900	
Annual Revenue Hours		4,786	

More recommendation details can be found in ***Appendix E.***

ROUTE 463—MAPLE AVENUE - TYSONS

Recommendation 463 - 1		**Improvement Type**: Modified Route	**Financial Status**: Constrained
Timeframe		Short-Term	
Description		Adjust route for increased frequency on Saturdays. Operate all day on weekdays with 20-minute frequency during rush hour and 30-minute frequency during non-rush hour. Operate all day on Saturday with 30-minute frequency and on Sunday with 60-minute frequency.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Frequency	
	Opportunities for Improvement	Efficiency-Based (Gap in Span Guideline)	
Annual Estimated Riders		240,200	
Annual Revenue Hours		14,030	

More recommendation details can be found in ***Appendix E.***

ROUTE 610—GEORGE MASON UNIVERSITY - CENTREVILLE

Recommendation 610 - 1		**Improvement Type**: New Route	**Financial Status**: Constrained
Timeframe		Short-Term	
Description		Add new local route connecting Centreville and George Mason University via Monument Drive and Stringfellow Road Park and Rides. Operate all day on weekdays with 30-minute frequency during rush hour and 60-minute frequency during non-rush hour. Operate all day on Saturday with 60-minute frequency.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Coverage and Connectivity	
	Opportunities for Improvement	Performance-Based (System Accessibility) Efficiency-Based (Gap in Span Guideline)	
Annual Estimated Riders		321,400	
Annual Revenue Hours		12,806	

More recommendation details can be found in ***Appendix E.***

ROUTE 622—FAIRFAX TOWNE CENTER

Recommendation 622 - 1		**Improvement Type**: Modified Route	**Financial Status**: Constrained
Timeframe		Short-Term	
Description		Adjust route for improved connectivity and increased span of service. Operate all day seven days a week with 30-minute frequency during rush hour and 60-minute frequency during non-rush hour and weekends.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Span of Service, Faster Travel, Increased Coverage and Connectivity	
Annual Estimated Riders		21,300	
Annual Revenue Hours		3,902	

More recommendation details can be found in ***Appendix E.***

ROUTE 625—RANDOM HILLS - PENDER DR

Recommendation 625 - 1		**Improvement Type**: New Route	**Financial Status**: Constrained
Timeframe		Short-Term	
Description		Add new local route connecting Monument Drive Park and Ride, Random Hills Road, and Pender Drive. Operate all day on weekdays with 30-minute frequency.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Coverage and Connectivity	
Annual Estimated Riders		17,100	
Annual Revenue Hours		3,311	

More recommendation details can be found in ***Appendix E.***

ROUTE 630—CENTREVILLE

Recommendation 630 - 1		**Improvement Type**: Modified Route	**Financial Status**: Constrained
Timeframe		Short-Term	
Description		Adjust route for increased connectivity to southern Centreville and increased frequency and span of service. Operate all day during seven days a week with 30-minute frequency during rush hour and 60-minute frequency during non-rush hour and weekends.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Frequency, Increased Span of Service, Increased Coverage and Connectivity	
	Opportunities for Improvement	Efficiency-Based (Gap in Headway Standard, Gap in Span Guideline)	
Annual Estimated Riders		204,400	
Annual Revenue Hours		15,032	

*More recommendation details can be found in **Appendix E.***

ROUTE 642—CENTREVILLE – CHANTILLY

Recommendation 642 - 1		**Improvement Type**: Modified Route	**Financial Status**: Constrained
Timeframe		Short-Term	
Description		Adjust route for improved connectivity with Centreville (Stone Road) Park and Ride and in Chantilly. Operate all day seven days a week with 30-minute frequency during rush hour and 60-minute frequency during non-rush hour and weekends.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Faster Travel, Increased Coverage and Connectivity	
	Opportunities for Improvement	Efficiency-Based (Gap in Headway Standard, Gap in Span Guideline)	
Annual Estimated Riders		42,900	
Annual Revenue Hours		7,767	

*More recommendation details can be found in **Appendix E.***

ROUTE 651—SULLYFIELD

Recommendation 651 - 1		Improvement Type: Modified Route	Financial Status: Constrained
Timeframe		Short-Term	
Description		Adjust route for improved connectivity with Chantilly, Westfields, and Fair Ridge areas. Operate all day seven days a week with 30-minute frequency during rush hour and 60-minute frequency during non-rush hour and weekends.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Span of Service, Faster Travel, Increased Coverage and Connectivity	
	Opportunities for Improvement	Performance-Based (System Accessibility) Efficiency-Based (Gap in Headway Standard, Gap in Span Guideline)	
Annual Estimated Riders		80,400	
Annual Revenue Hours		11,712	

More recommendation details can be found in ***Appendix E.***

ROUTE 660—CENTREVILLE (STONE RD) PARK AND RIDE - TYSONS

Recommendation 660 - 1		Improvement Type: New Route	Financial Status: Constrained
Timeframe		Short-Term	
Description		Add new cross-county connector route connecting Centreville (Stone Road) Park and Ride and Tysons via the Monument Drive Park and Ride and Vienna Metrorail station. Operate on weekdays with 10- to 15-minute frequency during rush hour.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Faster Travel, Increased Coverage and Connectivity	
	Opportunities for Improvement	Efficiency-Based (Gap in Span Guideline)	
Annual Estimated Riders		346,300	
Annual Revenue Hours		16,919	

More recommendation details can be found in ***Appendix E.***

ROUTE 662—CENTREVILLE (STONE RD) PARK AND RIDE - VIENNA

Recommendation 662 - 1		**Improvement Type**: New Route	**Financial Status**: Constrained
Timeframe		Short-Term	
Description		Add new cross-county connector route connecting Centreville (Stone Road) Park and Ride and the Vienna Metrorail station via Monument Drive Park and Ride. Operate during the day and evening on weekdays with 30-minute frequency during non-rush hour. Operate all day on weekends with 30-minute frequency.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Faster Travel, Increased Coverage and Connectivity	
	Opportunities for Improvement	Efficiency-Based (Gap in Headway Standard, Gap in Span Guideline)	
Annual Estimated Riders		12,400	
Annual Revenue Hours		7,847	

More recommendation details can be found in ***Appendix E.***

ROUTE 663—STRINGFELLOW RD - VIENNA

Recommendation 663 - 1		**Improvement Type**: New Route	**Financial Status**: Constrained
Timeframe		Short-Term	
Description		Add new route connecting Stringfellow Road Park and Ride and the Vienna Metrorail station via Monument Drive Park and Ride. Operate and weekdays with 20-minute frequency during rush hour.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Faster Travel, Increased Coverage and Connectivity	
	Opportunities for Improvement	Efficiency-Based (Gap in Span Guideline)	
Annual Estimated Riders		49,200	
Annual Revenue Hours		3,735	

More recommendation details can be found in ***Appendix E.***

ROUTE 670—CHANTILLY - FRANCONIA

Recommendation 670 - 1		**Improvement Type**: New Route	**Financial Status**: Constrained
Timeframe		Short-Term	
Description		Add new cross-county connector express route connecting Chantilly and the Franconia-Springfield Metrorail and VRE station via Monument Drive Park and Ride and Vienna Metrorail station to Franconia-Springfield. Operate on weekdays with 30-minute frequency during rush hour (15-minute effective frequency between Chantilly and Vienna when combined with Route 671).	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Faster Travel, Increased Coverage and Connectivity	
	Opportunities for Improvement	Efficiency-Based (Gap in Span Guideline)	
Annual Estimated Riders		160,700	
Annual Revenue Hours		8,445	

*More recommendation details can be found in **Appendix E.***

ROUTE 671—CHANTILLY - DUNN LORING

Recommendation 671 - 1		**Improvement Type**: New Route	**Financial Status**: Constrained
Timeframe		Short-Term	
Description		Add new cross-county connector express route connecting Chantilly, Monument Drive Park and Ride, Vienna Metrorail station, Inova Fairfax Hospital, and Dunn Loring Metrorail station. Operate on weekdays with 30-minute frequency during rush hour (15-minute effective frequency between Chantilly and Vienna when combined with Route 670).	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Faster Travel, Increased Coverage and Connectivity	
	Opportunities for Improvement	Efficiency-Based (Gap in Headway Standard, Gap in Span Guideline)	
Annual Estimated Riders		186,200	
Annual Revenue Hours		8,655	

*More recommendation details can be found in **Appendix E.***

ROUTE 672—CHANTILLY - VIENNA – DUNN LORING

Recommendation 672 – 1		**Improvement Type**: New Route	**Financial Status**: Constrained
Timeframe		Short-Term	
Description		Add new cross-county connector express route connecting Chantilly, Monument Drive Park and Ride, Vienna and Dunn Loring Metrorail stations. Operate 30-minute frequency on weekdays during non-rush hour and on weekends.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Faster Travel, Increased Coverage and Connectivity	
	Opportunities for Improvement	Efficiency-Based (Gap in Headway Standard, Gap in Span Guideline)	
Annual Estimated Riders		131,100	
Annual Revenue Hours		13,016	

*More recommendation details can be found in **Appendix E.***

ROUTE 698—STRINGFELLOW - PENTAGON

Recommendation 698 - 1		**Improvement Type**: Modified Route	**Financial Status**: Constrained
Timeframe		Short-Term	
Description		Adjust route for improved connectivity and increased span of service. Extend route to Stringfellow Road Park and Ride, and operate on weekdays with 15-minute frequency during rush hour.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Frequency, Increased Span of Service, Increased Coverage and Connectivity	
	Opportunities for Improvement	Efficiency-Based (Gap in Headway Standard, Gap in Span Guideline)	
Annual Estimated Riders		46,400	
Annual Revenue Hours		10,267	

*More recommendation details can be found in **Appendix E.***

ROUTE 798—TYSONS - BETHESDA

Recommendation 798 - 1		**Improvement Type**: New Route	**Financial Status**: Constrained
Timeframe		Short-Term	
Description		Add new express route connecting Tysons and Bethesda via I-495, I-270, and Westfield Montgomery Transit Center. Operate on weekdays with 20-minute frequency during rush hour.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Coverage and Connectivity	
Annual Estimated Riders		See 798 - 2	
Annual Revenue Hours		8,220	

Recommendation 798 - 2		**Improvement Type**: Modified Route	**Financial Status**: Constrained
Timeframe		Mid-Term	
Description		Adjust route for increased span of service and increased frequency. Operate all day on weekdays with 15-minute frequency during rush hour and 45-minute frequency during non-rush hour.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Frequency, Increased Span of Service	
Annual Estimated Riders		67,600	
Annual Revenue Hours		15,152	

More recommendation details can be found in ***Appendix E.***

MICROTRANSIT SERVICE—MCLEAN, TYSONS, WOLF TRAP

Recommendation DRT - 1		**Improvement Type**: New Route	**Financial Status**: Constrained
Timeframe		Short-Term	
Description		Add new on-demand microtransit service to provide exapnded coverage for the existing routes 432 and 724. Operate during weekdays during rush hour to provide trips between the service zone and Metrorail stations in Tysons.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Frequency, Faster Travel, Increased Coverage and Connectivity	
	Opportunities for Improvement	Efficiency-Based (Gap in Span Guideline)	
Annual Estimated Riders		23,200	
Annual Revenue Hours		2,490	

*More recommendation details can be found in **Appendix E.***

OTHER ROUTES OPERATING IN THE CENTREVILLE, CHANTILLY, VIENNA, AND TYSONS AREA WITH IMPROVEMENT

Details on the following route can be found in **Section 3.1.1** or **Section 3.1.3**.

- Route 313—FRANCONIA-SPRINGFIELD METRO AND VRE TO FAIR OAKS MALL
- Route 494—FRANCONIA-SPRINGFIELD METRO AND VRE TO TYSONS GALLERIA SHOPPING CENTER
- Route 495—BURKE CENTER VRE TO TYSONS GALLERIA SHOPPING CENTER
- Route 574—RESTON TOWN CENTER TRANSIT CENTER TO TYSONS WEST*PARK TRANSIT CENTER
- Route 605—RESTON TOWN CENTER TRANSIT TO FAIRFAX COUNTY GOVERNMENT CENTER
- Route 615—FAIR OAKS HOSPITAL TO MONUMENT DRIVE PARK AND RIDE
- Route 901—HERNDON METRO TO CENTREVILLE UMC PARK AND RIDE

UNCHANGED OR ELIMINATED ROUTES IN THE CENTREVILLE, CHANTILLY, VIENNA, AND TYSONS AREA

The following routes operating in the Centreville, Chantilly, Vienna, and Tysons area remain unchanged in the financially constrained plan.

- Route 306—George Mason University - Pentagon Metro Station
- Route 462—Dunn Loring - Navy Federal - Tysons
- Route 467—Dunn Loring - Tysons
- Route 697—Stringfellow Road - L'Enfant
- Route 699—Government Center - Downtown DC
- Route 703—McLean Metro Station - West Falls Church Metro Station
- Route 715—East Falls Church - Langley
- Route 721—Chain Bridge Road - McLean - Langley
- Route 722—McLean - Langley
- Route 803—Patriot Drive - East Falls Church Metro Station
- Route 834—Little River Turnpike - Pentagon
- Route 835—Braeburn Drive - Pentagon Express

The following existing routes will be eliminated when previously described short-term service improvements are implemented.

- Route 424—replacement service provided by Routes 423 and 427
- Route 466—replacement service provided by Route 461
- Route 621—replacement service provided by Routes 622, 651, 670, and 671
- Route 623—replacement service provided by Routes 670 and 671
- Route 624—replacement service provided by Route 630
- Route 631—replacement service provided by Routes 630 and 698
- Route 632—replacement service provided by Routes 651 and 698
- Route 634—replacement service provided by Routes 698
- Route 640—replacement service provided by Routes 615, 630, 642, 651, 662, and 901
- Route 641—replacement service provided by Routes 610 and 630
- Route 644—replacement service provided by Route 660
- Route 650—replacement service provided by Routes 651 and 671
- Route 652—replacement service provided by Routes 651, 670, and 924
- Route 724—replacement service provided by Route 432

3.1.3 Franconia, Springfield, and Huntington Area Service

This section summarizes service improvements and modifications for routes that primarily operate in the Franconia, Springfield, and Huntington area. Service in this area will be realigned to provide better connections both locally and regionally to locations such as Tysons, Fair Oaks, and DC. Several route changes are also planned to coincide with the opening of BRT service on Richmond Highway to streamline duplicative service and provide feeder connections to the BRT stations. **Figure 3-3** highlights the locations of the financially constrained service improvements, and **Appendix D** contains a full system map.

FIGURE 3-3: FRANCONIA, SPRINGFIELD, AND HUNTINGTON AREA ROUTES

ROUTE 101—HUNTINGTON METRO (NORTH) - INOVA MT. VERNON HOSPITAL

<table>
<tr><th>Recommendation 101 - 1</th><th colspan="2">Improvement Type: Modified Route</th><th>Financial Status: Constrained</th></tr>
<tr><td colspan="2">Timeframe</td><td colspan="2">Short-Term</td></tr>
<tr><td colspan="2">Description</td><td colspan="2">Adjust route to connect between Huntington Metrorail station and Inova Mount Vernon Hospital, and increase frequency of weekday and Saturday service. Operate all day seven days a week with 30-minute frequency on weekdays and Saturday and 60-minute frequency on Sunday.</td></tr>
<tr><td rowspan="3">Justification</td><td>Goals</td><td colspan="2">Choice, Quality, Efficiency</td></tr>
<tr><td>Public Priorities</td><td colspan="2">Increased Frequency, Increased Coverage and Connectivity</td></tr>
<tr><td>Opportunities for Improvement</td><td colspan="2">Transit Demand and Underserved Area (All-Day Service Gap)
Efficiency-Based (Gap in Span Guideline)</td></tr>
<tr><td colspan="2">Annual Estimated Riders</td><td colspan="2">96,400</td></tr>
<tr><td colspan="2">Annual Revenue Hours</td><td colspan="2">12,369</td></tr>
<tr><td colspan="4"></td></tr>
</table>

*More recommendation details can be found in **Appendix E.***

ROUTE 109—ROSE HILL

<table>
<tr><th>Recommendation 109 - 1</th><th colspan="2">Improvement Type: Modified Route</th><th>Financial Status: Constrained</th></tr>
<tr><td colspan="2">Timeframe</td><td colspan="2">Short-Term</td></tr>
<tr><td colspan="2">Description</td><td colspan="2">Adjust route for increased frequency on weekdays. Operate all day seven days a week with 30-minute frequency on weekdays and with 60-minute frequency on weekends.</td></tr>
<tr><td rowspan="3">Justification</td><td>Goals</td><td colspan="2">Choice, Quality, Efficiency</td></tr>
<tr><td>Public Priorities</td><td colspan="2">Increased Frequency</td></tr>
<tr><td>Opportunities for Improvement</td><td colspan="2">Efficiency-Based (Gap in Span Guideline)</td></tr>
<tr><td colspan="2">Annual Estimated Riders</td><td colspan="2">91,000</td></tr>
<tr><td colspan="2">Annual Revenue Hours</td><td colspan="2">11,882</td></tr>
<tr><td colspan="4"></td></tr>
</table>

*More recommendation details can be found in **Appendix E.***

ROUTE 151—ENGLESIDE - MT. VERNON

Recommendation 151 - 1		Improvement Type: Modified Route	Financial Status: Constrained
Timeframe		Short-Term	
Description		Adjust route to increase frequency as a replacement for Route 159. Operate all day seven days a week with 15-minute frequency on weekdays during rush hour and 30-minute frequency on weekdays during non-rush hour and weekends.	
Justification	Goals	Choice, Quality, Efficiency	
	Public Priorities	Increased Frequency	
Annual Estimated Riders		437,000	
Annual Revenue Hours		30,250	

More recommendation details can be found in ***Appendix E.***

ROUTE 163—HUNTINGTON METRO (SOUTH) - INOVA MT. VERNON HOSPITAL

Recommendation 163 - 1		Improvement Type: New Route	Financial Status: Constrained
Timeframe		Short-Term	
Description		Add new local route connecting Huntington Metrorail (South) to Inova Mt. Vernon Hospital to replace Route 161/162, reduce travel time, and increase frequency. Operate all day seven days a week with 15-minute frequency during rush hour and 30-minute frequency during non-rush hour and weekends.	
Justification	Goals	Choice, Quality, Efficiency	
	Public Priorities	Increased Frequency, Increased Span of Service, Faster Travel, Increased Coverage and Connectivity	
	Opportunities for Improvement	Efficiency-Based (Gap in Span Guideline)	
Annual Estimated Riders		138,400	
Annual Revenue Hours		16,203	

More recommendation details can be found in ***Appendix E.***

ROUTE 164—HUNTINGTON METRO (SOUTH) - MT. VERNON

Recommendation 164 - 1		**Improvement Type**: New Route	**Financial Status**: Constrained
Timeframe		Short-Term	
Description		Add new local route connecting Huntington Metrorail (South) to George Washington's Mt. Vernon to replace Route 161/162 and the southern portion of 101. Operate all day seven days a week with 60-minute frequency.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Frequency, Increased Span of Service, Increased Coverage and Connectivity	
Annual Estimated Riders		65,100	
Annual Revenue Hours		8,297	

*More recommendation details can be found in **Appendix E.***

THE ONE—RICHMOND HIGHWAY BRT: HUNTINGTON METRO (SOUTH) - FORT BELVOIR

Recommendation BRT - 1		**Improvement Type**: New Route	**Financial Status**: Constrained
Timeframe		Long-Term	
Description		Add new high-capacity public transportation system between Huntington Metrorail (South) and Fort Belvoir. Operate all day on weekdays with 6-minute frequency during rush hour and 12-minute frequency during rush hour. Additional rush hour service will be provided between Huntington and Beacon Hill to provide 3-minute frequency. Operate all day on weekends with 20-minute frequency.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Frequency, Faster Travel, Increased Coverage and Connectivity	
Annual Estimated Riders		3,838,000	
Annual Revenue Hours		57,594	

*More recommendation details can be found in **Appendix E.***

ROUTE 231—FRANCONIA-SPRINGFIELD METRO AND VRE TO VAN DORN ST METRO

Recommendation 231 - 1		Improvement Type: Modified Route	Financial Status: Constrained
Timeframe		Short-Term	
Description		Adjust route to provide a more direct connection between Franconia-Springfield and Van Dorn Street Metrorail stations via Van Dorn Street, Franconia Road, and Beulah Street with bidirectional service. Eliminate Route 232. Operate on weekdays with 30-minute frequency during rush hour.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Faster Travel	
Annual Estimated Riders		18,400	
Annual Revenue Hours		3,478	

More recommendation details can be found in ***Appendix E.***

ROUTE 301—HUNTINGTON METRO (NORTH) TO FRANCONIA-SPRINGFIELD METRO AND VRE

Recommendation 301 - 1		Improvement Type: Modified Route	Financial Status: Constrained
Timeframe		Short-Term	
Description		Adjust route for more direct service and faster travel time between Huntington Metrorail station and Franconia-Springfield Metrorail and VRE station. Operate on weekdays with 45-minute frequency during rush hour.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Faster Travel, Increased Coverage and Connectivity	
	Opportunities for Improvement	Performance-Based (Cost Efficiency)	
Annual Estimated Riders		19,900	
Annual Revenue Hours		3,817	

More recommendation details can be found in ***Appendix E.***

ROUTE 305—SILVERBROOK RD AND LAUREL CREST DR TO FRANCONIA-SPRINGFIELD METRO AND VRE

Recommendation 305 - 1		Improvement Type: Modified Route	Financial Status: Constrained
Timeframe		Short-Term	
Description		Adjust route to connect between Franconia-Springfield Metrorail and VRE station and Laurel Crest Drive. Operate on weekdays with 45-minute frequency during rush hour.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Coverage and Connectivity	
	Opportunities for Improvement	Performance-Based (Ridership, Reliability, Cost Efficiency)	
Annual Estimated Riders		19,900	
Annual Revenue Hours		3,659	

*More recommendation details can be found in **Appendix E.***

ROUTE 310—ROLLING VALLEY PARK AND RIDE TO HUNTINGTON METRO (NORTH)

Recommendation 310 - 1		Improvement Type: Modified Route	Financial Status: Constrained
Timeframe		Short-Term	
Description		Adjust route to connect to Springfield Community Business Center (CBC) Commuter Parking Garage and for increased frequency on all days. Operate all day seven days a week with 20-minute frequency during rush hour, 30-minute frequency during non-rush hour and on Saturday, and 60-minute frequency on Sunday.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Frequency, Increased Coverage and Connectivity	
Annual Estimated Riders		471,300	
Annual Revenue Hours		30,246	

*More recommendation details can be found in **Appendix E.***

ROUTE 313—FRANCONIA-SPRINGFIELD METRO AND VRE TO FAIR OAKS MALL

Recommendation 313 - 1		**Improvement Type**: New Route	**Financial Status**: Constrained
Timeframe		Short-Term	
Description		Add new cross-county connector route connecting Franconia-Springfield Metrorail and VRE station and Fair Oaks Mall via Fairfax City and Old Keene Mill Road. Operate all day on weekdays with 30-minute frequency during rush hour, 60-minute frequency during non-rush hour, and 60-minute frequency on Saturday.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Faster Travel, Increased Coverage and Connectivity	
Annual Estimated Riders		226,700	
Annual Revenue Hours		12,389	

More recommendation details can be found in ***Appendix E.***

ROUTE 321—FRANCONIA-SPRINGFIELD METRO AND VRE TO VAN DORN ST METRO

Recommendation 321 - 1		**Improvement Type**: Modified Route	**Financial Status**: Constrained
Timeframe		Short-Term	
Description		Adjust route for increased frequency on weekdays and Sundays. Operate all day seven days a week with 20-minute frequency during rush hour, 30-minute frequency during non-rush hour and Saturday, and 45-minute frequency on Sunday.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Frequency	
	Opportunities for Improvement	Efficiency-Based (Gap in Span Guideline)	
Annual Estimated Riders		204,400	
Annual Revenue Hours		21,305	

More recommendation details can be found in ***Appendix E.***

ROUTE 322—FRANCONIA-SPRINGFIELD METRO AND VRE TO VAN DORN ST METRO

Recommendation 322 - 1		**Improvement Type**: Modified Route	**Financial Status**: Constrained
Timeframe		Short-Term	
Description		Adjust route for increased frequency on weekdays and Sundays. Operate all day seven days a week with 20-minute frequency during rush hour, 30-minute frequency during non-rush hour and Saturday, and 45-minute frequency on Sunday.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Frequency	
	Opportunities for Improvement	Efficiency-Based (Gap in Span Guideline)	
Annual Estimated Riders		209,300	
Annual Revenue Hours		20,598	

More recommendation details can be found in ***Appendix E.***

ROUTE 334—FRANCONIA-SPRINGFIELD METRO AND VRE TO DEFENSE LOGISTICS AGENCY

Recommendation 334 - 1		**Improvement Type**: Modified Route	**Financial Status**: Constrained
Timeframe		Short-Term	
Description		Adjust route for shifted span of service on weekdays. Operate on weekdays with 30-minute frequency during rush hour and during limited non-rush hours.	
Justification	**Goals**	Choice, Quality, Efficiency	
Annual Estimated Riders		11,700	
Annual Revenue Hours		4,254	

More recommendation details can be found in ***Appendix E.***

ROUTE 350—SPRINGFIELD CIRCULATOR: FRONTIER DR. - HILTON SPRINGFIELD - FRANCONIA-SPRINGFIELD METRO

Recommendation 350 - 1		**Improvement Type**: Modified Route	**Financial Status**: Constrained
Timeframe		Short-Term	
Description		Adjust route by streamlining service, and connect Franconia-Springfield Metrorail and VRE station, Frontier Drive, and Hilton Springfield. Operate all day on weekdays with 15-minute frequency during rush hour and 15- to 20-minute frequency during non-rush hour.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Faster Travel	
Annual Estimated Riders		26,800	
Annual Revenue Hours		5,534	

*More recommendation details can be found in **Appendix E.***

ROUTE 351—TSA - NVCC MEDICAL COLLEGE - FRANCONIA-SPRINGFIELD METRO

Recommendation 351 - 1		**Improvement Type**: Modified Route	**Financial Status**: Constrained
Timeframe		Short-Term	
Description		Adjust route by streamlining service to connect Franconia-Springfield Metrorail and VRE station, TSA, and NVCC Medical Education Campus. Operate weekdays with 15- to 20-minute frequency during rush hour.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Faster Travel	
Annual Estimated Riders		7,900	
Annual Revenue Hours		2,066	

*More recommendation details can be found in **Appendix E.***

ROUTE 352—TSA - SPRINGFIELD TOWN CENTER - FRANCONIA-SPRINGFIELD METRO

Recommendation 352 - 1		**Improvement Type**: New Route	**Financial Status**: Constrained
Timeframe		Short-Term	
Description		Add new route to cover portion of existing Route 350 between Franconia-Springfield Metrorail and VRE station, Metropolitan Center Drive, Loisdale Road, and Spring Mall Road, and adjust route for increased frequency. Operate on weekdays with 15- to 20-minute frequency during midday.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Frequency, Faster Travel	
Annual Estimated Riders		2,000	
Annual Revenue Hours		1,462	

More recommendation details can be found in ***Appendix E.***

ROUTE 353—FRANCONIA SPRINGFIELD METRO - METRO PARK

Recommendation 353 - 1		**Improvement Type**: New Route	**Financial Status**: Constrained
Timeframe		Short-Term	
Description		Add new route to cover portion of existing Route 350 between Franconia-Springfield Metrorail and VRE station, and Metrorail Park. Operate all day on weekdays with 15-minute frequency during rush hour and 15- to 20-minute frequency during non-rush hour.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Faster Travel	
Annual Estimated Riders		4,800	
Annual Revenue Hours		2,979	

More recommendation details can be found in ***Appendix E.***

ROUTE 371—LORTON PARK AND RIDE TO FRANCONIA-SPRINGFIELD METRO AND VRE

Recommendation 371 - 1		Improvement Type: Modified Route	Financial Status: Constrained
Timeframe		Short-Term	
Description		Adjust route for increased frequency to replace Routes 372 and 373. Operate all day seven days a week with 15-minute frequency on weekdays, 30-minute frequency on Saturday, and 45-minute frequency on Sunday.	
Justification	Goals	Choice, Quality, Efficiency	
	Public Priorities	Increased Frequency	
	Opportunities for Improvement	Efficiency-Based (Gap in Span Guideline)	
Annual Estimated Riders		441,900	
Annual Revenue Hours		31,345	

*More recommendation details can be found in **Appendix E.***

ROUTE 393—SARATOGA PARK AND RIDE TO PENTAGON METRO

Recommendation 393 - 1		Improvement Type: Modified Route	Financial Status: Constrained
Timeframe		Short-Term	
Description		Adjust route to connect to Springfield CBC Commuter Parking Garage. Operate on weekdays with 40-minute frequency during rush hour.	
Justification	Goals	Choice, Quality, Efficiency	
	Public Priorities	Increased Coverage and Connectivity	
	Opportunities for Improvement	Efficiency-Based (Gap in Span Guideline)	
Annual Estimated Riders		71,400	
Annual Revenue Hours		3,424	

*More recommendation details can be found in **Appendix E.***

ROUTE 396—BACKLICK NORTH PARK AND RIDE TO PENTAGON METRO

Recommendation 396 - 1		**Improvement Type**: Modified Route	**Financial Status**: Constrained
Timeframe		Short-Term	
Description		Adjust route to connect to Springfield CBC Commuter Parking Garage. Operate on weekdays with 20-minute frequency during rush hour.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Coverage and Connectivity	
Annual Estimated Riders		196,100	
Annual Revenue Hours		5,370	

*More recommendation details can be found in **Appendix E.***

ROUTE 494—FRANCONIA-SPRINGFIELD METRO AND VRE TO TYSONS GALLERIA SHOPPING CENTER

Recommendation 494 - 1		**Improvement Type**: Modified Route	**Financial Status**: Constrained
Timeframe		Short-Term	
Description		Adjust route for increased frequency, reduced travel time, and more direct connection between Tysons and Franconia-Springfield Metrorail and VRE station. Operate on weekdays with 15-minute frequency during rush hour and 60-minute frequency during non-rush hour.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Frequency, Faster Travel	
	Opportunities for Improvement	Performance-Based (Ridership, Reliability, Cost Efficiency) Efficiency-Based (Gap in Span Guideline)	
Annual Estimated Riders		66,000	
Annual Revenue Hours		8,188	

*More recommendation details can be found in **Appendix E.***

ROUTE 495—BURKE CENTER VRE TO TYSONS GALLERIA SHOPPING CENTER

Recommendation 495 - 1		Improvement Type: Modified Route	Financial Status: Constrained
Timeframe		Short-Term	
Description		Adjust route for reduced travel time and more direct connection between Tysons and Burke Center VRE station. Adjust span of service and frequency to match demand. Operate weekdays with 35-minute frequency during rush hour.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Faster Travel	
	Opportunities for Improvement	Performance-Based (Ridership, Reliability, Cost Efficiency)	
Annual Estimated Riders		6,900	
Annual Revenue Hours		2,992	

*More recommendation details can be found in **Appendix E.***

OTHER ROUTES OPERATING IN THE FRANCONIA, SPRINGFIELD, AND HUNTINGTON AREA WITH IMPROVEMENT

Details on the following route can be found in **Section 3.1.2**.

- Route 670—CHANTILLY - FRANCONIA

UNCHANGED OR ELIMINATED ROUTES IN THE FRANCONIA, SPRINGFIELD, AND HUNTINGTON AREA

The following routes operating in the Franconia, Springfield, and Huntington area remain unchanged in the financially constrained plan.

- Route 152—Huntington Metro (South) - Mt. Vernon
- Route 171—Huntington Metro (North) - Lorton VRE
- Route 308—Franconia-Springfield Metro and VRE Station to Inova Mt. Vernon Hospital
- Route 335— Franconia-Springfield Metro and VRE Station to Fort Belvoir
- Route 341—Franconia-Springfield Metro and VRE Station to Saratoga Park and Ride
- Route 394—Rolling Road and Saratoga Shopping Center to Pentagon Metro
- Route 395—Gambrill Road Park and Ride to Pentagon Metro
- Route 401/402—Franconia-Springfield Metro and VRE Station to West*Park Transit Station. Depending on available funding, an express limited-stop version of the 401/402, the 400X, will be implemented. Details of 400X are in **Appendix C**.

The following existing routes will be eliminated when previously described short-term service improvements are implemented.

- Route 159—replacement service provided by Route 151
- Route 161—replacement service provided by Routes 163 and 164
- Route 162—replacement service provided by Routes 163 and 164
- Route 232— replacement service provided by Route 231
- Route 340—replacement service provided by Route 341, when operating
- Route 372—replacement service provided by Route 371
- Route 373—replacement service provided by Route 371

3.1.4 Metrobus Routes in Fairfax County

Improvements to the Metrobus service were not explicitly identified in the development of the TSP. WMATA is undertaking a redesign of its Metrobus network in coordination with regional partners beginning in 2022 through 2024 with its Better Bus Network Redesign project. Final Year One and Visionary Networks are anticipated to be developed in 2024 with implementation of the new network beginning in 2025. A draft Visionary Network shared with the public for input in 2023 is included for reference in **Appendix D**. Given the uncertainty of the changes to the regional network while developing the TSP, improvements to Metrobus or networks of other operators as a result of the Better Bus Network Redesign project will be incorporated into future annual updates of the TSP.

Service improvements for Fairfax Connector, needs, and priorities identified in the TSP will be used as input to the Metrobus planning process conducted by WMATA. Fairfax County is also participating on the Technical Advisory Committee and in service planning work sessions with WMATA.

During the development of the TSP and public outreach process, Fairfax County received public comments about Metrobus service in the county. Feedback and several specific examples of comments received are summarized below:

- Interest and support for increased Connector service for discontinued Metrobus service or times of day when Metrobus offers lower levels of service. For example, many comments were received in support of Connector Route 835 replacing Metrobus line 29W in July 2021.
- Unreliability of travel options due to discontinued Metrobus service in Fairfax County
- Interest in restoring service for previously discontinued Metrobus service
    - 2T, 11Y, 15K, 17A, 18E, 18H, 18R, 18S, 21D
- Need for schedule coordination between Metrobus and Fairfax Connectors so buses do not bunch and arrive at the same time (for example, Richmond Highway corridor).

- Improved connections and requests for additional service
  - Non-rush hour service along Braddock Road and Little River Turnpike
  - More service along Little River Turnpike, Columbia Pike, and Sleepy Hollow Road
  - More connections and frequent service between Annandale and Falls Church
  - More direct connections between Bailey's Crossroads and Kingstowne, Springfield, and Arlington Boulevard corridor
  - More service along Edsall Road
  - Increased service to Industrial Drive in Springfield
  - More service from central Fairfax/George Mason University into DC
  - Restoring more direct service to the Pentagon
  - Direct bus to Department of Homeland Security in Southeast DC, similar to direct service to the Pentagon

Fairfax County will continue to collaborate with WMATA as the TSP is implemented and as WMATA redesigns its regional Metrobus network to provide a cohesive transit system. Fairfax County may take over the operation of additional Metrobus routes in the county in the future as it did during July 2021 service changes to ensure the county has equitable, reliable, and efficient bus service.

3.2 Prioritization of Planned Service Improvements

3.2.1 Prioritization Methodology

Each of the recommendations detailed in the prior section and the financially unconstrained improvements in **Appendix C** address identified the needs of Fairfax Connector. Prioritizing recommendations assists in planning for the capital and operating expenses associated with improved service levels. All recommendations were prioritized using a two-tier methodology to determine the most suitable timeframe to implement each of the service recommendations and to determine the prioritization of each recommendation within each timeframe.

Recommendations were grouped into three timeframes.

- **Short-Term**: through fiscal year (FY) 2025
- **Mid-Term**: FY 2026 – FY 2029
- **Long-Term**: FY 2030 – FY 2033

Tier one of the prioritization methodology was used to first determine which of the three timeframes each recommendation should be assigned to. Timeframes were preliminary at this stage because financial constraint was not yet applied. After the financial constraint was determined, timeframes were revised to reflect when resources would be available to implement the recommendation. Tier one was scored on seven measures as shown in **Table 3-1**. Some adjustments were made to the assigned timeframes to account for the timing of predetermined funding, such as grant programs, and if improvements are dependent on changes to another route—for example, local route changes that coincide with the Richmond Highway BRT beginning service. A sample calculation of the tier one scoring is shown in **Figure 3-4**.

TABLE 3-1: TIER 1 IMPROVEMENT SCORING

Measure	Definition	Score If Yes
Ready to Implement	Included in a preferred plan of a Bus Service Review Study	**4**
Service to Equity Emphasis Area	Proposed route provides provide service within ¼ mile of an equity emphasis area, as defined by Metropolitan Washington Council of Governments (MWCOG)	**2**
Fills an All-Day Service Gap	Identified in Chapter 2 as areas with moderate to high all-day service propensities that are not served by transit midday, or areas with moderate/high to high propensities served by routes with more than 30-minute midday headways	**1**
Fills a Peak Service Gap	Identified in Chapter 2 as areas with moderate to high peak service propensities that are not served by transit during peak periods, or areas with moderate/high to high propensities served by routes with more than 30-minute period headways	**1**
Fills an Enhanced Service Gap	Identified in Chapter 2 as areas with moderate to high enhanced service propensities with more than 15-minute peak headways	**1**
Fills a Span Gap	Identified in Chapter 2 as existing routes that do not meet guidelines	**1**
Fills a Headway Gap	Identified in Chapter 2 as existing routes that do not meet standards defined in Fairfax County's Title VI Plan	**1**
Tier 1 Total Score	**Preliminary Timeframe**	
≥ 4	Short-Term	
2 to 3	Mid-Term	
0 to 1	Long-Term	

FIGURE 3-4: TIER 1 IMPROVEMENT SCORING SAMPLE CALCULATION

TIER 1: ASSIGN PRELIMINARY TIMEFRAME

Recommendation	Nature of Change	Ready to Implement	Service to Equity Emphasis Area	Fills an All-Day Service Gap	Fills a Peak Service Gap	Fills and Enhanced Service Gap	Fills Span Gap	Fills Headway Gap	Tier 1 Total Score	Preliminary Timeframe
	Weight:	*4*	*2*	*1*	*1*	*1*	*1*	*1*		
321 – 1	Increase frequency on weekday and Sunday	Yes	Yes			Yes		Yes	**8**	**Near-Term**
954 – 1	New route	Yes	Yes		Yes				**7**	**Near-Term**
308 – 1	Add Sunday service		Yes					Yes	**3**	**Mid-Term**
153 - 1	New route to replace 151 to feed BRT		Yes						**2**	~~Mid-Term~~ **Long-Term**

Preliminary timeframe changed because route is dependent on Richmond Highway BRT in Long-Term

After the recommendations were placed in one of the three preliminary timeframes, tier two of the prioritization methodology was used to rank recommendations within each timeframe. Four measures were used to determine the ranking as shown in **Table 3-2**. A sample calculation of the tier two scoring is shown in **Figure 3-5**.

TABLE 3-2: TIER 2 IMPROVEMENT SCORING

Measure	Definition	Weight
Transit-Oriented Population Propensity	Total population in a quarter-mile buffer of local route alignment or express route stop multiplied by transit-oriented population propensity index. Propensity is described in **Section 2.2.1.**	**1**
Span	Span score (maximum of 3.5): • +1.0 if runs during weekday peak periods • +0.5 if runs during weekday off-peak periods • +0.5 if runs after 9:00 p.m. on weekdays • +0.5 if runs on Saturday • +0.5 if Saturday core headway is ≤ 30 minutes • +0.5 if runs on Sunday	**2**
Headway	Number of weekday vehicle trips	**1**
Public Comments	Total comments received on the recommendation during public outreach. Comments received from frequent riders were weighted twice that of comments received from occasional or non-riders.	**1**
Tier 2 Total Score		
Tier 2 total score was determined by normalizing (on a 0 to 100 scale) each measure for all recommendations in the timeframe and adding weighted normalized values together for each recommendation.		
Final Rank		
The final ranks of the recommendations within each timeframe were determined by combining Tier 1 and Tier 2 scores.		

FIGURE 3-5: TIER 2 IMPROVEMENT SCORING SAMPLE CALCULATION

TIER 2: RANK WITHIN TIMEFRAME

Rank compared to all recommendations within the timeframe

Preliminary Timeframe	Recommendation	Nature of Change	Transit-Oriented Population Propensity		Span (span score)		Headway (trips per day)		Public Comment (weighted number of comments)		Tier 2 Total Score	Final Rank
		Weight:	1		2		1					
Near-Term	321 - 1	Increase frequency on weekday and Sunday	11,493	52.35	3.5	100.00	44	63.33	44	56.00	371.69	6
Near-Term	954 - 1	New route	5,457	24.49	2.5	66.67	22	26.67	6	8.00	192.49	30
Mid-Term	308 - 1	Add Sunday service	12,007	55.74	3.0	80.00	29	31.75	19	18.52	266.01	23
Long-Term	153 - 1	New route to replace 151 to feed BRT	16,352	100.00	3.5	100.00	60	34.29	11	14.00	348.29	5

Gray columns are the measure normalized between 0-100 for all recommendations within the timeframe

The outcome of the prioritization process, scores and ranks for each recommendation are contained in **Appendix B**. The final rank of recommendations was used as a guide for sequencing improvements over the 10 years of the TSP.

3.2.2 Financially Constrained Plan

Multiple implementation scenarios were developed to assist Fairfax County determine the funding for improvements that is reasonably expected to be available over the duration of the plan. One-one-one coordination meetings were conducted with each member of the Board of Supervisors during this process.

- **Financially Constrained Scenario**: contains improvements and modifications that can be made with existing funding and routes that are reasonably expected to be funded with grants or external funding sources. This scenario also contains the Richmond Highway BRT.
- **Financially Unconstrained Scenario**: contains all improvements identified in the TSP regardless of financial status.

Table 3-3 summarizes the phased improvements to Fairfax Connector under the financially constrained plan and notes any operational or capital investments that are needed. This phasing represents the implementation plans at the time of the TSP development and is subject to change as funding availability becomes clearer.

Financial needs are documented further in **Chapters 4 and 5**, and the following section describes capital or service projects that are included in other plans.

TABLE 3-3: SUMMARY OF PRIORITIZED SERVICE IMPROVEMENTS

Timeframe	Year	Nature of Improvements	Routes Impacted	Approximate Operational Needs[1]	Approximate Capital Needs[2]
Short-Term	FY 2023	***Status: Implemented*** Realign Springfield Business Circulator routes. Implement enhanced bus service Reston and Herndon area in coordination with the Metrorail Silver Line extension. Begin express Route 660 service using the I-66 Express Lanes.	**Changes to service**: Routes 350, 351, 507, 552, 553, 557, 558, 574, 599, 605, 924, 937, 950, 951, 952, 983, RIBS 1, RIBS 2, RIBS 3, RIBS 4, RIBS 5 **New service**: Routes 352, 353, 615, 660, 901, 921, 954 **Eliminated service (service is provided by other routes)**: Routes 505, 551, 554, 556, 559, 585, 644, 926, 927, 929, 980, 981, 985	14,300 additional hours of service $1.8M in additional annual operating cost	16 additional vehicles $14.4M in capital cost
	FY 2024	Implement enhanced bus service in the Centreville, Chantilly, Vienna, and Tysons area. Implement new or enhanced grant-funded services such as Routes 371, 598, 698, 721, 798.	**Changes to service**: Routes 371, 423, 432, 461, 463, 494, 622, 630, 642, 651, 698 [3] **New service**: 427, 598, 610, 625, 662, 663, 670, 671, 672, 798 **Eliminated service (service is provided by other routes)**: Routes 372, 373, 424, 466, 621, 623, 624, 631, 632, 634, 640, 641, 650, 652, 724	28,500 additional hours of service $4.0M in additional annual operating cost	7 additional vehicles $6.5M in capital cost

Timeframe	Year	Nature of Improvements	Routes Impacted	Approximate Operational Needs[1]	Approximate Capital Needs[2]
Short-Term (Cont'd)	**FY 2025**	Implement enhanced bus service in the Franconia, Springfield, and Huntington area. Pilot microtransit service north of Tysons.	**Changes to service**: Routes 101, 109, 151, 152, 231, 301, 305, 310, 321, 322, 334, 393, 396, 495, 615 **New service**: Route 163, 164, 313, Microtransit Service (McLean, Tysons, Wolf Trap)[3] **Eliminated service (service is provided by other routes)**: Routes 159, 161, 162, 232, 340	28,300 additional hours of service $4.1M in additional annual operating cost	5 additional vehicles $4.8M in capital cost
Mid-Term	**FY 2026**	Increase service on Route 798 between Tysons and Bethesda	**Changes to service**: Route 798	7,100 additional hours of service $1.2M in additional annual operating cost	None
	FY 2027	No planned changes	None	None	None
	FY 2028	No planned changes	None	None	None
	FY 2029	No planned changes	None	None	None

Timeframe	Year	Nature of Improvements	Routes Impacted	Approximate Operational Needs[1]	Approximate Capital Needs[2]
Long-Term	**FY 2030**	Begin service for the One on Richmond Highway.	**New service**: The One (Richmond Highway BRT)	57,600 additional hours of service $9.6M in additional annual operating cost	21 additional vehicles $32.6M in capital cost
	FY 2031	No planned changes	None	None	None
	FY 2032	No planned changes	None	None	None
	FY 2033	No planned changes	None	None	None

[1] Cost stated in year of expenditure dollars. See Financial Plan in **Chapter 5** for additional details and anticipated funding sources.

[2] Cost stated in year of expenditure dollars. Does not include bus lifecycle or rehabilitation costs or non-vehicle capital costs. See Capital Implementation Plan in **Chapter 4** and Financial Plan in **Chapter 5** for additional details on capital needs and anticipated funding sources.

[3] Implementation depends on additional grant funding that has not been obtained yet, such as for Route 698 frequency improvement and microtransit service. Revenue hours are dependent on grant funding.

3.2.3 Inclusion in Other Plans

This section describes capital or service projects that are included in other plans or programs. Fairfax County's Capital Improvement Program (CIP) contains several capital projects for Fairfax Connector passenger facilities.

SPRINGFIELD CBC COMMUTER PARKING GARAGE

Fairfax County is constructing a multimodal transit hub in Springfield. The new parking garage will accommodate approximately 1,000 commuter parking spaces and provide a bus transit location on the ground level. This multi-year project is currently under construction with completion anticipated in December 2023. The estimated total cost of this project is $58 million to be funded with federal and local C&I tax funding sources. Planned service improvements will bring many opportunities for connections throughout the day on both weekdays and weekends at the transit hub including Routes 310, 313, 321, 322, 393, 396, and 494.

MONUMENT DRIVE COMMUTER PARKING GARAGE

The Monument Drive Commuter Parking Garage and Transit Center is a new parking garage with a minimum of 820 parking spaces and will include a transit center of bus bays, a kiss-and-ride facility, bicycle storage, restroom facility, and Connector store. This project is currently under construction with completion anticipated in fall 2023. The estimated total cost of this project is approximately $43 million which is fully funded with Transform 66 Concession. Planned service improvements will bring many opportunities for connections throughout the day on both weekdays and weekends at the transit center including Routes 313, 605, 610, 615, 622, 625, 630, 651, 660, 662, 663, 670, 671, and 699.

RICHMOND HIGHWAY BUS RAPID TRANSIT

The Richmond Highway BRT Project includes the implementation of an approximately 7.4-mile new transit service extending along North Kings Highway and Richmond Highway/Route 1 from the Huntington Metrorail Station in the north to Fort Belvoir in the south. The project includes the construction of new BRT-dedicated median lanes; nine BRT stations; streetscape improvements; and walkways and bicycle facilities. The project will operate in mixed traffic along North Kings Highway and dedicated lanes on Richmond Highway. The BRT is expected to be operational by 2030. The preliminary cost estimate for the overall BRT program is approximately $780 million. The Richmond Highway BRT Project is also contained in the financially constrained element of Visualize 2045, the National Capital Region's long-range transportation plan. The Huntington area service improvements in the TSP will provide convenient and frequent local bus service connection opportunities to BRT stations along the Richmond Highway corridor.

ROUTE 7 BUS RAPID TRANSIT

Fairfax County completed a Route 7 BRT Study in 2021 to provide details of how a BRT system would function in Tysons from Spring Hill Metrorail Station to the I-66 interchange. This study built upon work by the Northern Virginia Transportation Commission (NVTC), which explored transit alternatives between Mark Center in Alexandria and Tysons. As an outcome of the study, FCDOT recommended Alternative 1/International Drive as the preferred alternative which consists of a median busway on Route 7 and International Drive followed by a bus and turn (BAT) lane on Spring Hill Road and Tyco Road. NVTC continues to study the BRT project in collaboration with regional stakeholders. Implementation of the BRT project is not fully funded.

BUS STOP IMPROVEMENT PROGRAM

Fairfax County has an ongoing Bus Stop Improvement Program which is intended to implement enhancements that can improve access, safety, and passenger amenities at bus stops across the county. Approximately $1.2 million is dedicated to this program annually.

WORKHOUSE CAMPUS MASTER PLAN

Fairfax County is developing a master plan for the redevelopment of the county-owned 52-acre Workhouse Campus. The vision for the campus is to establish a uniquely, widely recognized destination. Transportation will be an important element of the plan. Fairfax Connector does not currently serve this area of Ox Road, and coordination will be needed with the master planning to understand the potential and need for future transit service in this area. As the Master Plan is developed, additional transit service improvements could be incorporated in TSP annual updates.

The following projects are included in Northern Virginia Transportation Authority's (NVTA's) Six Year Program:

- **Richmond Highway BRT**: $80 million to support the Richmond Highway BRT Project
- **Route 400X**: $10 million for the purchase of eight zero-emissions buses to support recommendation 400X – 1 of the TSP
- **Soapstone Drive Extension**: While not a transit project, this roadway project to extend Soapstone Drive over the Dulles Toll Road between Sunrise Valley Drive and Sunset Hills Road will provide an additional option to cross apart from existing Reston Parkway and Wiehle Avenue. This could help with transit travel times due to reduced congestion on current roads and may affect local bus routing after opening.

3.3 Service Development

3.3.1 Operations Planning

This section provides a year-by-year summary of operational changes and needs by route to assist Fairfax Connector in preparing for service changes. **Table 3-4** shows the anticipated implementation of service projects and the approximate annual change in revenue hours and peak vehicles. It represents the implementation plans at the time of the TSP development and is subject to change as funding availability becomes clearer. These changes represent an incremental difference for the routes from the previous year.

TABLE 3-4 SERVICE EXPANSION AND REDUCTION BY YEAR

Year	Route	Description	Change from Previous Year	
			Revenue Hours[1]	Peak Vehicles
FY 2023 (Implemented)	350	Alignment change	-	-
	351	Alignment change		
	352	Introduce new service to modify 350		
	353	Introduce new service to modify 350		
	505	Eliminate service—replace with 652 and RIBS 2	(12,500)	(3)
	507	Adjust span of service	(700)	-
	551	Eliminate service—replace with RIBS 2	(15,800)	(4)
	552	Alignment change	+4,100	3
	553	Alignment change	+4,700	1
	554	Eliminate service—replace with 558	(3,500)	(2)
	556	Eliminate service—replace with RIBS 4	(3,100)	(2)
	557	Adjust span of service	(1,900)	1
	558	Alignment change	(300)	+3
	559	Eliminate service—replace with 557, RIBS 1, RIBS 3	-	-
	574	Alignment change	(1,500)	1
	585	Eliminate service—replace with 553, 605, 924	(4,800)	(4)
	599	Shift span of service	(200)	(2)
	605	Alignment change and increase frequency	(2,800)	-
	615	Introduce new service	+12,000	+3
	644	Eliminate service—replace with 660 [2]	(2,800)	-
	660	Introduce new service[2]	+8,500	+10
	901	Introduce new service	+17,400	+5
	921	Introduce new service	+4,600	+1
	924	Alignment change	+14,100	+4
	926	Eliminate service—replace with 553, 921, 924, 952	(3,400)	
	927	Eliminate service—replace with 901, 950, 951, 983	(2,500)	(1)
	929	Eliminate service— replace with 901, 950, 951, 983	(5,200)	(2)
	937	Adjust span of service	(4,600)	(2)
	950	Alignment change and increase frequency	(1,000)	-

Year	Route	Description	Change from Previous Year: Revenue Hours[1]	Change from Previous Year: Peak Vehicles
FY 2023 (Cont'd) (Implemented)	951	Alignment change and increase frequency	+6,300	-
	952	Alignment change and increase frequency	+6,100	+3
	954	Introduce new service	+7,100	+2
	980	Eliminate service—replace with Metrorail Silver Line	(5,700)	-
	981	Eliminate service—replace with 952, 983, RIBS 2, and Metrorail Silver Line	(5,800)	(3)
	983	Alignment change	(10,800)	
	985	Eliminate service —replace with 983 and Metrorail Silver Line	(3,900)	-
	RIBS 1	Increase frequency	+1,200	-
	RIBS 2	Alignment change and increase frequency	+16,400	+4
	RIBS 3	Increase frequency	+1,200	-
	RIBS 4	Alignment change and increase frequency	+3,300	-
	RIBS 5	Alignment change	+100	-
FY 2024	644	Additional hours due to prorated previous year route[2]	(2,800)	
	660		+8,500	
	371	Increase frequency[2]	+4,500	+1
	372	Eliminate service—replace with 371 [2]	(1,300)	
	373	Eliminate service—replace with 371 [2]	(1,400)	
	423	Alignment change and increase frequency	(2,600)	-
	424	Eliminate service—replace with 423 and 427	(12,200)	(3)
	427	Introduce new service	+3,400	+2
	432	Alignment change	+2,000	-
	461	Increase frequency	+2,100	-
	463	Increase frequency	+300	-
	466	Eliminate service—replace with 461	(4,500)	(1)
	494	Alignment change and increase frequency	(300)	-
	598	Introduce new service[2]	+1,900	+6
	610	Introduce new service	+12,800	+4
	621	Eliminate service—replace with 622, 651, 670, and 671	(4,500)	(4)
	622	Alignment change and increase span of service	+700	+1
	623	Eliminate service—replace with 670 and 671	(3,800)	-
	624	Eliminate service—replace with 630	(2,100)	-
	625	Introduce new service	+3,300	+1
	630	Alignment change and increase frequency	+7,500	+4
	631	Eliminate service—replace with 630 and 698	(5,500)	-

Year	Route	Description	Change from Previous Year: Revenue Hours[1]	Change from Previous Year: Peak Vehicles
FY 2024 (Cont'd)	632	Eliminate service—replace with 651 and 698	(5,400)	-
	634	Eliminate service—replace with 698	(2,100)	(2)
	640	Eliminate service—replace with 615, 630, 642, 651, 662, 901	(5,000)	(16)
	641	Eliminate service—replace with 610 and 630	(5,400)	-
	642	Alignment change	+1,500	+2
	650	Eliminate service—replace with 651 and 671	(6,000)	(6)
	651	Alignment change	+7,000	+3
	652	Eliminate service—replace with 651, 670, 924	(4,800)	-
	662	Introduce new service	+7,800	-
	663	Introduce new service	+3,700	+1
	670	Introduce new service	+8,400	+5
	671	Introduce new service	+8,700	+4
	672	Introduce new service	+13,000	-
	698	Alignment change, increase frequency and span of service[2, 3]	+1,300	+5
	724	Eliminate service—replace Route 432	(4,200)	(2)
	798	Introduce new service[2]	+4,000	+7
FY 2025	371	Additional hours from prorated previous year route[2]	+13,600	
	372		(3,900)	
	373		(4,100)	
	598		+5,800	
	698[3]		+4,000	
	798		+4,000	
	101	Alignment change and increase frequency	(100)	-
	109	Increase frequency	-	-
	151	Increase frequency	+5,200	(3)
	159	Eliminate service—replace with 151	(7,600)	
	161	Eliminate service—replace with 163 and 164	(8,800)	(2)
	162	Eliminate service—replace with 163 and 164	(8,600)	(2)
	163	Introduce new route to replace 161/162	+16,200	+4
	164	Introduce new route to replace 161/162	+8,300	+1
	231	Alignment change	(1,900)	(2)
	232	Eliminate service—replace with 231	(5,900)	-
	301	Alignment change	(3,000)	(3)
	305	Alignment change	(3,200)	-
	310	Alignment change	(3,100)	-
	313	Introduce new route	+12,400	+5
	321	Increase frequency	+3,700	+4
	322	Increase frequency	+3,600	

Year	Route	Description	Change from Previous Year	
			Revenue Hours[1]	Peak Vehicles
FY 2025 (Cont'd)	334	Adjust span of service	+1,900	+2
	340	Eliminate service	(1,700)	(2)
	393	Alignment change	-	-
	396	Alignment change	(1,500)	(1)
	495	Alignment change	(500)	-
	615	Alignment change	+1,000	-
	Microtransit Service	Introduce new service[3]	+2,500	-
FY 2026	798	Increase span of service and frequency	+7,100	+1
FY 2030	The One	Introduce BRT service	+57,600	+16

[1] Revenue hours are approximate and rounded to the nearest hundred.

[2] When route is scheduled to be implemented for a partial year, revenue hours are prorated, and the additional balance is shown as a change in the following year.

[3] Implementation depends on additional grant funding that has not been obtained yet, such as for Route 698 frequency improvement and microtransit service. Revenue hours are dependent on grant funding.

3.3.2 Title VI Considerations

This section describes the consideration and analysis of affected service areas and Title VI protected populations during the service planning process. The information contained in this section supports the eventual preparation of formal Title VI evaluation at the time of implementation. It is divided into the three planning areas described previously.

RESTON AND HERNDON AREA SERVICE

As described previously, many of the improvements in the Reston and Herndon service area are service changes associated with the opening of the Metrorail Silver Line extension from Wiehle-Reston East to Ashburn station in Loudoun County. As such, a formal Title VI analysis was conducted in advance of service deployments and presented to the Fairfax County Board of Supervisors for public comment and board approval. The findings of the analysis are summarized below as presented during the Fairfax County Board of Supervisors meeting on February 22, 2022:

The service changes, proposed for implementation in conjunction with the start of the Metrorail Silver Line Phase 2, were reviewed as mandated by the Federal Transit Administration (FTA) in Circular C4702.1B: Title VI Requirements and Guidelines for Federal Transit Administration Recipients. The analysis showed the proposed service changes will not create a negative disparate impact on the minority population or a disproportionate burden on low-income households. Instead, they will result in an overall service improvement for Fairfax Connector's riders and the communities served. The new routes did meet the threshold for major service change. However, they did not create a disparate impact on the minority population or a disproportionate burden on low-income households. As a result, no Title VI impacts were found for any of the proposed service changes.

CENTREVILLE, CHANTILLY, VIENNA, AND TYSONS AREA SERVICE

The improvements in the Centreville, Chantilly, Vienna, and Tysons service area are anticipated to take place in the near term. As such, a Title VI service equity analysis was conducted in advance of service deployments anticipated for FY 2024. As part of these planned changes, eight routes are added (427, 625, 662, 663, 671, 672, and 798), 14 routes are discontinued (424, 466, 621, 623, 624, 631, 632, 634, 640, 641, 650, 652, and 724), and 9 routes experience other changes including realignments, span of service, or headway changes (423, 432, 461, 463, 622, 630, 642, 651, 660, 698, and 699). Other changes to 9 routes outside of the Centreville-Chantilly-Vienna-Tysons area (310, 321, 322, 393, 396, 574, 605, and 615) including realignments, span of service, or headway changes are also included in this analysis as they are scheduled to take effect simultaneously. The service changes are comprehensive in nature, encompassing all routes and a re-envisioning of service. As a result, adverse effects were analyzed on a cumulative basis at the census block group level instead of a route-by-route basis.

The service equity analysis found that no service changes resulted in a disparate impact or disproportionate burden.

FRANCONIA, SPRINGFIELD, AND HUNTINGTON AREA SERVICE

The improvements in the Franconia, Springfield, and Huntington service area are anticipated to take place in the mid-term. As such, a preliminary Title VI screening was conducted in advance of service deployments anticipated for FY 2025.

The analysis was prepared at the route level, as changes to the service area are anticipated to be less significant than with other service planning areas. For this screening, Fairfax County's TBEST model was used to assess changes in service hours to populations based on 2021 ACS 5-year estimates.

Results of the analysis indicated the service modifications in Fairfax Connector's Franconia-Springfield and Huntington service area will likely not have a disparate impact for any route modifications in the service area. The addition of the new Route 313 experiences a potential disparate impact as the result of the route providing more service to non-low-income persons as compared to the system average. Route 313 provides access to Metrorail and VRE via higher-income census block groups. While Route 313 traverses primarily non-low-income areas, Route 313 will benefit low-income Fairfax residents as major employment, shopping, and transit centers will now be directly connected (such as George Mason University, Fairfax County's government offices, and a VRE and Metrorail station) thus allowing low-income residents to more easily access these locations through a transfer, such as from routes 308, 321, and 322. Additionally, there are low-income areas near Route 313 that are just outside of the 0.25-mile walking catchment zone used for the analysis (i.e., near Springfield and Fair Oaks Mall), but these areas would still benefit from the new route. Based on this, the screening finds substantial legitimate justification for the provision of this service to provide access to opportunities through transfer to low-income areas.

The listed routes should be further analyzed in advance of service changes for methods to reduce or eliminate their disparate impact and/or disproportionate burden through the Title VI process.

3.3.3 Additional Implementation Considerations

Several other important or evolving considerations that will affect service implementation are identified below.

BUS PRIORITY

While significant investment is planned in the TSP for bus priority on Richmond Highway for the BRT project, other forms of bus priority could benefit corridors throughout the county. FCDOT will consider various forms of priority such as transit signal priority, queue jump lanes at intersections, limited-stop service, and enhanced bus stop infrastructure, and identify the locations best suited for these treatments. This may result in additional bus priority projects in future annual TSP updates to improve on-time performance and provide reliable and faster transit times.

ALTERNATIVE SERVICE TYPES

Historically, Connector has been operated exclusively as a fixed-route bus system using full-size transit buses. Many transit systems throughout the region and across the nation have explored alternative service types, such as on-demand service, for areas less suitable for traditional bus service. This is commonly referred to as flex service or microtransit when operated within a specified zone and enabled by technology to request and track trips. The service can provide connections to local destinations in the zone or provide transfers to fixed-route transit service to travel beyond the zone.

The TSP contains two areas identified for microtransit service. One is near McLean, outside of Tysons, to provide trips between the service zone and Metrorail stations in Tysons. The second, which is in the financially unconstrained plan in **Appendix C**, is for the area near Great Falls, north of Reston to connect trips to Metrorail stations in Reston and Herndon.

Once tested in one or both of these initial areas, this new type of service could be explored to supplement fixed-route service for other lower-density areas in future years.

FLEET TRANSITION

At the time of the TSP, FCDOT was continuing to develop its fleet transition plan to migrate the Connector fleet to 100% zero-emission buses by 2035. The county is starting with an electric bus pilot program effective in 2023. The Capital Implementation Plan in **Chapter 4** considers likely fleet and infrastructure needed to support zero-emission bus operation, but additional refinement may be needed through future annual TSP updates as transition plans are refined and the technology continues to improve.

FACILITY IMPROVEMENTS

The infrastructure needed to support the planned improvements and modifications to Connector service such as facilities (garages, transit centers, and park and rides) is described in the Capital Implementation Plan in **Chapter 4**.

Additional needs may arise in the future. FCDOT will continue to monitor facility capacity, and identify new facility projects, as necessary, through future annual TSP updates.

4

Implementation Plan

4. Implementation Plan

The implementation plan details the capital improvements needed to support the operations and services described in **Chapter 3**. Capital investments in vehicles, facilities, passenger amenities, and technology will be needed as existing assets reach the end of their useful life cycle and new services are implemented. This TSP covers capital expenditures through fiscal year (FY) 2033 (with FY 2023 included as a baseline) associated with existing and planned service improvements. While this chapter summarizes when capital expenditures will be necessary, **Chapter 5** identifies projected costs and financial resources.

4.1 Asset Management

Fairfax County is a Tier 1 agency as defined by the Federal Transit Administration (FTA) due to the number of vehicles it operates for fixed-route service, and therefore has developed its own Transit Asset Management (TAM) plan for revenue vehicles, non-revenue vehicles, facilities, and other equipment. The FCDOT TAM plan describes and establishes the approach to managing its Fairfax Connector capital assets in compliance with the FTA's Transit Asset Management Final Rule (49 Code of Federal Regulations (CFR) 625 and 630). The latest TAM plan was completed in 2020 which is based on FCDOT's asset inventory and condition assessments through December 2019. FCDOT used the FTA's TERM Lite program as the analysis tool to forecast capital needs based on an asset inventory, capital replacement costs, useful life benchmarks, and asset lifecycle strategies.

FCDOT has committed to an Asset Management Policy consisting of the five principles illustrated in **Figure 4-1**. The policy statement is for all transit services that it provides or supports to ensure strategic management and investment decision making throughout the lifecycle of its transit assets.

FIGURE 4-1: ASSET MANAGEMENT POLICY PRINCIPLES

FCDOT Serving Fairfax County Since 1977 Asset Management Policy Principles	1 Accurate and timely inventories of all physical assets	2 TAM Plan will be developed and updated every four years
3 TAM Plan will be implemented to result in data-driven investment decisions	4 Assets will be managed under preventive maintenance standards and asset maintenance guidelines	5 Asset management practices will adhere to legislative requirements

Source: FCDOT Transit Asset Management Plan, April 2020.

4.1.1 Vehicle Fleet Policies

Fairfax Connector's fleet is summarized in **Appendix A**. Fairfax County's asset management policy for its transit vehicle fleet is designed to ensure the safe and reliable operation of Connector. Despite being operated by the service provider, the revenue vehicles are the property of FCDOT, and the service provider is required to adhere to the agency's performance standards and practices. FCDOT requires its service provider to use a management system, FleetFocus, for storing and managing fleet data. This maintenance management software is used to maintain up-to-date information on all buses, including maintenance activities, work orders, mileage, and safety inspections.

Fairfax Connector's capital budget covers the procurement, maintenance, replacement, and disposal costs associated with revenue vehicles, which are triggered by mileage and age per original equipment manufacturer (OEM) advisories and warranties. The revenue vehicle fleet follows a 15-year bus replacement cycle, with the expectation that vehicles will reach their full useful life. When a vehicle reaches the end of its useful life, the operating service provider is responsible for the close-out process and must provide FCDOT with permits, licenses, and relevant documents. Maintenance and inspection records are backed up, and the county manages the disposal sale of the assets once processed by its service provider.

FCDOT's vehicle maintenance strategies rely on OEM maintenance standards, and midlife repower schedules are implemented to replace engines and transmissions, reducing maintenance costs. Preventative maintenance is performed based on mileage and time intervals, with the service provider reporting these actions back to FCDOT.

Non-revenue vehicles follow similar practices, relying on the manufacturer's useful life estimation. The useful life is 10 years for supervisory vehicles and is 15 years for service trucks; the useful life for other specialized service equipment follows the OEM standard life expectancy. The service provider has the exclusive responsibility of assignment and control of these vehicles. Preventative maintenance inspections are conducted at 5,000-mile intervals, and service vehicles are required to complete a preventative maintenance inspection checklist at 48,000 miles. Vehicle replacement is triggered by both useful life and asset mileage. Disposal procedures for non-revenue vehicles are similar to revenue vehicles.

Fairfax Connector has a goal of transitioning its entire fleet to zero-emission vehicles by 2035, and it will begin the transition with a pilot program. The first phase includes piloting eight battery-electric buses out of the West Ox division, and phase two of the pilot will see an addition of four battery electric buses operated out of the Huntington division. For TSP planning purposes, battery electric buses are the assumed buses for projecting future capital costs starting in FY 2027, but no specific bus technology has been selected. At the time of this TSP, transition plans were developing, and additional details will be included in future annual updates.

4.1.2 Facility Policies

FCDOT operates the Fairfax Connector service out of three major facilities: Reston-Herndon, West Ox, and Huntington. In addition, FCDOT manages several passenger and parking facilities. Fairfax Connector's facilities are summarized in **Appendix A**. Historically, facility maintenance has been largely corrective and reactive, but FCDOT is developing a facilities management manual to promote more proactive investment in preventive maintenance and inspections. FCDOT conducts monthly usage inspections on park and rides and parking garage facilities. The service operator is responsible for completing its own operational inspections on the maintenance facilities.

4.1.3 Technology and ITS Policies

While FCDOT's TAM plan does not include a full inventory of technology assets, FCDOT strives to replace intelligent transportation system (ITS) and technology assets when they reach the end of their useful life or when the technology is no longer supported by the vendor. Technology assets require more frequent replacements compared to other asset classes like vehicles and facilities. FTA useful life standards range from four to ten years depending on the hardware or software.

4.2 Capital Implementation Plan

The implementation plan will be used to meet Fairfax County's capital needs to both maintain its state of good repair in accordance with its asset management policies and execute the planned service improvements of the TSP. Implementation of the planned improvements and modifications in **Chapter 3** will consist of capital investment in the following areas:

- Vehicles
- Passenger Facilities
- Operating and Maintenance Facilities
- Tools and Equipment
- Technology
- Major Capital Projects

Figure 4-2 shows the magnitude of capital needs for each year. The largest areas of need include major capital projects (namely, the Richmond Highway BRT and electric bus infrastructure needs), vehicles, and technology. Details on costs and assumptions are included in the Financial Plan in **Chapter 5**. **Table 4-1** shows projected annual quantities of vehicle needs and schedules for other facility, equipment, and capital projects. The following sections contain brief descriptions of key projects or initiatives in each area.

FIGURE 4-2: CAPITAL IMPLEMENTATION PLAN SUMMARY

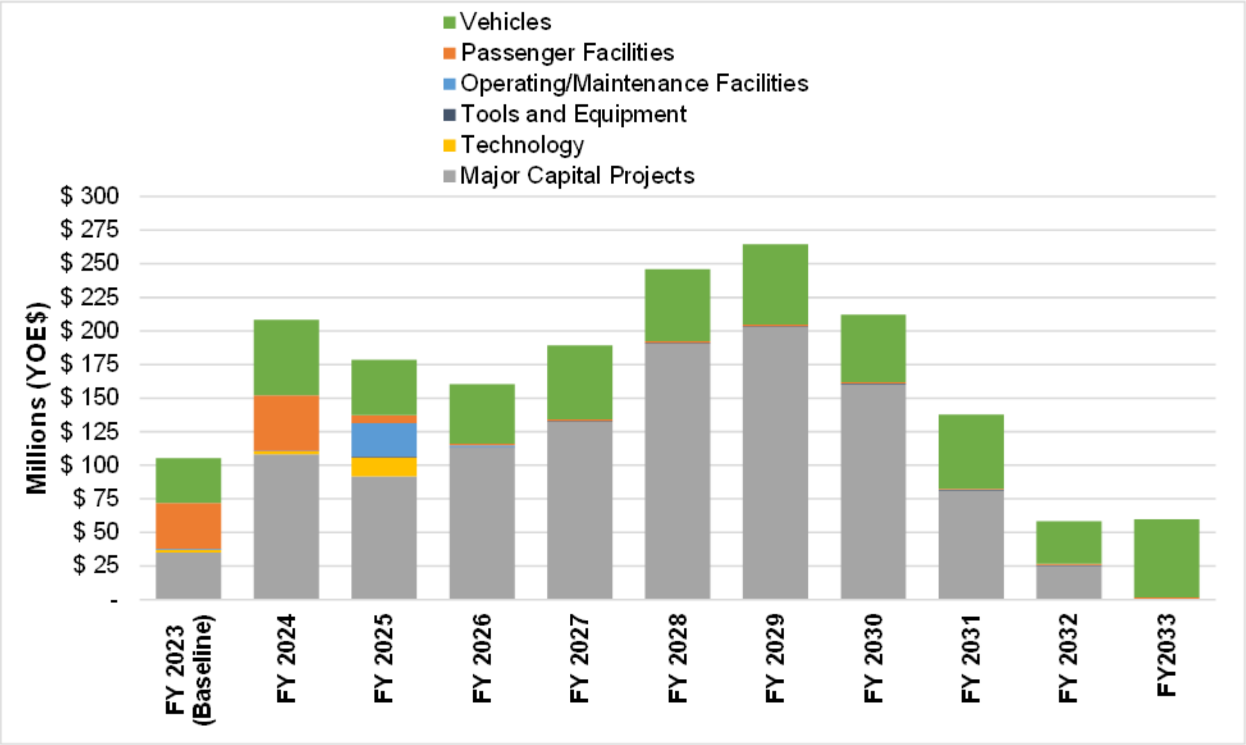


TABLE 4-1: CAPITAL IMPLEMENTATION PLAN

Planned Capital Implementation Activity

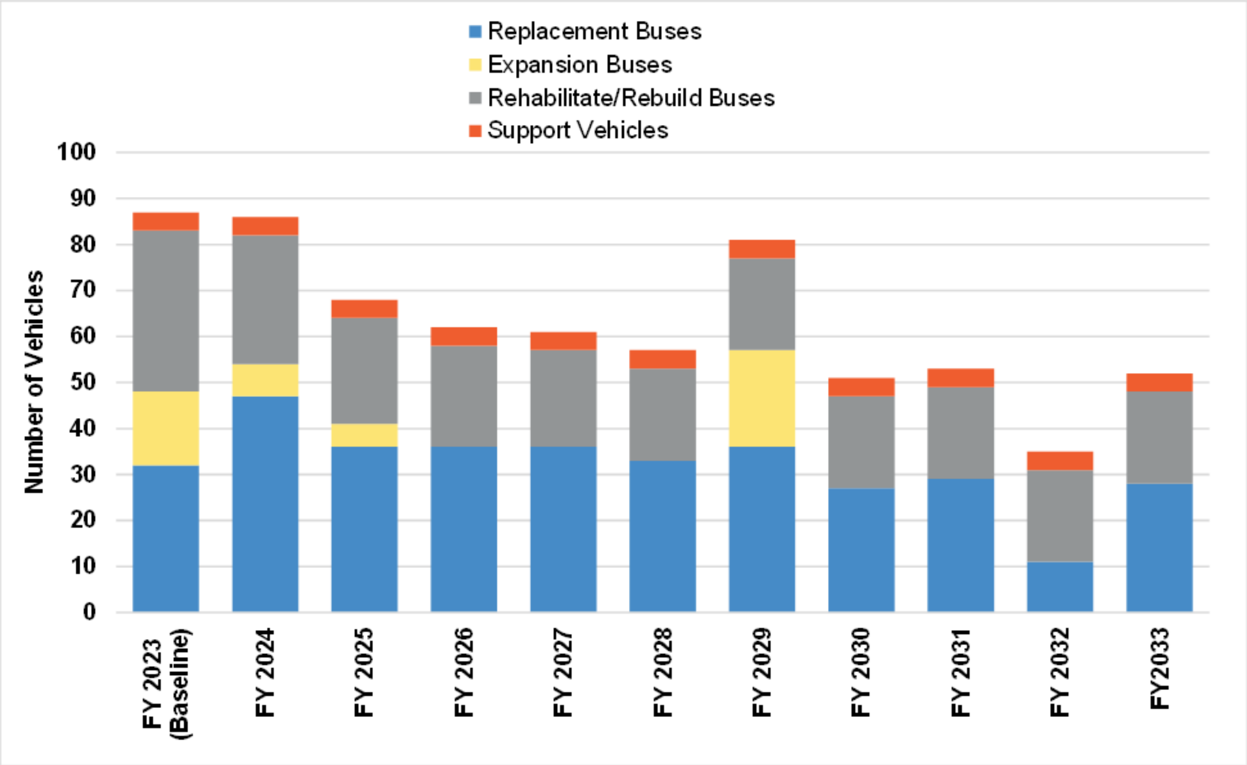
Baseline

Transit Strategic Plan Capital Implementation	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033
Vehicles:											
Replacement Buses (Diesel)	28	43									
Replacement Buses (Hybrid)			36	36							
Replacement Buses (Electric)	4	4			36	33	36	27	29	11	28
Expansion Buses funded by I-66 ITB toll revenue		6	5								
Expansion Buses funded by I-66 OTB toll revenue	8										
Expansion Buses funded by I-395 toll revenue		1									
Expansion Buses VDOT I-495 ALB		8									
Richmond Highway BRT Buses							21				
Revenue Vehicle – Rehabilitate/Rebuild Buses	35	28	23	22	21	20	20	20	20	20	20
Support Vehicles	5	1	4	4	4	4	4	4	4	4	4
Third-Party Project Management											
Passenger Facilities:											
Springfield CBC Commuter Parking Garage											
Tysons West Park Transit Center Renovation											
Monument Drive Commuter Parking Garage											
Bus Stop Improvement Program											
Operating and Maintenance Facilities:											
Huntington Bay Repair Renovations											
West Ox Fire Alarm System Replacement											
West Ox Buyout											
Tools and Equipment:											
Tools and Equipment											
Technology:											
Intelligent Transportation Systems											
SmarTrip Program Updates											
Major Capital Projects:											
Richmond Highway BRT											
Electric Bus Infrastructure Needs											

4.2.1 Vehicles

Over the years of the TSP, it will be necessary to rehabilitate or replace existing vehicles to maintain a state of good repair and acquire expansion vehicles to meet planned service levels (see **Figure 4-3**). In the short-term, vehicle investments will be for replacement diesel buses and expansion buses grant-funded through the Express Lanes for I-395 and I-66 Inside the Beltway (ITB) and Outside the Beltway (OTB). It is assumed that in the mid-term, vehicle purchases will transition to electric for all purchases in FY 2027 and beyond. The implementation plan also includes the annual acquisition of approximately 4 support vehicles and 20 to 30 annual bus midlife repower and rehabilitations. The annual replacement or overhaul for zero-emission buses has not been determined at this time but is likely different from assumptions for internal combustion engines.

FIGURE 4-3: VEHICLE IMPLEMENTATION



4.2.2 Passenger Facilities

The TSP recommendations do not require any new investments in passenger facilities, infrastructure, and amenities beyond what is already identified in Fairfax County's Capital Improvement Program (CIP). Funding has been allocated toward three critical passenger facilities projects in the CIP, and beyond this Fairfax County maintains a continuous bus stop improvement. The following passenger facility projects are expected to be completed:

- **Bus Stop Improvement Program**: This program is has an annual budget to make bus stop improvements, including bus shelters, boarding and alighting areas, connections from stops to nearby sidewalks, and sidewalks improvements.

- **Monument Drive Commuter Parking Garage**: The Monument Drive Commuter Parking Garage and Transit Center is a new parking garage with a minimum of 820 parking spaces and will include a transit center of bus bays, kiss-and-ride facility, bicycle storage, restroom facility, and Connector store. Construction is anticipated to be completed by the end of 2023.
- **Springfield CBC Commuter Parking Garage**: The Springfield CBC Commuter Parking Garage is a new parking garage to accommodate approximately 1,000 commuter parking spaces and provide a bus transit location on the ground level. Construction is estimated to be completed by the end of 2023.
- **Tysons West*Park Transit Center Renovation**: This project will construct a new one-story, five-bay bus transit facility and adjacent fire station on a 4.2-acre parcel that is currently used for West*Park Transit Center. Construction is estimated to be completed in 2026.

4.2.3 Operating and Maintenance Facilities

Fairfax Connector currently operates out of three facilities throughout Fairfax County. The Huntington and Reston divisions are owned solely by Fairfax Connector while the West Ox division is shared with WMATA. Fairfax Connector has plans to lease space from WMATA's Cinder Bed Road facility for the articulated buses that will be acquired for the Richmond Highway BRT. None of Fairfax Connector's three facilities has the capacity or ability to store articulated buses. The capital implementation plan also includes projects for renovating maintenance bays at the Huntington facility and completing the West Ox fire alarm system replacement. Additionally, Fairfax County plans to buy out the Metrobus portions of the shared West Ox facility from WMATA in FY 2025.

Fairfax Connector's zero-emission bus transition plan will require renovating its operating and maintenance facilities to accommodate electric buses. The equipment and renovations needed will depend on whether Connector chooses to operate battery electric buses, hydrogen fuel cell buses, or a mix of the two. All newly acquired buses are assumed to be fully electric starting in FY 2027.

4.2.4 Tools, Equipment, and Technology

The capital implementation plan includes the annual replacement of tools and equipment to support operations and maintenance activities. As Connector made large investments in on-board ITS in recent years, technology needs for the years ahead primarily consist of fare collection technology upgrades. WMATA, in coordination with regional partners, has initiated a Metrobus Farebox Replacement Project that will also include the replacement of bus fareboxes for other regional bus operators such as Connector. The new bus fareboxes will allow customers to continue to pay in the same ways with improved reliability and a separate SmarTrip card reader outside of the farebox. FCDOT has opted to undergo a multi-year replacement of its fareboxes anticipated to be complete in FY 2025 to align with the transition plans of WMATA and other regional partners.

4.2.5 Major Capital Projects

The capital implementation plan includes the following multi-year capital project over the course of the TSP:

- **Richmond Highway BRT**: FCDOT plans to build and implement a 7.4-mile BRT system along US Route 1/Richmond Highway from the Huntington Metrorail Station to Fort Belvoir. The capital expenditures include the construction of dedicated lanes, BRT stations, and new medians, as well as improvements to the streetscape, and bicycle and pedestrian facilities. The BRT is expected to be operational by 2030.
- **Electric Bus Infrasturcture Needs**: As previously referenced in Vehicles and Operating and Maintenance Facilities.

Capital investment will also be needed in the future to support the Route 7 BRT between Spring Hill Metrorail station and the Mark Center in Alexandria. At the time of the TSP, NVTC was developing its Phase IV Mobility Analysis Study, and implementation of the BRT project was not fully funded. Fairfax County will continue to coordinate with NVTC and other regional stakeholders on future phases of this project.

5

Financial Plan

5. Financial Plan

In the financial plan, service costs are projected and financial resources are identified over the next ten years. This financial plan covers fiscal year (FY) 2024 through FY 2033 with FY 2023 as a baseline. It reflects a financially constrained plan that represents what can realistically be achieved using the various anticipated funding sources. It is not intended to be a budget document but rather a planning-level financial guide. All figures are presented in year-of-expenditure (YOE) dollars with an assumed escalation factor of three percent per year.

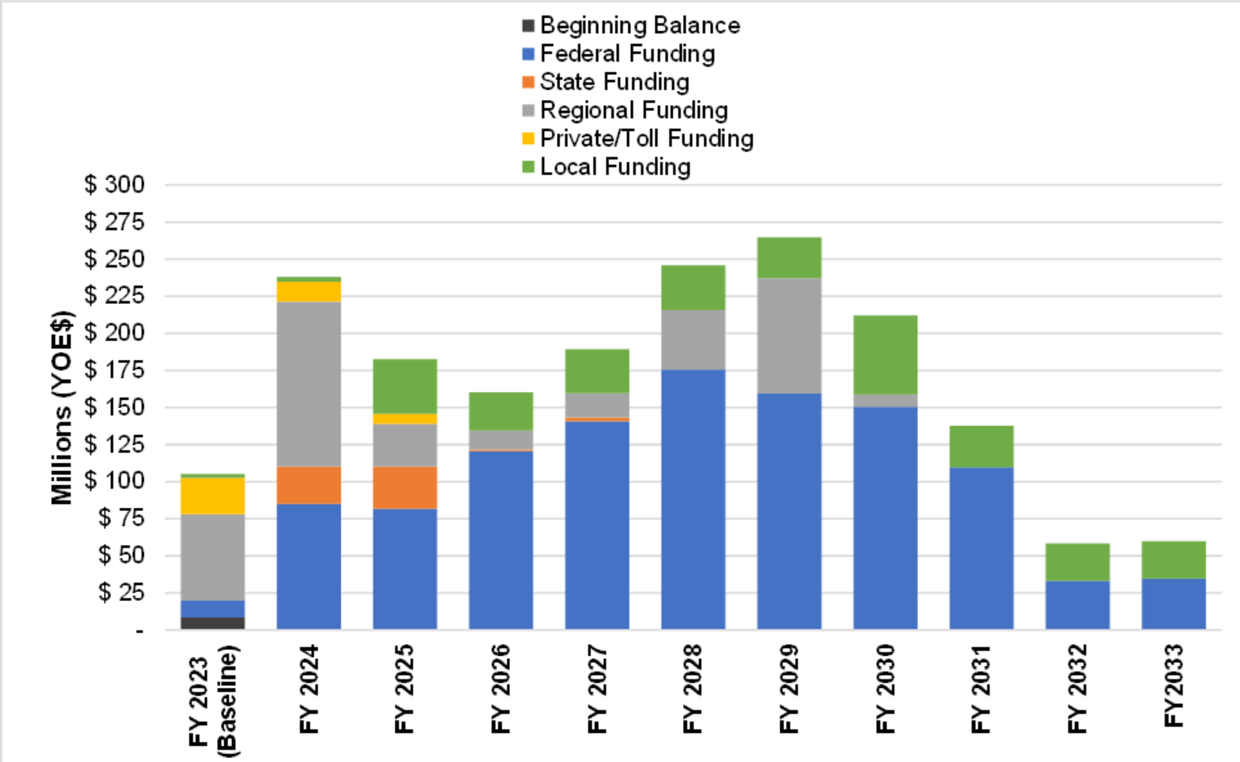
The financial plan was developed in collaboration with the FCDOT Coordination and Funding Division based on forecasts of federal, state, regional, and local revenue projections and past trends for these sources. Fairfax County establishes annual budgets for transit service through a collaborative process involving its Board of Supervisors. Ultimately, the Board votes on the final budget, taking into account community input, financial constraints, and available resources. As the TSP undergoes annual updates and FCDOT and the BOS establishes annual budgets, this financial information will change. Funding is subject to annual appropriation by the Fairfax County Board of Supervisors.

5.1 Capital Cost and Revenue Forecast

The capital cost and revenue forecasts were developed according to the capital implementation plan in **Chapter 4** and in collaboration with the FCDOT Coordination and Funding Division**. Table 5-1** shows a breakdown of capital costs for each implementation category.

A mix of federal, state, regional, private/toll, and local capital funding sources will be used. **Figure 5-1** summarizes year-by-year capital revenue sources, which are generally balanced with the cost forecast each year over the period of the TSP. **Table 5-2** shows a breakdown of capital revenue sources. Revenues were estimated from funds that have already been programmed, grant applications to the state and/or the Federal Transit Administration (FTA), and the recently approved Six Year Improvement Program (SYIP) to estimate future years.

FIGURE 5-1: CAPITAL REVENUE SOURCES



Note: Funding is subject to annual appropriation by the Fairfax County Board of Supervisors.

TABLE 5-1: CAPITAL COST FORECAST

Baseline

Capital Cost Forecast (YOE$ Millions)	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033
Vehicles	**$33.3**	**$56.2**	**$41.4**	**$44.4**	**$55.0**	**$53.7**	**$60.1**	**$50.5**	**$55.4**	**$32.0**	**$58.3**
Bus Replacement[1]	$25.2	$39.2	$32.4	$35.4	$45.1	$42.6	$47.9	$37.0	$40.9	$16.0	$41.9
Bus Expansion[1]	$4.6	$13.7	$4.8	-	-	-	-	-	-	-	-
From I-66 ITB Toll Revenue	-	$5.6	$4.8	-	-	-	-	-	-	-	-
From I-66 OTB Toll Revenue	$4.6		-	-	-	-	-	-	-	-	-
From I-395 Toll Revenue	-	$0.9	-	-	-	-	-	-	-	-	-
From VDOT I-495 ALB		$7.2	-	-	-	-	-	-	-	-	-
Bus Rehabilitation	$2.6	$2.6	$3.5	$3.5	$3.5	$3.5	$3.5	$3.5	$3.5	$3.9	$3.9
Master Lease Financing				$4.7	$5.6	$6.8	$7.9	$9.2	$10.2	$11.3	$11.7
Non-Revenue Vehicles[1]	$0.2	$0.0	$0.1	$0.1	$0.1	$0.1	$0.1	$0.1	$0.1	$0.1	$0.1
Third-Party Project Management	$0.7	$0.7	$0.7	$0.7	$0.7	$0.7	$0.7	$0.7	$0.7	$0.7	$0.7
Passenger Facilities	**$34.0**	**$41.2**	**$5.7**	**$1.2**	**$1.2**	**$1.2**	**$1.2**	**$0.8**	**$0.8**	**$0.8**	**$0.8**
Springfield CBC Commuter Parking Garage	$11.5	$29.2	$2.5	-	-	-	-	-	-	-	-
Tysons West*Park Transit Center Reno.	$1.9	$1.8	-	-	-	-	-	-	-	-	-
Monument Drive Commuter Parking Garage	$20.0	$9.0	$2.0	-	-	-	-	-	-	-	-
Bus Stop Improvement Program	$0.6	$1.2	$1.2	$1.2	$1.2	$1.2	$1.2	$0.8	$0.8	$0.8	$0.8
Operating/Maintenance Facilities	**$0.5**	**-**	**$25.0**	**$1.0**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Huntington Bay Repair Renovation	$0.2	-	-	$1.0	-	-	-	-	-	-	-
West Ox Fire Alarm System Replacement	$0.3	-	-	-	-	-	-	-	-	-	-
West Ox Buyout	-	-	$25.0	-	-	-	-	-	-	-	-
Tools and Equipment	**$0.5**	**$0.7**	**$0.7**	**$0.7**	**$0.7**	**$0.7**	**$0.7**	**$0.7**	**$0.7**	**$0.7**	**$0.7**
Tools and Equipment	$0.5	$0.7	$0.7	$0.7	$0.7	$0.7	$0.7	$0.7	$0.7	$0.7	$0.7
Technology	**$1.9**	**$2.1**	**$14.0**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Intelligent Transportation Systems	$1.9	-	-	-	-	-	-	-	-	-	-
SmarTrip Program Updates	-	$2.1	$14.0	-	-	-	-	-	-	-	-
Major Capital Projects	**$35.0**	**$108.2**	**$91.8**	**$113.1**	**$132.4**	**$190.5**	**$202.8**	**$160.2**	**$80.9**	**$25.0**	**-**
Richmond Highway BRT (RH BRT)	$34.2	$108.2	$41.8	$63.1	$82.4	$140.5	$177.8	$135.2	$55.9	-	-
Electric Bus Infrastructure Needs	$0.8	-	$50.0	$50.0	$50.0	$50.0	$25.0	$25.0	$25.0	$25.0	-
Total Capital Costs	**$105.2**	**$208.3**	**$178.6**	**$160.4**	**$189.2**	**$246.0**	**$264.7**	**$212.1**	**$137.8**	**$58.4**	**$59.8**

[1]Vehicle unit costs assumption (FY23 $): Diesel = $675,000; Hybrid = $900,000; Electric = $1,114,000; Articulated = $1,300,000; Support = $25,000

TABLE 5-2: CAPITAL REVENUE FORECAST

Baseline

Capital Revenue Forecast (YOE$ Millions)	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033
Beginning Balance											
Carryover Revenue (Spend in FY 2023)	$8.3										
Federal Funding	**$11.5**	**$85.0**	**$81.6**	**$120.5**	**$140.8**	**$175.7**	**$159.5**	**$150.5**	**$109.7**	**$33.2**	**$34.6**
CMAQ Springfield CBC	$11.5	$29.2	$2.5	-	-	-	-	-	-	-	-
RH BRT - CMAQ/RSTP	-	$51.1	$13.2	$10.5	$3.5	$0.5	-	-	-	-	-
RH BRT - New Starts	-	-	-	$43.3	$60.0	$100.0	$100.0	$100.0	$55.9	-	-
FTA/ARPA BEB Fleet		$4.7	$25.9	$26.7	$37.3	$35.2	$39.5	$30.5	$33.8	$13.2	$34.6
FTA BEB Infrastructure	-	-	$40.0	$40.0	$40.0	$40.0	$20.0	$20.0	$20.0	$20.0	-
State Funding	**-**	**$25.0**	**$28.6**	**$1.0**	**$2.5**	**-**	**-**	**-**	**-**	**-**	**-**
SMART SCALE (*RH BRT*)		$17.8	$28.6	$1.0	$2.5	-	-	-	-		
VDOT/DRPT TRIP	-	$7.2	-	-	-	-	-	-	-	-	-
Regional Funding	**$58.2**	**$111.2**	**$28.9**	**$13.0**	**$16.5**	**$40.0**	**$77.8**	**$8.2**	**-**	**$0.01**	**$0.02**
NVTA 70% (*RH BRT*)	$34.2	$99.1	-	$8.2	$16.5	$40.0	$77.8	$8.2	-	-	-
NVTC Cap - Other	-	$9.6	$0.0	$0.0	-	-	$0.02	-	-	$0.01	$0.02
NVTC Cap - Paygo	$24.0	$2.6	-	-	-	-	-	-	-	-	-
NVTC Cap - BOA Loan	-	-	$3.9	$4.7	-	-	-	-	-	-	-
NVTC Cap - West Ox Buyout	-	-	$25.0	-	-	-	-	-	-	-	-
Private/Toll Funding	**$24.6**	**$13.6**	**$6.5**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
I-66 Inside the Beltway	-	$4.0	$4.5	-	-	-	-	-	-	-	-
I-66 Outside the Beltway	$4.6		-	-	-	-	-	-	-	-	-
I-395 Express Lanes	-	$0.6	-	-	-	-	-	-	-	-	-
I-66 Concession Payment	$20.0	$9.0	$2.0	-	-	-	-	-	-	-	-
Local Funding	**$2.5**	**$3.3**	**$36.9**	**$26.0**	**$29.5**	**$30.3**	**$27.4**	**$53.4**	**$28.1**	**$25.2**	**$25.2**
Commercial & Industrial Tax (C&I)	$0.6	$1.2	$7.3	$2.2	$1.2	$1.2	$1.2	$0.8	$0.8	$0.8	$0.8
General Fund		$0.3	$13.1	$7.1	$2.6	$2.8	$2.5	$3.1	$2.9	$4.6	$3.3
General Fund (BOA loan)					$5.6	$6.8	$7.9	$9.2	$10.2	$11.3	$11.7
General Fund for BEB Transition			$10.0	$10.0	$10.8	$10.8	$5.8	$5.7	$5.7	$5.3	$0.7
Master Lease			$6.5	$6.7	$9.3	$8.8	$9.9	$7.6	$8.4	$3.3	$8.7
NVTA 30% (RH BRT)		-	-			-	-	$27.0			
GO Bonds	$1.9	$1.8	-	-	-	-	-	-	-	-	-
Total Capital Revenues	**$105.1**	**$238.2**	**$182.5**	**$160.4**	**$189.2**	**$246.0**	**$264.7**	**$212.1**	**$137.8**	**$58.4**	**$59.8**

Note: Funding is subject to annual appropriation by the Fairfax County Board of Supervisors.

5.2 Operating Cost and Revenue Forecast

The operating cost and revenue forecasts were developed according to the service development plan described in **Chapter 3** and in collaboration with the FCDOT Coordination and Funding Division.

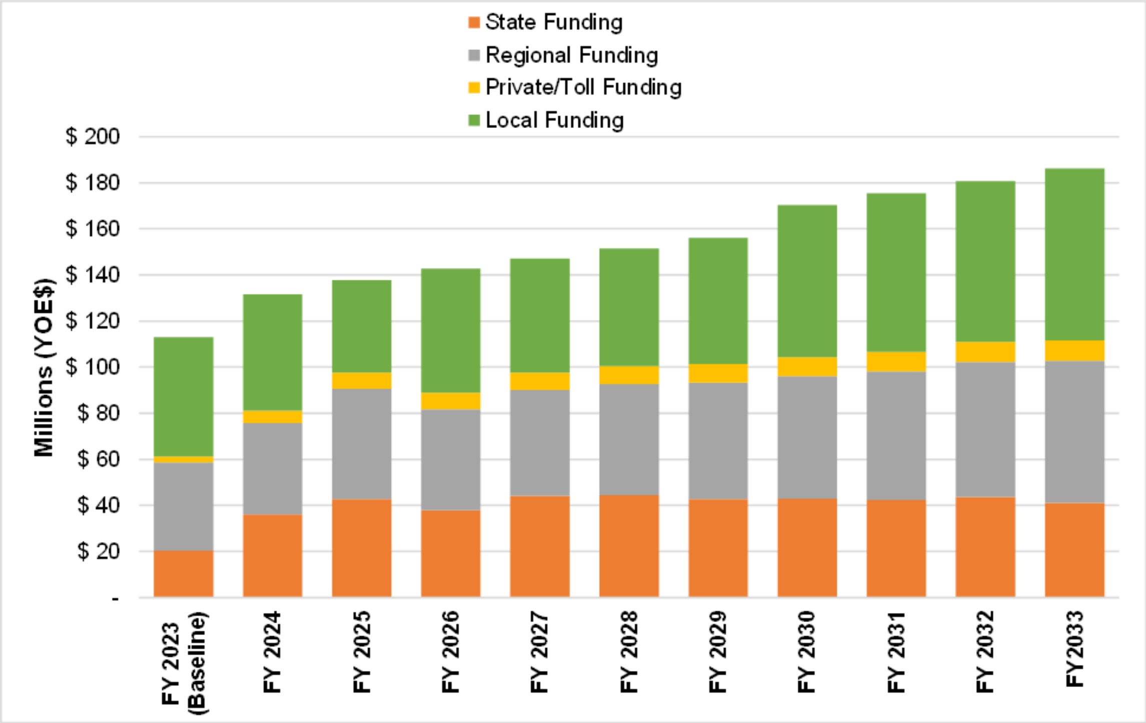
Table 5-3 shows an annual breakdown of operating costs for operating expenses (non-grant funded versus grant-funded service) and Virginia Railway Express (VRE) payments. Grant-funded services are either partially or fully funded through grants such as the Northern Virginia Transportation Commission (NVTC) Commuter Choice for the I-66 and I-395/95 corridors and state agreements for service on Express Lanes corridors. This includes Routes 371, 393, 396, 397, 598, 660, 698, 699, and 798.

A mix of state, regional, private/toll, and local operating funding sources will be used. **Figure 5-2** summarizes year-by-year operating revenue sources, which are generally balanced with the cost forecast each year over the period of the TSP.

Table 5-4 shows of breakdown of operating revenue sources. Revenues were estimated from funds that have already been programmed, grant applications to the state, and the recently approved SYIP to estimate future years.

There are no planned fare increases for Connector but there were several recent fare policy changes. Fairfax County was awarded a three-year DRPT Transit Ridership Incentive Program (TRIP) grant and launched a reduced fare program in early 2023 that provides a 50% discount on Fairfax Connector for low-income individuals. Also, effective May 1, 2023 children aged 12 and under can ride for free when accompanied by a paying adult. Fares are one of several other local sources used to fund operations.

FIGURE 5-2: OPERATING REVENUE SOURCES



Note: Funding is subject to annual appropriation by the Fairfax County Board of Supervisors.

TABLE 5-3: OPERATING COST FORECAST

Baseline

Operating Cost Forecast (YOE$ Millions)	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033
Revenue Hours[1]	**863,562**	**883,502**	**899,012**	**905,944**	**905,944**	**905,944**	**905,944**	**1,020,884**	**1,020,884**	**1,020,884**	**1,020,884**
Operating Costs											
Operating Expenses[2]	$108.4	$115.5	$119.0	$122.6	$126.3	$130.0	$134.0	$147.6	$152.0	$156.5	$161.2
Operating Expenses (Grant Funded Service)		$10.4	$12.9	$14.3	$14.7	$15.2	$15.6	$16.1	$16.6	$17.1	$17.6
VRE Payments	$4.7	$5.6	$5.8	$5.9	$6.1	$6.3	$6.5	$6.7	$6.9	$7.1	$7.3
Total Operating Costs	**$113.1**	**$131.5**	**$137.7**	**$142.8**	**$147.1**	**$151.5**	**$156.1**	**$170.4**	**$175.5**	**$180.7**	**$186.1**

[1] Revenue hours do not include recommendations dependent on grant funding that has not been obtained yet, such as Route 698 frequency improvement and microtransit service.

[2] Hourly operating expense assumption (FY24 $): $139.68 per hour

TABLE 5-4: OPERATING REVENUE FORECAST

Baseline

Operating Revenue Forecast (YOE$ Millions)	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033
State Funding	**$20.2**	**$36.0**	**$42.8**	**$37.9**	**$44.2**	**$44.4**	**$42.7**	**$42.9**	**$42.3**	**$43.6**	**$41.1**
NVTC Operating	$12.0	$27.1	$34.6	$30.3	$36.4	$36.4	$34.4	$34.4	$33.6	$34.6	$31.8
NVTC Fare Offset (CARES)	$7.0	$3.3	$1.8	-	-	-	-	-	-	-	-
DRPT	$1.2	$5.7	$6.4	$7.6	$7.8	$8.0	$8.3	$8.5	$8.8	$9.0	$9.3
Regional Funding	**$38.5**	**$39.7**	**$47.8**	**$43.7**	**$45.9**	**$48.2**	**$50.6**	**$53.2**	**$55.8**	**$58.6**	**$61.6**
County and Regional Transit	$38.5	$39.7	$47.8	$43.7	$45.9	$48.2	$50.6	$53.2	$55.8	$58.6	$61.6
Private/Toll Funding	**$2.5**	**$5.4**	**$7.1**	**$7.3**	**$7.5**	**$7.7**	**$7.9**	**$8.2**	**$8.4**	**$8.7**	**$8.9**
NVTC (Tolls)	$1.2	$4.2	$5.9	$6.0	$6.2	$6.4	$6.6	$6.8	$7.0	$7.2	$7.4
CIA	$1.3	$1.2	$1.2	$1.2	$1.3	$1.3	$1.4	$1.4	$1.4	$1.5	$1.5
Local Funding	**$51.8**	**$50.4**	**$40.1**	**$54.0**	**$49.5**	**$51.2**	**$54.8**	**$66.1**	**$68.9**	**$69.8**	**$74.5**
Miscellaneous, Advertising, Bus Shelter Program, Fares, WMATA	$5.4	$4.0	$4.1	$5.5	$5.6	$5.8	$6.0	$6.7	$6.9	$7.1	$7.3
General Fund (also funds Capital)	$42.9	$42.7	$32.2	$44.5	$39.7	$41.0	$44.4	$54.8	$57.2	$57.7	$62.0
Transfer from Fund 30040	$0.1	$0.2	$0.2	$0.2	$0.2	$0.2	$0.2	$0.2	$0.2	$0.2	$0.2
Transfer from Fund 30000	$3.4	$3.5	$3.7	$3.8	$4.0	$4.1	$4.3	$4.5	$4.7	$4.9	$5.0
Total Operating Revenues	**$113.0**	**$131.5**	**$137.7**	**$142.8**	**$147.1**	**$151.5**	**$156.1**	**$170.4**	**$175.5**	**$180.7**	**$186.1**

Note: Funding is subject to annual appropriation by the Fairfax County Board of Supervisors.

5.3 Potential Sources of Funds for Unfunded Needs

While the financial plan demonstrates the financially constrained service improvements of the TSP can be realistically achieved through identified sources of funds, the financially unconstrained improvements developed through the TSP planning process (see **Appendix C**) will require new or additional funding. Fairfax County should continue to pursue discretionary grants at the federal, state, and regional level. This includes DRPT MERIT and TRIP, SMART SCALE, NVTC Commuter Assistance, and NVTA TransAction.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Appendix

Appendix A
Agency Profile and System Overview

A.1. History

Fairfax County provides transit service through Fairfax Connector (Connector), a locally owned and controlled fixed-route bus transit system operated by a contractor and managed by the Fairfax County Department of Transportation (FCDOT). Since its inception in 1985, the Connector system has grown significantly and now has the third largest bus fleet in the Washington, D.C. region and the largest public bus fleet in Northern Virginia.

As of 2022, Fairfax County contained 418,769 households and 1,172,646 people (population density 2,888 people per square mile). The county is projected to grow by 2045 to an estimated 496,219 households and 1,405,914 people.

Fairfax Connector covers a service area of approximately 407 square miles, consists of 94 fixed-routes[26], and is split into three service divisions: the Huntington Division covering the south county area, the West Ox Division covering the west county area, and the Herndon-Reston Division, covering the north county area.

In addition to Fairfax Connector, the Washington Metropolitan Area Transit Authority (WMATA) provides 31 routes in Fairfax County through Metrobus[27]. Metrobus service is regionally focused, providing service across jurisdictional boundaries, while Connector service operates largely within the County boundaries. Fairfax County initiated the Fairfax Connector in September 1985 as a cost-effective alternative to the provision of non-regional fixed-route/fixed-schedule bus service by WMATA, and significant expansion of the system has occurred since then. The CUE (City-University-Energysaver) bus system, owned and operated by the City of Fairfax in conjunction with George Mason University, also provides service within Fairfax County.

The following timeline outlines the key milestones, changes in service focus areas, and events in the history of Fairfax Connector.

1985
- Fairfax Connector bus service started on September 29 with 33 buses operating 10 routes that served the Huntington Metrorail station, by converting routes formerly operated by Metrobus.

1988
- Connector expanded in the southeastern part of the county, expanding the fleet to 50 buses and adding four new express routes to the Pentagon Transit Center, by converting routes formerly operated by Metrobus.
- Connector opened the Newington Maintenance Facility (Huntington Division).

1990
- Connector took over operation of the RIBS (Reston Internal Bus Service), with service provided out of the new Community Bus Services Division.

1991
- Connector established new feeder bus service to the newly opened Van Dorn Street Metrorail station, on the border of the county in the City of Alexandria.

[26] As of April 2023, there were 94 routes with recent service changes and implementation of several near-term improvements in the TSP.

[27] As of June 2023

1992
- Connector launched Route 401, the first cross-county route, linking Springfield Mall, Fairfax Hospital, Tysons, and the Dunn Loring-Merrifield Metrorail station. This service was formerly operated by Metrobus.

1993
- Connector added six new routes serving the Vienna/Fairfax-GMU, Van Dorn Street, and Pentagon Metrorail stations. These routes were formerly operated by Metrobus.

1994
- Connector underwent its greatest expansion to date, with Connector service replacing 16 Metrobus routes in Reston and Herndon operating to the West Falls Church and Pentagon Metrorail stations and purchasing 45 new buses to operate the service.
- Connector opened the Reston-Herndon Operations Facility to support the new routes in the North County.

1996
- A blizzard forced suspension of service for two days; this sparked an initiative to establish a call center with greater capacity the following year.
- Connector service replaced Metrobus routes linking the Vienna Metrorail station with the Fairfax County Government Center and the Dunn Loring Metrorail station.

1997
- The Reston East Park and Ride Lot, the site of today's Wiehle-Reston East Metrorail station, was opened as a hub for North County Connector service.
- Connector restructured and expanded its South County routes to serve the new Franconia-Springfield Metrorail/VRE station.

1999
- Two new passenger facilities, the Herndon-Monroe Park and Ride and the Tysons West*Park Transit Station, and four new Connector Stores were opened to provide information and fare media to riders.
- Connector launched its Dulles Corridor Express Bus Service, which doubled bus service in the corridor.

2001
- Connector service was restructured during the September 11, 2001 terrorist attack to assist in evacuations.

2002
- Connector began operation of Route 605, a new cross-county route connecting the Government Center and Fair Lakes with Reston.
- Connector began the process of converting its fleet to ultra-low sulfur diesel fuel and retrofitting the fleet with green diesel technology, which has been shown to reduce harmful emissions by as much as 80 percent.

2003
- Connector merged the Community Bus Services Division (responsible for Tysons Shuttle and RIBS) with the Reston-Herndon Division, so that all services provided by two contractors from two garages could be provided by a single contractor from one garage.
- Connector began operating service to the new Lorton Park and Ride.
- Connector began selling advertising space on its bus fleet for the first time.
- Metro Magazine recognized Connector as one of the 10 most improved transit systems in North America.
- Hurricane Isabel forced suspension of Connector service for 24 hours.

2004
- Connector introduced the MATT (Mobile Accessible Travel Training) bus, a hands-on way to teach members of the public how to ride the bus and navigate the bus system.
- Connector launched its South County Bus Service restructuring, increasing the Connector to 56 routes and 170 buses.

2005
- Connector completed the renovation of the Newington (Huntington) Operations Facility.
- Connector began service to the new Gambrill Road Park and Ride.

2006
- Connector installed SmarTrip Fare Card technology on its bus fleet.
- One new passenger facility, the Reston Town Center Transit Station, and one new Connector Store at the Franconia-Springfield Metrorail/VRE station were opened.
- Connector introduced its new bus design and logo on its new buses.

2007
- Connector installed bicycle racks on the front of its bus fleet.

2008
- FCDOT initiated a study to create a 10-year Transit Development Plan (TDP), the first comprehensive study of all bus services operated in, and paid for by, Fairfax County.

2009
- Connector service replaced 13 Metrobus routes linking Centreville, Chantilly, and Oakton to the Vienna Metrorail station.
- Connector begins operation of the Tysons Connector lunch-time shuttle service.
- Connector opened the West Ox Operations Facility, which is shared with WMATA, to support the new routes in the West County.
- FCDOT completed its TDP study, which included service recommendations for such transportation challenges such as the Base Realignment and Closure (BRAC) movements, the opening of the I-495 Beltway Express Lanes, and the opening of Phases I and II of the Metrorail Silver Line.

2010
- The Reston East Park and Ride and the Connector Store at the lot were closed to allow for site preparation and construction to begin on the Wiehle-Reston East Metrorail station; on completion, the site now houses the north station entrance, the parking, and the main bus facility to support the Wiehle-Reston East Metrorail station.
- Connector adjusted routes that had served the Reston East Park and Ride and created a new route to serve the temporary Sunset Hills Park and Ride.

2011
- Connector implemented South County service changes. These changes included Route 335, linking the Franconia-Springfield Metrorail/VRE station and the Fort Belvoir Main Post, as well as others in support of BRAC moves to Fairfax County.

2012
- Connector initiated service linking the new Saratoga Park and Ride to the Franconia-Springfield and Pentagon Metrorail stations.

2013
- Connector began “Express Connector” service to and from Tysons on the newly opened I-495 Express Lanes.
- New fare policy was adopted for riders transferring between the VRE and Connector systems. Passengers transferring from the VRE system to a Connector bus are allowed a free, one-way transfer when boarding at a VRE station in Fairfax County with a valid VRE fare media (passes, tickets).
- FCDOT initiated a study to update the 2009 Transit Development Plan, to include a ten-year Comprehensive Transit Plan (CTP) and a six-year TDP.

2014
- Connector restructured its North County service to serve the newly opened Metrorail Silver Line stations in Tysons and Reston. This included implementing service on 15 new routes (including three Tysons Circulator routes), modifying 22 existing routes, and eliminating five existing routes. The changes covered 40 percent of existing Connector service.

2015

- Connector initiated new service linking Springfield, the Mark Center in Alexandria, and the Pentagon with Route 393.
- Fairfax Connector celebrated its 30th Anniversary and offered a free ride day on September 29.

2016

- FCDOT completed its TDP study, and the Fairfax County Board approved it.
- Weekend service was implemented in Centreville and Chantilly on Route 630, 640, and 650.
- WMATA completed bus improvements at the Franconia-Springfield Metrorail station including new bus bays and the introduction of real-time bus arrival information.

2017

- BusTracker was launched to provide Fairfax Connector passengers with scheduled and estimated arrival times of their bus by smartphone or computer.
- New express bus Route 699 began service from the Fairfax County Government Center, via I-66, directly to downtown Washington, D.C.

2018

- Connector launched Park for FREE, and Ride to Metro for $1 initiative to help combat extreme traffic congestion due to heavy construction on I-66 outside of the Capital Beltway.

2019

- New express bus Route 698 launched, providing service from Vienna Metrorail station to the Pentagon.
- Connector launched new service on Routes 308 and 462.
- FCDOT awarded a 5-year contract, plus 10 optional years, to Transdev North America for the operations of Fairfax Connector fixed-route bus service effective July.
- The contract between Amalgamated Transit Union (ATU) Local 1764, the union representing the bus drivers and mechanics, and Transdev, Fairfax County's contracted bus operator expired, causing employees to go on strike and disrupting bus service. Regular operations resumed in December.

2020

- A new express bus route, Route 396, from Backlick North Park and Ride to the Pentagon was established.
- Fare collection was suspended due to the rapidly escalating COVID-19 public health emergency. Rear door boarding was also implemented to protect drivers.
- Connector service was significantly reduced due to the beginning of the COVID-19 public health emergency—41 routes discontinued, service levels reduced on 14 routes, leaving 38 essential routes in operation.
- FCDOT initiated a study to create a 10-year Transit Strategic Plan (TSP), a successor and update to its latest TDP.
- Full-service resumed on all routes including implementation of two new routes—697 and 722.

2021

- Fare collection and front door boarding resumed, made possible with the installation of protection barriers between the bus driver and passengers.
- Connector assumed operations of five Metrobus routes from WMATA (old Metrobus routes 3T, 15K, 3A, 29C, and 29W to new Fairfax Connector routes 703, 715, 803, 834, and 835, respectively).
- FCDOT joined WMATA in providing free transfers between Metrorail and Fairfax Connector local buses, and $2 discount to Express Service through SmarTrip.
- Construction began on the Springfield Multimodal Transit Hub and the Monument Drive Commuter Parking Garage and Transit Center.

2022

- Metrorail Silver Phase II opened November 15, extending the existing rail line from Reston through the Dulles International Airport to its western terminus in Ashburn.

- Fairfax Connector implemented new and enhanced bus service in the Reston-Herndon area with key connections to the new Metrorail Silver Line Phase II—several short-term improvements of the TSP.
- Fares were reduced on Route 599 from $7.50 to $4.25.

2023

- Service began on new Route 660 between Centreville's Stone Road Park and Ride and Tysons Metrorail station via Fairfax County Government Center and Vienna Metrorail station.
- Youth fare policy was changed to provide free rides to children aged 12 and under when accompanied by a paying adult.
- FCDOT completed its Transit Strategic Plan.

A.2. Governance

Fairfax Connector is overseen by the Fairfax County Board of Supervisors (BOS) and is a component of the Fairfax County Government. The Board consists of ten members; nine Supervisors are elected as direct representatives of their respective districts, and the Chairman of the Board is elected at-large, representing the entire county. All Board members are elected for four-year terms. Elections for these positions are held in the year before presidential elections.

The Board structure includes a Transportation Committee, a committee of the whole, currently chaired by Walter Alcorn. In addition, the Board is advised on transportation matters by a Transportation Advisory Commission (TAC) with 11 members. Each district Supervisor appoints one resident of their district to serve on the Commission and the Board Chairman appoints a county resident as an at-large member. The eleventh member of the Commission is a representative from the Fairfax Area Disability Services Board. The normal term for Commission members is two years. The term for all Board of Supervisor members expires on December 31, 2023.

Table A-1 shows BOS and TAC membership as of July 2023.

TABLE A-1: FAIRFAX COUNTY BOARD OF SUPERVISOR AND TRANSPORTATION ADVISORY COMMISSION

District	Board of Supervisors	Appointed Transportation Advisory Commission
At-Large	Jeffrey C. McKay (Chairman)	Vacant
Mason District	Penelope A. Gross (Vice Chairman)	Roger L. Hoskin (Secretary)
Braddock District	James R. Walkinshaw	Kevin Morse
Dranesville District	John W. Foust	Michael Champness (Chair)
Hunter Mill District	Walter L. Alcorn	Phylicia L. Woods
Franconia District	Rodney L. Lusk	Matt Bechak
Mount Vernon District	Daniel G. Storck	Vacant
Providence District	Dalia A. Palchik	Jeremy Hancock
Springfield District	Pat Herrity	Eric Thiel
Sully District	Kathy L. Smith	Vacant
Fairfax Area Disability Services Board	-	Christie Garton (Member)

A.3. Organizational Structure

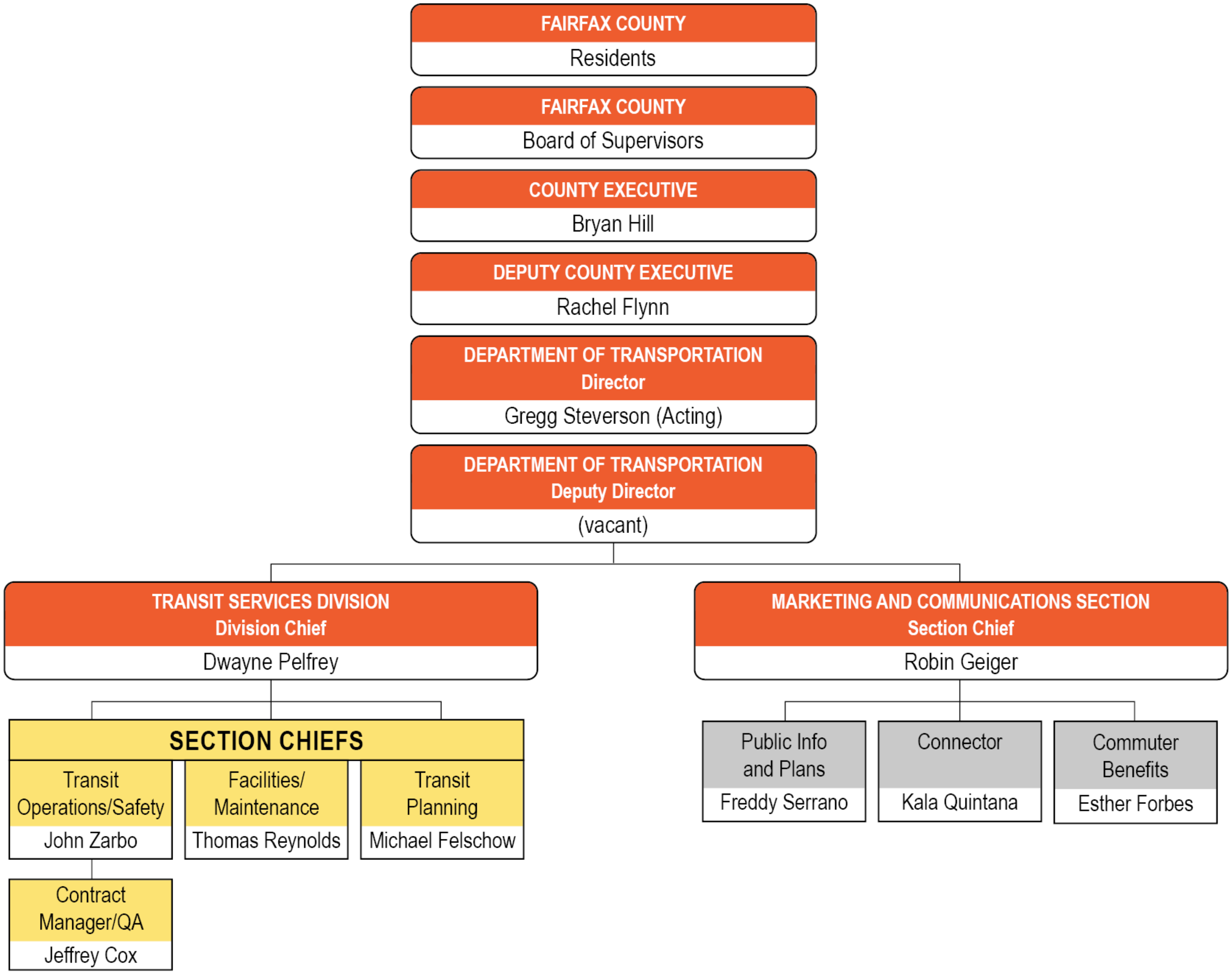
Figure A-1 provides an organization chart (as of October 2023) for the Fairfax Connector functions that are carried out by the FCDOT. Note, only Divisions of FCDOT associated with Connector are shown, and this does not represent an entire FCDOT or Fairfax County Government organization chart.

The Board of Supervisors provides general policy direction for the Connector through the County Executive and Deputy County Executive. The Director of FCDOT and the Division Chief of the Transit Services Division (TSD) provide policy recommendations and oversight on service provision. The TSD Division Chief oversees Section Chiefs and their staff that perform operations review, safety and security management, facilities and fleet planning, service planning, and contract management. The Division Chief and staff of Marketing, Communications, and TDM Programs provide marketing and public information support for Connector.

All Fairfax Connector service is provided under contract; the contractor provides all staff to support Connector operations, revenue and non-revenue fleet maintenance, operations planning, and administrative functions (e.g., payroll, purchasing, and accounting). Transdev North America currently holds the service provider contract. The current service provider contract began July 1, 2019, as a 5-year contract, plus 10 optional years. The base contract cost (start-up and fiscal years one through five) is approximately $443 million.

Operators and mechanics contracted through Transdev North America are represented by ATU Local 1764 under a four-year agreement which expires in 2024.

Figure A-1: Organization Structure



A.4. Services Provided and Areas Served

Fairfax Connector is a fixed-route bus transit system in Fairfax County, Virginia managed by FCDOT and operated by a contractor. **Section 1.1** of the TSP provides an overview of the Connector bus system and other transportation services available in and around Fairfax County. This includes Fastran; WMATA Metrorail, Metrobus, and MetroAccess; Virginia Railway Express (VRE); and local bus services of neighboring jurisdictions that operate service into Fairfax County.

Connector serves a 407-square-mile area and operates service seven days a week. As of April 2023, Connector's fixed-route bus service consisted of 94 routes across the county—23 routes in the Reston-Herndon area, 36 routes in the Chantilly-Centreville-Vienna-Tysons area, 27 routes in the Franconia-Springfield area, and 8 routes in the Huntington area as shown in **Figure A-2**. Areas of Fairfax County that have limited or no service coverage are less densely populated with limited demand or are areas that are serviced by Metrobus. As of fiscal year (FY) 2021, Fairfax Connector was operated with a fleet of 329 buses with 276 operated in maximum service.

Multiple routes are provided with funding and partnership with other agencies or organizations including the Northern Virginia Transportation Commission (NVTC), the Virginia Department of Rail and Public Transportation (DRPT), the Virginia Department of Transportation (VDOT), and the Central Intelligence Agency (CIA) as shown in **Table A-2**.

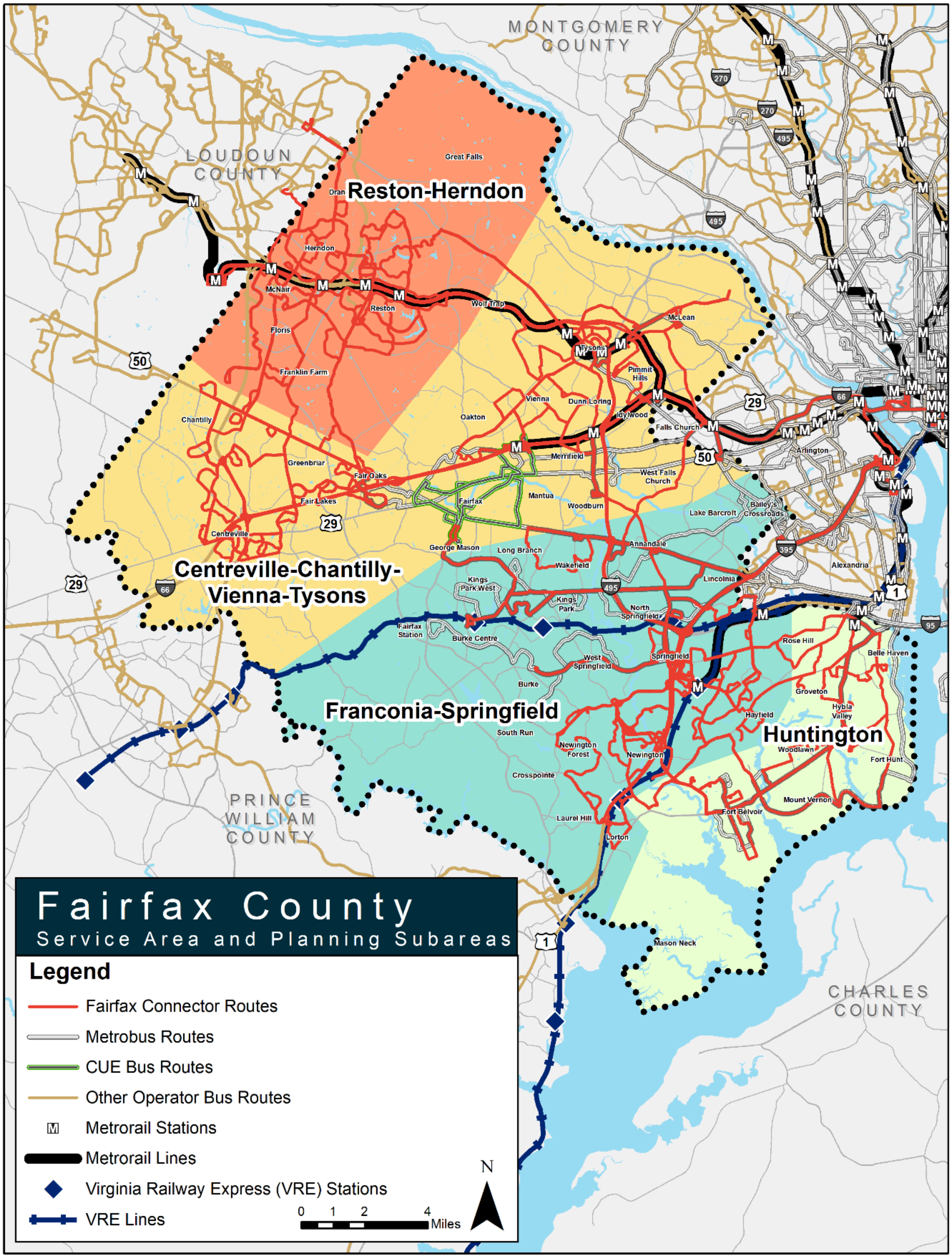
TABLE A-2: FAIRFAX CONNECTOR SERVICE PARTNERSHIPS

Service	Funding Partner
Route 393	DRPT
Route 396	NVTC
Route 660[1]	DRPT
Route 697	NVTC
Route 698	NVTC
Route 699	NVTC
Route 371	NVTC
Route 598	NVTC
Route 721	CIA
Route 722	CIA
Route 798[2]	VDOT/DRPT

[1]Implemented February 2023

[2]Future implementation anticipated FY 2024

FIGURE A-2: FAIRFAX CONNECTOR SERVICE AREA



Sources: Fairfax County DOT and Kimley-Horn, April 2023.

Connector also provides amenities and accommodations that facilitate pedestrian and bicycle access to the system. All Connector buses have bicycle racks mounted above the front bumper, and all bus operators are trained in the use of the racks and are able to assist bicyclists if necessary. Connector bus stops are located to maximize pedestrian access whenever possible. Connector staff evaluates several factors, including the presence of sidewalks and crosswalks, when locating bus stops. These bus stop improvements and sidewalk connections are implemented by other divisions of FCDOT and VDOT. Fairfax County maintains the ActiveFairfax Transportation Plan which establishes a vision and roadmap for the implementation of safe, convenient, and enjoyable streets and trails in Fairfax County.

Bus stops and amenities such as bus shelters and benches are deployed using guidelines.

- Connector bus stops are located in accordance with the *Fairfax County Bus Stop Guidelines* published in July 2004. Bus stops are located to maximize pedestrian access whenever possible. **Table A-3** provides a summary of bus stop spacing criteria.
- A bus shelter may be installed at stops with an average of 50 or more boardings per day**,** at a transit center or park and ride lot owned by Fairfax County, or if the stop is at a major activity center.
- Benches with pads may be installed if the stop is located at a transit center or park and ride lot or if the stop is a major activity center, generating 25 or more passenger boardings per day, or at stops located near significant populations of seniors, the disabled, students, or other special uses (e.g., tourist attractions).
- Waste receptacles are installed at all stops with a demonstrated issue with littering.

TABLE A-3: BUS STOP SPACING GUIDELINES

Density Class	Criteria
High density (750-ft spacing)	Primarily commercial with high concentration of employment, or with a population density of more than five people per acre
Moderate density (1,000-ft spacing)	Population density of two to five people per acre
Low density (spacing based on activity centers rather than distance)	Population density of less than 2 people per acre

In compliance with the Americans with Disabilities Act (ADA) requirements, all Fairfax Connector vehicles are low-floor and the Connector's policy is to only purchase low-floor vehicles. The buses are outfitted with ramps and are able to kneel or lower to make it easier to get on and off the bus. Priority seating for people with disabilities and senior citizens is located in the seats directly behind the bus operator. Two wheelchair securement areas are located near the front of each bus and include tie downs and lap belts for safety.

MetroAccess provides ADA paratransit for people with disabilities who are unable to use public transportation (bus or rail) due to their disability. ADA paratransit service is provided within ¾ of a mile of a bus route or rail station, at the same hours and days of bus or rail service, at twice the fastest fixed-route equivalent fare (maximum fare of $4.00).

Historically, travel training has been provided to customers in partnership with Fairfax County Neighborhood and Community Services. As of July 2023, this program was on hold. FCDOT provides a Rider Guide, frequently asked questions, and videos (available in English and Spanish) on how to ride the bus via their website. WMATA also provides a MetroReady Travel Training program for senior customers and people with disabilities that is designed to teach customers how to travel safely and independently on the accessible Metrobus and Metrorail public transportation system.

A.5. Fare Structures, Payments, and Purchasing

SmarTrip cards, cash[28], and passes[29] may be used to pay for Fairfax Connector trips, as shown in **Table A-4**. SmarTrip cards are the Metropolitan Washington region's uniform, contactless fare media and are the preferred method of payment across the Fairfax Connector system as well as other local and regional transit services such as WMATA Metrorail and Metrobus, and other local bus systems. SmarTrip cards allow a passenger up to two hours of free bus-to-bus transfers, and $2.00 discounts for bus-to-rail transfers. Physical SmarTrip cards may be purchased at Connector Stores, Metrorail stations and most CVS and Giant Food locations. Passengers can opt to purchase a virtual card that can be accessed on a mobile device via the SmarTrip App, Apple Wallet, or Google Wallet. Each card has a $2.00 activation fee.

Children aged 12 and under traveling with a fare-paying adult may travel free, as well as Fairfax County High School and Middle School students with a valid Free Student Bus Pass[30] between the hours of 5:00 a.m. and 10:00 p.m. Passengers transferring from the VRE system to a Fairfax Connector bus are allowed a free, one-way transfer when boarding at a VRE station when they display a valid VRE fare. Passengers returning on a Fairfax Connector bus to a VRE station must pay the full, applicable bus fare. Additionally, customers 65 years of age and older and persons with disabilities can receive a reduced fare[31] as shown in **Table A-4**.

Fairfax Connector accepts the $12.00 7-Day Regional Bus Pass available through SmarTrip. This pass is valid for seven consecutive days of unlimited rides (up to $2.00) on Metrobus, Arlington Transit, DC Circulator, Fairfax CUE, Fairfax Connector, TheBus, and Ride On.

Fares have not been raised since June 25, 2017, but there were several recent fare policy changes. Effective September 5, 2021, a $2.00 discount was offered for transfers between WMATA Metrorail and Fairfax Connector, and this change was made permanent effective October 1, 2022. Fairfax County was awarded a three-year DRPT Transit Ridership Incentive Program (TRIP) grant and launched a reduced fare program in early 2023 that provides a 50%

[28] Exact cash is required, and drivers do not carry cash or make change. Pennies are not accepted

[29] Includes VRE passes, VRE Transit Link Cards, DASH Pass, and MetroAccess ID cards

[30] Only valid on Fairfax Connector and City of Fairfax CUE

[31] Seniors may show a Medicare or Medicaid card and pay in cash; however, a Senior SmarTrip card (available at any Connector Store or WMATA Commuter Store) is the preferred method of payment. Persons with disabilities can find more information at [WMATA's reduced fare program website](#).

discount on Fairfax Connector for low-income individuals. Finally, effective May 1, 2023 children aged 12 and under can ride for free when accompanied by a paying adult.

TABLE A-4: FAIRFAX CONNECTOR FARES

Fare Type	Fare Media	Cost	Seniors and Persons with Disabilities
Base Fare			
Regular Routes	SmarTrip or Cash	$2.00	$1.00
Express and Other Fares			
393, 394, 395, 396, 697 698, 699	SmarTrip or Cash	$4.25	$2.10
350, 422, 423, 424	SmarTrip or Cash	$0.50	$0.50
480 (Fare is round trip)	SmarTrip or Cash	$5.00	$5.00
599	SmarTrip or Cash	$7.50	$3.75
Metrorail-to-Bus Transfer			
Regular Routes	SmarTrip	FREE	FREE
	Cash	$2.00	$1.00
393, 394, 395, 396, 697 698, 699	SmarTrip	$2.25	$0.10
	Cash	$4.25	$2.10
350, 422, 423, 424	SmarTrip	FREE	FREE
	Cash	$0.50	$0.50
480 (Fare is round trip)	SmarTrip	$3.00	$3.00
	Cash	$5.00	$5.00
599	SmarTrip or Cash	$7.50	$3.75
Bus-to-Bus Transfer			
Regular Routes	SmarTrip	FREE up to 2 hours	FREE up to 2 hours
	Cash	$2.00	$1.00
393, 394, 395, 396, 697 698, 699	SmarTrip	$2.25	$1.10
	Cash	$4.25	$2.10
350, 422, 423, 424	SmarTrip	FREE up to 2 hours	FREE up to 2 hours
	Cash	$0.50	$0.50
480 (Fare is round trip)	SmarTrip or Cash	$5.00	$5.00
599	SmarTrip or Cash	$7.50	$3.75

A.6. Transit Asset Management – Existing Fleet and Facilities

Fairfax County is a Tier 1 agency as defined by the Federal Transit Administration (FTA) due to the number of vehicles it operates for fixed-route service, and therefore has developed its own Transit Asset Management (TAM) plan for revenue vehicles, non-revenue vehicles, facilities, and other equipment. The FCDOT TAM plan describes and establishes the approach to managing its Fairfax Connector capital assets in compliance with the FTA's Transit Asset Management Final Rule (49 Code of Federal Regulations (CFR) 625 and 630). The latest TAM plan was completed in 2020 which is based on FCDOT's asset inventory and condition assessments through December 2019. **Chapter 4** of the TSP summarizes the policies set forth in the FCDOT TAM Plan.

Fleet

As of FY 2022, Fairfax Connector was operated with a fleet of 345 buses with 284 operated in maximum service (see **Table A-5**). A summary of non-revenue support vehicles is shown in **Table A-6**.

At the time of the TSP, FCDOT was continuing to develop its fleet transition plan to migrate the Connector fleet to 100% zero-emission buses by 2035. The county is starting with an electric bus pilot program effective in 2023. Fairfax County made modifications to its West Ox bus facility to install three 150 kW vehicle charging stations in 2022.

TABLE A-5: FAIRFAX CONNECTOR REVENUE FLEET PROFILE – FY 2022

Make	Model	Size	Fuel Type	Year	Quantity
New Flyer	D40LFR	40 feet	Diesel	2007	5
New Flyer	D35LFR	35 feet	Diesel	2007	5
New Flyer	VII	30 feet	Diesel	2008	25
New Flyer	D40LFR	40 feet	Diesel	2009	43
New Flyer	DE40LFA	40 feet	Diesel	2010	3
New Flyer	XD40	40 feet	Diesel	2011	67
Orion	VII Hybrid	33 feet	Hybrid Diesel	2012	6
New Flyer	XD40	40 feet	Diesel	2012	20
New Flyer	XD35	35 feet	Diesel	2012	15
New Flyer	XD40	40 feet	Diesel	2013	19
New Flyer	XD35	35 feet	Diesel	2014	17
New Flyer	XD40	40 feet	Diesel	2015	5
New Flyer	XD35	35 feet	Diesel	2015	12
New Flyer	XD40	40 feet	Diesel	2017	10
New Flyer	XD40	40 feet	Diesel	2018	4
New Flyer	XD35	35 feet	Diesel	2018	10
New Flyer	XD40	40 feet	Diesel	2019	4
New Flyer	XD40	40 feet	Diesel	2020	11
New Flyer	XD40	40 feet	Diesel	2021	28
New Flyer	XD40	40 feet	Diesel	2022	20
New Flyer	XD35	35 feet	Diesel	2022	16
Total					**345**

TABLE A-6: FAIRFAX CONNECTOR NON-REVENUE FLEET PROFILE – FY 2021

Make	Model	Type	Year	Quantity	
Ford	Fusion	Sedan	2011	1	
Ford	Fusion	Sedan	2012	1	
Ford	Fusion	Sedan	2013	2	
Ford	Fusion	Sedan	2015	5	**14**
Ford	Fusion	Sedan	2017	1	
Ford	Fusion	Sedan	2018	1	
Chevrolet	Equinox	SUV	2013	1	
Ford	Escape	SUV	2014	1	
Ford	Escape	SUV	2015	1	
Ford	Escape	SUV	2016	1	
Ford	Escape	SUV	2017	4	**22**
Ford	Escape	SUV	2018	3	
Ford	Maverick	SUV	2022	6	
Chevrolet	Trailblazer	SUV	2023	5	
Ford	F550	Truck	2010	2	
Ford	F550	Truck	2011	1	
Ford	F550	Truck	2013	1	**10**
Ford	Fusion	Sedan	2015	5	
Ford	Fusion	Sedan	2017	1	
GMC	Cargo Van	Van	2015		**1**
Total					**43**

Facilities

Fairfax Connector has a wide range of facilities located throughout Fairfax County. These include:

- Administrative, bus operations, and maintenance facilities
- Transit stations
- Fairfax Connector Stores
- Park and ride facilities
- Bus stops and shelters

Fairfax Connector's administrative offices are housed in leased office space located at 4050 Legato Road, Fairfax, VA, 22033. Fairfax Connector currently conducts all bus operations and maintenance activities from its three operating divisions, including repairing, cleaning, fueling, storing, and staging buses, as shown in **Table A-7**. All three buildings are open 24 hours a day. While the West Ox facility is open five days per week, the other two facilities are open seven days a week. The service contractor also has administrative offices at each of the three operating divisions.

TABLE A-7: FAIRFAX CONNECTOR OPERATIONS AND MAINTENANCE FACILITIES

Facility Name	Address	In-Service	Maximum Vehicle Capacity	Repair Bays	Fueling Stations
Reston-Herndon	268 Spring Street Herndon, VA 20170	1994	90	6	2
West Ox	4970 Alliance Drive Fairfax, VA 22035	2009	170	15	4
Huntington	8101 Cinder Red Road Lorton, VA 22079	1985	103	8	2
Total			**363**	**29**	**8**

Fairfax Connector passenger facilities consist of transit stations, Fairfax Connector Stores, and park and ride facilities (see **Table A-8**). In many cases, Fairfax Connector facilities are co-located with other transit facilities owned and operated by others such as WMATA Metrorail stations or VRE stations. Park and rides owned and maintained by Fairfax County are shown in **Table A-8**. Fairfax Connector serves other park and ride facilities in Fairfax County that are owned and maintained by others such as the VDOT, WMATA, or private property owners. A full list of park and rides can be found on Fairfax Connector's website[32].

[32] https://www.fairfaxcounty.gov/connector/park-and-ride

TABLE A-8: FAIRFAX CONNECTOR PASSENGER AND PARKING FACILITIES

Facility Name	Type*	In Service
Wiehle-Reston East Metrorail Station	Parking Garage and Fairfax Connector Store	2014
Reston Town Center Transit Station	Transit Station and Fairfax Connector Store	2006
Herndon Metrorail Station	Parking Garage and Fairfax Connector Store	1999
Innovation Center Metrorail Station	Parking Garage	2022
Tysons West*Park Transit Station	Transit Station and Fairfax Connector Store	1998
Stringfellow Park and Ride	Fairfax Connector Store	2016
Centreville Park and Ride	Park and Ride Lot	1995
Franconia-Springfield Metrorail Station	Fairfax Connector Store	2006
Burke Centre VRE Station	Parking Garage	2008
Backlick Road VRE Station	Parking Lot	1992
Lorton VRE Station	Parking Lot	1992
Rolling Road VRE Station	Parking Lot	1992
Reston South Park and Ride	Park and Ride Lot	1995
Rolling Valley Park and Ride	Park and Ride Lot	1995

*Portion of facility that Fairfax County manages and maintains

New passenger and parking facilities are expected to come into service at the following locations in 2023 and 2024, respectively:

- Monument Drive Commuter Parking Garage and Transit Center
- Springfield Community Business Center (CBC) Commuter Parking Garage

There are approximately 3,100 bus stops in Fairfax County served by Fairfax Connector. Approximately 457 stops have bus shelters owned by Fairfax County.

A.7. Transit Security Program

FCDOT works cooperatively with its Fairfax Connector service contractor to develop and maintain several system security and emergency preparedness plans to protect riders, employees, and the general public. This includes:

- Continuity of Operations Plan (COOP)
- Public Transportation Agency Safety Plan (PTSAP) (formerly System Safety Program Plan)
- System Security and Emergency Preparedness Plan
- Fire, Earthquake, Bomb Threat, Tornado and other emergency and evacuation plans
- “Active Threat” Plan
- Pandemic Response Plan

Fairfax Connector's policy is to ask passengers for a fare twice. If they still refuse to pay, the operator is instructed to continue on the route, avoiding confrontation or an escalated fare dispute.

There are several security features on vehicles and at the transit stations and facilities. Video cameras are installed on all buses that can be used to investigate incidents and validate customer complaints. Operators also have the ability to notify dispatch for emergency situations using the on-board intelligent transportation system (ITS). Fairfax County maintains a video surveillance system within the interior and exterior of facilities.

A.8. Intelligent Transportation Systems (ITS) Programs

Fairfax Connector utilizes a suite of ITS and technology to operate efficiently and provide information to customers. FCDOT initiated a large multi-phase ITS project starting in 2013 with the vendor Clever Devices to implement a variety of technologies for Fairfax Connector. Other vendors are used for camera, fare, scheduling, and maintenance systems. Fairfax Connector ITS consists of the following for all buses:

- **Computer aided dispatch / automatic vehicle location (CAD/AVL)**: The Clever Devices system provides GPS vehicle tracking and monitoring.
- **Automatic passenger counters (APC):** The Clever Devices system includes APC sensors that provide boarding and alighting information at every stop. Raw APC data collected by the vehicles is downloaded over wireless when vehicles are back in the garage, and data is post-processed and reported through the Ridecheck Plus software.
- **Automated Vehicle Announcements (AVA):** The Clever Devices system provides audio-visual next stop announcements using in-vehicle equipment.
- **On-board cameras**: A DriveCam system is used for video surveillance, and also captures audio and video inside and outside the vehicle before and after a detected incident (triggered by unusual motion such as hard braking).
- **Electronic registering fareboxes:** Fare collection equipment (fareboxes and associated garage equipment) is provided by Genfare and Cubic. Fairfax Connector utilizes fareboxes that are compatible with the regional SmarTrip fare system managed by WMATA.
- **Mobile payment:** As part of the regional fare system, Fairfax Connector fares can be paid for using the SmarTrip App, Apple Wallet, or Google Wallet.
- **Scheduling and run cutting software**: Bus schedules are developed using Trapeze software.
- **Maintenance management**: RTA software is used for the management of parts inventory, work orders, tracking mileage, asset management, preventative maintenance and purchase orders. Fleetwatch is used to track fuel and fluid used by revenue and non-revenue vehicles.
- **Passenger-facing information**: BusTracker, through the Clever Devices system, provides real-time estimated arrival times and shows approximate locations of buses. Riders can view this information on a mobile device or computer via a website. Riders can also sign up to receive alerts by text or email. Schedule and real-time arrival data

feeds (General Transit Feed Specification [GTFS] and GTFS Realtime) are made publicly available to third-party developers so customers can also access this information using common websites or apps such as Google Maps and Transit App. In addition to these trip planners, Fairfax Connector information is included in WMATA's online Trip Planner.

A.9. Data Collection and Ridership/Revenue Reporting Method

Fairfax Connector's method of collecting, processing, verifying, storing, and reporting ridership and revenue service data uses multiple data sources and systems.

Ridership data is available from APC (primary source) and electric registering farebox (secondary source) data. All Connector buses are equipped with APCs supplied by Clever Devices and fareboxes are provided by Genfare including smartcard readers provided by Cubic. APC certification in accordance with National Transit Database (NTD) reporting policy was completed in 2022. The vast majority of ridership data is collected automatically. Limited manual bus operator recording of data is conducted using the driver control unit on the farebox for free riders such as children.

Fixed-route schedules are developed in Trapeze software, which is the source for reporting scheduled service data. Actual revenue hours and miles are recorded using the Clever Devices CAD/AVL system.

The service contractor maintains its own software to manage accounting and payroll for its Connector employees. The service contractor is responsible for bus operations and maintenance using facilities and vehicles owned by Fairfax County. FCDOT tracks its contract and non-contract expenses on a monthly and annual basis. Non-contract expenses include items such as fuel, liability insurance, and professional services. Contract expenses are based on revenue hours operated, and Fairfax County closely tracks actual revenue hours to ensure accurate invoicing from the contractor to Fairfax County.

FCDOT also develops detailed internal revenue reports. Fare revenue from SmarTrip and cash are treated differently. All cash fares deposited into the farebox are counted by an armored car service and deposited into the bank account of the service contractor and netted out of the monthly invoices to Fairfax County. FCDOT may conduct audits of the revenue collection, handling, and security practices and procedures of the contractor. SmarTrip revenue is reimbursed from WMATA on a monthly basis and posted to Fairfax Connector as revenue.

As a division of the Fairfax County government, Fairfax Connector undergoes the same auditing process as all other County departments. The system's operating expenditures are incorporated into the County's Audited Financial Reports along with other County transportation expenses. The audited report consists of one line item representing Fairfax Connector Operating expenses, special studies, and includes the cash fares netted out of the contract vendor's invoices.

FCDOT certifies its understanding and compliance with the DRPT and NTD data collection requirements as part of its reporting processes. FCDOT staff report ridership data to DRPT through the On-Line Grant Administration (OLGA) monthly. Performance data is also submitted through OLGA for the previous fiscal year when submitting an annual operating grant application. Separately, FCDOT reports Fairfax Connector data to NTD annually.

A.10. Coordination with Other Transportation Service Providers

Sections 1.1 and 2.5 of the TSP contain information about Fairfax Connector's efforts to coordinate transit service with surrounding jurisdictions and transportation service providers.

A.11. Public Outreach, Engagement, and Involvement

At the onset of a planning process that would result in a change in service or fare charges, FCDOT identifies the communities that will be impacted and develops a communication plan to convey information about the proposed changes. Service change information is presented in a variety of formats, including print materials posted on buses and at bus stops, FCDOT's website and social media platforms such as Twitter and Facebook, and Fairfax County's subscription alert system, Fairfax Alerts. In addition, service change information will be presented by FCDOT at public meetings, "pop-up" events at community gatherings and high traffic areas, and stakeholder and advisory group meetings. Public meetings allow for members of the public to submit written and verbal feedback regarding the proposed service change. If the proposed change is approved, additional outreach material is developed to alert riders of the upcoming change or disruption in service and a similar effort is made to post information at bus stops, on buses, the Connector website, and social media.

Translation services are available at public meetings upon request. Information concerning translation services is available in each of the following languages:

- Spanish
- Korean
- Vietnamese
- Chinese
- Amharic
- Hindi
- Arabic
- Urdu
- Farsi
- Tagalog

A.12. Current Initiatives

Section 1.1.2 of the TSP describes several recent or ongoing initiatives for Fairfax Connector. Regional initiatives that affect the provision of transit service in Fairfax County are also described.

A.13. Three-Year Retrospective of Finances

The three-year retrospective of finances summarizes data obtained through the National Transit Database for FY 2020 through FY 2022. This section includes tables on operating and capital expenses and revenues.

TABLE A-9: RETROSPECTIVE OF OPERATING REVENUES

Fiscal Year	Fares and Directly Generated	Local	State	Federal	Total
FY 2020	$8,252,383	$82,448,917	$295,900	$0	**$90,997,200**
FY 2021	$3,609,356	$92,578,082	$340,271	$0	**$96,527,709**
FY 2022	$6,671,125	$99,246,618	$322,523	$0	**$106,240,266**

TABLE A-10: RETROSPECTIVE OF CAPITAL REVENUES

Fiscal Year	Fares and Directly Generated	Local	State	Federal	Total
FY 2020	$0	$0	$0	$10,470,433	**$10,470,433**
FY 2021	$0	$0	$0	$5,224,192	**$5,224,192**
FY 2022	$0	$23,187,647	$0	$0	**$23,187,647**

TABLE A-11: RETROSPECTIVE OF OPERATING AND CAPITAL EXPENSES

Fiscal Year	Operating	Capital
FY 2020	$90,997,200	$10,470,433
FY 2021	$96,527,709	$5,224,192
FY 2022	$106,240,266	$23,187,647

Appendix B
Service Improvement Prioritization

The following table shows the outcome, scores, and rank of the service improvement recommendations using the methodology described in **Section 3.2.1**. Inclusion in this table does not guarantee implementation of all projects in the specified timeframe.

SHORT-TERM PRELIMINARY TIME FRAME				
Final Rank	**Recommendation ID**	**Route**	**Tier 1 Total Score**	**Tier 2 Total Score**
1	630 - 1	630	10	293
2	605 - 1	605	9	297
3	924 - 1	924	9	286
4	651 - 1	651	9	254
5	671 - 1	671	9	224
6	321 - 1	321	8	372
7	322 - 1	322	8	362
8	RIBS 1 - 1	RIBS 1	8	350
9	950 - 1	950	8	332
10	RIBS 3 - 1	RIBS 3	8	332
11	RIBS 2 - 1	RIBS 2	8	320
12	901 - 1	901	8	261
13	610 - 1	610	8	260
14	RIBS 4 - 1	RIBS 4	8	247
15	642 - 1	642	8	233
16	RIBS 5 - 1	RIBS 5	8	222
17	921 - 1	921	8	190
18	662 - 1	662	8	188
19	670 - 1	670	8	165
20	951 - 1	951	8	152
21	698 - 1	698	8	77
22	163 - 1	163	7	339
23	574 - 1	574	7	268
24	615 - 1	615	7	258
25	952 - 1	952	7	247
26	164 - 1	164	7	245
27	558 - 1	558	7	218
28	559 - 1	558	7	218
29	983 - 1	983	7	205
30	954 - 1	954	7	192
31	937 - 1	937	7	174
32	400X - 1	400X	7	159
33	553 - 1	553	7	149
34	660 - 1	660	7	139
35	494 - 1	494	7	136
36	552 - 1	552	7	110
37	393 - 1	393	7	79
38	151 - 1	151	6	430
39	101 - 1	101	6	388
40	310 - 1	310	6	376
41	313 - 1	313	6	236

Final Rank	Recommendation ID	Route	Tier 1 Total Score	Tier 2 Total Score
42	DRT - 1	Microtransit Service (McLean, Tysons, Wolf Trap)	6	189
43	461 - 1	461	6	156
44	350 - 1	350	6	146
45	495 - 1	495	6	106
46	599 - 1	599	6	100
47	396 - 1	396	6	84
48	557 - 1	557	6	74
49	463 - 1	463	5	339
50	371 - 1	371	5	325
51	423 - 1	423	5	303
52	109 - 1	109	5	282
53	622 - 1	622	5	226
54	901 - 2	901	4	350
55	334 - 1	334	4	212
56	598 - 1	598	4	137
57	507 - 1	507	4	127
58	625 - 1	625	4	124
59	301 - 1	301	4	112
60	305 - 1	305	4	112
61	353 - 1	353	4	103
62	427 - 1	427	4	88
63	231 - 1	231	4	84
64	351 - 1	351	4	72
65	352 - 1	352	4	22
66	615 - 2	615	0*	258
67	798 - 1	798	0**	91

*Manual change to short-term in conjunction with other Centerville, Chantilly, Vienna, Tysons area service changes

**Manual change to short-term based on timing of anticipated grant funding

MID-TERM PRELIMINARY TIME FRAME				
Final Rank	Recommendation ID	Route	Tier 1 Total Score	Tier 2 Total Score
1	698 - 2	698	8*	62
2	950 - 2	950	3	375
3	RIBS 1 - 2	RIBS 1	3	349
4	RIBS 3 - 2	RIBS 3	3	332
5	605 - 2	605	3	330
6	924 - 2	924	3	320
7	605 - 3	605	3	320
8	RIBS 4 - 2	RIBS 4	3	278
9	651 - 2	651	3	276
10	RIBS 5 - 2	RIBS 5	3	264
11	400X - 2	400X	3	263
12	951 - 2	951	3	174
13	553 - 2	553	3	155
14	990 - 1	990	3	138
15	171 - 1	171	2	403
16	310 - 2	310	2	379
17	321 - 2	321	2	337
18	322 - 2	322	2	328
19	400X - 3	400X	2	303
20	610 - 3	610	2	291
21	610 - 2	610	2	275
22	630 - 2	630	2	275
23	308 - 1	308	2	266
24	313 - 2	313	2	258
25	172 - 1	172	2	231
26	553 - 3	553	2	222
27	306 - 1	306	2	219
28	921 - 2	921	2	206
29	922 - 2	922	2	203
30	468 - 2	468	2	201
31	671 - 2	671	2	197
32	662 - 2	662	2	165
33	922 - 1	922	2	163
34	468 - 1	468	2	161
35	681 - 1	681	2	134
36	670 - 2	670	2	125
37	552 - 2	552	2	124
38	467 - 1	467	2	123
39	495 - 2	495	2	114
40	335 - 1	335	2	46
41	696 - 1	696	2	14
42	798 - 2	798	0*	166

*Manual change to mid-term based on timing of anticipated grant funding

LONG-TERM PRELIMINARY TIME FRAME				
Final Rank	Recommendation ID	Route	Tier 1 Total Score	Tier 2 Total Score
1	164 - 2	164	4*	259
2	101 - 2	101	3*	375
3	165 - 1	165	3*	270
4	BRT - 1	BRT	2*	424
5	153 - 1	153	2*	348
6	163 - 2	163	2*	310
7	371 - 2	371	1	301
8	615 - 3	615	1	287
9	109 - 2	109	1	283
10	DRT - 2	Microtransit Service (Great Falls)	1	241
11	301 - 2	301	1	89
12	715 - 1	715	1	82
13	231 - 2	231	1	78
14	463 - 2	463	0	301
15	622 - 2	622	0	252
16	315 - 1	315	0	201
17	334 - 2	334	0	147
18	625 - 2	625	0	95
19	305 - 2	305	0	86
20	340 - 1	340	0	4

*Manual change to long-term based on timing of anticipated Richmond Highway BRT implementation

Appendix C
Financially Unconstrained Plan

Reston and Herndon Area Service

ROUTE 552—WIEHLE-RESTON EAST METRO TO INNOVATION CENTER METRO

Recommendation 552 - 2		**Improvement Type:** Modified Route	**Financial Status:** Unconstrained
Timeframe		Mid-Term	
Description		Adjust route for increased span of service. Operate all day on weekdays with 20-minute frequency during rush hour* and 45-minute frequency during non-rush hour*.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Span of Service	
Annual Estimated Riders		122,100	
Annual Revenue Hours		11,730	

More recommendation details can be found in the ***Appendix E***

Rush hour refers to peak commuting travel periods while non-rush hour refers off-peak travel periods—this terminology applies to all recommendations in this Appendix.

ROUTE 553—RESTON TOWN CENTER METRO TO HERNDON HIGH SCHOOL

Recommendation 553 - 2		**Improvement Type:** Modified Route	**Financial Status:** Unconstrained
Timeframe		Mid-Term	
Description		Adjust route for increased span of service on weekdays. Operate all day on weekdays with 20-minute frequency during rush hour and 60-minute frequency during non-rush hour.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Span of Service	
	Opportunities for Improvement	Performance-Based (Cost Efficiency) Efficiency-Based (Gap in Span Guideline)	
Annual Estimated Riders		See 553 - 3	
Annual Revenue Hours		13,260	

Recommendation 553 - 3		**Improvement Type:** Modified Route	**Financial Status:** Unconstrained
Timeframe		Mid-Term	
Description		Adjust route for increased span of service on weekends. Operate all day seven days a week with 20-minute frequency during rush hour and 60-minute frequency during non-rush hour and weekends.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Span of Service	
	Opportunities for Improvement	Performance-Based (Cost Efficiency)	
Annual Estimated Riders		91,100	
Annual Revenue Hours		15,900	

*More recommendation details can be found in the **Appendix E***

ROUTE 605—RESTON TOWN CENTER TRANSIT STATION TO FAIRFAX COUNTY GOVERNMENT CENTER

Recommendation 605 - 2		**Improvement Type:** Modified Route	**Financial Status:** Unconstrained
Timeframe		Mid-Term	
Description		Adjust route for increased frequency on weekdays and Saturday. Operate all day seven days a week with 30-minute frequency on weekdays and Saturday, and 45-minute frequency on Sunday.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Frequency	
	Opportunities for Improvement	Performance-Based (System Accessibility) Efficiency-Based (Gap in Span Guideline)	
Annual Estimated Riders		See 605 - 3	
Annual Revenue Hours		16,986	

Recommendation 605 - 3		**Improvement Type:** Modified Route	**Financial Status:** Unconstrained
Timeframe		Mid-Term	
Description		Adjust route for increased span of service on weekdays and Saturday. Extend weekday service hours to 11:20 p.m. and Saturday service hours to 11:30 p.m.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Span of Service	
	Opportunities for Improvement	Performance-Based (System Accessibility) Efficiency-Based (Gap in Headway Standard)	
Annual Estimated Riders		88,500	
Annual Revenue Hours		17,990	

More recommendation details can be found in the ***Appendix E***

ROUTE 615—FAIR OAKS HOSPITAL TO MONUMENT DRIVE PARK AND RIDE

Recommendation 615 - 3		Improvement Type: Modified Route	Financial Status: Unconstrained
Timeframe		Long-Term	
Description		Adjust route for increased frequency on weekdays and Saturday. Operate all day on weekdays with 30-minute frequency. Operate all day on Saturday with 30-minute frequency and on Sunday with 45-minute frequency.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Frequency	
	Opportunities for Improvement	Efficiency-Based (Gap in Span Guideline)	
Annual Estimated Riders		132,000	
Annual Revenue Hours		14,915	

*More recommendation details can be found in the **Appendix E***

ROUTE 901—HERNDON METRO TO CENTREVILLE UMC PARK AND RIDE

Recommendation 901 - 2		Improvement Type: Modified Route	Financial Status: Unconstrained
Timeframe		Mid-Term	
Description		Adjust route for increased span of service on weekdays and increased frequency on weekends. Extend weekday service hours to 12:00 a.m. and increase weekend frequency to 30 minutes.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Frequency, Increased Span of Service	
	Opportunities for Improvement	Efficiency-Based (Gap in Headway Standard, Gap in Span Guideline)	
Annual Estimated Riders		176,100	
Annual Revenue Hours		21,615	

*More recommendation details can be found in the **Appendix E***

ROUTE 921—HERNDON METRO TO HERNDON TOWN HALL

Recommendation 921 - 2		**Improvement Type:** Modified Route	**Financial Status:** Unconstrained
Timeframe		Mid-Term	
Description		Adjust route for increased span of service and weekdays and weekends. Extend service hours to 10:00 p.m.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Span of Service	
	Opportunities for Improvement	Performance-Based (System Accessibility)	
Annual Estimated Riders		26,000	
Annual Revenue Hours		5,475	

More recommendation details can be found in the ***Appendix E***

ROUTE 922—HERNDON TOWN HALL TO HERNDON METRO

Recommendation 922 - 1		Improvement Type: New Route	Financial Status: Unconstrained
Timeframe		Mid-Term	
Description		Add new local route operating as a reverse loop of Route 921. Operate all day seven days a week with 40-minute frequency.	
Justification	Goals	Choice, Quality, Efficiency	
	Public Priorities	Faster Travel, Increased Coverage and Connectivity	
	Opportunities for Improvement	Performance-Based (System Accessibility)	
Annual Estimated Riders		See 922 - 2	
Annual Revenue Hours		4,380	

Recommendation 922 - 2		Improvement Type: Modified Route	Financial Status: Unconstrained
Timeframe		Mid-Term	
Description		Adjust route for increased span of service and weekdays and weekends. Extend service hours to 10:00 p.m.	
Justification	Goals	Choice, Quality, Efficiency	
	Public Priorities	Increased Span of Service	
	Opportunities for Improvement	Performance-Based (System Accessibility)	
Annual Estimated Riders		28,500	
Annual Revenue Hours		5,475	

*More recommendation details can be found in the **Appendix E***

ROUTE 924—NOVA - LOUDOUN - HERNDON - FRANKLIN FARM

Recommendation 924 - 2		Improvement Type: Modified Route	Financial Status: Unconstrained
Timeframe		Mid-Term	
Description		Adjust route for increased frequency on weekdays and Saturday. Operate all day seven days a week with 20-minute frequency during rush hour, 30-minute frequency during non-rush hour and Saturday, and 60-minute frequency on Sunday.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Frequency	
	Opportunities for Improvement	Efficiency-Based (Gap in Span Guideline)	
Annual Estimated Riders		255,400	
Annual Revenue Hours		26,204	

More recommendation details can be found in the Appendix E

ROUTE 950—RESTON TOWN CENTER METRO TO HERNDON METRO

Recommendation 950 - 2		Improvement Type: Modified Route	Financial Status: Unconstrained
Timeframe		Mid-Term	
Description		Adjust route for increased frequency on weekdays. Increase frequency to 15-minutes all day on weekdays and maintain weekend service.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Frequency	
Annual Estimated Riders		607,800	
Annual Revenue Hours		30,595	

More recommendation details can be found in the ***Appendix E***

ROUTE 951—WIEHLE-RESTON EAST METRO TO INNOVATION CENTER METRO

Recommendation 951 - 2		**Improvement Type:** Modified Route	**Financial Status:** Unconstrained
Timeframe		Mid-Term	
Description		Adjust route for increased span of service and weekdays and Saturday. Operate all day on weekdays with 20-minute frequency during rush hour and 60-minute frequency during non-rush hour. Operate all day on Saturday with 60-minute frequency.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Span of Service	
	Opportunities for Improvement	Efficiency-Based (Gap in Headway Standard)	
Annual Estimated Riders		133,900	
Annual Revenue Hours		14,936	

*More recommendation details can be found in the **Appendix E***

ROUTE 990—HERNDON METRO - FRANCONIA-SPRINGFIELD METRO AND VRE

Recommendation 990 - 1		**Improvement Type:** New Route	**Financial Status:** Unconstrained
Timeframe		Mid-Term	
Description		Add new cross-county connector route connecting Herndon Metrorail to Franconia-Springfield Metro/VRE Station via Fairfax County Parkway. Operate all day on weekdays with 20-minute frequency during rush hour and 30-minute frequency during non-rush hour. Potential opportunites to expand service to major employment centers along the southern portion of the route.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Faster Travel, Increased Coverage and Connectivity	
Annual Estimated Riders		309,100	
Annual Revenue Hours		21,165	

*More recommendation details can be found in the **Appendix E***

ROUTE RIBS 1—RESTON TOWN CENTER TRANSIT STATION TO WIEHLE-RESTON EAST METRO

Recommendation RIBS 1 - 2		Improvement Type: Modified Route	Financial Status: Unconstrained
Timeframe		Mid-Term	
Description		Adjust route for increased frequency on weekdays. Increase frequency to 20-minutes all day on weekdays and maintain weekend service.	
Justification	Goals	Choice, Quality, Efficiency	
	Public Priorities	Increased Frequency	
	Opportunities for Improvement	Efficiency-Based (Gap in Span Guideline)	
Annual Estimated Riders		137,100	
Annual Revenue Hours		21,510	

More recommendation details can be found in the ***Appendix E***

ROUTE RIBS 3—RESTON TOWN CENTER TRANSIT STATION TO WIEHLE-RESTON EAST METRO

Recommendation RIBS 3 - 2		Improvement Type: Modified Route	Financial Status: Unconstrained
Timeframe		Mid-Term	
Description		Adjust route for increased frequency on weekdays. Increase frequency to 20-minutes all day on weekdays and maintain weekend service.	
Justification	Goals	Choice, Quality, Efficiency	
	Public Priorities	Increased Frequency	
	Opportunities for Improvement	Efficiency-Based (Gap in Span Guideline)	
Annual Estimated Riders		151,800	
Annual Revenue Hours		21,510	

More recommendation details can be found in the ***Appendix E***

ROUTE RIBS 4—RESTON TOWN CENTER METRO TO NORTH POINT VILLAGE CENTER

Recommendation RIBS 4 - 2		Improvement Type: Modified Route	Financial Status: Unconstrained
Timeframe		Mid-Term	
Description		Adjust route for increased frequency on weekdays and weekends. Increase weekday frequency to 20 minutes during non-rush hour and weekend frequency to 30 minutes.	
Justification	Goals	Choice, Quality, Efficiency	
	Public Priorities	Increased Frequency	
	Opportunities for Improvement	Efficiency-Based (Gap in Span Guideline)	
Annual Estimated Riders		33,600	
Annual Revenue Hours		10,560	

More recommendation details can be found in the ***Appendix E***

ROUTE RIBS 5—RESTON TOWN CENTER TRANSIT STATION TO NORTH HERNDON

Recommendation RIBS 5 - 2		Improvement Type: Modified Route	Financial Status: Unconstrained
Timeframe		Mid-Term	
Description		Adjust route for increased frequency on weekdays and weekends. Increase weekday and weekend frequency to 30 minutes.	
Justification	Goals	Choice, Quality, Efficiency	
	Public Priorities	Increased Frequency	
	Opportunities for Improvement	Efficiency-Based (Gap in Span Guideline)	
Annual Estimated Riders		36,100	
Annual Revenue Hours		9,030	

More recommendation details can be found in the ***Appendix E***

Centreville, Chantilly, Vienna, and Tysons Area Service

ROUTE 306—GEORGE MASON UNIVERSITY – PENTAGON METRO STATION

Recommendation 306 - 1		Improvement Type: Modified Route	Financial Status: Unconstrained
Timeframe		Mid-Term	
Description		Adjust route for increased span of service during evenings and weekends. Operate during the midday and evening on weekdays with 60-minute frequency. Operate all day on weekends with 60-minute frequency.	
Justification	Goals	Choice, Quality, Efficiency	
	Public Priorities	Increased Span of Service	
Annual Estimated Riders		64,500	
Annual Revenue Hours		7,670	

*More recommendation details can be found in the **Appendix E***

ROUTE 463—MAPLE AVENUE - TYSONS

Recommendation 463 - 2		Improvement Type: Modified Route	Financial Status: Unconstrained
Timeframe		Long-Term	
Description		Adjust route for increased frequency and increased span of service on Sundays. Operate all day seven days a week with 20-minute frequency during rush hour and 30-minute frequency during non-rush hour and weekends.	
Justification	Goals	Choice, Quality, Efficiency	
	Public Priorities	Increased Frequency, Increased Span of Service	
Annual Estimated Riders		245,600	
Annual Revenue Hours		15,347	

*More recommendation details can be found in the **Appendix E***

ROUTE 467—DUNN LORING - TYSONS

Recommendation 467 - 1		**Improvement Type:** Modified Route	**Financial Status:** Unconstrained
Timeframe		Mid-Term	
Description		Adjust route for increased span of service on Sunday. Operate during non-rush hour during midday and evening on weekdays with 40-minute frequency. Operate all day on weekends with 40-minute frequency.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Span of Service	
Annual Estimated Riders		35,700	
Annual Revenue Hours		8,392	

More recommendation details can be found in the ***Appendix E***

ROUTE 468—VIENNA - RESTON

Recommendation 468 - 1		Improvement Type: New Route	Financial Status: Unconstrained
Timeframe		Mid-Term	
Description		Add new local route connecting Vienna and Reston via Lawyers Road and Hunter Mill Road. Operate all day on weekdays and Saturdays with 45-minute frequency.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Coverage and Connectivity	
Annual Estimated Riders		See 468 - 2	
Annual Revenue Hours		8,412	

Recommendation 468 - 2		Improvement Type: Modified Route	Financial Status: Unconstrained
Timeframe		Mid-Term	
Description		Adjust route for increased span of service on Sundays. Operate all day seven days a week with 45-minute frequency.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Span of Service	
Annual Estimated Riders		299,300	
Annual Revenue Hours		9,780	

*More recommendation details can be found in the **Appendix E***

ROUTE 610—GEORGE MASON UNIVERSITY - CENTREVILLE

Recommendation 610 - 2		**Improvement Type:** Modified Route	**Financial Status:** Unconstrained
Timeframe		Mid-Term	
Description		Adjust route for increased span of service. Extend Saturday service hours to 9:00 p.m. and add Sunday service with 60-minute frequency all day.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Span of Service	
	Opportunities for Improvement	Performance-Based (System Accessibility)	
Annual Estimated Riders		See 610 - 3	
Annual Revenue Hours		14,216	

Recommendation 610 - 3		**Improvement Type:** Modified Route	**Financial Status:** Unconstrained
Timeframe		Mid-Term	
Description		Adjust route for increased frequency on weekdays. Operate all day on weekdays with 30-minute frequency and all day on weekends with 60-minute frequency.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Frequency	
	Opportunities for Improvement	Performance-Based (System Accessibility)	
Annual Estimated Riders		337,700	
Annual Revenue Hours		15,746	

More recommendation details can be found in the ***Appendix E***

ROUTE 622—FAIRFAX TOWNE CENTER

Recommendation 622 - 2		**Improvement Type:** Modified Route	**Financial Status:** Unconstrained
Timeframe		Mid-Term	
Description		Adjust route for increased span of service on Sunday evening. Extend Sunday service by one hour.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Span of Service	
Annual Estimated Riders		22,000	
Annual Revenue Hours		1,530 (rush-hour only—see Route 651 for other times of day)	

More recommendation details can be found in the ***Appendix E***

ROUTE 625—RANDOM HILLS - PENDER DR

Recommendation 625 - 2		**Improvement Type:** Modified Route	**Financial Status:** Unconstrained
Timeframe		Long-Term	
Description		Adjust route for increased connectivity to Vienna Metrorail and increased frequency during rush hour. Operate all day on weekdays with 15-minute frequency during rush hour and 30-minute frequency during non-rush hour.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Frequency, Increased Coverage and Connectivity	
Annual Estimated Riders		56,400	
Annual Revenue Hours		6,375	

More recommendation details can be found in the ***Appendix E***

ROUTE 630—CENTREVILLE

Recommendation 630 - 2		**Improvement Type:** Modified Route	**Financial Status:** Unconstrained
Timeframe		Mid-Term	
Description		Adjust route for increased span of service on Sunday evening. Extend Sunday service by one hour.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Span of Service	
Annual Estimated Riders		176,900	
Annual Revenue Hours		15,146	

*More recommendation details can be found in the **Appendix E***

ROUTE 651—SULLYFIELD

Recommendation 651 - 2		**Improvement Type:** Modified Route	**Financial Status:** Unconstrained
Timeframe		Mid-Term	
Description		Adjust route for increased span of service on Sunday evening. Extend Sunday service by one hour.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Span of Service	
	Opportunities for Improvement	Performance-Based (System Accessibility) Efficiency-Based (Gap in Span Guideline)	
Annual Estimated Riders		82,600	
Annual Revenue Hours		14,230 (includes Route 622 non-rush hour)	

*More recommendation details can be found in the **Appendix E***

ROUTE 662—CENTREVILLE (STONE RD) PARK AND RIDE - VIENNA

Recommendation 662 - 2		**Improvement Type:** Modified Route	**Financial Status:** Unconstrained
Timeframe		Mid-Term	
Description		Adjust route for increased span of service on Sunday evening. Extend Sunday service by one hour.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Span of Service	
Annual Estimated Riders		12,900	
Annual Revenue Hours		8,365	

*More recommendation details can be found in the **Appendix E***

ROUTE 670—CHANTILLY - FRANCONIA

Recommendation 670 - 2		**Improvement Type:** Modified Route	**Financial Status:** Unconstrained
Timeframe		Mid-Term	
Description		Adjust route for increased span of service on weekday evenings. Extend weekday service by one hour.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Span of Service	
Annual Estimated Riders		151,700	
Annual Revenue Hours		8,955	

*More recommendation details can be found in the **Appendix E***

ROUTE 671—CHANTILLY - DUNN LORING

Recommendation 671 - 2		Improvement Type: Modified Route	Financial Status: Unconstrained
Timeframe		Mid-Term	
Description		Adjust route for increased span of service on weekday evenings. Extend weekday service by one hour.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Span of Service	
Annual Estimated Riders		146,100	
Annual Revenue Hours		9,165	

More recommendation details can be found in the ***Appendix E***

ROUTE 672—CHANTILLY - VIENNA – DUNN LORING

Recommendation 672 - 2		Improvement Type: Modified Route	Financial Status: Unconstrained
Timeframe		Mid-Term	
Description		Adjust route for increased span of service on Sunday evening. Extend Sunday service by one hour.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Span of Service	
Annual Estimated Riders		100,700	
Annual Revenue Hours		13,130	

More recommendation details can be found in the ***Appendix E***

ROUTE 681—MANASSAS - MONUMENT DR

Recommendation 681 - 1		**Improvement Type:** New Route	**Financial Status:** Unconstrained
Timeframe		Mid-Term	
Description		Add new local route connecting Manassas and Monument Drive Park and Ride via Centreville Road/Route 28 and I-66. Operate all day on weekdays with 30-minute frequency during rush-hour and 60-minute frequency during non-rush hour. Operate all day on Saturday with 60-minute frequency.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Coverage and Connectivity	
Annual Estimated Riders		33,400	
Annual Revenue Hours		10,272	

More recommendation details can be found in the ***Appendix E***

ROUTE 696—STRINGFELLOW - NAVY YARD

Recommendation 696 - 1		**Improvement Type:** New Route	**Financial Status:** Unconstrained
Timeframe		Mid-Term	
Description		Add new express route connecting Stringfellow Road Park and Ride and Navy Yard via I-66. Operate weekdays with 20-minute frequency during rush hour.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Coverage and Connectivity	
Annual Estimated Riders		99,500	
Annual Revenue Hours		9,000	

More recommendation details can be found in the ***Appendix E***

ROUTE 715—EAST FALLS CHURCH - LANGLEY

Recommendation 715 - 1		**Improvement Type:** Modified Route	**Financial Status:** Unconstrained
Timeframe		Long-Term	
Description		Adjust route for increased span of service. Operate all day on weekdays with 30-minute frequency.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Span of Service	
Annual Estimated Riders		108,600	
Annual Revenue Hours		6,630	

*More recommendation details can be found in the **Appendix E***

MICROTRANSIT SERVICE—GREAT FALLS

Recommendation DRT - 2		**Improvement Type:** New Route	**Financial Status:** Unconstrained
Timeframe		Long-Term	
Description		Add new on-demand microtransit service in the Great Falls area north of Reston connecting trips to Metrorail stations in Reston and Herndon. Operate all day on weekends.	
Justification	**Goals**	Choice, Quality	
	Public Priorities	Increased Frequency, Faster Travel, Increased Coverage and Connectivity	
Annual Estimated Riders		Further Study Required	
Annual Revenue Hours		5,690	

*More recommendation details can be found in the **Appendix E***

Franconia, Springfield, and Huntington Area Service

ROUTE 101—HUNTINGTON METRO (NORTH) - MT. VERNON

Recommendation 101 - 2		Improvement Type: Modified Route	Financial Status: Unconstrained
Timeframe		Long-Term	
Description		Adjust route to restore connection to George Washington's Mt. Vernon when Richmond Highway BRT begins service.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Coverage and Connectivity	
Annual Estimated Riders		135,100	
Annual Revenue Hours		26,558 (Routes 101 and 109)	

More recommendation details can be found in the ***Appendix E***

ROUTE 109—ROSE HILL

Recommendation 109 - 2		Improvement Type: Modified Route	Financial Status: Unconstrained
Timeframe		Long-Term	
Description		Adjust route for increased frequency on weekends. Operate all day seven days a week with 30-minute frequency.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Frequency	
	Opportunities for Improvement	Efficiency-Based (Gap in Span Guideline)	
Annual Estimated Riders		98,900	
Annual Revenue Hours		26,558 (Routes 101 and 109)	

More recommendation details can be found in the ***Appendix E***

ROUTE 163—HUNTINGTON METRO (SOUTH) - INOVA MT. VERNON HOSPITAL

Recommendation 163 – 2		Improvement Type: Modified Route	Financial Status: Unconstrained
Timeframe		Long-Term	
Description		Adjust route for increased span of service on weekdays from 4:00 a.m. to midnight.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Span of Service	
Annual Estimated Riders		137,300	
Annual Revenue Hours		17,622	

More recommendation details can be found in the ***Appendix E***

ROUTE 164—HUNTINGTON METRO (SOUTH) - MT. VERNON

Recommendation 164 - 2		Improvement Type: Modified Route	Financial Status: Unconstrained
Timeframe		Long-Term	
Description		Adjust route for increased frequency on weekdays. Operate all day seven days a week with 30-minute frequency during rush hour and 60-minute frequency during non-rush hour and weekends.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Frequency,	
Annual Estimated Riders		103,000	
Annual Revenue Hours		13,529	

More recommendation details can be found in the ***Appendix E***

ROUTE 171—HUNTINGTON METRO (NORTH) - LORTON VRE

Recommendation 171 - 1		Improvement Type: Modified Route	Financial Status: Unconstrained
Timeframe		Mid-Term	
Description		Adjust route for increased frequency on weekdays. Operate all day seven days a week with 20-minute frequency on weekdays and 30-minute frequency on weekends.	
Justification	Goals	Choice, Quality, Efficiency	
	Public Priorities	Increased Frequency	
Annual Estimated Riders		938,600	
Annual Revenue Hours		42,662	

*More recommendation details can be found in the **Appendix E***

ROUTE 172—FORT BELVOIR - LORTON VRE

Recommendation 172 - 1		Improvement Type: New Route	Financial Status: Unconstrained
Timeframe		Mid-Term	
Description		Add new local route connecting Fort Belvoir to Lorton VRE Station. Operate all day seven days a week with 20-minute frequency during rush hour and 35-minute frequency during non-rush hour and weekends.	
Justification	Goals	Choice, Quality, Efficiency	
	Public Priorities	Increased Coverage and Connectivity	
Annual Estimated Riders		162,500	
Annual Revenue Hours		17,000	

*More recommendation details can be found in the **Appendix E***

ROUTE 231—FRANCONIA-SPRINGFIELD METRO AND VRE TO VAN DORN ST METRO

Recommendation 231 – 2		**Improvement Type:** Modified Route	**Financial Status:** Unconstrained
Timeframe		Long-Term	
Description		Adjust route to restore bidrectional connection to Kingstowne, Kingstowne Village Parkway, and Island Creek as Routes 231 and 232 and increased span or service. Operate on weekdays with 30-minute frequency during rush hour in a counter-clockwise loop.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Span of Service, Increased Coverage and Connectivity	
Annual Estimated Riders		28,600	
Annual Revenue Hours		7,268 (Routes 231 and 232)	

*More recommendation details can be found in the **Appendix E***

ROUTE 301—HUNTINGTON METRO (NORTH) TO FRANCONIA-SPRINGFIELD METRO AND VRE

Recommendation 301 – 2		**Improvement Type:** Modified Route	**Financial Status:** Unconstrained
Timeframe		Long-Term	
Description		Adjust route for increased frequency on weekdays with 30-minute frequency during rush hour.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Frequency	
	Opportunities for Improvement	Performance-Based (Cost Efficiency) Efficiency-Based (Gap in Span Guideline)	
Annual Estimated Riders		28,800	
Annual Revenue Hours		9,180 (Routes 301 and 305)	

*More recommendation details can be found in the **Appendix E***

ROUTE 305—SILVERBROOK RD AND LAUREL CREST DR TO FRANCONIA-SPRINGFIELD METRO AND VRE

Recommendation 305 - 2		**Improvement Type:** Modified Route	**Financial Status:** Unconstrained
Timeframe		Long-Term	
Description		Adjust route for increased frequency on weekdays with 30-minute frequency during rush hour.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Frequency	
	Opportunities for Improvement	Performance-Based (Ridership, Reliability, Cost Efficiency)	
Annual Estimated Riders		18,400	
Annual Revenue Hours		9,180 (Routes 301 and 305)	

*More recommendation details can be found in the **Appendix E***

ROUTE 308—FRANCONIA-SPRINGFIELD METRO AND VRE TO INOVA MT. VERNON HOSPITAL

Recommendation 308 - 1		**Improvement Type:** Modified Route	**Financial Status:** Unconstrained
Timeframe		Mid-Term	
Description		Adjust route to add service on Sunday. Operate all day on weekdays with 30-minute frequency during rush hour and 40-minute frequency during non-rush hour. Operate all day on weekends with 45-minute frequency	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Span of Service	
Annual Estimated Riders		87,500	
Annual Revenue Hours		13,280	

*More recommendation details can be found in the **Appendix E***

ROUTE 310—ROLLING VALLEY PARK AND RIDE TO HUNTINGTON METRO (SOUTH)

Recommendation 310 - 2		Improvement Type: Modified Route	Financial Status: Unconstrained
Timeframe		Mid-Term	
Description		Adjust route for increased span of service on Saturday and shift to the south side of the Huntington Metrorail station. Operate all day on weekdays with 15-minute frequency during rush hour and 25-minute frequency during non-rush hour. Operate all day on Saturday with 25-minute frequency and until 1:00 a.m. Operate all-day on Sunday with 30-minute frequency.	
Justification	Goals	Choice, Quality, Efficiency	
	Public Priorities	Increased Span of Service	
Annual Estimated Riders		541,700	
Annual Revenue Hours		37,768	

More recommendation details can be found in the ***Appendix E***

ROUTE 313—HUNTINGTON METRO - FAIR OAKS MALL

Recommendation 313 - 2		Improvement Type: Modified Route	Financial Status: Unconstrained
Timeframe		Mid-Term	
Description		Adjust route to extend from Franconia-Springfield Metrorail and VRE station to Huntington Metrorail station via Franconia Road, add service on Sunday. Maintain weekday and Saturday service, and operate on Sunday all day with 60-minute frequency.	
Justification	Goals	Choice, Quality, Efficiency	
	Public Priorities	Increased Coverage and Connectivity, Increased Span of Service	
Annual Estimated Riders		466,900	
Annual Revenue Hours		22,690	

More recommendation details can be found in the ***Appendix E***

ROUTE 315—GEORGE MASON UNIVERSITY - FRANCONIA-SPRINGFIELD METRO AND VRE

Recommendation 315 - 1		**Improvement Type:** New Route	**Financial Status:** Unconstrained
Timeframe		Long-Term	
Description		Add new local route connecting George Mason University and Franconia-Springfield Metrorail and VRE station via Braddock Road, Rolling Road, and Franconia-Springfield Parkway. Operate all day on weekdays and Saturday with 30-minute frequency during rush hour and 60-minute frequency during non-rush hour and Saturday.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Faster Travel, Increased Coverage and Connectivity	
Annual Estimated Riders		153,000	
Annual Revenue Hours		13,724	

More recommendation details can be found in the ***Appendix E***

ROUTE 321—FRANCONIA-SPRINGFIELD METRO AND VRE TO VAN DORN ST METRO

Recommendation 321 - 2		**Improvement Type:** Modified Route	**Financial Status:** Unconstrained
Timeframe		Mid-Term	
Description		Adjust route for more direct service, increased frequency, and increased span of service on weekdays. Operate between Van Dorn and Franconia-Springfield Metrorail stations via Backlick Road with bidirectional service, effectively providing a combined frequency of 10 to 15 minutes with Route 322 between Springfield CBC Commuter Parking Garage and Springfield Metrorail station. Extend weekday service hours to 1:00 a.m.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Frequency, Increased Span of Service	
Annual Estimated Riders		281,300	
Annual Revenue Hours		29,735	

More recommendation details can be found in the ***Appendix E***

ROUTE 322—FRANCONIA-SPRINGFIELD METRO AND VRE TO VAN DORN ST METRO

Recommendation 322 – 2		**Improvement Type:** Modified Route	**Financial Status:** Unconstrained
Timeframe		Mid-Term	
Description		Adjust route for more direct service, increased frequency, and increased span of service on weekdays. Operate between Van Dorn Metrorail station and Springfield CBC Commuter Parking Garage via Kingstowne with bidirectional service, effectively providing a combined frequency of 10 to 15 minutes with Route 321 between Springfield CBC Commuter Parking Garage and Springfield Metrorail station. Extend weekday service hours to 1:00 a.m.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Frequency, Increased Span of Service	
Annual Estimated Riders		206,200	
Annual Revenue Hours		22,677	
*More recommendation details can be found in the **Appendix E***			

ROUTE 334—FRANCONIA-SPRINGFIELD METRO AND VRE TO DEFENSE LOGISTICS AGENCY

Recommendation 334 – 2		**Improvement Type:** Modified Route	**Financial Status:** Unconstrained
Timeframe		Long-Term	
Description		Adjust route for increased frequency on weekdays and add weekend service. Increase weekday frequency to 45 minutes during non-rush hour. Operate with 60-minute frequency on Saturday and Sunday.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Frequency	
	Opportunities for Improvement	Performance-Based (Ridership, Reliability, Cost Efficiency)	
Annual Estimated Riders		17,100	
Annual Revenue Hours		7,560	
*More recommendation details can be found in the **Appendix E***			

ROUTE 335—FRANCONIA-SPRINGFIELD METRO AND VRE TO FORT BELVOIR

Recommendation 335 - 1		**Improvement Type:** Modified Route	**Financial Status:** Unconstrained
Timeframe		Mid-Term	
Description		Adjust route for increased frequency on weekdays. Operate on weekdays with 20-minute frequency during rush hour.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Frequency	
Annual Estimated Riders		29,600	
Annual Revenue Hours		6,120	

*More recommendation details can be found in the **Appendix E***

ROUTE 400X—TYSONS CORNER METRO TO FRANCONIA-SPRINGFIELD METRO AND VRE

Recommendation 400X - 1		**Improvement Type:** New Route	**Financial Status:** Unconstrained
Timeframe		Mid-Term	
Description		Add new express limited-stop route connecting Tysons Corner Metrorail to Franconia-Springfield Metrorail and VRE station via Dunn Loring Metrorail station, INOVA Fairfax Hospital, Annandale, and Backlick Road alongside Route 401/402. Operate on weekdays with 20-minute frequency during rush hour.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Faster Travel	
Annual Estimated Riders		See 400X - 3	
Annual Revenue Hours		10,710	

Recommendation 400X - 2		**Improvement Type:** Modified Route	**Financial Status:** Unconstrained
Timeframe		Mid-Term	
Description		Adjust route for increased span of service on weekdays. Operate all day on weekdays with 20-minute frequency during rush hour and 30-minute frequency during non-rush hour.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Span of Service, Faster Travel	
Annual Estimated Riders		See 400X - 3	
Annual Revenue Hours		21,586	

Recommendation 400X - 3		**Improvement Type:** Modified Route	**Financial Status:** Unconstrained
Timeframe		Mid-Term	
Description		Adjust route for increased span of service on weekends. Operate all day seven days a week with 20-minute frequency during rush hour and 30-minute frequency during non-rush hour and weekends.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Span of Service, Faster Travel	
Annual Estimated Riders		312,200	
Annual Revenue Hours		23,282	

*More recommendation details can be found in the **Appendix E***

ROUTE 494—HUNTINGTON METRO TO TYSONS GALLERIA SHOPPING CENTER

Recommendation 494 - 2		**Improvement Type**: Modified Route	**Financial Status**: Unconstrained
Timeframe		Mid-Term	
Description		Adjust route to extend from Franconia-Springfield Metrorail and VRE station to Huntington Metrorail station via I-495. Operate on weekdays with 15-minute frequency during rush hour and 60-minute frequency during non-rush hour.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Coverage and Connectivity, Increased Frequency, Faster Travel	
	Opportunities for Improvement	Performance-Based (Ridership, Reliability, Cost Efficiency) Efficiency-Based (Gap in Span Guideline)	
Annual Estimated Riders		78,300	
Annual Revenue Hours		13,529	

*More recommendation details can be found in **Appendix E.***

ROUTE 495—BURKE CENTER VRE TO TYSONS GALLERIA SHOPPING CENTER

Recommendation 495 - 2		**Improvement Type:** Modified Route	**Financial Status:** Unconstrained
Timeframe		Mid-Term	
Description		Adjust route for increased span of service and frequency to restore existing level of service. Operate on weekdays with 25-minute frequency during rush hour and 90-minute frequency during non-rush hour.	
Justification	**Goals**	Choice, Quality, Efficiency	
	Public Priorities	Increased Frequency, Increased Span of Service	
	Opportunities for Improvement	Performance-Based (Ridership, Reliability, Cost Efficiency)	
Annual Estimated Riders		27,000	
Annual Revenue Hours		6,538	

*More recommendation details can be found in the **Appendix E***

Appendix D
System Maps

This appendix contains several system maps for the planned service improvements. First, maps of the financially constrained and financially unconstrained plans are shown. Routes are color-coded:

- **Green**: Represents a new bus route. In the financially constrained plan, these routes will be implemented by adjusting other routes to reallocate resources. In the financially unconstrained plan, new funding will be needed to implement the service.
- **Blue (Unconstrained only)**: Represents an existing bus route or a new bus route implemented in the financially constrained plan that could be further improved (e.g., increased frequency, longer span of service) if additional funding was available.
- **Orange**: Represents an existing or new bus route that is dependent on continued funding through grants from a funding partner for service. The Richmond Highway Bus Rapid Transit (RH BRT) is also included in this category.
- **Purple**: Represents an existing route that will be improved with existing funding levels.
- **Gray:** Represents no change to the existing route.
- **White:** Represents an existing Washington Metropolitan Area Transit Authority (WMATA) Metrobus route or City of Fairfax CUE bus route.

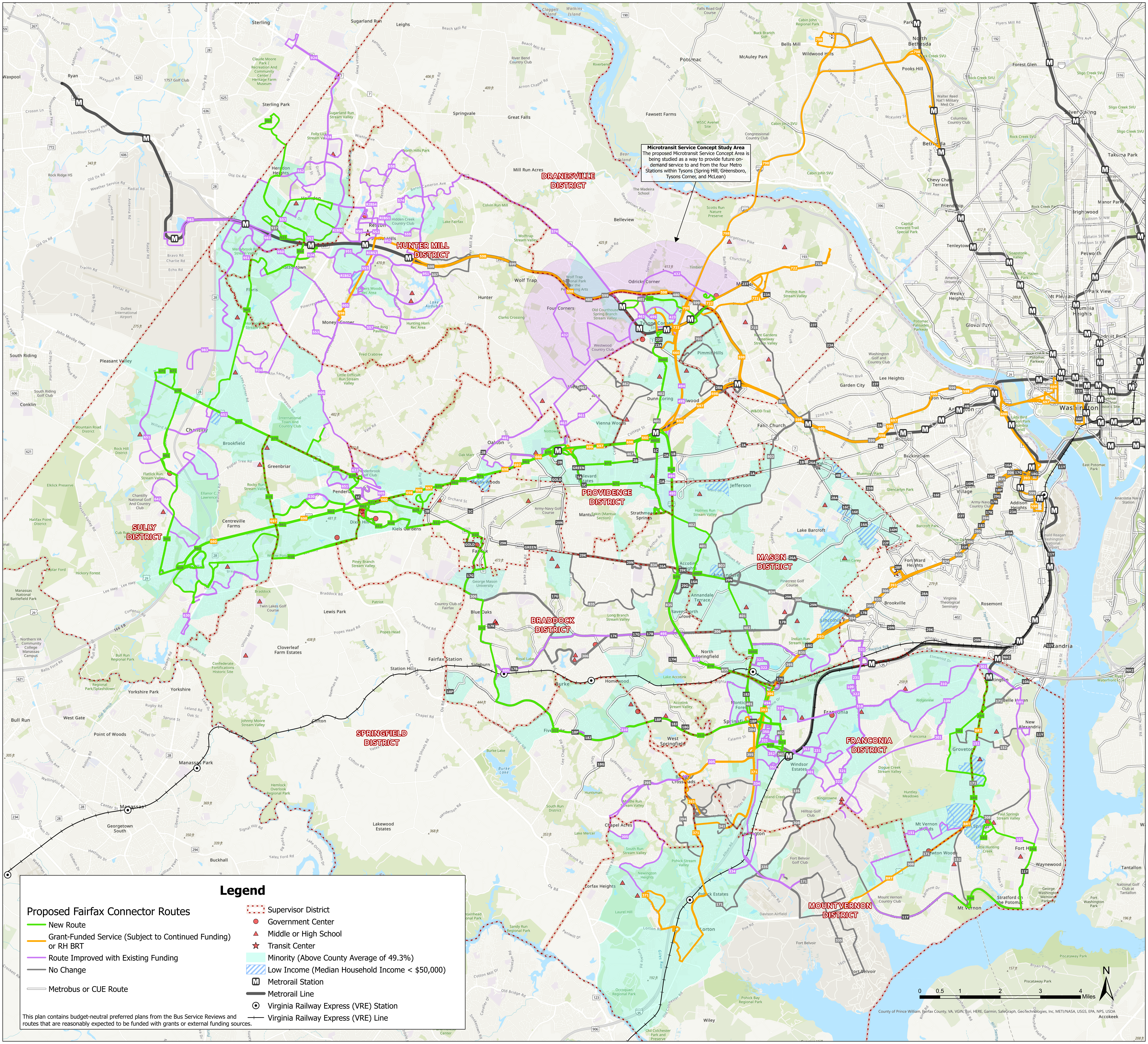
Next, a set of maps is included that represents the peak frequency of routes in the financially constrained and financially unconstrained plans.

Additionally, a set of maps is provided for each subarea of Fairfax County that show routes that operate on the same roadways offset from one another for ease of viewing. These are provided for both financially constrained (short-term) and financially unconstrained (long-term) plans.

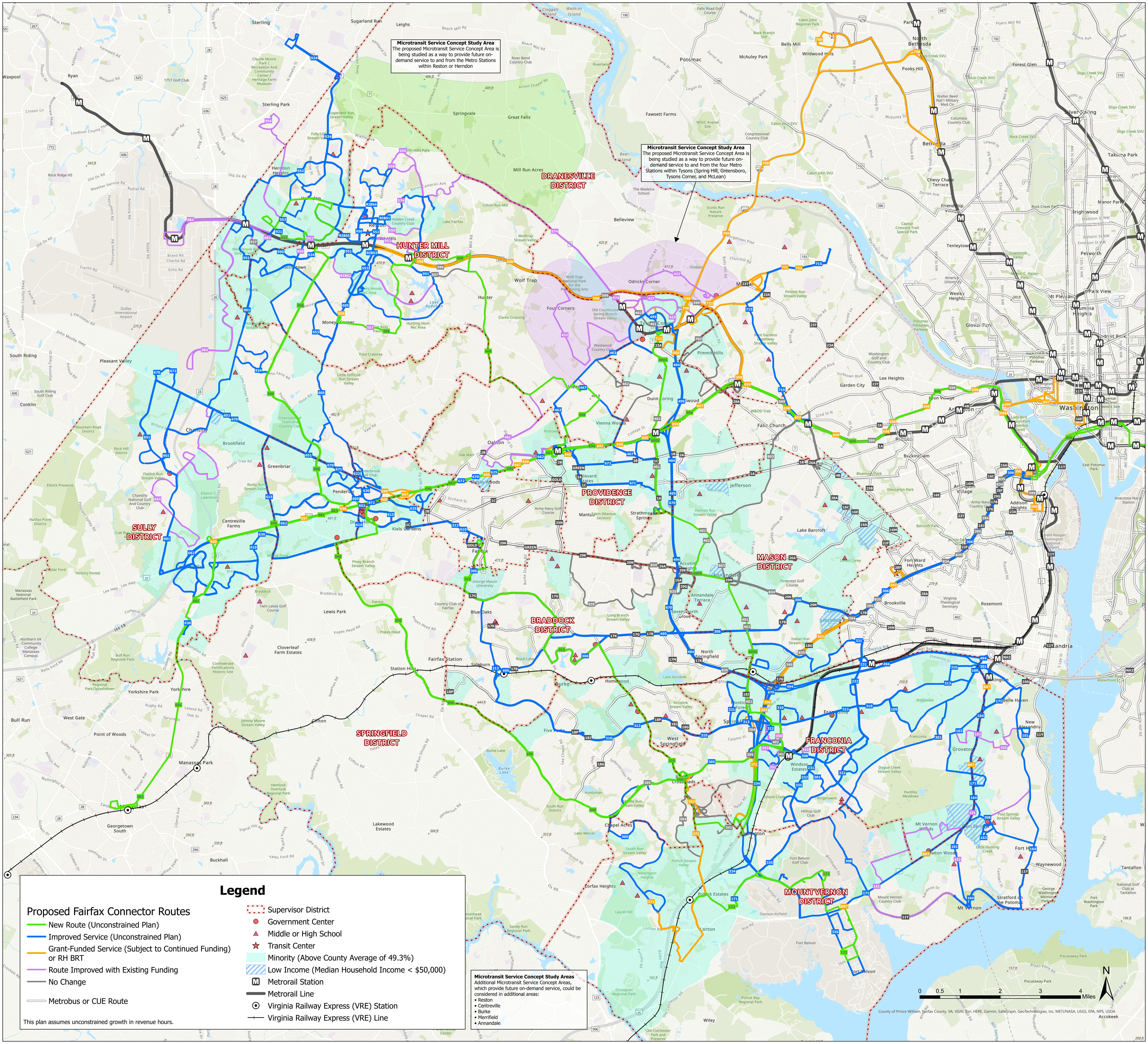
Beginning in 2022, WMATA undertook a redesign of its entire Metrobus network through the Better Bus Network Redesign project. From March to June 2023, WMATA collected feedback on the draft Visionary Network. The Visionary Network shows the possibility of what kind of service could be run in the region to serve the most people, with additional resources and upgraded infrastructure. Revisions to the draft Visionary Network are expected in 2023 using public, stakeholder, and bus operator input. Additionally, a short-term network will be developed that WMATA could begin implementing in 2025.

While it in is a *draft* state and subject to change, the draft Visionary Network shared with the public in March 2023 is included in this appendix to represent the then-current thinking of a potential future Metrobus network in Fairfax County and is subject to change. FCDOT will continue to participate in WMATA's project as a stakeholder. Given the uncertainty of the changes to the regional network while developing the TSP, improvements to Metrobus or networks of other operators as a result of the Better Bus Network Redesign project will be incorporated into future annual updates of the TSP.

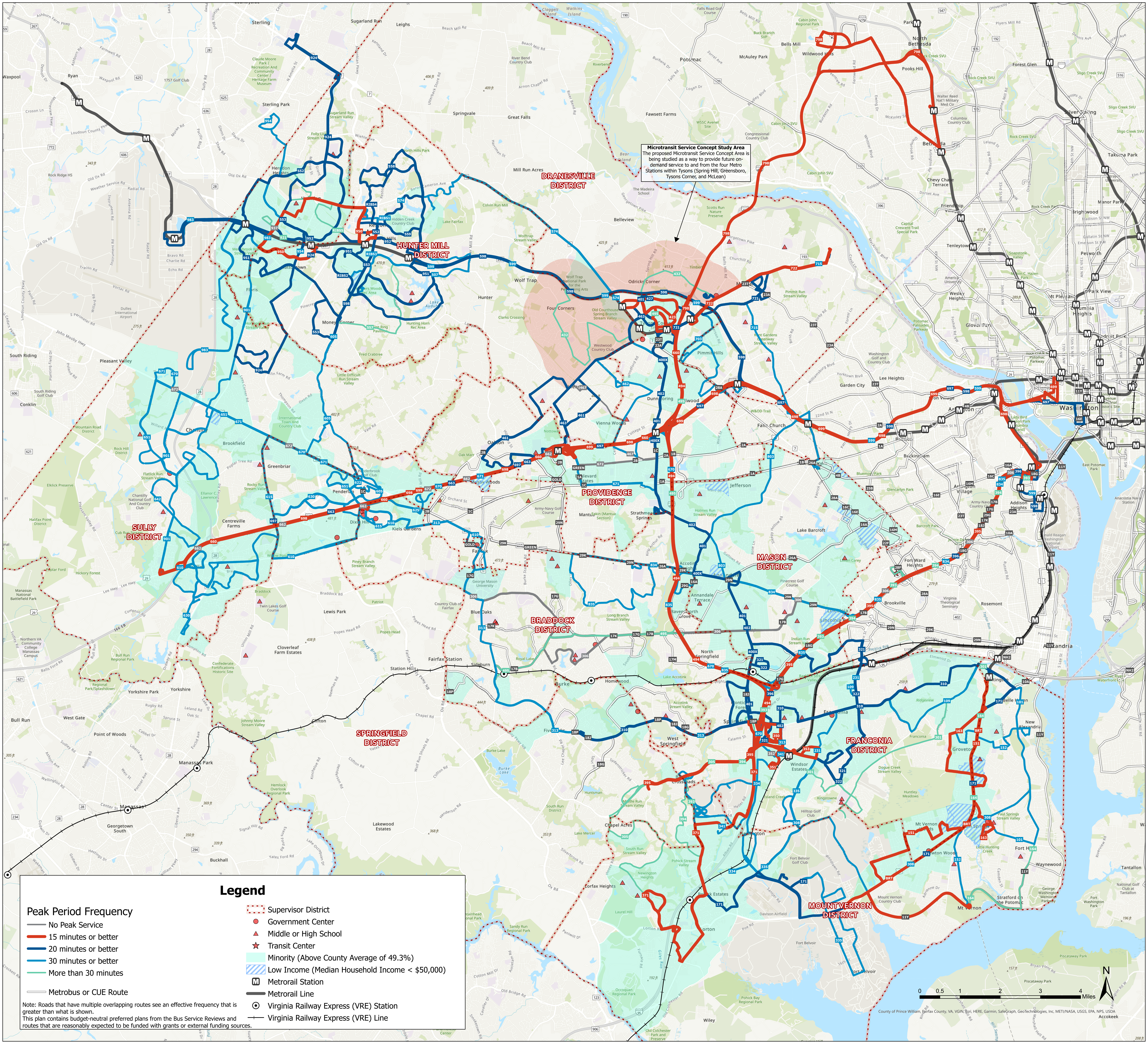
Transit Strategic Plan — Constrained Plan



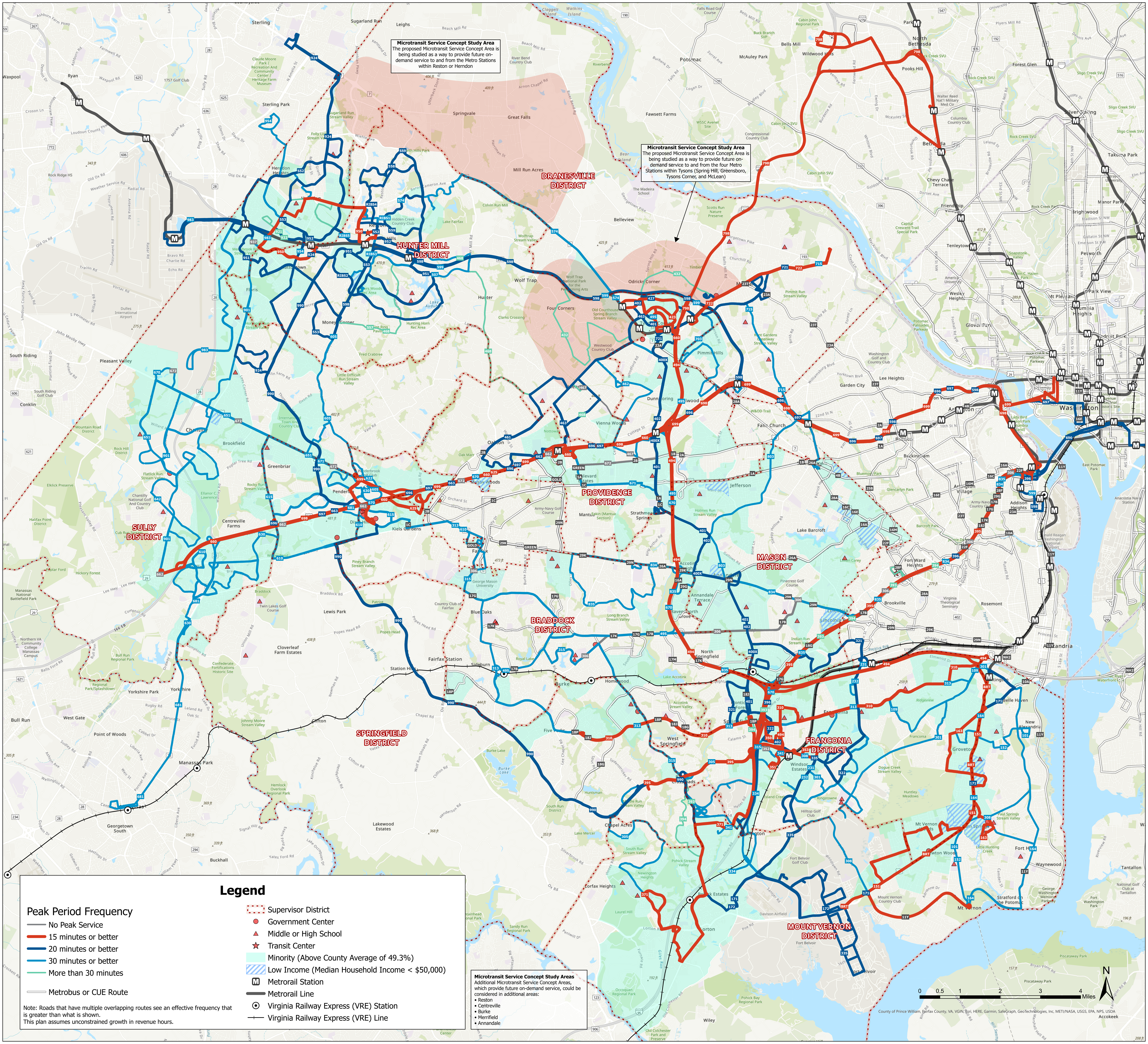
Transit Strategic Plan — Unconstrained Plan



Transit Strategic Plan — Constrained Plan — Peak Frequency



Transit Strategic Plan — Unconstrained Plan — Peak Frequency

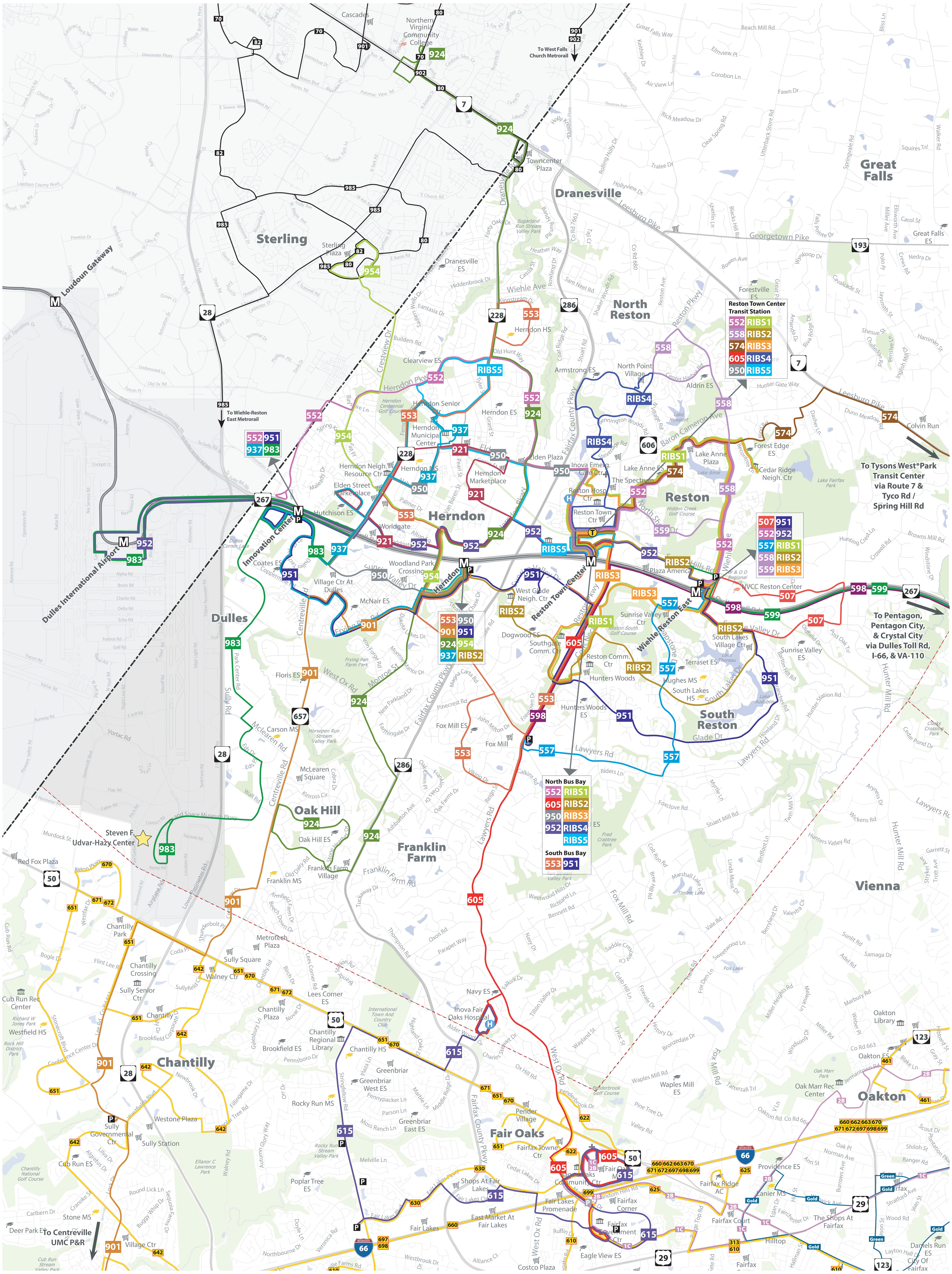


Transit Strategic Plan – Short-Term

RESTON AND HERNDON AREA

FAIRFAX CONNECTOR

COUNTY OF FAIRFAX 1742 VIRGINIA



Proposed Fairfax Connector Routes

507, 559, 615, 950, RIBS 1
552, 574, 901, 951, RIBS 2
553, 598, 921, 952, RIBS 3
557, 599, 924, 954, RIBS 4
558, 605, 937, 983, RIBS 5

Additional Transit Service

- 630 — Other Fairfax Connector Routes
- 1C — Metrobus Routes
- Gold — City of Fairfax CUE Routes
- 70 — Loudoun County Transit Routes

Metrorail

- Silver Line
- M — Metrorail Station

Points of Interest

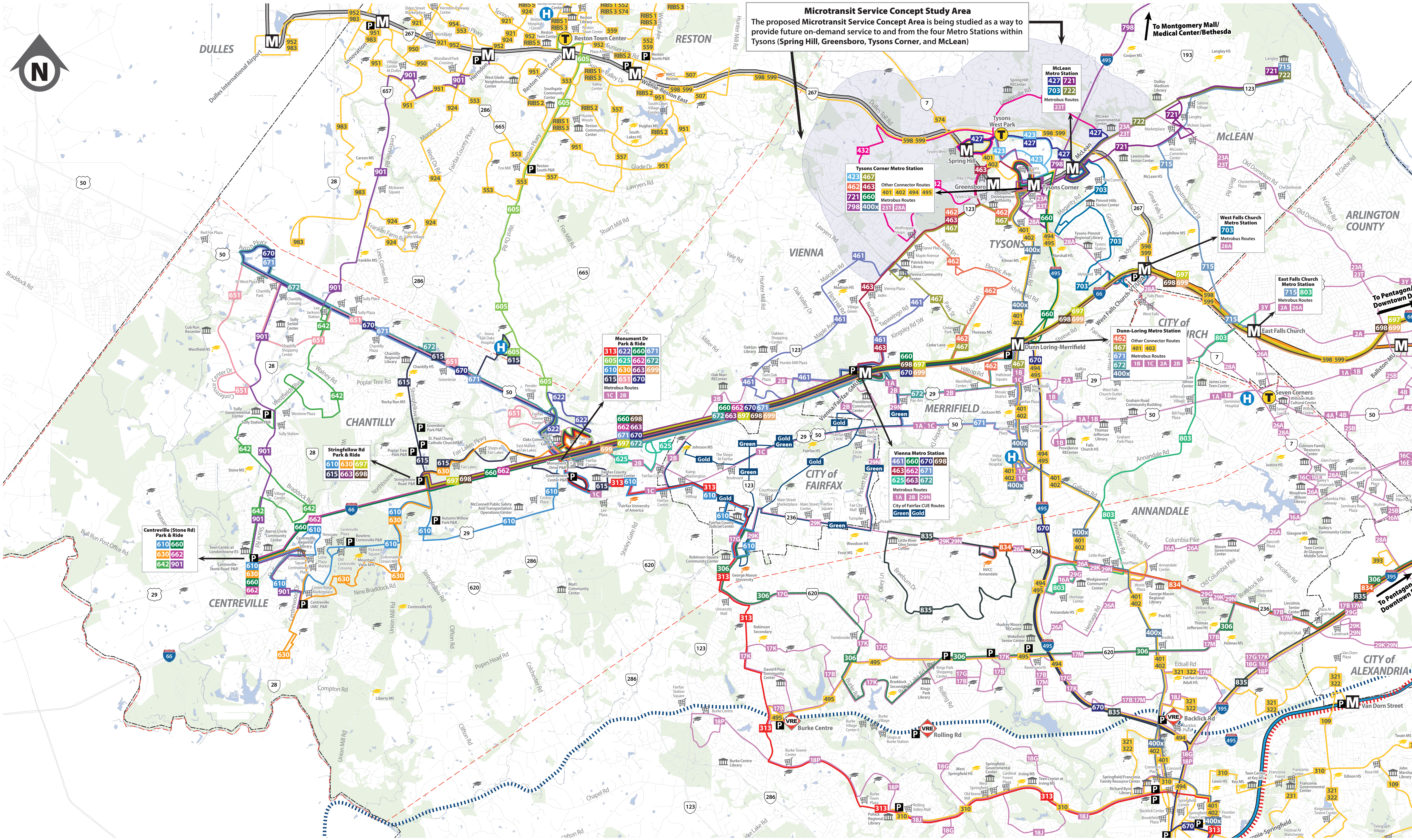
- P — Park & Ride
- P — Park & Ride (Planned)
- T — Transit Center
- Government/Library/Community Center
- Shopping Center
- H — Hospital
- Middle School/High School
- College/University
- Other School

Boundaries

- Study Area
- County

Transit Strategic Plan – Short-Term

CENTREVILLE, CHANTILLY, VIENNA, AND TYSONS AREA



Proposed Fairfax Connector Routes

306, 313, 423, 427, 432, 461, 462, 463, 467, 605, 610, 615, 622, 625, 630, 642, 651, 660, 662, 663, 670, 671, 672, 697, 698, 699, 703, 715, 721, 722, 798, 803, 834, 835, 901, 400x*

Additional Transit Service

- 109 Other Fairfax Connector Routes
- 1A Metrobus Routes
- Gold City of Fairfax CUE Routes

**Depending on available funding, an express limited-stop version of the 401/402 route, the 400X, may be implemented in the short-term.*

Metrorail

- Blue Line
- Orange Line
- Silver Line
- M Metrorail Station

Virginia Railway Express (VRE)

- Manassas Line
- Fredericksburg Line
- VRE Station

Points of Interest

- P Park & Ride
- P Park & Ride (Planned)
- T Transit Center
- Government/Library/Community Center
- Shopping Center
- H Hospital
- Middle School/High School
- College/University

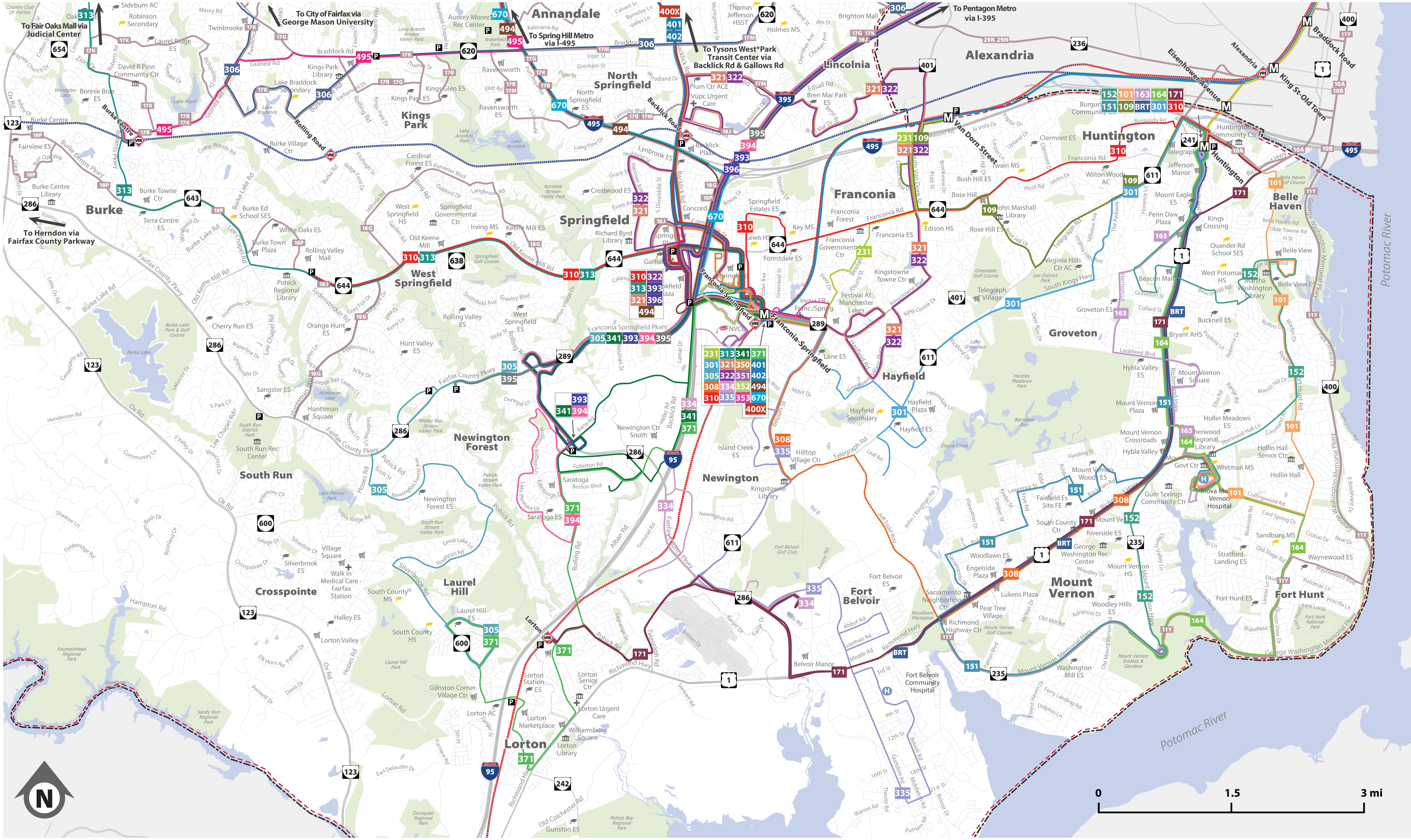
Boundaries

- Study Area
- County
- Microtransit Service Concept Study Area

Approximate scale in miles. 0 1 2 4

Transit Strategic Plan – Short-Term

FRANCONIA, SPRINGFIELD, AND HUNTINGTON AREA



Proposed Fairfax Connector Routes

101, 109, 151, 152, 163, 164, 171, 231, 301, 305, 306, 308, 310, 313, 321, 322, 334, 335, 341, 350, 351, 352, 353, 371, 393, 394, 395, 396, 401*, 402*, 494, 495, 670, BRT, 400x*

Additional Transit Service

109 Other Fairfax Connector Routes

1A Metrobus Routes

**Depending on available funding, an express limited-stop version of the 401/402 route, the 400X, may be implemented in the short-term.*

Metrorail

Blue Line

Yellow Line

M Metrorail Station

Virginia Railway Express (VRE)

Manassas Line

Fredericksburg Line

VRE Station

Points of Interest

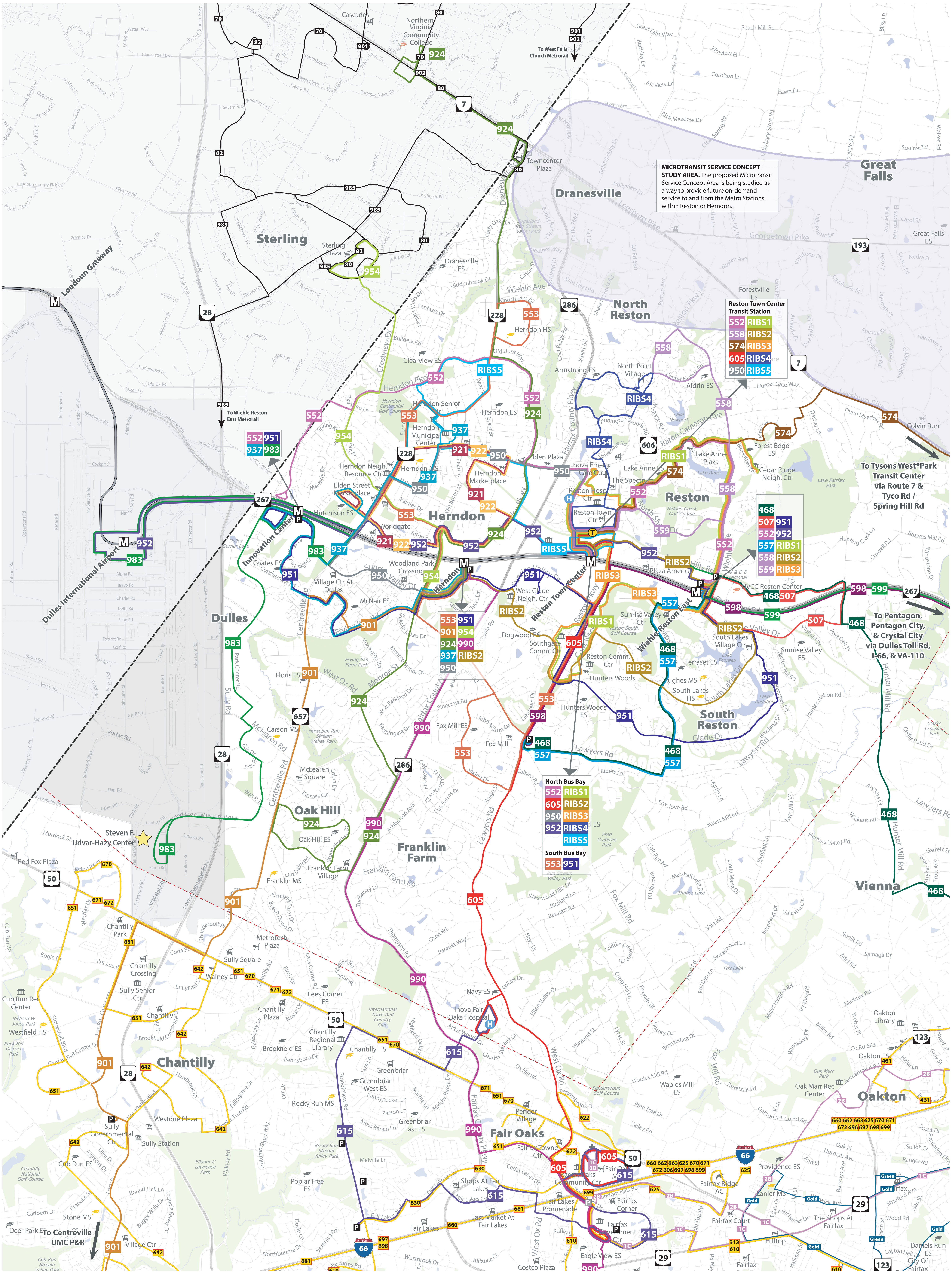
- P Park & Ride
- P Park & Ride (Planned)
- T Transit Center
- Government/Library/Community Center
- Shopping Center
- H Hospital
- Middle School/High School
- College/University

Boundaries

- Study Area
- County

Transit Strategic Plan – Long-Term

RESTON AND HERNDON AREA



Proposed Fairfax Connector Routes

468, 507, 552, 553, 557, 558, 559, 574, 598, 599, 605, 615, 901, 921, 922, 924, 937, 950, 951, 952, 954, 983, 990, RIBS 1, RIBS 2, RIBS 3, RIBS 4, RIBS 5

Additional Transit Service

- 630 Other Fairfax Connector Routes
- 1C Metrobus Routes
- Gold City of Fairfax CUE Routes
- 70 Loudoun County Transit Routes

Metrorail

- Silver Line
- M Metrorail Station

Points of Interest

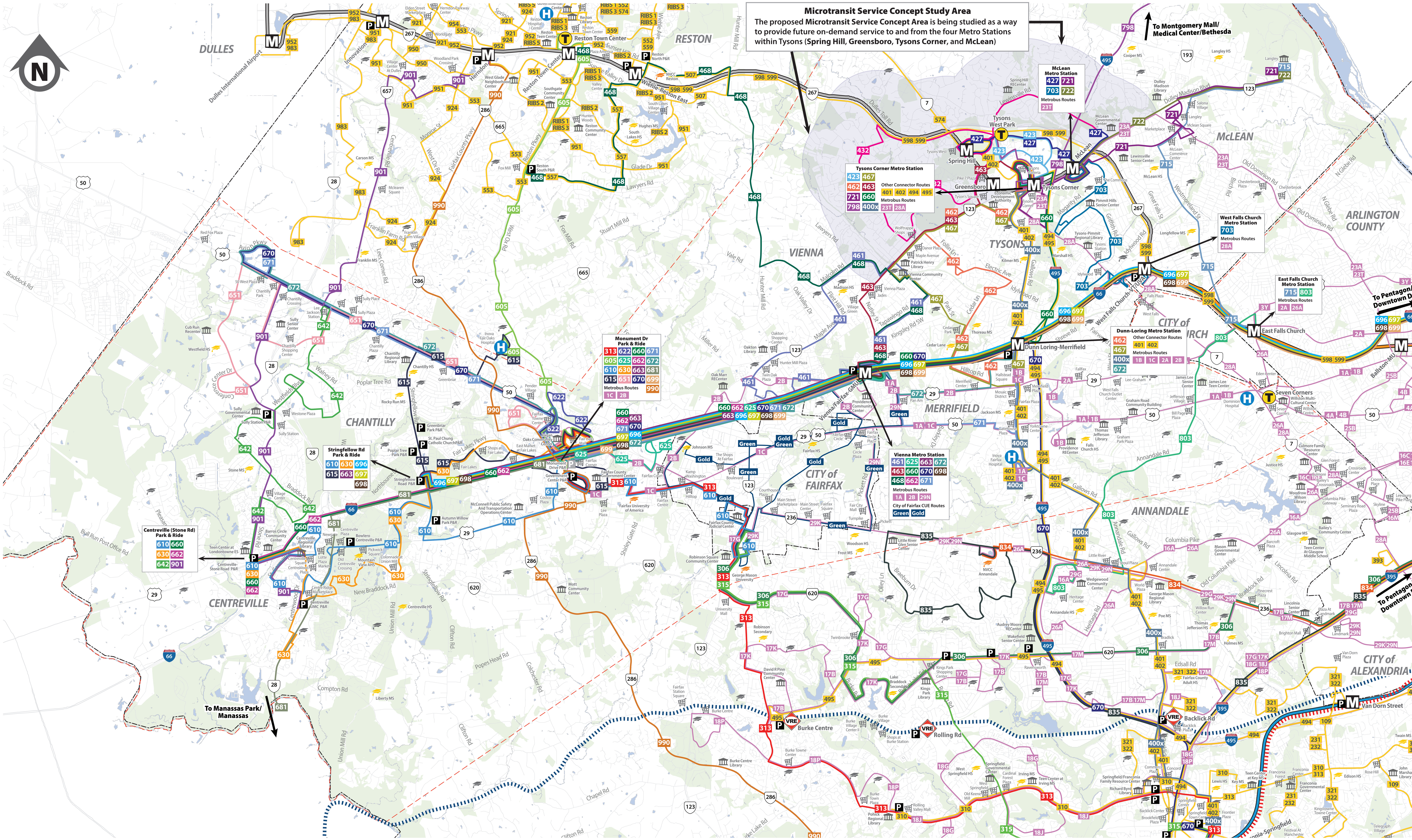
- P Park & Ride
- P Park & Ride (Planned)
- T Transit Center
- Government/Library/Community Center
- Shopping Center
- H Hospital
- Middle School/High School
- College/University
- Other School

Boundaries

- Study Area
- County
- Microtransit Service Concept Study Area

Transit Strategic Plan – Long-Term

CENTREVILLE, CHANTILLY, VIENNA, AND TYSONS AREA



Proposed Fairfax Connector Routes

306, 313, 315, 423, 427, 432, 461, 462, 463, 467, 468, 605, 610, 615, 622, 625, 630, 642, 651, 660, 662, 663, 670, 671, 672, 681, 696, 697, 698, 699, 703, 715, 721, 722, 798, 803, 834, 835, 901, 990, 400x

Additional Transit Service

- 109 Other Fairfax Connector Routes
- 1A Metrobus Routes
- Gold City of Fairfax CUE Routes

Metrorail

- Blue Line
- Orange Line
- Silver Line
- M Metrorail Station

Virginia Railway Express (VRE)

- Manassas Line
- Fredericksburg Line
- VRE Station

Points of Interest

- P Park & Ride
- P Park & Ride (Planned)
- T Transit Center
- Government/Library/Community Center
- Shopping Center
- H Hospital
- Middle School/High School
- College/University

Boundaries

- Study Area
- County
- Microtransit Service Concept Study Area

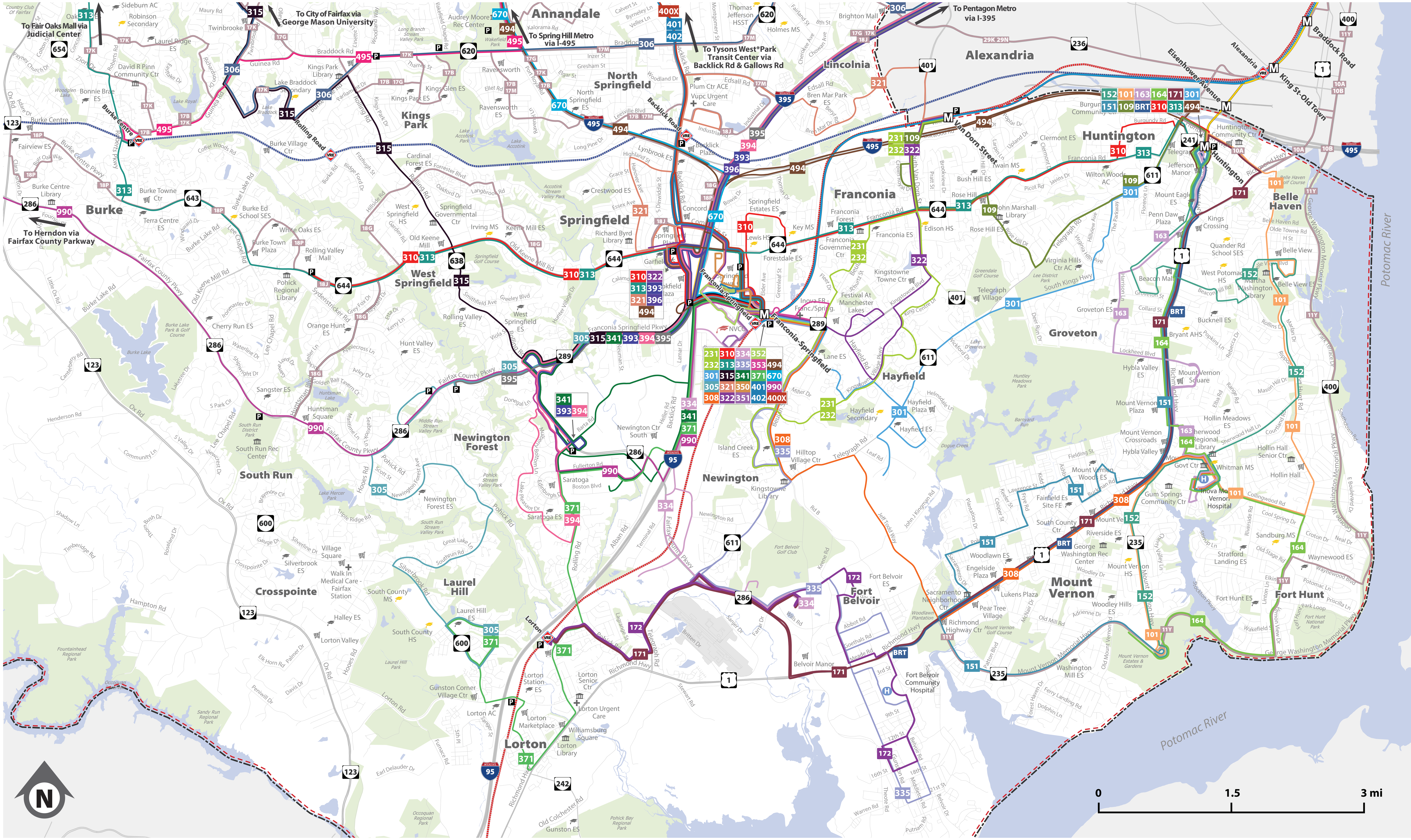
Approximate scale in miles. 0 1 2 4

Transit Strategic Plan – Long-Term

FRANCONIA, SPRINGFIELD, AND HUNTINGTON AREA

FAIRFAX CONNECTOR

COUNTY OF FAIRFAX 1742 VIRGINIA



Proposed Fairfax Connector Routes

101	171	306	322	352	396	670
109	172	308	334	353	400X	990
151	231	310	335	371	401	BRT
152	232	313	341	393	402	
163	301	315	350	394	494	
164	305	321	351	395	495	

Additional Transit Service

- 109 Other Fairfax Connector Routes
- 1A Metrobus Routes

Metrorail

- Blue Line
- Yellow Line
- M Metrorail Station

Virginia Railway Express (VRE)

- Manassas Line
- Fredericksburg Line
- VRE Station

Points of Interest

- P Park & Ride
- P Park & Ride (Planned)
- T Transit Center
- Government/Library/Community Center
- Shopping Center
- H Hospital
- Middle School/High School
- College/University

Boundaries

- Study Area
- County

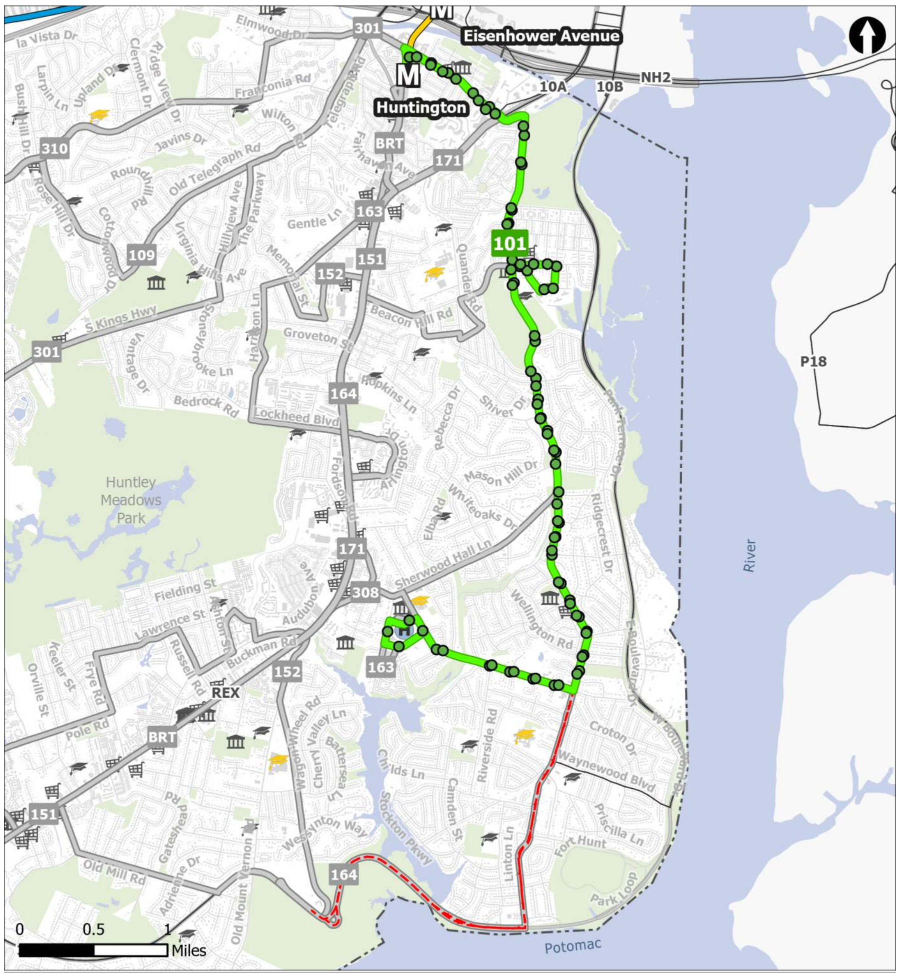

This is a map of the draft Visionary Network prepared by WMATA through its Better Bus Network Redesign project as of March 2023.
Draft Visionary Network
VIRGINIA
For a more detailed view of DC and Maryland, please see the corresponding Visionary Network map.
MAP LEGEND
Draft Visionary Network
High Frequency (Every 12 Minutes or Better)
Medium Frequency (Every 20 Minutes or Better)
Low Frequency (Every 30 Minutes or Better)
Local Provider Routes
Metrorail
Metro Station
Note: Service frequencies shown for all day service (6 a.m.-9 p.m.)
LOUDOUN COUNTY
FAIRFAX COUNTY
ARLINGTON COUNTY
ALEXANDRIA
MD
VA
DC
Herndon
Reston Town Center
Wiehle-Reston East
Spring Hill
Greensboro
Tysons
McLean
West Falls Church
Dunn Loring
Vienna
East Falls Church
Ballston-MU
Virginia Sq-GMU
Clarendon
Court House
Rosslyn
Arlington Cemetery
Pentagon
Pentagon City
Crystal City
Ronald Reagan Washington National Airport
Potomac Yard (Future Station)
Braddock Rd
King St-Old Town
Eisenhower Ave
Van Dorn St
Huntington
Franconia-Springfield
MD240 BETHESDA
MD263 TO SUITLAND
VA488 NATIONAL HARBOR
VA389 NATIONAL HARBOR
N

Appendix E
Route Sheets

Route 101

Huntington Metro (North) - Inova Mt. Vernon Hospital

FAIRFAX CONNECTOR



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview		
	Class	Local
	Directions	Northbound / Southbound
	Via	Inova Mt. Vernon Hospital, Fort Hunt Road, Huntington Metro
	Transfers Available	109, 151, 152, 163, 164, 171, 301, 308, 310, BRT (Future), Metrobus 10A, REX, Metrorail Yellow
	Improvements	Provide new connections (realign to end at Inova Mt. Vernon Hospital via Collingwood Rd), increase weekday early and late night frequency (40 to 30), increase Saturday core frequency (40 to 30)

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		04:30 AM to 12:00 AM	06:30 AM to 10:30 PM	06:30 AM to 08:30 PM
		Frequency (mins)	Peak	30	30	60
			Off-Peak	30		

Potential Mid-Term or Long-Term Improvement(s)

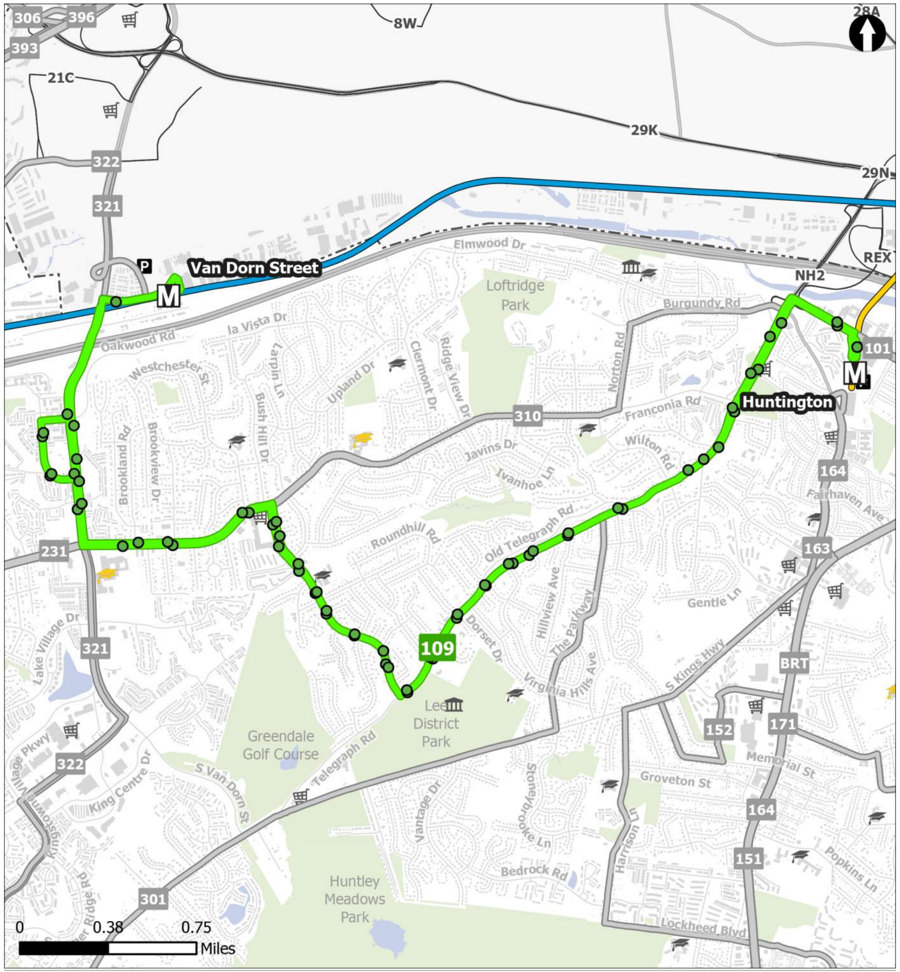
Connectivity | Early Morning | Frequency | Late Night | Non-Rush Hours | Rush Hours | Saturday | Sunday | Weekday

• Restore route extension to George Washington's Mount Vernon when Richmond Highway BRT begins service

Route 109

Rose Hill

FAIRFAX CONNECTOR



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview		
	Class	Local
	Directions	Eastbound / Westbound
	Via	Van Dorn Metro, Thomas Edison High School, Huntington Metro
	Transfers Available	101, 151, 152, 163, 164, 171, 231, 301, 310, 321, 322, BRT (Future), DASH 30, 32, 35, Metrobus 10A, 7A, REX, Metrorail Blue, Yellow
	Improvements	Increase weekday early/late night frequency (40 to 30)

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		05:00 AM to 11:30 PM	06:30 AM to 11:00 PM	06:30 AM to 08:00 PM
		Frequency (mins)	Peak	30	60	60
			Off-Peak	30		

Potential Mid-Term or Long-Term Improvement(s)

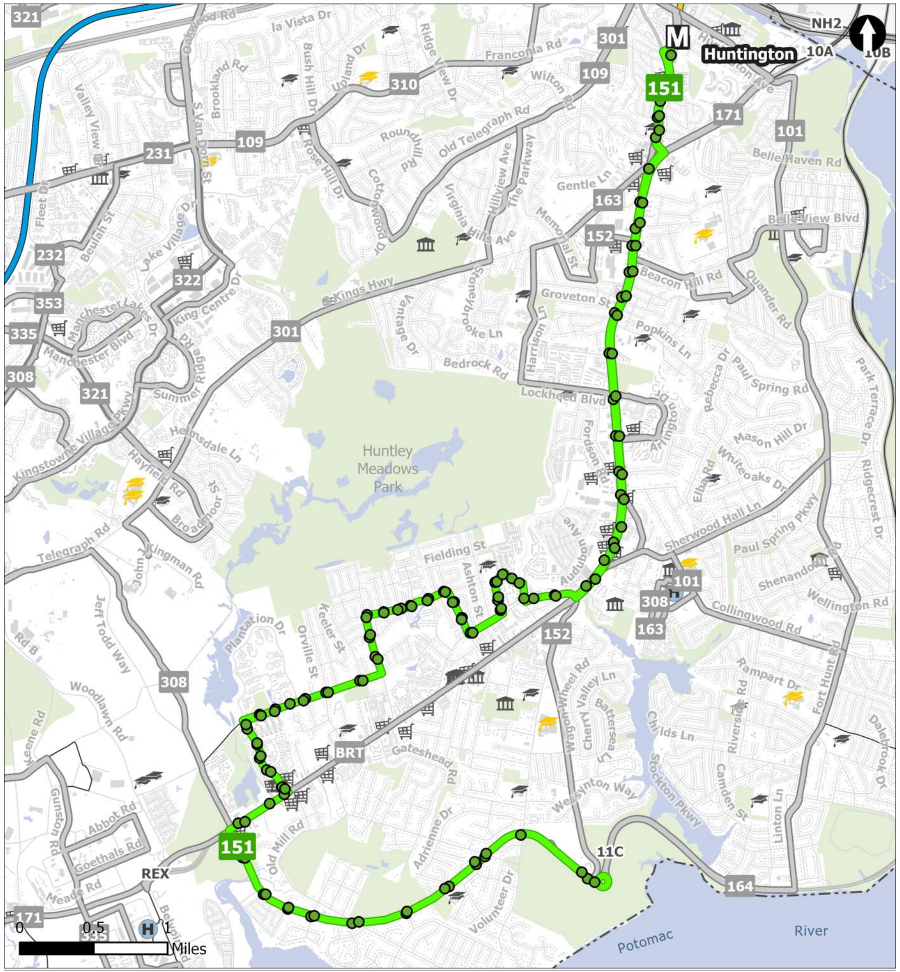
Frequency | Non-Rush Hours | Saturday | Sunday

- Increase Saturday and Sunday frequency to 30 mins

Route 151

Engleside - Mt Vernon

FAIRFAX CONNECTOR



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview	Class	Local
	Directions	Southbound / Northbound
	Via	Huntington Metro, N Kings Hwy, Richmond Highway/Rte 1, Buckman Rd, Lawrence St, Pole Rd, Sacramento Dr, Lukens Ln, Old Mill Rd, Mt. Vernon
	Transfers Available	101, 109, 152, 163, 164, 171, 301, 308, 310, BRT (Future), Metrobus 10A, 11C, REX, Metrorail Yellow
	Improvements	Adjust route to increase frequency as a replacement for Route 159. Operate all day seven days a week with 15-minute frequency on weekdays during rush hour and 30-minute frequency on weekdays during non-rush hour and weekends.

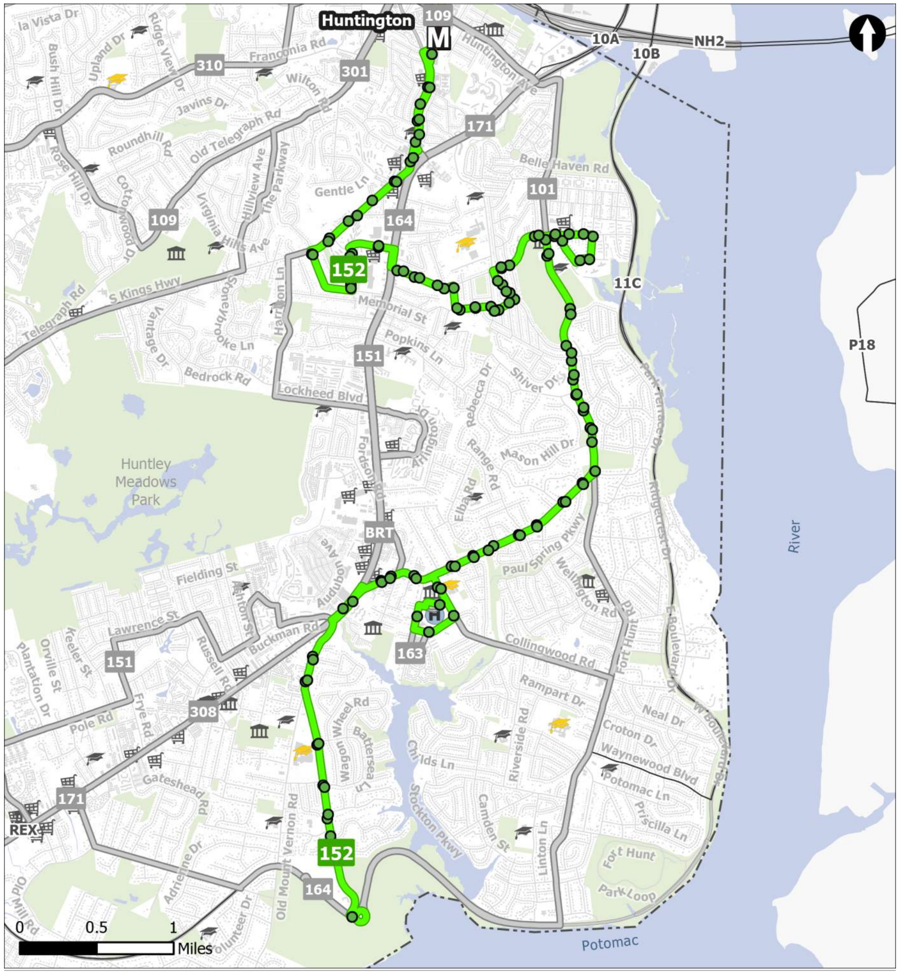
Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		04:00 AM to 12:00 AM	05:30 AM to 12:30 AM	05:30 AM to 12:30 AM
		Frequency (mins)	Peak	15	30	30
			Off-Peak	30		

Potential Mid-Term or Long-Term Improvement(s)

- No Change

Route 152

Huntington Metro (South) - Mt Vernon



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview		
	Class	Local
	Directions	Southbound / Northbound
	Via	Huntington Metro, N & S Kings Hwy, Beacon Hill Rd, Fort Hunt Rd, Sherwood Hall Ln, Inova Mt. Vernon Hospital, Mt. Vernon Hwy
	Transfers Available	101, 109, 151, 163, 164, 171, 301, 308, 310, BRT (Future), Metrobus 10A, 11C, REX, Metrorail Yellow
	Improvements	No change

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		04:00 AM to 12:00 AM	05:30 AM to 12:30 AM	06:00 AM to 12:00 AM
		Frequency (mins)	Peak	30	60	60
			Off-Peak	60		

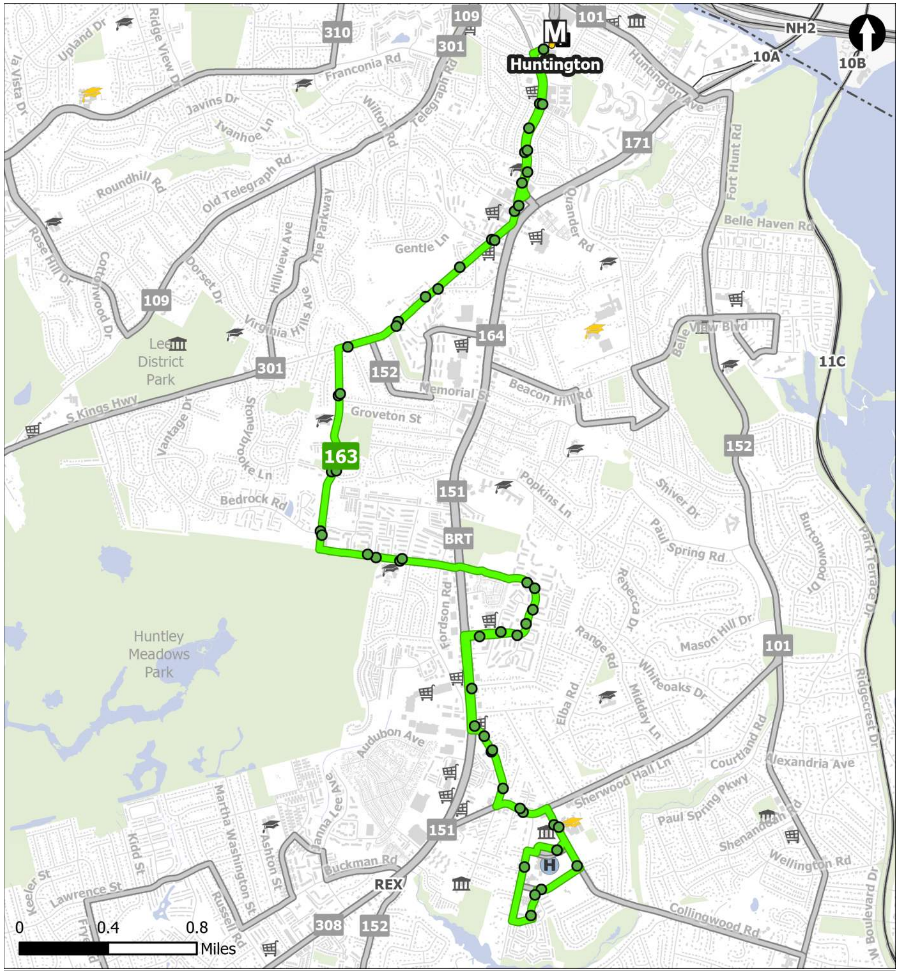
Potential Mid-Term or Long-Term Improvement(s)

- No Change

Route 163

Huntington Metro (South) - Inova Mt. Vernon Hospital

FAIRFAX CONNECTOR



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview		
	Class	Local
	Directions	Northbound/Southbound
	Via	Huntington Metro, N&S Kings Hwy, Harrison Ln, Lockheed Blvd, Mt. Vernon Square Apts, Inova Mt. Vernon Hospital
	Transfers Available	101, 109, 151, 152, 164, 171, 301, 308, BRT (Future), Metrobus REX, Metrorail Yellow
	Improvements	New Route, Replaces 161/162, Reduce Travel Time, Increase Frequency

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		04:30 AM to 11:00 PM	06:30 AM to 11:00 PM	06:30 AM to 11:00 PM
		Frequency (mins)	Peak	15	30	30
			Off-Peak	30		

Potential Mid-Term or Long-Term Improvement(s)

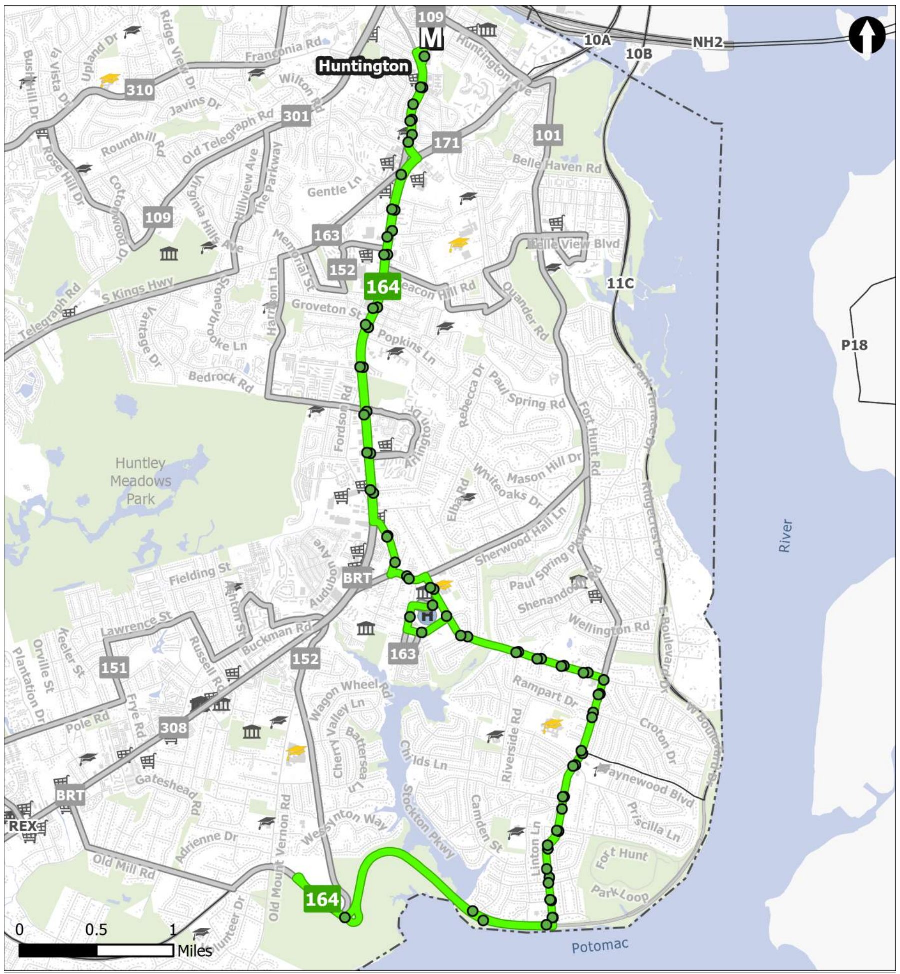
Early Morning | Late Night | Weekday

- Extend weekday service hours from 4:00 AM start to 12:00 AM end

Route 164

Huntington Metro (South) - Mt. Vernon

FAIRFAX CONNECTOR



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview		
	Class	Local
	Directions	Northbound/Southbound
	Via	Huntington Metro, N Kings Hwy, Richmond Highway/Rt 1, Fordson Rd, Inova Mt. Vernon Hospital, Collingwood Rd, Fort Hunt Rd, Mt. Vernon
	Transfers Available	101, 151, 152, 163, 171, 308, BRT (Future), Metrobus REX, Metrorail Yellow
	Improvements	New Route, Replacing Portions of 101/161/162, Provide New Connections

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		04:30 AM to 10:30 PM	06:30 AM to 11:00 PM	06:30 AM to 08:30 PM
		Frequency (mins)	Peak	60	60	60
			Off-Peak	60		

Potential Mid-Term or Long-Term Improvement(s)

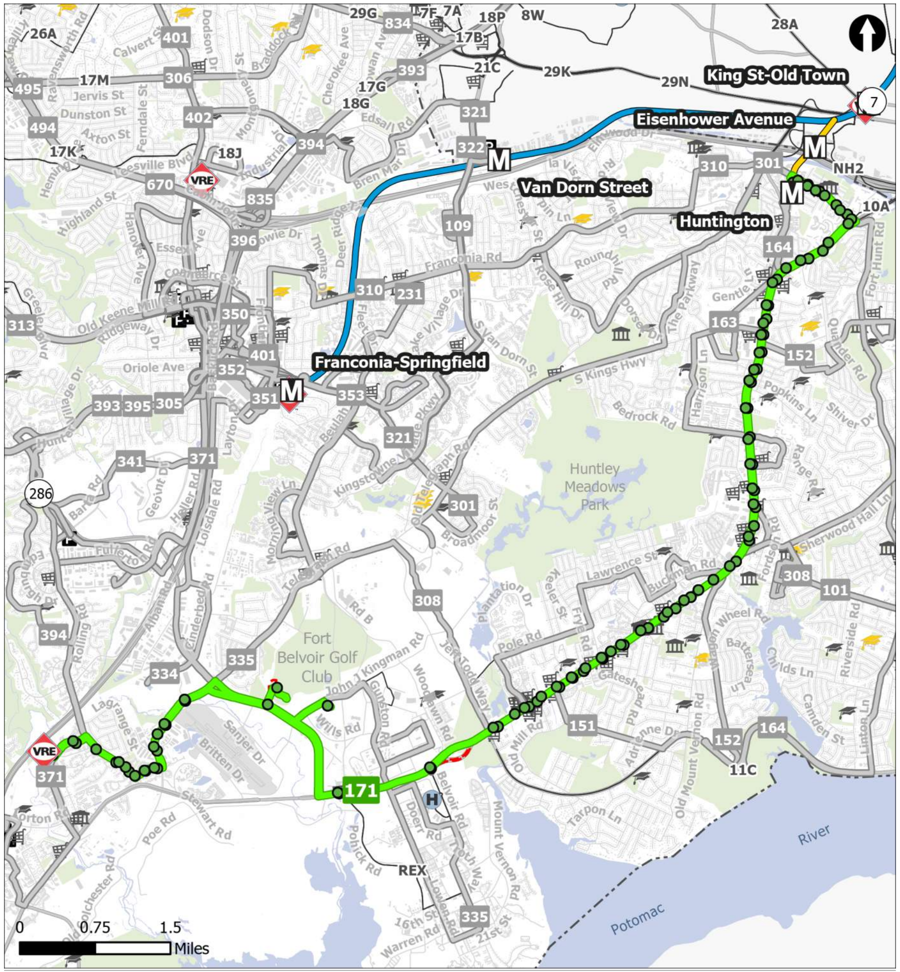
Connectivity | Early Morning | Frequency | Late Night | Non-Rush Hours | Rush Hours | Saturday | Sunday | Weekday

- Increase weekday rush hour frequency to 30

Route 171

Huntington Metro (North) - Lorton VRE

FAIRFAX CONNECTOR



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview		
	Class	Local
	Directions	Northbound/Southbound
	Via	Lorton VRE, Defense Logistics Agency, Richmond Highway/Rte 1, Huntington Metro, Museum Of The Army
	Transfers Available	101, 109, 151, 152, 163, 164, 301, 308, 310, 334, 335, 371, BRT (Future), Metrobus REX, Metrorail Yellow
	Improvements	No change

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		03:30 AM to 02:30 AM	05:30 AM to 03:30 AM	05:30 AM to 01:30 AM
		Frequency (mins)	Peak	20	30	30
			Off-Peak	30		

Potential Mid-Term or Long-Term Improvement(s)

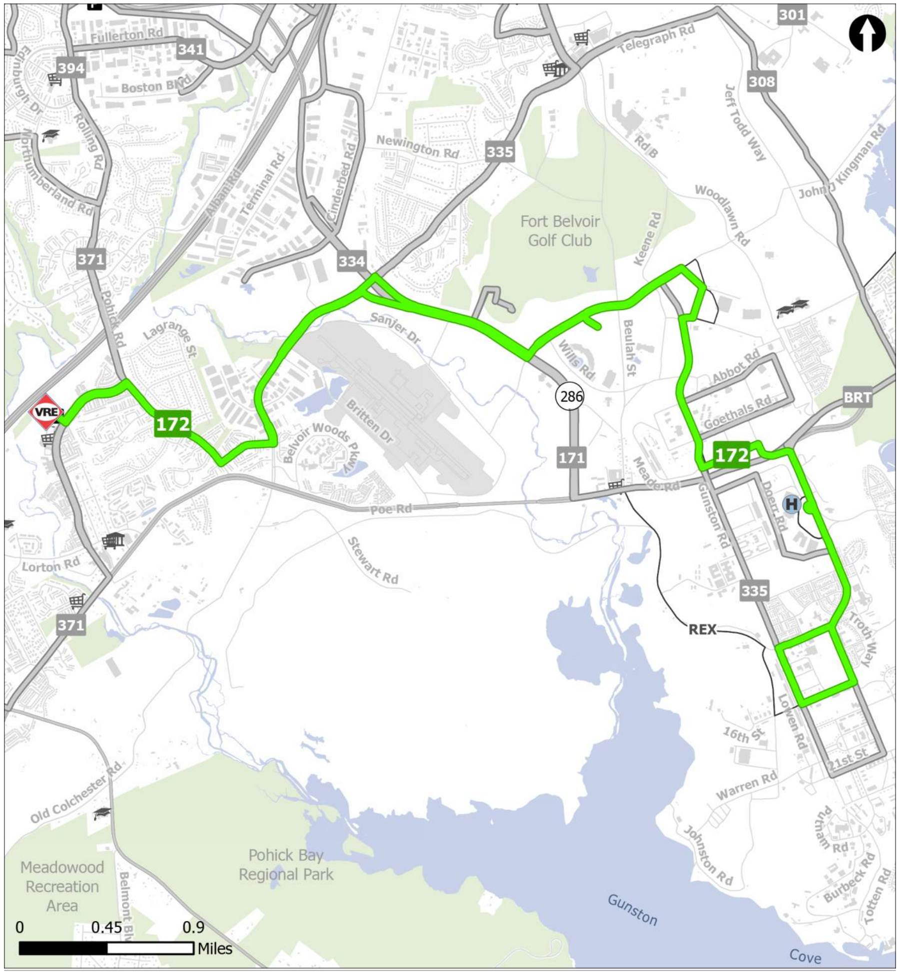
Frequency | Non-Rush Hours | Weekday

- Increase weekday off-peak frequency to 20 mins

Route 172 (Long-term)

Fort Belvoir - Lorton VRE

FAIRFAX CONNECTOR



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview		
	Class	Local
	Directions	Eastbound/Westbound
	Via	Fort Belvoir Hospital, Gunston Rd, John J Kingman Rd, Fairfax County Pkwy/Route 286, Telegraph Rd, Pohick Rd, Lorton VRE
	Transfers Available	171, 334, 335, 371, BRT, VRE Fredericksburg
	Improvements	New Route, Provide New Connections

Level of Service / Proposed Route			Weekday	Saturday	Sunday
	Service Hours		04:00 AM to 12:00 AM	6:00 AM to 11:00 PM	6:00 AM to 11:00 PM
	Frequency (mins)	Peak	20	35	35
		Off-Peak	35		

Potential Mid-Term or Long-Term Improvement(s)

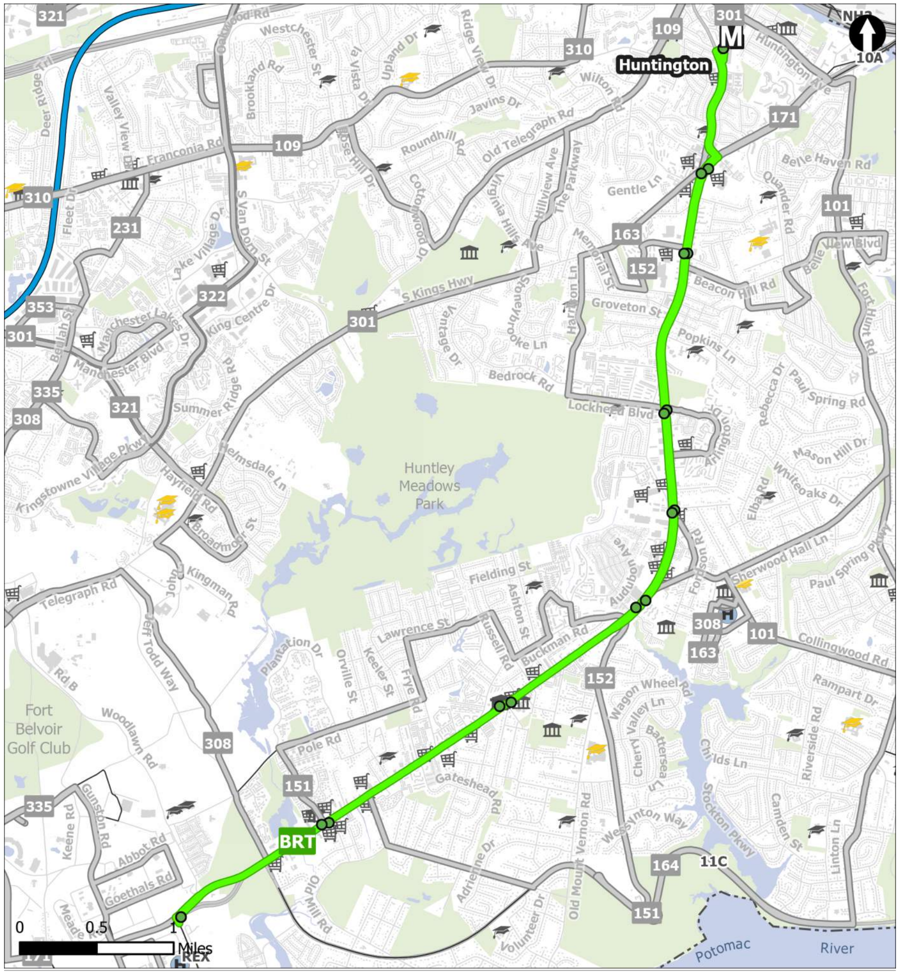
Connectivity | Early Morning | Late Night | Non-Rush Hours | Rush Hours | Saturday | Sunday | Weekday

- Add new local route connecting Fort Belvoir to Lorton VRE Station.
- Operate all day seven days a week with 20-minute frequency during rush hour and 35-minute frequency during non-rush hour and weekends.

Route Richmond Highway Bus Rapid Transit (BRT)

Richmond Hwy BRT

FAIRFAX CONNECTOR



Planned Route	Existing Service	Transit Facilities	Points of Interest	Metro Lines
Planned Stop	Segment Served by Other Route(s)	Metro Station	Government/ Community Center	Blue Line
Planned Route	Eliminated Segment	Transit Center	Hospital	Green Line
Other Planned and Existing Routes	Metrobus Route	Park & Ride	High/Middle School	Orange Line
		Virginia Railway Express Station	College	Red Line
			Other School	Silver Line
			Shopping Center	Yellow Line

Overview		
	Class	BRT
	Directions	Northbound / Southbound
	Via	Fort Belvoir, N Kings Hwy, Richmond Highway/Rte 1, Huntington Metro
	Transfers Available	101, 109, 151, 152, 163, 164, 171, 301, 308, 310, 313, 494, Metrobus 10A, REX, Metrorail Yellow
	Improvements	New Route, Increase Frequency, Reduce Travel Time

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		05:00 AM to 12:28 AM	07:00 AM to 03:28 AM	07:00 AM to 12:28 AM
		Frequency (mins)	Peak	6	20	20
			Off-Peak	12		

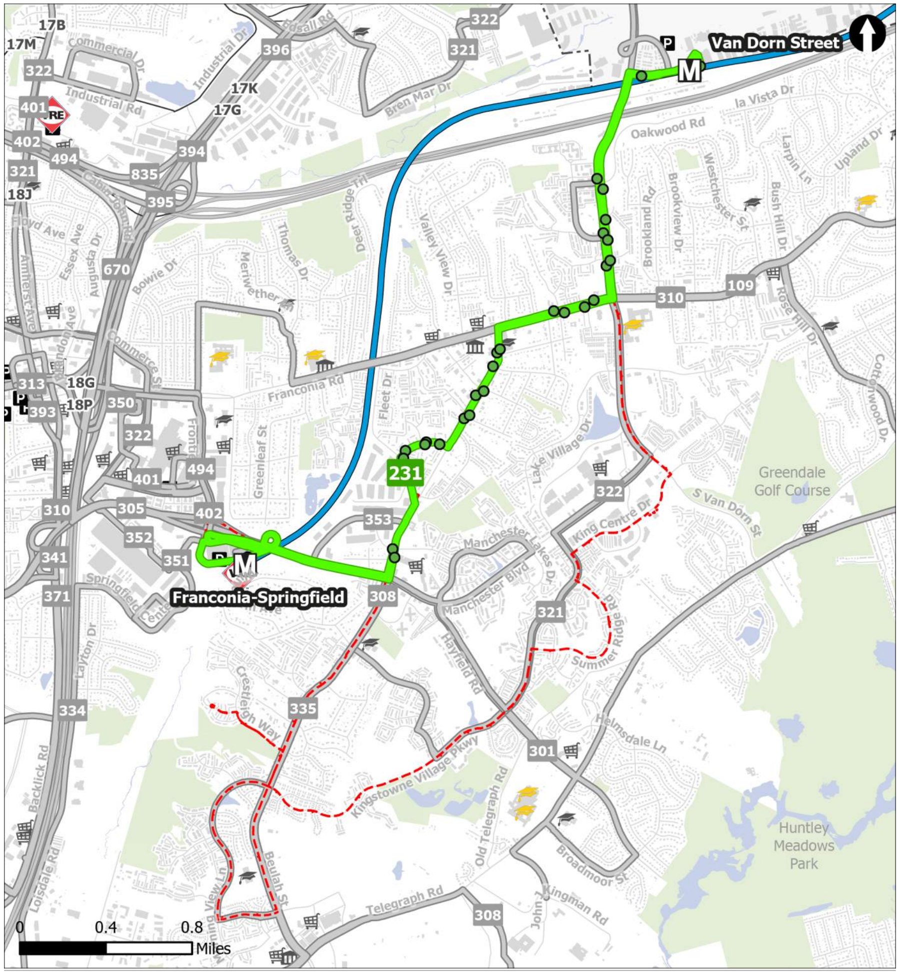
Potential Mid-Term or Long-Term Improvement(s)

Connectivity | Early Morning | Express Service | Frequency | Late Night | Non-Rush Hours | Rush Hours | Saturday | Sunday

- Add new high-capacity public transportation system between Huntington Metrorail (South) and Fort Belvoir.
- Additional rush hour service will be provided between Huntington and Beacon Hill to provide 3-minute frequency.

Route 231

Franconia-Springfield Metro & VRE Station to Van Dorn St Metro Station



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

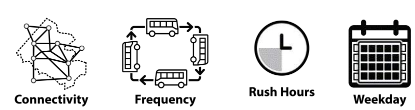
Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview		
	Class	Feeder
	Directions	Northbound/Southbound
	Via	Van Dorn St Metro, Fleet Industrial Park, Manchester Lakes Center, Franconia-Springfield Pkwy
	Transfers Available	109, 301, 305, 308, 310, 313, 321, 322, 334, 335, 341, 350, 351, 352, 353, 371, 400x, 401, 402, 494, 670, DASH 30, 32, 35, OmniRide, Metrobus 7A, Metrorail Blue, VRE Fredericksburg
	Improvements	Reduce Route Length, More Direct Connection Between Franconia-Springfield Metro and Van Dorn St Metro

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		05:30 AM to 08:30 AM / 03:30 PM - 06:30 PM	No Service	No Service
		Frequency (mins)	Peak	30	No Service	No Service
			Off-Peak	No Service		

Potential Mid-Term or Long-Term Improvement(s)

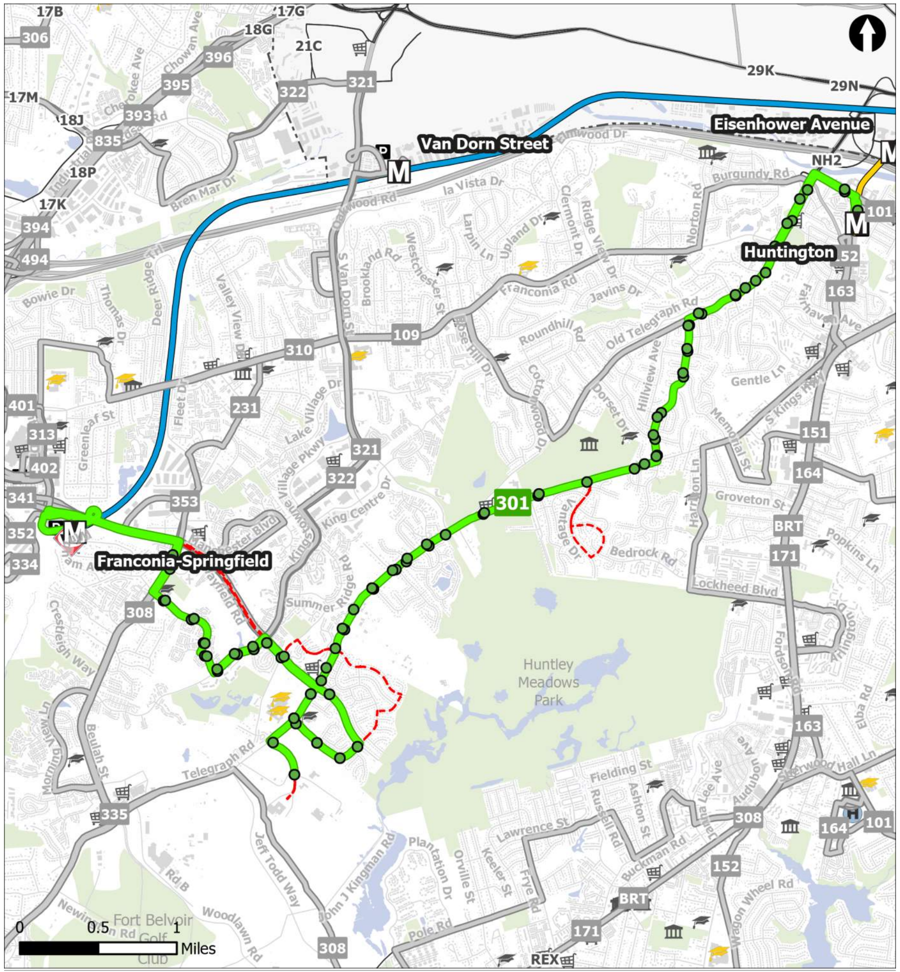


- Realign to restore service of Routes 231 and 232 to Kingstowne, Kingstowne Village Pkwy, and Island Creek
- Increase weekday peak service hours by 30 mins in both AM and PM

Route 301

Huntington Metro (North) to Franconia-Springfield Metro & VRE Station

FAIRFAX CONNECTOR



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview		
	Class	Feeder
	Directions	Westbound/Eastbound
	Via	Franconia-Springfield Pkwy/Rt 289, Telegraph Rd, The Parkway, Huntington Ave, Huntington Metro, Franconia-Springfield Metro and VRE Station
	Transfers Available	101, 109, 151, 152, 163, 164, 171, 231, 301, 305, 308, 310, 313, 321, 322, 334, 335, 341, 350, 351, 352, 353, 371, 400X, 401, 402, 494, 670, BRT (Future), Metrobus 10A, REX, Metrorail Blue, Yellow
	Improvements	Route Alignment Update

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		06:00 AM to 09:00 AM / 4:00 PM - 7:00 PM	No Service	No Service
		Frequency (mins)	Peak	45	No Service	No Service
			Off-Peak	No Service		

Potential Mid-Term or Long-Term Improvement(s)

Frequency

Rush Hours

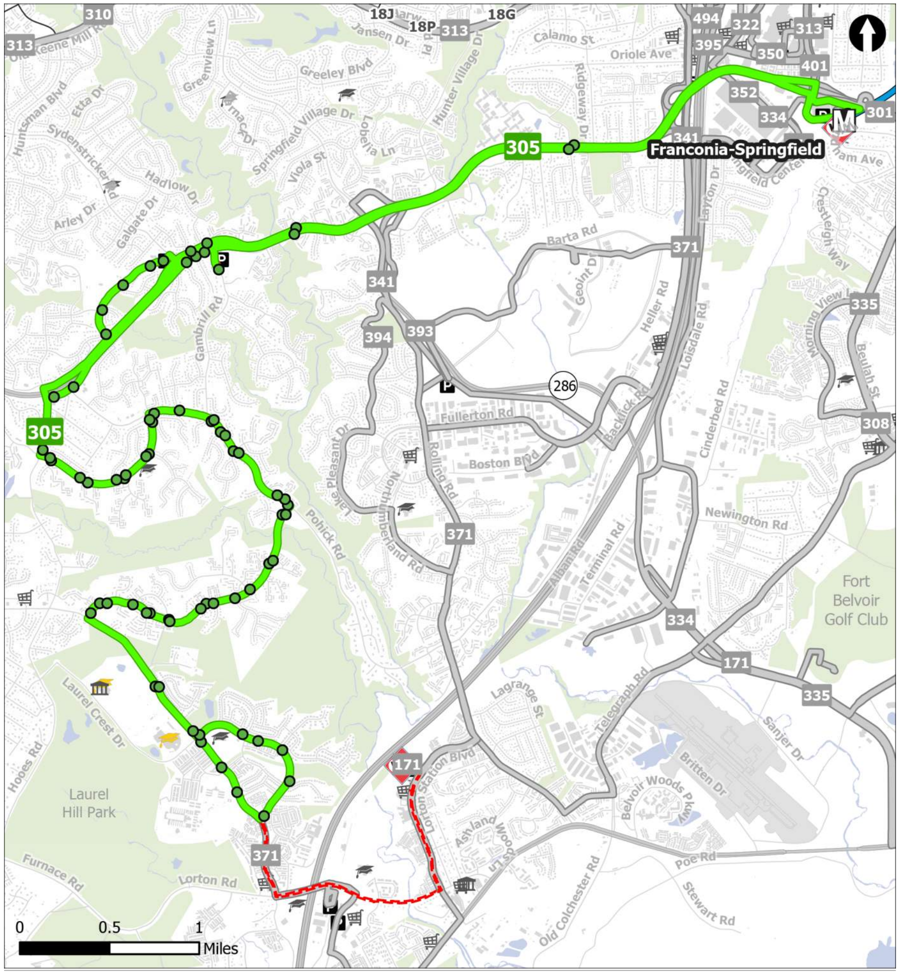
Weekday

- Increase weekday peak frequency to 30 mins

Route 305

Silverbrook Rd & Laurel Crest Dr to Franconia-Springfield Metro & VRE Station

FAIRFAX CONNECTOR



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview	Class	Feeder
	Directions	Northbound/Southbound
	Via	Newington Forest, Sydenstricker Park & ride, Franconia-Springfield Metro and VRE Station, Laurel Crest Dr
	Transfers Available	231, 301, 308, 310, 313, 321, 322, 334, 335, 341, 350, 351, 352, 353, 371, 393, 394, 395, 400X, 401, 402, 494, 670, Metrorail Blue, VRE Fredericksburg, OmniRide
	Improvements	Route Alignment Update

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		06:00 AM - 09:00 AM / 04:00 PM - 07:00 PM	No Service	No Service
		Frequency (mins)	Peak	45	No Service	No Service
			Off-Peak	No Service		

Potential Mid-Term or Long-Term Improvement(s)

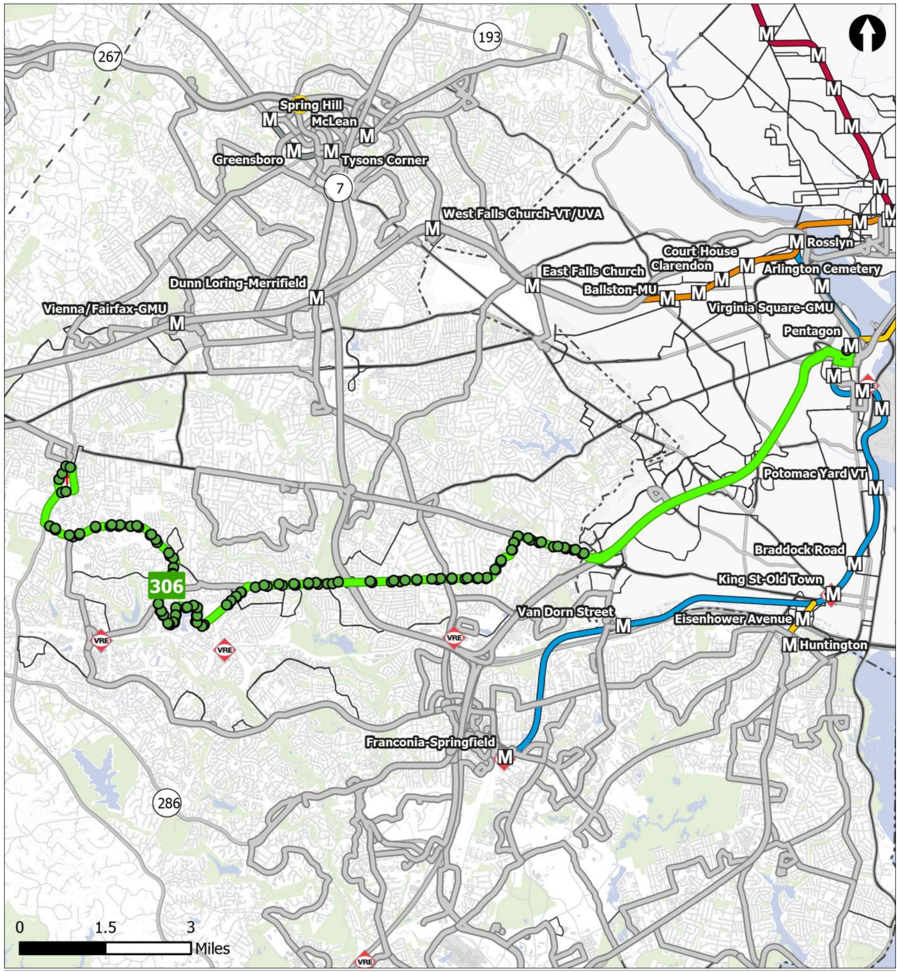
Frequency Rush Hours Weekday

- Increase weekday peak frequency to 30 mins

Route 306

George Mason University - Pentagon Metrorail Station

FAIRFAX CONNECTOR



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview		
	Class	Local
	Directions	Eastbound/Westbound
	Via	Braddock Rd, I-395
	Transfers Available	313, 394, 395, 396, 400X, 401, 402, 495, 599, 610, 834, Metrorail Yellow, Blue, Metrobus 7A, 8W, 10A/B, 16A, 16C, 17B/G/K/M, 18G/J, 22A, 29G/K/N, Metroway CUE Green, Gold, DASH 32, 35, 36A/B, ART 42, 87, OmniRide
	Improvements	No change

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		08:50 AM to 03:53 PM	No Service	No Service
		Frequency (mins)	Peak	No Service	No Service	No Service
			Off-Peak	60		

Potential Mid-Term or Long-Term Improvement(s)

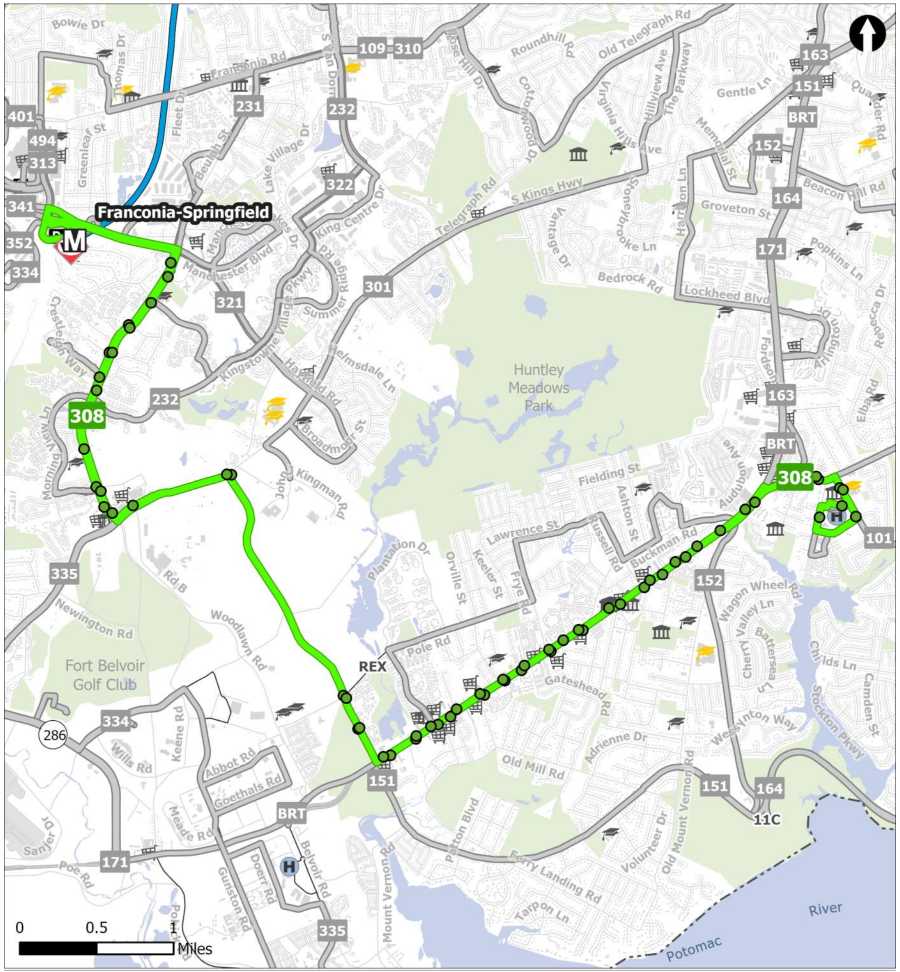
Frequency | Late Night | Non-Rush Hours | Saturday | Sunday | Weekday

- Add weekday evening service with frequency of 60 mins until 10:30 PM
- Add Saturday and Sunday service from 7:00 AM to 9:00 PM with frequency of 60 mins

Route 308

Franconia-Springfield Metro & VRE Station to Inova Mt. Vernon Hospital

FAIRFAX CONNECTOR



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview		
	Class	Local
	Directions	Northbound/Southbound
	Via	Mt. Vernon Governmental Center, Richmond Highway/Rt 1, Jeff Todd Way, Beulah St
	Transfers Available	101, 151, 152, 163, 164, 171, 231, 301, 305, 310, 313, 321, 322, 334, 335, 341, 350, 351, 352, 353, 371, 400X, 401, 402, 494, 670, BRT (Future), Metrobus REX, Metrorail Blue, OmniRide
	Improvements	No change

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		05:00 AM to 10:00 PM	07:00 AM to 09:00 PM	No Service
		Frequency (mins)	Peak	30	45	No Service
			Off-Peak	40		

Potential Mid-Term or Long-Term Improvement(s)

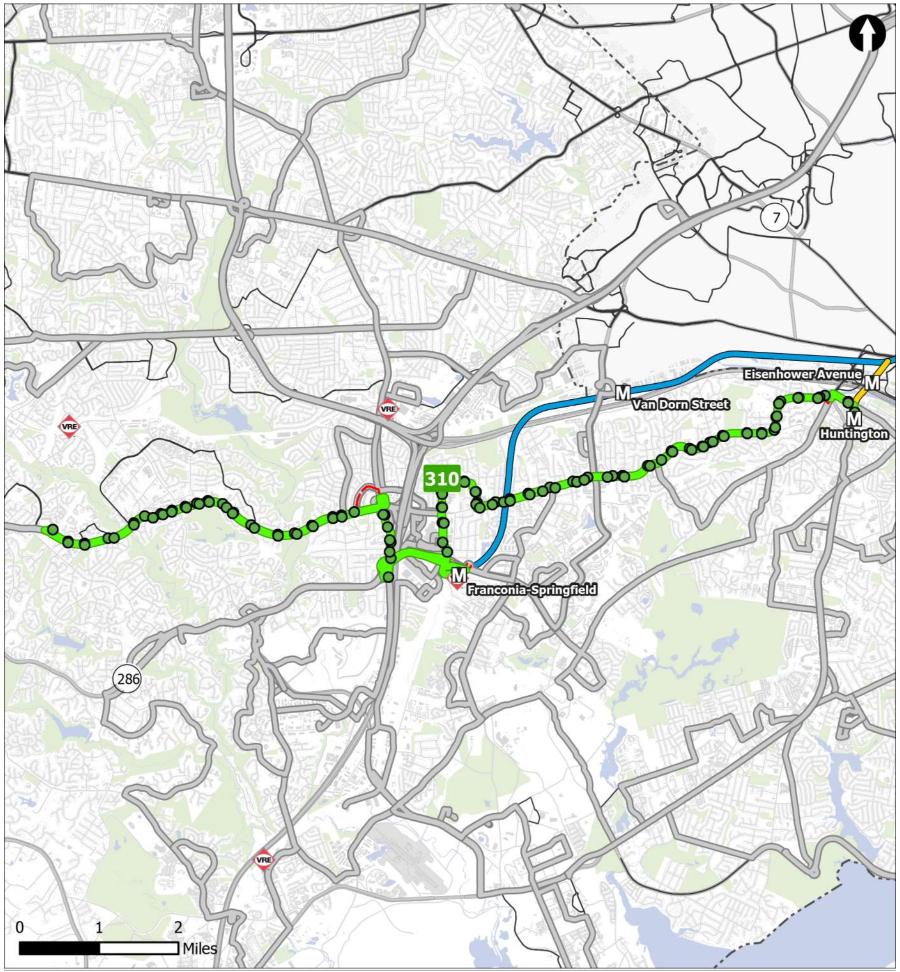
Frequency | Non-Rush Hours | Sunday

- Add Sunday service from 7:00 AM to 9:00 PM with frequency of 45 mins

Route 310

Rolling Valley Park & Ride to Huntington Metro (North)

FAIRFAX CONNECTOR



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview	Class	Cross-County
	Directions	Eastbound/Westbound
	Via	Old Keene Mill Rd, Franconia Rd, Franconia-Springfield Metro & VRE Station, Springfield Town Center
	Transfers Available	101, 109, 151, 152, 163, 164, 231, 301, 305, 308, 310, 313, 321, 322, 334, 335, 341, 350, 351, 352, 353, 371, 393, 396, 400X, 401, 402, 494, 495, 670, BRT (Future), Metrobus 10A, 18G/J/P, REX, Metrorail Blue
	Improvements	Route alignment update, Serve Springfield CBC Commuter Parking Garage, Schedule adjustment to improve service reliability and late night service

				Weekday	Saturday	Sunday
Level of Service	Proposed Route	Service Hours		04:12 AM to 12:54 AM	06:00 AM to 12:52 AM	06:00 AM to 12:52 AM
		Frequency (mins)	Peak	20	30	60
			Off-Peak	30		

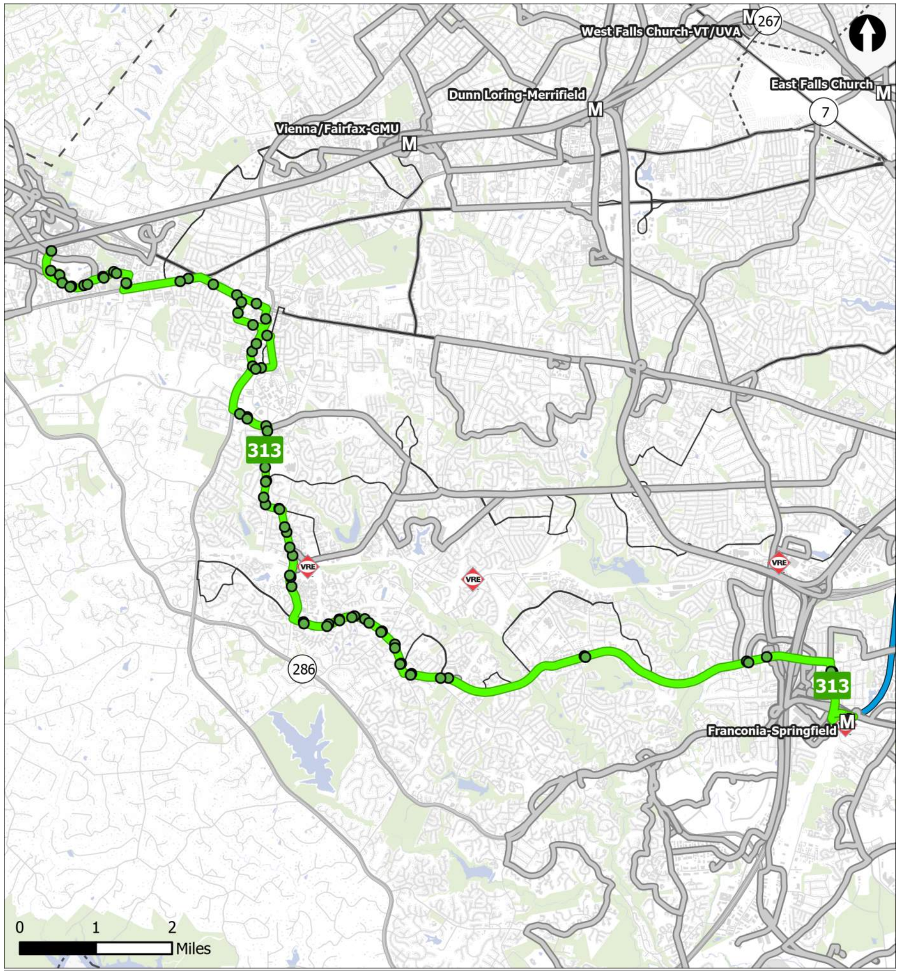
Potential Mid-Term or Long-Term Improvement(s)

Frequency | Late Night | Non-Rush Hours | Rush Hours | Saturday | Sunday | Weekday

- Increase weekday peak frequency to 15
- Increase weekday off-peak frequency to 25
- Increase Saturday frequency to 25 / Extend Saturday service hours to 1:00 AM
- Increase Sunday frequency to 30

Route 313

Franconia-Springfield Metro & VRE Station to Fair Oaks Mall



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview	Class	Cross-County
	Directions	Northbound/Southbound
	Via	Franconia-Springfield Metro & VRE Station, Old Keene Mill Rd, Fairfax City, Fair Oaks Mall, Moniment Dr
	Transfers Available	231, 301, 305, 306, 308, 310, 321, 322, 334, 335, 341, 350, 351, 352, 353, 371, 393, 396, 400X, 401, 402, 494, 495, 605, 610, 615, 622, 625, 630, 651, 660, 662,663, 670, 671, 672, 699, Metrobus 17B/G/K, 18G/J/P, 29K, 1C, 2B, Metrorail Blue, CUE Green, Gold,
	Improvements	New Route, Provide New Connections to Fairfax City and Fair Oaks Mall

Level of Service				Weekday	Saturday	Sunday
	Proposed Route	Service Hours		06:00 AM to 07:00 PM	08:00 AM to 07:00 PM	No Service
		Frequency (mins)	Peak	30	60	No Service
			Off-Peak	60		

Potential Mid-Term or Long-Term Improvement(s)

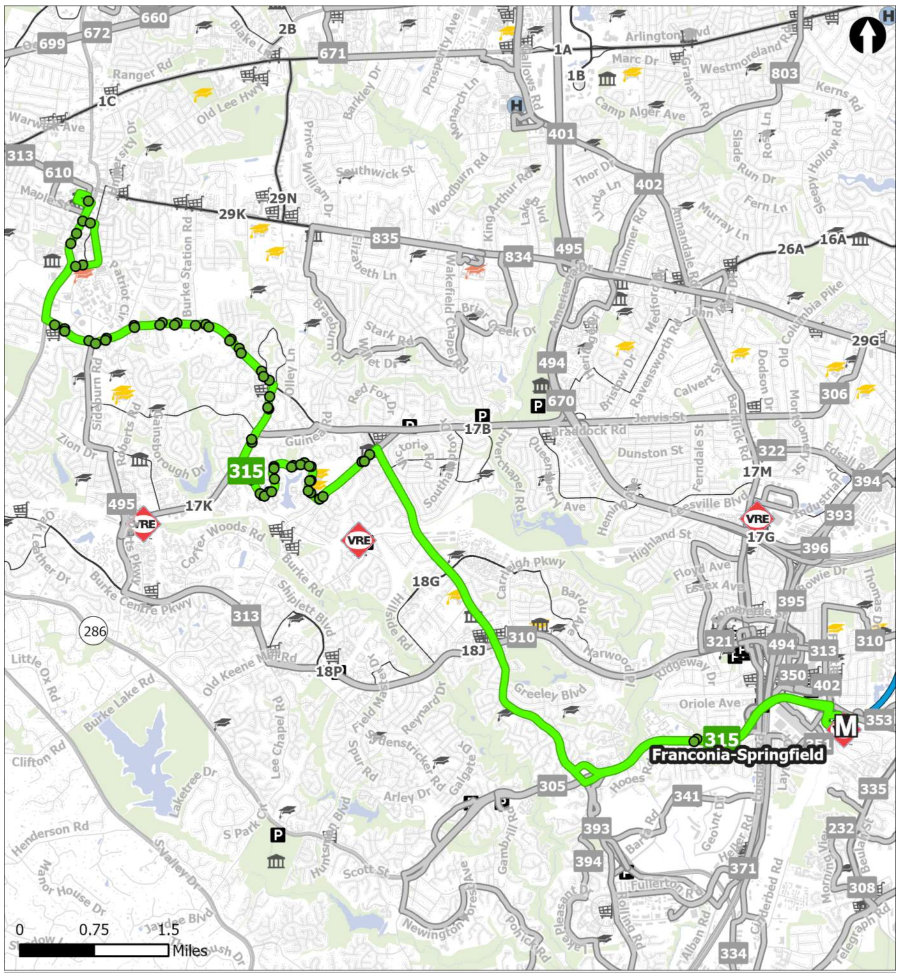
Non-Rush Hours | Sunday | Weekday

- Extend weekday service hours to 9:00 PM; Extend to Huntington Metro
- Add Sunday service from 8:00 AM to 7:00 PM with frequency of 60

Route 315 (Long-term)

George Mason University - Franconia-Springfield Metro & VRE Station

FAIRFAX CONNECTOR



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview		
	Class	Local
	Directions	Eastbound/Westbound
	Via	Ox Rd, Braddock Rd, Twinbrook Rd, Lake Braddock Dr, Rolling Rd, Franconia Springfield Pkwy
	Transfers Available	231, 232, 301, 305, 306, 308, 310, 313, 321, 322, 334, 335, 341, 350, 351, 352, 353, 371, 393, 396, 400X, 401, 402, 494, 495, 610, 670, 990, Metrorail Blue, Metrobus 17B, 17G, 17K, 17M, 18G, 18J, 18P, 29K, CUE Green, Gold
	Improvements	New route operating between Fairfax and Franconia-Springfield, providing new links and a wide range of connections

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		06:00 AM to 9:00 PM	07:00 AM to 9:00 PM	No Service
		Frequency (mins)	Peak	30	60	No Service
			Off-Peak	60		

Potential Mid-Term or Long-Term Improvement(s)

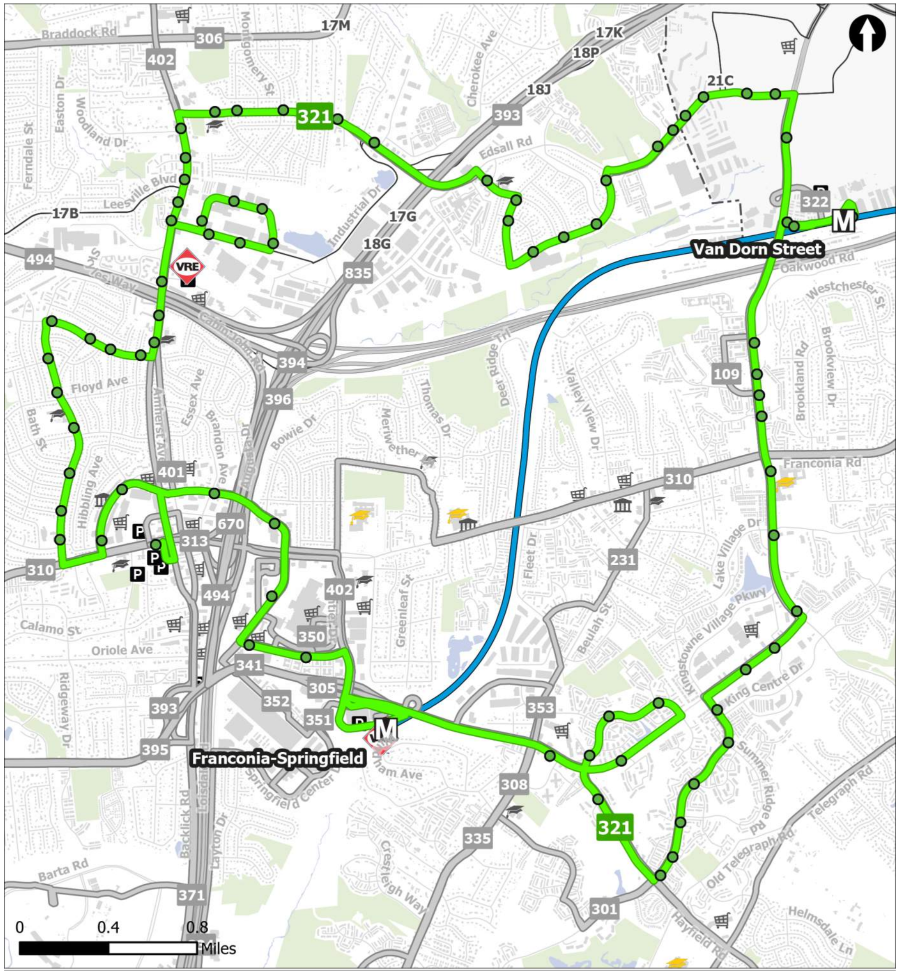
Non-Rush Hours | Sunday | Weekday

• New route connecting Franconia-Springfield Metro/VRE Station, West Springfield, Burke, and Fairfax City

Route 321

Franconia-Springfield Metro & VRE Station to Van Dorn St Metro Station

FAIRFAX CONNECTOR



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview		
	Class	Local
	Directions	Loop
	Via	Backlick Rd VRE Station, Franconia-Springfield Metro & VRE Station, Bren Mar Park, Kingstowne
	Transfers Available	109, 231, 301, 305, 308, 310, 313, 322, 334, 335, 341, 350, 351, 352, 353, 371, 393, 396, 400X, 401, 402, 494, Metrobus 17B/M, 18G/J, 21C, 7A, Metrorail Blue, VRE, OmniRide, DASH 30, 32, 35
	Improvements	Route alignment update to serve Springfield CBC Commuter Parking Garage; Increase frequency

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		04:02 AM to 01:14 AM	05:04 AM to 12:17 AM	05:03 AM - 12:12 AM
		Frequency (mins)	Peak	20	30	45
			Off-Peak	30		

Potential Mid-Term or Long-Term Improvement(s)

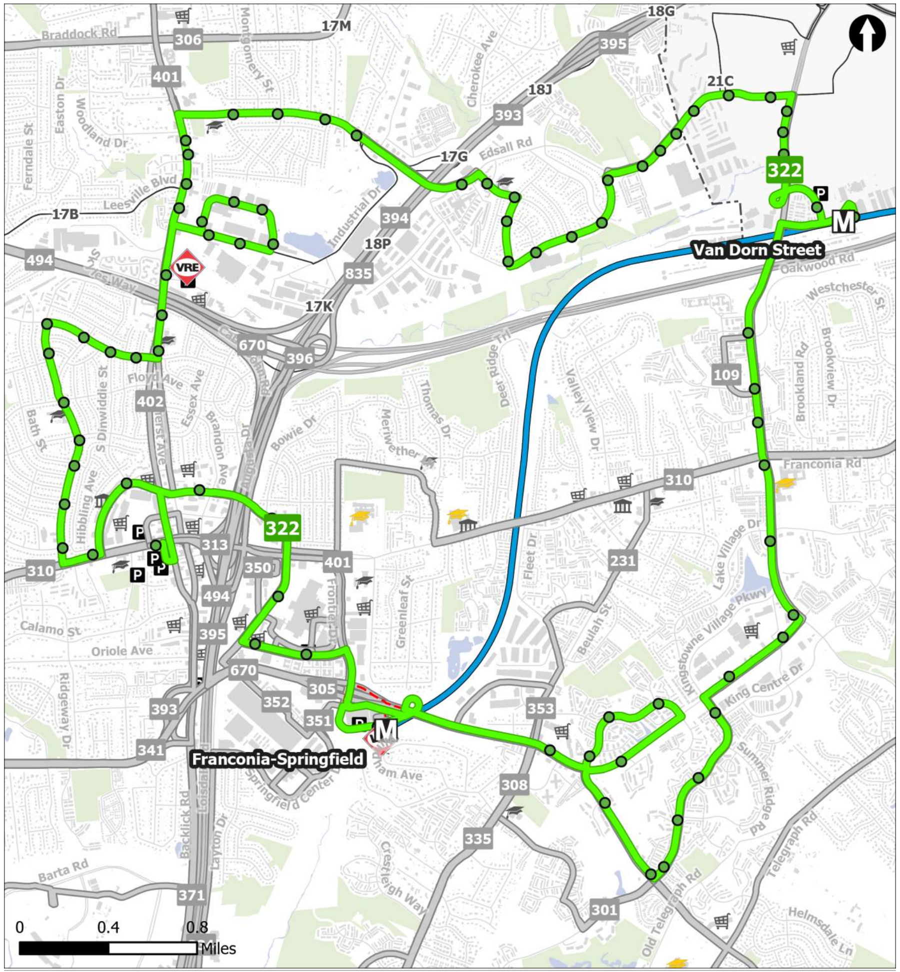
Connectivity | Early Morning | Late Night | Non-Rush Hours | Rush Hours | Saturday | Sunday | Weekday

- Realign to operate between Van Dorn and Franconia-Springfield Metro Stations via Backlick Road, and provide combined frequency of 10 to 15 with Route 322 between the Springfield CBC Commuter Parking Garage and Franconia-Springfield Metro Station
- Extend weekday service hours to 01:00 AM

Route 322

Franconia-Springfield Metro & VRE Station to Van Dorn St Metro Station

FAIRFAX CONNECTOR



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview		
	Class	Local
	Directions	Loop
	Via	Backlick Rd VRE Station, Franconia-Springfield Metro & VRE Station, Bren Mar Park, Kingstowne
	Transfers Available	109, 231, 301, 305, 308, 310, 313, 322, 334, 335, 341, 350, 351, 352, 353, 371, 393, 396, 400X, 401, 402, 494, Metrobus 17B/M, 18G/J, 21C, 7A, Metrorail Blue, VRE, OmniRide, DASH 30, 32, 35
	Improvements	Route alignment update to serve Springfield CBC Commuter Parking Garage; Increase frequency

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		04:10 AM to 12:39 AM	05:21 AM to 12:33 AM	05:24 AM - 12:36 AM
		Frequency (mins)	Peak	20	30	45
			Off-Peak	30		

Potential Mid-Term or Long-Term Improvement(s)

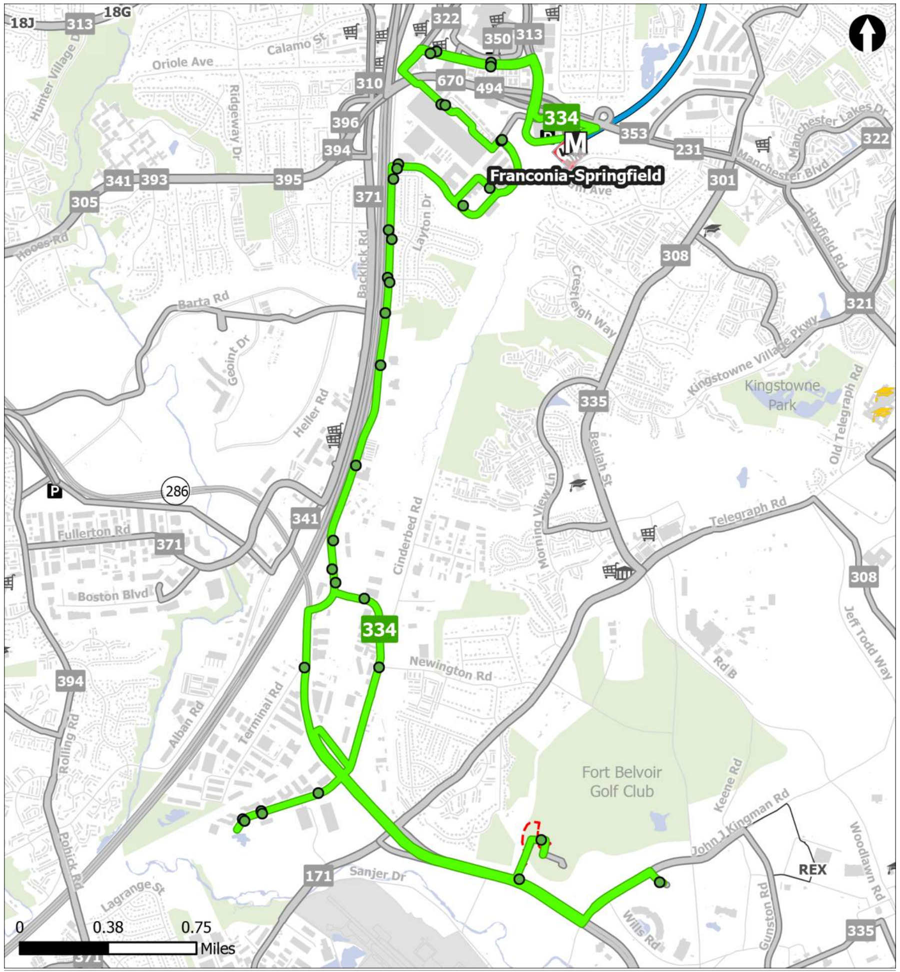
Connectivity | Early Morning | Late Night | Non-Rush Hours | Rush Hours | Saturday | Sunday | Weekday

- Realign to operate between Van Dorn and Springfield CBC Commuter Parking Garage via Kingstowne, and provide combined frequency of 10 to 15 mins with Route 321 between the Springfield CBC Commuter Parking Garage and Franconia-Springfield Metro Station
- Extend weekday service hours to 1:00 AM

Route 334

Franconia-Springfield Metro & VRE Station to Defense Logistics Agency

FAIRFAX CONNECTOR



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview		
	Class	Local
	Directions	Loop
	Via	Loisdale Rd, Newington Rd, Fairfax County Pkwy/Rt 286, NVCC Medical Education Campus, Gateway 95 Business Park, Defense Logistic Agency
	Transfers Available	171, 231, 301, 305, 308, 310, 313, 321, 322, 335, 341, 350, 351, 352, 353, 371, 400X, 401, 402, 494, Metrorail Blue, OmniRide, VRE
	Improvements	Route Alignment Update, Serve TSA Facility and Army Museum

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		05:03-09:52 AM/ 11:30 AM-12:22 PM/ 3:00 -7:52 PM	No Service	No Service
		Frequency (mins)	Peak	30	No Service	No Service
			Off-Peak	Limited Service		

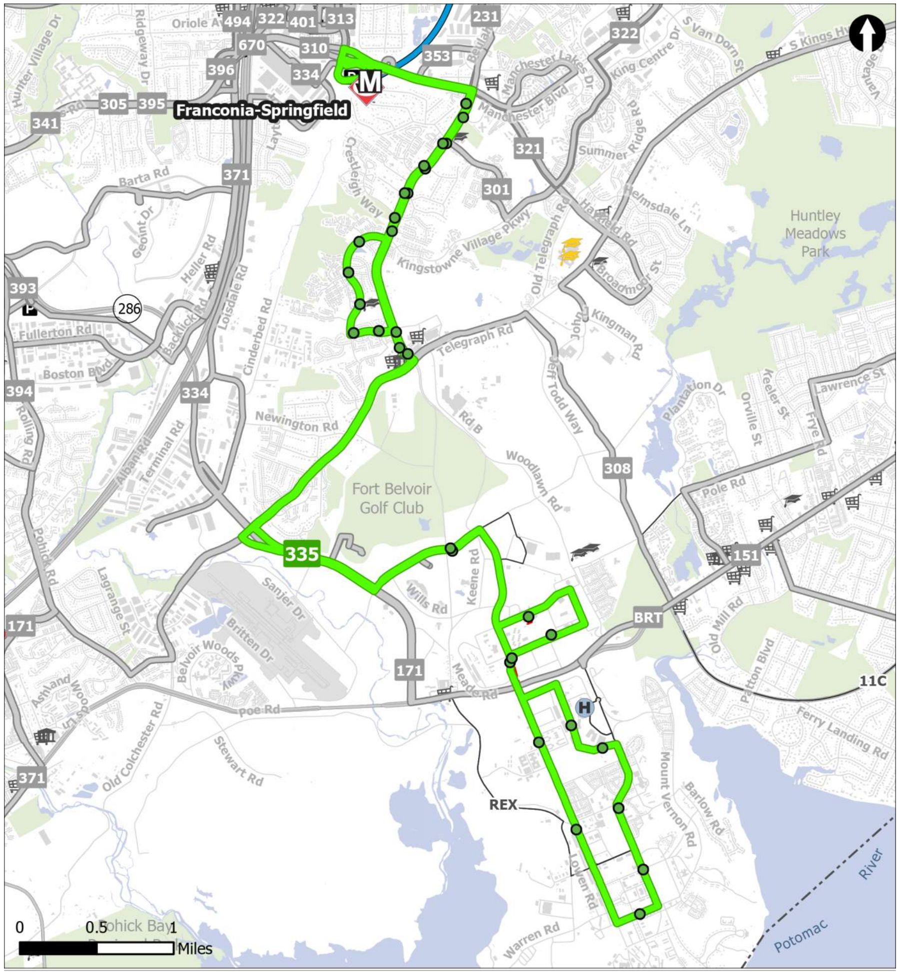
Potential Mid-Term or Long-Term Improvement(s)

Frequency　Non-Rush Hours　Sunday　Weekday

- Increase weekday off-peak frequency to 45 mins
- Add Saturday and Sunday service from 8:00 AM to 7:00 PM with frequency of 60 mins

Route 335

Franconia-Springfield Metro & VRE Station to Fort Belvoir



Planned Route	Existing Service	Transit Facilities	Points of Interest	Metro Lines
Planned Stop	Segment Served by Other Route(s)	Metro Station	Government/ Community Center	Blue Line
Planned Route	Eliminated Segment	Transit Center	Hospital	Green Line
Other Planned and Existing Routes	Metrobus Route	Park & Ride	High/Middle School	Orange Line
		Virginia Railway Express Station	College	Red Line
			Other School	Silver Line
			Shopping Center	Yellow Line

Overview		
	Class	Feeder
	Directions	Southbound/Northbound
	Via	Fort Belvoir Hospital, Gunston Rd, Franconia Springfield Pkwy/Rt 289
	Transfers Available	171, 231, 301, 305, 308, 310, 313, 321, 322, 334, 341, 350, 351, 352, 353, 371, 401, 402, 494, 670, BRT (Future), Metrobus REX, Metrorail Blue, VRE, OmniRide
	Improvements	No change

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		6:00-9:51 AM/2:51-6:44 PM	No Service	No Service
		Frequency (mins)	Peak	25 - 30	No Service	No Service
			Off-Peak	No Service		

Potential Mid-Term or Long-Term Improvement(s)

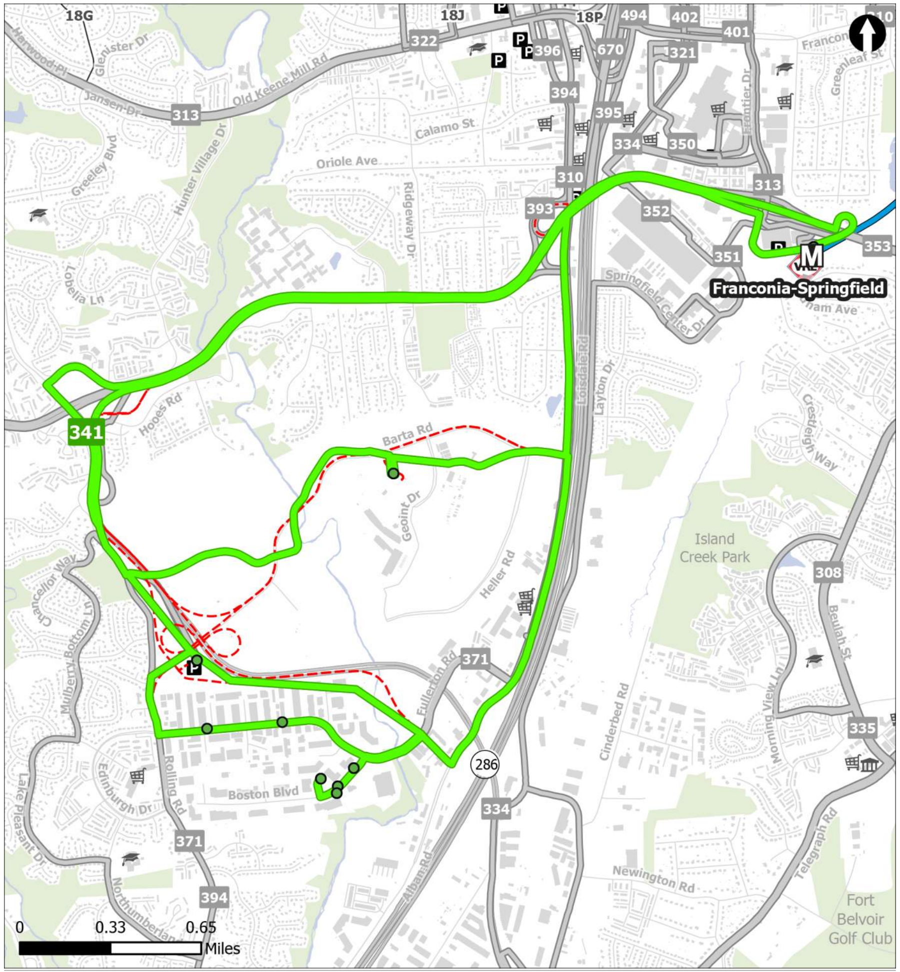
Frequency | Rush Hours | Weekday

- Increase weekday peak frequency to 20 mins

Route 341

Franconia-Springfield Metro & VRE Station to Saratoga Park & Ride

FAIRFAX CONNECTOR



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

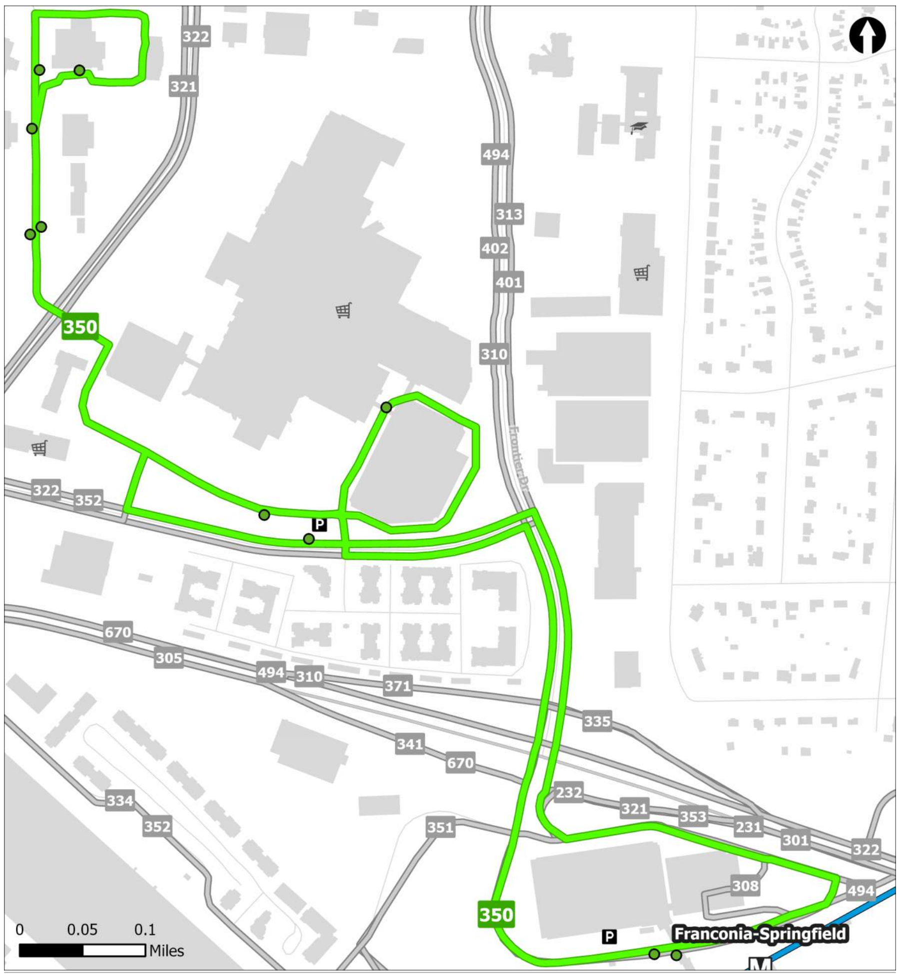
Overview	Class	Feeder
	Directions	Southbound/Northbound
	Via	Franconia-Springfield Pkwy/Rt 289, Fairfax County Pkwy/Rt 286, Backlick Rd, Barta Rd
	Transfers Available	231, 301, 305, 308, 310, 313, 321, 322, 334, 335, 350, 351, 352, 353, 371, 393, 394, 400X, 401, 402, 494, Metrorail Blue, OmniRide, VRE
	Improvements	No change

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		4:55 AM - 10:04 AM / 2:32 PM - 7:24 PM	No Service	No Service
		Frequency (mins)	Peak	30	No Service	No Service
			Off-Peak	Limited Service		

Potential Mid-Term or Long-Term Improvement(s)
• No Change

Route 350 (Springfield Circulator)

Frontier Dr. - Hilton Springfield - Franconia Springfield Metrorail Station



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview		
	Class	Circulator
	Directions	Loop
	Via	Frontier Dr, Spring Mall Dr and Loisdale Ct
	Transfers Available	231, 301, 305, 308, 310, 371, 321, 322, 334, 335, 341, 351, 352, 353, 400X, 401, 402, 494, 670, Metrorail Blue, VRE, OmniRide
	Improvements	Streamline service

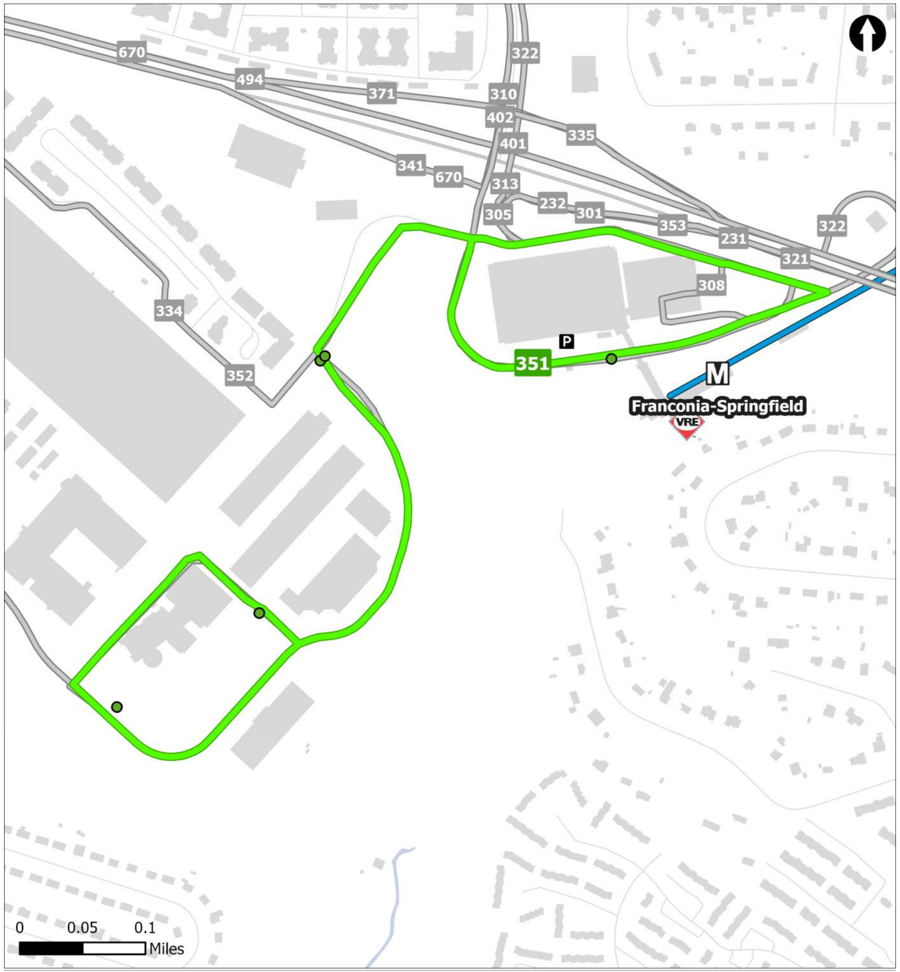
IMPLEMENTED
October 2022

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		06:13 AM to 07:37 PM	No Service	No Service
		Frequency (mins)	Peak	15	No Service	No Service
			Off-Peak	15-20		

Potential Mid-Term or Long-Term Improvement(s)
• No Change

Route 351

TSA - NVCC Medical College - Franconia Springfield Metrorail Station



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview	Class	Circulator
	Directions	Loop
	Via	Metro Access Rd and Springfield Center Dr
	Transfers Available	231, 301, 305, 308, 310, 313, 321, 322, 334, 335, 341, 350, 352, 353, 371, 400X, 401, 402, 494, 670, Metrorail Blue, VRE, OmniRide
	Improvements	Streamline service

IMPLEMENTED
October 2022

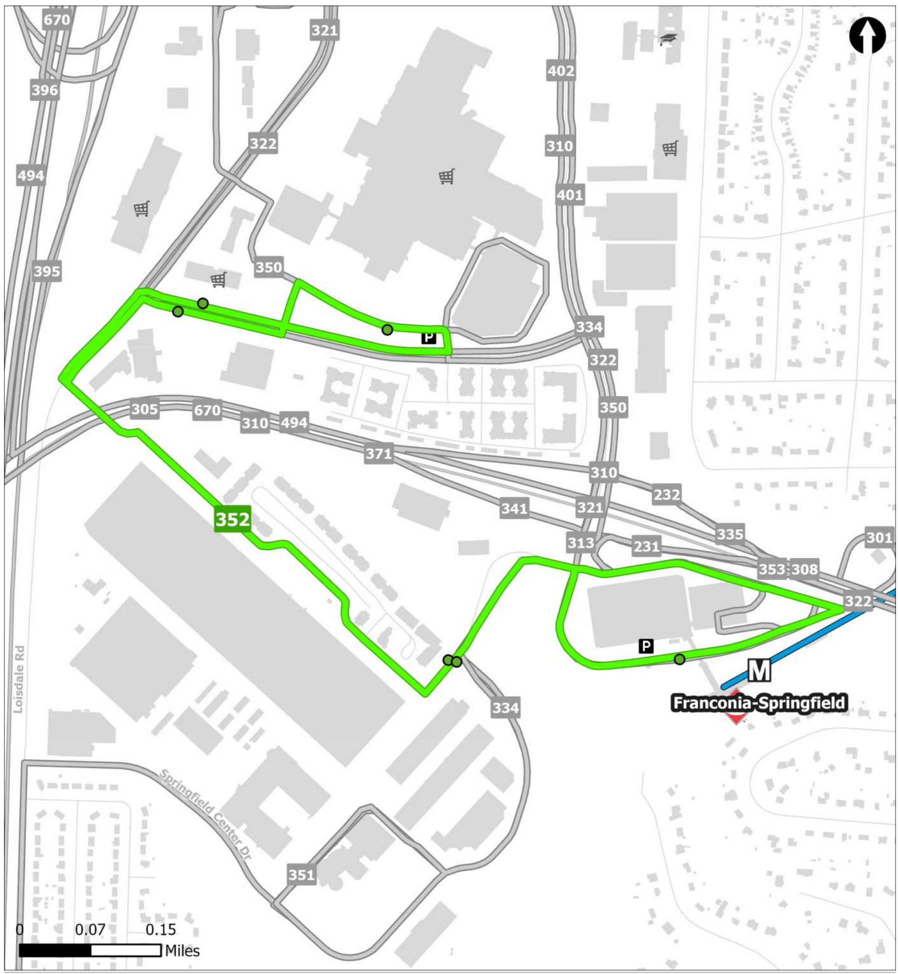
Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		6:30 AM - 10:28 AM / 2:35 PM - 6:12 PM	No Service	No Service
		Frequency (mins)	Peak	15-20	No Service	No Service
			Off-Peak	No Service		

Potential Mid-Term or Long-Term Improvement(s)
• No Change

Route 352

TSA - Springfield Town CTR. - Franconia Springfield Metrorail Station

FAIRFAX CONNECTOR



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

IMPLEMENTED
October 2022

Overview		
	Class	Circulator
	Directions	Loop
	Via	Metro Access Rd, Joseph Alexander Rd, Metropolitan Center Dr, Loisdale Rd and Spring Mall Rd
	Transfers Available	231, 301, 305, 308, 310, 321, 322, 334, 335, 341, 350, 353, 371, 400X, 401, 402, 494, Metrorail Blue, VRE
	Improvements	More frequent service during off peak times

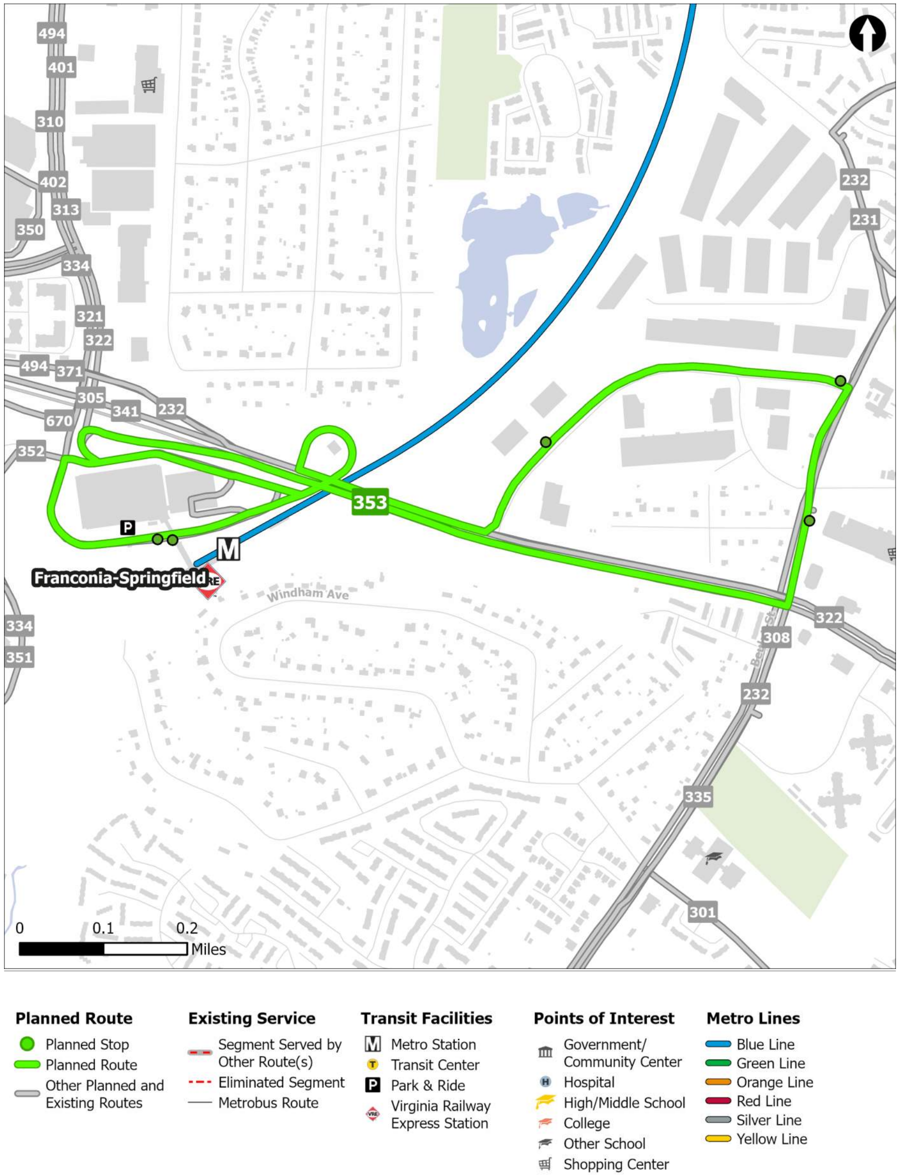
Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		10:35 AM to 02:32 PM	No Service	No Service
		Frequency (mins)	Peak	No Service	No Service	No Service
			Off-Peak	15-20		

Potential Mid-Term or Long-Term Improvement(s)
• No Change

Route 353

Franconia Springfield Metrorail Station - Metro Park

FAIRFAX CONNECTOR



IMPLEMENTED October 2022

Overview		
	Class	Circulator
	Directions	Loop
	Via	Franconia-Springfield Pkwy, Beulah St, Walker Ln
	Transfers Available	231, 301, 305, 308, 310, 313, 321, 322, 334, 335, 341, 350, 351, 352, 371, 400X, 401, 402, 494, 670, Metrorail Blue, VRE
	Improvements	Route clarification

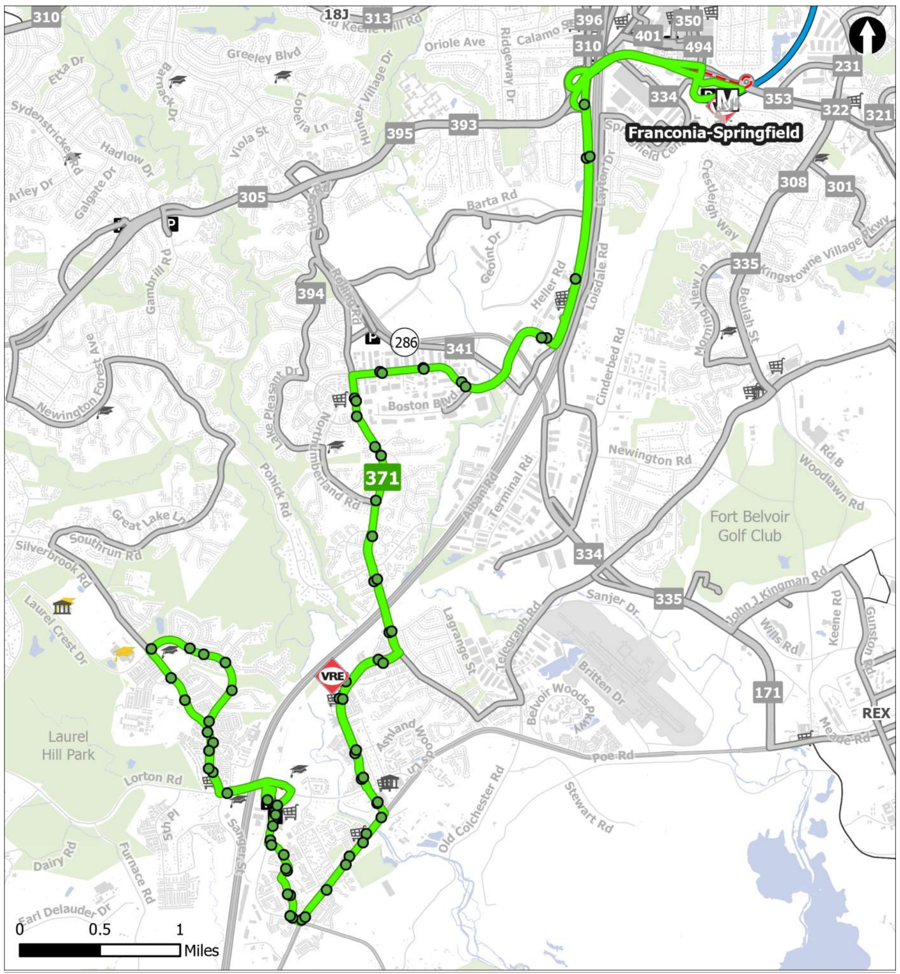
Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		06:02 AM to 07:12 PM	No Service	No Service
		Frequency (mins)	Peak	15	No Service	No Service
			Off-Peak	15-20		

Potential Mid-Term or Long-Term Improvement(s)
• No Change

Route 371

Lorton Park & Ride to Franconia-Springfield Metro & VRE Station

FAIRFAX CONNECTOR



Planned Route	Existing Service	Transit Facilities	Points of Interest	Metro Lines
Planned Stop	Segment Served by Other Route(s)	Metro Station	Government/ Community Center	Blue Line
Planned Route	Eliminated Segment	Transit Center	Hospital	Green Line
Other Planned and Existing Routes	Metrobus Route	Park & Ride	High/Middle School	Orange Line
		Virginia Railway Express Station	College	Red Line
			Other School	Silver Line
			Shopping Center	Yellow Line

Overview		
	Class	Local
	Directions	Northbound/Southbound
	Via	Rolling Rd, Backlick Rd, Franconia-Springfield Pkwy/Rt 289, Lorton VRE, Lorton Station Blvd
	Transfers Available	171, 231, 301, 305, 308, 310, 313, 321, 322, 334, 335, 341, 350, 351, 352, 353, 394, 400X, 401, 402, 494, 670, Metrorail Blue, OmniRide, VRE
	Improvements	Increase Frequency, Replace Routes 372 and 373

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		04:10 AM to 01:13 AM	5:26 AM to 2:12 AM	5:26 AM to 12:56 AM
		Frequency (mins)	Peak	15	30 - 45	45
			Off-Peak	15 - 30		

Potential Mid-Term or Long-Term Improvement(s)

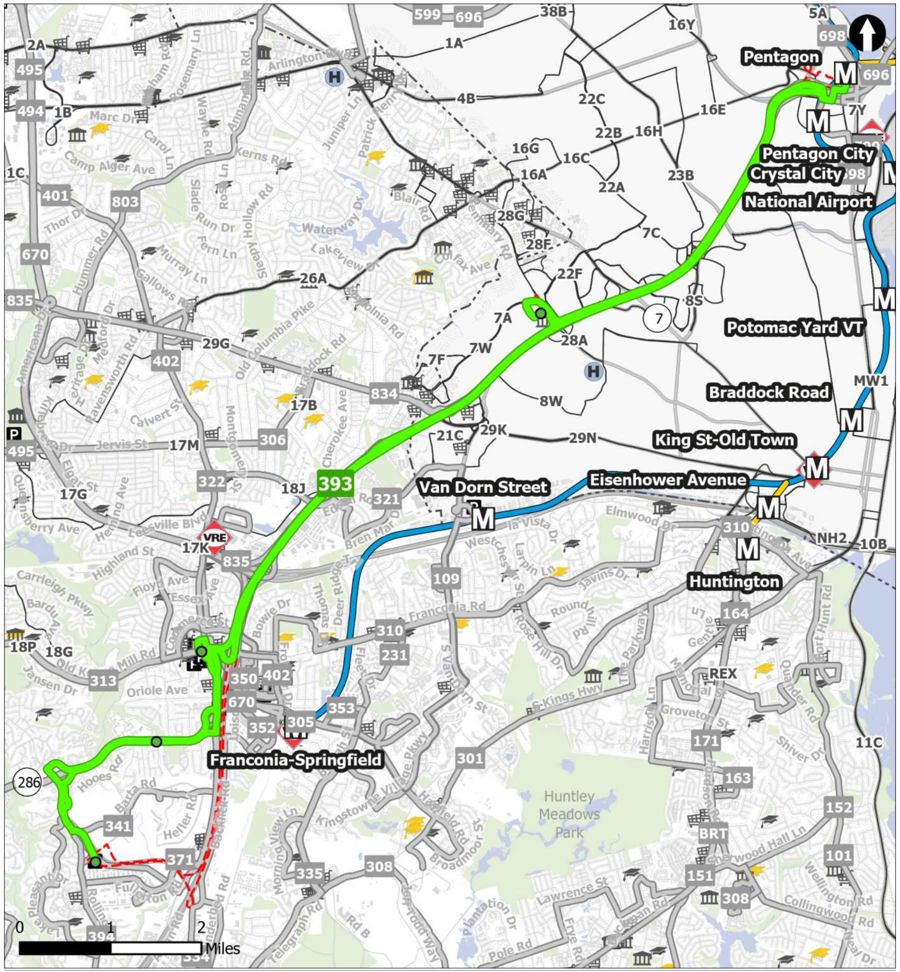
Frequency | Non-Rush Hours | Weekday

- No Change

Route 393

Saratoga Park & Ride to Pentagon Metro

FAIRFAX CONNECTOR



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview	Class	Express
	Directions	Northbound/Southbound
	Via	I-95, Franconia-Springfield Pkwy/Rt 289, Fairfax County Pkwy/Rt 286, I-395
	Transfers Available	305, 306, 310, 313, 321, 322, 341, 394, 396, 494, 834, Metrobus at Pentagon Transit Center, Metrorail Blue, Yellow, ART, DASH, OmniRIde
	Improvements	Route Alignment Update, Serve Springfield CBC Commuter Parking Garage

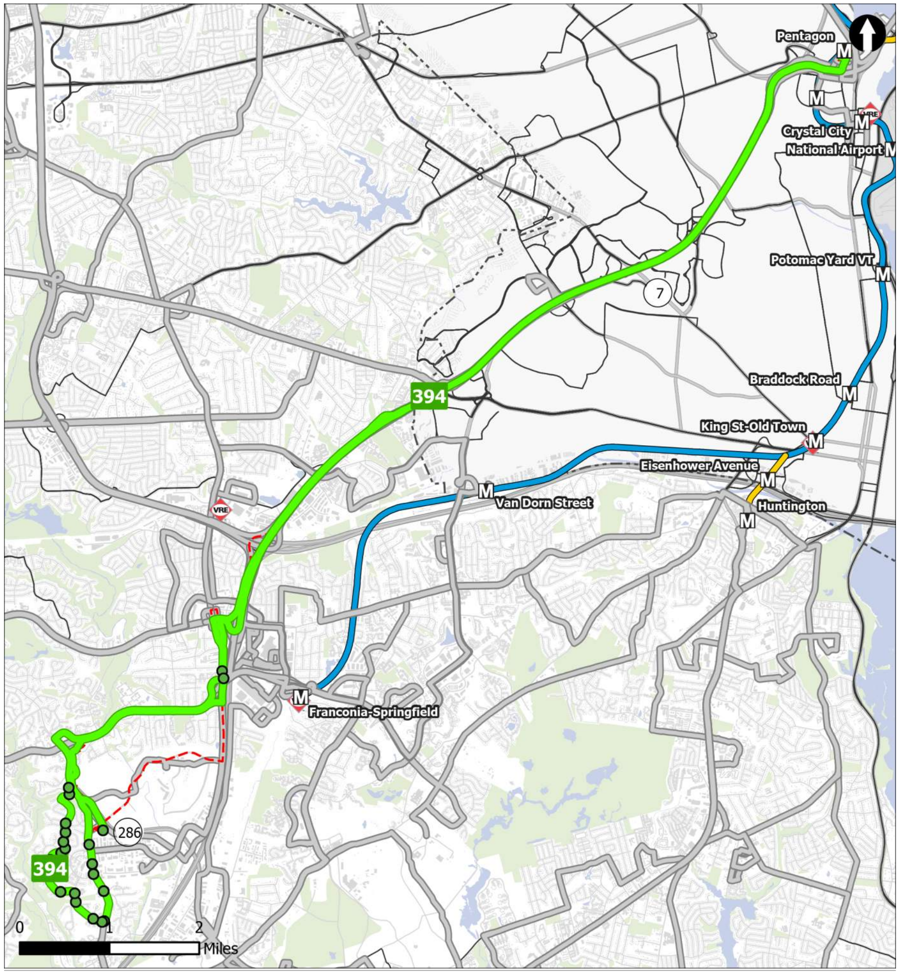
Level of Service				Weekday	Saturday	Sunday
	Proposed Route	Service Hours		05:13 AM - 8:33 AM / 3:55 PM to 07:25 PM	No Service	No Service
		Frequency (mins)	Peak	40	No Service	No Service
			Off-Peak	No Service		

Potential Mid-Term or Long-Term Improvement(s)
• No Change

Route 394

Rolling Rd & Saratoga Shopping Center to Pentagon Metro

FAIRFAX CONNECTOR



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview	Class	Express
	Directions	Northbound/Southbound
	Via	I-95, Franconia-Springfield Pkwy/Rt 289, Saratoga Shopping Center, Backlick North Park & Ride, Lake Pleasant Dr, Mulberry Bottom Ln, I-395
	Transfers Available	306, 310, 393, 396, 834, Metrobus at Pentagon Transit Center, Metrorail Blue, Yellow, ART, DASH, OmniRide
	Improvements	No change

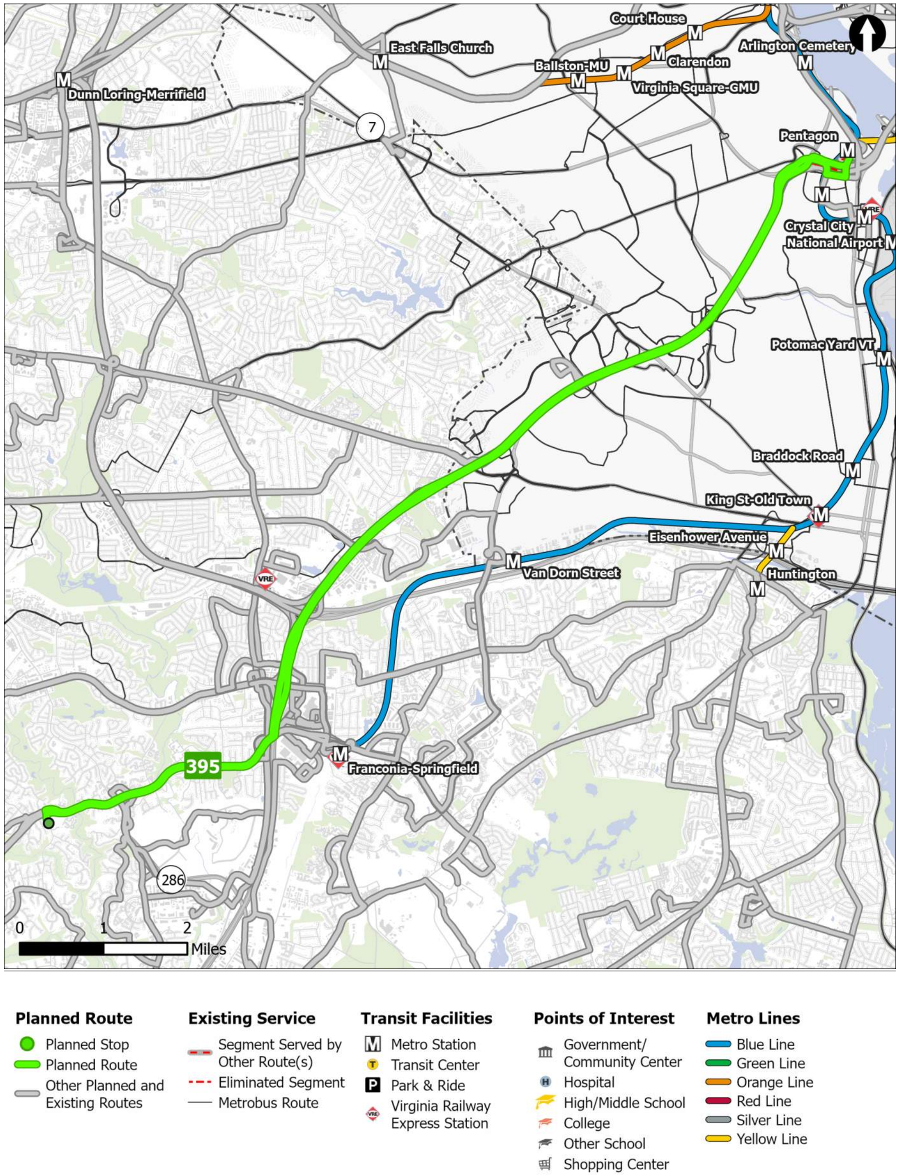
				Weekday	Saturday	Sunday
Level of Service	Proposed Route	Service Hours		05:20 AM to 09:20 AM / 3:35 PM to 07:00 PM	No Service	No Service
		Frequency (mins)	Peak	40	No Service	No Service
			Off-Peak	No Service		

Potential Mid-Term or Long-Term Improvement(s)
• No Change

Route 395

Gambrill Road Park & Ride to Pentagon Metro

FAIRFAX CONNECTOR



Overview		
	Class	Express
	Directions	Northbound/Southbound
	Via	I-95, Franconia-Springfield Pkwy/Rt 289, Fairfax County Pkwy/Rt 286, I-395
	Transfers Available	305, 306, 834, Metrobus at Pentagon Transit Center, Metrorail Blue, Yellow, ART, DASH, OmniRide
	Improvements	No change

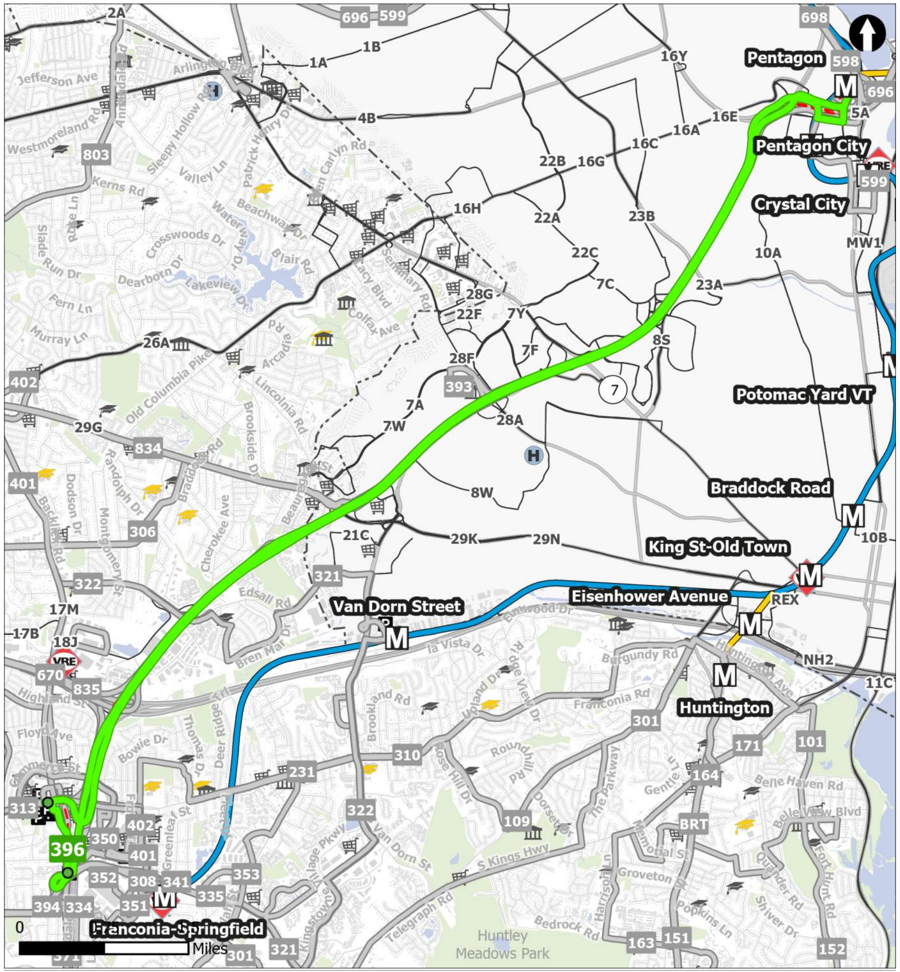
Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		05:05 AM to 08:50 AM / 3:00 PM to 07:20 PM	No Service	No Service
		Frequency (mins)	Peak	15-20	No Service	No Service
			Off-Peak	No Service		

Potential Mid-Term or Long-Term Improvement(s)
• No Change

Route 396

Backlick North Park & Ride to Pentagon Metro

FAIRFAX CONNECTOR



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview		
	Class	Express
	Directions	Northbound/Southbound
	Via	I-95, I-395, Backlick Rd
	Transfers Available	306, 310, 321, 322, 834, Metrobus at Pentagon Transit Center, Metrorail Blue, Yellow, ART, DASH, OmniRide,
	Improvements	Serve Springfield CBC Commuter Parking Garage

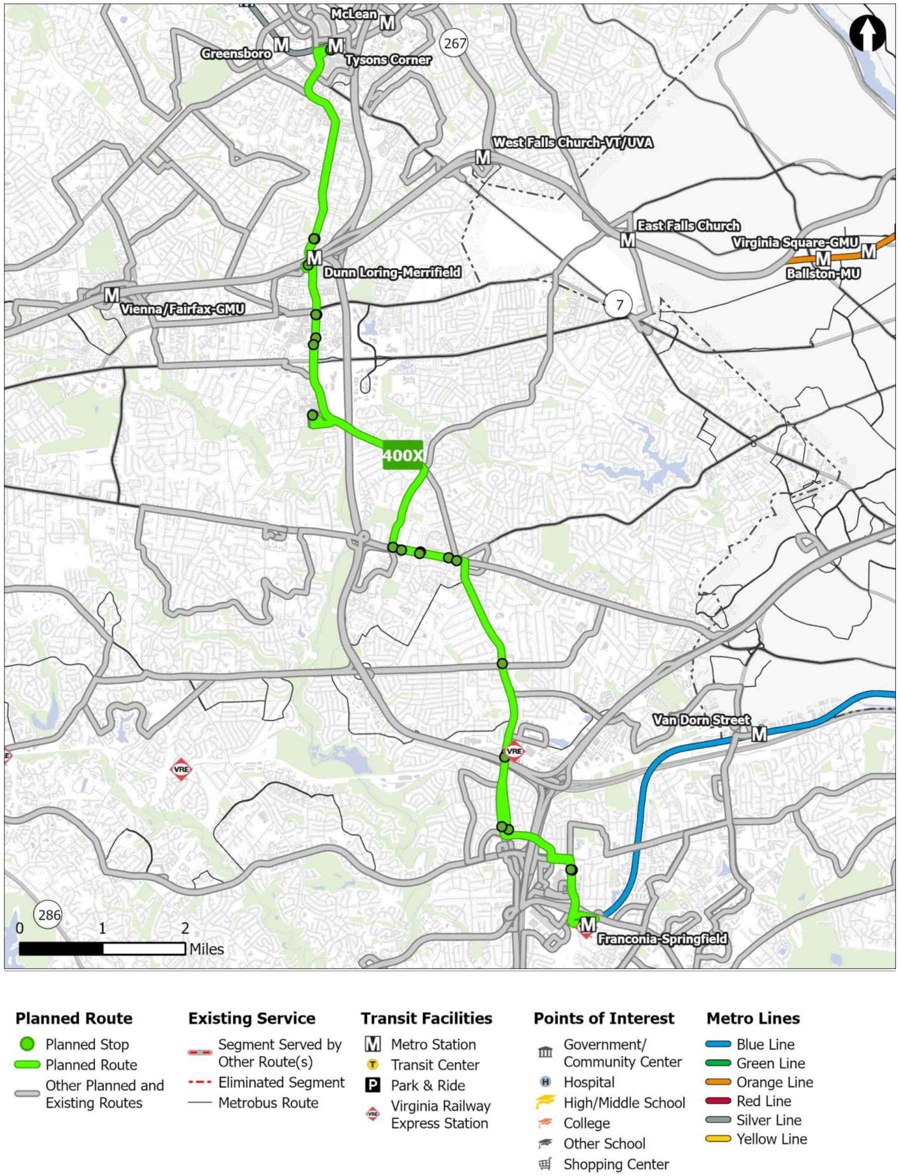
Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		05:20 AM to 08:45 AM / 3:10 PM to 07:20 PM	No Service	No Service
		Frequency (mins)	Peak	20	No Service	No Service
			Off-Peak	No Service		

Potential Mid-Term or Long-Term Improvement(s)
• No Change

Route 400X (Long-term)

Tysons Corner to Franconia-Springfield Metro & VRE Station

FAIRFAX CONNECTOR



Overview		
	Class	Express
	Directions	Northbound/Southbound
	Via	Backlick Rd VRE Station, Franconia-Springfield Metro & VRE Station, Gallows Rd, INOVA, Fairfax Hospital, Dunn Loring Metro, Tysons Corner Metro
	Transfers Available	231, 301, 305, 308, 310, 313, 321, 322, 334, 335, 341, 350, 351, 352, 353, 371, 401, 402, 423, 462, 463, 467, 494, 495, 660, 670, 671, 798, Metrorail Blue, Silver
	Improvements	New Route, Reduce Travel Time

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		6:00 AM to 9:00 AM / 4:00 PM to 7:00 PM	No Service	No Service
		Frequency (mins)	Peak	20	No Service	No Service
			Off-Peak	No Service		

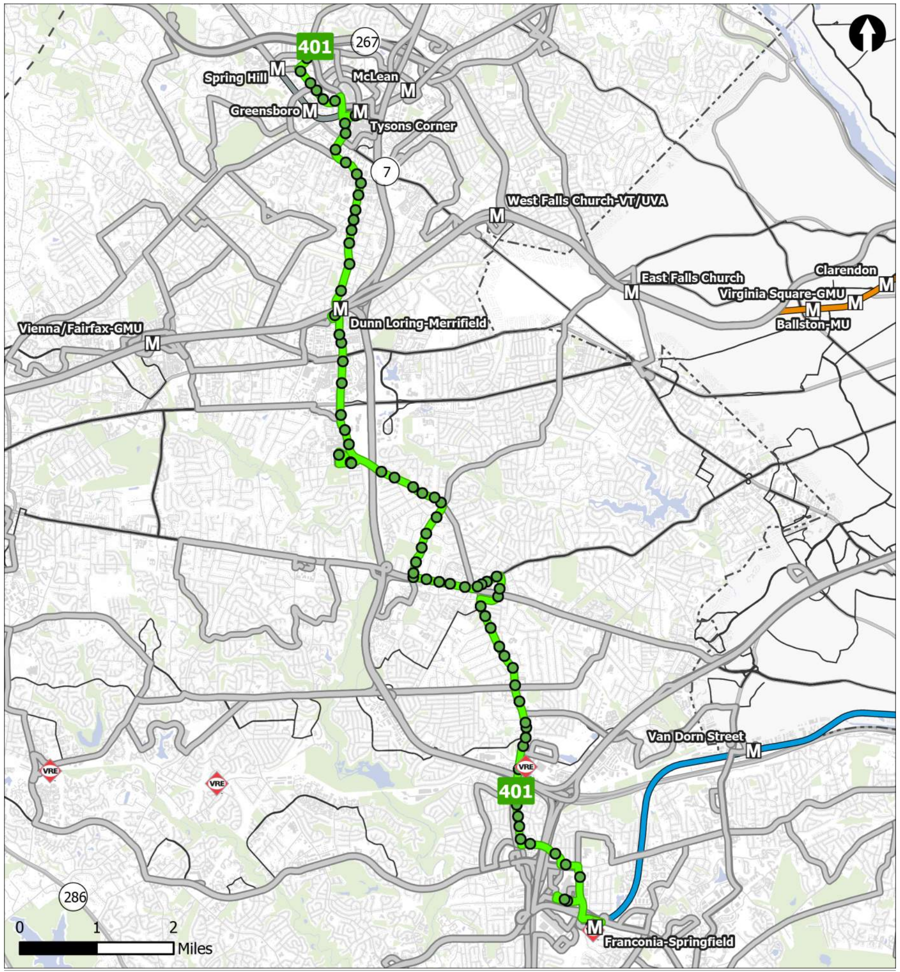
Potential Mid-Term or Long-Term Improvement(s)

Express Service | Frequency | Non-Rush Hours | Saturday | Sunday | Weekday

- Add weekday off-peak service between 9:00 AM and 9:00 PM with frequency of 30
- Add weekend service from 10:00 AM to 6:00 PM with frequency of 30

Route 401

Franconia-Springfield Metro & VRE Station to Tysons West Park TS



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview	Class	Cross-County
	Directions	Northbound
	Via	Backlick Rd VRE Station, Franconia-Springfield Metro & VRE Station, INOVA Fairfax Hospital, Dunn Loring Metro, Tysons Corner Metro
	Transfers Available	231, 301, 305, 308, 310, 313, 321, 322, 334, 335, 341, 350, 351, 352, 353, 371, 400X, 423, 432, 462, 463, 467, 494, 495, 574, 660, 670, 671, 672, 721, 798, 803, 832, Metrobus 1A/B/C, 2A/B, 16A, 17B/M, 18J, 23A/T, 26A, 28A, 29G/K/N, Metrorail Blue, Orange, Silver
	Improvements	No change

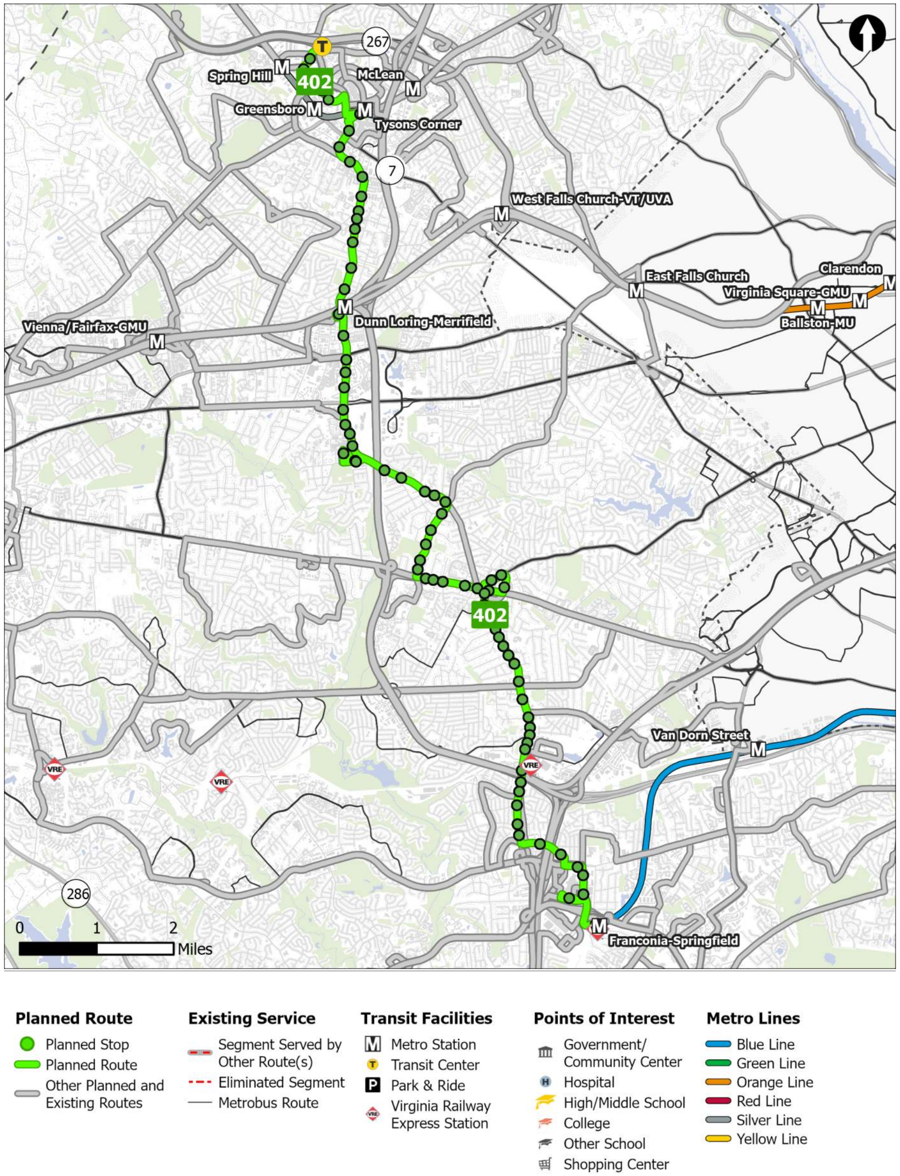
Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		04:00 AM to 01:00 AM	04:00 AM to 12:00 AM	04:00 AM to 12:00 AM
		Frequency (mins)	Peak	20	20	20
			Off-Peak	20		

Potential Mid-Term or Long-Term Improvement(s)

- No Change

Route 402

Franconia-Springfield Metro & VRE Station to Tysons West Park TS



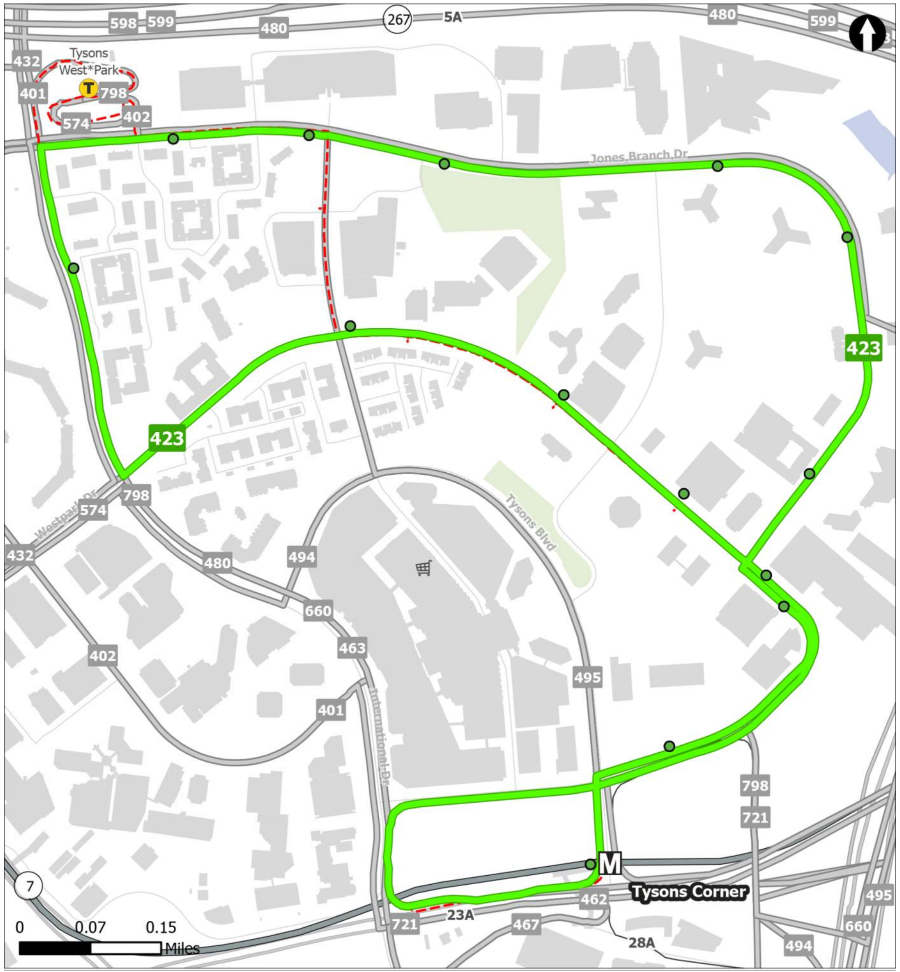
Overview		
	Class	Cross-County
	Directions	Southbound
	Via	Backlick Rd VRE Station, Franconia-Springfield Metro & VRE Station, INOVA Fairfax Hospital, Dunn Loring Metro, Tysons Corner Metro
	Transfers Available	231, 301, 305, 308, 310, 313, 321, 322, 334, 335, 341, 350, 351, 352, 353, 371, 400X, 423, 432, 462, 463, 467, 494, 495, 574, 660, 670, 671, 672, 721, 798, 803, 832, Metrobus 1A/B/C, 2A/B, 16A, 17B/M, 18J, 23A/T, 26A, 28A, 29G/K/N, Metrorail Blue, Orange, Silver
	Improvements	No change

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		04:00 AM to 01:00 AM	04:00 AM to 12:00 AM	04:00 AM to 12:00 AM
		Frequency (mins)	Peak	20	20	20
			Off-Peak	20		

Potential Mid-Term or Long-Term Improvement(s)
• No Change

Route 423

Central Tysons - Tysons Corner Metrorail Station



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview		
	Class	Circulator
	Directions	Largely Clockwise
	Via	Westpark Dr, Jones Branch Dr
	Transfers Available	400X, 401, 402, 423, 427, 432, 462, 463, 467, 494, 495, 574, 660, 721, 798 Metrorail Silver, Metrobus 23A, 23T, 28A
	Improvements	Realignment and improved frequency

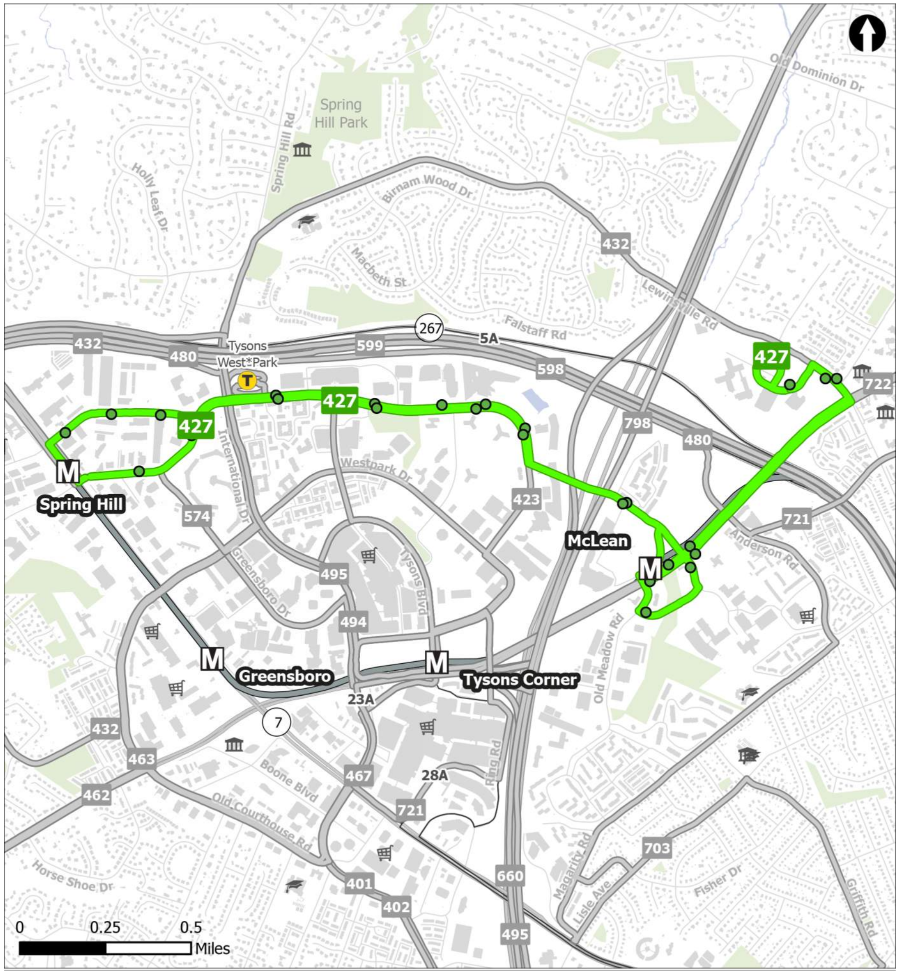
Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		05:30 AM to 09:16 PM	07:00 AM to 07:16 PM	07:00 AM to 07:16 PM
		Frequency (mins)	Peak	10	20	20
			Off-Peak	20		

Potential Mid-Term or Long-Term Improvement(s)
• No Change

Route 427

North Tysons - Spring Hill Metro Station

FAIRFAX CONNECTOR



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview		
	Class	Feeder
	Directions	Eastbound/Westbound
	Via	Jones Branch Dr., Spring Hill Rd
	Transfers Available	401, 402, 423, 432, 574, 703, 721, 722, 798, Metrorail Silver, Metrobus 23A, 23T
	Improvements	New route

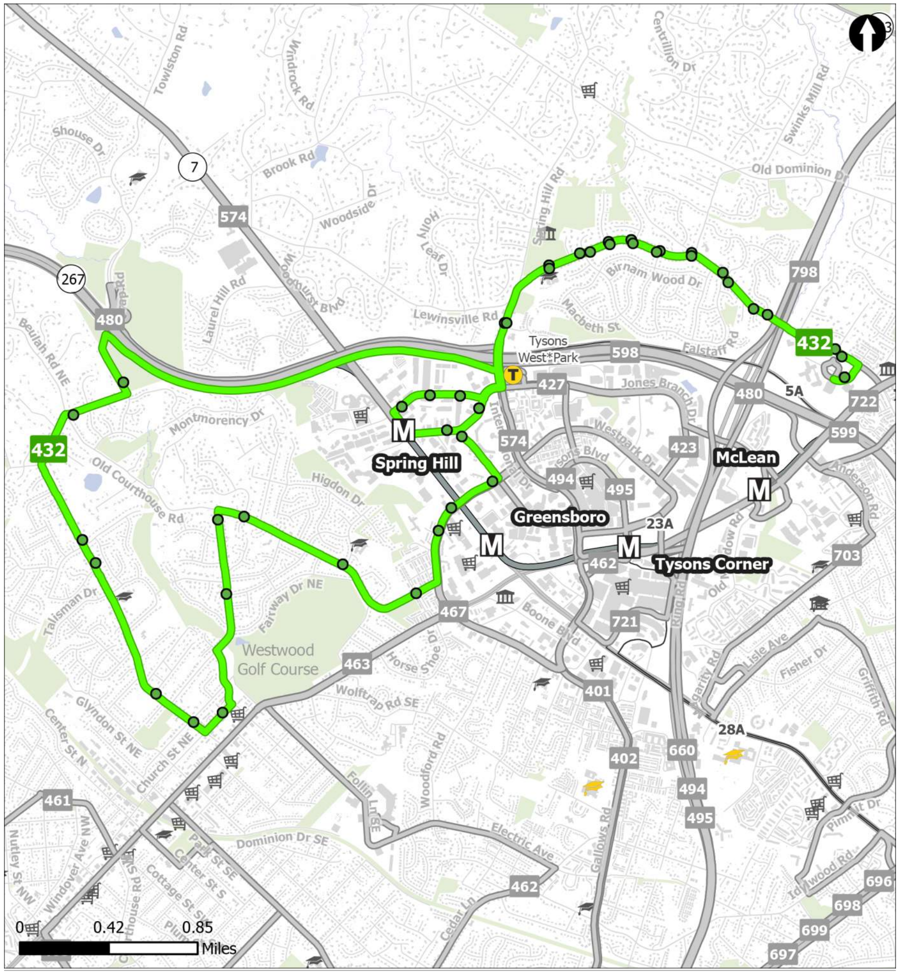
Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		6:00 AM to 9:17 AM / 3:30 PM to 6:47 PM	No Service	No Service
		Frequency (mins)	Peak	20	No Service	No Service
			Off-Peak	No Service		

Potential Mid-Term or Long-Term Improvement(s)
• No Change

Route 432

Old Courthouse - Farm Credit

FAIRFAX CONNECTOR



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview		
	Class	Local
	Directions	Clockwise
	Via	Dulles Toll Rd, Beulah, Spring Hill Metro station
	Transfers Available	401, 402, 423, 427, 462, 463, 467, 574, 798, Metrorail Silver
	Improvements	Improved span of service and realignment to serve Farm Credit area

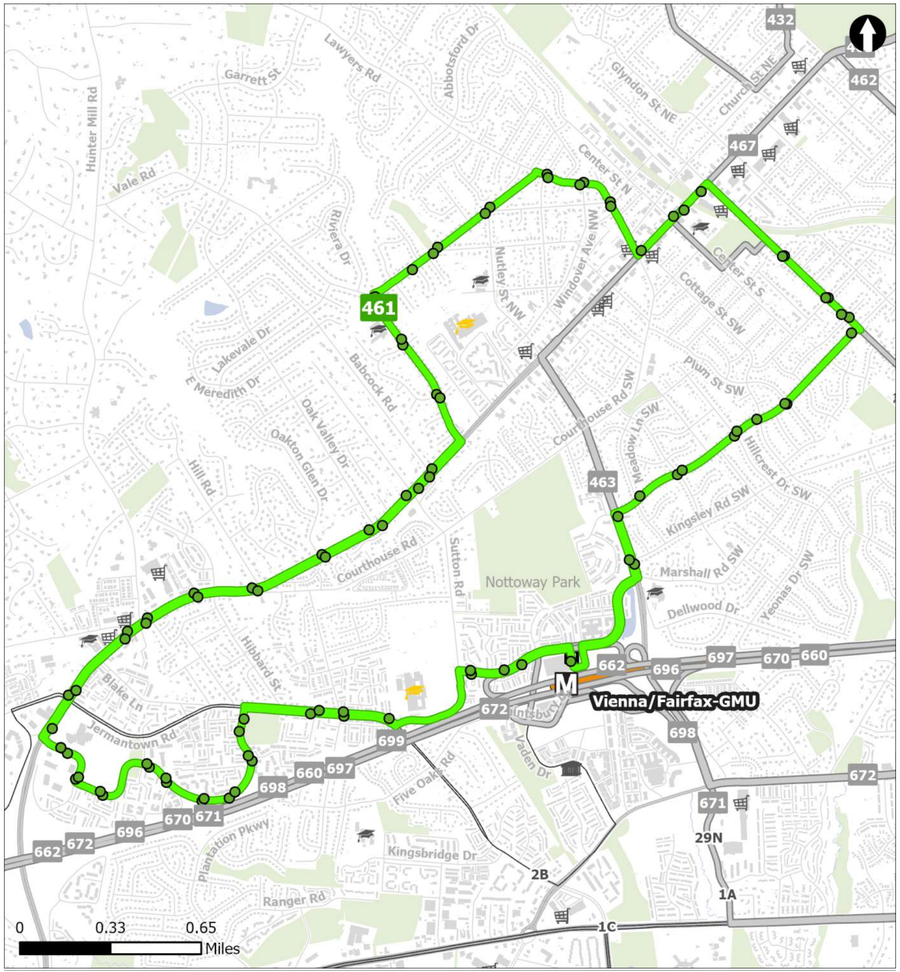
Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		5:31 AM - 9:07 AM / 3:27 PM - 7:20 PM	No Service	No Service
		Frequency (mins)	Peak	40	No Service	No Service
			Off-Peak	No Service		

Potential Mid-Term or Long-Term Improvement(s)
• No Change

Route 461

Vienna-Oakton

FAIRFAX CONNECTOR



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview	Class	Feeder
	Directions	Circulator (reverses direction at peaks)
	Via	Tapawingo Rd, Park St, Flint Hill Rd, Maple Ave/Route 123, Bushman Dr
	Transfers Available	463, 467, 660, 662, 663, 670, 671, 672, 698, Metrorail Orange, Metrobus 1A, 2B, 29N, CUE Green, Gold
	Improvements	More frequent service at peak times; adding mid-day service

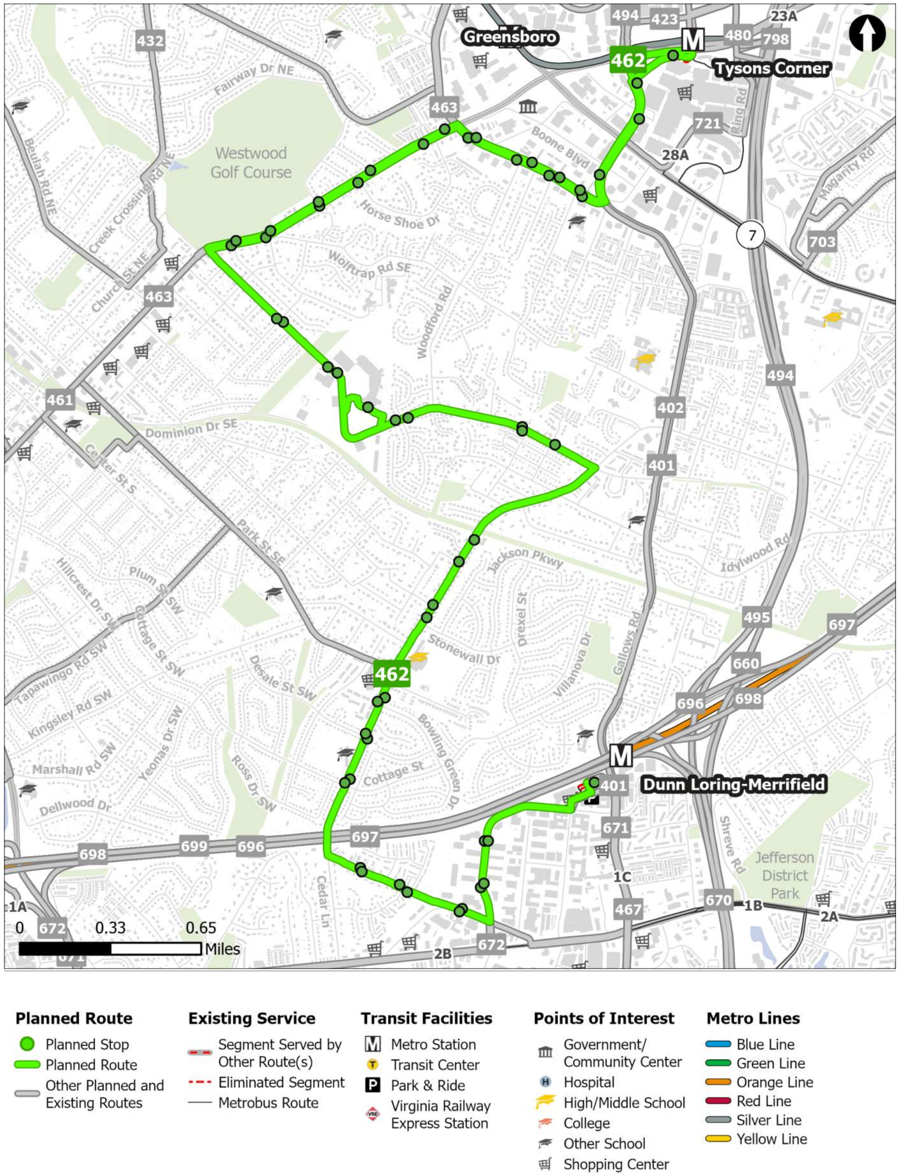
Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		06:00 AM to 07:55 PM	No Service	No Service
		Frequency (mins)	Peak	20	No Service	No Service
			Off-Peak	40		

Potential Mid-Term or Long-Term Improvement(s)
• No Change

Route 462

Dunn Loring - Navy Federal - Tysons

FAIRFAX CONNECTOR



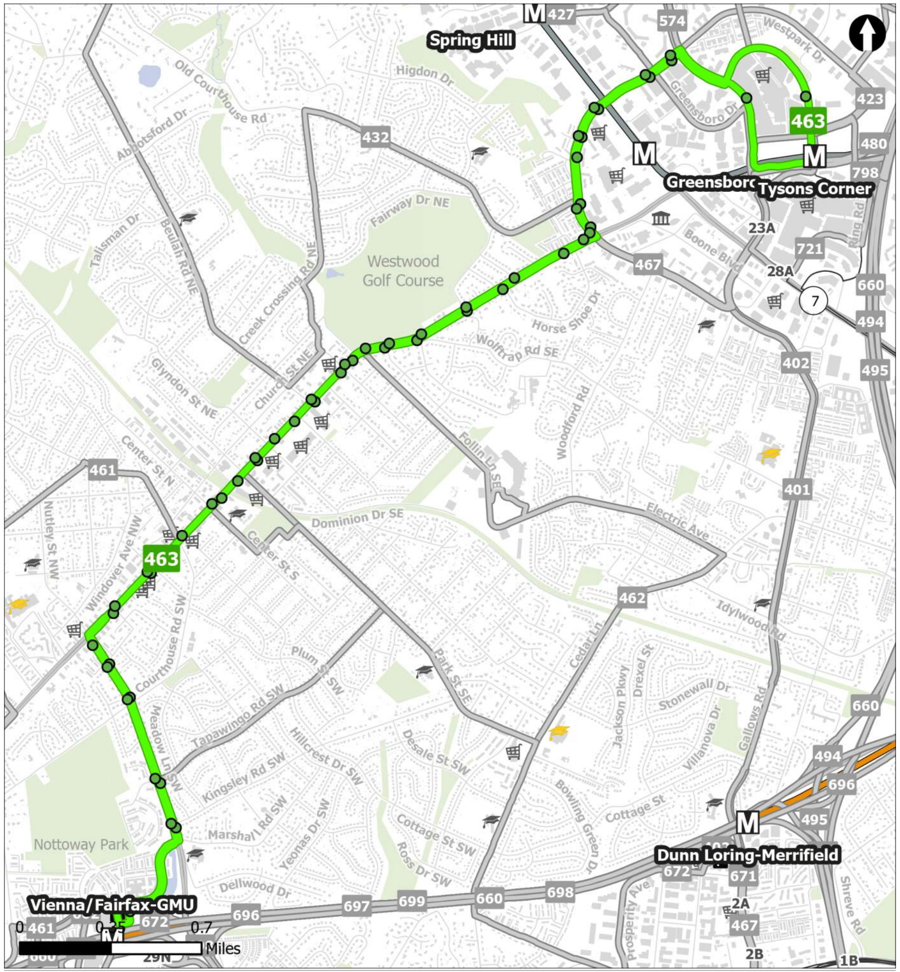
Overview		
	Class	Local
	Directions	Northbound / Southbound
	Via	Cedar Ln, Navy Federal, Old Courthouse Rd
	Transfers Available	400X, 401, 402, 423, 432, 463, 494, 495, 660, 671, 672, 721, 798, Metrobus 1B, 1C, 2A, 2B, 23A, 23T, 28A, Metrorail Orange, Silver
	Improvements	No change

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		5:15 AM to 9:23 AM / 3:50 PM to 7:38 PM	No Service	No Service
		Frequency (mins)	Peak	25-30	No Service	No Service
			Off-Peak	No Service		

Potential Mid-Term or Long-Term Improvement(s)
• No Change

Route 463

Maple Avenue - Tysons



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview		
	Class	Local
	Directions	Northbound/Southbound
	Via	Nutley St, Maple Ave/Route 123, Gosnell Rd
	Transfers Available	400X, 401, 402, 423, 432, 461, 462, 467, 494, 495, 574, 660, 662, 663, 670, 671, 672, 698, 721, 798, Metrorail Orange, Silver, Metrobus 1A, 2B, 23A, 23T, 28A, 29N, CUE Green, Gold
	Improvements	Improved frequencies on Saturdays

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		05:05 AM to 11:48 PM	06:00 AM to 11:26 PM	07:00 AM to 08:54 PM
		Frequency (mins)	Peak	20 - 25	30	60
			Off-Peak	30		

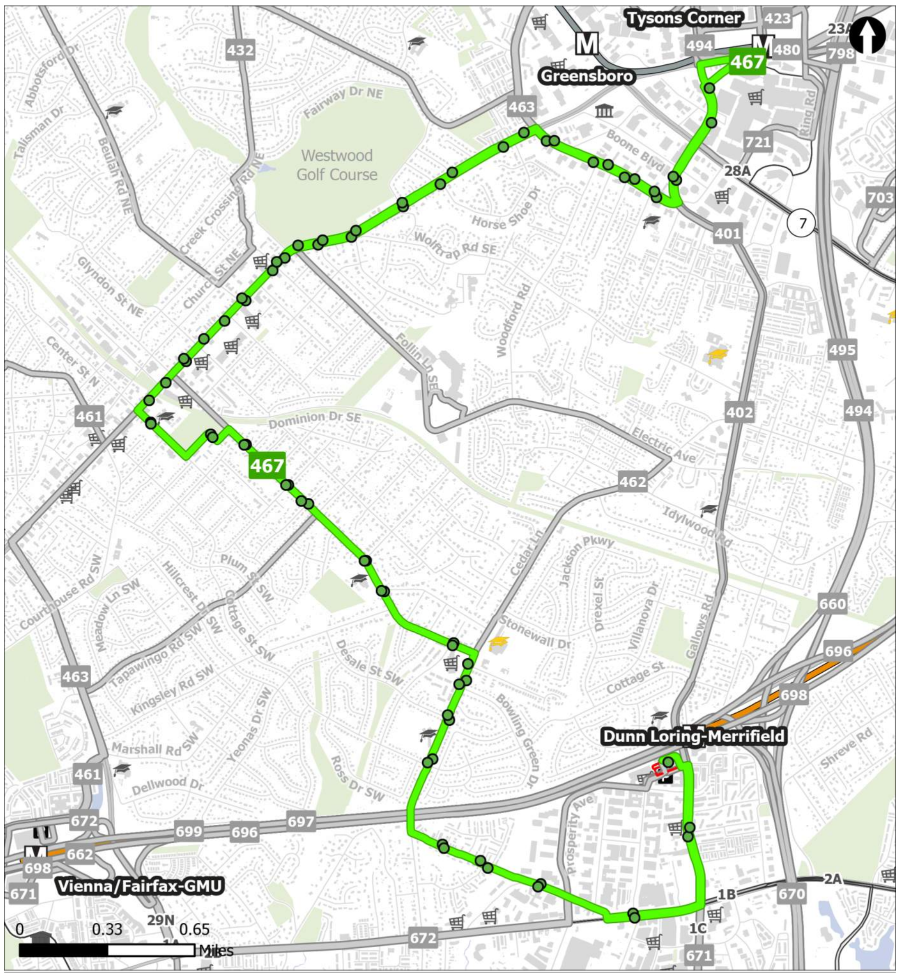
Potential Mid-Term or Long-Term Improvement(s)

- Increase Sunday frequency to 30 mins from 10:00 AM to 6:00 PM
- Extend Sunday service hours to 11:00 PM

Route 467

Dunn Loring - Tysons

FAIRFAX CONNECTOR



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview		
	Class	Local
	Directions	Northbound / Southbound
	Via	Cedar Ln, Park St, Maple Ave/Route 123, Old Courthouse Rd
	Transfers Available	400X, 401, 402, 423, 432, 461, 462, 463, 494, 495, 660, 671, 672, 721, 798, Metrorail Orange, Silver, Metrobus 1C, 2A, 2B, 23A, 23T, 28A
	Improvements	No change

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		9:00 AM to 3:32 PM / 7:58 PM to 11:50 PM	06:20 AM to 11:33 PM	08:20 AM to 08:53 PM
		Frequency (mins)	Peak	No Service	40	40
			Off-Peak	40		

Potential Mid-Term or Long-Term Improvement(s)

Late Night

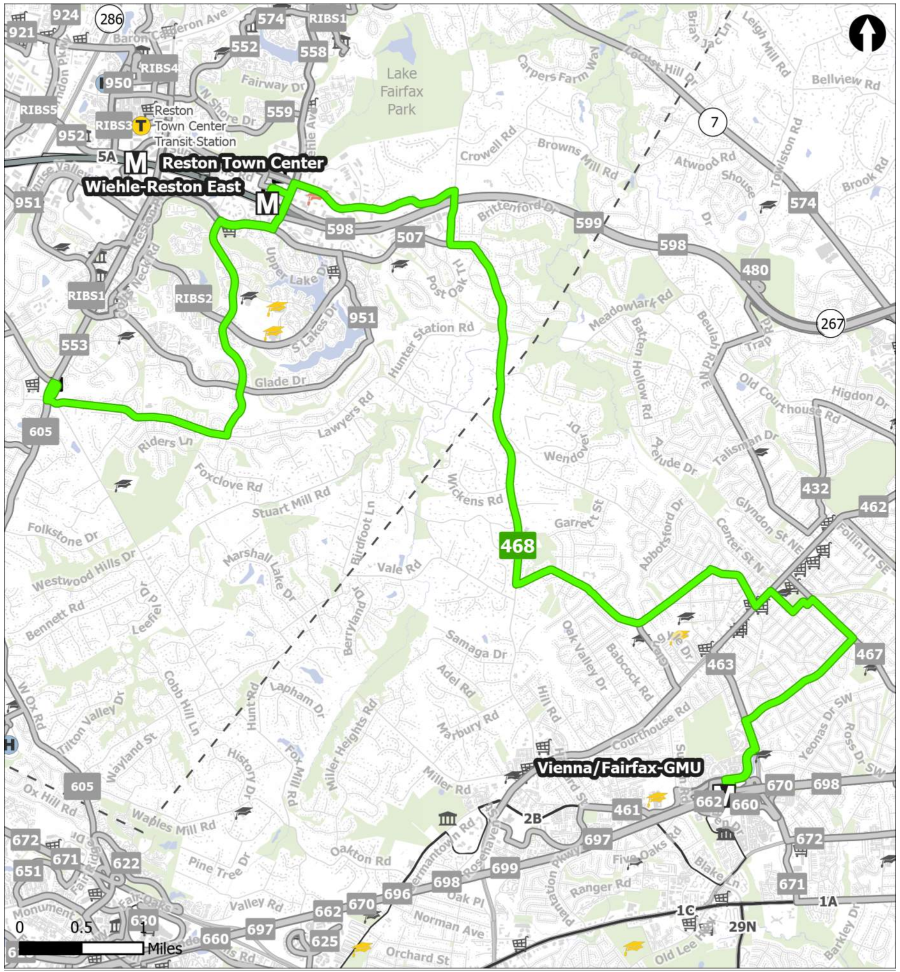
Sunday

- Extend Sunday service hours to 10:00 PM

Route 468 (Long-term)

Vienna - Reston

FAIRFAX CONNECTOR



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview	Class	Local
	Directions	Eastbound/Westbound
	Via	Lawyers Rd, Soapstone Rd
	Transfers Available	461, 463, 467, 507, 552, 553, 557, 558, 559, 598, 599, 625, 660, 662, 670, 671, 672, 698, 951, 952, RIBS1, RIBS2, RIBS3, Metrorail Orange, Silver, Metrobus 1A, 1B, 2B, 29N
	Improvements	New route operating between Vienna and Reston, providing new links and wide range of connections

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		6:00 AM to 8:00 PM	8:00 AM to 8:00 PM	8:00 AM to 8:00 PM
		Frequency (mins)	Peak	45	45	45
			Off-Peak	45		

Potential Mid-Term or Long-Term Improvement(s)

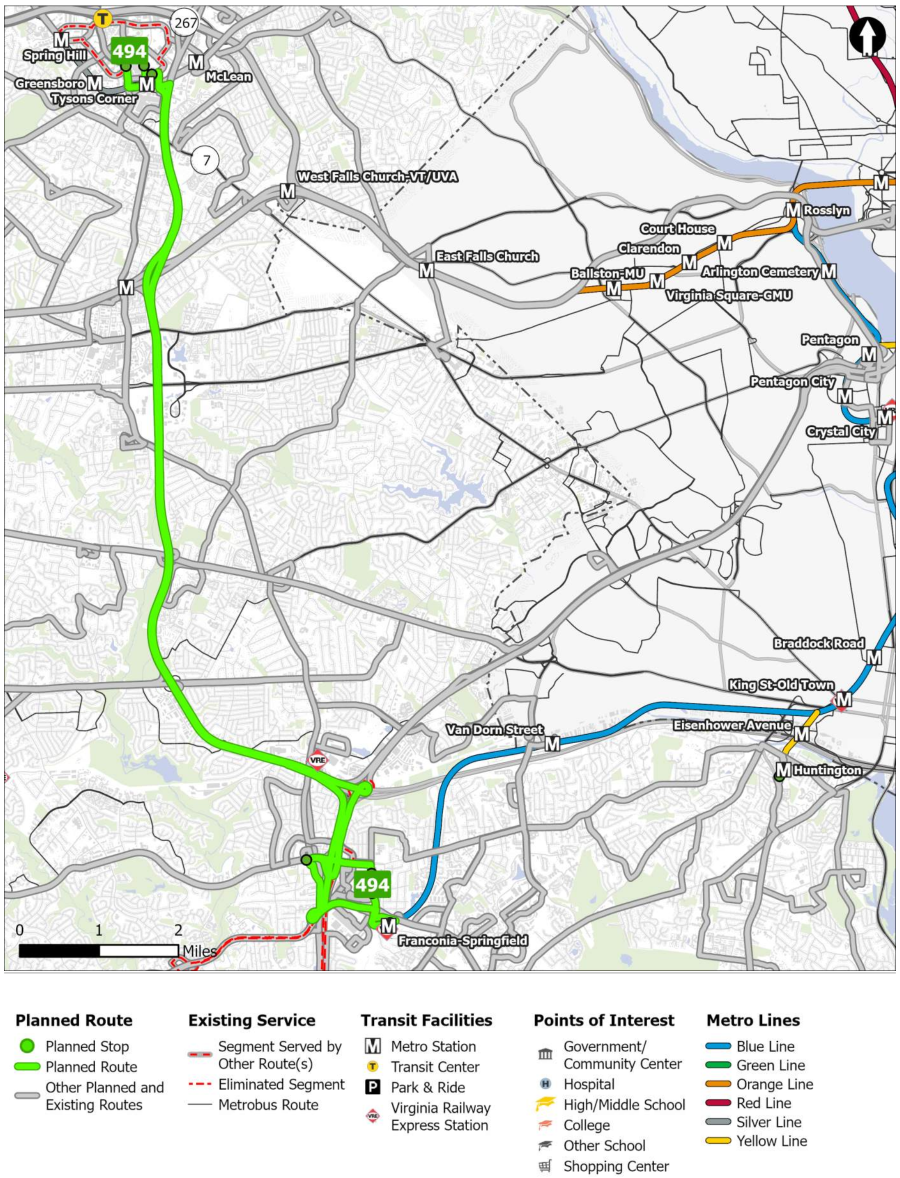
Connectivity | Non-Rush Hours | Rush Hours | Saturday | Sunday | Weekday

- New route connecting Reston Town Center and Vienna Metro Station via Soapstone Drive and Lawyers Road
- Operate on weekdays from 6:00 AM to 8:00 PM with frequency of 45
- Operate on weekends from 8:00 AM to 8:00 PM with frequency of 45

Route 494

Franconia-Springfield Metro & VRE Station to Tysons Galleria Shopping Center

FAIRFAX CONNECTOR



Overview		
	Class	Express
	Directions	Northbound / Southbound
	Via	I-95, Franconia-Springfield Pkwy/Rt 289, Franconia-Springfield Metro & VRE Station
	Transfers Available	231, 301, 305, 308, 310, 313, 321, 322, 334, 335, 341, 350, 351, 352, 353, 371, 393, 396, 401, 402, 423, 462, 463, 467, 495, 660, 670, 721, 798, Metrorail Blue, Silver
	Improvements	Streamline Route, Reduce Travel Time, Increase Frequency

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		05:00 AM to 08:52 PM	No Service	No Service
		Frequency (mins)	Peak	15	No Service	No Service
			Off-Peak	60		

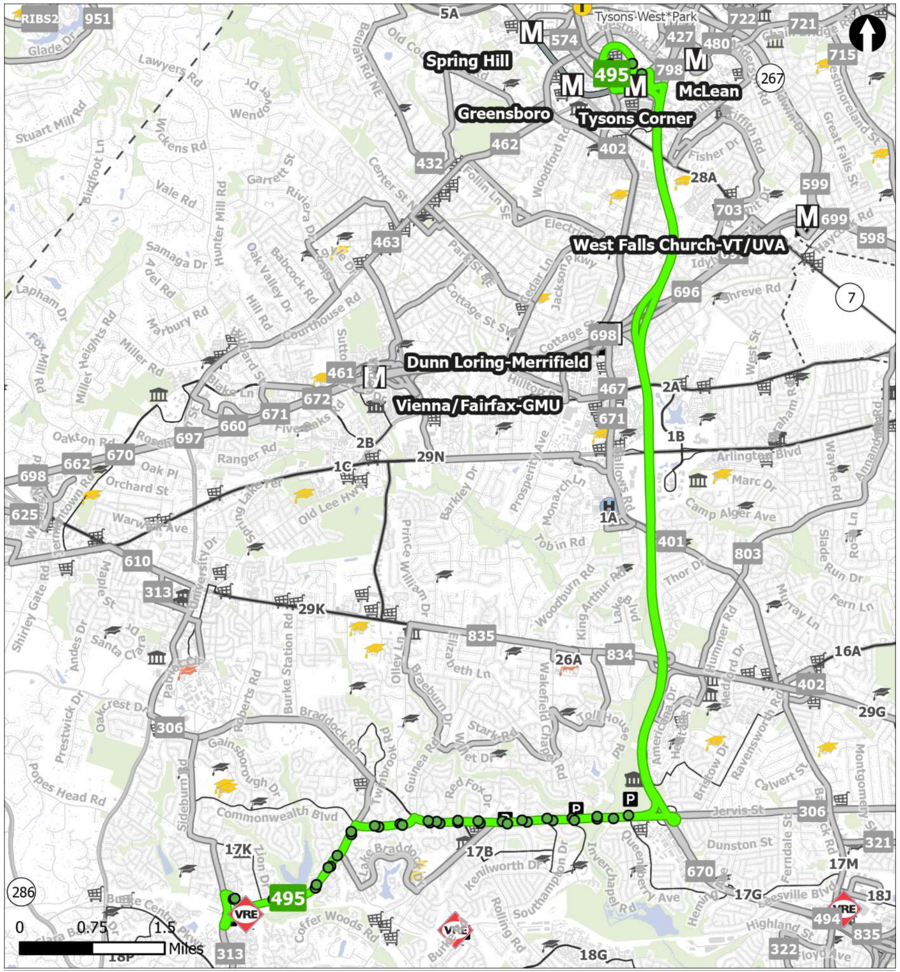
Potential Mid-Term or Long-Term Improvement(s)

- Extending the route to serve Huntington Metro

Route 495

Burke Center VRE Station to Tysons Galleria Shopping Center

FAIRFAX CONNECTOR



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

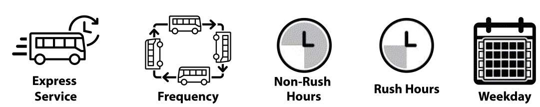
Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview		
	Class	Express
	Directions	Northbound / Southbound
	Via	I-495/Capital Beltway, Braddock Rd, Guinea Rd
	Transfers Available	306, 313, 400X, 401, 402, 423, 462, 463, 467, 494, 660, 721, 798, Metrorail Silver
	Improvements	Streamline Route, Reduce Travel Time

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		6:10-9:04 AM / 12:30-1:34 PM / 3:45-7:12 PM	No Service	No Service
		Frequency (mins)	Peak	35	No Service	No Service
			Off-Peak	Limited Service		

Potential Mid-Term or Long-Term Improvement(s)

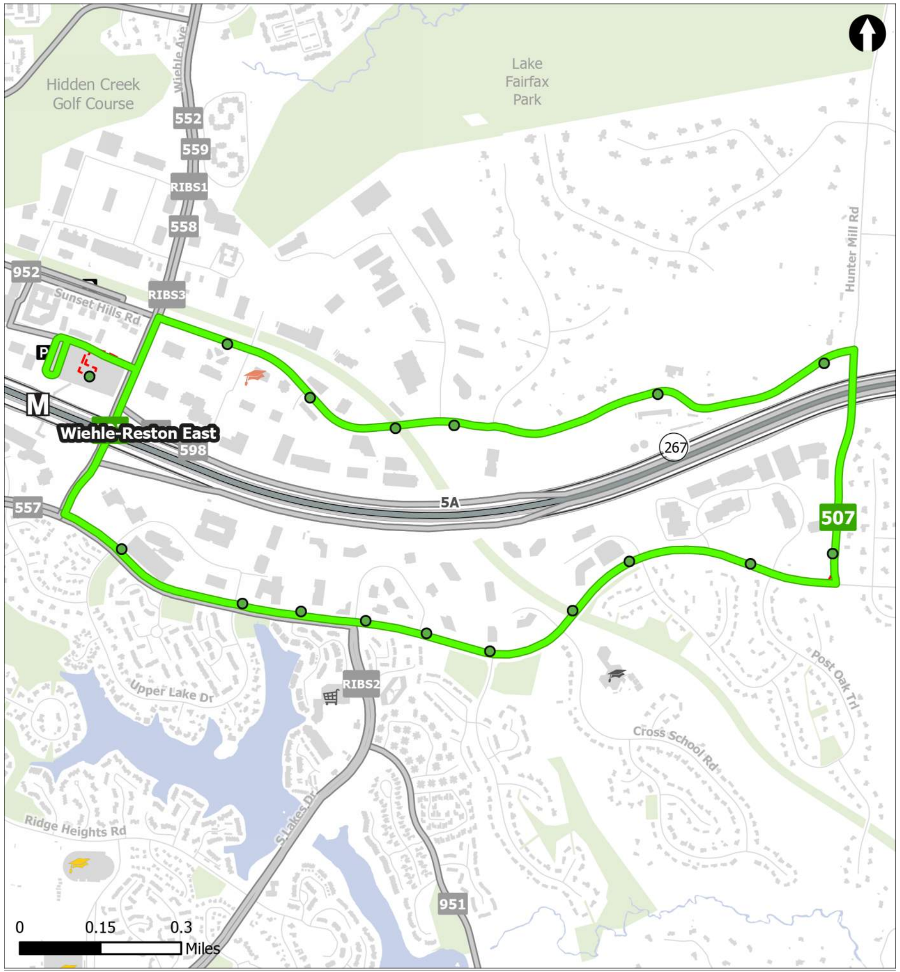


- Restore existing span and frequency

Route 507

Wiehle-Reston East Metro to Parkridge Blvd

FAIRFAX CONNECTOR



Planned Route	Existing Service	Transit Facilities	Points of Interest	Metro Lines
Planned Stop	Segment Served by Other Route(s)	Metro Station	Government/ Community Center	Blue Line
Planned Route	Eliminated Segment	Transit Center	Hospital	Green Line
Other Planned and Existing Routes	Metrobus Route	Park & Ride	High/Middle School	Orange Line
		Virginia Railway Express Station	College	Red Line
			Other School	Silver Line
			Shopping Center	Yellow Line

Overview		
	Class	Feeder
	Directions	Loop
	Via	Sunset Hills Rd, Sunrise Valley Dr
	Transfers Available	552, 557, 558, 559, 598, 599, 951, 952, RIBS1, RIBS2, RIBS3, Metrorail Silver
	Improvements	Shifted span of service

IMPLEMENTED November 2022

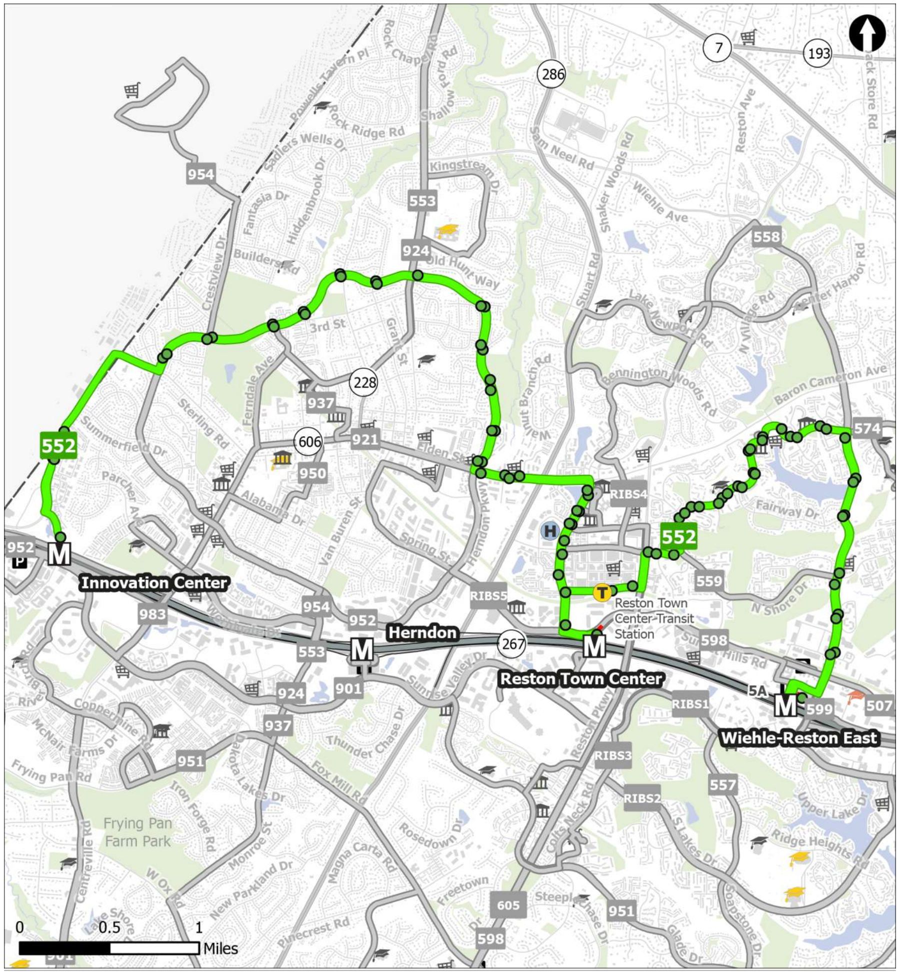
Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		05:15 AM to 07:23 PM	No Service	No Service
		Frequency (mins)	Peak	25	No Service	No Service
			Off-Peak	25		

Potential Mid-Term or Long-Term Improvement(s)
• No Change

Route 552

Wiehle-Reston East Metro to Innovation Center Metro

FAIRFAX CONNECTOR



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview	Class	Feeder
	Directions	Westbound / Eastbound
	Via	Lake Anne, Reston Town Center, Herndon Pkwy
	Transfers Available	507, 553, 557, 558, 559, 574, 598, 599, 605, 921, 924, 937, 950, 951, 952, 954, 983, RIBS1, RIBS2, RIBS3, RIBS4, RIBS5, Metrorail Silver, LCT
	Improvements	Provide New Connections

IMPLEMENTED
November 2022

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		6:00 AM to 9:33 AM / 4:00 PM to 7:33 PM	No Service	No Service
		Frequency (mins)	Peak	20	No Service	No Service
			Off-Peak	No Service		

Potential Mid-Term or Long-Term Improvement(s)

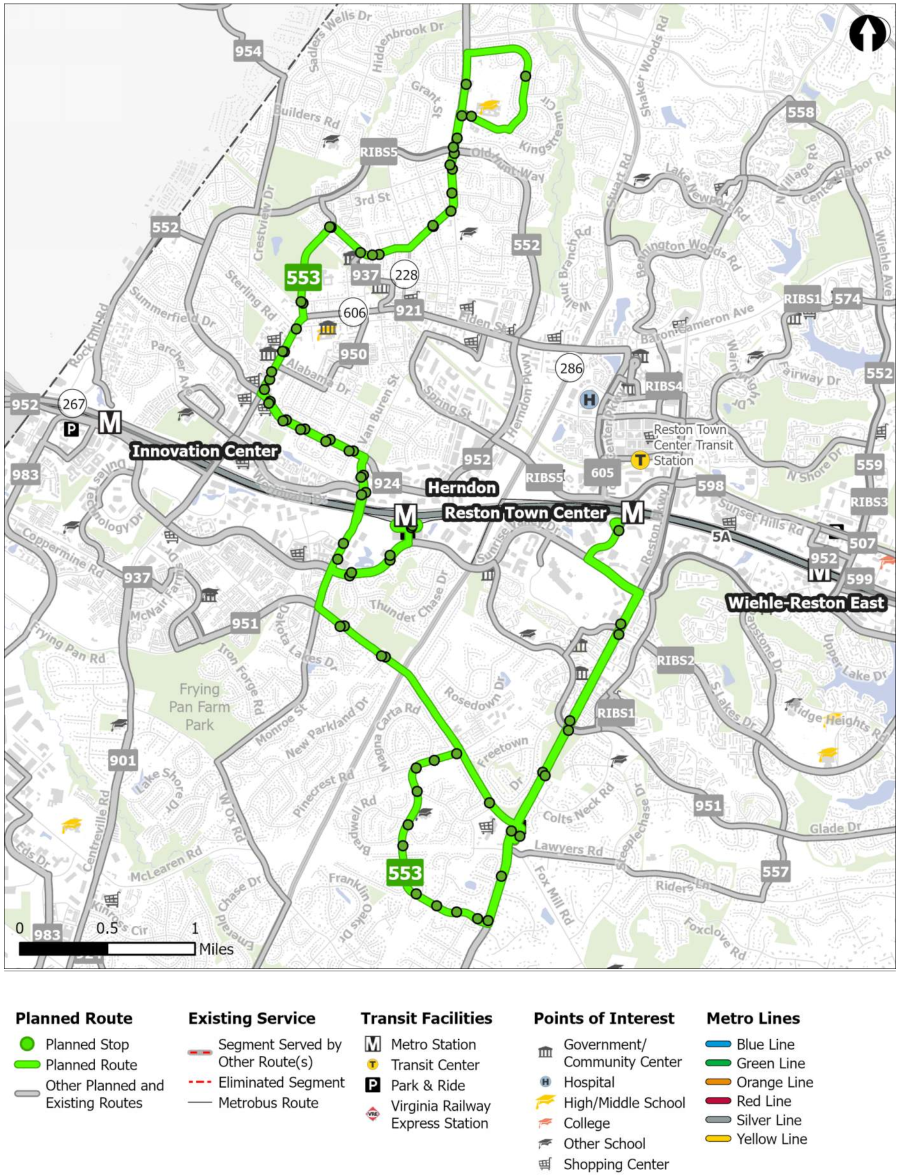
Frequency Non-Rush Hours Weekday

- Add weekday off-peak service between 5:00 AM and 7:00 PM with frequency of 45 mins

Route 553

Reston Town Center Metro to Herndon High School

FAIRFAX CONNECTOR



IMPLEMENTED November 2022

Overview		
	Class	Feeder
	Directions	Northbound/Southbound
	Via	Reston South Park & Ride, Viking Dr, Herndon Metro (South), Herndon Senior Center, Herndon Harbor House, Kingstream Dr
	Transfers Available	552, 557, 598, 605, 901, 921, 924, 937, 950, 951, 952, 954, RIBS1, RIBS2, RIBS3, RIBS4, RIBS5, Metrorail Silver
	Improvements	Improvement in service reliability

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		5:40 AM to 9:46 AM / 3:06 PM to 7:26 PM	No Service	No Service
		Frequency (mins)	Peak	20	No Service	No Service
			Off-Peak	No Service		

Potential Mid-Term or Long-Term Improvement(s)

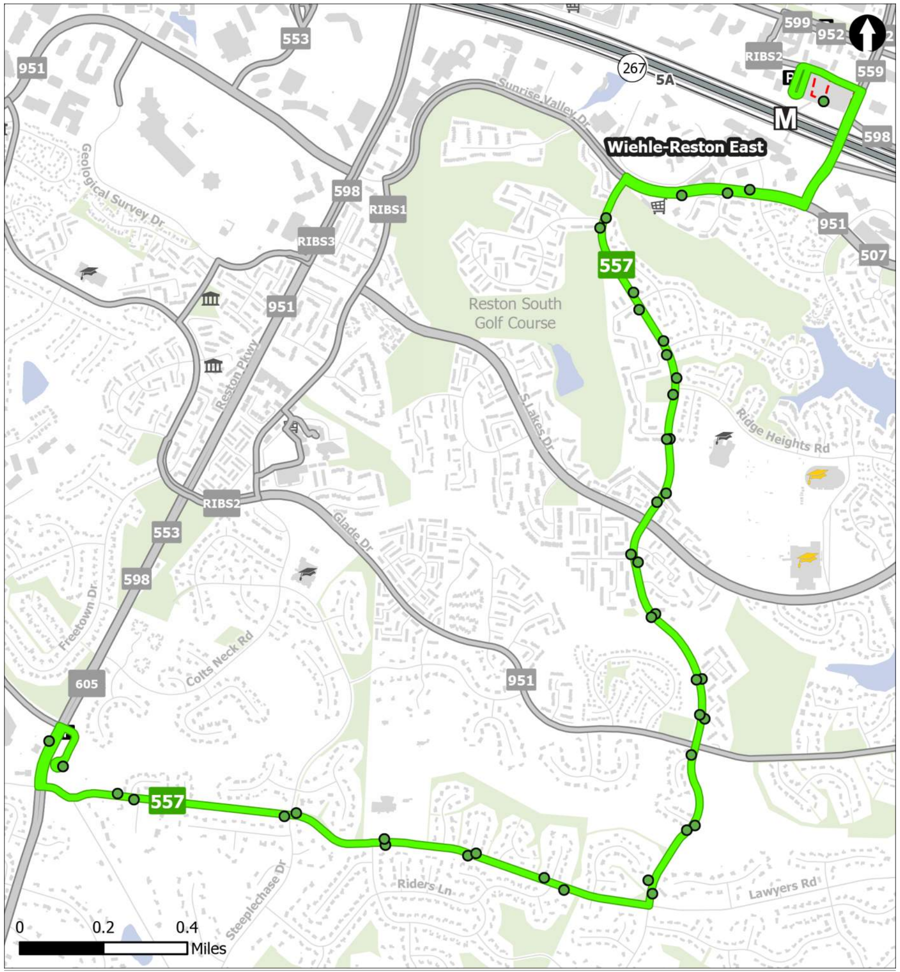
Frequency | Non-Rush Hours | Saturday | Sunday | Weekday

- Add weekday off-peak service between 5:00 AM and 7:00 PM with frequency of 60 mins
- Add weekend service from 7:00 AM to 7:00 PM with frequency of 60 mins

Route 557

Reston South - Wiehle-Reston East Metro

FAIRFAX CONNECTOR



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

IMPLEMENTED
November 2022

Overview		
	Class	Feeder
	Directions	Northbound/Southbound
	Via	Soapstone Road
	Transfers Available	507, 552, 553, 558, 559, 598, 599, 605, 951, 952, RIBS1, RIBS2, RIBS3, Metrorail Silver
	Improvements	Maintain peak-period connection

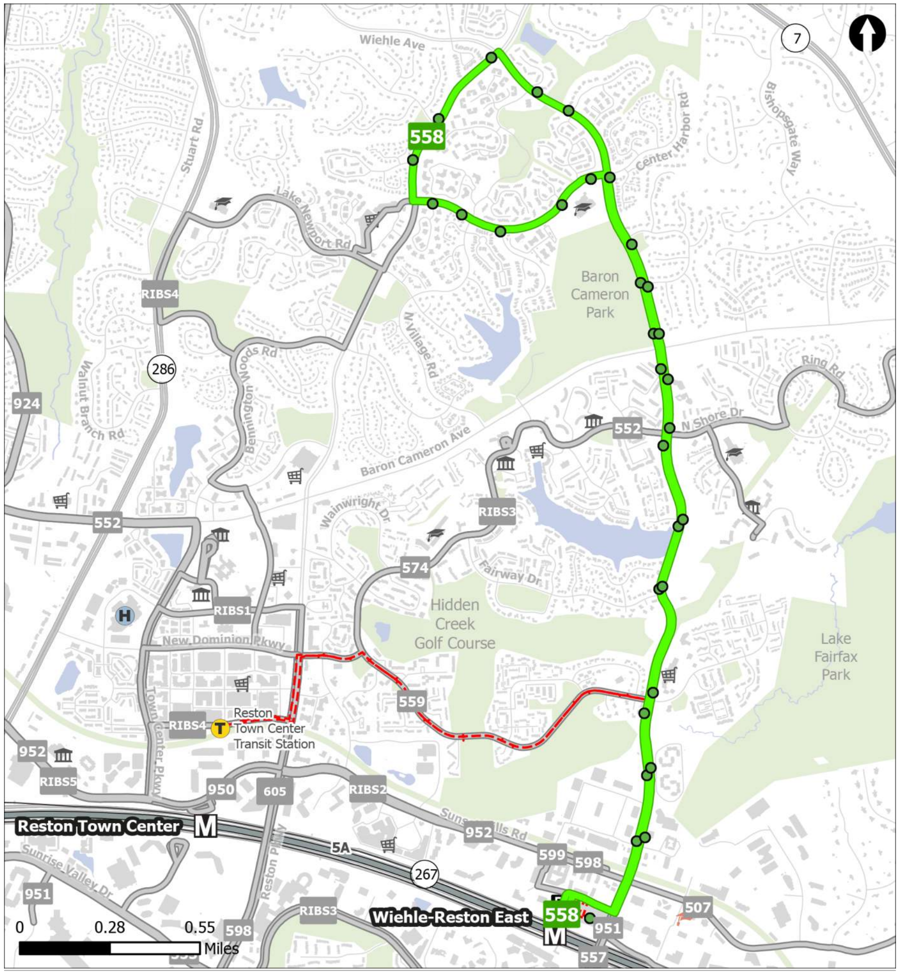
Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		05:57 AM - 8:37 AM / 4:17 PM to 7:13 PM	No Service	No Service
		Frequency (mins)	Peak	40	No Service	No Service
			Off-Peak	No Service		

Potential Mid-Term or Long-Term Improvement(s)

- No Change

Route 558

Reston Town Center Transit Station to Center Harbor Rd & Wiehle Ave



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview		
	Class	Local
	Directions	Northbound/Southbound
	Via	Wiehle-Reston East Metro
	Transfers Available	507, 552, 557, 559, 574, 605, 937, 950, 951, 952, RIBS1, RIBS2, RIBS3, RIBS4, Metrorail Silver
	Improvements	Provide New Connections

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		05:28 AM to 09:03 PM	06:58 AM to 09:03 PM	06:58 AM to 09:03 PM
		Frequency (mins)	Peak	20	60	60
			Off-Peak	60		

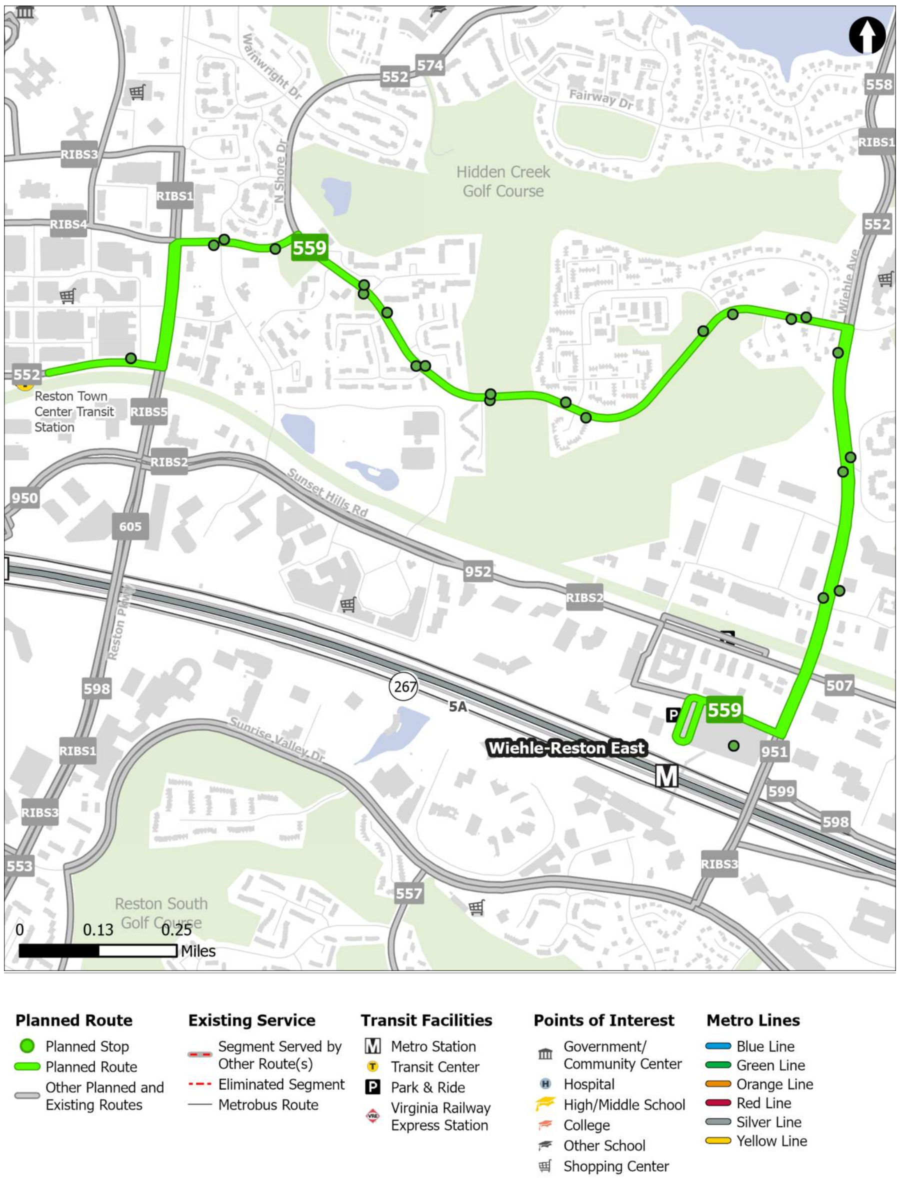
Potential Mid-Term or Long-Term Improvement(s)

- Split the route to two routes: 558 (Between Wiehle Metro and Center Harbor), and 559 (between Wiehle Metro and Reston Town Center)

Route 559

Center Harbor - Wiehle - Reston TC

FAIRFAX CONNECTOR



Overview		
	Class	Local
	Directions	Westbound / Eastbound
	Via	Wiehle Metro, Reston Town Center Transit Center
	Transfers Available	507, 552, 557, 558, 574, 598, 599, 605, 950, 951, 952, RIBS1, RIBS2, RIBS3, RIBS4, RIBS5, Metrorail Silver
	Improvements	Provide New Connections

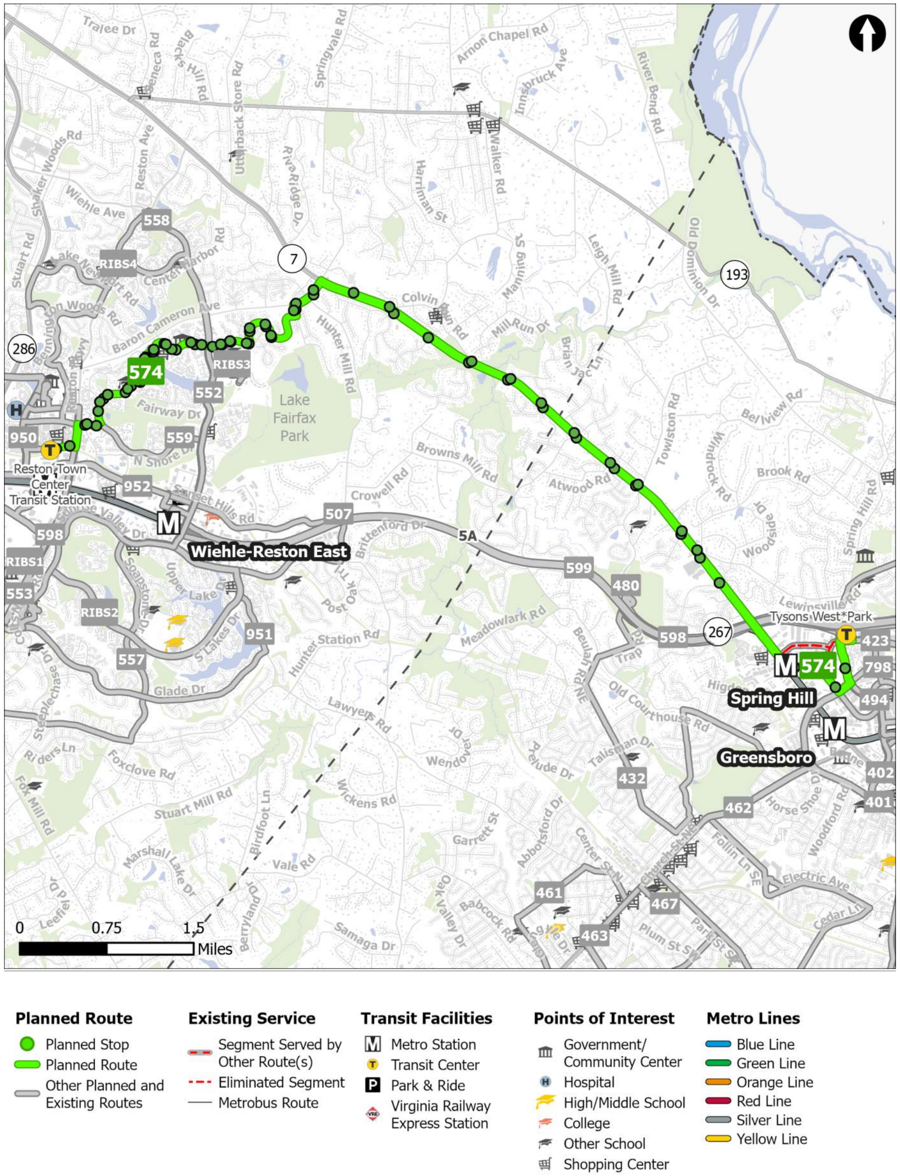
Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		05:37 AM to 08:47 PM	07:14 AM to 08:47 PM	07:14 AM to 08:47 PM
		Frequency (mins)	Peak	20	60	60
			Off-Peak	60		

Potential Mid-Term or Long-Term Improvement(s)
• No Change

Route 574

Reston Town Center Transit Center to Tysons West Park Transit Center

FAIRFAX CONNECTOR



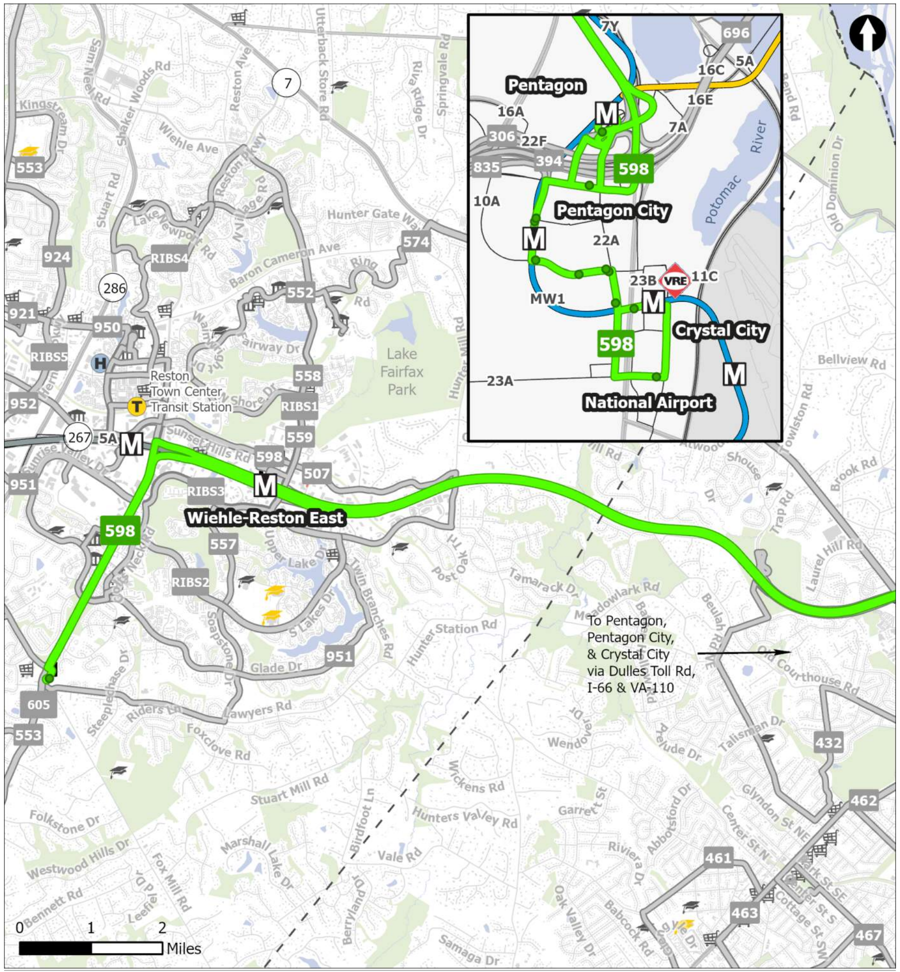
Overview		
	Class	Cross County
	Directions	Eastbound / Westbound
	Via	Lake Anne, Lake Fairfax, Leesburg Pike
	Transfers Available	401, 402, 423, 427, 432, 463, 552, 558, 559, 605, 798, 950, 952, RIBS1, RIBS2, RIBS3, RIBS4, RIBS5, Metrorail Silver
	Improvements	Reduce Travel Time

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		05:00 AM to 10:25 PM	06:15 AM to 12:25 AM	07:00 AM to 09:55 PM
		Frequency (mins)	Peak	30	45	45
			Off-Peak	45		

Potential Mid-Term or Long-Term Improvement(s)
• No Change

Route 598

Reston South Park & Ride to Pentagon / Crystal City



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview		
	Class	Express
	Directions	Eastbound / Westbound
	Via	Dulles Toll Road, I-66
	Transfers Available	507, 552, 553, 557, 558, 559, 605, 951, 952, RIBS1, RIBS2, RIBS3, Metrorail Blue, Yellow, Metrobus at Pentagon Transit Center, ART, DASH, OmniRide
	Improvements	New route operating between Reston and Pentagon/Crystal City

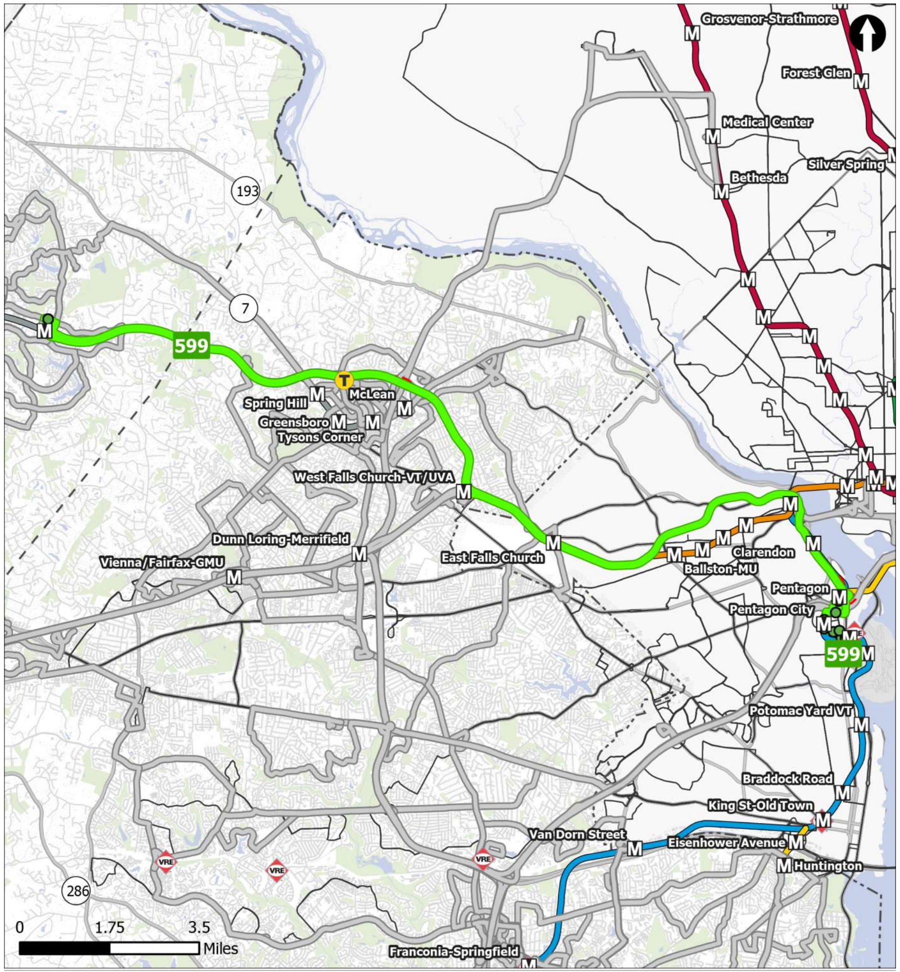
Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		5:20 AM to 8:30 AM / 3:07 PM to 6:27 PM	No Service	No Service
		Frequency (mins)	Peak	15-25	No Service	No Service
			Off-Peak	No Service		

Potential Mid-Term or Long-Term Improvement(s)
• No Change

Route 599

Reston North Park & Ride to Pentagon / Crystal City

FAIRFAX CONNECTOR



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

IMPLEMENTED
November 2022

Overview	Class	Express
	Directions	Eastbound / Westbound
	Via	Dulles Toll Road, I-66
	Transfers Available	507, 552, 557, 558, 559, 951, 952, RIBS1, RIBS2, RIBS3, Metrorail Blue, Yellow, Metrobus at Pentagon Transit Center
	Improvements	Shifted span of service

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		5:35 AM to 8:00 AM / 3:20 PM to 5:50 PM	No Service	No Service
		Frequency (mins)	Peak	25	No Service	No Service
			Off-Peak	No Service		

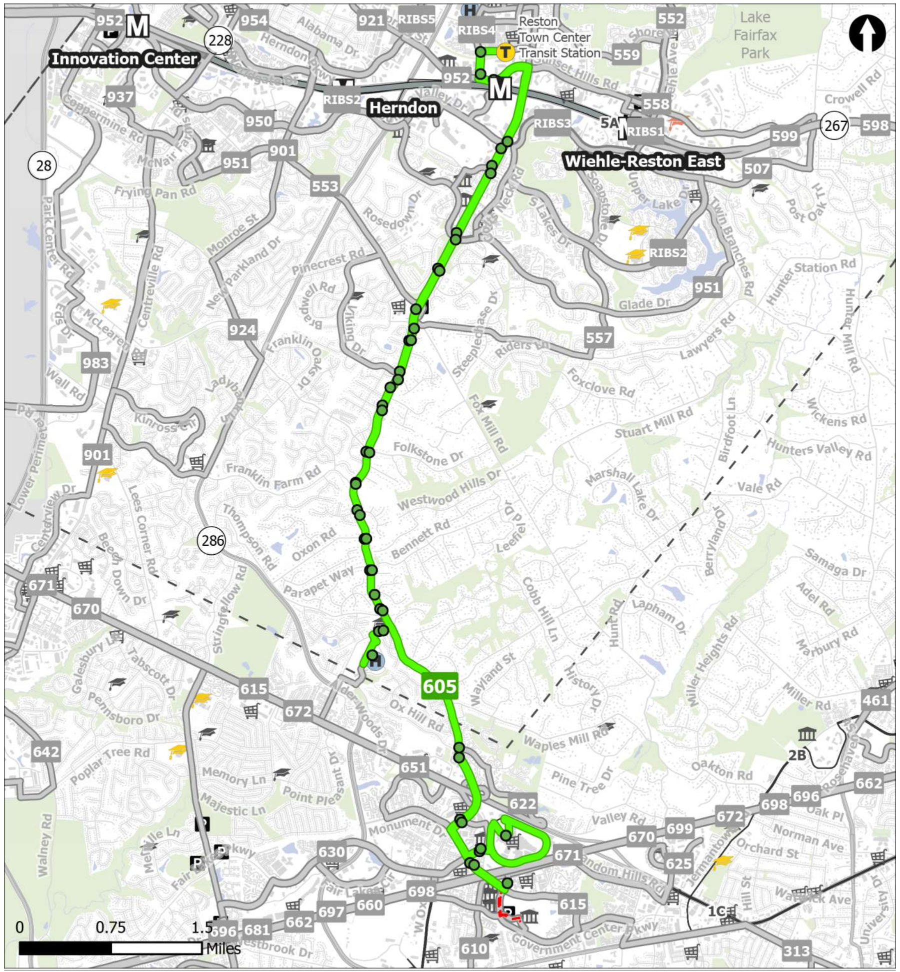
Potential Mid-Term or Long-Term Improvement(s)

- No Change

Route 605

Reston Town Center Transit Station to Fairfax Co. Government Center

FAIRFAX CONNECTOR



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview		
	Class	Cross County
	Directions	Southbound / Northbound
	Via	Reston Town Center Metro (North), Reston Pkwy, Lawyers Rd, Inova Fair Oaks Hospital, Fair Oaks Mall
	Transfers Available	313, 552, 553, 557, 559, 574, 598, 610, 615, 622, 625, 630, 651, 660, 662, 663, 670, 671, 672, 699, 950, 951, 952, RIBS1, RIBS2, RIBS3, RIBS4, RIBS5, Metrobus 1C, 2B, Metrorail Silver, LCT
	Improvements	Increase Frequency, Reduce Travel Time

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		06:00 AM to 10:25 PM	07:00 AM to 09:55 PM	07:00 AM to 09:55 PM
		Frequency (mins)	Peak	30	45	45
			Off-Peak	45		

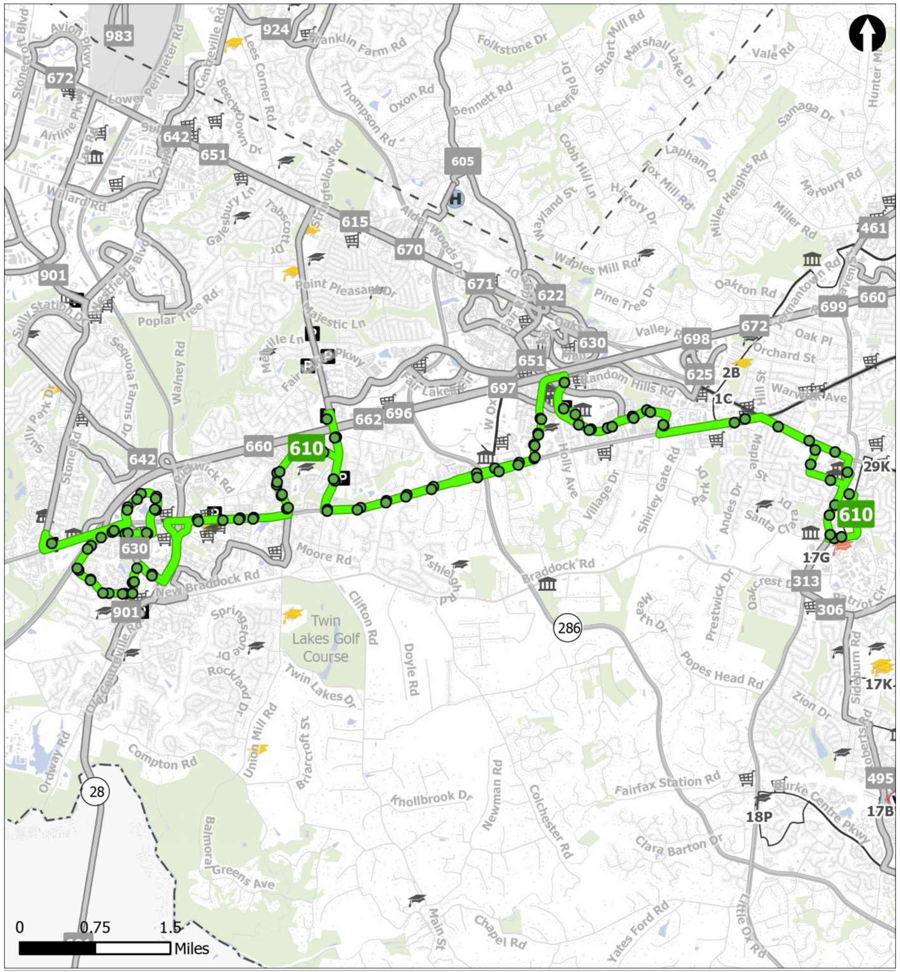
Potential Mid-Term or Long-Term Improvement(s)

Frequency | Late Night | Non-Rush Hours | Saturday | Weekday

- Increase weekday off-peak frequency to 30 mins
- Increase Saturday frequency to 30 mins
- Extend weekday service hours to 11:20 PM and Saturday service hours to 11:30 PM

Route 610

George Mason University (GMU) - Centreville



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview		
	Class	Local
	Directions	Eastbound/Westbound
	Via	Monument Drive, Route 29, Stringfellow Rd, Trinity Pkwy
	Transfers Available	306, 313, 605, 610, 615, 622, 625, 630, 642, 651, 660, 662, 663, 670, 671, 672, 698 699, 901, Metrobus 1C, 2B, 17G, 29K, CUE Green, Gold
	Improvements	New route providing a link between GMU, Fairfax County Government Center, Route 29, and Centreville.

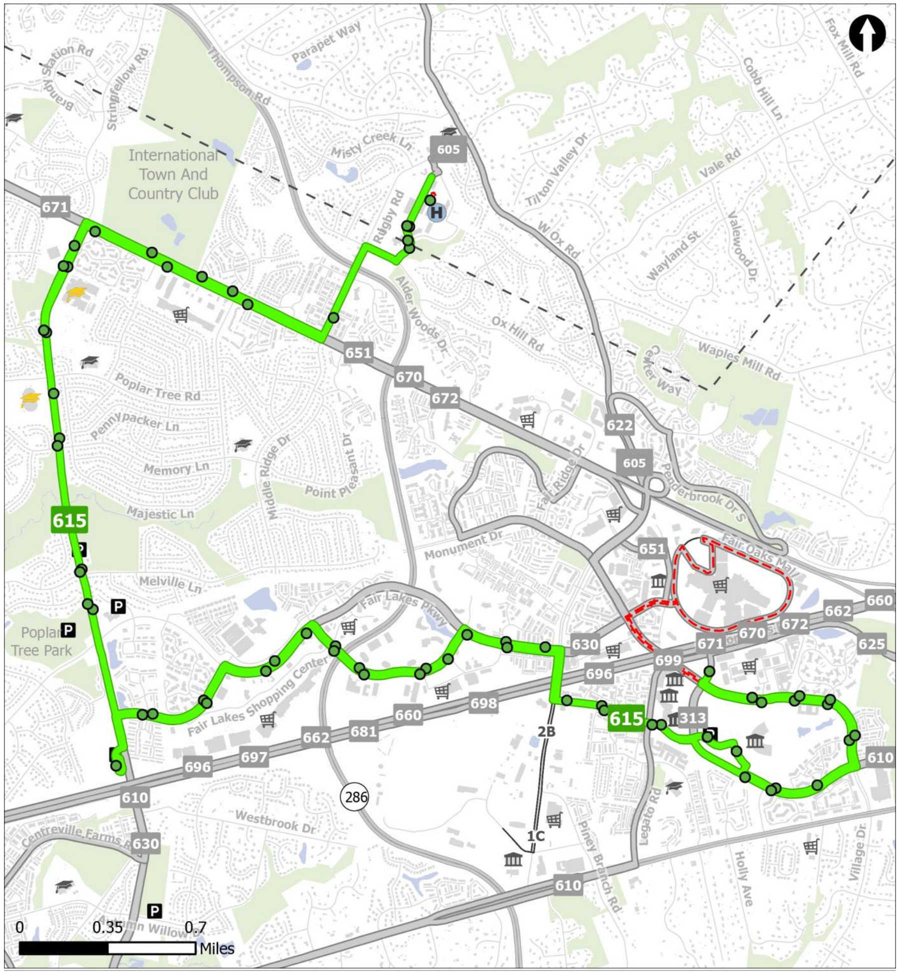
Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		05:30 AM to 10:21 PM	07:00 AM to 07:51 PM	No Service
		Frequency (mins)	Peak	30	60	No Service
			Off-Peak	60		

Potential Mid-Term or Long-Term Improvement(s)
Frequency · Non-Rush Hours · Rush Hours · Saturday · Sunday · Weekday
• Add Sunday service from 8:00 AM to 8:00 PM with frequency of 60 mins • Extend Saturday service hours to 9:00 PM • Increase weekday all-day frequency to 30 mins

Route 615

Monument Drive P&R to Fair Oaks Hospital

FAIRFAX CONNECTOR



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview	Class	Local
	Directions	Southbound/Northbound
	Via	Fair Lakes, Fairfax County Government Center
	Transfers Available	605, 610, 622, 625, 630, 640, 650, 651, 660, 662, 663, 670, 671, 672 699, Metrobus 1C, 2B
	Improvements	Improved connectivity via Stringfellow Park and Ride. Connect to route 605 at Monument Dr Transit Center for a one-seat-ride to Fair Oaks Mall and Reston.

				Weekday	Saturday	Sunday
Level of Service	Proposed Route	Service Hours		06:41 AM to 09:47 PM	07:40 AM to 09:48 PM	07:40 AM to 09:48 PM
		Frequency (mins)	Peak	30	45	45
			Off-Peak	45		

Potential Mid-Term or Long-Term Improvement(s)

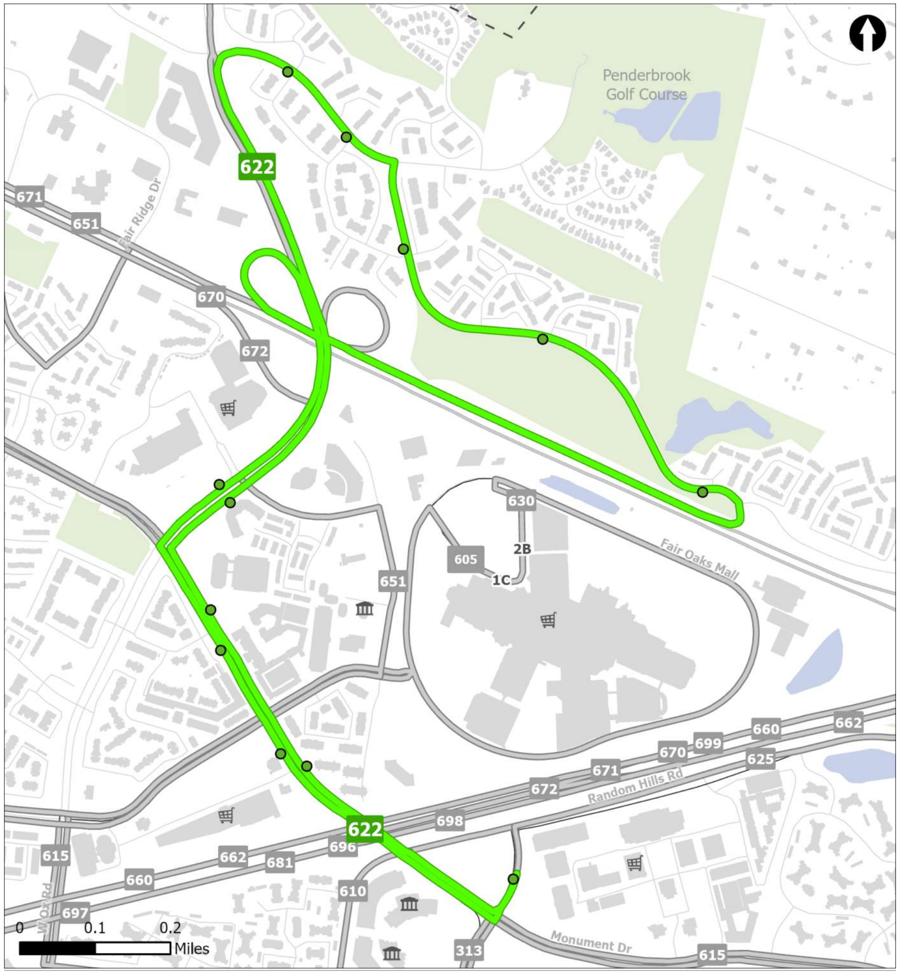
Frequency | Non-Rush Hours | Saturday | Weekday

- Increase weekday and Saturday all-day frequency to 30 minutes

Route 622

Fairfax Towne Center

FAIRFAX CONNECTOR

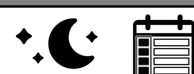


Planned Route	Existing Service	Transit Facilities	Points of Interest	Metro Lines
Planned Stop	Segment Served by Other Route(s)	Metro Station	Government/ Community Center	Blue Line
Planned Route	Eliminated Segment	Transit Center	Hospital	Green Line
Other Planned and Existing Routes	Metrobus Route	Park & Ride	High/Middle School	Orange Line
		Virginia Railway Express Station	College	Red Line
			Other School	Silver Line
			Shopping Center	Yellow Line

Overview		
	Class	Circulator
	Directions	Circular (Clockwise)
	Via	Monument Drive, Fairfax Towne Center, West Ox Rd, Penderbrook Dr
	Transfers Available	313, 605, 610, 615, 625, 630, 651, 660, 662, 663, 670, 671, 672, 699, Metrobus 1C, 2B
	Improvements	Route is now focused on providing more local links and connection, new weekend service

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		06:00 AM to 11:20 PM	07:00 AM to 11:20 PM	07:00 AM to 10:20 PM
		Frequency (mins)	Peak	30	60	60
			Off-Peak	60		

Potential Mid-Term or Long-Term Improvement(s)



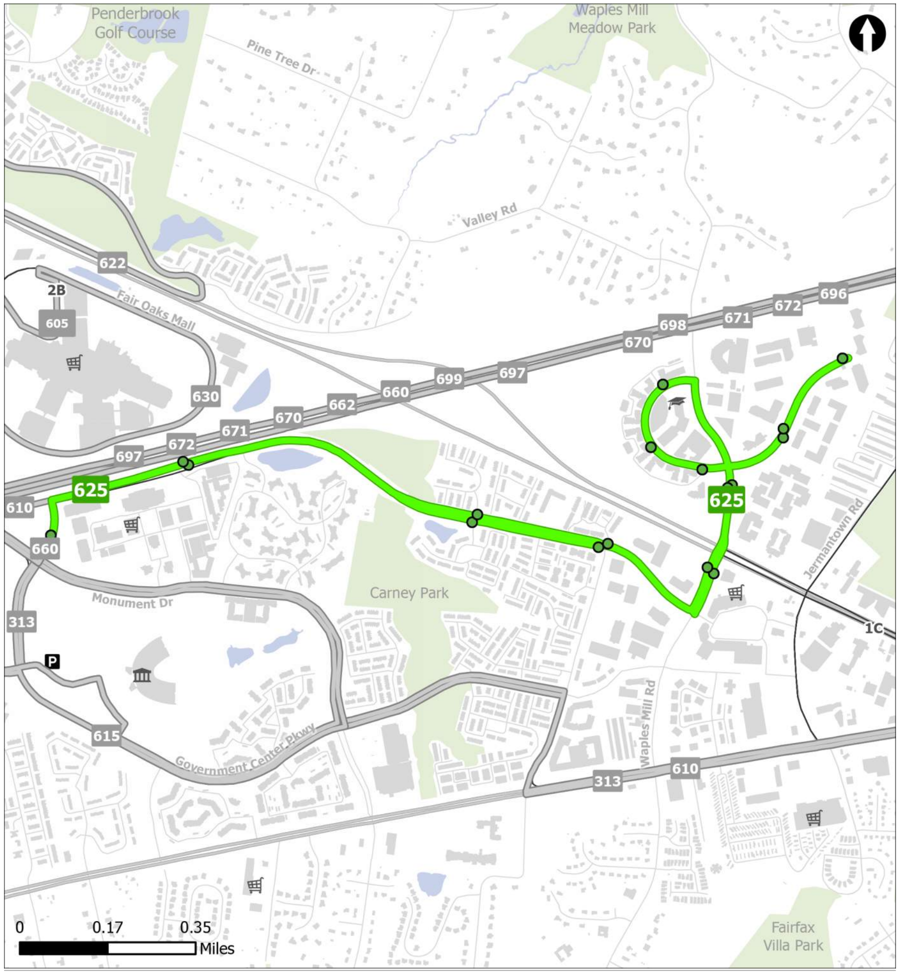
Late Night Sunday

- Extend Sunday service hours by one hour

Route 625

Random Hills - Pender Dr

FAIRFAX CONNECTOR



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview		
	Class	Local
	Directions	Eastbound / Westbound
	Via	Random Hills Rd, Waples Mill Dr, Fairfax Ridge Rd
	Transfers Available	313, 605, 610, 615, 622, 630, 651, 660, 662, 663, 670, 671, 672, 699, Metrobus 1C, 2B, CUE Green, Gold
	Improvements	New route providing service on Random Hills Rd and Pender Dr.

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		06:00 AM to 06:52 PM	No Service	No Service
		Frequency (mins)	Peak	30	No Service	No Service
			Off-Peak	30		

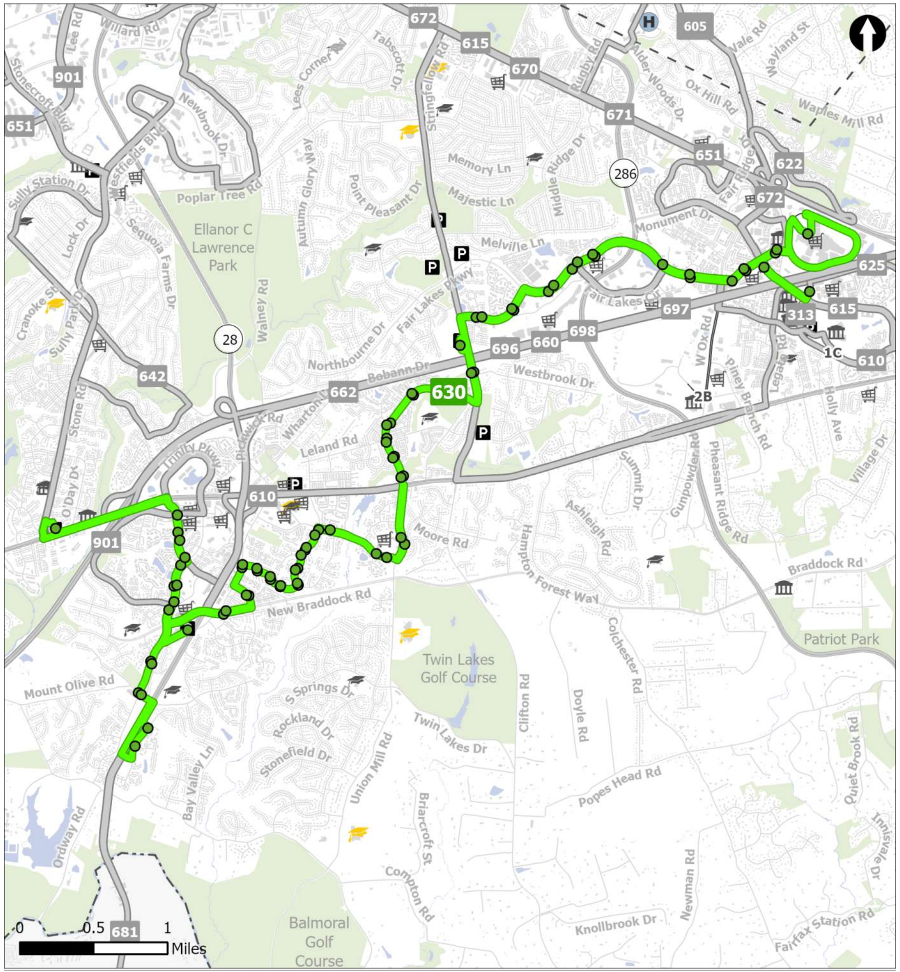
Potential Mid-Term or Long-Term Improvement(s)

Connectivity · Frequency · Rush Hours · Weekday

- Realign to extend to Vienna Metro Station
- Increase weekday peak frequency to 15 mins

Route 630

Centreville



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview		
	Class	Local
	Directions	Eastbound / Westbound
	Via	Machen Rd, Centerwood Rd, Braddock Rd, Stringfellow Rd, Fair Lakes, Fair Oaks Mall
	Transfers Available	313, 605, 610, 615, 622, 625, 642, 651, 660, 662, 663, 670, 671, 697, 698, 699, 901, Metrobus 1C, 2B
	Improvements	Regular route with improved frequencies and span and new service to southern part of Centreville

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		05:05 AM to 11:50 PM	07:03 AM to 11:50 PM	07:05 AM to 10:50 PM
		Frequency (mins)	Peak	30	60	60
			Off-Peak	60		

Potential Mid-Term or Long-Term Improvement(s)

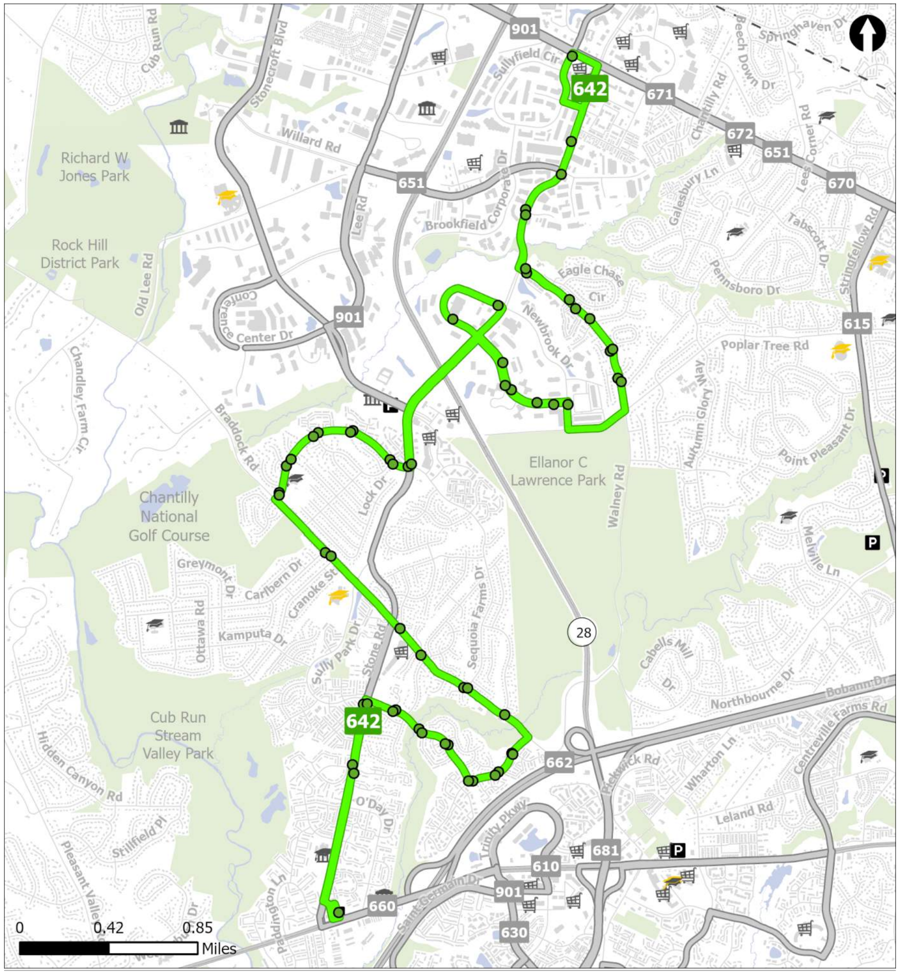
Late Night

Sunday

- Extend Sunday service hours by one hour

Route 642
Centreville - Chantilly

FAIRFAX CONNECTOR



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

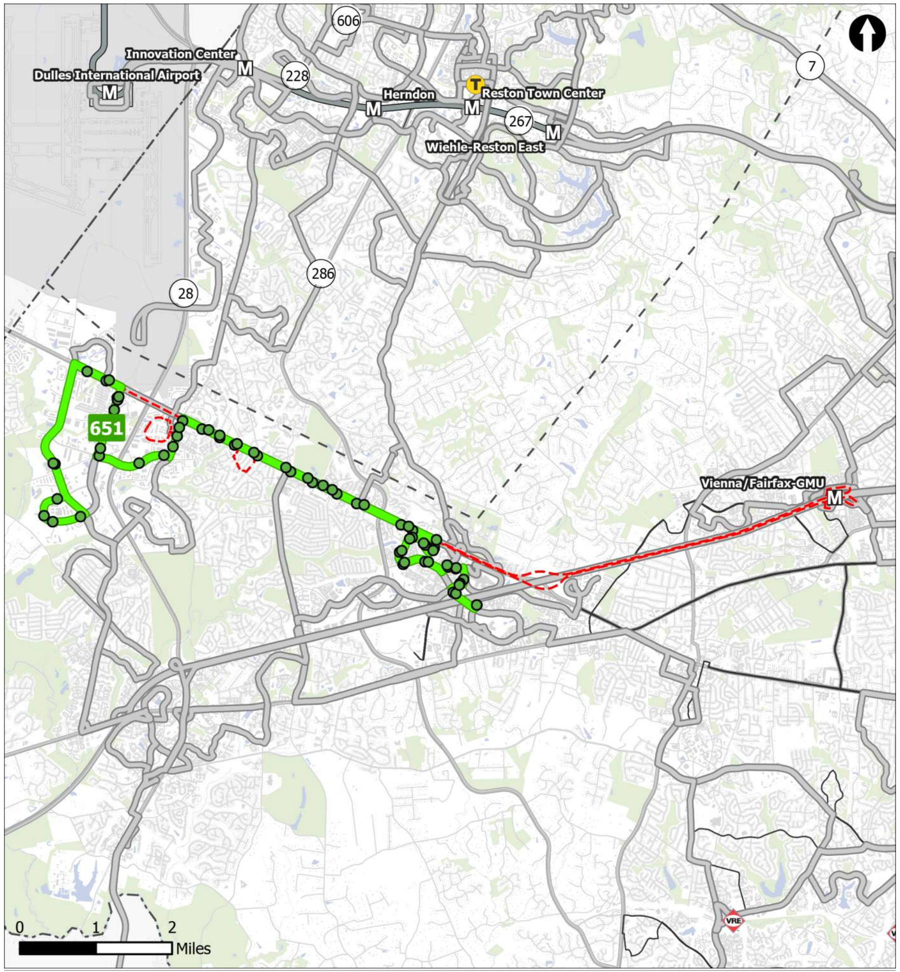
Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview		
	Class	Feeder
	Directions	Southbound / Northbound
	Via	Stone Rd, Awbrey Patent Dr, Park Meadow Dr, Walney Rd
	Transfers Available	610, 630, 651, 660, 662, 670, 671, 672, 901
	Improvements	Local feeder service offering connections to several routes at Centreville (Stone Rd) Park & Ride

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		05:30 AM to 09:26 PM	07:00 AM to 09:26 PM	07:00 AM to 07:56 PM
		Frequency (mins)	Peak	30	60	60
			Off-Peak	60		

Potential Mid-Term or Long-Term Improvement(s)
• No Change

Route 651
Sullyfield



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview		
	Class	Local
	Directions	Eastbound / Westbound
	Via	Stonecroft Blvd, Conference Center Dr, Willard Rd, Route 50, Fair Ridge
	Transfers Available	313, 605, 610, 615, 622, 625, 630, 642, 660, 662, 670, 671, 672, 699, 901, Metrobus 1C, 2B
	Improvements	New regular seven days-a-week service providing new and improved links to the Westfields and Fair Ridge areas

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		05:45 AM to 11:05 PM	07:15 AM to 11:05 PM	07:15 AM to 10:05 PM
		Frequency (mins)	Peak	30	60	60
			Off-Peak	60		

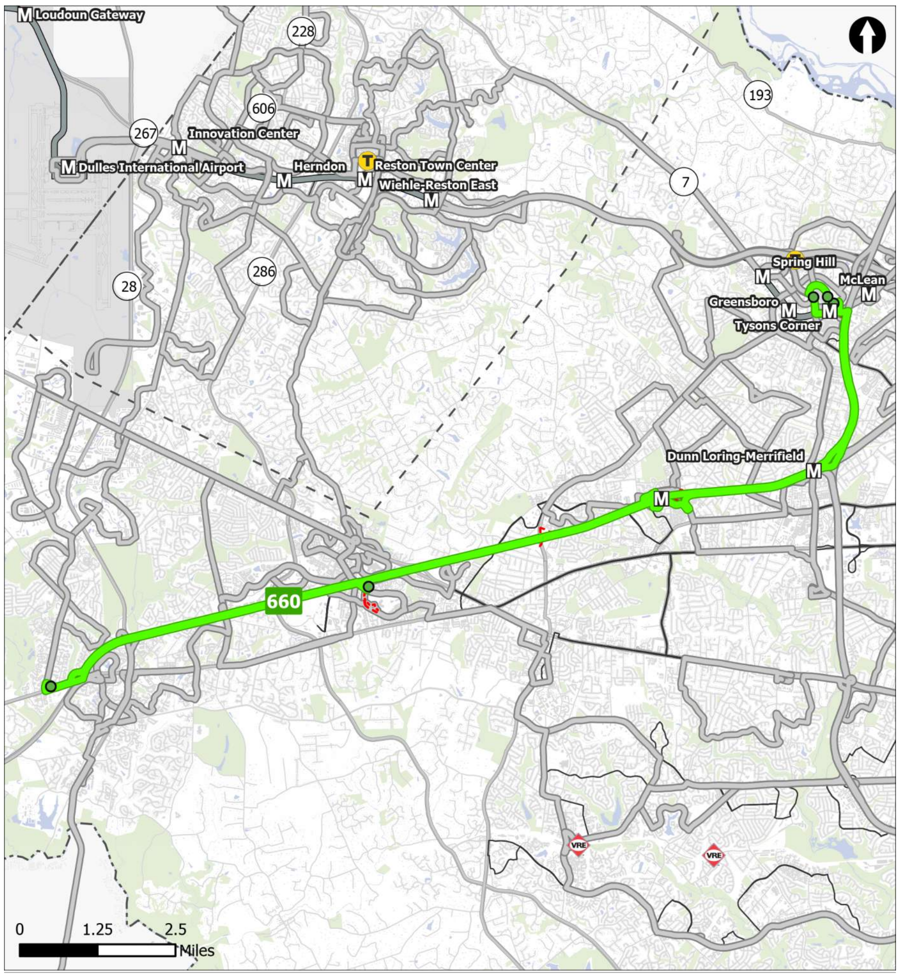
Potential Mid-Term or Long-Term Improvement(s)

- Extend Sunday service hours by one hour

Route 660

Centreville (Stone Rd) Park & Ride - Tysons

FAIRFAX CONNECTOR



Overview	Class	Cross-County Connector
	Directions	Eastbound / Westbound
	Via	Monument Drive Transit Center, I-66, Vienna Metro, Tysons Corner Metro, I-495 Express Lanes
	Transfers Available	313, 400X, 401, 402, 423, 461, 462, 463, 467, 494, 495, 605, 610, 615, 622, 625, 630, 642, 651, 663, 670, 671, 672, 698, 699, 721, 798, 901, CUE Green, CUE Gold, Metrobus 1A, 23A, 23T, 28A, 29N, 2B, Metrorail Orange, Silver, OmniRide
	Improvements	New direct express service between Centreville (Stone Rd) Park & Ride and Tysons via the Vienna Metro station

IMPLEMENTED
February 2023

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		5:00 AM to 10:04 AM / 3:00 PM - 8:39 PM	No Service	No Service
		Frequency (mins)	Peak	10 - 15	No Service	No Service
			Off-Peak	No Service		

Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

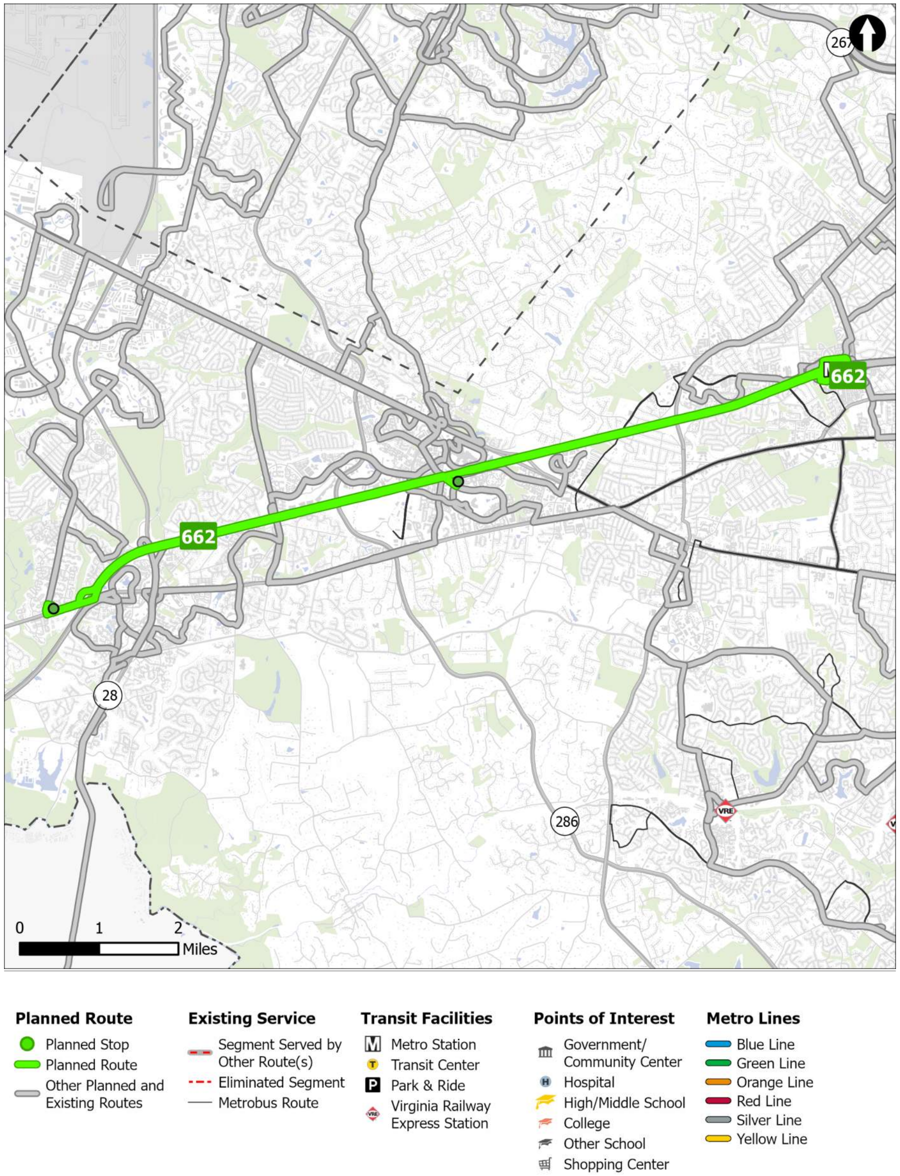
Potential Mid-Term or Long-Term Improvement(s)

- No Change

Route 662

Centreville (Stone Rd) Park & Ride - Tysons

FAIRFAX CONNECTOR



Overview		
	Class	Local
	Directions	Eastbound / Westbound
	Via	Monument Drive Transit Center, I-66, Vienna Metro
	Transfers Available	313, 461, 463, 605, 610, 615, 622, 625, 630, 642, 651, 670, 671, 672, 698, 699, 901, Metrorail Orange, Metrobus 1A, 1C, 2B, 29N, CUE Gold, CUE Green
	Improvements	New off-peak and weekend service between Centreville (Stone Rd) Park & Ride and the Vienna Metro station

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		09:30 AM to 3:23 PM / 7:30 PM- 11:23 PM	07:00 AM to 11:23 PM	07:00 AM to 10:23 PM
		Frequency (mins)	Peak	No Service	30	30
			Off-Peak	30		

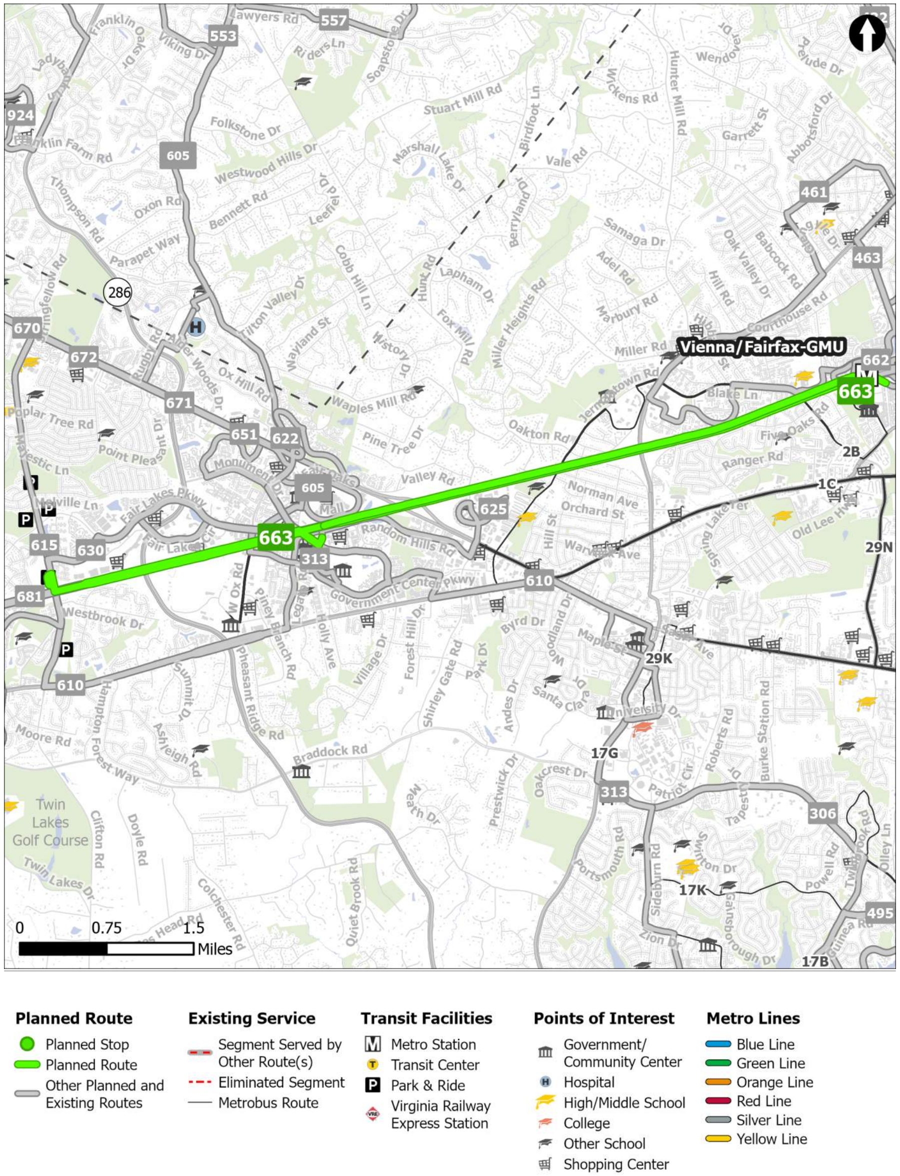
Potential Mid-Term or Long-Term Improvement(s)

Express Service | Late Night | Sunday

- Extend Sunday service hours by one hour

Route 663

Stringfellow Rd. - Vienna



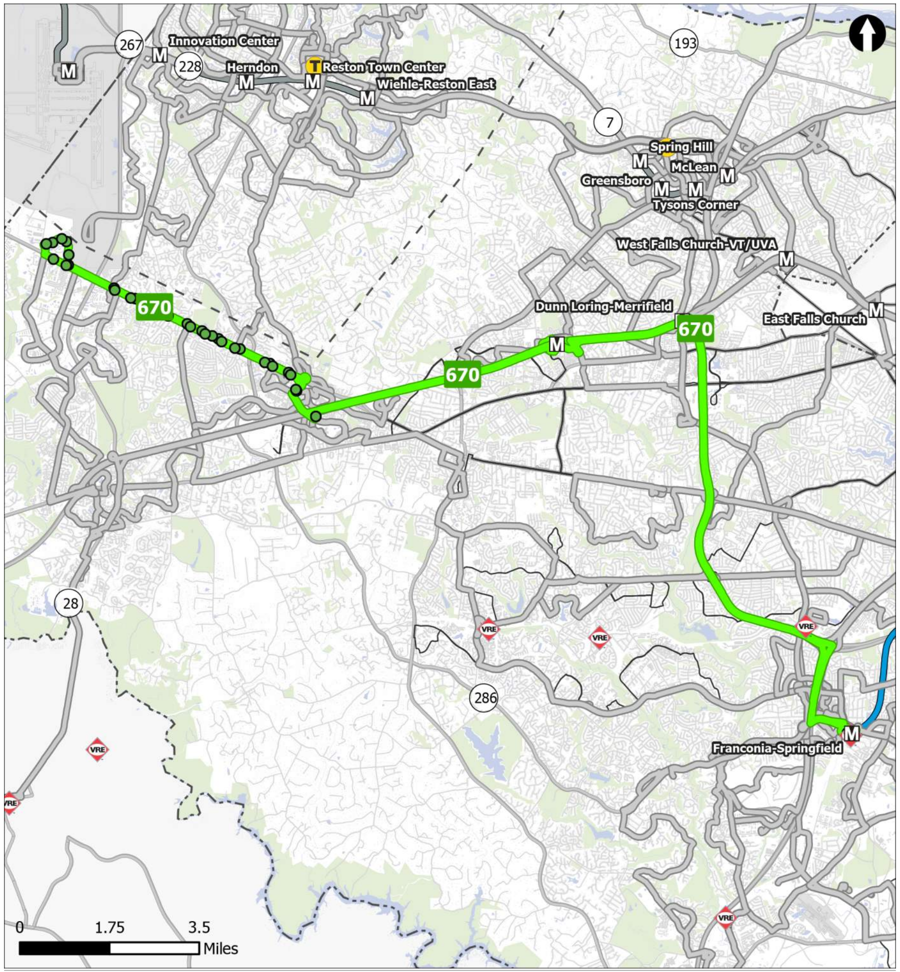
Overview		
	Class	Feeder
	Directions	Eastbound/Westbound
	Via	I-66
	Transfers Available	313, 461, 463, 605, 610,615, 622, 625, 630, 651, 660, 670, 671, 697, 698, 699, Metrobus 1A, 2B, 29N, Metrorail Orange, CUE Green, Gold
	Improvements	New Route to serve Vienna Metrorail Station, via Monument Dr P&R for a fare of $2.00

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		5:02 AM to 8:42 AM / 3:43 PM to 7:23 PM	No Service	No Service
		Frequency (mins)	Peak	20	No Service	No Service
			Off-Peak	No Service		

Potential Mid-Term or Long-Term Improvement(s)
• No Change

Route 670

Chantilly - Franconia



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview		
	Class	Cross-County
	Directions	Westbound / Eastbound
	Via	Franconia-Springfield Metro, Vienna Metro, Monument Drive Transit Center
	Transfers Available	231, 301, 305, 308, 310, 313, 321, 322, 334, 335, 341, 350, 351, 352, 353, 371, 400X, 401, 402, 461, 463, 494, 605, 610, 615, 622, 625, 630, 642, 651, 660, 662, 663, 671, 672, 698, 699, 901, CUE Green, Metrobus 1A, 1C, 29N, 2B, Metrorail Blue, Orange, OmniRide
	Improvements	New peak express service between Chantilly and the Franconia-Springfield Metro & VRE station

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		05:00 AM to 9:53 AM / 3:20 PM - 7:58 PM	No Service	No Service
		Frequency (mins)	Peak	30	No Service	No Service
			Off-Peak	No Service		

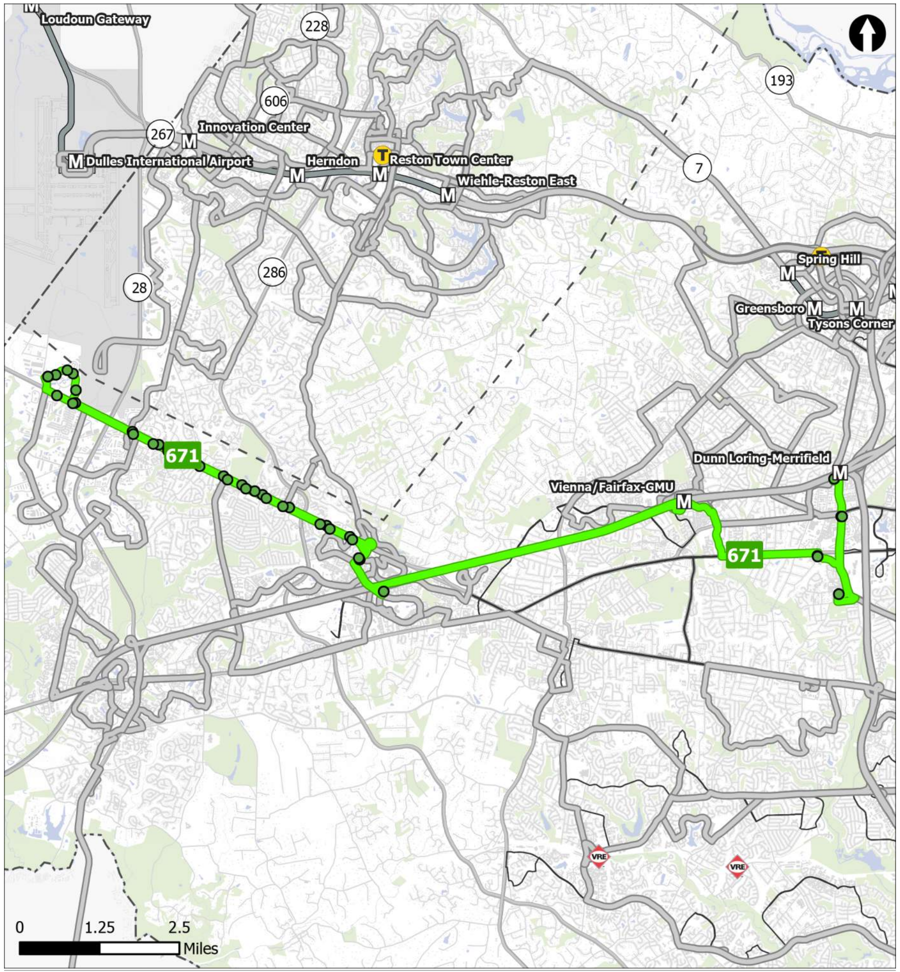
Potential Mid-Term or Long-Term Improvement(s)

- Extend weekday service hours by one hour

Route 671

Chantilly - Dunn Loring

FAIRFAX CONNECTOR



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview		
	Class	Cross-County
	Directions	Eastbound / Westbound
	Via	Route 50, Monument Drive Transit Center, I-66, Fairfax Hospital, Vienna Metro
	Transfers Available	313, 401, 402, 461, 462, 463, 467, 605, 610, 615, 622, 625, 630, 642, 651, 660, 662, 663, 670, 698, 699, 901, Metrobus 1A, 1B, 1C, 29N, 2A, 2B, Metrorail Orange, CUE Green, Gold
	Improvements	New peak service from Chantilly to Dunn Loring via Monument Dr, Vienna and Inova Fairfax Hospital. It combines wih Route 670 for a 15 minute frequency between Vienna and Chantilly.

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		5:20 - 9:59 AM / 2:57 - 7:42 PM	No Service	No Service
		Frequency (mins)	Peak	30	No Service	No Service
			Off-Peak	No Service		

Potential Mid-Term or Long-Term Improvement(s)

Express Service

Late Night

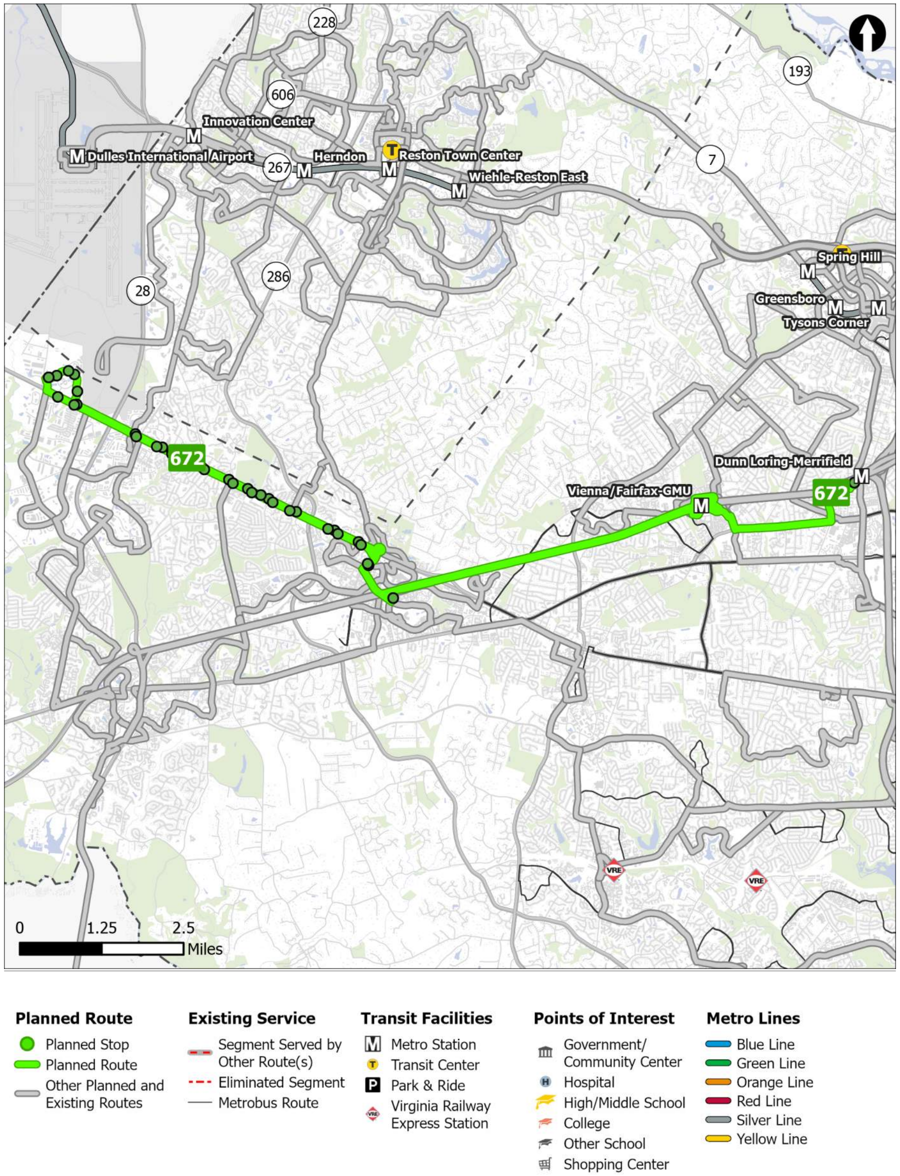
Weekday

- Extend weekday service hours by one hour

Route 672

Chantilly - Vienna - Dunn Loring

FAIRFAX CONNECTOR



Overview		
	Class	Cross-County
	Directions	Westbound / Eastbound
	Via	Route 50, Monument Drive Transit Center, I-66, Vienna Metro Station
	Transfers Available	313, 401, 402, 461, 462, 463, 467, 605, 610, 615, 622, 625, 630, 642, 651, 662, 901, Metrobus 1A, 1B, 1C, 29N, 2A, 2B, Metrorail Orange, CUE Green, Gold
	Improvements	New off-peak and weekend limited stop service between Chantilly and Dunn Loring Metro via Vienna Metro and Monument Drive Transit Center

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		9:15 AM - 3:54 PM / 6:50 - 11:24 PM	07:03 AM to 11:24 PM	07:03 AM to 10:24 PM
		Frequency (mins)	Peak	No Service	30	30
			Off-Peak	30		

Potential Mid-Term or Long-Term Improvement(s)

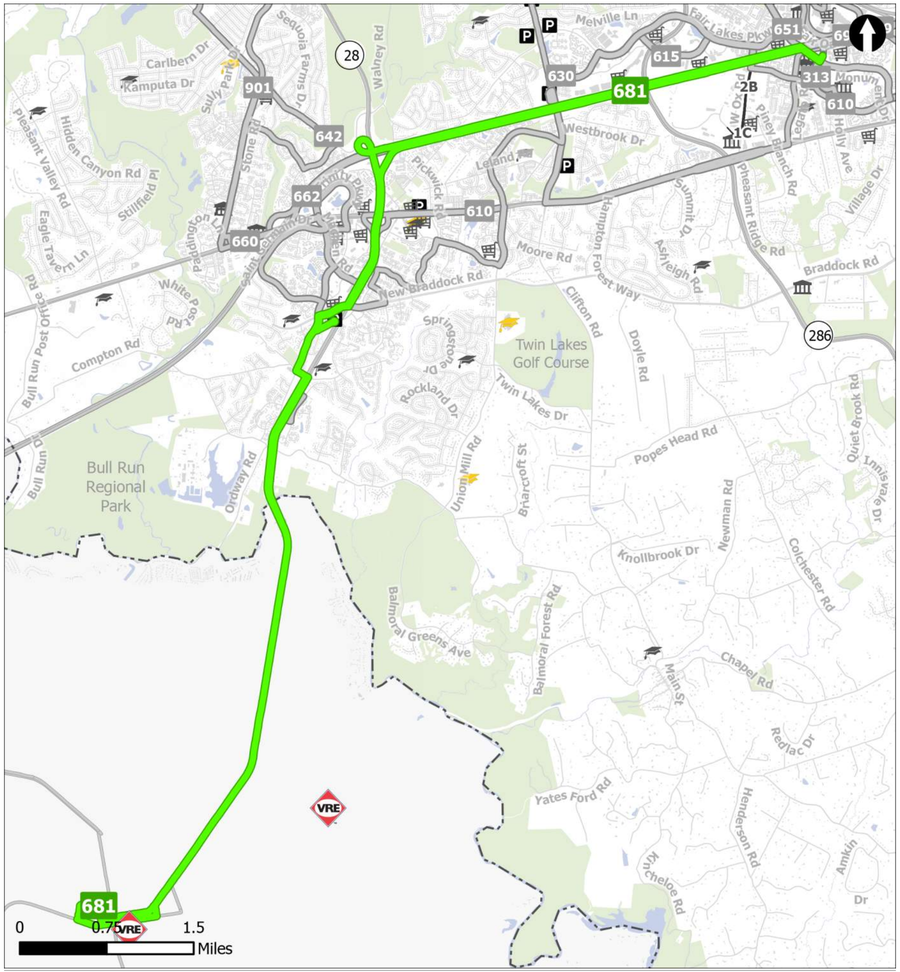
Express Service
Late Night
Sunday

•Extend Sunday service hours by one hour

Route 681 (Long-term)

Manassas - Monument Dr

FAIRFAX CONNECTOR



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview		
	Class	Local
	Directions	Eastbound/Westbound
	Via	Centreville Rd/Rt 28, I-66
	Transfers Available	313, 605, 610, 615, 622, 625, 630, 651, 660, 662, 663, 670, 671, 672, 699, 901, 990, Metrobus 1C, 2B, VRE Manassas Line
	Improvements	New service between Manassas and future Monument Dr. Park & Ride

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		06:00 AM to 09:00 PM	07:00 AM to 07:00 PM	No Service
		Frequency (mins)	Peak	30	60	No Service
			Off-Peak	60		

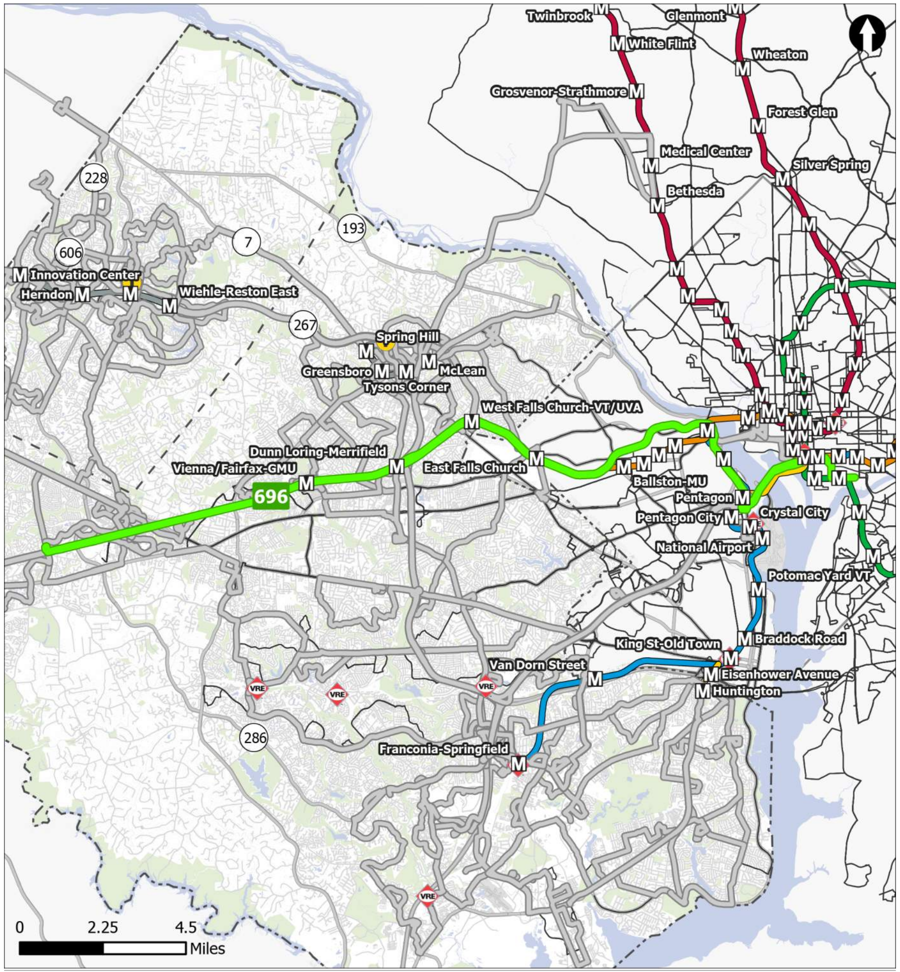
Potential Mid-Term or Long-Term Improvement(s)

- New express service between Manassas and future Monument Dr. Park & Ride
- Operate on weekdays from 6:00 AM to 9:00 PM with peak frequency of 30 mins and off-peak frequency of 60 mins
- Operate on Saturday from 7:00 AM to 7:00 PM with frequency of 60 mins

Route 696 (Long-term)

Stringfellow Rd - Navy Yard

FAIRFAX CONNECTOR



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview		
	Class	Express
	Directions	Eastbound/Westbound
	Via	Stringfellow - Navy Yard
	Transfers Available	610, 615, 630, 663, Metrorail Green, Yellow, Metrobus P6, V4, D.C Circulator EM-LP
	Improvements	New express service between Stringfellow Rd Park & Ride and Navy Yard

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		06:00 AM to 09:00 AM / 4:00 PM to 7:00 PM	No Service	No Service
		Frequency (mins)	Peak	20	No Service	No Service
			Off-Peak	No Service		

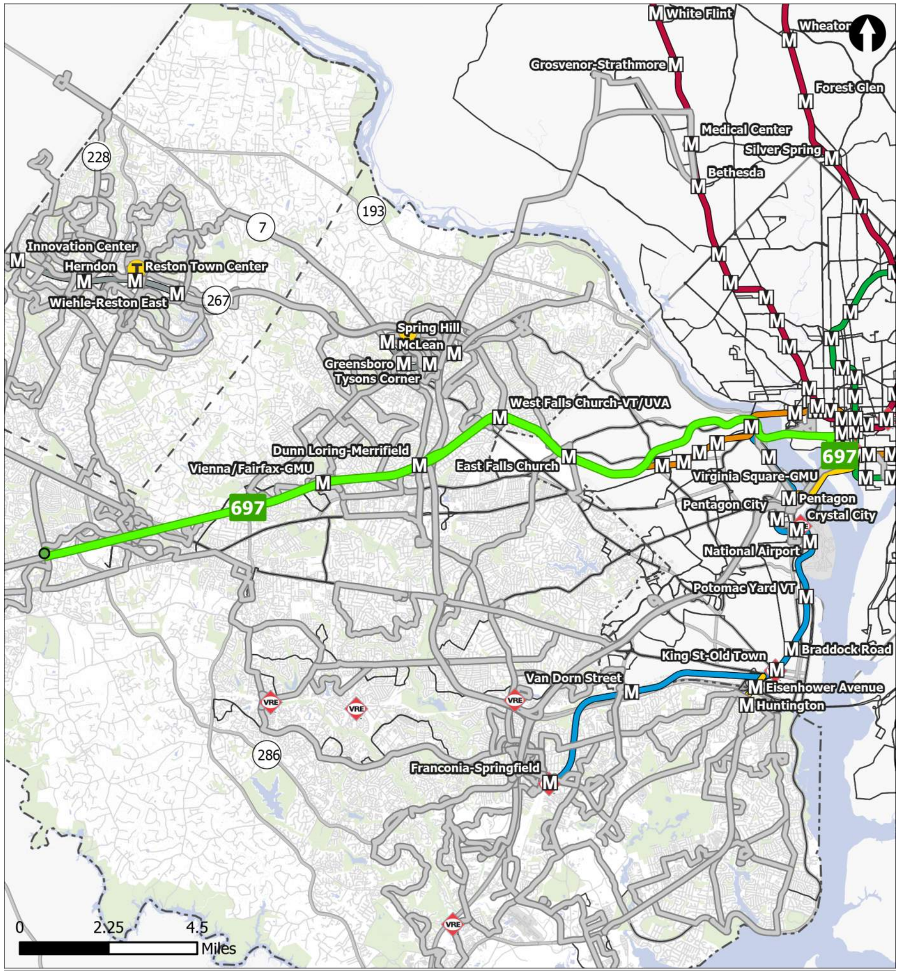
Potential Mid-Term or Long-Term Improvement(s)

Connectivity | Express Service | Rush Hours | Weekday

- New express route connecting Stringfellow Park & Ride and Navy Yard (Washington, D.C.)
- Operate on weekdays from 6:00 AM to 9:00 AM and 4:00 PM to 7:00 PM with frequency of 20 mins

Route 697

Stringfellow Rd - L'Enfant



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview		
	Class	Express
	Directions	Eastbound / Westbound
	Via	Stringfellow Park and Ride, I-66
	Transfers Available	610, 615, 630, 698, Metrobus 16E, 32, 33, 36, 52, 59, 63, 64, 70, 74, 79, P6, S2, Metrorail Blue, Green, Orange, Silver, Yellow, D.C Circulator, VRE Fredericksburg
	Improvements	No change

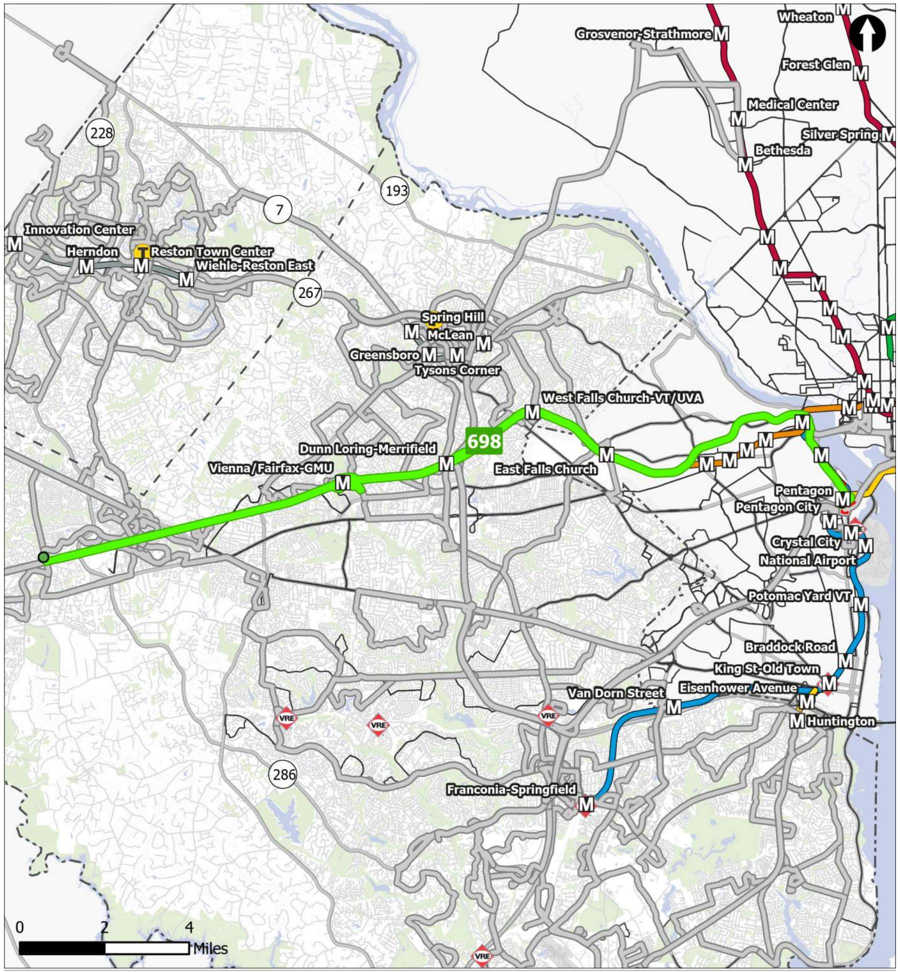
Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		05:35 AM to 08:35 AM / 3:10 PM - 6:30 PM	No Service	No Service
		Frequency (mins)	Peak	20	No Service	No Service
			Off-Peak	No Service		

Potential Mid-Term or Long-Term Improvement(s)
• No Change

Route 698

Stringfellow - Pentagon

FAIRFAX CONNECTOR



Planned Route	Existing Service	Transit Facilities	Points of Interest	Metro Lines
Planned Stop	Segment Served by Other Route(s)	Metro Station	Government/ Community Center	Blue Line
Planned Route	Eliminated Segment	Transit Center	Hospital	Green Line
Other Planned and Existing Routes	Metrobus Route	Park & Ride	High/Middle School	Orange Line
		Virginia Railway Express Station	College	Red Line
			Other School	Silver Line
			Shopping Center	Yellow Line

Overview		
	Class	Express
	Directions	Eastbound / Westbound
	Via	Stringfellow Park and Ride, Vienna Metro, The Pentagon
	Transfers Available	461, 463, 610, 615, 630, 660, 663, 670, 671, 697, Metrorail Orange, Yellow, Blue, Metrobus 1A, 7A, 7F, 10A, 16A, 16C, 18J, 22A, 22F, 29N, ART, DASH
	Improvements	Extended between Stringfellow Rd Park & Ride and the Pentagon via the Vienna Metro station

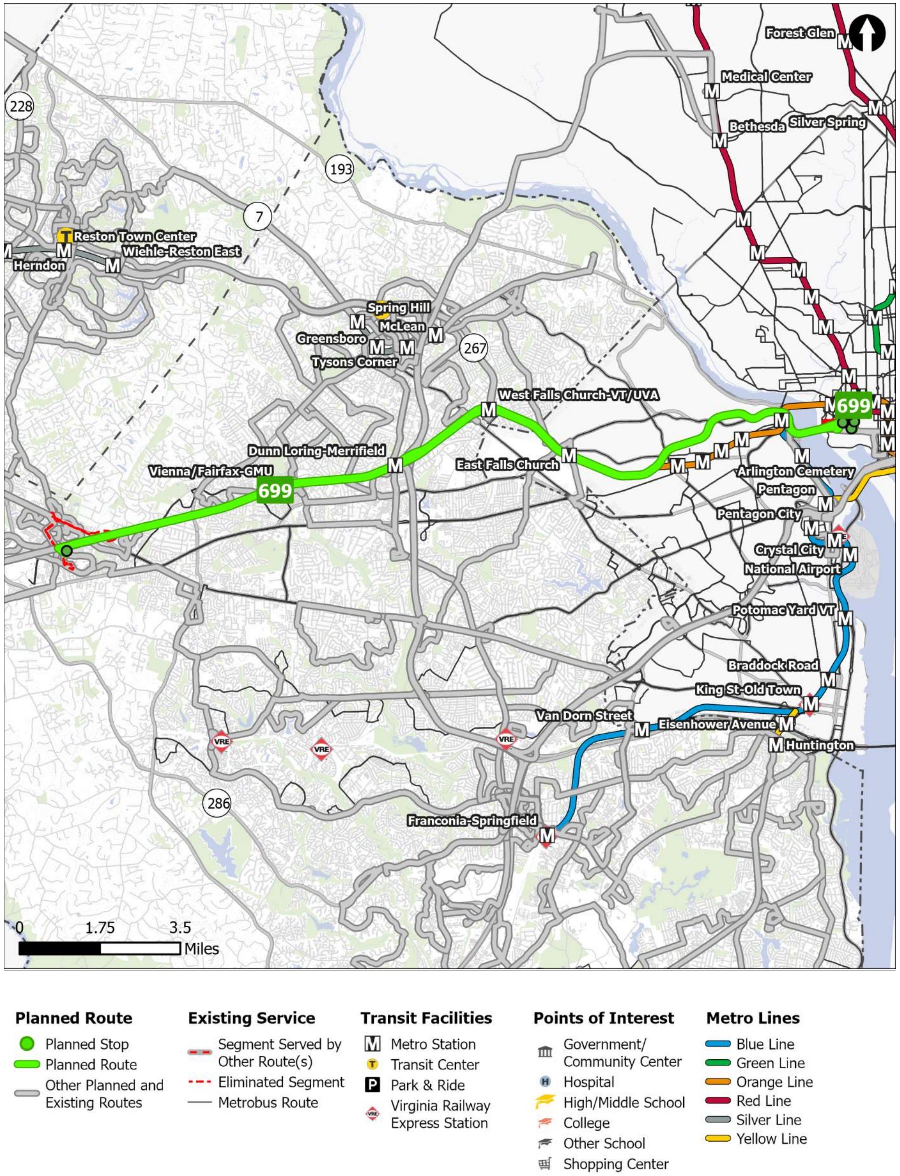
Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		5:08 AM - 9:43 AM / 3:15 PM - 7:55 PM	No Service	No Service
		Frequency (mins)	Peak	10 - 20 minutes (grant funding)	No Service	No Service
			Off-Peak	No Service		

Potential Mid-Term or Long-Term Improvement(s)
• No Change

Route 699

Government Center - Downtown D.C.

FAIRFAX CONNECTOR



Overview		
	Class	Express
	Directions	Eastbound / Westbound
	Via	Monument Drive Transit Center, I-66
	Transfers Available	313, 605, 610, 615, 622, 625, 630, 651, 660, 663, 670, 671, Metrobus 16Y, 2B, 31, 32, 33, 36, 38B, 3Y, 42, 43, D6, N2, N4, N6, Metrorail Orange, Silver, Blue, D.C Circulator, OmniRide
	Improvements	No change

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		05:40 AM to 08:50 AM / 03:35 PM to 6:45 PM	No Service	No Service
		Frequency (mins)	Peak	15	No Service	No Service
			Off-Peak	No Service		

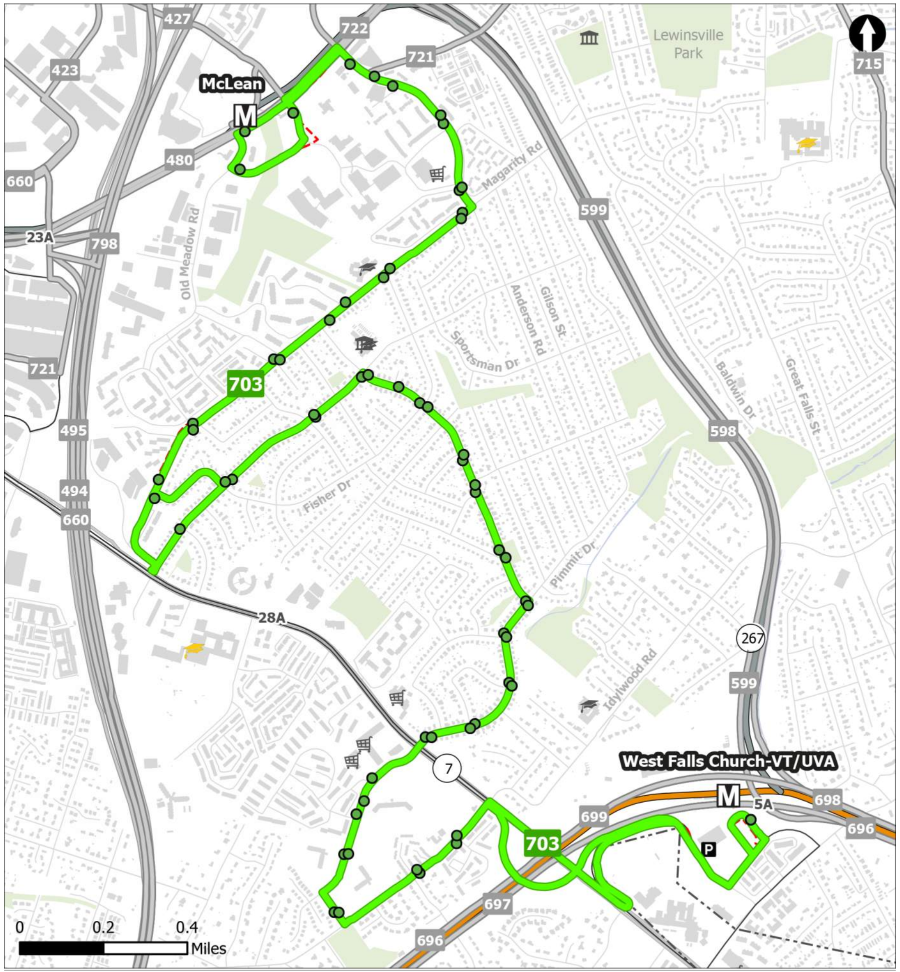
Potential Mid-Term or Long-Term Improvement(s)

- No Change

Route 703

McLean Metro Station - West Falls Church Metro Station

FAIRFAX CONNECTOR



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview	Class	Local
	Directions	Southbound / Northbound
	Via	Anderson Rd, Magarity Rd, Lisle Ave, Griffith Rd, Pimmit Dr, Idylwood Dr
	Transfers Available	427, 721, 722, Metrobus 23A, 28A, Metrorail Orange, Silver
	Improvements	No change

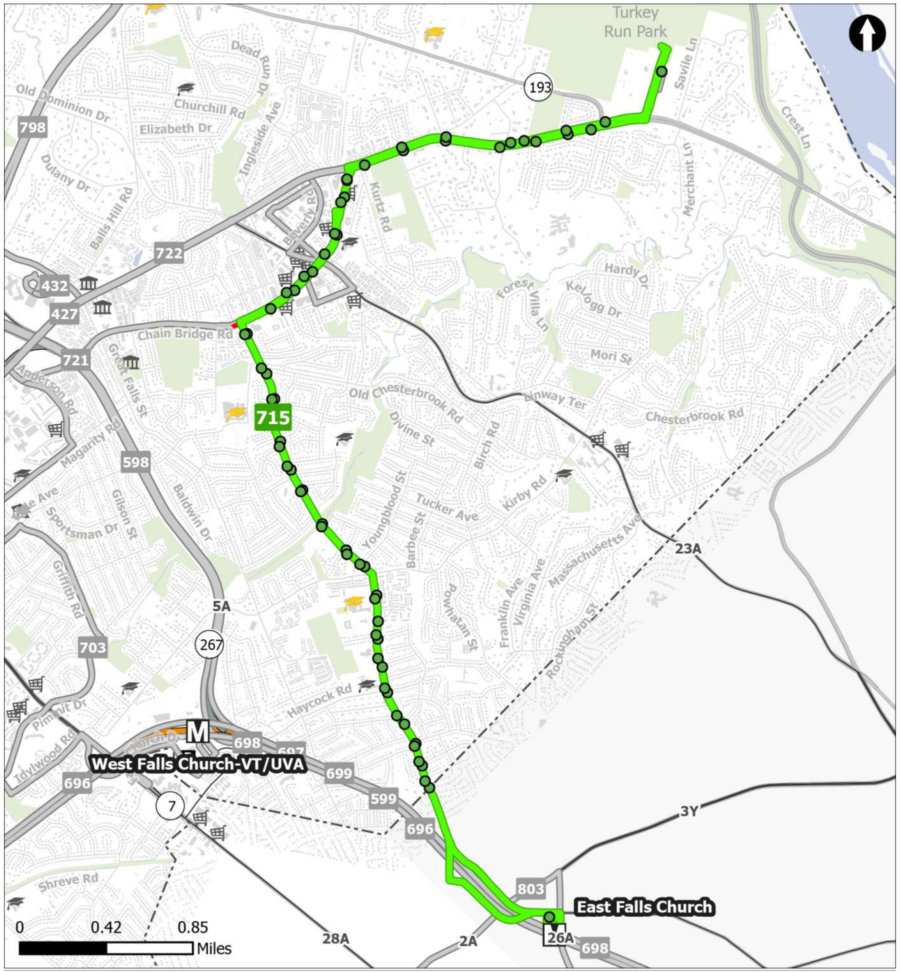
Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		05:35 AM to 09:58 PM	06:35 AM to 09:57 PM	No Service
		Frequency (mins)	Peak	30	60	No Service
			Off-Peak	60		

Potential Mid-Term or Long-Term Improvement(s)
• No Change

Route 715

East Falls Church - Langely

FAIRFAX CONNECTOR



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview	Class	Feeder
	Directions	Northbound / Southbound
	Via	Washington Blvd, Westmoreland St, East Falls Church Metro, Chain Bridge Road, Langely
	Transfers Available	721, 722, 803, Metrobus 23A/T, 26A, 28A, 2A, Metrorail Orange, Silver
	Improvements	No change

					Weekday	Saturday	Sunday
Level of Service	Proposed Route	Service Hours		05:51 AM - 08:49 AM / 03:15 PM - 7:00 PM		No Service	No Service
		Frequency (mins)	Peak	30		No Service	No Service
			Off-Peak	No Service			

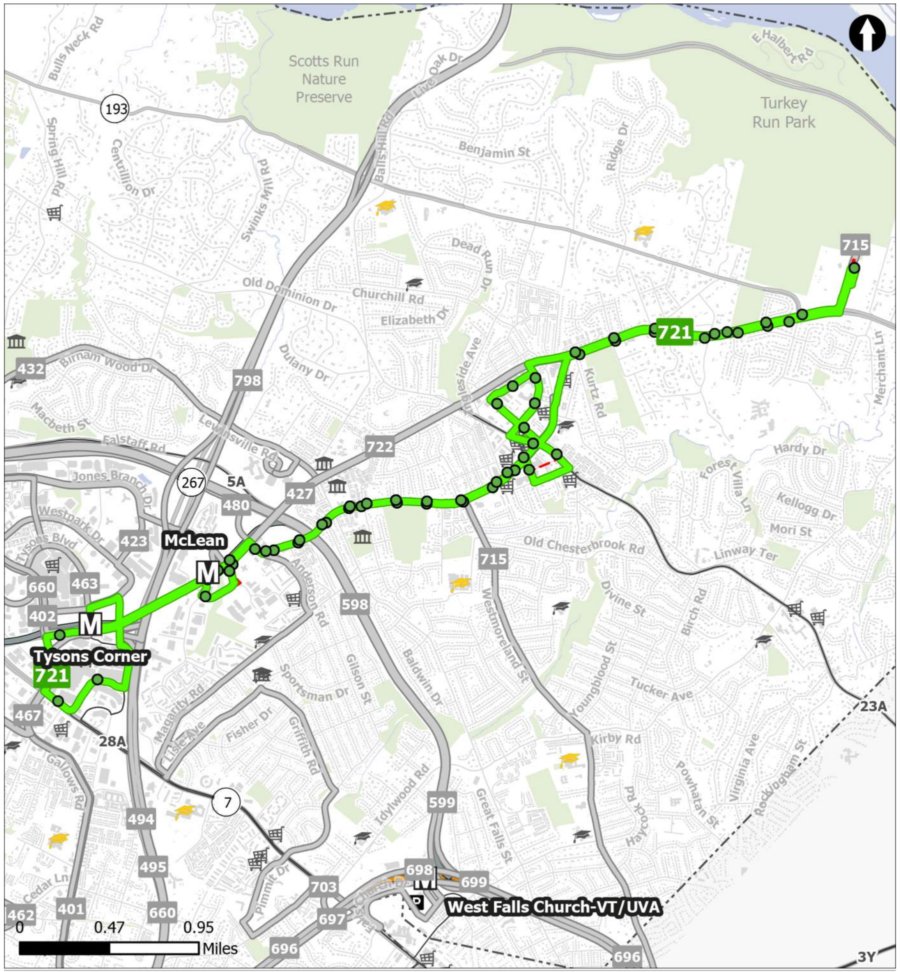
Potential Mid-Term or Long-Term Improvement(s)

Frequency Non-Rush Hours Weekday

- Add weekday off-peak service from 9:00 AM to 4:00 PM with frequency of 30 mins

Route 721

Chain Bridge Road - Mclean



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

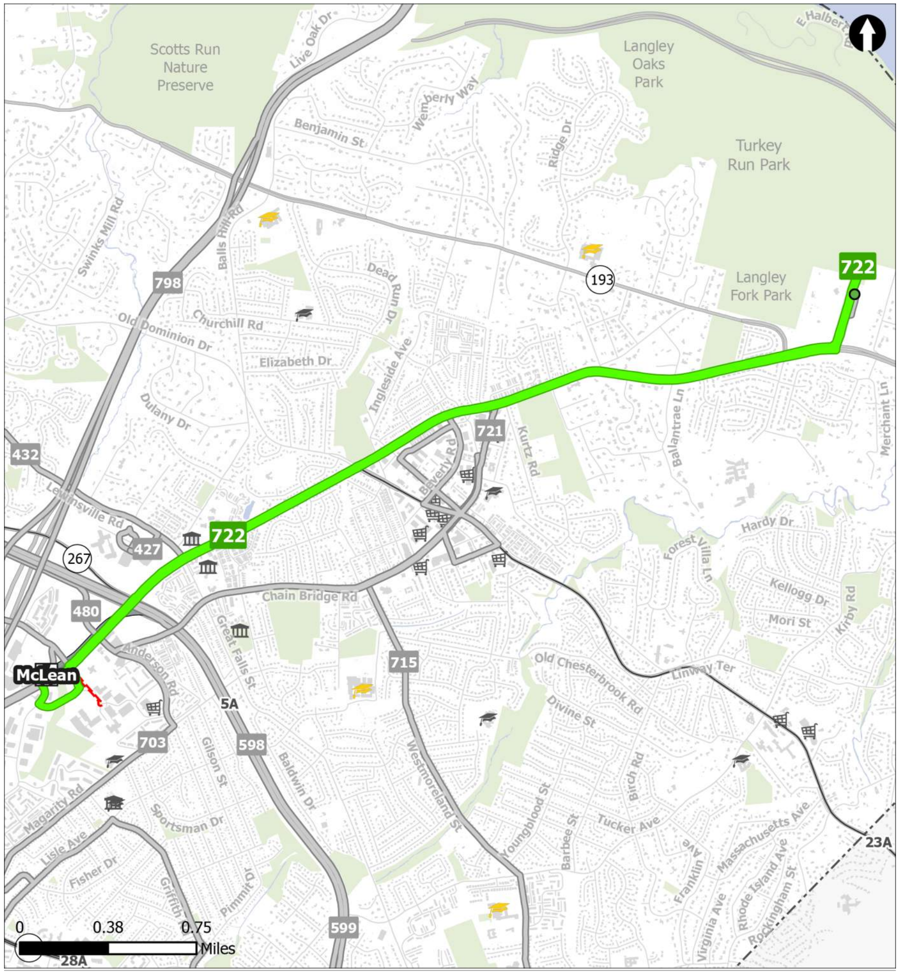
Overview		
	Class	Local
	Directions	Eastbound / Westbound
	Via	Tysons Corner, Mclean Metro, Chain Bridge Rd, Langely
	Transfers Available	401, 402, 423, 427, 462, 463, 467, 494, 495, 703, 715, 722, Metrobus 23A/T, 28A, Metrorail Silver, OmniRide
	Improvements	No change

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		06:00 AM to 10:54 PM	06:00 AM to 10:30 PM	08:00 AM to 08:30 PM
		Frequency (mins)	Peak	20	30	30
			Off-Peak	30		

Potential Mid-Term or Long-Term Improvement(s)
• No Change

Route 722

Mclean- Langley



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview		
	Class	Express
	Directions	Eastbound / Westbound
	Via	Mclean Metro, Dolley Madison Blvd/Route 123, Langely
	Transfers Available	427, 703, 715, 721, Metrobus 23A/T, Metrorail Silver
	Improvements	Minor running time adjustment

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		6:05 AM - 9:17 AM / 3:00 PM - 7:12 PM	No Service	No Service
		Frequency (mins)	Peak	15	No Service	No Service
			Off-Peak	No Service		

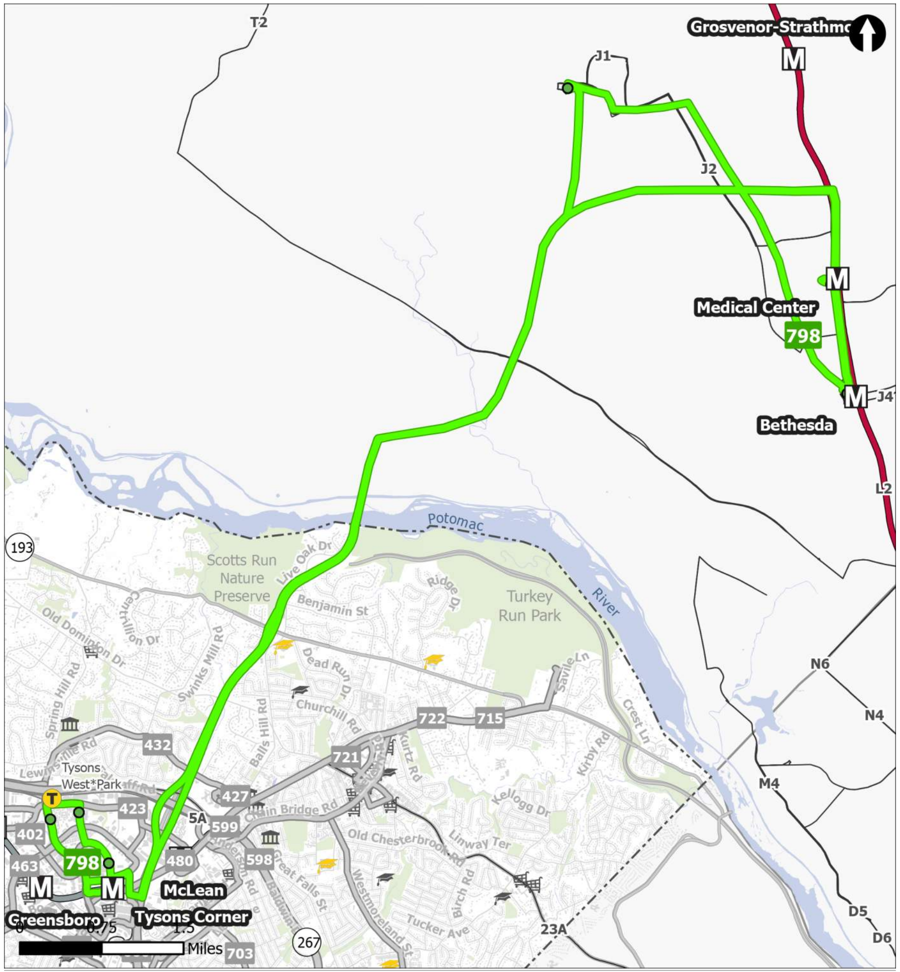
Potential Mid-Term or Long-Term Improvement(s)

- No Change

Route 798

Tysons - Bethesda

FAIRFAX CONNECTOR



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview	Class	Express
	Directions	Eastbound / Westbound
	Via	Tysons Westpark, Tysons Corner Metro, I-495, Montgomery Mall, Medical Center Metro, Bethesda Metro Station
	Transfers Available	400X, 401, 402, 423, 427, 462, 463, 467, 494, 495, 574, 660, Metrorail Silver, Red, Metrobus 23A, 23T, 28A, J1, J2, RideOn 29, 30, 32, 33, 34, 36, 42, 46, 47, 70, 101, MTA 203
	Improvements	New express service between Tysons and Bethesda

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		5:50 AM - 8:50 AM / 3:30 PM - 6:30 PM	No Service	No Service
		Frequency (mins)	Peak	20	No Service	No Service
			Off-Peak	No Service		

Potential Mid-Term or Long-Term Improvement(s)

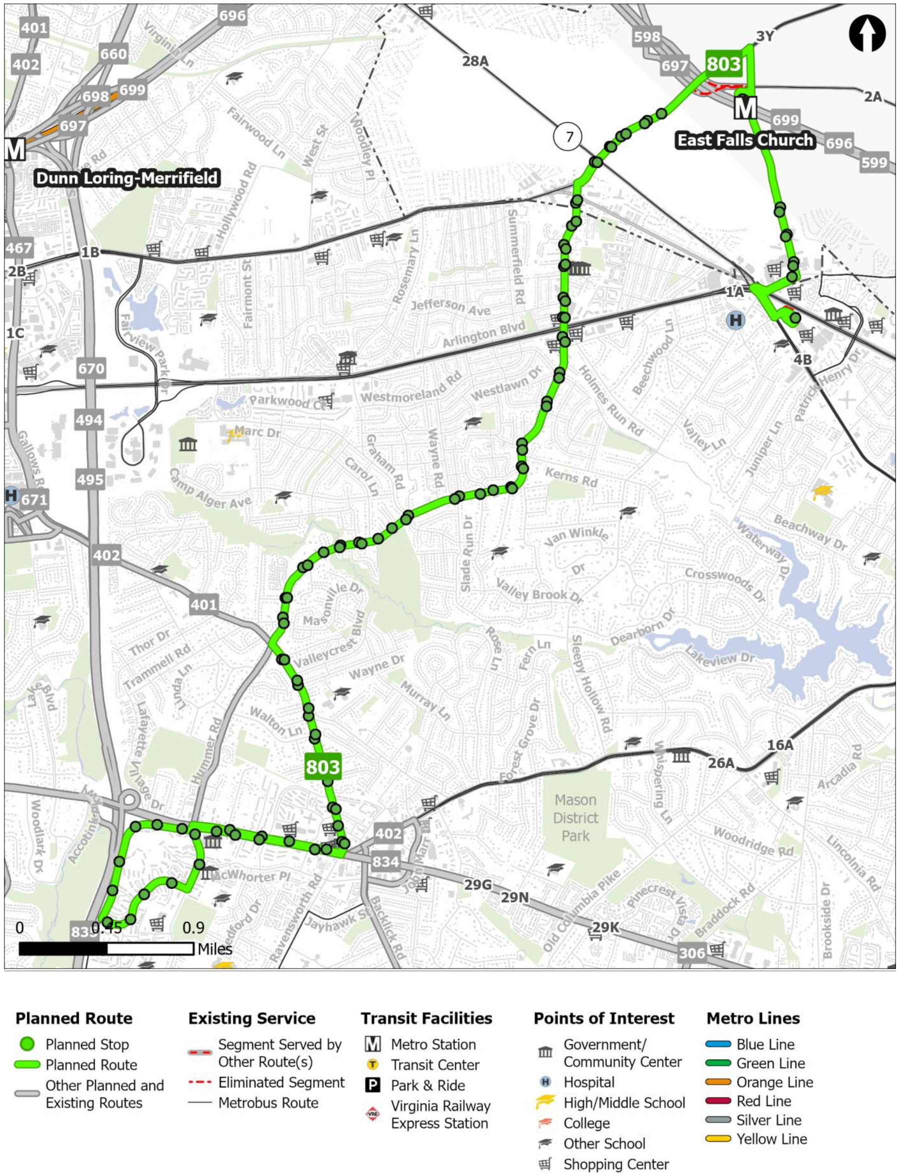
Connectivity | Express Service | Frequency | Late Night | Non-Rush Hours | Rush Hours | Weekday

- Add weekday off-peak service from 9:30 AM to 3:30 PM with frequency of 45 mins
- Increase weekday peak frequency to 15 mins
- Extend weekday service hours to 10:00 PM

Route 803

Patriot Drive - East Falls Church Metro

FAIRFAX CONNECTOR



Overview		
	Class	Local
	Directions	Westbound / Eastbound
	Via	Seven Corners Transit Center, N. Washington St, Annadale Road, Littler River Turnpike, East Falls Church Metro
	Transfers Available	400X, 401, 402, 715, 834, Metrobus 1A/B, 26A, 28a, 29G/K/N, 2A, 4B, Metrorail Orange, Silver, ART 52, 53A, 53B, 55
	Improvements	No change

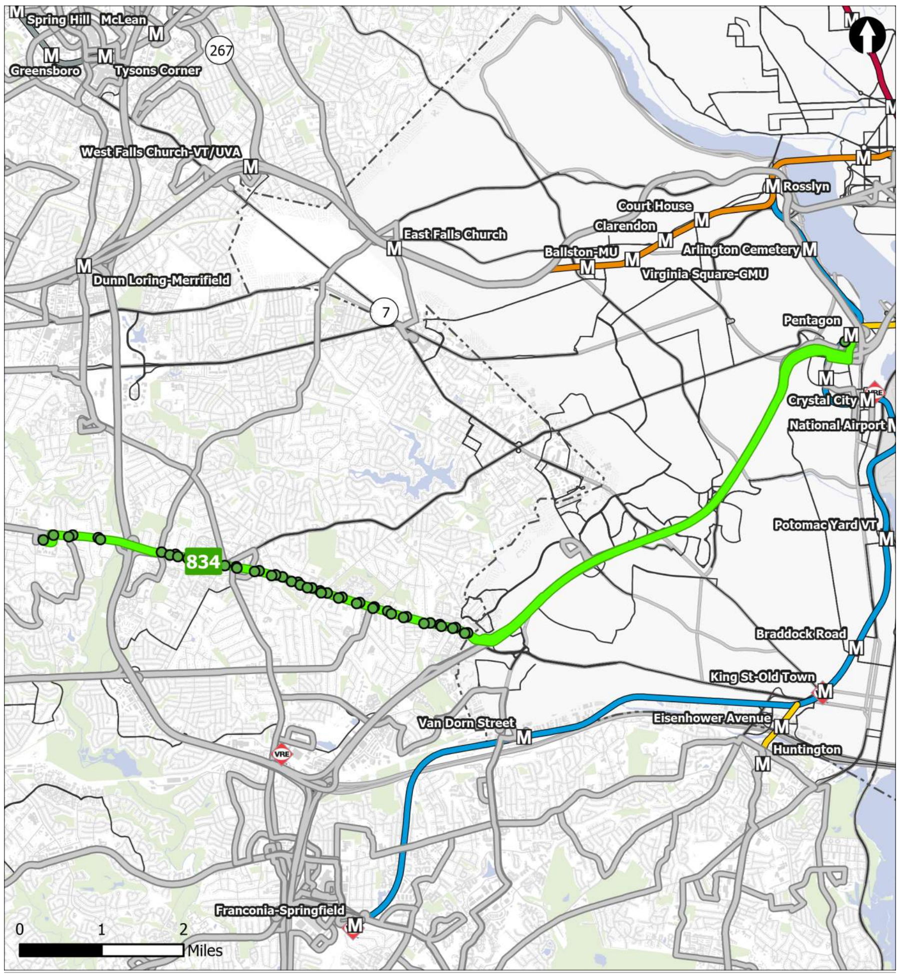
Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		05:35 AM to 09:43 PM	06:57 AM to 08:35 PM	06:57 AM to 08:34 PM
		Frequency (mins)	Peak	30	45	45
			Off-Peak	40		

Potential Mid-Term or Long-Term Improvement(s)
• No Change

Route 834

Little River Turnpike Pentagon

FAIRFAX CONNECTOR



Planned Route	Existing Service	Transit Facilities	Points of Interest	Metro Lines
Planned Stop	Segment Served by Other Route(s)	Metro Station	Government/ Community Center	Blue Line
Planned Route	Eliminated Segment	Transit Center	Hospital	Green Line
Other Planned and Existing Routes	Metrobus Route	Park & Ride	High/Middle School	Orange Line
		Virginia Railway Express Station	College	Red Line
			Other School	Silver Line
			Shopping Center	Yellow Line

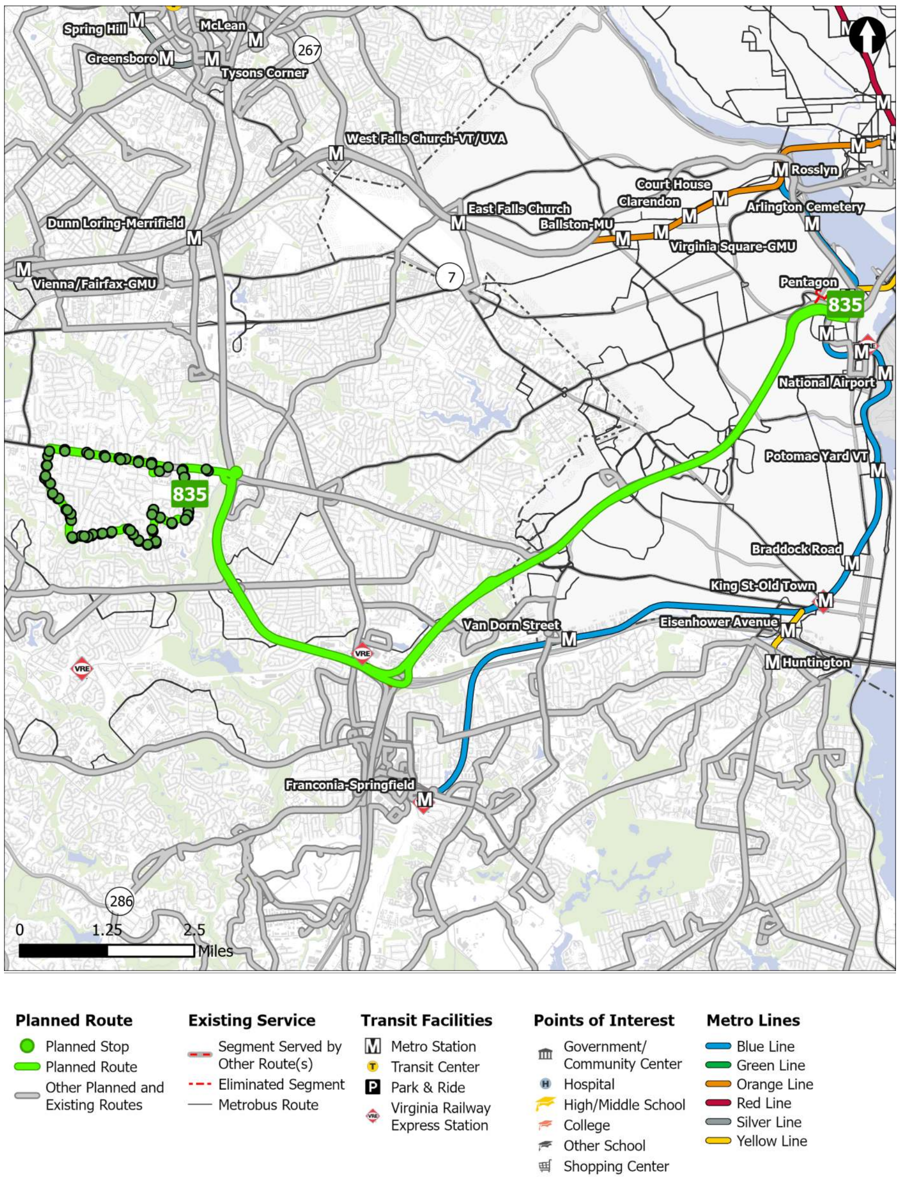
Overview		
	Class	Feeder
	Directions	Westbound / Eastbound
	Via	The Pentagon, Little River Turnpike, NVCC
	Transfers Available	393, 394, 395, 396, 400X, 401, 402, 598, 599, 698, 803, 835, Metrorail Yellow, Blue, Metrobus 7A, 7M, 8W, 10A, 16A, 16C, 17B, 17G, 17K, 17M, 18G, 18J, 21C, 22A, 22F, 26A, 28F, 29K, 29N, ART 42, 87, DASH 35, 103, 104
	Improvements	No change

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		6:45 AM to 8:17 AM / 4:27 AM to 6:59 PM	No Service	No Service
		Frequency (mins)	Peak	30	No Service	No Service
			Off-Peak	No Service		

Potential Mid-Term or Long-Term Improvement(s)
• No Change

Route 835

Braeburn Drive - Pentagon Express



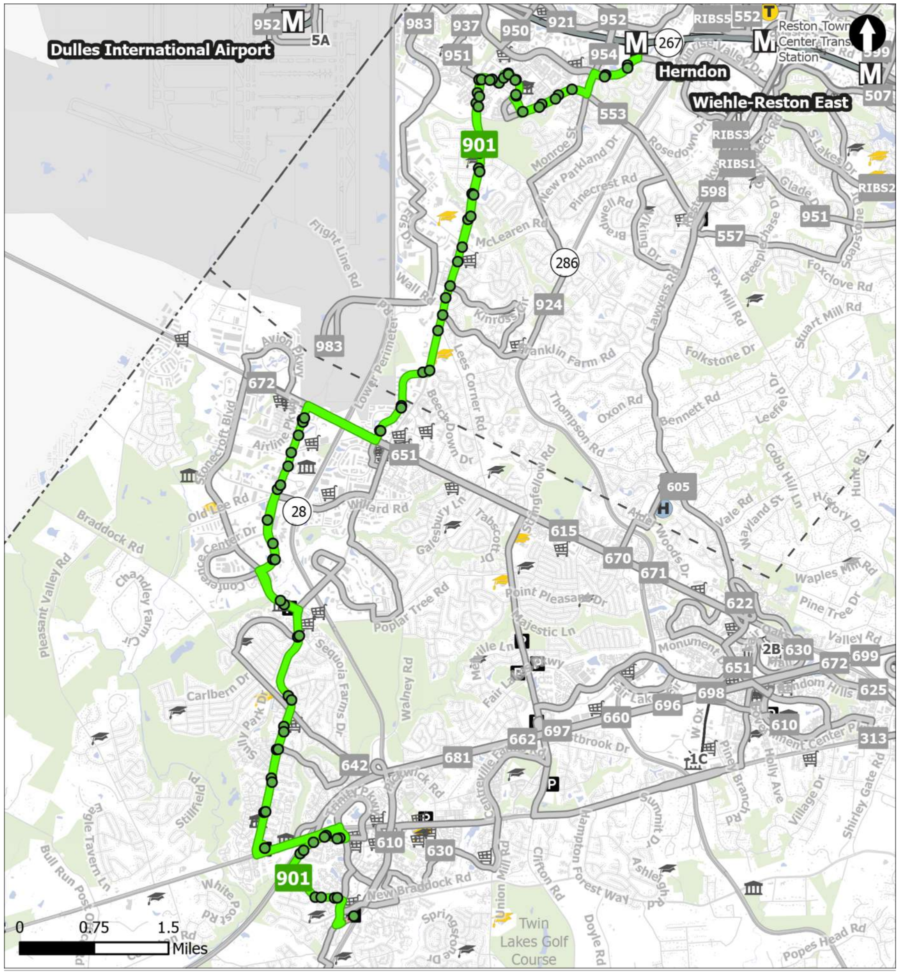
Overview		
	Class	Express
	Directions	Eastbound / Westbound
	Via	NVCC-Annandale, Braeburn Dr, Toll House Rd, Duncan Dr, Little River Turnpike, I-495, I-395, Pentagon Metro Station
	Transfers Available	306, 834, Metrobus 10A, 16A/C, 16E, 17B/G/K/M, 18G/J/P, 21C, 22A/F, 26A, 28F, 29G/K/9N, 7A/M, 8W, Metrorail Blue, Yellow, OmniRide, DASH, ART
	Improvements	No change

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		5:50 AM - 9:10 AM / 3:35 PM - 7:48 PM	No Service	No Service
		Frequency (mins)	Peak	30	No Service	No Service
			Off-Peak	No Service		

Potential Mid-Term or Long-Term Improvement(s)
• No Change

Route 901

Herndon Metro to Centreville UMC Park & Ride



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview		
	Class	Cross-County
	Directions	Southbound / Northbound
	Via	Centreville UMC Park & Ride, Sully Station Park & Ride, Centreville (Stone Rd) Park & Ride
	Transfers Available	553, 610, 630, 642, 651, 660, 662, 670, 671, 672, 921, 924, 937, 950, 951, 952, 954, 983, RIBS2, Metrorail Silver
	Improvements	New Route, Provide New Connections

IMPLEMENTED
November 2022

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		05:00 AM to 09:23 PM	07:30 AM to 09:22 PM	07:30 AM to 09:22 PM
		Frequency (mins)	Peak	30	60	60
			Off-Peak	60		

Potential Mid-Term or Long-Term Improvement(s)

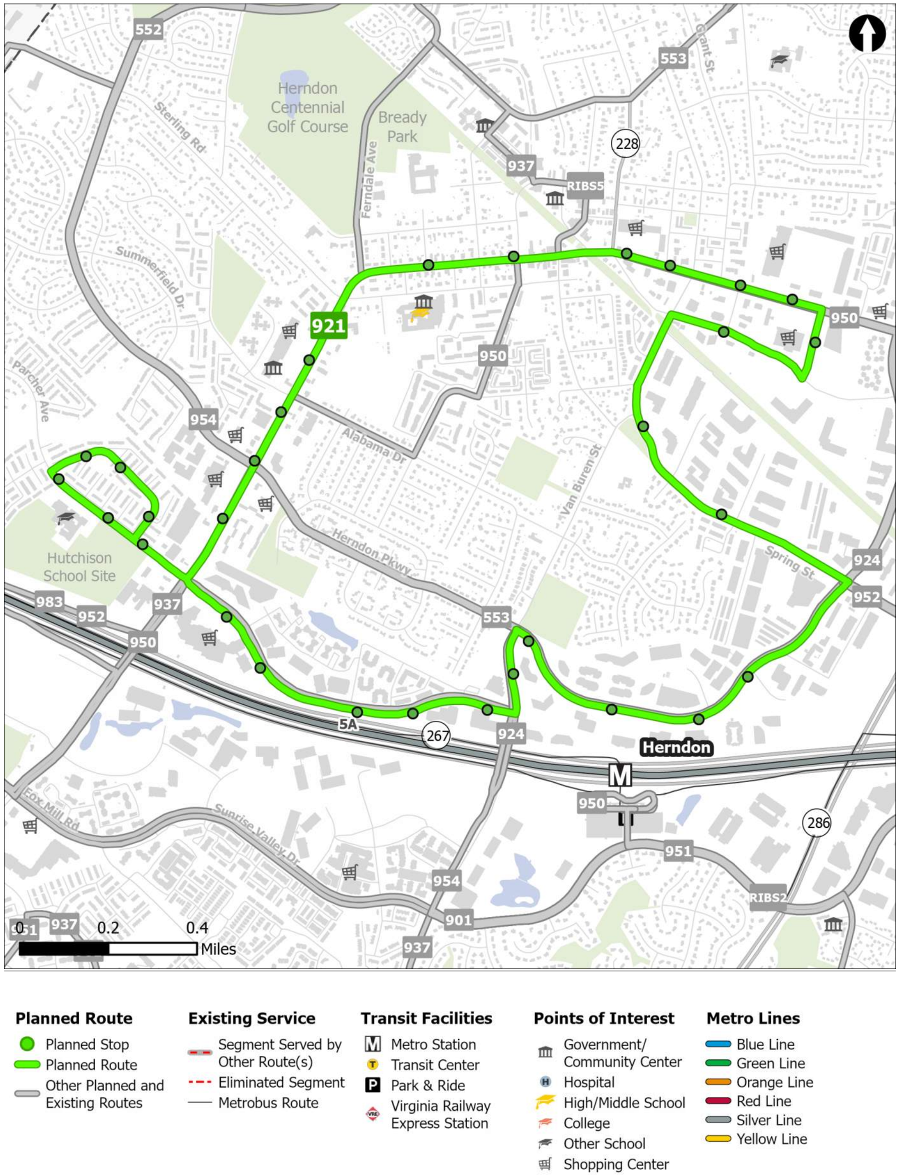
Frequency | Late Night | Non-Rush Hours | Saturday | Sunday | Weekday

- Extend weekday service hours to 12:00 AM
- Increase weekend frequency to 30 mins

Route 921

Herndon Metro to Herndon Town Hall

FAIRFAX CONNECTOR



IMPLEMENTED November 2022

Overview		
	Class	Local
	Directions	Loop
	Via	Spring St, Elden St, Parcher Ave, Worldgate
	Transfers Available	552, 553, 901, 924, 937, 950, 951, 952, 954, 652 RIBS2, RIBS5, Metrorail Silver
	Improvements	New Route, Provide New Connections

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		7:20 AM to 7:48PM	7:20 AM to 7:48PM	7:20 AM to 7:48PM
		Frequency (mins)	Peak	40	40	40
			Off-Peak	40		

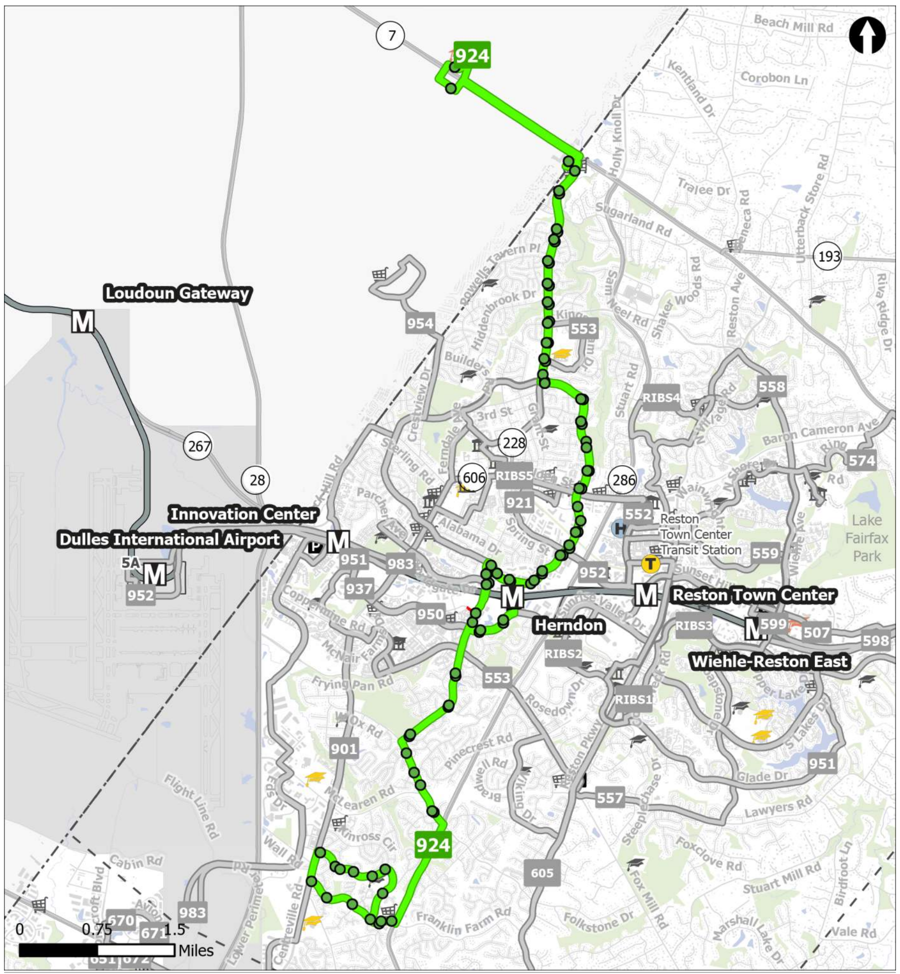
Potential Mid-Term or Long-Term Improvement(s)

- Add reverse loop route as Route 922
- Extend weekday and weekend service hours to 10:00 PM

Route 924

NOVA - Loudoun-Herndon-Franklin Farm

FAIRFAX CONNECTOR



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview	Class	Local
	Directions	Southbound / Northbound
	Via	Herndon Metro (South), Herndon Pkwy, Dranesville Rd
	Transfers Available	552, 553, 901, 921, 937, 950, 951, 952, 954, 983, RIBS2, RIBS5, Metrorail Silver, LCT 70, 80
	Improvements	Schedule adjustments to improve reliability, reroute to serve NVCC Loudoun directly

IMPLEMENTED
November 2022

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		04:59 AM to 10:31 PM	07:00 AM to 09:51 PM	07:00 AM to 09:51 PM
		Frequency (mins)	Peak	20	60	60
			Off-Peak	60		

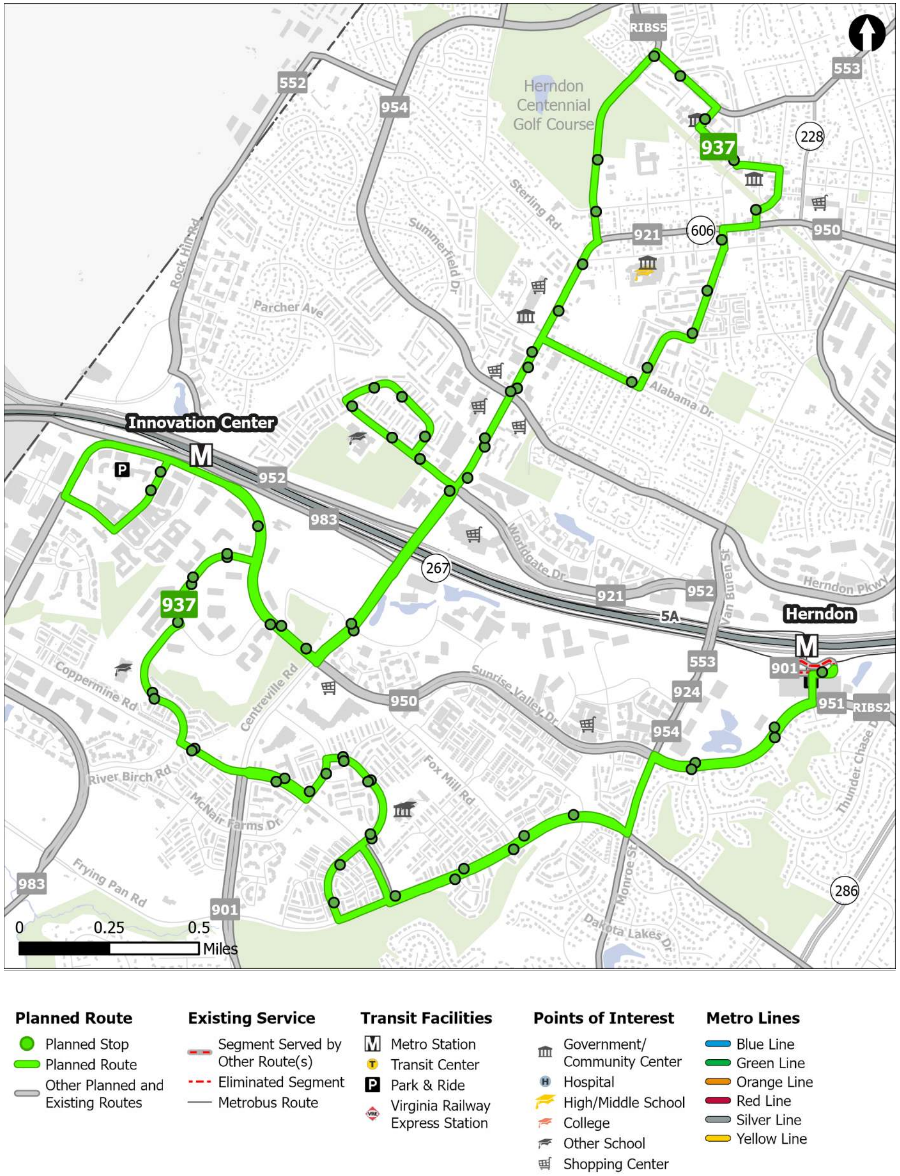
Potential Mid-Term or Long-Term Improvement(s)

Frequency Non-Rush Hours Saturday Weekday

- Increase weekday off-peak frequency to 30 mins
- Increase Saturday frequency to 30 mins

Route 937

Harbor House to Herndon Metro



Overview	Class	Local
	Directions	Northbound / Southbound
	Via	Worldgate, Elden St, Innovation Center Metrorail Station
	Transfers Available	552, 553, 901, 921, 924, 950, 951, 952, 954, 983, RIBS2, RIBS5, Metrorail Silver, LCT
	Improvements	Shifted span of service, alignment change

					Weekday	Saturday	Sunday
Level of Service	Proposed Route	Service Hours			07:58 AM to 05:38 PM	07:46 AM to 08:10 PM	07:46 AM to 08:10 PM
		Frequency (mins)	Peak		Limited Service	40	40
			Off-Peak		40		

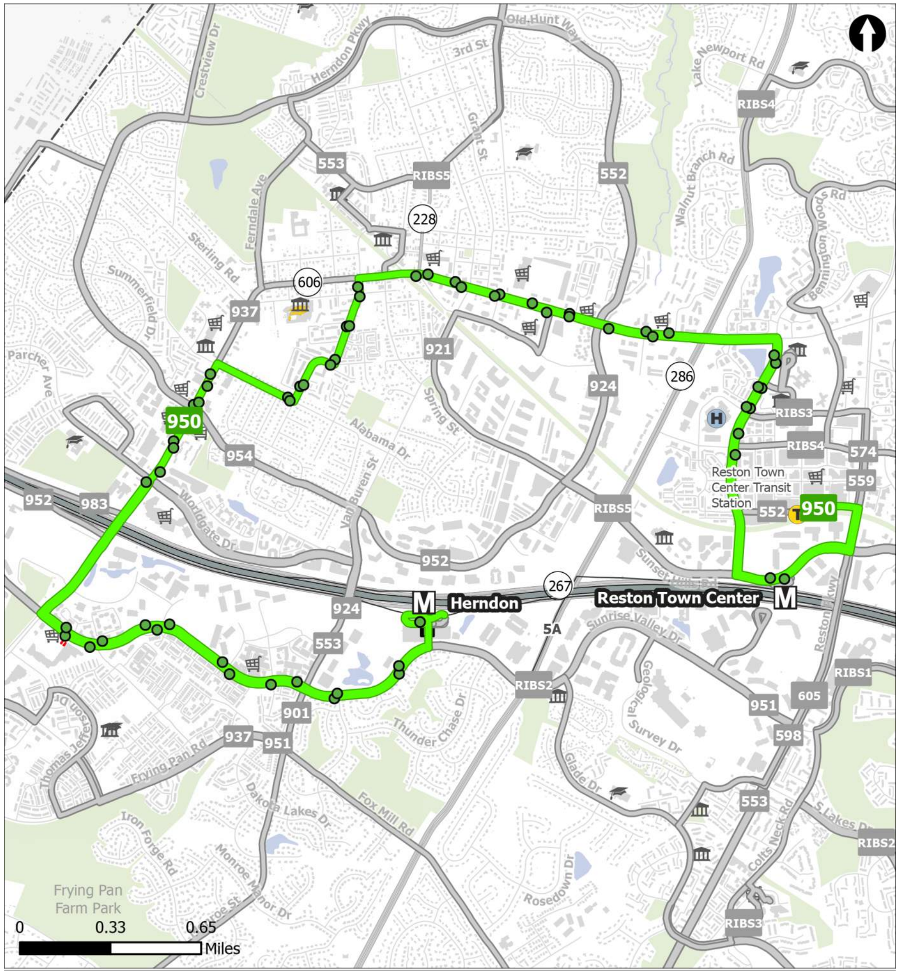
Potential Mid-Term or Long-Term Improvement(s)

- No Change

Route 950

Reston Town Center Metro to Herndon Metro

FAIRFAX CONNECTOR



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

IMPLEMENTED November 2022

Overview		
Overview	Class	Local
	Directions	Westbound / Eastbound
	Via	Worldgate, Elden St, Reston Hospital Center
	Transfers Available	552, 553, 559, 574, 605, 901, 921, 924, 937, 951, 952, 954, 983, RIBS1, RIBS2, RIBS3, RIBS4, RIBS5, Metrorail Silver, LCT
	Improvements	Increase Frequency

Level of Service				Weekday	Saturday	Sunday
Proposed Route	Service Hours			4:10 AM to 1:28 AM	6:00 AM to 1:28 AM	6:00 AM to 1:28 AM
	Frequency (mins)	Peak		15	20	30
		Off-Peak		20		

Potential Mid-Term or Long-Term Improvement(s)

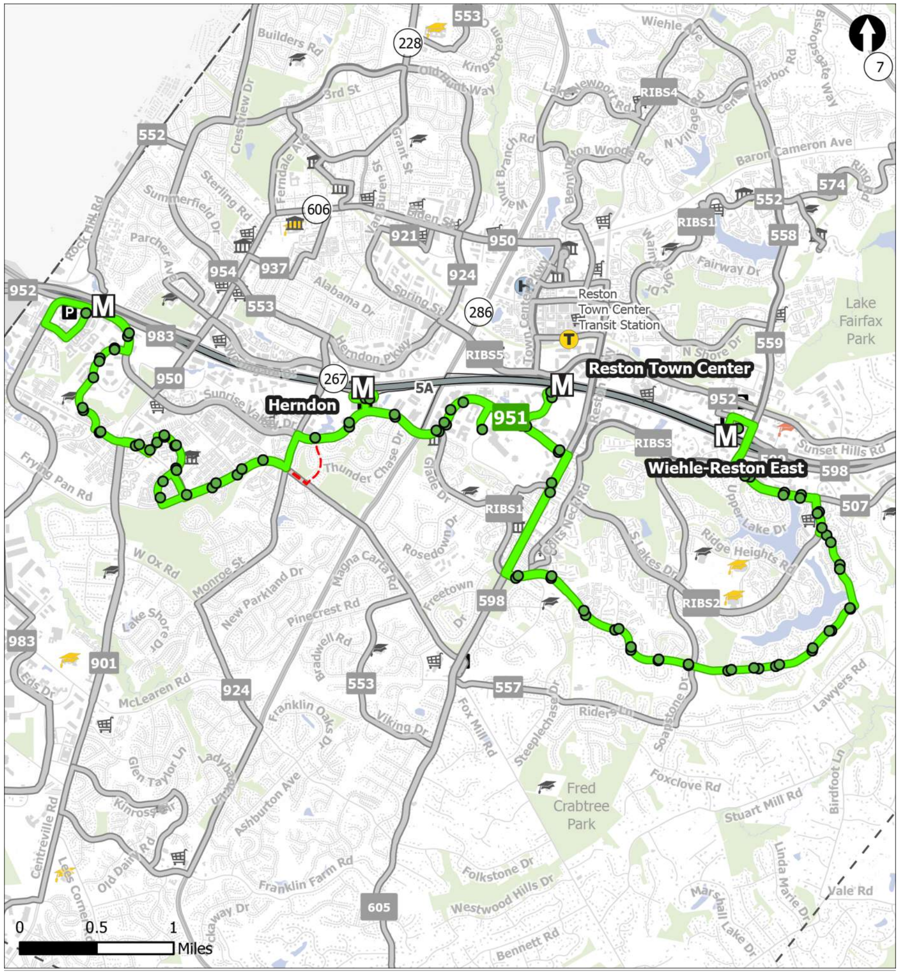
Frequency | Non-Rush Hours | Weekday

- Increase weekday off-peak frequency to 15 mins

Route 951

Wiehle-Reston East Metro to Innovation Center Metro

FAIRFAX CONNECTOR



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview		
	Class	Feeder
	Directions	Eastbound / Westbound
	Via	Innovation Station Metro, Herndon Metro, Reston Town Center Metro, Wiehle Metro, Coppermine Road
	Transfers Available	507, 552, 553, 557, 558, 559, 598, 599, 605, 901, 921, 924, 937, 950, 952, 954, 983, RIBS1, RIBS2, RIBS3, RIBS4, RIBS5, Metrorail Silver, LCT
	Improvements	Increase Frequency, Provide New Connections

IMPLEMENTED November 2022

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		6:00AM - 9:36AM / 4:00PM - 7:36PM	No Service	No Service
		Frequency (mins)	Peak	20	No Service	No Service
			Off-Peak	No Service		

Potential Mid-Term or Long-Term Improvement(s)

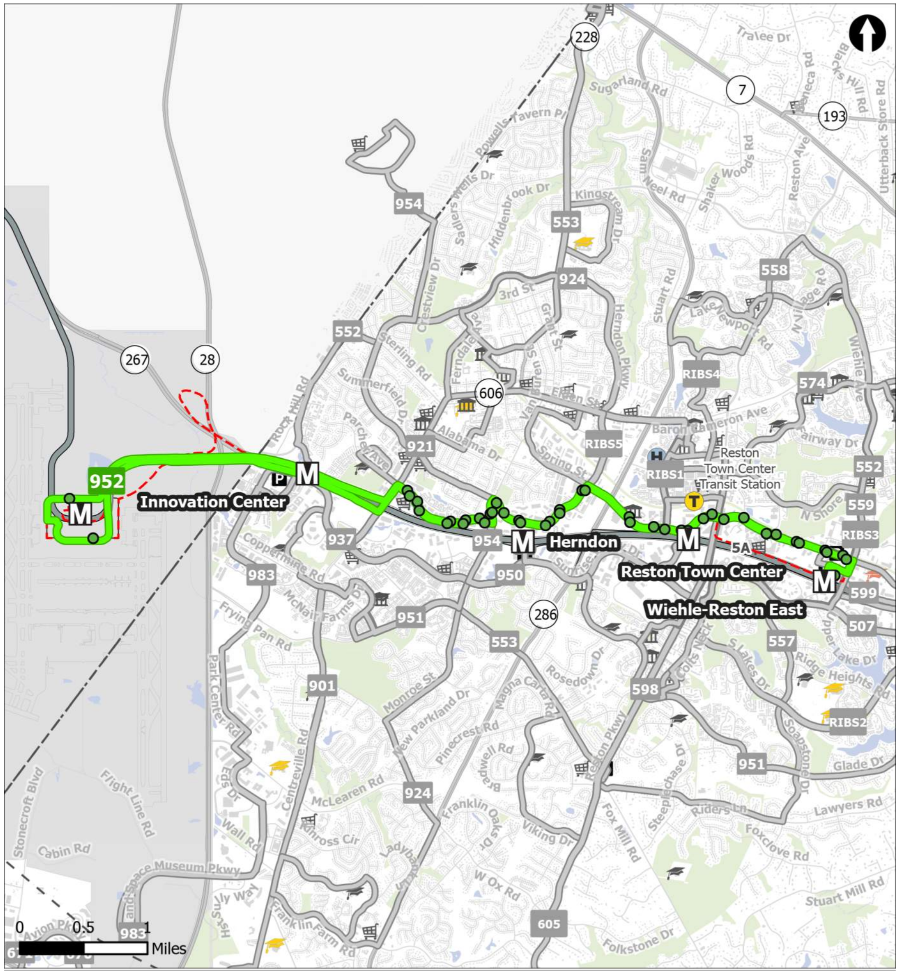
Frequency | Non-Rush Hours | Saturday | Weekday

- Add weekday off-peak service between 5:00 AM and 8:00 PM with frequency of 60 mins
- Add Saturday service from 8:00 AM to 7:00 PM with frequency of 60 mins

Route 952

Wiehle-Reston East Metro to Dulles Airport

FAIRFAX CONNECTOR



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

IMPLEMENTED November 2022

Overview		
	Class	Local
	Directions	Westbound / Eastbound
	Via	Reston Town Center Metro (North), Herndon Metro (North) Worldgate
	Transfers Available	507, 552, 553, 557, 558, 559, 574, 598, 599, 605, 901, 921, 924, 937, 950, 951, 954, 983, RIBS1, RIBS2, RIBS3, RIBS4, RIBS5, Metrorail Silver, LCT
	Improvements	Schedule adjustments to improve reliability, no change to existing levels of service

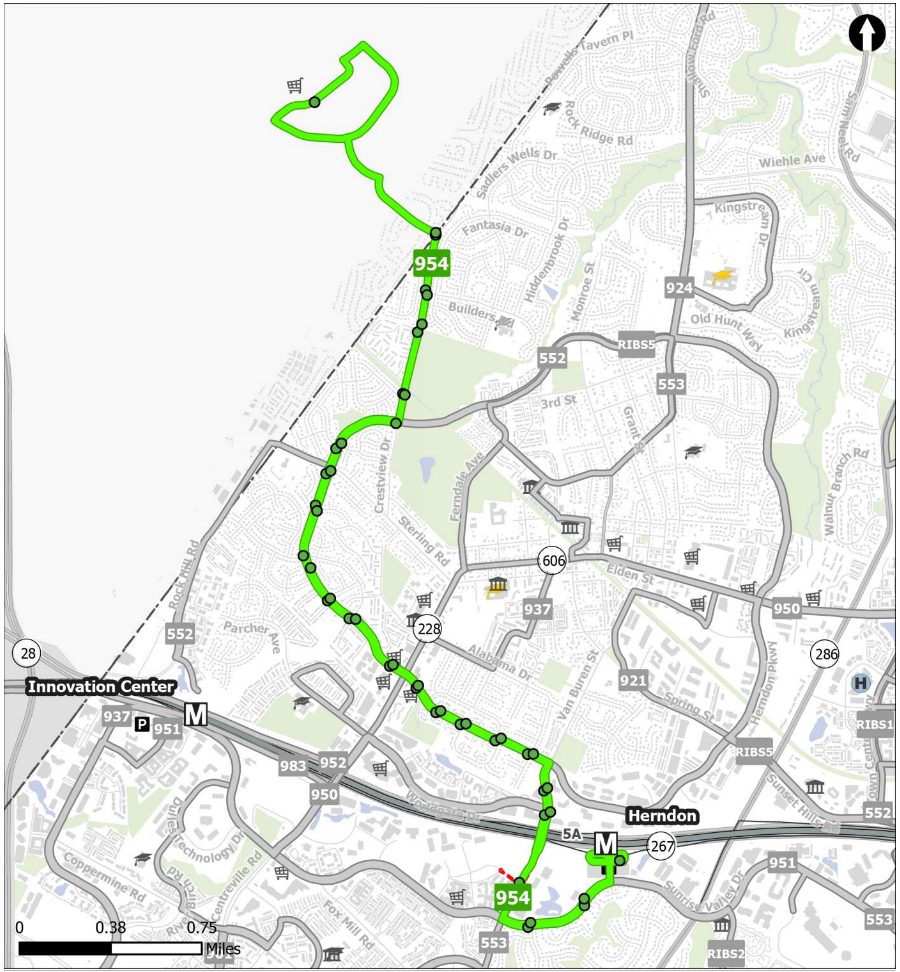
Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		05:50 AM to 11:21 PM	06:30 AM to 11:21 PM	06:30 AM to 11:21 PM
		Frequency (mins)	Peak	20	60	60
			Off-Peak	60		

Potential Mid-Term or Long-Term Improvement(s)

- No Change

Route 954

Herndon Metro to Sterling Plaza



Overview		
	Class	Local
	Directions	Southbound / Northbound
	Via	Herndon Pkwy
	Transfers Available	552, 553, 901, 921, 924, 937, 950, 951, 952, RIBS 2, Metrorail Silver
	Improvements	New Route, Provide New Connections

IMPLEMENTED
November 2022

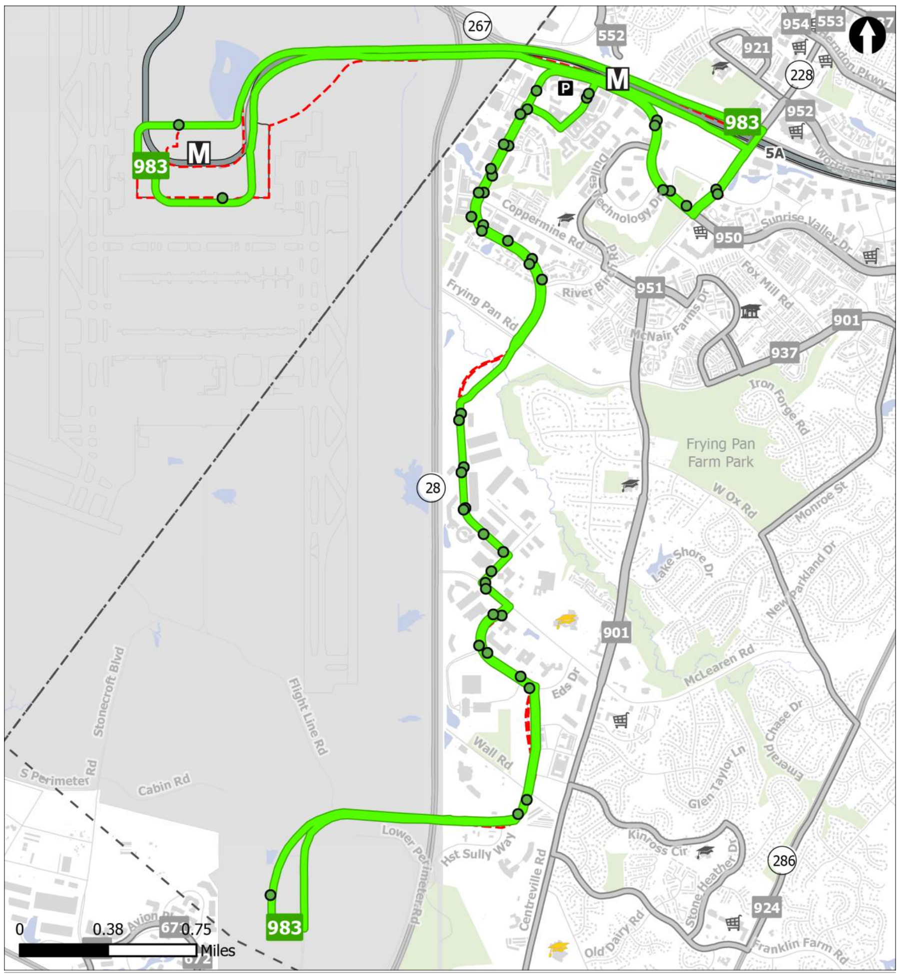
Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		06:00 AM to 09:51 PM	07:00 AM to 08:51 PM	07:00 AM to 08:51 PM
		Frequency (mins)	Peak	30	60	60
			Off-Peak	60		

Potential Mid-Term or Long-Term Improvement(s)
• No Change

Route 983

Dulles Airport to Air and Space Museum (Udvar-Hazy Center)

FAIRFAX CONNECTOR



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

IMPLEMENTED November 2022

Overview		
	Class	Local
	Directions	Northbound / Southbound
	Via	Air and Space Museum, Innovation Station Metro, Dulles Airport
	Transfers Available	552, 901, 924, 937, 950, 951, 952, Metrorail Silver, LCT
	Improvements	Provide New Connections

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		05:45 AM to 07:20 PM	07:15 AM to 07:02 PM	07:15 AM to 07:02 PM
		Frequency (mins)	Peak	25 - 30	60	60
			Off-Peak	60		

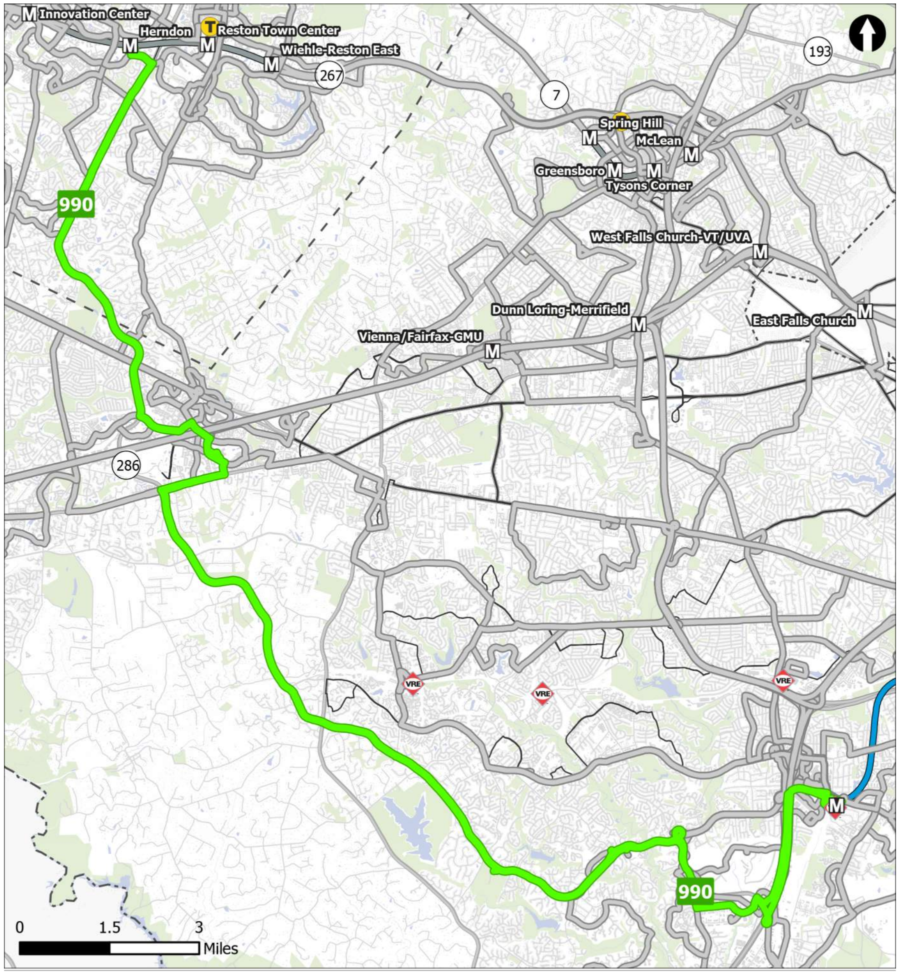
Potential Mid-Term or Long-Term Improvement(s)

- No Change

Route 990 (Long-term)

Herndon Metro - Franconia Springfield Metro & VRE Station

FAIRFAX CONNECTOR



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

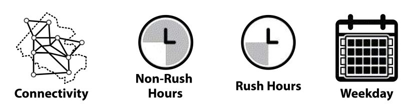
Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview	Class	Cross County
	Directions	Northbound/Southbound
	Via	Fairfax County Pkwy/Rt 286, Fort Belvoir North, I-95
	Transfers Available	231, 232, 301, 305, 310, 313, 315, 321, 334, 335, 340, 341, 350, 351, 352, 353, 371, 393, 394, 395, 400X, 401, 402, 494, 553, 605, 610, 615, 622, 625, 630, 651, 660, 662, 663, 670, 671, 672, 681, 699, 901, 924, 937, 950, 951, 952, 954, RIBS 2, Metrorail Silver, Blue, Metrobus 1C, 2B, VRE
	Improvements	New service between Herndon Metro station and Franconia-Springfield Metro & VRE Station

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		06:00 AM to 07:00 PM	No Service	No Service
		Frequency (mins)	Peak	20	No Service	No Service
			Off-Peak	30		

Potential Mid-Term or Long-Term Improvement(s)

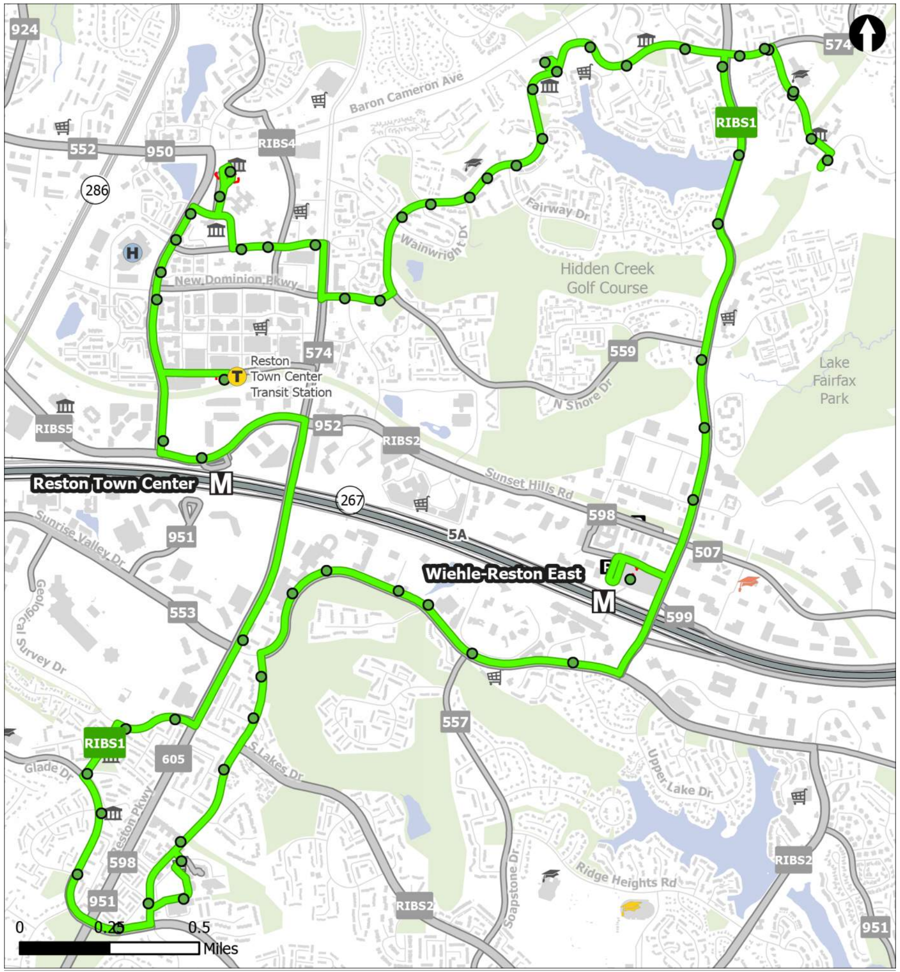


- New express route between Herndon Metro Station and Franconia-Springfield Metro/VRE Station via Fairfax County Parkway
- Operate on weekdays from 6:00 AM to 7:00 PM with peak frequency of 20 and off-peak frequency of 30

Route RIBS 1

Lake Anne - Hunters Woods

FAIRFAX CONNECTOR



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

IMPLEMENTED November 2022

Overview		
	Class	Feeder
	Directions	Circulator
	Via	Lake Anne, Cedar Ridge, Wiehle-Reston East (North), Sunrise Valley Dr, Hunter Woods, Reston Town Center Metro (North)
	Transfers Available	507, 552, 553, 557, 558, 559, 574, 598, 599, 605, 950, 951, 952, RIBS2, RIBS3, RIBS4, RIBS5, Metrorail Silver, LCT
	Improvements	Increase Frequency

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		05:10 AM to 12:47 AM	06:10 AM to 12:57 AM	06:10 AM to 11:57 PM
		Frequency (mins)	Peak	25	20	30
			Off-Peak	25		

Potential Mid-Term or Long-Term Improvement(s)

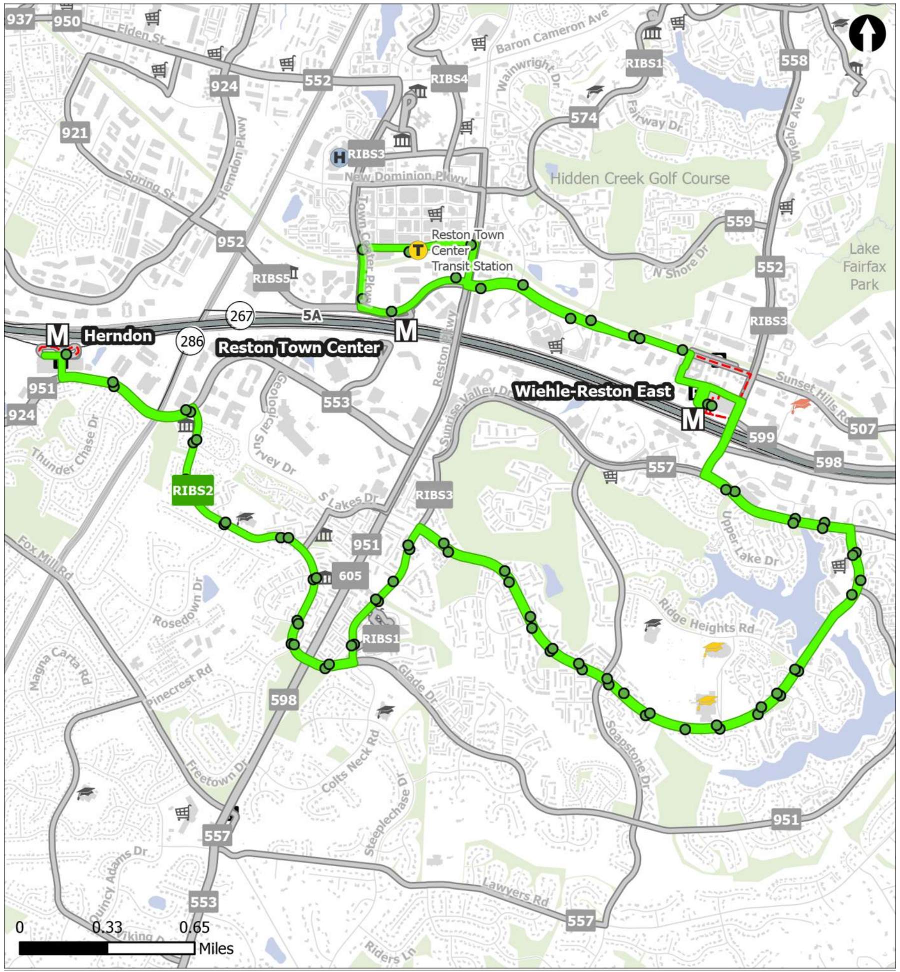
Frequency | Non-Rush Hours | Rush Hours | Weekday

- Increase weekday peak and off-peak frequency to 20 mins

Route RIBS 2

Reston - South Lakes Drive - Herndon Metro

FAIRFAX CONNECTOR



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

IMPLEMENTED
November 2022

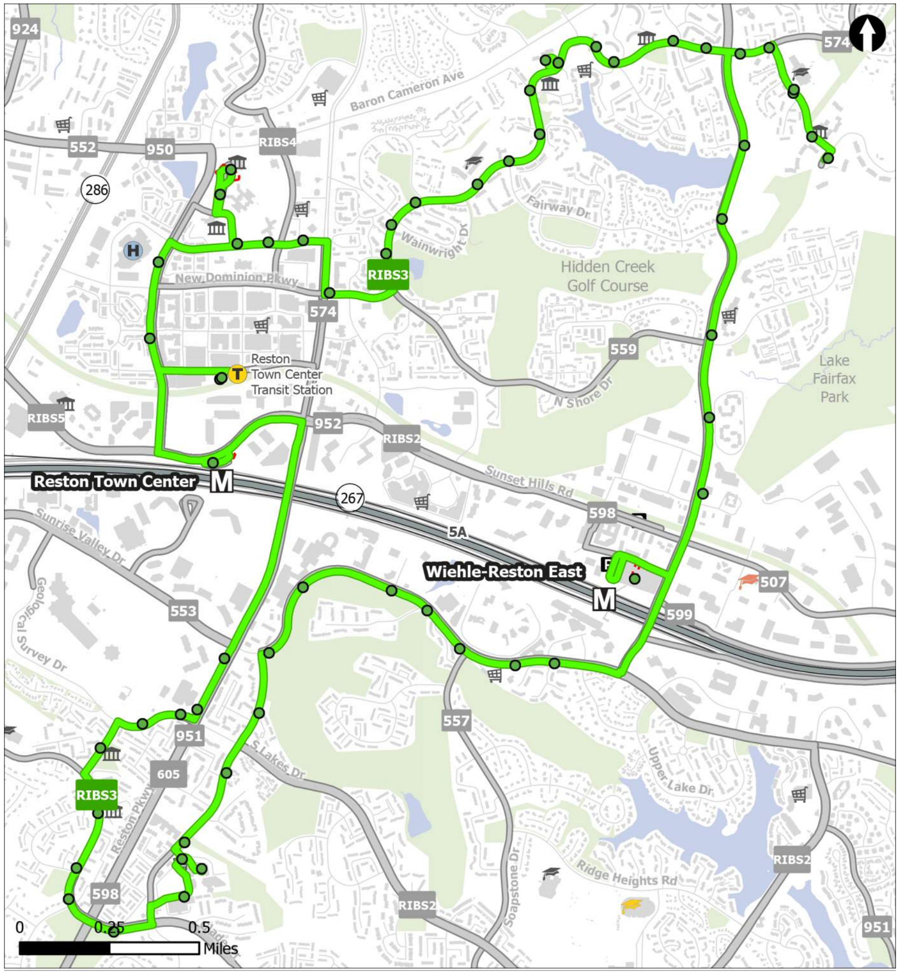
Overview		
	Class	RIBS
	Directions	Eastbound/Westbound
	Via	Wiehle-Reston East Metro (North), South Lakes Village Center, South Lakes HS, Hunter Woods
	Transfers Available	507, 552, 553, 557, 558, 559, 574, 598, 599, 605, 901, 921, 924, 937, 950, 951, 952, 954, RIBS1, RIBS3, RIBS4, RIBS5, Metrorail Silver
	Improvements	Increase Frequency, Provide New Connections

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		04:25 AM to 12:47 AM	06:00 AM to 12:48 AM	06:00 AM to 12:48 AM
		Frequency (mins)	Peak	20	30	30
			Off-Peak	30		

Potential Mid-Term or Long-Term Improvement(s)
• No Change

Route RIBS 3
Lake Anne - Hunters Woods

FAIRFAX CONNECTOR



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

IMPLEMENTED
November 2022

Overview		
	Class	RIBS
	Directions	Loop
	Via	Reston Town Center Metro (North), Hunter Woods, Sunrise Valley Dr, Wiehle-Reston East (North), Cedar Ridge, Lake Anne
	Transfers Available	507, 552, 553, 557, 558, 559, 574, 598, 599, 605, 950, 951, 952, RIBS1, RIBS2, RIBS4, RIBS5, Metrorail Silver, LCT
	Improvements	Increase Frequency

Level of Service	Proposed Route			Weekday	Saturday	Sunday
		Service Hours		05:10 AM to 12:46 AM	06:10 AM to 12:54 AM	06:10 AM to 11:54 PM
		Frequency (mins)	Peak	25	20	30
			Off-Peak	25		

Potential Mid-Term or Long-Term Improvement(s)

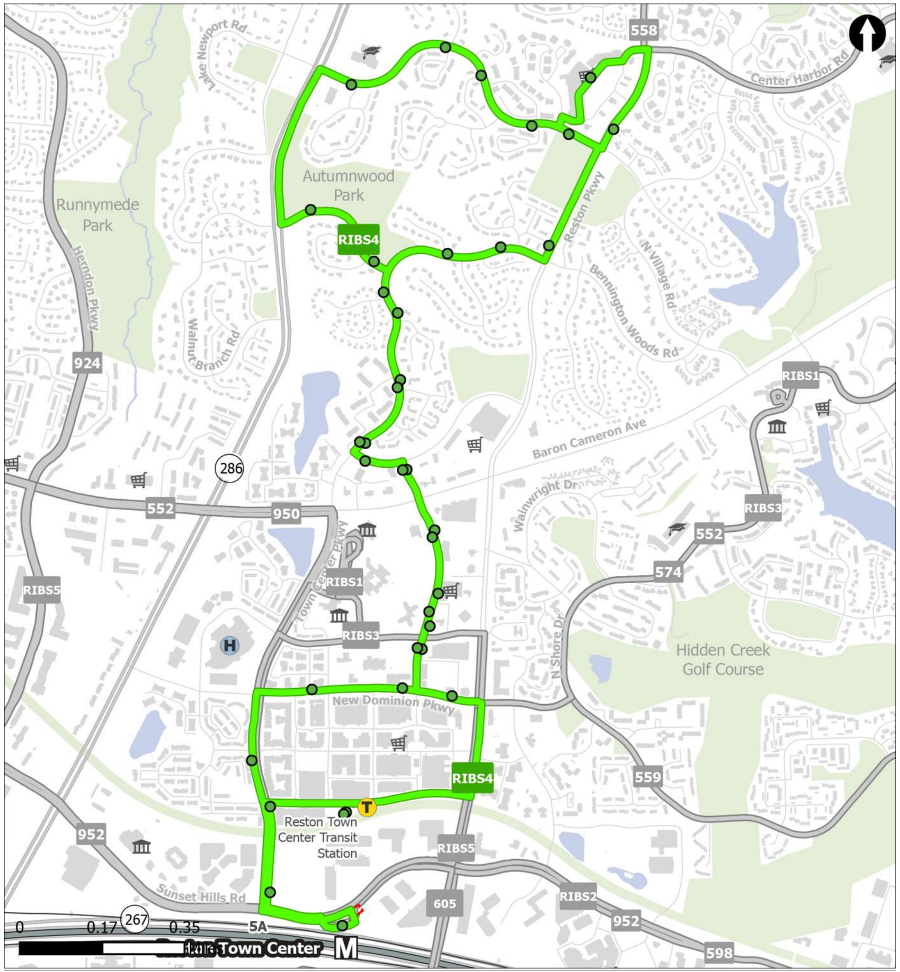
Frequency · Non-Rush Hours · Rush Hours · Weekday

- Increase weekday peak and off-peak frequency to 20 mins

Route RIBS 4

Reston Town Center to North Point

FAIRFAX CONNECTOR



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

Overview	Class	RIBS
	Directions	Circulator
	Via	Reston Town Center Transit Station, Bennington Woods Rd, Lake Newport Rd
	Transfers Available	552, 553, 558, 559, 574, 605, 950, 951, 952, RIBS1, RIBS2, RIBS3, RIBS5, Metrorail Silver, RIBS 4
	Improvements	Increase Frequency, Provide New Connections

IMPLEMENTED
November 2022

Level of Service	Proposed Route		eekday		Saturday	Sunday
		Service Hours	05:12 AM to 11:19 PM		06:52 AM to 09:19 PM	06:52 AM to 09:19 PM
		Frequency (mins)	Peak	20	40	40
			Off-Peak	40		

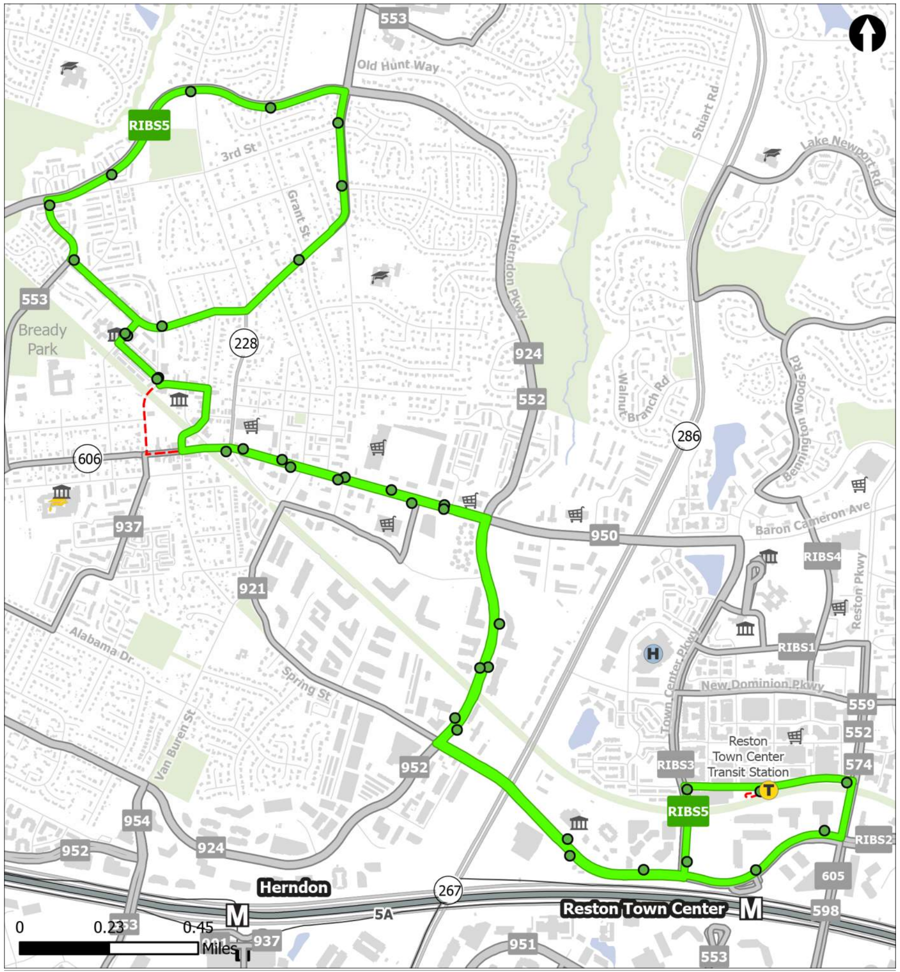
Potential Mid-Term or Long-Term Improvement(s)

Frequency | Non-Rush Hours | Saturday | Sunday | Weekday

- Increase weekday off-peak and weekend frequency to 30 mins

Route RIBS 5

Herndon - Reston Town Center



Planned Route
- Planned Stop
- Planned Route
- Other Planned and Existing Routes

Existing Service
- Segment Served by Other Route(s)
- Eliminated Segment
- Metrobus Route

Transit Facilities
- Metro Station
- Transit Center
- Park & Ride
- Virginia Railway Express Station

Points of Interest
- Government/ Community Center
- Hospital
- High/Middle School
- College
- Other School
- Shopping Center

Metro Lines
- Blue Line
- Green Line
- Orange Line
- Red Line
- Silver Line
- Yellow Line

IMPLEMENTED November 2022

Overview		
	Class	RIBS
	Directions	Westbound/Eastbound
	Via	Reston Town Center Metro (North), Elden St, Herndon Senior Center
	Transfers Available	552, 553, 559,574, 605, 921, 924, 937, 950, 951, 952, RIBS1, RIBS2, RIBS3, RIBS4, Metrorail Silver, LCT
	Improvements	Provide New Connections

Level of Service	Proposed Route			ekday	Saturday	Sunday
		Service Hours		05:30 AM to 11:24 PM	07:00 AM to 09:09 PM	07:00 AM to 09:09 PM
		Frequency (mins)	Peak	45	45	45
			Off-Peak	45		

Potential Mid-Term or Long-Term Improvement(s)

Frequency Non-Rush Hours Rush Hours Saturday Sunday Weekday

- Increase weekday and weekend frequency to 30 mins

Appendix F
TSP Public Outreach Summary

Fairfax County conducted numerous community and stakeholder engagement activities to inform the TSP. This is in addition to the 2018-2019 Market Survey, 2019 On-Board survey, and multiple rounds of public engagement conducted for the Bus Service Review Studies. Activities specific to the TSP development effort included:

- Three (3) virtual public meetings and survey in Winter 2021. The survey gathered responses from 2,871 individuals including 1,143 comments.
- Two (2) virtual public meetings and survey in Spring 2022. The survey gathered responses from 1,114 individuals including 1,287 comments.
- Four (4) stakeholder meetings with business and community organizations (2 in Winter 2021 and 2 in Spring 2022).
- Two (2) Technical Advisory Group meetings with internal Fairfax County and external neighboring transit system stakeholders (City of Fairfax CUE, OmniRide, DASH, Loudoun County Transit, Arlington Transit, and WMATA).

This appendix contains summaries of the Winter 2021 and Spring 2022 public outreach for the TSP.

WINTER 2021 PUBLIC OUTREACH SUMMARY

1. Survey Overview and Promotion

This round of public outreach for the Fairfax County Transit Strategic Plan (TSP) consisted of three virtual public meetings, an online survey, and two virtual community stakeholder meetings. This document provides a summary of the public input received via the online survey, but serves as one of several sources for public input on Fairfax Connector service. The survey was developed using SurveyMonkey, a company that specializes in simple online public engagement surveys. The purpose of the survey was to gauge community preferences and priorities to assist Fairfax County in validating the vision and goals for Fairfax Connector bus service and evaluating the transit system for future improvements. The survey was available in English and in Spanish translation, and input could also be provided by e-mail, phone, and mail. The survey was comprised of three sections: (1) how frequent, occasional, and non-rider respondents travel, (2) opportunities for improvements, (3) optional demographic information of respondents. Responding to each section was optional, and participants were not required to answer each question. Many of the survey questions asked for respondents to consider their travel behaviors prior to COVID-19 when answering, but respondents were also asked to give their impressions of service when thinking about the future. This online survey was available to the public from December 30, 2020 to February 19, 2021, and was published concurrently with three virtual public meetings that occurred on January 12-14, 2021.

Community stakeholders were also engaged through two meetings that followed a similar format to the online public meetings. Stakeholder meetings were held on Monday, January 11, 2021 and Friday, January 15, 2021—one with business stakeholder and another with community organizations. A summary of these meetings is included in **Attachment B**.

The survey was promoted via the following platforms by Fairfax County Department of Transportation (FCDOT):

- Fairfax County direct mail flyers translated in 10 languages
- Study website – a link to the survey was posted on the study website
- Press release to local/regional media
- Text/email Fairfax Alerts and BusTracker Alerts to subscribers
- Social media campaign – Facebook, Twitter

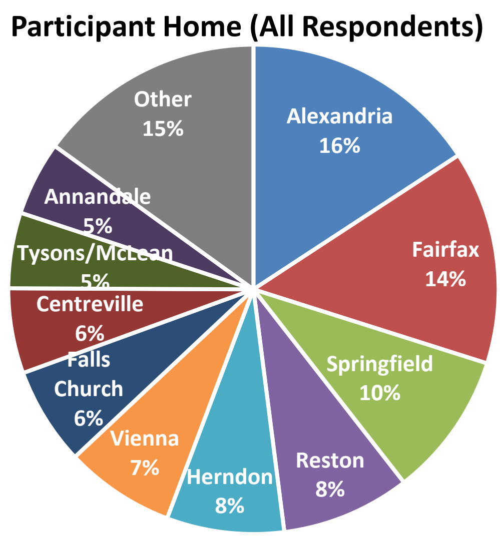
The survey is one of several sources of public input for the TSP. Previous survey efforts, namely the 2018-2019 Market Survey and 2019 On-Board survey, are also used as input. The last page of this document contains a comparison table of these three surveys to show how they align or differ for similar questions.

2. Survey Responses and Respondent Characteristics

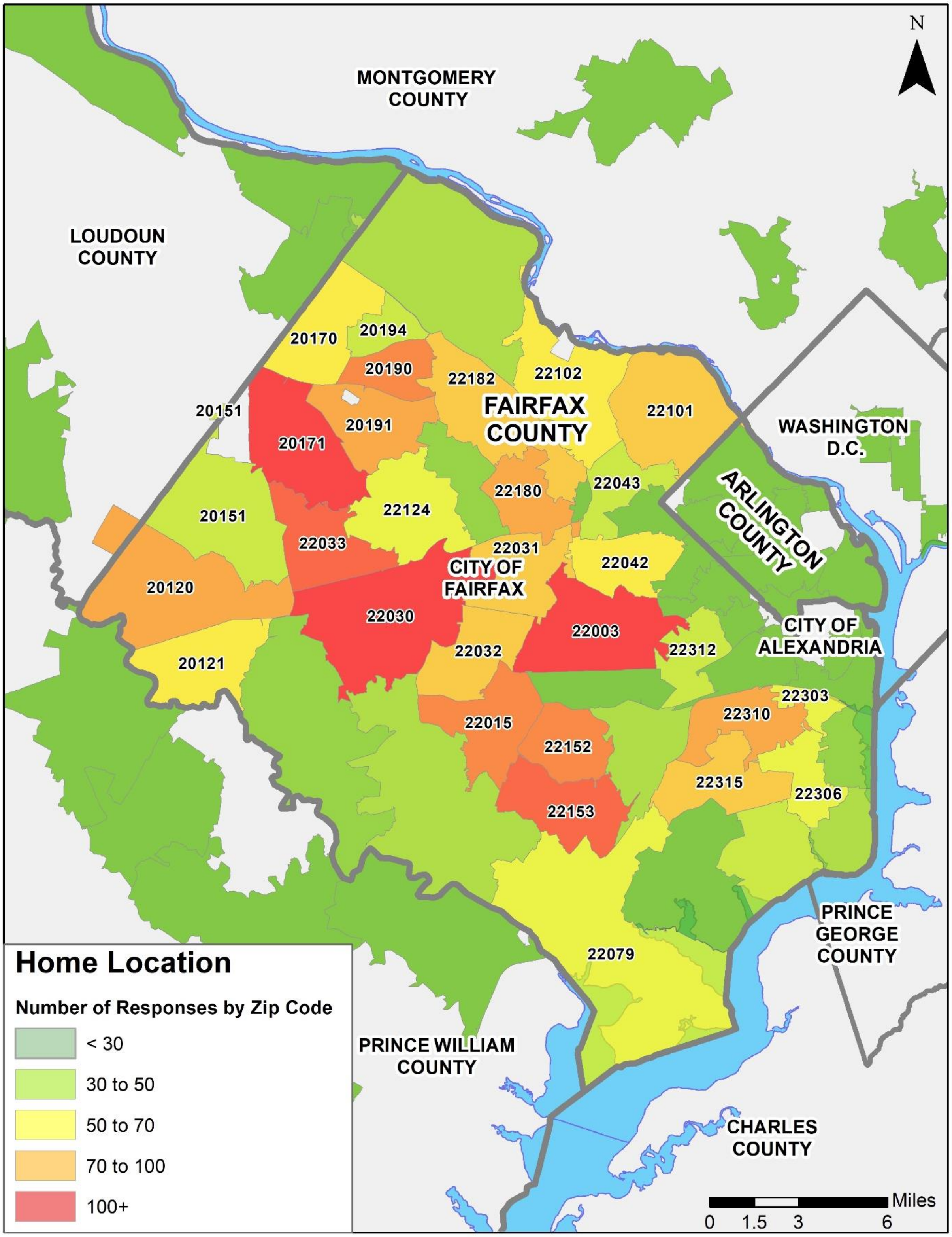
In total, the survey received 2,901 submissions. The English survey had 2,871 total responses while the Spanish survey had 30 responses. The survey received 158 responses where two or more responses shared the same IP address. These responses were reviewed (response demographic information, response date, response time, and answers to various questions) and retained because of the varying answers that were provided, especially those pertaining to demographic information. It was assumed that people from the same household may have used the same computer or respondents used public computers. The results from this survey are not statistically based and may differ from the market and on-board surveys. This survey was open to all members of the community that wished to provide input.

Participants by Home Location

Out of the 2,901 survey participants, 2,880 provided their home zip codes. These respondents included 88 unique zip codes. About 99.4 percent of the total 2,880 responses were from Virginia and the rest lived in DC and Maryland. Out of the total responses, 58 percent lived in Fairfax County. The chart and table below show the ten most common localities that were associated with the zip code responses. The "Other" category represents home zip locations not in the top ten locations. For example, Burke, Lorton, Oakton, Chantilly, Great Falls, and 24 more locations. The map below shows survey responses received by home zip code. The red areas on this map represent zip codes with a larger number of responses. **These results represent only TSP survey respondents. The on-board survey is the primary survey source for demographic characteristics and travel patterns of Fairfax Connector riders.** Additional cross tabulation of user types are included in **Attachment A**.



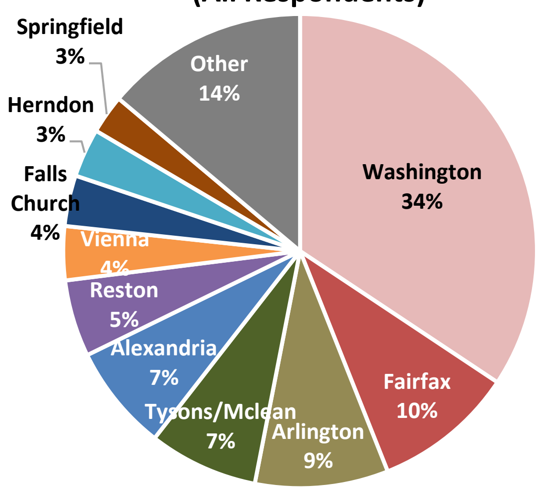
Home Location Zip Code	Count of Responses	% of Responses
Alexandria	454	16%
Fairfax	407	14%
Springfield	276	10%
Reston	245	8%
Herndon	223	8%
Vienna	209	7%
Falls Church	186	6%
Centreville	162	6%
Tysons/McLean	144	5%
Annandale	141	5%
Other	433	15%
Total	**2,880**	**100%**


N
MONTGOMERY COUNTY
LOUDOUN COUNTY
FAIRFAX COUNTY
WASHINGTON D.C.
ARLINGTON COUNTY
CITY OF FAIRFAX
CITY OF ALEXANDRIA
PRINCE GEORGE COUNTY
PRINCE WILLIAM COUNTY
CHARLES COUNTY
20170
20194
20190
22182
22102
20151
20191
20171
22101
22043
22180
22124
20151
22033
22031
22042
20120
22030
22003
22312
20121
22032
22303
22310
22015
22152
22315
22306
22153
22079
Home Location
Number of Responses by Zip Code
< 30
30 to 50
50 to 70
70 to 100
100+
Miles
0 1.5 3 6

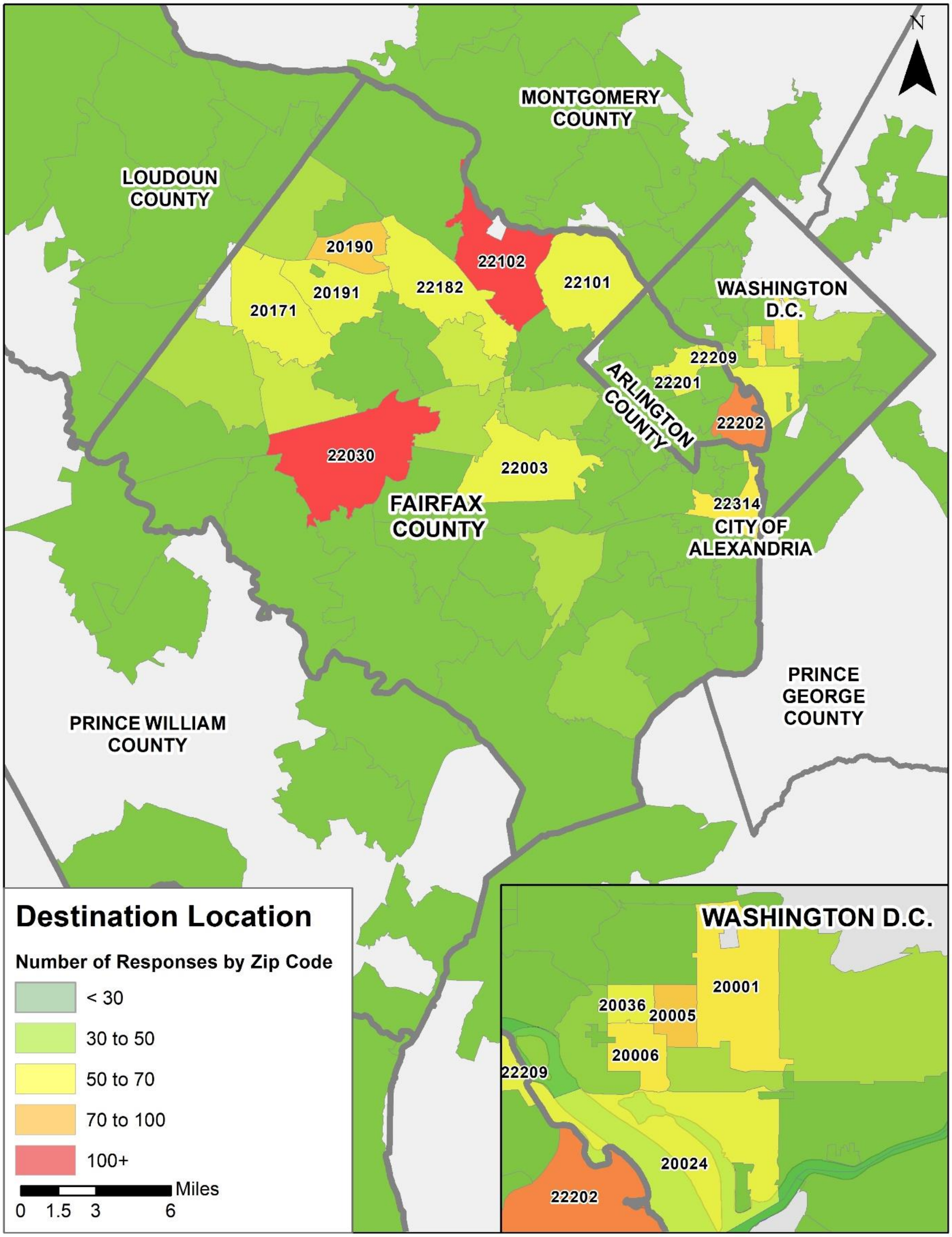
Participants by Destination Zip Code

Out of the 2,901 survey participants, 2,802 provided their frequent destination zip code. This zip code represented the most frequent place that people travel to such as work or school. These respondents included 266 unique zip codes. Overall, 53 percent of the total respondents travel to a destination outside of Fairfax County. The chart and table below show the ten most common localities that were associated with the zip code responses. The "Other" category represents destinations not in the top ten locations. For example, Annandale, Chantilly, Sterling, Burke, and 57 more locations. The map below shows survey responses received by destination zip code. The two red areas with the most responses on this map include a large portion of Tysons in 22102 and George Mason University, Fairfax City, and Fairfax Center in 22030. **These results represent only TSP survey respondents. The on-board survey is the primary survey source for demographic characteristics and travel patterns of Fairfax Connector riders.** Additional cross tabulation of user types are included in **Attachment A**.

Participant Frequent Destination (All Respondents)



Destination Location	Count of Responses	% of Responses
Washington	962	34%
Fairfax	270	10%
Arlington	255	9%
Tysons/McLean	209	7%
Alexandria	203	7%
Reston	147	5%
Vienna	103	4%
Falls Church	97	3%
Herndon	93	3%
Springfield	74	3%
Other	389	15%
Total	**2,802**	**100%**


N
MONTGOMERY COUNTY
LOUDOUN COUNTY
20190
22102
22101
20191
22182
20171
WASHINGTON D.C.
22209
22201
ARLINGTON COUNTY
22202
22030
22003
FAIRFAX COUNTY
22314
CITY OF ALEXANDRIA
PRINCE GEORGE COUNTY
PRINCE WILLIAM COUNTY
Destination Location
Number of Responses by Zip Code
< 30
30 to 50
50 to 70
70 to 100
100+
Miles
0 1.5 3 6
WASHINGTON D.C.
20001
20036
20005
20006
22209
20024
22202

Top Travel Flows of Frequent Connector Riders

The table below shows the top travel flows of the survey respondents that provided home and frequent destination zip codes, and that are considered frequent Connector riders by riding the bus at least once a week. Similar to the frequent destination section above, Washington is the major trip attractor from various areas of Fairfax County. **These results represent only TSP survey respondents. The on-board survey is the primary survey source for demographic characteristics and travel patterns of Fairfax Connector riders.**

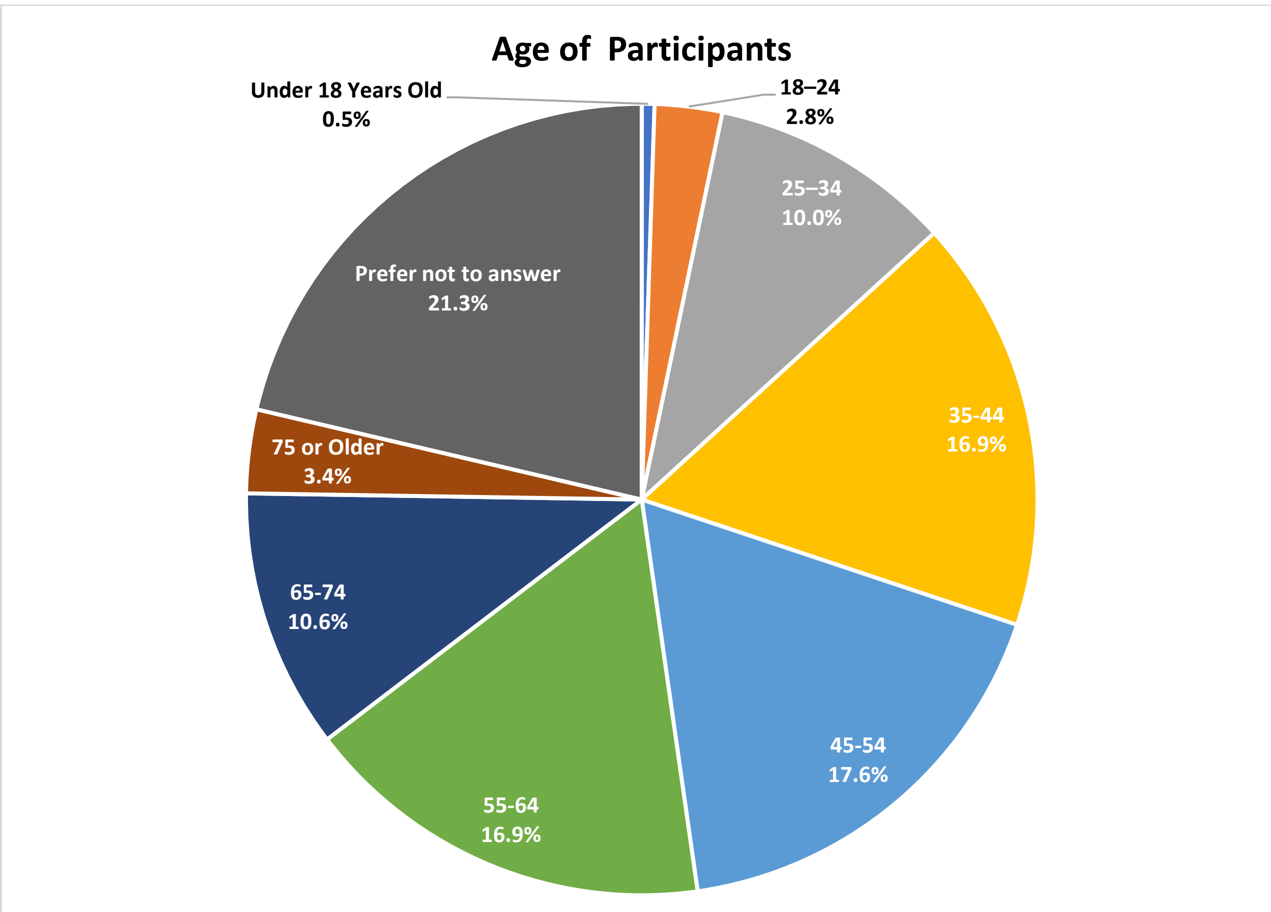
Home Location	Destination Location	Count of Responses	% of Responses
Alexandria	**Washington**	80	8%
Springfield	**Washington**	67	7%
Fairfax	**Washington**	58	6%
Herndon	**Washington**	48	5%
Centreville	**Washington**	42	4%
Reston	**Washington**	41	4%
Alexandria	**Alexandria**	40	4%
Fairfax	**Fairfax**	31	3%
Vienna	**Washington**	27	3%
Springfield	**Arlington**	25	3%
Other Origin-Destination Combinations		509	53%
Total		**968**	**100%**

The following table is a cross-tabulation of travel flow (e.g., internal or external to Fairfax County) by frequency of Fairfax Connector use. It shows the most common trip is either travel to outside of Fairfax County from a home location within the county or travel between two locations within the county.

Home Location	Destination Location	All Respondents	Frequent Riders	Occasional Riders	Non-Riders
Inside Fairfax County	**Outside Fairfax County**	1,462 (52%)	644 (66%)	431 (49%)	387 (41%)
Inside Fairfax County	**Inside Fairfax County**	1,262 (45%)	299 (31%)	439 (49%)	524 (56%)
Outside Fairfax County	**Outside Fairfax County**	42 (2%)	18 (2%)	9 (1%)	15 (2%)
Outside Fairfax County	**Inside Fairfax County**	34 (1%)	7 (1%)	13 (1%)	14 (1%)
Total		**2,800 (100%)**	**968 (100%)**	**892 (100%)**	**940 (100%)**

Participants by Age

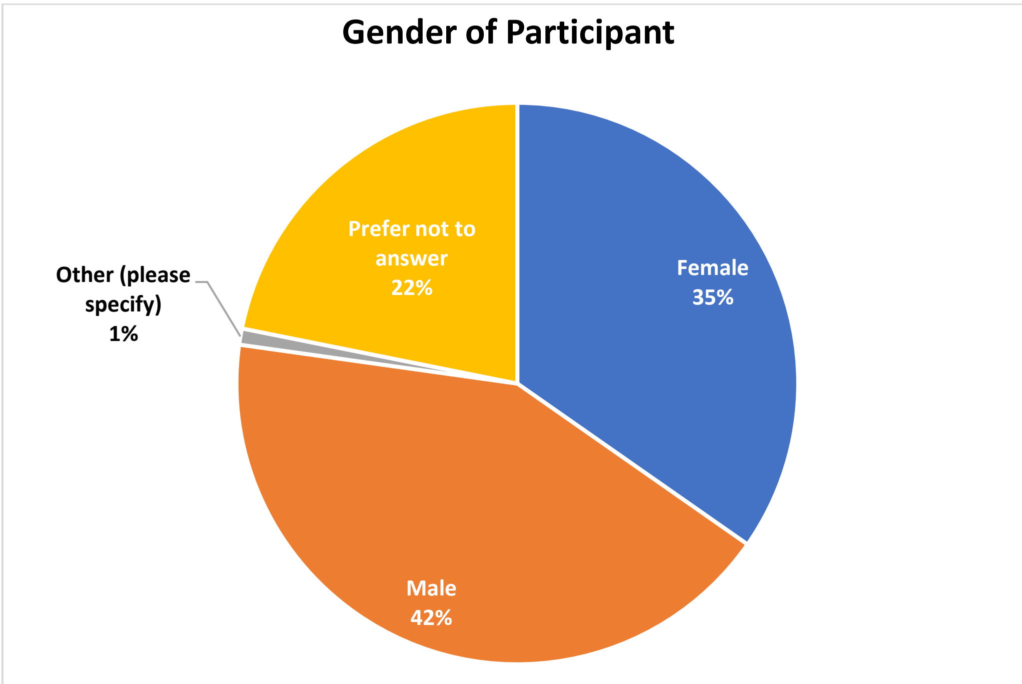
Out of the 2,901 survey participants, there were 2,282 respondents who provided their age range. The majority of the respondents were between the ages of 35 to 64. **These results represent only TSP survey respondents. The on-board survey is the primary survey source for demographic characteristics and travel patterns of Fairfax Connector riders.**



Age Range	Total Count	Percent of Responses
Under 18 Years Old	15	0.5%
18–24	80	2.8%
25–34	289	10.0%
35-44	490	16.9%
45-54	511	17.6%
55-64	490	16.9%
65-74	308	10.6%
75 or Older	99	3.4%
Prefer not to answer	619	21.3%
TOTALS	**2,901**	**100.0%**

Participants by Gender

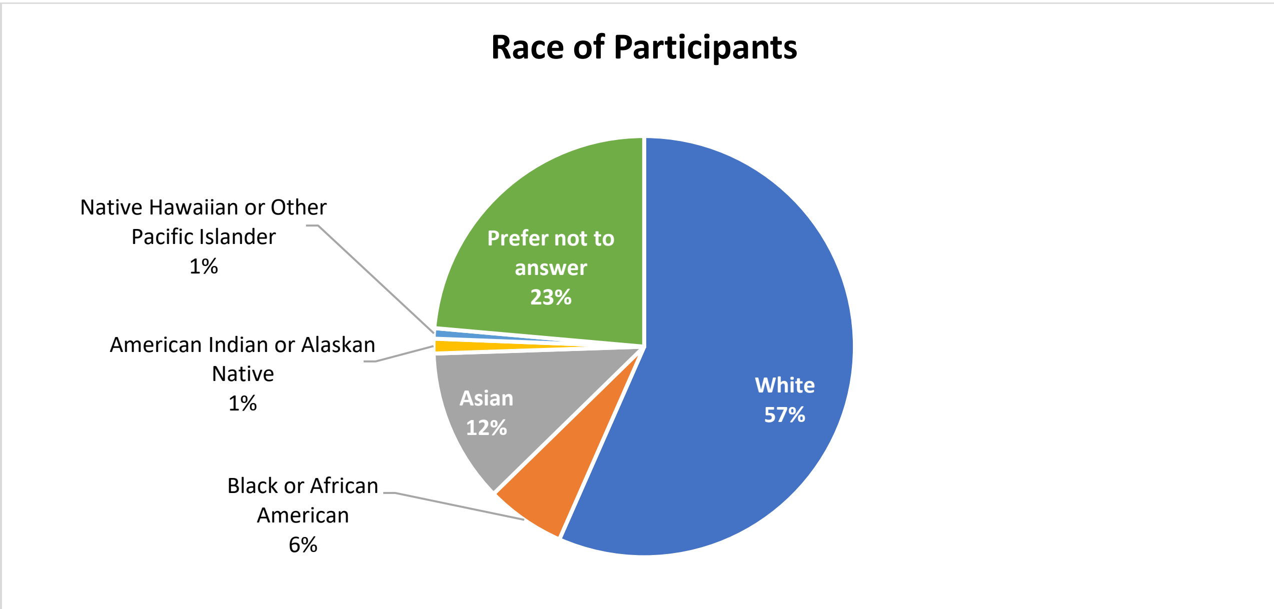
Out of the 2,901 survey participants, there were 2,267 respondents who provided their gender, as summarized in the chart and table below. **These results represent only TSP survey respondents. The on-board survey is the primary survey source for demographic characteristics and travel patterns of Fairfax Connector riders.**



Gender	Total Count	Percent of Responses
Female	1,007	35%
Male	1,233	43%
Other	27	1%
Prefer not to answer	634	22%
TOTAL	**2,901**	**100%**

Participants by Race

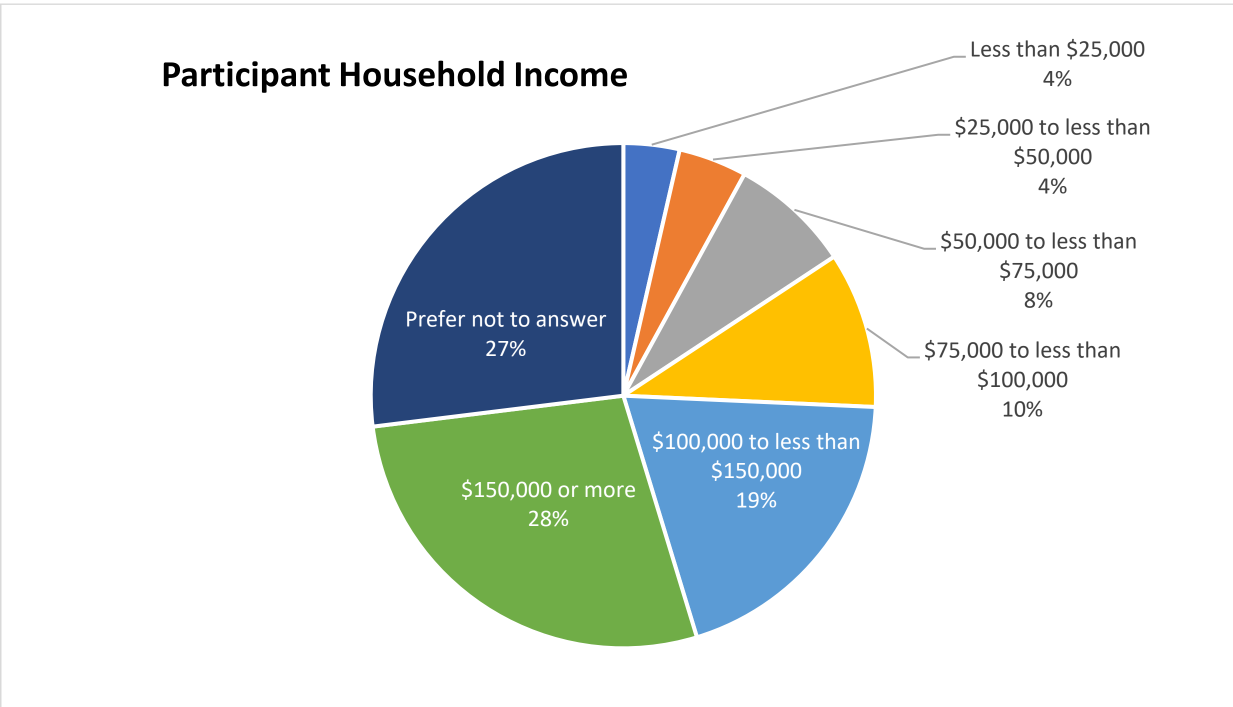
Out of the 2,901 survey participants, there were 2,191 respondents who provided their race. Respondents were able to identify by more than one type of races, resulting in 3,009 different responses. Additionally, 218 respondents identified themselves as Hispanic or Latino origin. Race is summarized in the chart and table below. **These results represent only TSP survey respondents. The on-board survey is the primary survey source for demographic characteristics and travel patterns of Fairfax Connector riders.**



Race	Total Count	Percent of Responses
White or Caucasian	1,703	57%
Black or African American	183	6%
Asian or Pacific Islander	355	12%
American Indian or Alaskan Native	34	1%
Native Hawaiian or Other Pacific Islander	24	<1%
Prefer not to answer	710	24%
TOTALS	**3,009**	**100%**

Participants by Household Income

Out of the 2,901 survey participants, there were 2,121 respondents who provided their household income, as summarized in the chart and table below. **These results represent only TSP survey respondents. The on-board survey is the primary survey source for demographic characteristics and travel patterns of Fairfax Connector riders.**



Household Income	Total Count	Percent of Responses
Less than $25,000	104	4%
$25,000 to less than $50,000	127	4%
$50,000 to less than $75,000	225	8%
$75,000 to less than $100,000	290	10%
$100,000 to less than $150,000	568	19%
$150,000 or more	805	28%
Prefer not to answer	782	27%
TOTALS	**2,901**	**100%**

3. Survey Responses

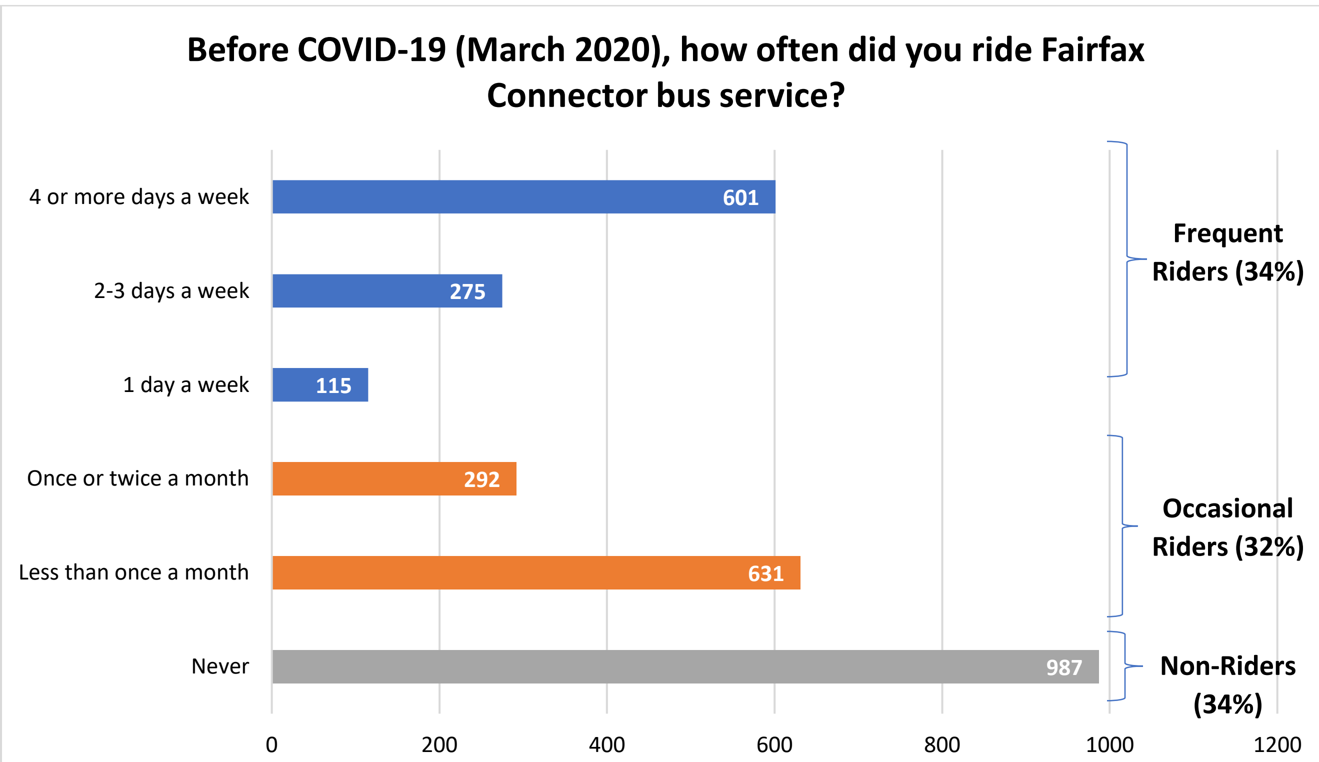
The following section details the responses received to each question of the survey. Conclusions may be drawn from this data by comparing frequent, occasional, and non-rider responses. This approach to segmenting responses was used over alternative approaches such as segmenting by household income or race because of the optional nature of the demographic questions.

Where applicable, survey responses are compared against findings from the 2018-2019 Countywide Survey (market survey) and 2019 Fairfax Connector Origin Destination Survey (on-board survey).

Current and Future Travel Patterns

Current Travel Frequency

For this analysis, frequent riders were defined as those who rode the bus at least one day a week. Occasional riders were defined as people who rode once or twice a month or less than once a month. Out of the 2,901 responses, there were about 991 frequent riders, 923 occasional riders, and 987 non-riders—roughly equal percentages in each customer segment.



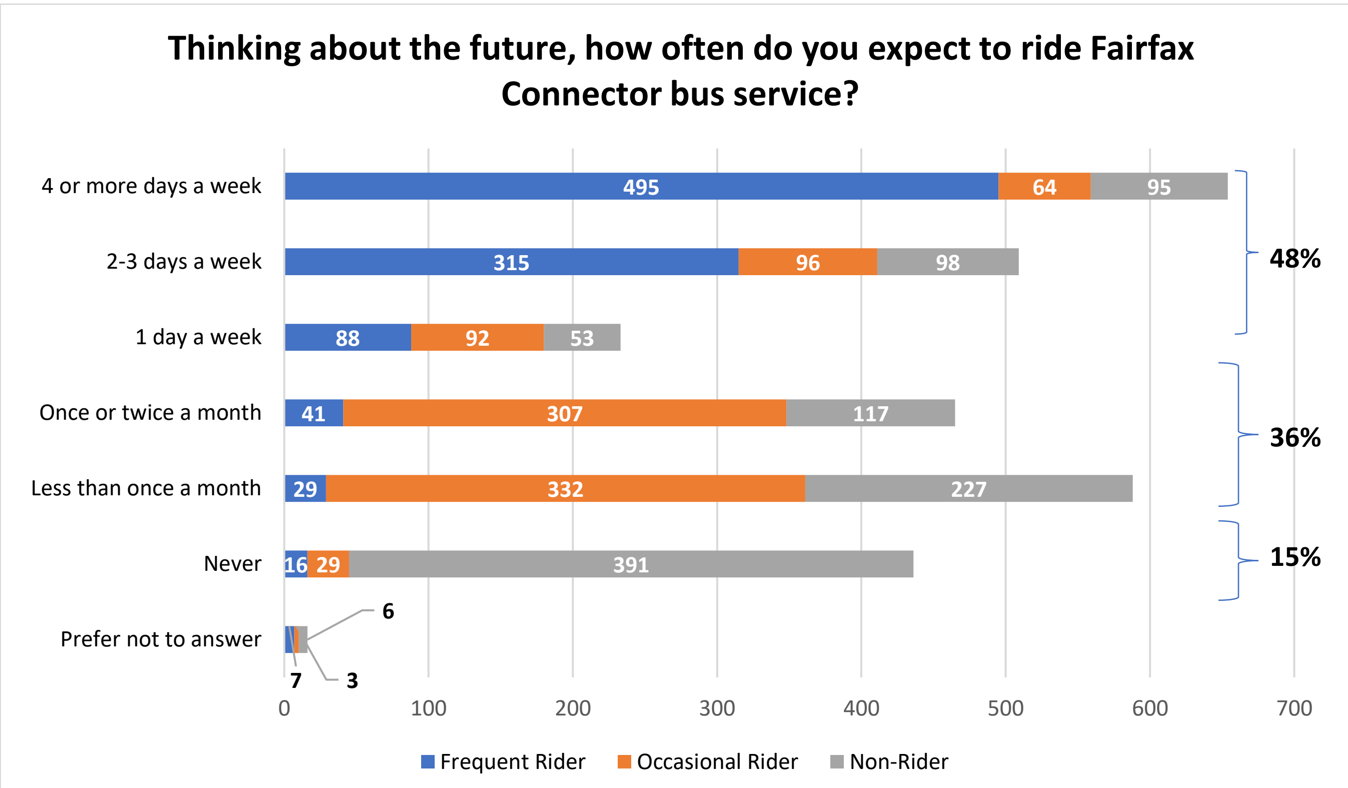
Comparison to Previous Market and On-Board Surveys

- Market survey had a total of 2,624 respondents
- On-board survey had a total of 3,672 respondents

- Market survey found that 66 percent (approximately 1,732 riders) of Fairfax County residents had never ridden a Fairfax Connector, 27 percent (approximately 708 riders) were occasional riders that have ridden a Fairfax Connector, but not in the last 30 days, and 7 percent (approximately 184 riders) were frequent riders who have ridden a Fairfax Connector bus in the past 30 days. The majority of market survey respondents were residents who never rode Fairfax Connector
- On-board survey was conducted on bus trips making all respondents occasional or frequent riders

Future Travel Frequency

Based on the survey results, respondents expect to ride Fairfax Connector bus services more often in the future as shown by the percentages in the chart below compared to the one the previous page. There were 1,396 total responses that indicated they would be frequent riders in the future, and 1,053 responses that indicated they would be occasional riders. About 550 total respondents who currently do not ride the bus expect they would ride the bus more often in the future.

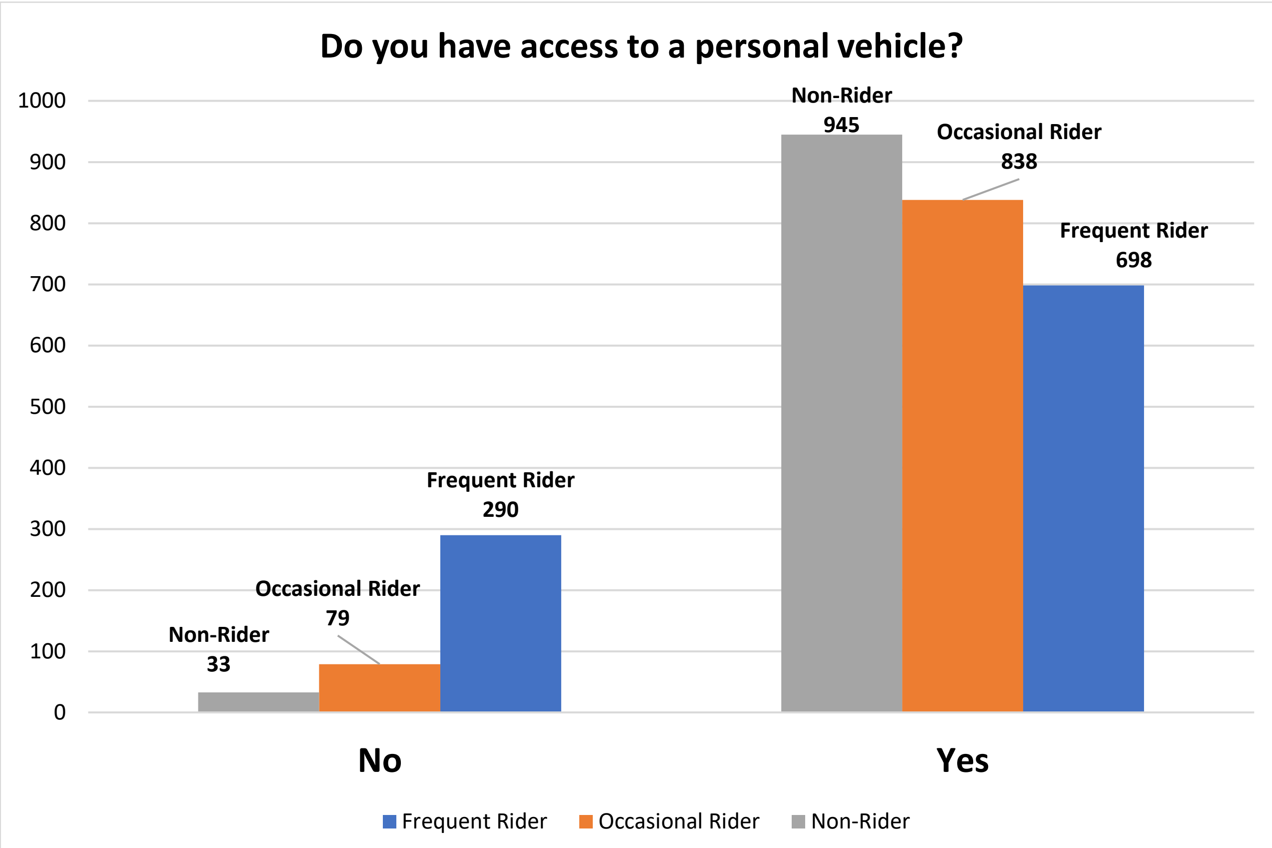


Comparison to Previous Market and On-Board Surveys

- Market survey showed that 35 percent of Fairfax County residents indicated they will use the Fairfax Connector, with 8 percent saying they will ride at least weekly in the future
    - Out of current riders, market survey showed that 13% will use the Fairfax Connector less frequently, and 60 percent will use the bus and more frequently

Access to Personal Vehicle

About 86 percent of respondents have access to a personal vehicle. About 30 percent of the frequent riders do not have access to a personal vehicle. **These results represent only TSP survey respondents. The on-board survey is the primary survey source for demographic characteristics and travel patterns of Fairfax Connector riders.**

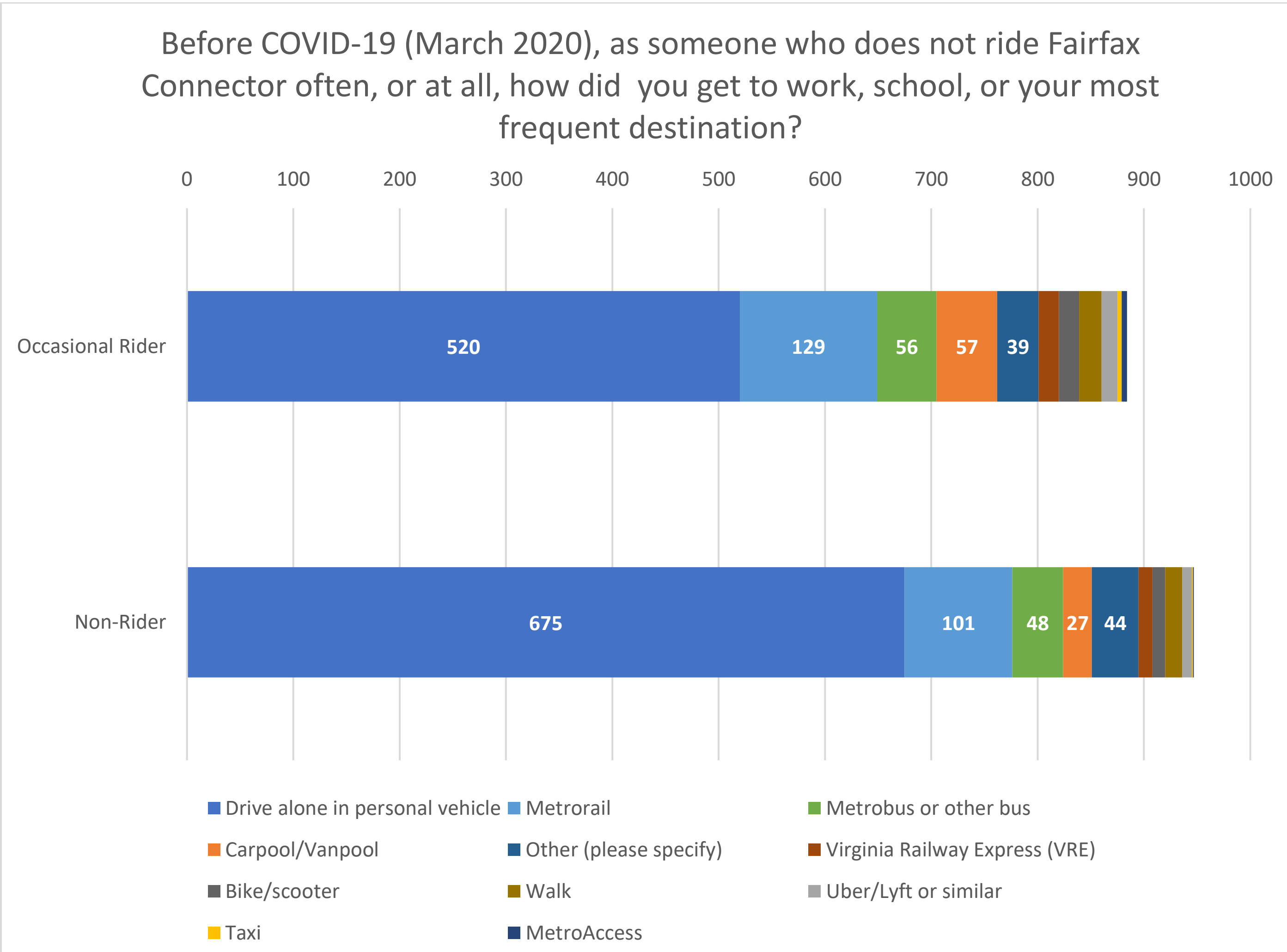


Comparison to Previous Market and On-Board Surveys

- Market survey found that 90 percent of Fairfax County residents consider their car to be their primary mode of transportation
    - 6 percent of respondents consider public transportation their primary mode of transportation
    - Out of current riders, the market survey found that 39 percent of riders consider the public transportation their primary mode of transportation, with 13 percent noting the Fairfax Connector as their primary mode
- On-board survey found that 52 percent of trips are made by riders who have at least one car
    - Only 39 percent of riders had a car available for them to use, meaning many households that have one car are still dependent on public transit as their primary mode of transportation

Less Frequent Rider Travel Mode

Out of the occasional and non-riders, about 63 percent of them identified they drive alone in a personal vehicle to get to their most frequent destination. The second most common mode of transportation is Metrorail, consisting of about 12 percent of the total occasional and non-riders . Below is a chart summarizing the mode of transportation respondents prefer over Fairfax Connector.



Note: Categories with 25 or less responses are not labeled. Values for each category can be found in the table below

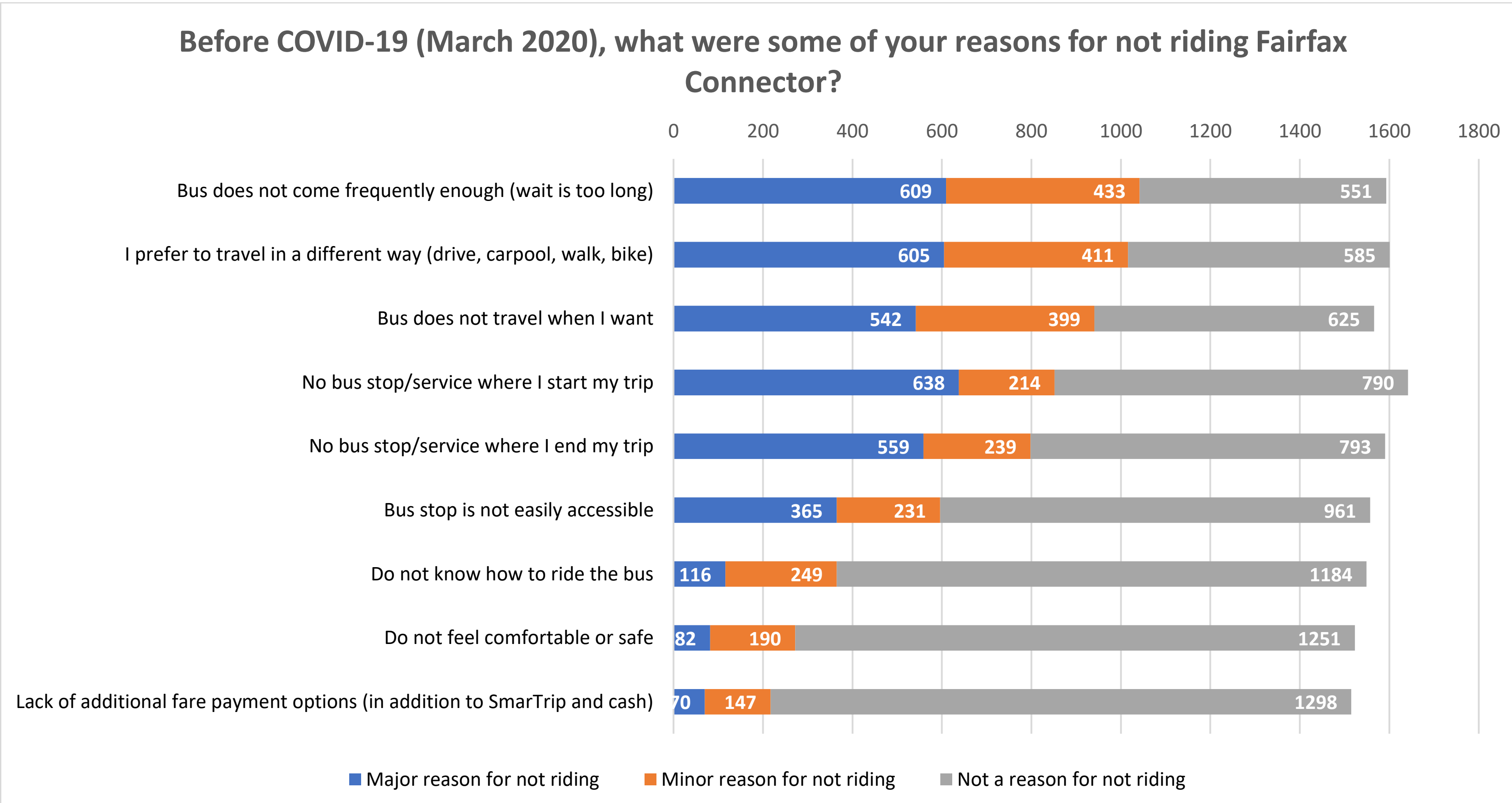
Mode	Occasional Rider	Non-Rider
Drive alone in personal vehicle	520	675
Metrorail	129	101
Carpool/Vanpool	57	27
Metrobus or other bus	56	48
Other (ex. Combination of modes, WFH, didn't live in the area prior, etc.)	39	44
Walk	21	16
Virginia Railway Express (VRE)	19	13
Bike/scooter	19	12
Uber/Lyft or similar	15	9
MetroAccess	5	1
Taxi	4	1

Comparison to Previous Market and On-Board Surveys

- Market survey found that 90 percent of Fairfax County residents consider their primary mode of transportation to be a personal vehicle
- On-board survey asked riders the primary mode of transportation when their Fairfax Connector routes are not available. Almost one-half of respondents indicated they would use a car. Furthermore, 23 percent of respondents would get a ride from someone else that has an available car, 21 percent would use an app-based transit service, and 21 percent would use their own vehicle.

Less Frequent Rider Reasons for Not Riding Fairfax Connector

The top major reasons for why occasional or non-rider respondents do not ride the Fairfax Connector are due to preferring other modes of transportation, not having bus service where they start or end their trips, and bus services not running when they want and frequently enough. Comfortability, safety, and payment options were the least reported reasons for why someone may not ride Fairfax Connector. The chart and table below summarize the range of reasons to why respondents do not ride the Fairfax Connector.



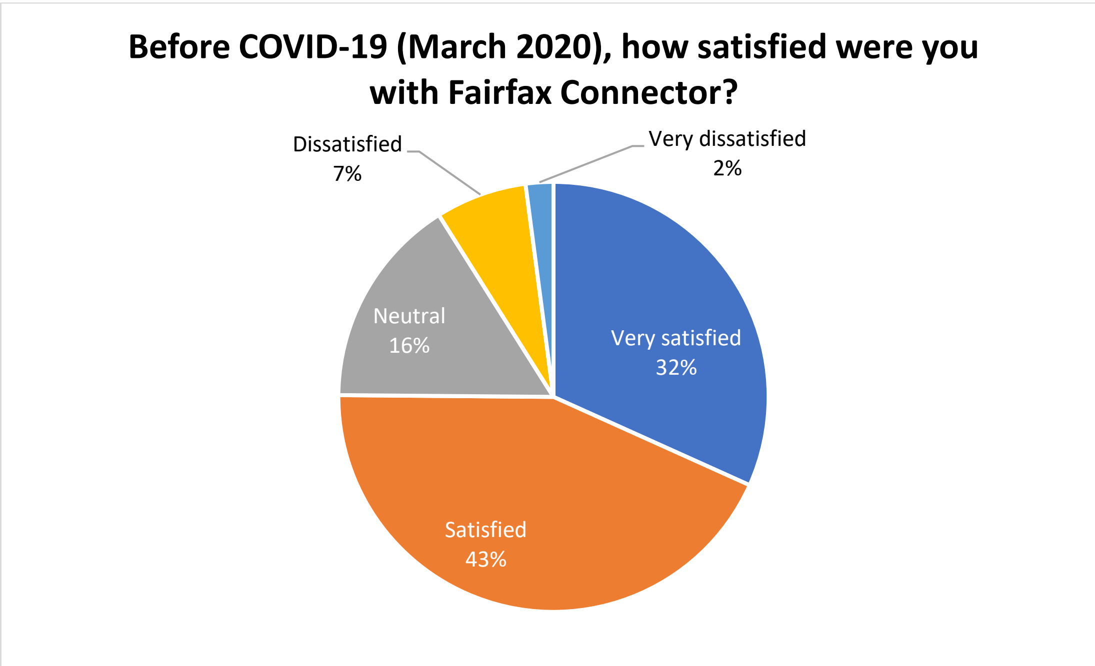
Reasons	Major reason for not riding	Minor reason for not riding	Not a reason for not riding	Total
Bus does not come frequently enough (wait is too long)	609	433	551	**1,593**
I prefer to travel in a different way (drive, carpool, walk, bike)	605	411	585	**1,601**
Bus does not travel when I want	542	399	625	**1,566**
No bus stop/service where I start my trip	638	214	790	**1,642**
No bus stop/service where I end my trip	559	239	793	**1,591**
Bus stop is not easily accessible	365	231	961	**1,557**
Do not know how to ride the bus	116	249	1184	**1,549**
Do not feel comfortable or safe	82	190	1251	**1,523**
Lack of additional fare payment options (in addition to SmarTrip and cash)	70	147	1298	**1,515**

Comparison to Previous Market and On-Board Surveys

- The market survey completed a gap analysis based on a rating of attributes of Fairfax Connector compared to their primary mode of transportation. The survey found that respondent's primary mode of transportation (90 percent personal vehicle use) rated higher than the Fairfax Connector in these categories:
  - Fits into lifestyle, available when you need it, goes to the places you need to go, is a fast way to travel, is easy to use, reliability, real-time information, safe from crime, cleanliness
- The market survey asked non-riders what would make them use the Fairfax Connector. The major factors that would change behaviors are:
  - Having more stops close to where they live or go, having faster and more direct service, more frequency of service especially during off-peak hours and weekends, and reducing cost or adding rebates
- The on-board survey asked riders what would make them ride the bus more frequently. Riders had four top priorities:
  - More frequency, if buses operated later or earlier in the day, express bus service, access to stops closer to their origin and destination

Frequent Rider Satisfaction

Out of the 961 responses from frequent riders, about 75 percent of the respondents identified as being satisfied or very satisfied with the Fairfax Connector service. Only about 9 percent were dissatisfied.



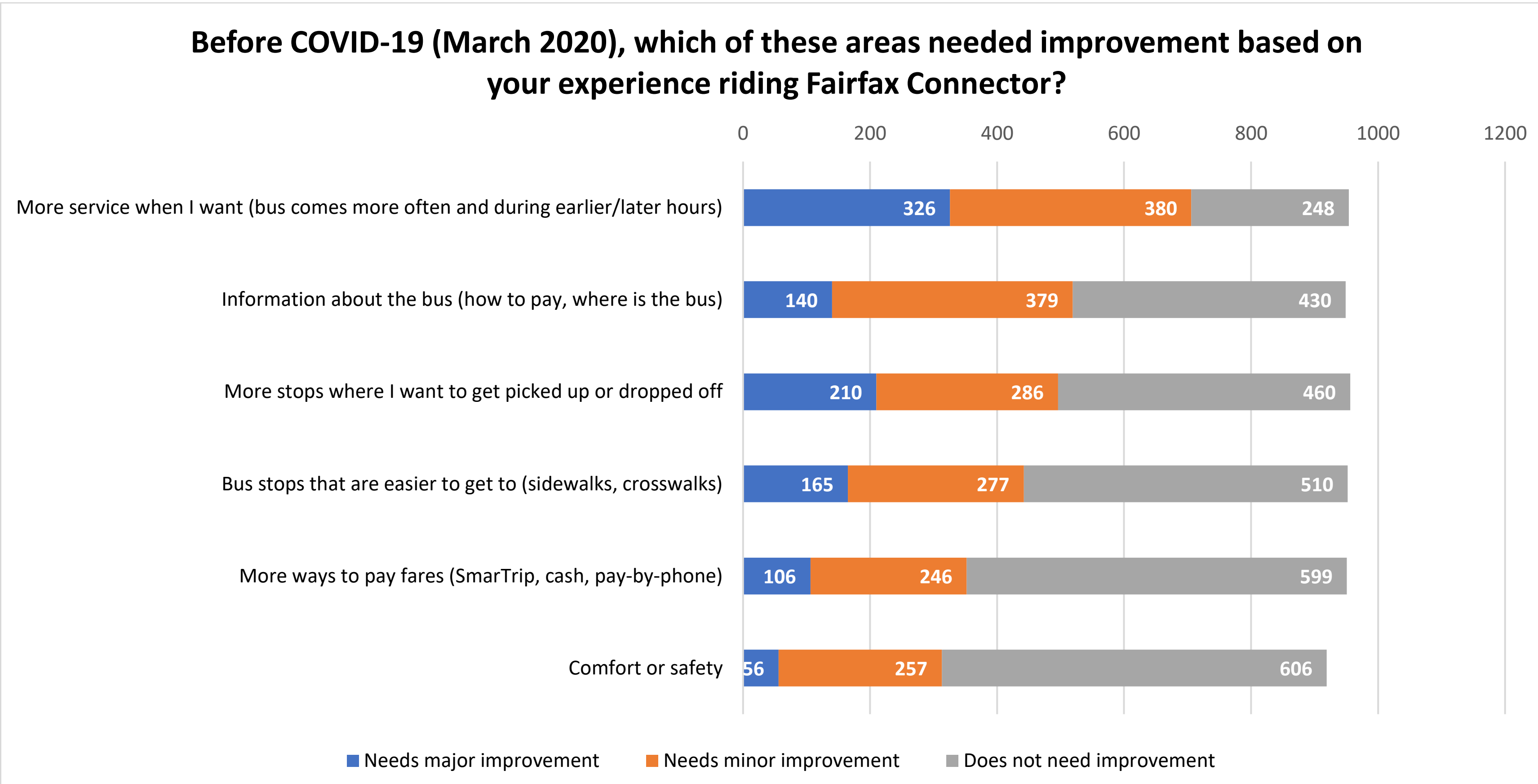
Satisfaction	Frequent Rider
Very satisfied	305
Satisfied	417
Neutral	153
Dissatisfied	66
Very dissatisfied	20
Total	**961**

Comparison to Previous Market and On-Board Surveys

- Market survey found that current riders are generally satisfied with Fairfax Connector with majority of performance measures falling into a "strengths" category
- Market survey asked respondents to rate their general perception of Fairfax Connector on a 0 to 10 scale. The result was 65 percent of current riders rating the Fairfax Connector favorably, rating the service in the 8 to 10 range. Only 2 percent of current riders rated the system in the 0 to 3 range.

Frequent Rider Needs for Improvements for Fairfax Connector

Based on the frequent rider responses, the most common areas that need improvements are related to providing more services when people want. This was a common theme that was expressed by many current riders and non-riders. Many expressed the need for the bus to operate more frequently and during extended hours (earlier or later). Another top area of improvement was information about the bus. The areas reported as needing this least amount of improvement are comfort, safety, and payment options.



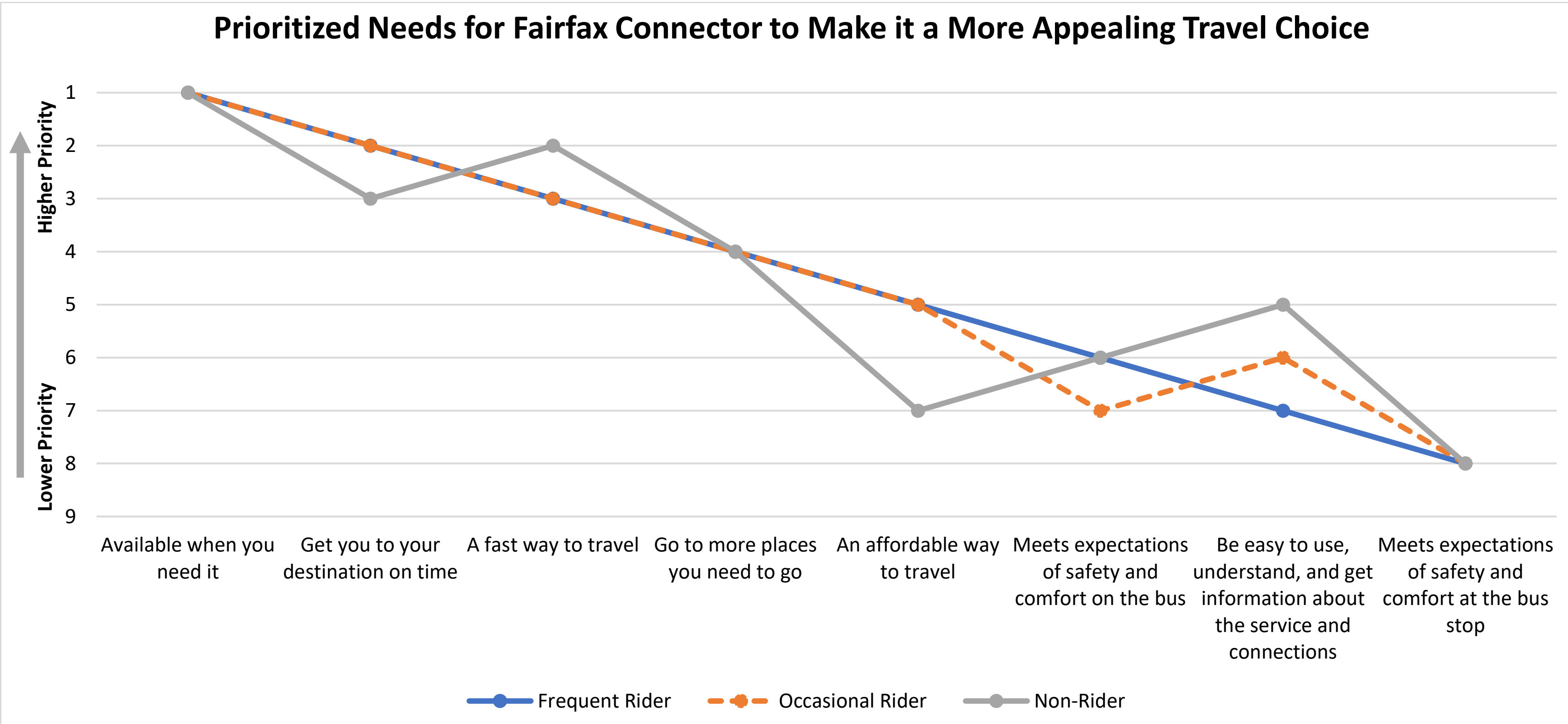
Improvements	Needs major improvement	Needs minor improvement	Does not need improvement	Total
More service when I want (bus comes more often and during earlier/later hours)	326	380	248	**954**
Information about the bus (how to pay, where is the bus)	140	379	430	**949**
More stops where I want to get picked up or dropped off	210	286	460	**956**
Bus stops that are easier to get to (sidewalks, crosswalks)	165	277	510	**952**
More ways to pay fares (SmarTrip, cash, pay-by-phone)	106	246	599	**951**
Comfort or safety	56	257	606	**919**

Comparison to Previous Market and On-Board Surveys

- Market survey found that current riders noted that the greatest need of Fairfax Connector is improving travel time and having the service available when needed.
- On-board survey determined rider's top priorities for improvement:
    - More frequent service, operating later or earlier in the day, adding express bus service, and more access to stops closer to origins and destinations

Opportunities for Improvements

During a previous outreach efforts, the community identified needs for making Fairfax Connector a more appealing travel choice. In this Round one TSP survey, nine different choices were provided, and respondents ranked them from 1 through 9 with 1 being most important. Across the three types of riders, all expressed the need for 'bus services when they need it' as their top priority. This indicates needing more frequent bus service, as well as, extended hours of service earlier and later in the day. 'A fast way to travel' and 'getting to the destination on time' were the next two most important. Overall, the topmost prioritized themes were focused on the timeliness and schedule of the bus services.



In the summary table below, the values correspond to the rank 1 through 9 with 1 being most important. Average ratings for all categories were calculated. The lower the average, the higher priority respondents assigned it. Overall rank values for each type of Fairfax Connector user group were also populated.

Category	Average Rating			Rank		
	Frequent Rider	Occasional Rider	Non-Rider	Frequent Rider	Occasional Rider	Non-Rider
Available when you need it	3.10	2.79	3.26	1	1	1
Get you to your destination on time	3.15	3.70	3.66	2	2	3
A fast way to travel	4.19	3.82	3.66	3	3	2
Go to more places you need to go	4.60	4.09	4.00	4	4	4
An affordable way to travel	4.77	5.14	5.29	5	5	7
Meets expectations of safety and comfort on the bus	5.12	5.26	5.24	6	7	6
Be easy to use, understand, and get information about the service and connections	5.30	5.21	4.93	7	6	5
Meets expectations of safety and comfort at the bus stop	5.57	5.72	5.66	8	8	8

Comparison to Previous Market and On-Board Surveys

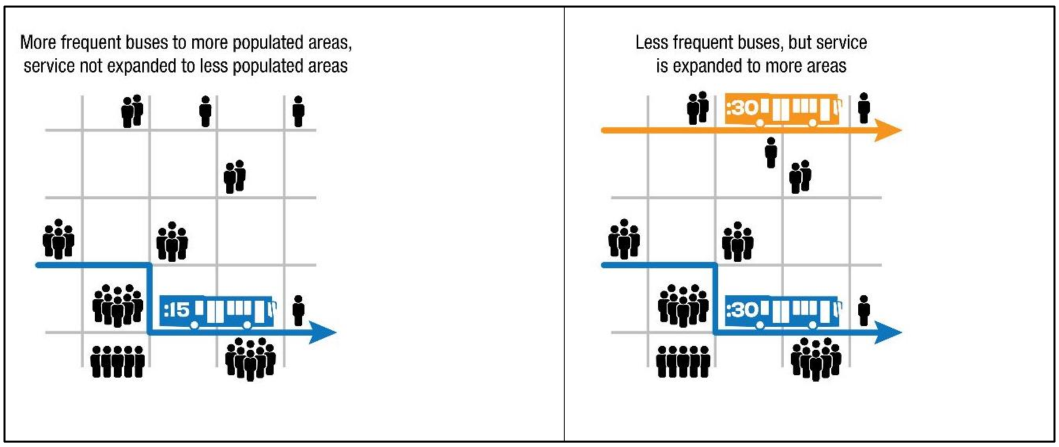
- On-board survey determined rider's top priorities for improvement; they are ranked below:
    1. More frequent service
    2. Operating later or earlier in the day
    3. Offer express bus service
    4. Have stops closer to origins and destinations

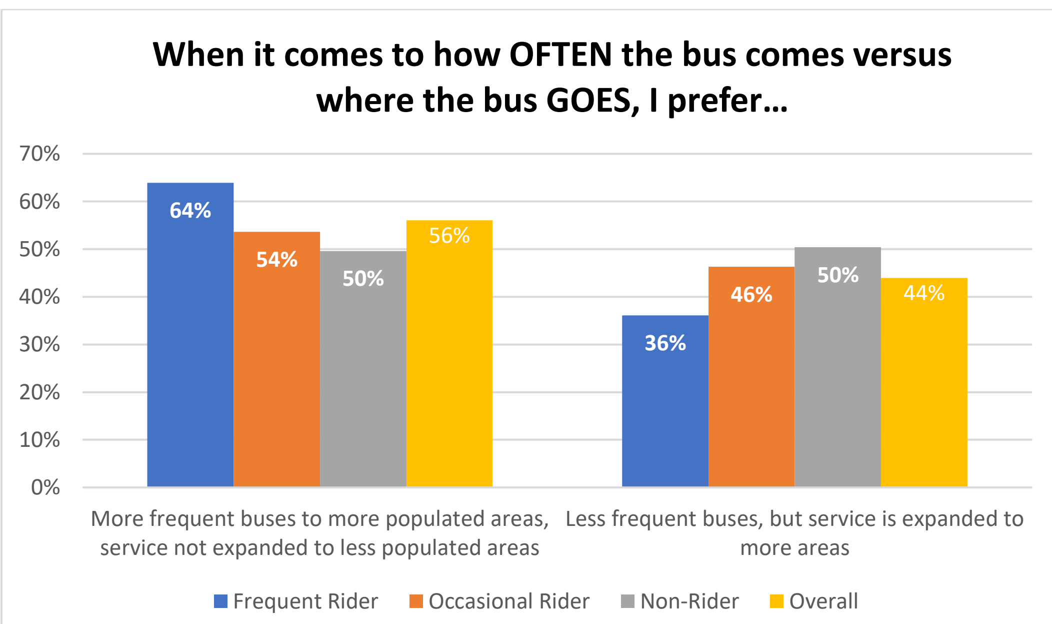
Trade-Offs and Preferences

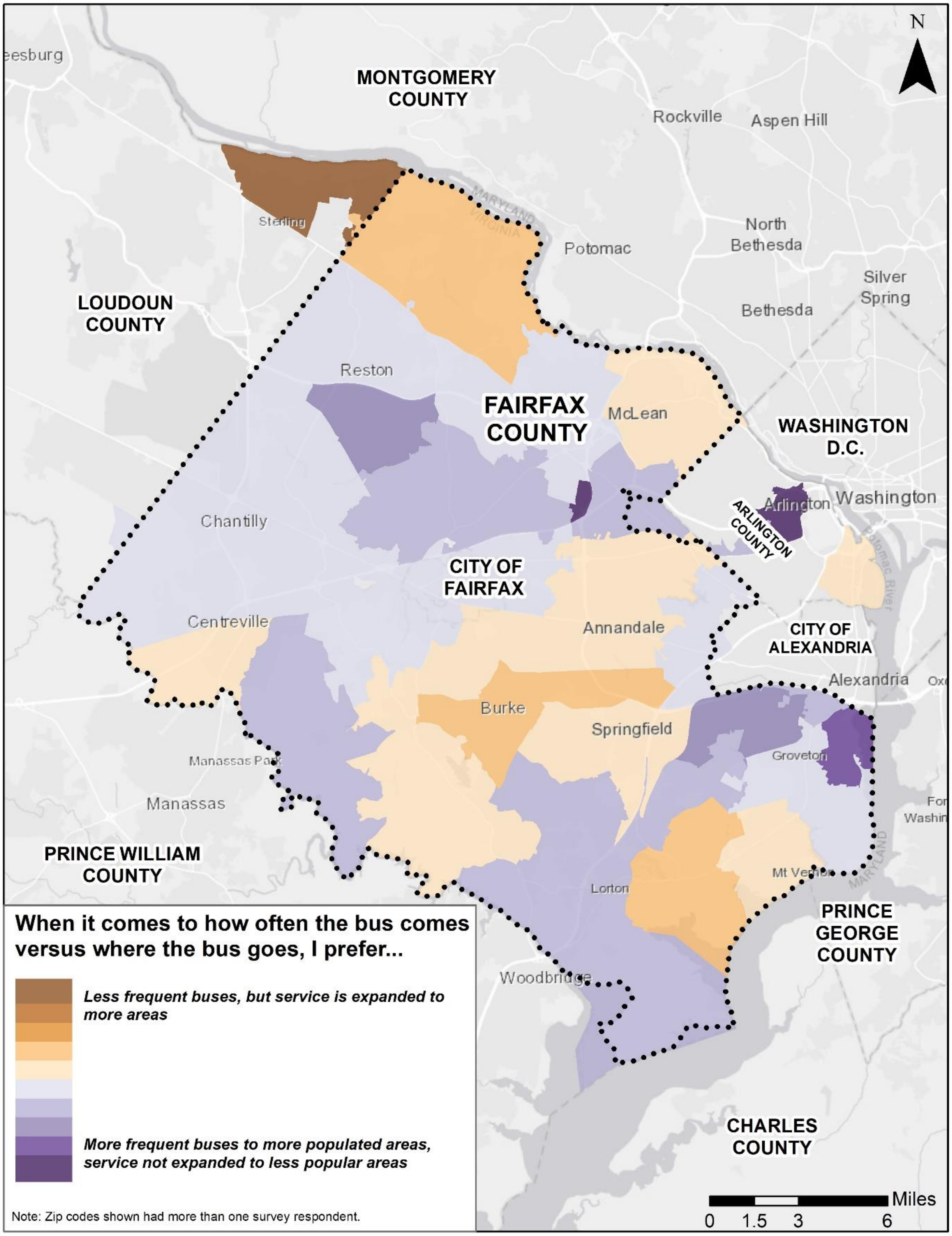
Survey respondents were asked to provide their preference between hypothetical tradeoff scenarios. These questions can be used to understand what the community would prioritize or prefer if a decision had to be made about providing certain transit services.

When it comes to how often the bus comes versus where the bus goes, respondents prefer…

For frequent and occasional riders, majority of the respondents preferred to have more frequent bus service in populated areas. For non-riders, it was generally an even split between the two options. The data collected is shown in the figures below. The map creates a visual of the responses based on zip codes. The orange represents the preference of wanting services expanded to more areas with less frequent buses; the purple represents the preference of wanting more frequent buses to more populated areas, and service not expanded to less popular areas. *Overall, it showed a slight preference for frequency over coverage especially among frequent riders.*



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eesburg
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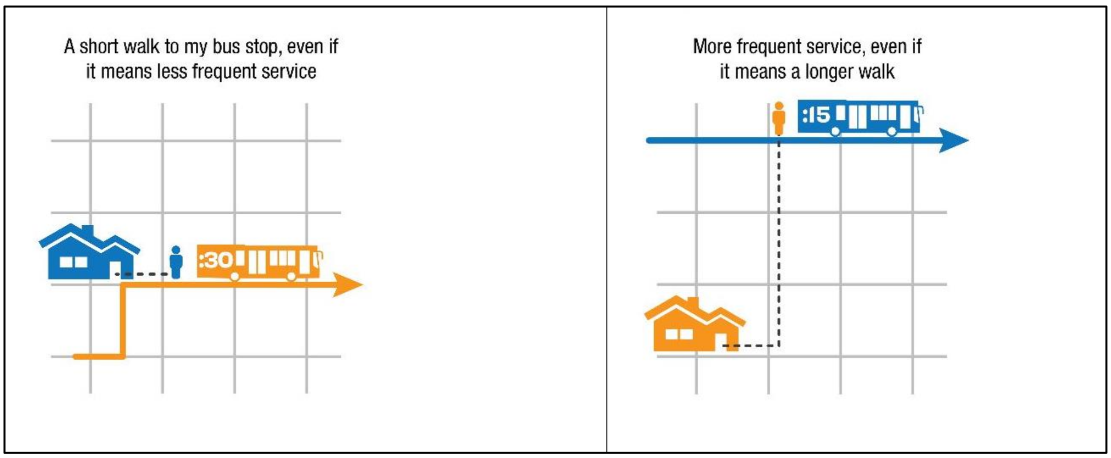
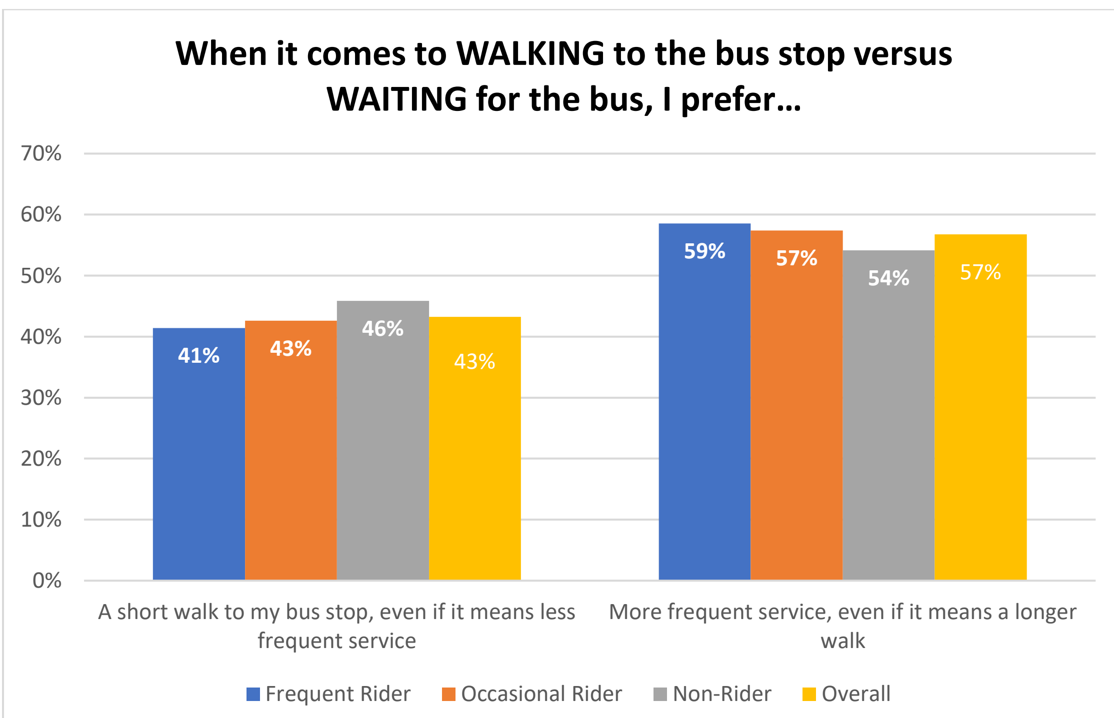
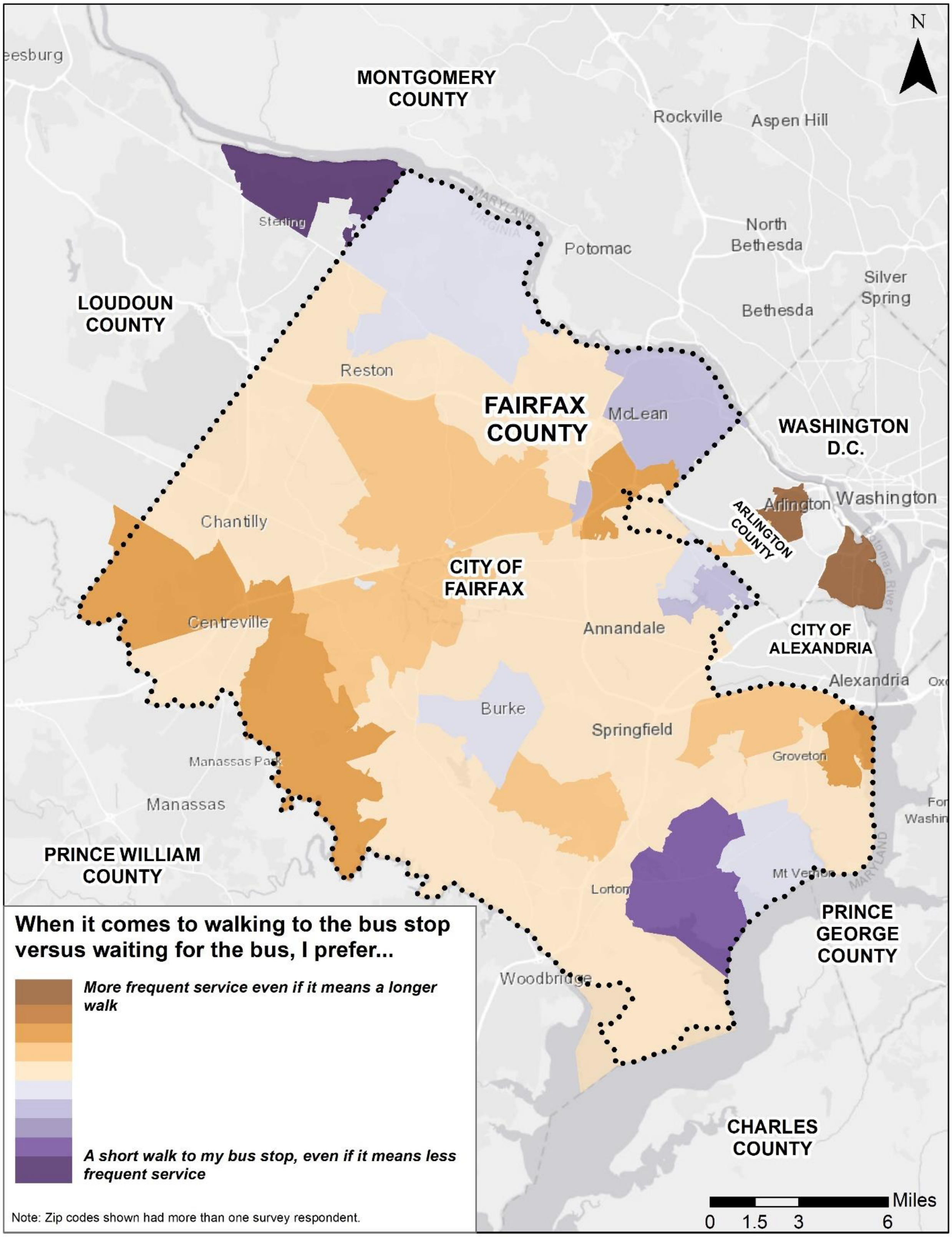
Potomac
North Bethesda
Silver Spring
Bethesda
LOUDOUN COUNTY
Reston
FAIRFAX COUNTY
McLean
WASHINGTON D.C.
Arlington
Washington
ARLINGTON COUNTY
Chantilly
CITY OF FAIRFAX
Centreville
Annandale
CITY OF ALEXANDRIA
Alexandria
Burke
Springfield
Groveton
Manassas Park
Manassas
PRINCE WILLIAM COUNTY
Mt Vernon
Lorton
PRINCE GEORGE COUNTY
Woodbridge
CHARLES COUNTY
When it comes to how often the bus comes versus where the bus goes, I prefer...
Less frequent buses, but service is expanded to more areas
More frequent buses to more populated areas, service not expanded to less popular areas
Note: Zip codes shown had more than one survey respondent.
Miles
0 1.5 3 6

When it comes to walking to the bus stop versus waiting for the bus, I prefer…

For all types of riders, majority of the respondents preferred to walk a longer distance to get to the bus stop to be able to get more frequent service options. The data collected is shown in the figures below. The map creates a visual of the responses based on zip codes. The orange represents the preference of wanting more frequent service, even if it means a longer walk; the purple represents the preference of wanting a short walk to the bus stop, even if it means less frequent service. *Overall, it showed a slight preference for walking over waiting especially among frequent riders.*



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North Bethesda
Silver Spring
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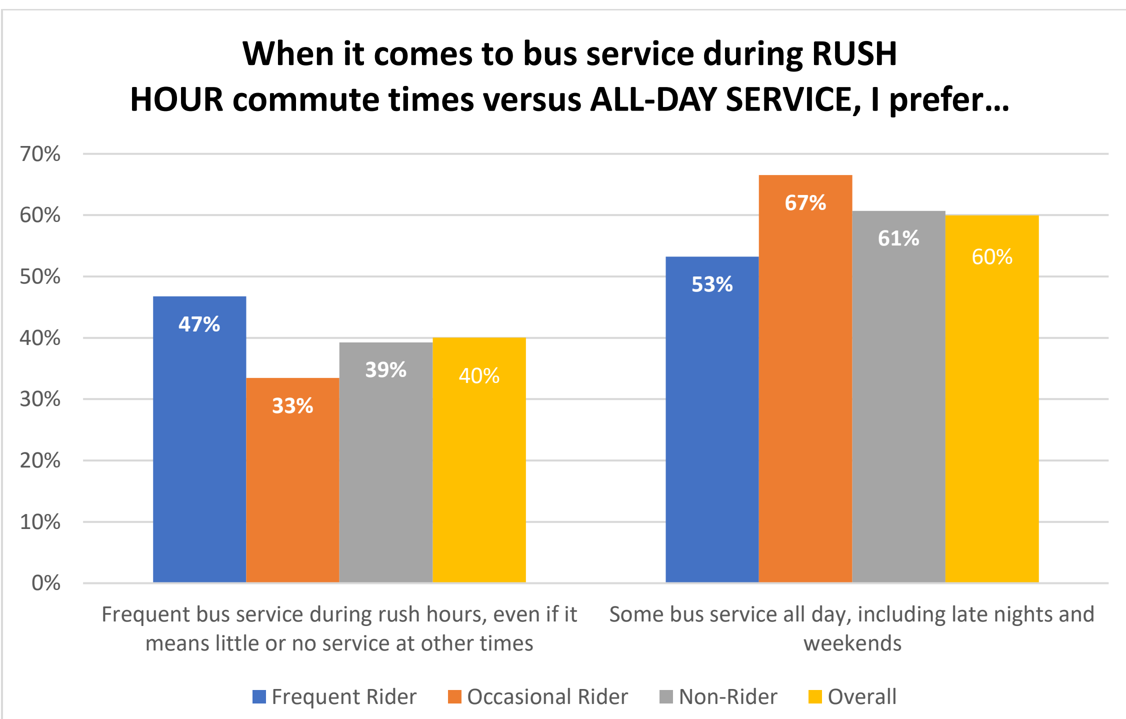
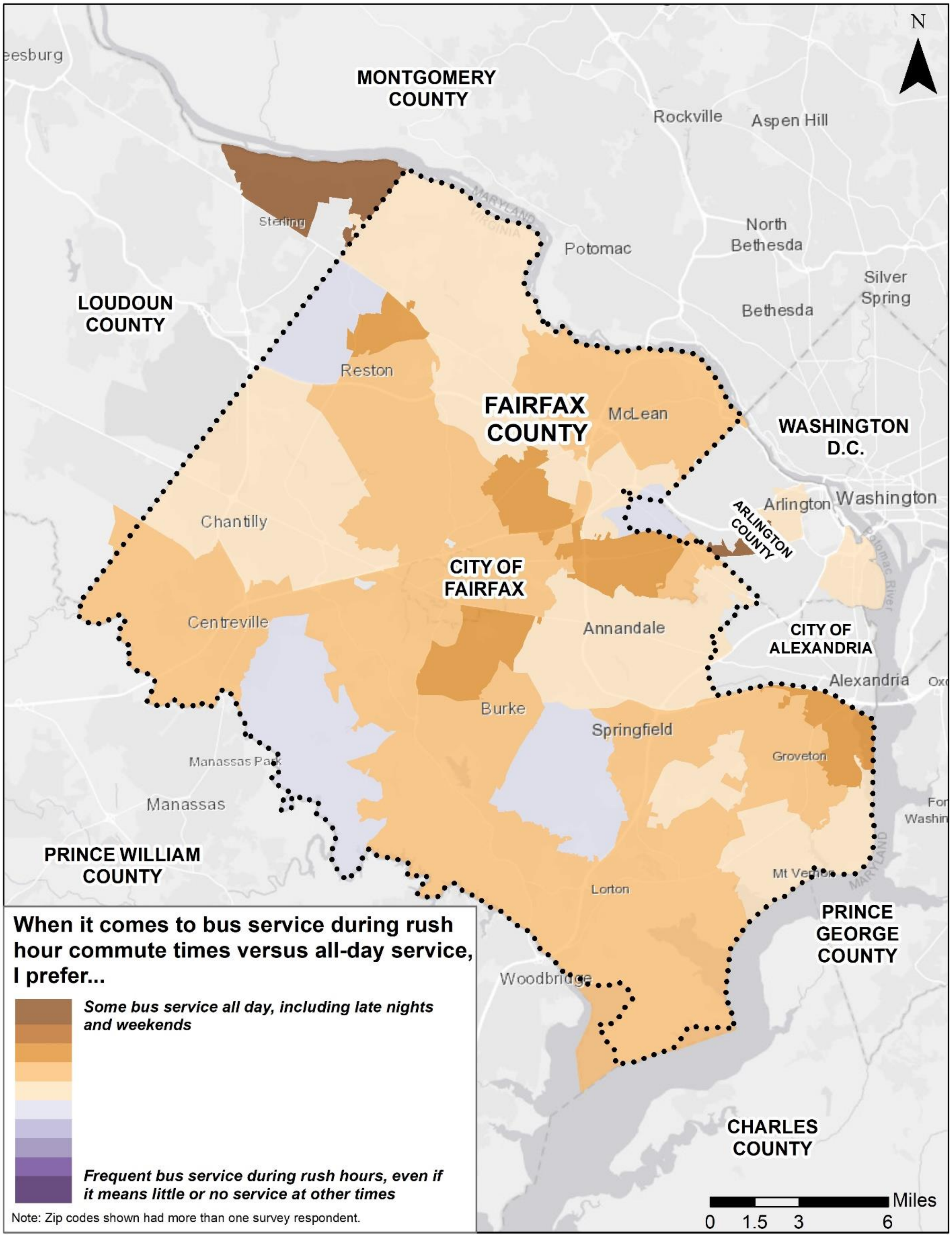
Reston
FAIRFAX COUNTY
McLean
WASHINGTON D.C.
Arlington
Washington
ARLINGTON COUNTY
Chantilly
CITY OF FAIRFAX
Centreville
Annandale
CITY OF ALEXANDRIA
Alexandria
Burke
Springfield
Groveton
Manassas Park
Manassas
PRINCE WILLIAM COUNTY
Mt Vernon
Lorton
PRINCE GEORGE COUNTY
Woodbridge
CHARLES COUNTY
When it comes to walking to the bus stop versus waiting for the bus, I prefer...
More frequent service even if it means a longer walk
A short walk to my bus stop, even if it means less frequent service
Note: Zip codes shown had more than one survey respondent.
Miles
0 1.5 3 6

When it comes to bus service during rush hour commute times versus all day service, I prefer…

For all types of riders, majority of the respondents preferred to have some bus service all day, including late nights and weekends. This option represents the trade-off of having more frequent bus services during rush hour by providing service at other time periods. The data collected is shown in the figures below. The map creates a visual of the responses based on zip codes. The orange represents the preference of wanting some bus service all day, including late nights and weekends; the purple represents the preference of wanting frequent bus service during rush hours, even if it means little or no service at other times. *Overall, it showed a preference for all-day service over peak-only service.* This is especially true for occasional riders.

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CHARLES COUNTY
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North Bethesda
Potomac
Silver Spring
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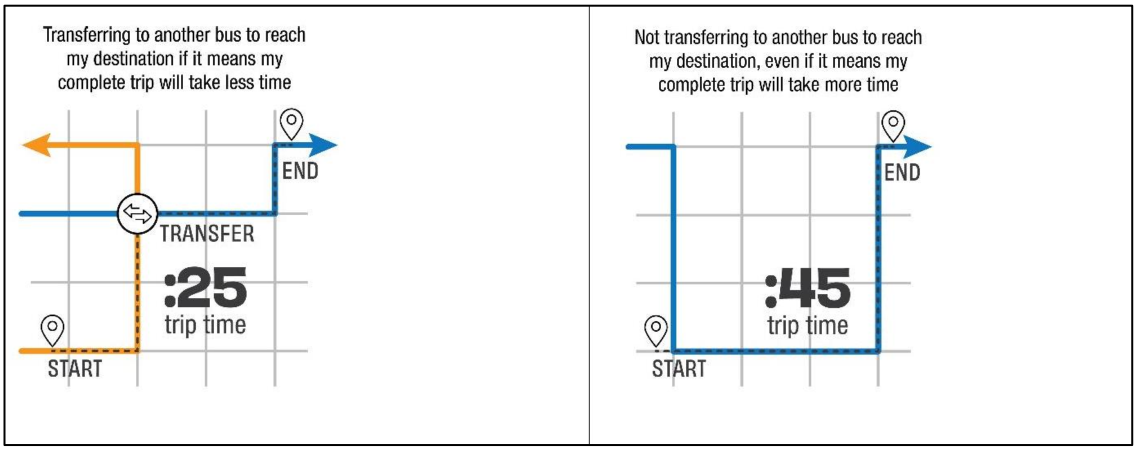
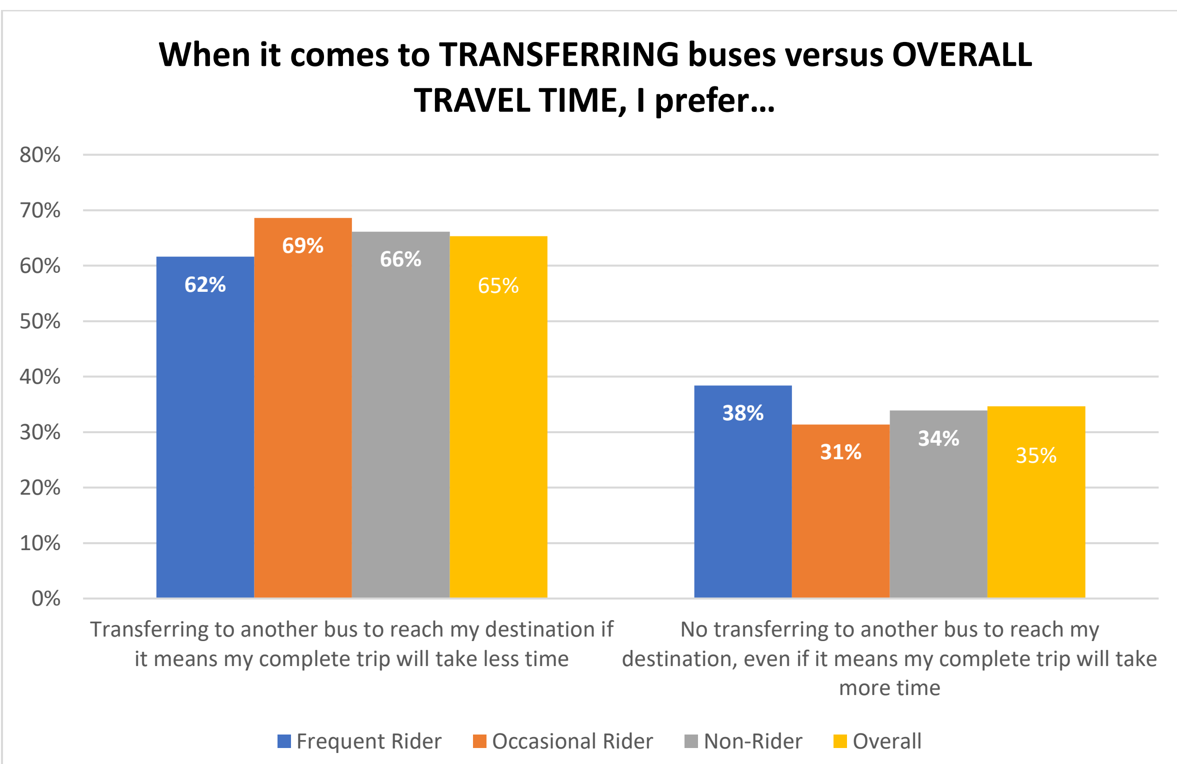
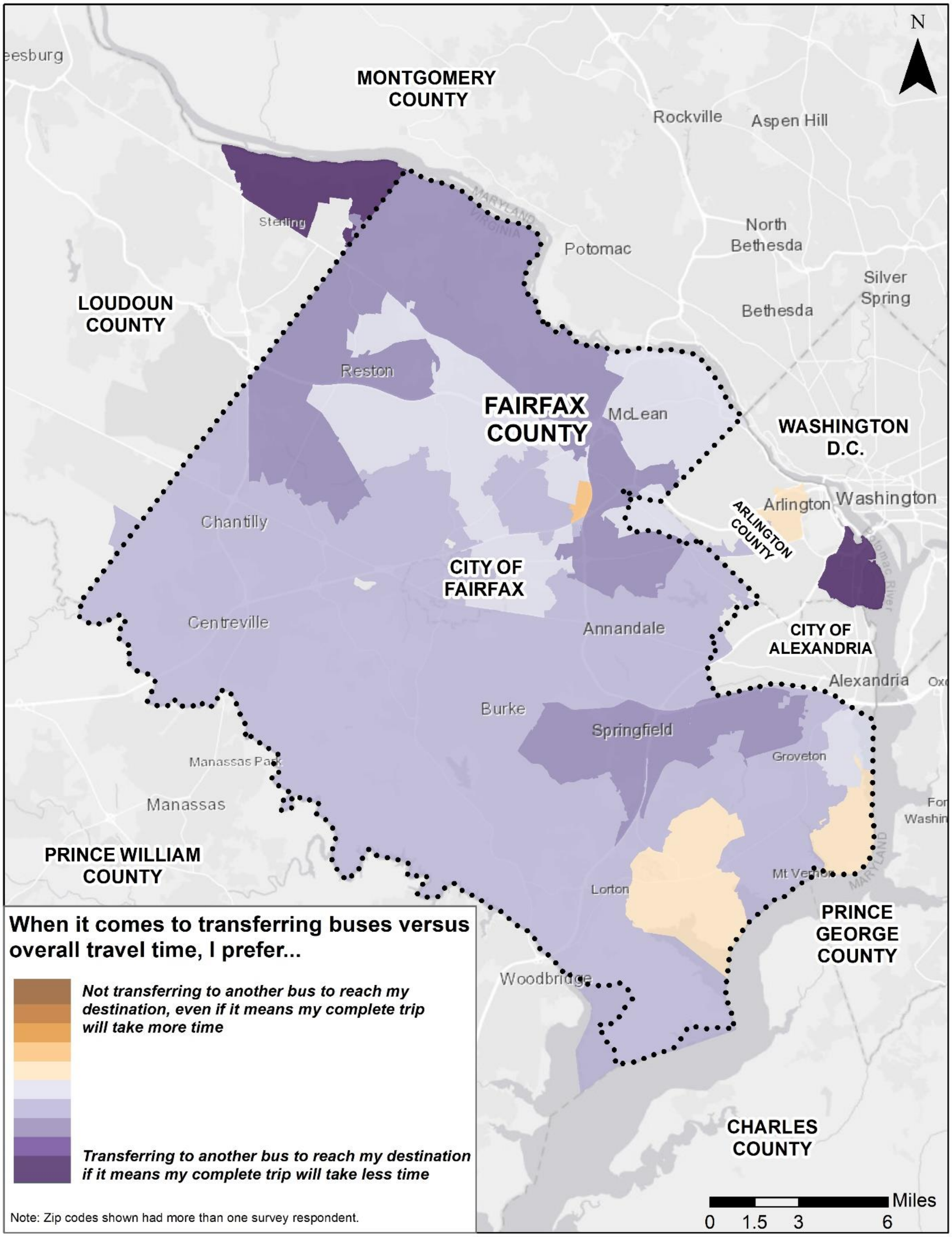
Sterling
Reston
McLean
Arlington
Washington
Chantilly
Centreville
Annandale
Alexandria
Burke
Springfield
Groveton
Manassas Park
Manassas
Lorton
Mt Vernon
Woodbridge
When it comes to bus service during rush hour commute times versus all-day service, I prefer...
Some bus service all day, including late nights and weekends
Frequent bus service during rush hours, even if it means little or no service at other times
Note: Zip codes shown had more than one survey respondent.
Miles
0 1.5 3 6

When it comes to transferring buses versus overall travel time, I prefer…

For all types of riders, majority of the respondents preferred to transfer to another bus to reach their destination if it meant that the complete trip time would be less. The data collected is shown in the figures below. The map creates a visual of the responses based on zip codes. The orange represents the preference of not wanting to transfer to another bus to reach a destination, even if it means the complete trip will take more time; the purple represents the preference of wanting to transfer to another bus to reach a destination if it means the complete trip will take less time. *Overall, it showed a willingness to transfer buses if a shorter overall trip time can be achieved.*



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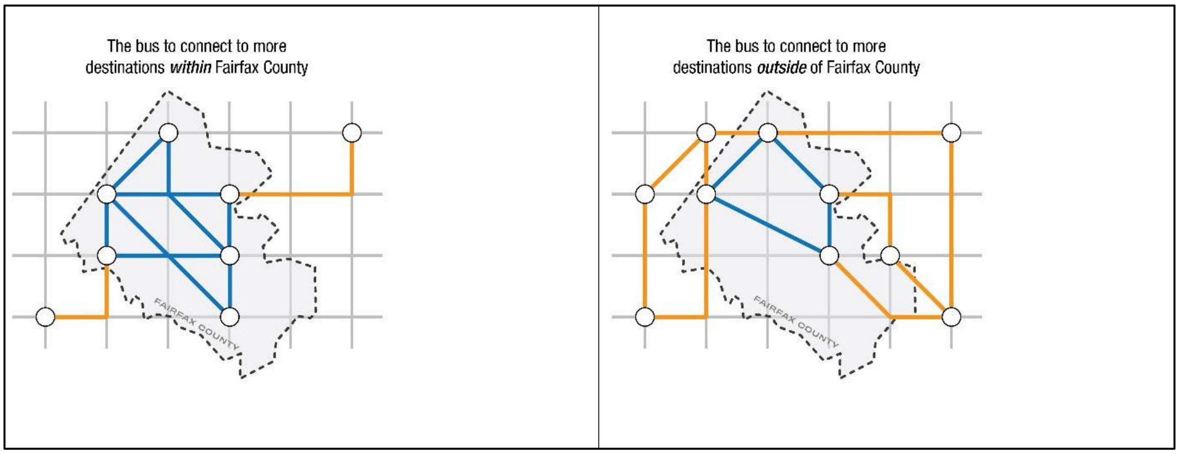
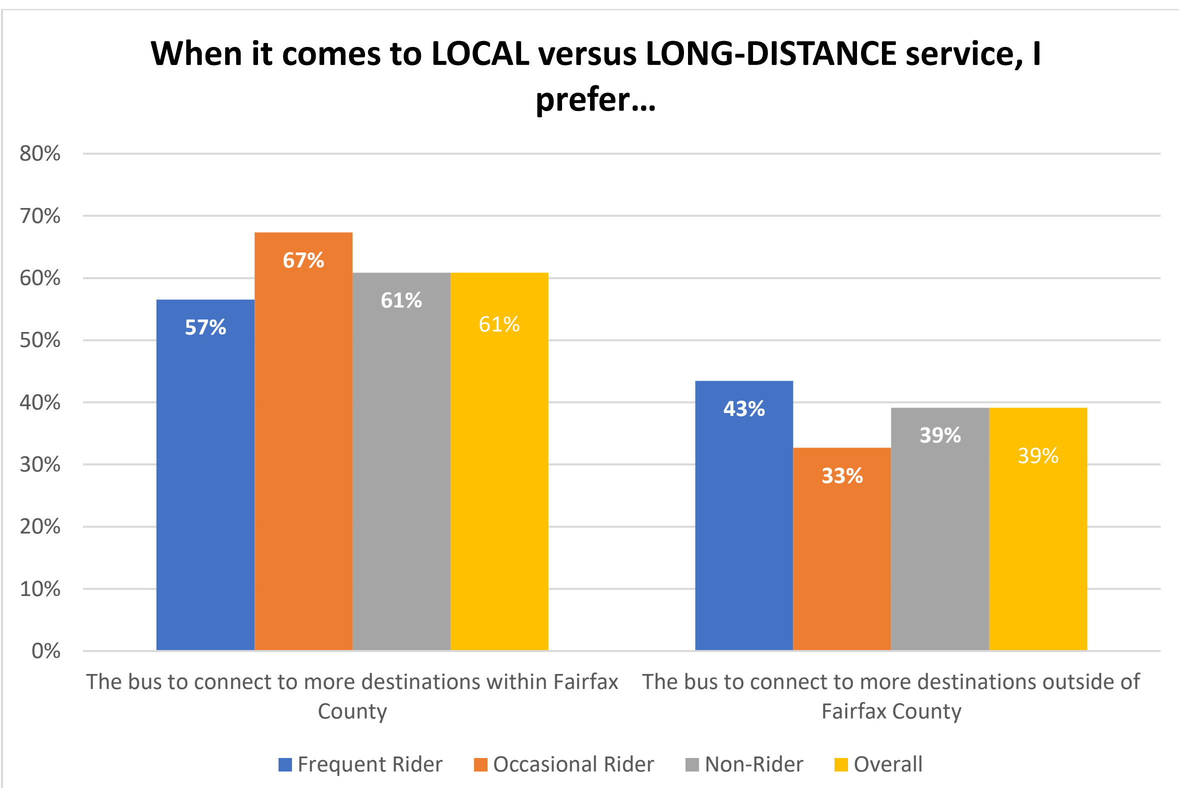
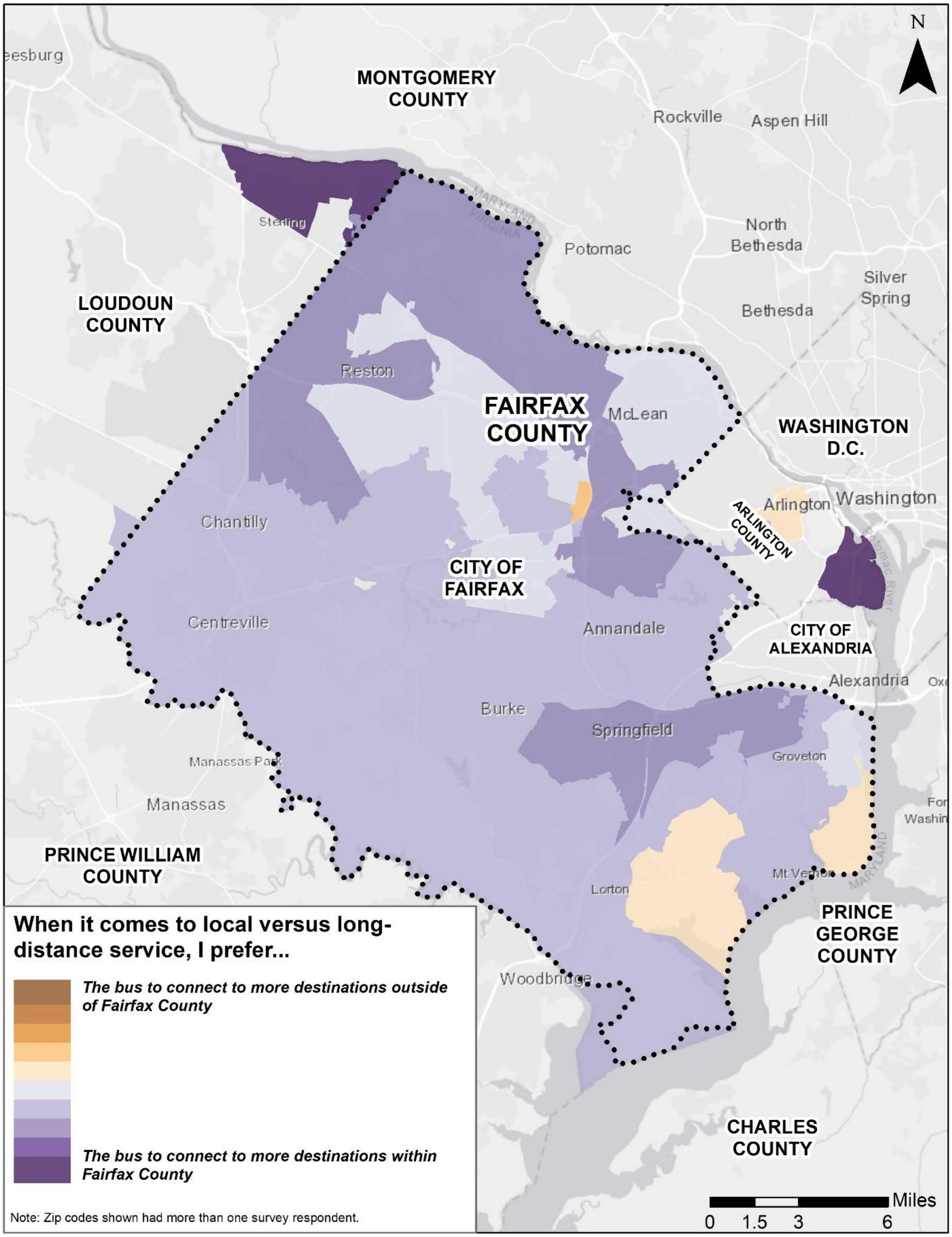
Centreville
Annandale
Alexandria
Burke
Springfield
Groveton
Manassas Park
Manassas
Lorton
Mt Vernon
Woodbridge
When it comes to transferring buses versus overall travel time, I prefer...
Not transferring to another bus to reach my destination, even if it means my complete trip will take more time
Transferring to another bus to reach my destination if it means my complete trip will take less time
Note: Zip codes shown had more than one survey respondent.
Miles
0 1.5 3 6

When it comes to local versus long-distance service, I prefer…

For all types of riders, majority of the respondents preferred to connect to more destinations within the Fairfax County over longer distance connections outside of Fairfax County. The data collected is shown in the figures below. The map creates a visual of the responses based on zip codes. The orange represents the preference of wanting the bus to connect to more destinations outside of Fairfax County; the purple represents the preference of wanting the bus to connect to more destinations within Fairfax County. *Overall, it showed a moderate preference for local service over inter-jurisdictional service.*



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McLean
WASHINGTON D.C.
Chantilly
Arlington
ARLINGTON COUNTY
Washington
CITY OF FAIRFAX
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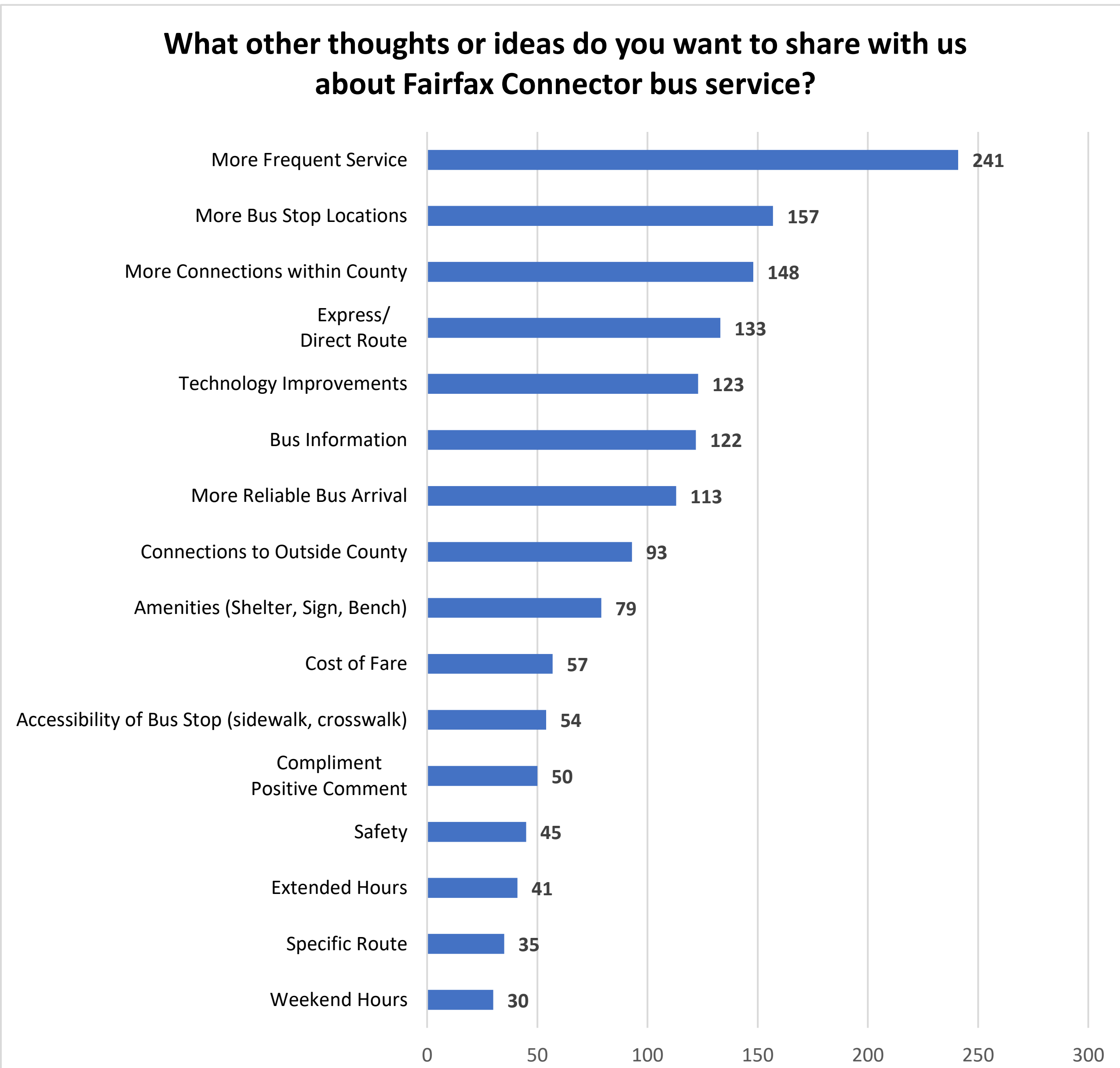
Annandale
CITY OF ALEXANDRIA
Alexandria
Burke
Springfield
Groveton
Manassas Park
Manassas
PRINCE WILLIAM COUNTY
Lorton
Mt Vernon
PRINCE GEORGE COUNTY
When it comes to local versus long-distance service, I prefer...
The bus to connect to more destinations outside of Fairfax County
The bus to connect to more destinations within Fairfax County
Woodbridge
CHARLES COUNTY
Note: Zip codes shown had more than one survey respondent.
Miles
0 1.5 3 6

Open-Ended Feedback

Free Response

At the end of the survey, respondents had the option to provide additional feedback and thoughts on the Fairfax Connector service. There were 1,143 free response comments provided for this section. There were 13 comments provided by mail, three by email, one by phone, and the rest via online survey. Eight of the comments were in Spanish and 1,135 comments were in English. These responses were analyzed into several themes and categories, as shown in the graphic below.



Samples of free response comments within each theme are provided below. These are direct quotes from the survey responses and have not been reworded. A full database off all comments has been provided to FCDOT to accompany this survey summary document.

MORE FREQUENT SERVICE

- "If there will be transfers, they need to be planned so that riders can get from bus A to bus B without having to wait 30 min for the next bus. Perhaps have busses make planned meetings at certain transfer stops?"
- "Travel time to DC mostly by Metro is 40-45 minutes. Adding another 30 minutes to get to the Metro station makes workdays very hard. Would be good to have faster and frequent service for working folks."
- "The county needs to be connected by buses that run frequently and connect people with their important destinations. Accepted thinking is you don't take the bus unless you have no other option, and that is NOT what the suburb of the nation's capital should be OK with."

MORE BUS STOP LOCATIONS

- "I would love to ride the bus to cut down on car fume emissions and traffic, but it doesn't come anywhere near my home. I would love to take it from home to the Metro Station."
- "There has never been a bus stop near where I live (same address over 30 years). Closest is about a mile away. I can't walk that far. So, I seriously doubt if would ever use the bus."
- "Please add more bus stops around Fairfax County neighborhoods. We need more bus stops in the residential neighborhoods."

MORE CONNECTIONS WITHIN COUNTY

- "If there were frequent Fairfax Connector routes connecting more destinations within the county, I would be far less inclined to drive my personal vehicle."
- "More routes for people who work in Fairfax. Not everyone commutes into DC so not everyone needs to go to the Metro."
- "Thank you for your service. This bus service is so important for those who don't have access to personal vehicle. I hope the leadership will understand the importance of public transportation, so service can be expanded to everywhere in Fairfax county as needed."

EXPRESS/DIRECT ROUTE

- "Travel time to DC mostly by Metro is 40-45 minutes. Adding another 30 minutes to get to the metro station makes workdays very hard. Would be good to have faster and frequent service for working folks."
- "Many people, such as I, do not ride the bus as it is not a time effective method currently. It takes less overall time to drive and is cheaper for my commute rather than taking the bus. I would definitely take the bus or public transportation if there were better express routes that would get me to where I need in a shorter time."
- "More express service options, connecting major points during busy times. Example, I can take a Metrobus from my house to the Pentagon during busy travel time, with limited stops. There is no equivalent option on the Fairfax Connector for me."

TECHNOLOGY IMPROVEMENTS

- “Eliminate cash entirely from the bus. Farecards only, with cards reloaded online or at the station. Dealing with cash slows down the transit part of mass transit and contributes to the challenge of maintaining a schedule.”
- “A phone app that tells me the exact timing of when the bus will arrive which is often times does not align with the schedule. Also for times or destinations I'm less familiar with, a phone app which can advise not only the quickest way to get within a certain range of my destination but also advise more specificity of where the bus picks up at a given Metro station.”
- “There needs to be major improvement on the tools that you provide your riders. Bus tracker and texting the 41411 number is insufficient. Especially when your drivers decide not to be seen on the tracker and turn it off. An app needs to be developed to where additional options to indicate that a rider is standing at a particular bus stop and is requesting the driver to stop and pick up. I cannot tell you how many times the bus has left me whilst I am standing at the bus stop just because they are in a rush.”

BUS INFORMATION

- “It will be more user friendly if signs can be added on bus stops to show what is the bus route and the main stops next. Currently if a person see a bus stop new to him or her on a street, he or she can't tell whether it is the right bus he or she needs unless the person has done homework at home before. It will discourage new riders to use public transit.”
- “Would like to install feature at bus stops to include electronic messaging that tells you how far away and what the estimated time the next bus is expected to arrive at the bus stop (like how DC Metro (subway) service is done on the overhead monitors inside the subway stations)”
- “I cannot find the bus stop list on the FCDOT website. Only the time stops are shown and listed on my route map, and the nearest is a mile away even though the bus supposedly goes down my street. Google Maps shows more stops, including one in front of my building, but I don't know if that's authoritative or up to date. I've had the misfortune of waiting hours for a bus at an abandoned stop before, so I'm not interested in a system without up-to-date or detailed maps.”

MORE RELIABLE BUS ARRIVAL

- “If bus arrives early, please have driver wait until scheduled time posted for stop. Or if there are last minutes changes to times and routes please post immediately. I check constantly when bus is late, only to find out there was a change, so then I hop on the Metro and skip FX Connector.”
- “I don’t even care if there’s less bus service; I just want reliable service. If I have to spend time waiting in the dark during a rainstorm for a bus that’s 40 minutes behind schedule, I’ll buy a car or leave Fairfax County. A major draw of the DC area for me was the supposed availability of public transportation.”
- “More reliable service. I often take the express bus between Pentagon and Vienna station. There are many instances where (1) bus just never showed up (skip a bus) and the station manager didn’t know if the bus was late or not coming. (2) I was running as the bus is about to pull away from the bay, and the bus driver is never aware there’s a passenger trying to make the bus.“

CONNECTIONS TO OUTSIDE COUNTY

- "Identify major hubs (Annandale, Lincolnia, Springfield, Tysons, Merrifield, CCTY, Reston, Herndon) in FFX County and have frequent buses between them. Have local connectors serve those hubs. Link to neighboring area (Alexandria, Arlington, Leesburg, Manassas) at those hubs."
- "Additional buses that can take commuters from various locations in Fairfax County into downtown Washington to avoid Metro or in areas where metro is not easily accessible would have a major positive impact."
- "Please have your buses be able to link up to other local bus systems like Prince William County or Loudoun County so I can catch the Connector from my house, transfer to their buses, and go to farther away places."

AMENITIES (SHELTER, SIGN, BENCH)

- "You cannot expect older persons to ride if there is no seating built at most of the bus stops! They are very few and far between. It is absurd."
- "It would be very helpful to have covered stops and electronic signboards that update with the current status of the buses serving that line."
- "Weather protected stop so not standing long time in rain or can break the wind especially along Rte. 7. Good walkways as it is already a hike through some areas without sidewalks to get to stop."

COST OF FARE

- "It should be free for students. Easy to access. Maybe have an app to make an account so kids can sign up and look for any bus locations. Don't want to ride Metro but want to ride these Fairfax Connector bus service"
- "Keep low income riders in mind. I take the bus to the Metro stop as a way to be more ecofriendly and have flexibility with my schedule but not everybody has the luxury of choosing to take the bus vs. having to take the bus. Cost should also be affordable to low income riders and children younger than 15 should ride free. Additionally, instead of school buses, high school students should be able to take the bus to and from school as a way to generate more ridership, add value to our public transit, and foster the next generation of riders."
- "Price should depend on the distance, short distance should pay less"

ACCESSIBILITY OF BUS STOP (SIDEWALK, CROSSWALK)

- "Avoid having to cross a busy highway or street to get to the bus stop."
- "I live off 29 in Centreville, walking to the bus stop is not a safe option given that we have no sidewalks on our side of Bull Run stream. So, I will still need transport to the bus stop, and biking is not an option due to their not being a bike lane/shoulder/trail."
- "Fairfax County does a poor job clearing sidewalks during inclement weather. Especially during blizzards, you will see plows plowing excess snow onto sidewalks obstructing pedestrian pathways including bus stops."

SAFETY

- "There MUST be safe crosswalks to bus stops on both sides of the road. An example, the Arlington Blvd intersection with Westmoreland/Summerfield crossing. "

- "Please make the bus stops more prominent and have a safe place to wait for the bus with posted time schedules and routes."
- "Please make it safer. Especially during in the evenings and weekends. You are a sitting target on a bus or at a bus stop. No one does anything about verbal and physical harassment especially if you are female. This is also true of Metro."

EXTENDED HOURS

- "I prefer to have more frequent bus service during rush hour times, but there must be at least 1 or 2 times of late service for when you have to work late. Without that option, bus service becomes useless."
- "Late night/weekend hours are important. Once the COVID is over, the most important consideration would be to be able to return home after dinner and not get stranded, if I take public transportation out to the city."
- "I would suggest adjusting the tail end of rush hour slightly later, to allow for folks connecting from Metro and other bus systems. My planning assumes that buses at Huntington are scarce after 7 pm, so I don't even bother thinking of that. In contrast, on ART, I can still catch an express to crustal city even later in the evening."

SPECIFIC ROUTE

- Refer to next section

WEEKEND HOURS

- "The Connector needs to run on weekends and in the evening, especially near Metro stops. It is ridiculous that the Silver Line is in McLean and you cannot take a bus to get the stops at various times."
- "The need here at Fairfax is a bus service for weekend and holidays to get to work and some other destinations"
- "I would prefer to not have to make trade-offs at all, I wish you had enough funding to have fast and reliable transportation everywhere, on rush-hours and weekends/late hours."

Specific Routes

Free response comments that mentioned specific route numbers were identified and categorized, and a summary of comments on the five route with the most responses are included in this section as a sample. A full database off all survey comments has been provided to FCDOT to accompany this survey summary document.

The top five routes mentioned in comments were routes 395, 401, 402, 432, and 553. Knowing this information can help direct focus for currently established routes that need improvement or are an importance to the community. Three direct quotes per route number are listed below.

ROUTE 395

- "Don't take away Route 395!"
- "395 from Gambrill to Pentagon is a great route. Please keep this route since it is essential for many of us living in Springfield, VA."

- "For routes 305 and 395, they basically only operate during maximum commuting times. It would be more convenient if the routes were active during the entire workday. Perhaps outside of maximum commuting times they operated once an hour."

ROUTES 401 & 402

- "I live in Westwood village behind the Tysons Walmart. My commute to Dunn Loring is not easy. 401 and 402 is almost too far away from my house. The closest stop is also dangerous for pedestrians."
- "The 401 and 402 buses cover a key north-south route (from Dunn Loring Metro to Tysons) and should run at least every 15 minutes during morning and evening rush hour. As it is, the buses run only every 20 minutes or so. I think more people would ride the bus to and from work if it ran more often. "
- "Drivers drive too slowly on 395 HOV lanes. They are constantly on and off the accelerator pedal, causing a jerky, uncomfortable ride. The 401 and 402 stop too often on Backlick Road between Highland Street and Sunset Lane. Eliminate some of the stops. Remove the stop on northbound Backlick Road after Braddock road. It is too close to the busy intersection."

ROUTE 432

- "Route 432 is underused and should be eliminated."
- "The 432 bus has limited runs with a frequency of 1 hr. This should be every 20 mins during rush hour."
- "Bus 432 was added several years ago and travels through neighborhoods. The route doesn't make sense for those neighborhoods as it's too long of a trip with many other options to the Vienna or Dunn Loring metro. This bus is ALWAYS empty. Literally empty. This is a waste of taxpayer dollars to run this bus."

ROUTE 553

- "The 553 is a popular route through Viking Drive (Fox Mill Estates) - please keep the route 553."
- "Please, please, keep the 553 through Viking Drive"
- "From December 2005 - April 2018, I rode #553 from the end of my street to Wiehle to catch the Metro or prior to its opening to West Falls Church. I would ride the bus and Metro in a heartbeat but when I changed jobs I was heading to Springfield. The bus drivers were great as well as the people I met on the ride."

4. Summary

This round of public outreach survey for the TSP provided an opportunity to gather information on current and future travel patterns, opportunities for improving Fairfax Connector, preferences, and open-ended comments from the public. This information will be used to inform the development of the TSP including the strategic vision documented in Chapter 1 of the TSP.

The survey is one of several sources of public input for the TSP. Findings are compared with those of two previous survey efforts that were statistically-based, the market and on-board surveys, in the table below.

The survey was responded to by roughly equal amounts of frequent riders, occasional riders, and non-riders—providing a mix of views and opinions. In general, the survey yielded similar results to previous survey efforts on Fairfax Connector service, particularly on opportunities for improving the service. Overall, the topmost priorities of survey respondents were focused on ensuring fast, timely and frequent bus service throughout the day. Survey respondents were optimistic about their future use of Fairfax Connector, with more frequent use expected when asked to think about the future. Overall, this survey met its purposes of gauging initial community preferences and priorities, which will assist Fairfax County in evaluating potential future Fairfax Connector service improvements both while developing its TSP and in the future.

Survey Topic	TSP Winter 2021 Survey	Market Survey	On-Board Survey
Current Travel Frequency	• 2,901 respondents • 34% frequent riders • 32% occasional riders • 34% non-riders	• 2,624 respondents • 7% frequent riders • 27% occasional riders • 66% non-riders	• 3,672 respondents • 91% frequent riders • 9% occasional riders • 0% non-riders (this survey was conducted on bus trips, making all riders frequent or occasional)
Future Travel Frequency	• 48% will use Fairfax Connector frequently • 36% will use occasionally • 15% will not use it	• 35% will use Fairfax Connector • 8% will ride at least weekly in the future • Out of current riders (those that rode Fairfax Connector in the last 30 days): ○ 13% will use it less frequently ○ 60% will use it more frequently	N/A
Age Demographics[1]	• 1% - Under 18 Years Old • 4% - 18–24 • 13% - 25–34 • 21% - 35-44 • 22% - 45-54 • 21% - 55-64 • 18% - 65+	• 0% - Under 18 Years Old • 3% - 18–24 • 26% - 25–34 • 19% - 35-44 • 20% - 45-54 • 16% - 55-64 • 16% - 65+	• 5% - Under 18 Years Old • 13% - 18–24 • 25% - 25–34 • 19% - 35-44 • 18% - 45-54 • 15% - 55-64 • 5% - 65+
Gender Demographics[1]	• 44% - Female • 54% - Male • 1% - Other	• 51% - Female • 49% - Male	• 42% - Female • 58% - Male
Household Income Demographics[1]	• 5% - Less than $25k • 6% - $25k to less than $50k • 24% - $50k to less than $100k • 27% - $100k to less than $150k • 38% - $150k or more	• 2% - Less than $25k • 5% - $25k to less than $50k • 24%- $50k to less than $100k • 24% - $100k to less than $150k • 45% - $150k or more	• 34% - $30k or less • 37% - $30k to $70k • 18% - $70k to $125k • 11% - More than $125k

Survey Topic	TSP Winter 2021 Survey	Market Survey	On-Board Survey
Race Demographics[1]	• 74% - White or Caucasian • 8% - Black or African American • 15% - Asian or Pacific Islander • 1% - American Indian or Alaskan Native • 1% - Native Hawaiian or Other Pacific Islander • *26% - Net Minority* • 10% Hispanic or Latino • 90% Not Hispanic or Latino	• 75% - White or Caucasian • 6% - Black or African American • 16% - Asian • 5% - Spanish, Hispanic, or Latino • 1% - Pacific Islander • 1% - Middle Eastern • *25% - Net Minority*	• 33% - White or Caucasian • 14% - Black or African American • 14% - Asian • 12% - Hispanic or Latino • 1% - Native Hawaiian or Other Pacific Islander • 1% - Some other race • 4% - Two or more races • *67% - Net Minority* • 24% Hispanic or Latino • 76% Not Hispanic or Latino

Access to a Personal Vehicle	• 86% have access to a personal vehicle
	• 30% of frequent riders do not have access to a personal vehicle
		• 90% of Fairfax County residents use their car as a primary mode of transportation
		• 6% consider public transport their primary mode
		• Out of current riders:
		  ○ 39% consider public transportation their primary mode
		  ○ 13% consider Fairfax Connector as their primary mode
			• 52% of trips are made by riders who have at least one car at their home
			• 39% of riders had a car available for them to use

Less Frequent Rider Travel Mode	• Out of occasional and non-riders, 63% drive alone in a personal vehicle to make their most frequent trip • The second most common alternative to Fairfax Connector is Metrorail (12% of occasional and non-riders)	• 90% of Fairfax County residents consider their primary mode of transportation to be a personal vehicle	• Almost 50% of riders would use a car when their Fairfax Connector routes are not available • 23% would get a ride from someone else who has a vehicle • 21% would use an app-based transit service • 21% would use their own vehicle

Survey Topic	TSP Winter 2021 Survey	Market Survey	On-Board Survey
Less Frequent Rider Reasons for Not Riding Fairfax Connector	• Top reasons for why occasional or non-riders do not ride the Fairfax Connector: ○ Bus does not come frequently enough ○ Preference of other travel modes ○ Bus does not travel when they want ○ Not having bus service where they start or end their trips	• Respondent's primary mode of transportation (90% personal vehicle use) rated higher than the Fairfax connector because of: ○ Fits into lifestyle ○ Available when you need it ○ Goes to the places you need to go ○ Is a fast way to travel ○ Is easy to use ○ Reliability	N/A
Frequent Rider Satisfaction	• 75% of respondents identified as being satisfied or very satisfied with Fairfax Connector service • 9% were dissatisfied	• Current riders are generally satisfied with Fairfax Connector • 65% of current riders rated the Fairfax Connector favorably on a scale of 0 to 10, rating the service 8 to 10 range • 8% of current riders rated the system in the 0 to 3 range	N/A
Frequent Rider Needs for Improvements	• Frequent riders top areas needing improvement: ○ More service when I want ○ Information about the bus ○ More stops where I want to get picked up or dropped off ○ Bus stops that are easier to get to	• Current riders noted that the most appealing incentives to increase ridership are: ○ Providing accurate real-time information ○ More frequent service ○ Having stops closer to where you like or where you are going	• Top priorities that would make riders ride more frequently: ○ More frequent service ○ Operating later or earlier in the day ○ Offer express bus service ○ Have stops closer to origins and

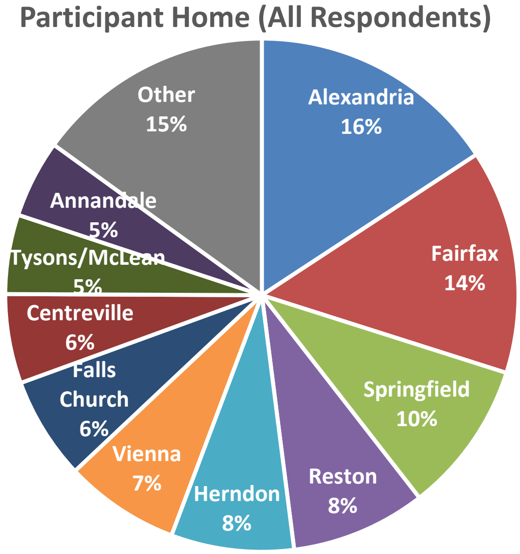
Survey Topic	TSP Winter 2021 Survey	Market Survey	On-Board Survey
Opportunities for Improvements	• Top needs for making Fairfax Connector a more appealing travel choice: ○ Having the bus available when needed ○ Getting to the destination on time ○ Being A fast way to travel ○ Going to more places you need to go	• See above for current rider incentives • What would make drivers consider using the Fairfax Connector: ○ Having more stops close to where they live or go ○ Having faster and more direct service ○ Having more frequent service, especially during off-peak hours and weekends, ○ Reduced cost or adding rebates	• Top priorities for improvement: ○ More frequent service ○ Operating later or earlier in the day ○ Offer express bus service ○ Have stops closer to origins and destinations

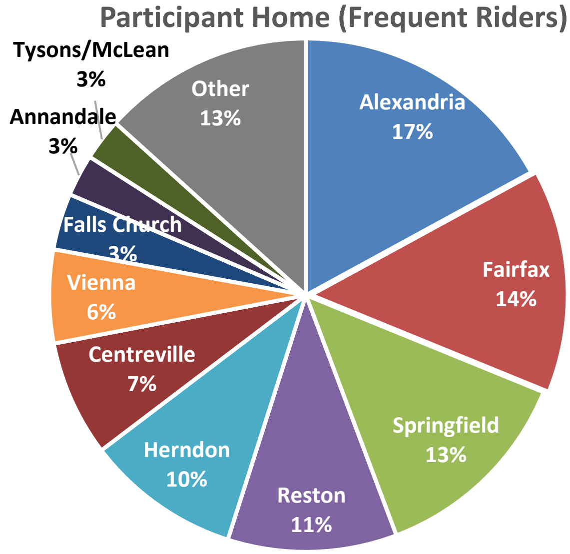
[1]Demographic percentages based only those respondents answering

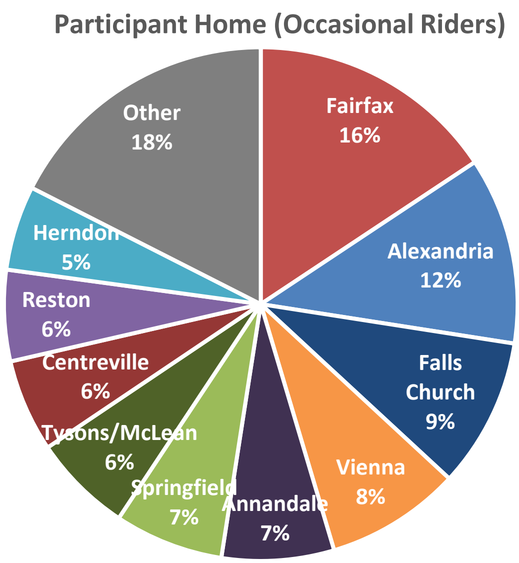
Attachment A

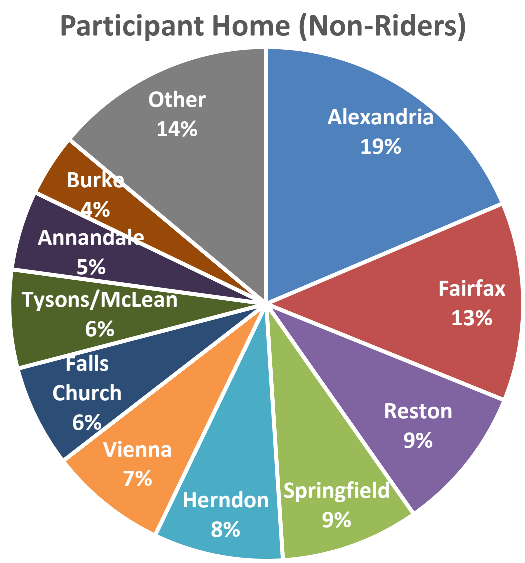
Additional Survey Results Summary

Participants by Home Location

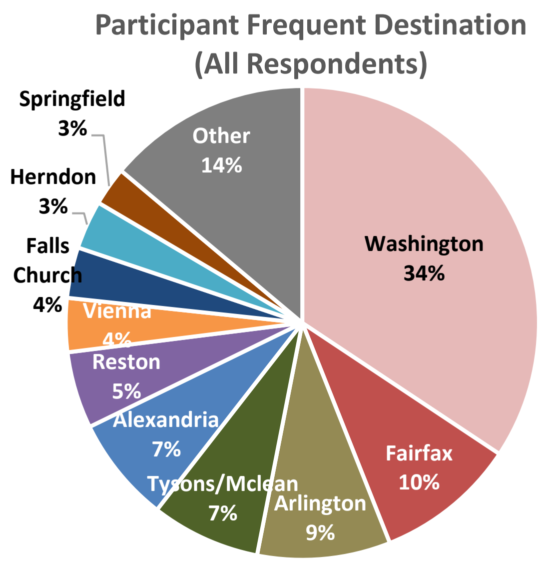


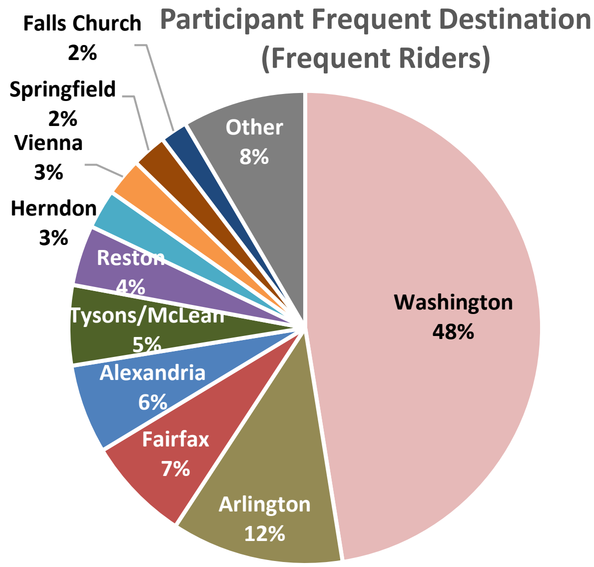


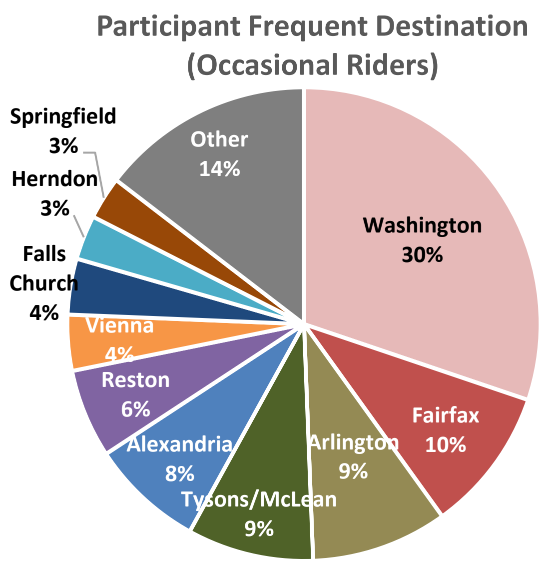


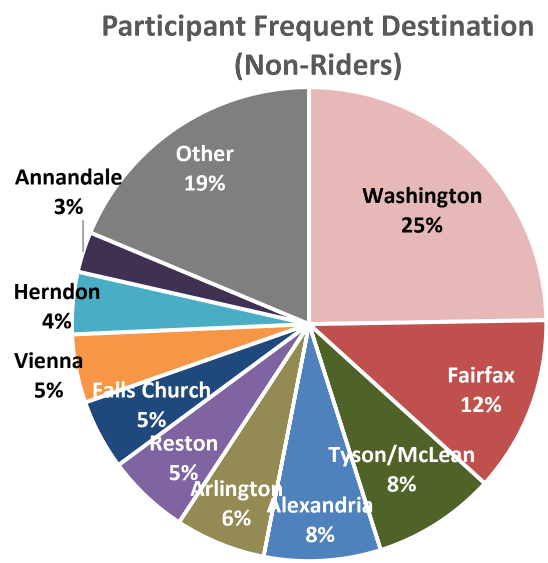


Participants by Frequent Destination









Attachment B

Business and Community Stakeholder Meetings Summary

Meeting Summary

SUBJECT: Business and Community Stakeholder Meetings

DATE/TIME: *Business Stakeholders:* Monday, January 11, 2021, 1:00 p.m.
Community Stakeholders: Friday, January 15, 2021, 10:00 a.m.

LOCATION: Virtual Microsoft Teams Meetings

ATTENDEES:

Organization	Attendees	
Fairfax County Project Team	Michael Felschow (PM) Hejun Kang Randy White Christian Soughe Bissai Stuart Boggs	Fairfax County Department of Transportation
	Kala Quintana Vincent Mendolia Bryan Hoces	Fairfax County Marketing and Communications
Business Stakeholders	Stephen Tarditi	Economic Development Authority
	Joan Clark	Transportation Association of Greater Springfield
	Holly Dougherty	Mount Vernon Lee Chamber of Commerce
	Cristin Shiffer	NVRC (Military and Government Liaison)
	Peggy Tadej	NVRC (Military and Government Liaison)
	Hillary Zahm	Macerich Tysons Partnership
	Alex Joyce	Tysons Corner Center Partnership
	Eric Christensen	Springfield Town Center
	Ronit Dancis	Tysons Partnership
	Karen Epperson	Rockhill Management
Community Stakeholders	Eileen McCartin	Northern Virginia Resource Center for Deaf and Hard of Hearing Persons
	Eleanor Vincent	Pathway Homes
	Joan Wise	Cornerstones
	Anne-Lise Quinn	Culmore Clinic
	Paul Woods	Fairfax County Neighborhood Community Services
	Avanda Williams-White	Fairfax County Public Schools
	Jennifer Henry-Jones	Fairfax County Neighborhood Community Services
	Tracy Herand McCarty	Cunningham Park PTA
	MaiTam Nguyen	PRS
	Katina Matthews	Fairfax County Neighborhood Community Services
	Gary Morris	South County High School
	Sherman Deck	Edison High School
	Than Tran	
	Tim Boyd	Edison High School
	Corazon Sandoval Foley	Burke/West Springfield Senior Center without Walls
		Al-Qalam Academy
	Lisa Whetzel	Britepaths
Kimley-Horn Project Team	Tyler Beduhn (PM) Mike Harris Danielle McCray Veronica Son	Project Consultants

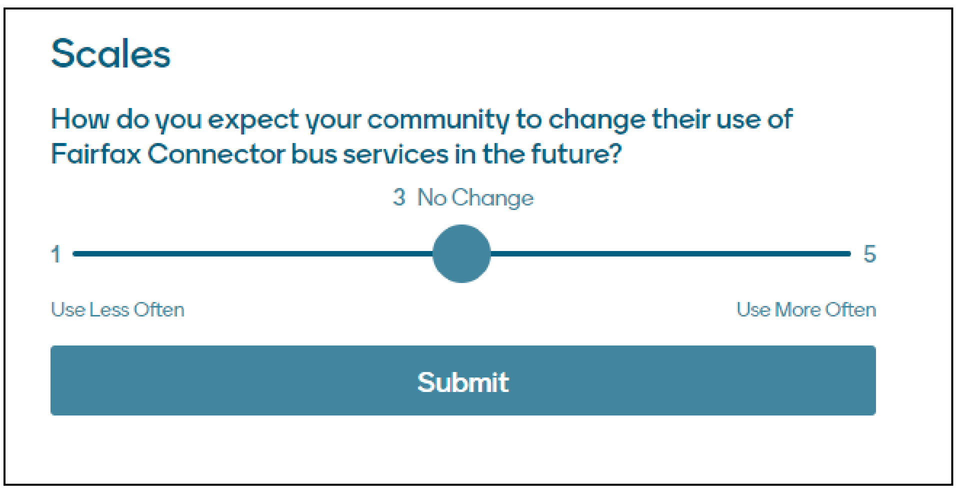
1. **Introductions**
2. **Role of Stakeholders**
    - Stakeholder meetings are essential to identify challenges and opportunities for improvement. Feedback and input are appreciated and encouraged to develop a successful Transit Strategic Plan.
3. **Background – Fairfax Connector**
    - Fairfax County currently has about 95 different routes and over 300 buses serving connections throughout the county. These are a mix of routes that operate on weekdays as well as Saturdays and Sundays. Some routes offer rush hour only service, and other routes provide several limited-stop or express services.
    - There is also Metrorail service in Fairfax County, with Connector routes serving all of these stations, as well as several Metrobus routes that operate in Fairfax County.
4. **TDP vs TSP**
    - Fairfax County completed Transit Development Plans (TDP) in 2009 and 2016.
    - As of 2018, the Virginia Department of Rail and Public Transportation (DRPT) requires all large public transportation agencies like Fairfax Connector to develop a Transit Strategic Plan (TSP).
    - Overall, the TSP consists of similar content to the TDP. They both provide evaluations of existing services to determine near- and long-term needs. Both documents assess opportunities to improve efficiency and improve service in underserved areas. They are both used for funding purposes and identify capital, operating, and maintenance needs.
    - The TSP is a strategic blueprint outlining desired changes that will improve transit services within existing funding structures.
    - The TSP is a 10-year plan whereas the TDP was a 6-year plan. The TSP is a living document that Fairfax County will update every year (minor annual updates after this major update).
5. **Vision and Goals**
    - A key element of the TSP is the vision for transit in Fairfax County. Visions provide a guiding principle to tie back to when evaluating potential improvements to the bus service.
    - Fairfax County Transit Strategic Plan Vision: To provide equitable, safe, reliable, clean and effective public transportation service that complements the other elements of the multi-model transportation system in Fairfax County. This vision aligns to Fairfax County's Comprehensive Plan.
    - Goals are aligned with the four themes:
        - **Choice**: Provide transportation choices for people travelling short and long distances
        - **Quality**: Provide high-quality transportation service—this is where we consider how frequently the bus comes and how reliable is the bus
        - **Efficiency**: Create efficient and cost-effective transportation choices
        - **Safety**: Ensure and improve safety for Fairfax County riders throughout the system—safety for Connector's customers, staff, and the general public is paramount

6. **Fairfax County TSP Inputs**
    - Stakeholder input and public input will be used to validate vision, goals, and objectives for the transit service.
    - Performance and operations analysis will document a cohesive systemwide analysis and show gaps and opportunities for improvements.
    - The recent and ongoing Bus Service Review studies will be a primary source for service recommendations, and the TSP will tie route recommendations to gaps/opportunities identified in the performance and operational analysis.

7. **Discussion**

Following the introduction slides on the TSP, the project team facilitated discussions with the stakeholders. This section captures results from both Business and Community Stakeholder meetings. A virtual polling system was used to initiate dialog. Each question is shown in the following section, along with an overview of response and follow-up discussion. These responses were used to understand the communities each stakeholder represented.

QUESTION 1: How do you expect your community to change their use of Fairfax Connector bus services in the future [compared to pre-pandemic levels].



Interactive Polling Question 1

QUESTION 1 RESULTS

Overall, both Business and Community Stakeholders did not see much of a change in future Fairfax Connector ridership. They anticipated that a slight increase in Fairfax Connector use may be seen in the future, averaging and 3.50 and 3.33 scale for Business and Community stakeholders, respectively. The scale ranged from 1 (community will ride less often), 3 (no change in ridership), and 5 (community will ride more often). A summary of discussion points around this question is shown below for each meeting.

TABLE 1: AVERAGE RESPONSE FOR QUESTION 1

Business Stakeholders	Community Stakeholders
3.50	3.33

Business Stakeholder Discussion – January 11, 2021

- Metro is looking into cutting services. As services reduce, the stakeholders anticipate more people will look to Fairfax Connector.
- In terms of future growth in the Springfield area, they foresee more people taking Connector.
    - FCDOT has worked hard to expand bus services to Springfield by adding two routes to support TSA and Town Center.
- Some business stakeholders noted that many employees are retail/service industry workers and have no option to telework. They foresee a consistent level if not more for ridership to pre-pandemic.
- There is a significant amount of growth in Tysons and Tysons Corner in businesses and retail. Moreover, the Burroughs Development area is growing significantly.
    - FCDOT correlates the TSP effort with population and employment growth in the region.
- For offices that do have means to telework, stakeholders anticipate families reducing the number of vehicles and possibly using more public transportation.
- The Department of Defense (DoD) employees are likely to see a slight increase in telecommuting. There are future efforts to increase teleworking throughout DoD.

Community Stakeholder Discussion – January 15, 2021

- The populations that the community stakeholder groups service are typically low income and do not have cars to rely on for transportation. They foresee an increase in future ridership as people are coming out of the shelters and into permanent housing. One community stakeholder proposes having more access and connections to Chantilly area.
- There is an increase in projected land uses in Fairfax County (house/business/shopping centers) and FCDOT is looking at future markets in the plan.
- One stakeholder noted that unless routes increase in frequency, the existing transit use will remain the same. It takes two hours to get from Lorton to Gerry Hyland Building. Is this a route that will be improved?
    - FCDOT understand they need to invest in cross-country routes because of the job opportunities. There is a new route being proposed 313 that will connect Franconia to Fair Oaks Mall. There are gaps in the system and the County is working to increase the number of available routes and modify existing routes to address these gaps. Ridership information is one of the available factors that the County uses when developing these modifications, however, any public comment and stakeholder feedback will help further identify needs in the region.

QUESTION 2: What's most important to your community to meet their needs and make Fairfax Connector a more appealing travel choice? Rank top 3 choices. (7 options provided)

A fast way to travel	Get you to your destination on time	Meets expectations of safety and comfort	Easy to use, understand, and get information about the service and connections
Available when you need it	Go to more places you need to go	An affordable way to travel	

QUESTION 2 RESULTS

The Business and Community Stakeholders were asked to rank their top three factors. Overall, they both identified "an affordable way to travel" and "available when you need it" as their top two options. Their third top priority varied in that the Business Stakeholders identified "ability to go to more places" while the Community Stakeholders identified "a fast way to travel".

TABLE 2: RESPONSE FOR QUESTION 2

Rank	Business Stakeholders	Community Stakeholders
1	An affordable way to travel	An affordable way to travel
2	Available when you need it	Available when you need it
3	Go to more places you need to go	A fast way to travel

Business Stakeholder Discussion – January 11, 2021

- All are critical factors. Affordability is always an issue. Metro can get expensive for some employees, so bus services are more affordable options. Metrobus has about 1-2 lines available around the Tysons area.
- The Tysons area uses a mix of different services (Metrorail, Connector, Metrobus, etc.). They do a survey every few years to identify the modes of transportation their employees use.
- There is often an issue with weekend or late night schedules, especially for the retail and service industry. Some businesses close after the last train or bus.
- Fort Belvoir is not 9-5 jobs; alternative travel options can be challenging for those looking to take transit.

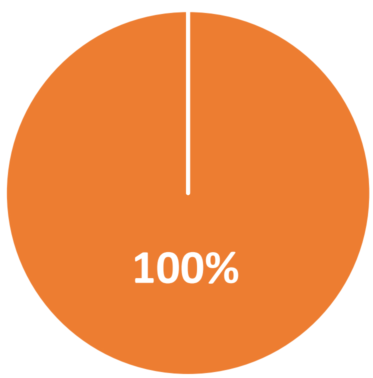
<u>**QUESTION 3:**</u> When it comes to bus service during RUSH HOUR commute time versus ALL-DAY service, my community prefers: (1) Frequent bus service during rush hours, even it if means little to no service at other times or (2) Some bus service, include late nights and weekends, even if it mean less frequent service than the first option?

<u>**QUESTION 3 RESULTS**</u>

The consensus for both Business Stakeholders and Community Stakeholders was that majority of the community desires services at off-peak periods if a choice had to be made. They noted that a lot of their employers or community members do not work the regular 9 a.m. to 5 p.m. jobs.

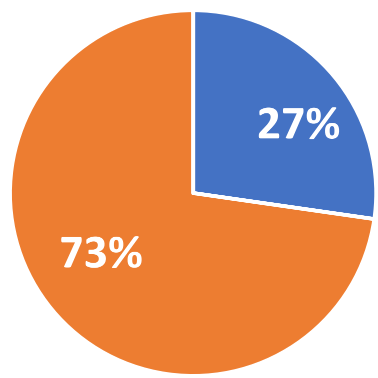
TABLE 3: QUESTION 3 RESULTS BREAKDOWN

Business Stakeholders



8 total responses

Community Stakeholders



11 total responses

- Frequent bus service during rush hour, even if it means little to no service at other times
- Some bus service all-day, including late nights and weekends

Community Stakeholder Discussion – January 15, 2021

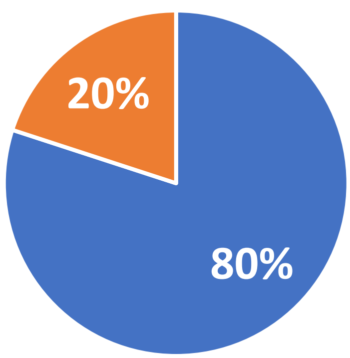
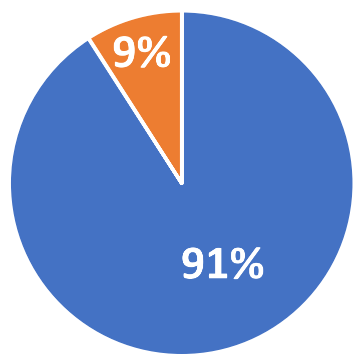
- People in front line jobs need the flexibility of off-peak hours and weekend services. Not everyone has a 9 a.m. to 5 p.m. job.
  - FCDOT acknowledges this to be one of the main concerns voiced during both the Business Stakeholder and the Community Stakeholder meetings. This is an ongoing concern and will be further analyzed/addressed through the study.

<u>**QUESTION 4:**</u> When it comes to LOCAL versus LONG-DISTANCE bus service, my community prefers (1) the bus to connect to more destination WITHIN Fairfax County or (2) the bus to connect to more destinations OUTSIDE of Fairfax County?

<u>**QUESTION 4 RESULTS**</u>

This question was difficult for respondents to answer. They identified services within the County to be a priority but also mentioned there are many community members who would benefit from connections to outside jurisdictions.

TABLE 4: QUESTION 4 RESULTS BREAKDOWN

Business Stakeholders	Community Stakeholders
	
5 total responses	11 total responses
● Bus to connect to more destinations WITHIN County ● Bus to connecto to more destinations OUTSIDE County	

Business Stakeholder Discussion – January 11, 2021

- This is a difficult answer to respond to. Employees are coming from everywhere—within the County and outside the County. Longer routes seem to be a popular demand.
- Is the mission to connect people to other services?
    - Connector started off with the goal of providing connections to other services. Express services provide access to longer travel options (i.e., into DC). Connector was first implemented to replace Metrobus routes in the Huntington Area. The purpose of the Connector is not to compete with Metrobus but work together. The role of Metrobus may change in the future and more Connector routes may come into play. The Metrobus and the Connector are funded via Fairfax County through the Compact. Connector may take on operations of most of the routes Metrobus operates in the County in the future.

Community Stakeholder Discussion – January 15, 2021

- Is there a partnership being pursued with Loudoun County to enable frequent cross-country transportation? Getting from Reston/Herndon to Alexandria or Dulles Airport via bus is onerous.
    - FCDOT is looking into new partnerships with other agencies.
    - The County has planned two new routes in Reston/Herndon that will connect to Loudoun County. Route 954/924 will be the first two routes to cross into Loudoun. The County is currently working with PRTC for possible other connections.
- The Chantilly area is comparatively disadvantaged when it comes to public transportation so much that it impacts decisions made on housing and leasing**.** Connections and routes from Chantilly/Centreville to Reston/Herndon area are in need.
- Students who walk or stay after school for activities will use the Connector, especially since school transportation has been declining over the years due to fewer drivers being available. This program greatly benefits the students because they assist in not only transportation to and from homes to schools but also to work.
    - FCDOT considers school accessibility when developing new routes or making route modifications. The County maps schools and evaluates how many schools each route provides access to within a ¼ mile buffer. These routes are prioritized over others that do not provide such connections.
- There are some pockets of high schools where Connector routes do not actually provide the connections students need (e.g., Hayfield to Lorton). Is there anything done to address meeting the needs of some of these students? Connector provides access to certain neighborhoods but not all.
    - FCDOT agrees this to be important and will take it into consideration. The County will work on not just verifying that there is a Connector route by the school but also understanding what connections the routes are providing to neighborhoods.
- Possible other connections identified are with Manassas, Sterling, and City of Alexandria. These locations not only provide employment opportunities but also affordable housing locations (Manassas and Sterling). With these partnerships, it's important to align the different operating hours of these agencies.
- The idea of free student bus passes is great. However, there is a misconception that buses are not safe. It is encouraged that more PR campaign be done to promote bus routes and target youths.

QUESTION 5: What other innovative ideas do you have to better serve your community? (open-ended question)

OPEN DISCUSSION

Business Stakeholder Discussion – January 11, 2021

- There are many locations in need for bus shelters and bus stop improvements
    - FCDOT is working on this effort through the Bus Stop Improvement Program to add shelters, concrete pads, places to sit, etc.
- Bus Tracker has a few limitations to the software and reliability issues during schedule disruptions (e.g., weather events, strike).
    - This program is based on the schedule that is inputted via the database that gets updated every two months. Because Bus Tracker is a software that is contracted out, it is not as easy for County to update information.
    - Connector has mobile alert systems in place that informs subscribers of any specific route or stop changes.
- Fort Belvoir is interested in bus service to the new Army Museum (potential adjustment to Route 355).

Community Stakeholder Discussion – January 15, 2021

- The cost of transportation (fares) has increased just before COVID. The community stakeholder found that more clients were asking for assistance due to the fare increase. Has the county investigated fare plans or possibly using smaller buses?
    - FCDOT is performing a study to identify alternative forms of transit and are looking for grants to help with study. They are studying low density locations that are hard to get to and possibly proposing flex routes. For typical routes, smaller buses are not used because they do not last long (~7 years) and do not provide a smooth riding experience. It is not cost effective for large communities like Fairfax to use smaller vehicles.
- In leu of tokens and increased fare costs, is there an option for CBOs to purchase fares at a low cost or be given free passes?
    - FCDOT is in the early stages of working out fare costs. They have a regional study with WMATA that considers reduced fare programs. The region will be looking at the possibility of “fare capping” where once the max amount is hit for the day, week or month, the rider would not be charged additional fares.
    - FCDOT and WMATA currently has a 7-day regional pass that allows unlimited rides and transfers.
- Does the plan address the aging population and potential need for transportation with accessibility features? There has been some feedback on demand responses having long waits.
    - FCDOT considers the sensitive population (low income, student, minority, senior, etc.). these are all factors that are being encompassed in the transit propensity index score for each route.
- Are multiple languages on bus stop signage being considered?
    - FCDOT agrees this is an important item to consider. Fairfax County has a high minority population. The County will research what other jurisdictions have done. While the bus

stop will not have physical maps/items, Fairfax County can consider other online options.

- External information about the routes and stops are good and accessible to the deaf and hard of hearing population. The internal bus communication needs to also be improved. Is the County considering automatic speech recognition to convey what the driver is saying?
    - FCDOT will take this into consideration. Currently there are alerts that can be sent directly to a mobile device. The County understands that the visual alerts are key to the hard of hearing and senior population.
- Now that we are transitioning from the pandemic, travel patterns will change. How is the County taking this shift in traffic and transportation modes into consideration?
    - There isn't a definite answer to how travel patterns are changing due to the pandemic. Currently Fairfax County has all their routes running and operating. The routes are operating at a 67% ridership and at almost 100% during the off peaks (weekends). This data shows that people who need the services are still using them. The plan is to consider the pandemic as a "bump" in time and the County will hold steady with any commitments. County will wait 6 months to a year before making too many significant adjustments. The TSP is a living document that will be updated every year, which works in the County's favor in this situation.

8. Public Outreach

- Current Public Survey is open until Friday, February 19, 2021
- Additional comments and questions can be submitted through the following:
    - Email: fairfaxconnector@fairfaxcounty.gov
    - Call 703-339-7200, TTY 703-339-1608
    - Mail to:
      Fairfax County Department of Transportation
      C/O Transit Planning – Public Comment TSP 2021
      4050 Legato Road, Suite 400
      Fairfax, VA 22033

SPRING 2022 PUBLIC OUTREACH SUMMARY

This report documents the results of public outreach conducted in spring 2022 for the Fairfax County Transit Strategic Plan (TSP). This round of outreach consisted of two online community input meetings, an online survey, and two online stakeholder input meetings. This document provides a summary of the input received during these outreach activities and serves as one of several sources of public input on Fairfax Connector service used in the TSP. Fairfax County Department of Transportation (FCDOT) has conducted other public outreach that has fed into the TSP process, such as community input meetings in fall 2021 for the proposed bus service in the Centreville, Chantilly, Vienna, and Tysons (CCVT) area and the first round outreach conducted specifically for the TSP in winter/spring 2021. Previous public outreach was also conducted through bus service reviews for the Reston and Herndon area in 2019-2020 and the Franconia-Springfield area in 2018-2020.

1. Survey Overview

The public survey was developed using an online tool called JotForm. The purpose of the survey was to gauge community preferences and priorities to assist Fairfax County in validating and prioritizing the planned service improvements for the TSP. The survey was available in eleven total languages:

- English
- Spanish
- Filipino (Tagalog)
- Korean
- Vietnamese
- Chinese
- Amharic
- Arabic
- Persian (Farsi)
- Urdu
- Hindi

Feedback could be provided by e-mail, phone, and mail. The survey structure was comprised of three sections:

1. How frequent, occasional, and non-rider respondents travel,
2. Service improvements for various areas of Fairfax County, and
3. Optional demographic information of respondents.

Responding to each section was optional, and participants were not required to answer each question. The survey was available to the public from March 18, 2022 to April 15, 2022, and was published concurrently with two online community input meetings that occurred the week of March 28, 2022.

The survey was promoted via the following platforms by FCDOT:

- Brochures produced by FCDOT, translated in ten languages, and mailed to every resident in Fairfax County
- Links to the survey posted on the Fairfax Connector website
- Press release to local/regional media
- Text/email Fairfax Alerts and BusTracker Alerts to subscribers
- Social media campaign on Facebook and Twitter

The survey was one of several sources of public input for the TSP. Previous survey efforts, namely the TSP Winter 2021 Survey, 2018-2019 Market Survey, and 2019 On-Board Survey, were also used as input. **Attachment A** contains a comparison table of these four countywide surveys to show how they align or differ for similar questions.

2. Survey Responses and Respondent Characteristics

The survey received a total of 1,114 submissions. **Table 1** indicates the breakdown of survey responses by language.

TABLE 1: TOTAL RESPONSES

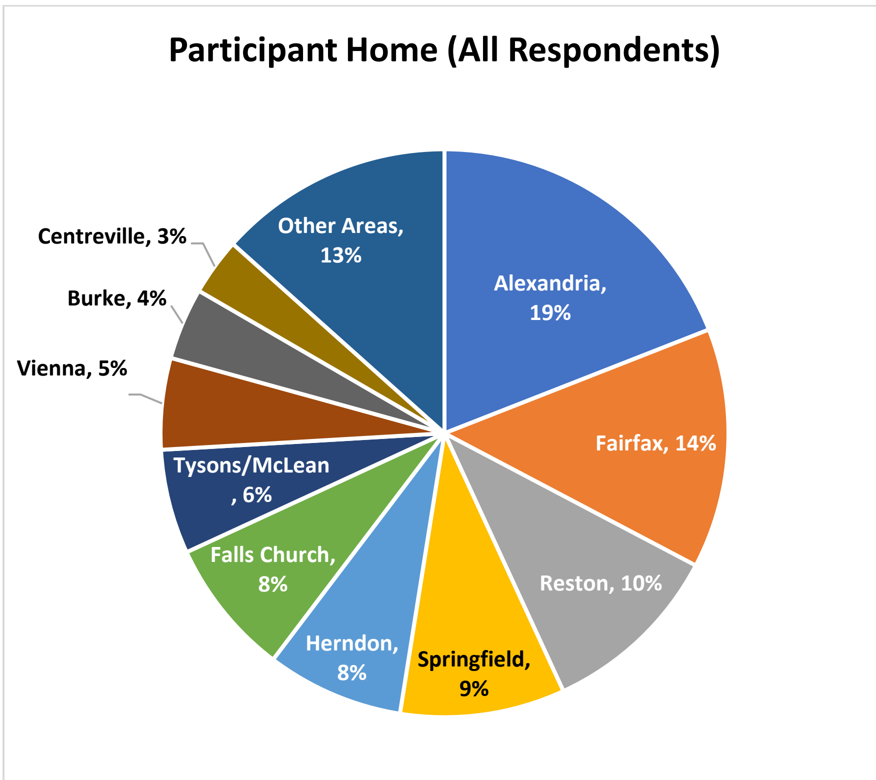
Language	Response Count
English	1,062
Spanish	20
Chinese	9
Korean	7
Arabic	5
Vietnamese	4
Amharic	2
Urdu	2
Farsi	2
Tagalog	1
Hindi	0
Total	**1,114**

The survey received 35 responses where two or more responses shared the same IP address. These responses were reviewed (response demographic information, response date, response time, and answers to various questions), and 21 were removed because duplicate answers were provided. For the 14 responses that were retained, it was assumed that people from the same household may have used the same computer or respondents used public computers because of varying responses, particularly to the demographic questions. The results from the survey are not statistically based and may differ from the previous TSP, market, and on-board surveys. The survey was open to all members of the community that wished to provide input. **While respondent characteristics are provided in the following sections, this survey was not intended to be the primary source of demographic characteristics and travel patterns of Fairfax Connector riders. These results represent only TSP survey respondents. The on-board survey is the primary survey source for demographic characteristics and travel patterns of Fairfax Connector riders.**

Participants by Home Location

Out of the 1,114 total survey participants, 1,076 provided their home zip codes. These respondents included 62 unique zip codes. About 99.3 percent of those providing responses resided in Virginia and the remainder resided in Washington, DC or Maryland. Out of those who provided residence responses, 96.9 percent lived in Fairfax County. **Figure 1** and **Table 1** show the ten most common localities that were associated with the zip code responses[1]. The "Other Areas" category represents home zip locations outside of the top ten locations (for example Annandale, Chantilly, Oakton, and 16 more locations[2]). The map in **Figure 2** shows survey responses received by home zip code. The red areas on this map represent zip codes with a larger number of responses. Additional cross tabulation of user types are included in **Attachment A.**

FIGURE 1: HOME LOCATION



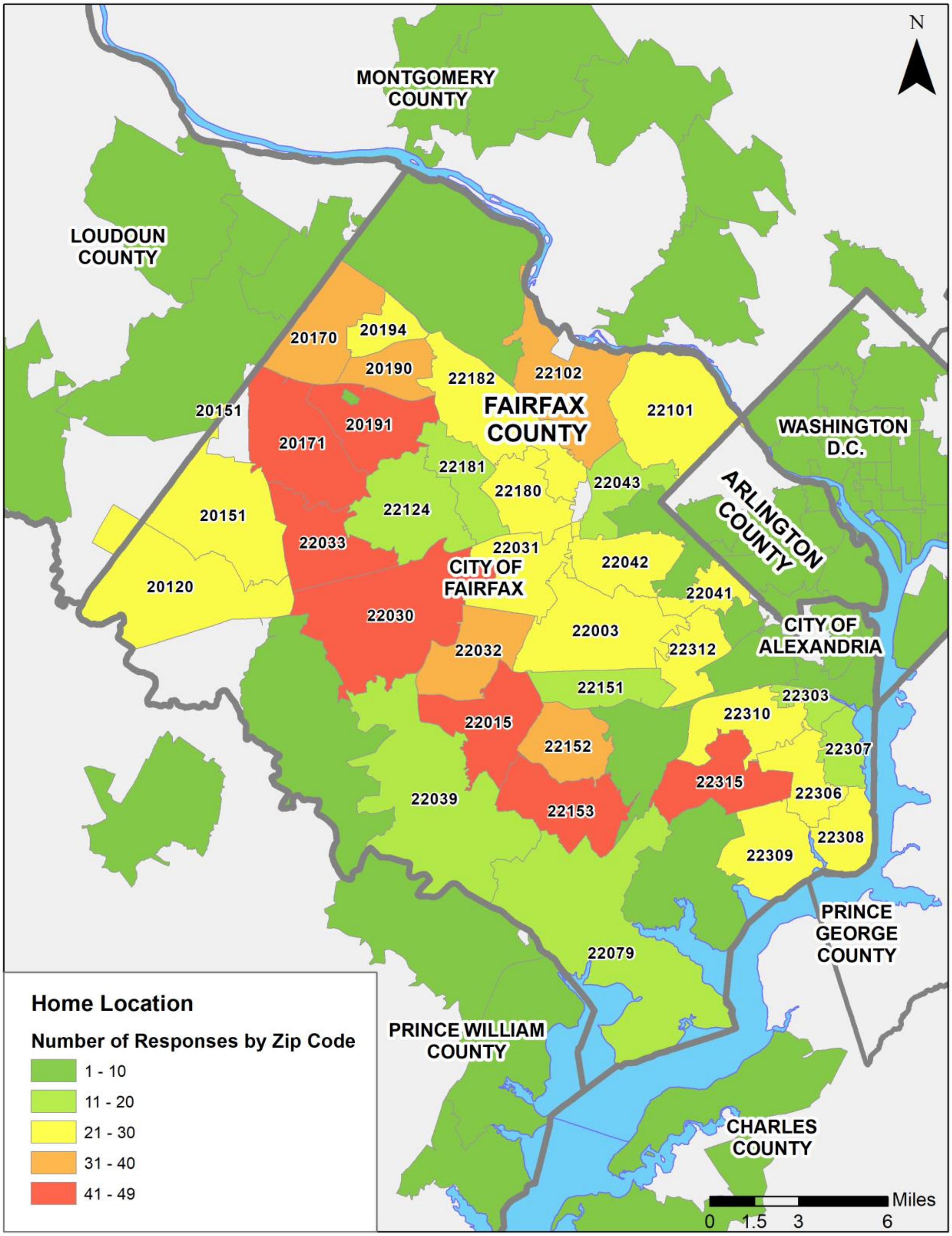
[1] *These results represent only TSP survey respondents. The on-board survey is the primary survey source for demographic characteristics and travel patterns of Fairfax Connector riders.*

[2] *Other Areas included Annandale, Chantilly, Oakton, Fairfax Station, Lorton, Clifton, Great Falls, Fort Belvoir, Washington, Arlington, Dumfries, Manassas, Rockville, Dunn Loring, Sterling, Fredericksburg, Montgomery Village, Woodbridge, Leesburg.*

TABLE 2: HOME LOCATION

Home Location Zip Code	Count of Responses	% of Responses
Alexandria	205	19%
Fairfax	147	14%
Reston	112	10%
Springfield	101	9%
Herndon	84	8%
Falls Church	84	8%
Tysons/McLean	64	6%
Vienna	56	5%
Burke	44	4%
Centreville	35	3%
Other Areas	144	14%
TOTAL	**1,076**	**100%**

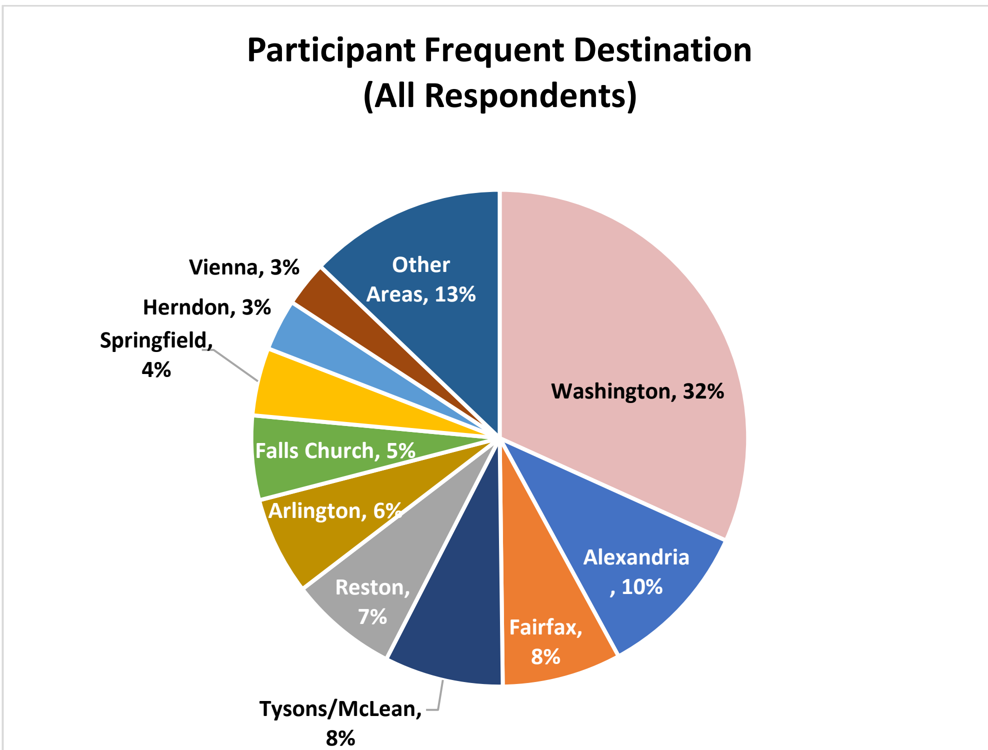
FIGURE 2: HOME LOCATION — ZIP CODE MAP



Participants by Destination Zip Code

Out of the total 1,114 survey participants, 1,020 provided their destination zip code for the location they travel most frequently. These respondents included 168 unique zip codes. Overall, about 49 percent of the total respondents travel to a destination within Fairfax County. **Figure 3** and **Table 3** show the ten most common localities that were associated with the zip code responses.[3] The "Other Areas" category represents destinations not in the top ten locations (for example Chantilly, Burke, Annandale, and 31 more locations). The map in **Figure 4** shows survey responses received by destination zip code. The red area with the most responses on this map include a large portion of Tysons in 22102. Additional cross tabulations of user types are included in in **Attachment A.**

FIGURE 3: FREQUENT DESTINATION LOCATION

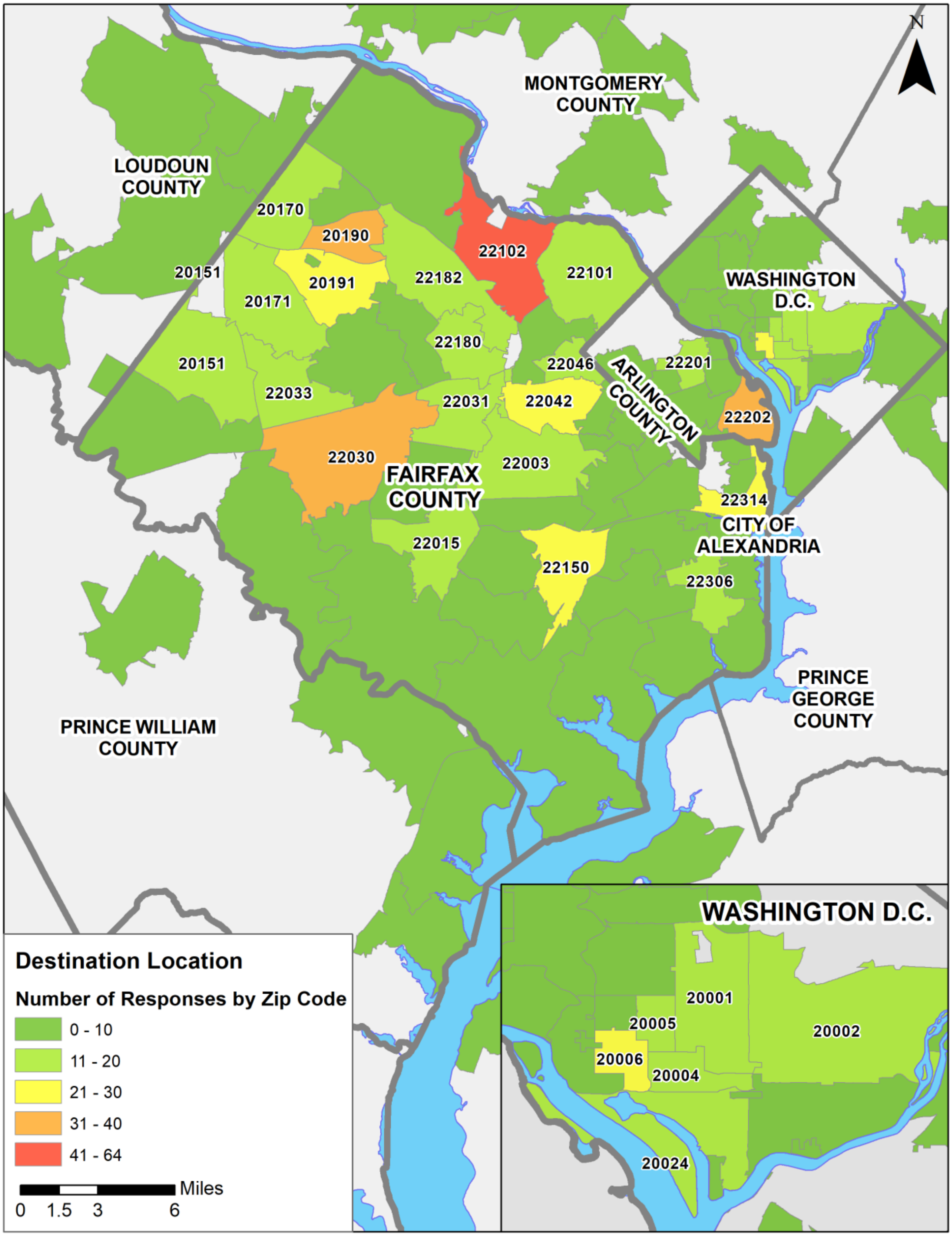


[3] *These results represent only TSP survey respondents. The on-board survey is the primary survey source for demographic characteristics and travel patterns of Fairfax Connector riders.*

TABLE 3: FREQUENT DESTINATION LOCATION

Destination Location Zip Code	Count of Responses	% of Responses
Washington	324	32%
Alexandria	105	10%
Fairfax	79	8%
Tysons/McLean	79	8%
Reston	72	7%
Arlington	65	6%
Falls Church	56	5%
Springfield	45	4%
Herndon	34	3%
Vienna	30	3%
Other Areas	131	14%
TOTAL	**1,020**	**100%**

FIGURE 4: FREQUENT DESTINATION LOCATION — ZIP CODE MAP



Top Travel Flows

Table 4 shows the top travel flows of the survey respondents that provided home and frequent destination zip codes.[4] Similar to the destination section above, Washington is the major trip attractor from various areas of Fairfax County.

TABLE 4: TOP TRAVEL FLOWS OF SURVEY RESPONDENTS

Home Location	Destination Location	Count of Responses	% of Responses
Alexandria	**Washington**	76	8%
Alexandria	**Alexandria**	68	7%
Fairfax	**Washington**	48	5%
Reston	**Reston**	46	5%
Springfield	**Washington**	41	4%
Fairfax	**Fairfax**	37	4%
Tysons/McLean	**Tysons/McLean**	28	3%
Reston	**Washington**	28	3%
Falls Church	**Falls Church**	25	3%
Other Origin-Destination Combinations		594	61%
TOTAL		**991**	**100%**

[4] *These results represent only TSP survey respondents. The on-board survey is the primary survey source for demographic characteristics and travel patterns of Fairfax Connector riders.*

Participants by Age

Out of the total 1,114 survey participants, there were 1,021 respondents who provided their age range, as summarized in **Figure 5** and **Table 5**[5]. Most of the respondents were between the ages of 55 to 64.

FIGURE 5: AGE OF SURVEY RESPONDENTS

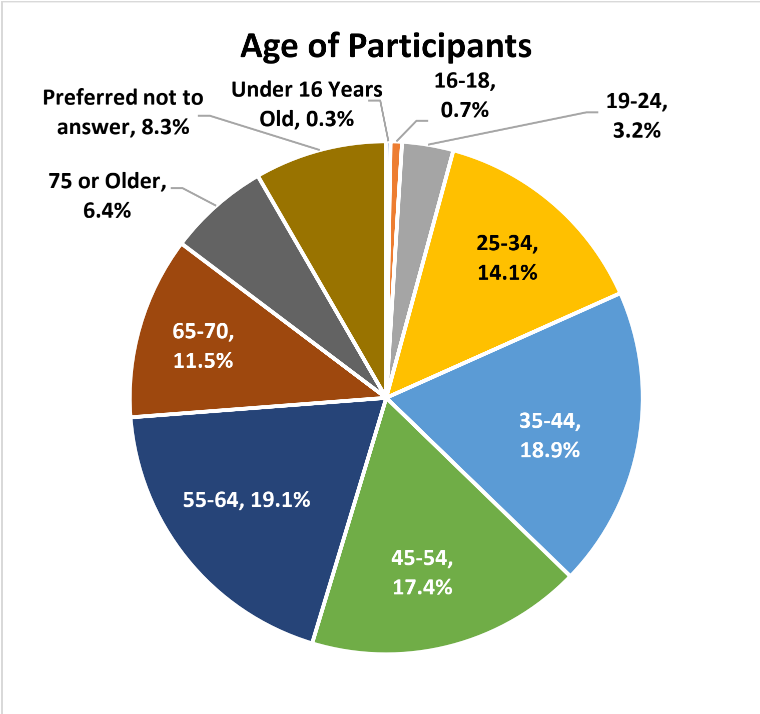


TABLE 5: AGE OF SURVEY RESPONDENTS

Age Range	Total Count	Percent of Responses
Under 16 Years Old	3	0.3%
16-18	8	0.7%
19-24	36	3.2%
25-34	157	14.1%
35-44	211	18.9%
45-54	194	17.4%
55-64	213	19.1%
65-70	128	11.5%
75 or Older	71	6.4%
Prefer not to answer	93	8.4%
TOTAL	**1,114**	**100.0%**

[5] *These results represent only TSP survey respondents. The on-board survey is the primary survey source for demographic characteristics and travel patterns of Fairfax Connector riders.*

Participants by Gender

Out of the total 1,114 survey participants, there were 1,013 respondents who provided their gender, as summarized in **Figure 6** and **Table 6.**[6]

FIGURE 6: GENDER OF SURVEY RESPONDENTS

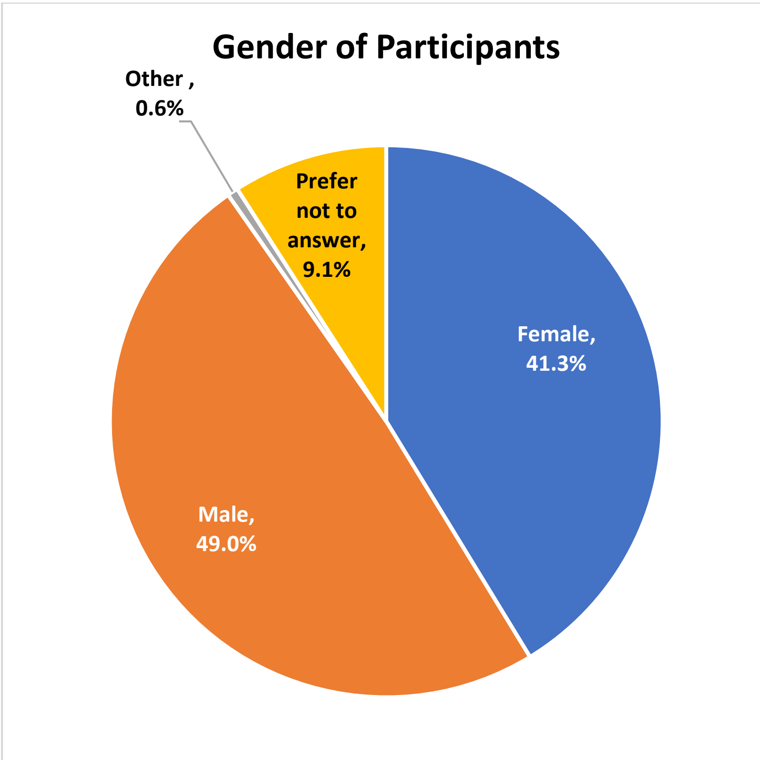


TABLE 6: GENDER OF SURVEY RESPONDENTS

Gender	Total Count	Percent of Responses
Female	460	41.3%
Male	546	49.0%
Other	7	0.6%
Prefer not to answer	101	9.1%
TOTAL	**1,114**	**100.0%**

[6] *These results represent only TSP survey respondents. The on-board survey is the primary survey source for demographic characteristics and travel patterns of Fairfax Connector riders.*

Participants by Race

Out of the total 1,114 survey participants, there were 994 respondents who provided their race. Additionally, 97 (9 percent) of respondents identified themselves as Hispanic or Latino origin. Race is summarized in **Figure 7** and **Table 7**.[7]

FIGURE 7: RACE OF SURVEY RESPONDENTS

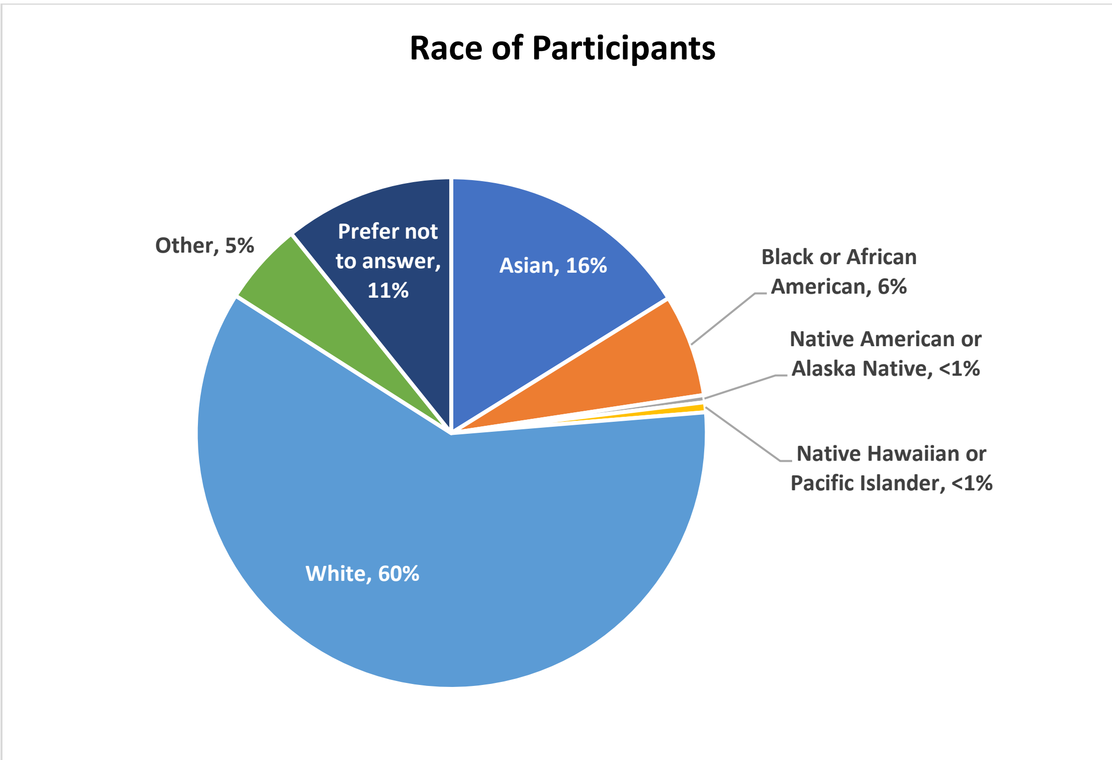


TABLE 7: RACE OF SURVEY RESPONDENTS

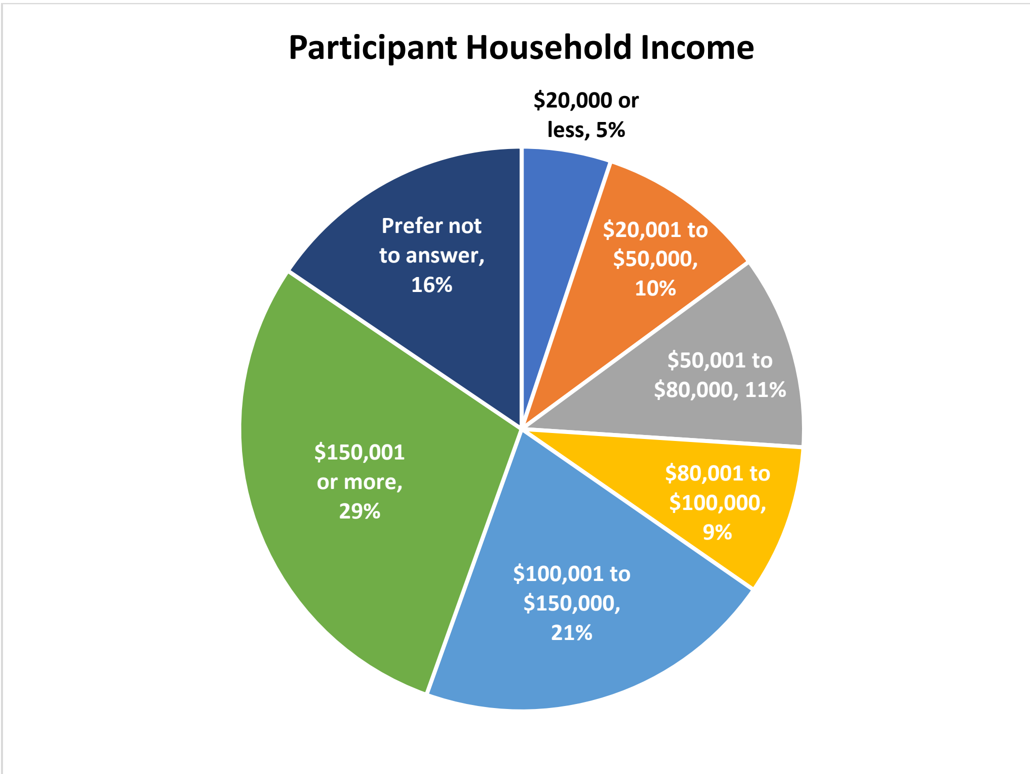
Race	Total Count	Percent of Responses
Asian	180	16%
Black or African American	72	7%
Native American or Alaska Native	5	<1%
Native Hawaiian or Pacific Islander	7	<1%
White	672	60%
Other	58	5%
Prefer not to answer	120	11%
TOTAL	**1,114**	**100.0%**

[7] *These results represent only TSP survey respondents. The on-board survey is the primary survey source for demographic characteristics and travel patterns of Fairfax Connector riders.*

Participants by Household Income

Out of the total 1,114 survey participants, there were 941 respondents who provided their household income, as summarized in **Figure 8** and **Table 8**.[8]

FIGURE 8: HOUSEHOLD INCOME OF SURVEY RESPONDENTS



[8] *These results represent only TSP survey respondents. The on-board survey is the primary survey source for demographic characteristics and travel patterns of Fairfax Connector riders.*

TABLE 8: HOUSEHOLD INCOME OF SURVEY RESPONDENTS

Household Income	Total Count	Percent of Responses
$10,000 or less	31	3%
$10,001 to $20,000	26	2%
$20,001 to $30,000	30	3%
$30,001 to $40,000	43	4%
$40,001 to $50,000	36	3%
$50,001 to $60,000	47	4%
$60,001 to $70,000	31	3%
$70,001 to $80,000	46	4%
$80,001 to $100,000	96	9%
$100,001 to $125,000	115	10%
$125,001 to $150,000	117	11%
More than $150,000	323	29%
Prefer not to answer	173	16%
TOTAL	**1,114**	**100%**

3. Survey Responses

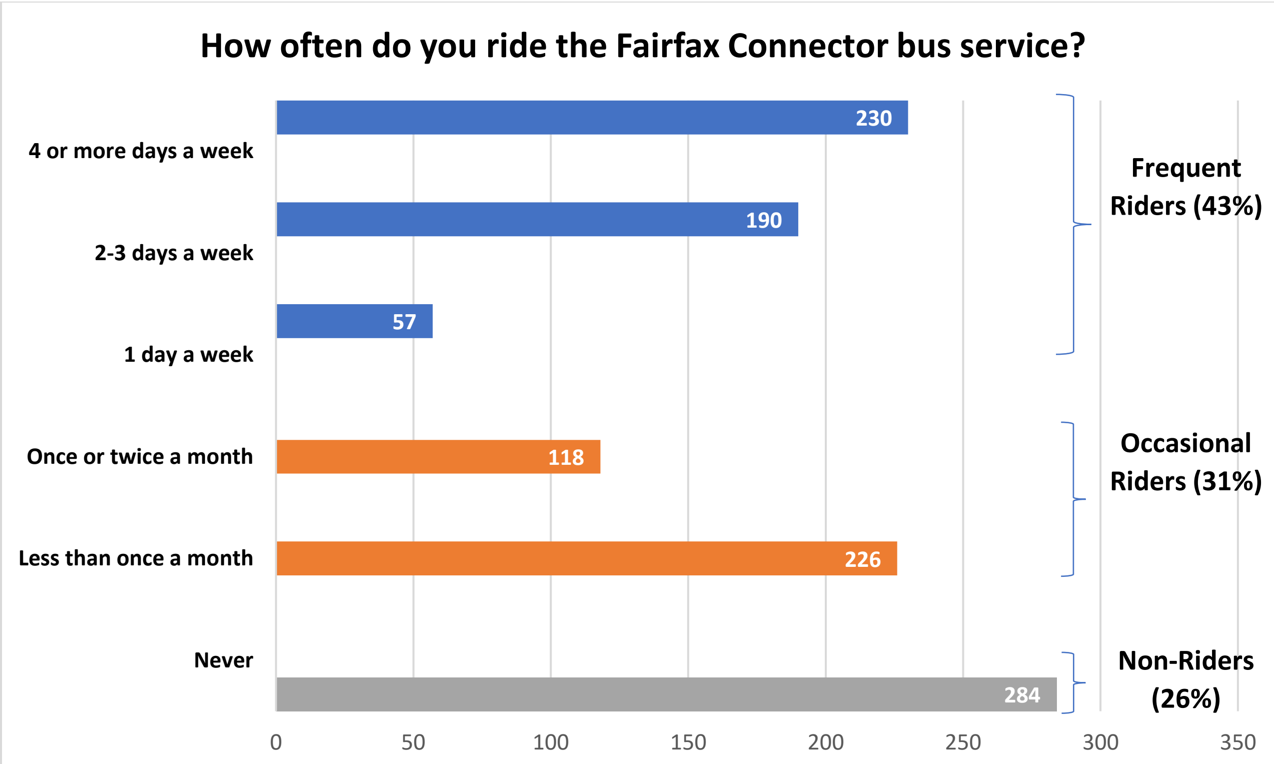
The following section details the responses received to each question of the survey. Conclusions may be drawn from this data by comparing frequent, occasional, and non-rider responses. This approach to segmenting responses was used over alternative approaches such as segmenting by household income or race because of the optional nature of the demographic questions. Where applicable, survey responses are compared against findings from the TSP Winter 2021 Survey, 2018-2019 Countywide Survey (market survey), and 2019 Fairfax Connector Origin Destination Survey (on-board survey).

Current Travel Patterns

Current Travel Frequency

For this analysis, frequent riders were defined as those who rode the bus at least one day a week. Occasional riders were defined as people who rode once or twice a month or less than once a month. Out of the 1,114 responses, there were about 477 frequent riders, 344 occasional riders, 284 non-riders, and 9 did not identify (see **Figure 9**).

FIGURE 9: CURRENT TRAVEL FREQUENCY



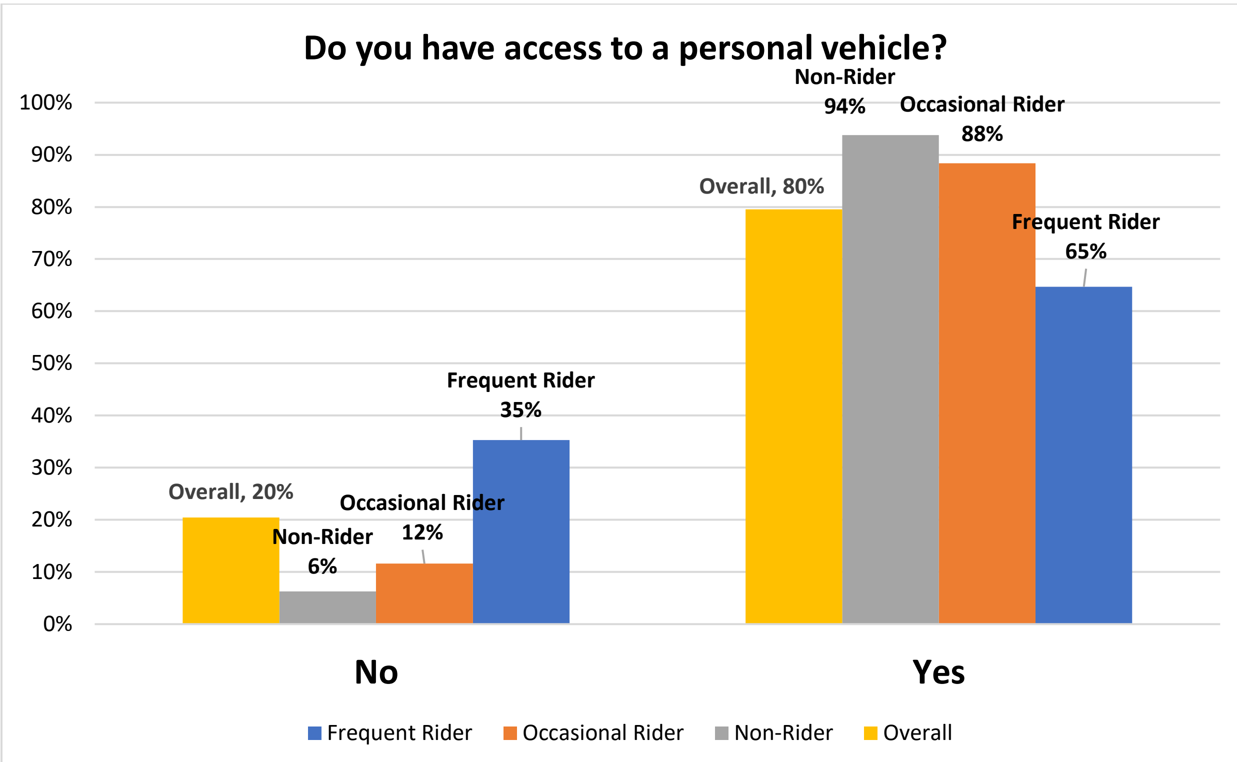
Comparison to TSP Winter 2021, Previous Market, and On-Board Surveys

- The TSP Winter 2021 survey had a total of 2,901 respondents
  - The TSP Winter 2021 survey found that before COVID-19 (March 2020), 34 percent (987) of respondents had never ridden a Fairfax Connector, 32 percent (923) were occasional riders that rode the Fairfax Connector once or twice a month or less, and 34 percent (991) were frequent riders who rode the Fairfax Connector at least once a week.
- The market survey had a total of 2,624 respondents
  - The market survey found that 66 percent (approximately 1,732 riders) of Fairfax County residents had never ridden a Fairfax Connector, 27 percent (approximately 708 riders) were occasional riders that have ridden a Fairfax Connector, but not in the last 30 days, and 7 percent (approximately 184 riders) were frequent riders who have ridden a Fairfax Connector bus in the past 30 days. Most market survey respondents were residents who never rode Fairfax Connector.
- The on-board survey had a total of 3,672 respondents
  - The on-board survey was conducted on bus trips making all respondents occasional or frequent riders.

Access to Personal Vehicle

About 80 percent of respondents had access to a personal vehicle. About 35 percent of the frequent riders did not have access to a personal vehicle (see **Figure 10**).[9]

FIGURE 10: ACCESS TO PERSONAL VEHICLE



Comparison to TSP Winter 2021, Previous Market, and On-Board Survey

- The TSP Winter 2021 survey found that about 86 percent of respondents had access to a personal vehicle. About 30 percent of the frequent riders did not have access to a personal vehicle
- The market survey found that 90 percent of Fairfax County residents consider their car to be their primary mode of transportation
  - 6 percent of respondents consider public transportation their primary mode of transportation
  - Out of current riders, the market survey found that 39 percent of riders consider the public transportation their primary mode of transportation, with 13 percent noting the Fairfax Connector as their primary mode
- The on-board survey found that 52 percent of trips are made by riders who have at least one car
  - Only 39 percent of riders had a car available for them to use, meaning many households that have one car are still dependent on public transit as their primary mode of transportation

[9] *These results represent only TSP survey respondents. The on-board survey is the primary survey source for demographic characteristics and travel patterns of Fairfax Connector riders.*

Overall Impression of Fairfax Connector Service

On a scale of 1 (poor) to 5 (excellent), most frequent riders (about 24 percent) rated the Fairfax Connector a 3 based on their overall impression of the Fairfax Connector service in the area they travel the most. About 22 percent of respondents rated it a 5, and about 15 percent said the Fairfax Connector does not run where they travel most. The responses are shown in **Figure 11** and **Table 9**.

FIGURE 11: SERVICE RATING IN AREA TRAVELED MOST (FREQUENT RIDERS)

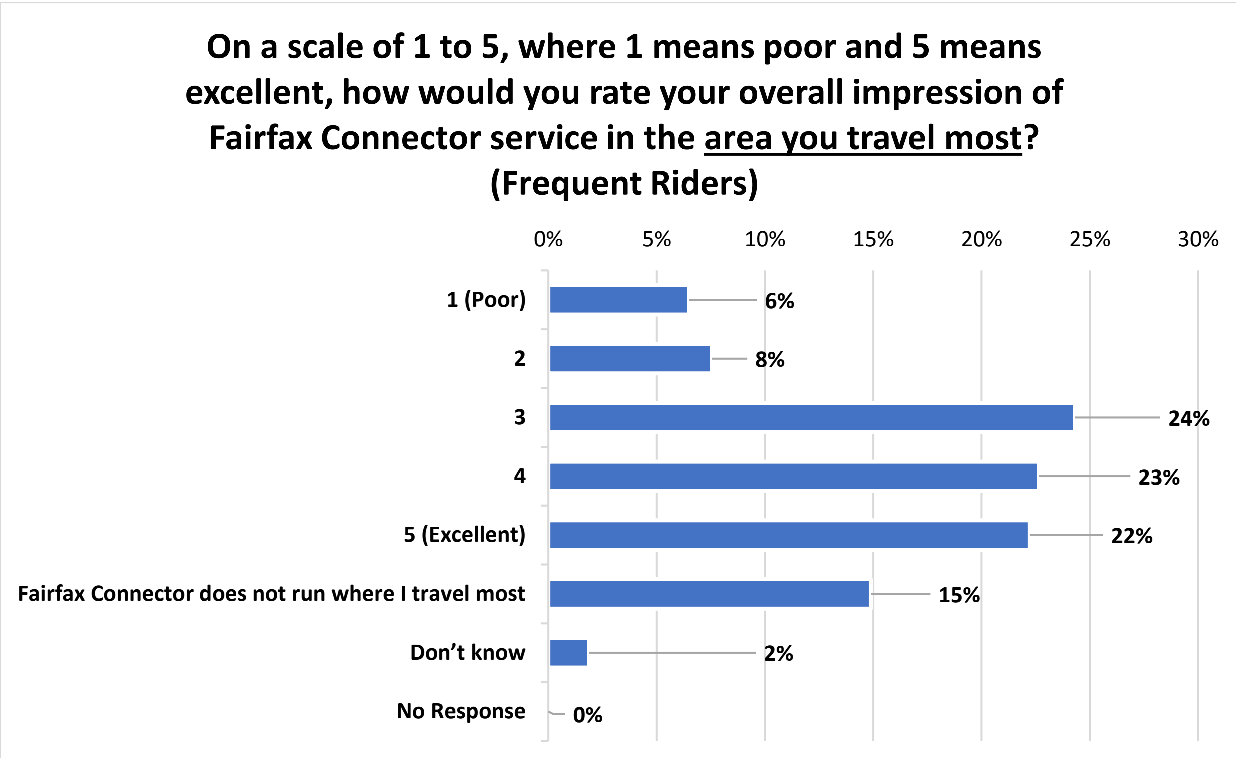


TABLE 9: SERVICE RATING IN AREA TRAVELED MOST (FREQUENT RIDERS)

Rating	Total Count	Percent of Responses
1 (Poor)	31	6%
2	36	8%
3	116	24%
4	108	23%
5 (Excellent)	106	22%
Fairfax Connector does not run where I travel most	71	15%
Don't know	9	2%
No Response	0	0%
TOTAL	**477**	**100%**

On a scale of 1 (poor) to 5 (excellent), most frequent riders, about 33 percent, rated the Fairfax Connector a 4 based on their overall impression of the Fairfax Connector service in the area they live. About 22 percent of respondents rated it a 5, and about 4 percent said the Fairfax Connector does not run where they live. The responses are shown in **Figure 12** and **Table 10**.

FIGURE 12: SERVICE RATING IN HOME AREA (FREQUENT RIDERS)

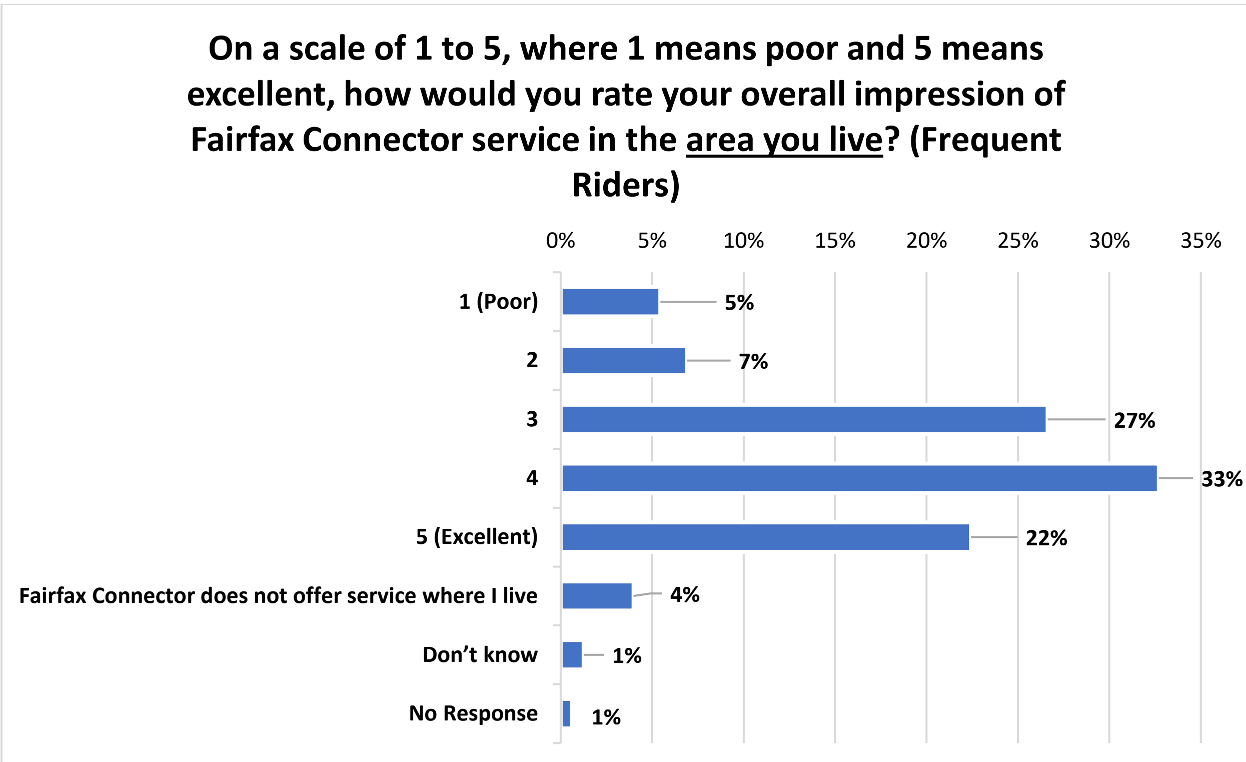


TABLE 10: SERVICE RATING IN HOME AREA (FREQUENT RIDERS)

Rating	Total Count	Percent of Responses
1 (Poor)	26	5%
2	33	7%
3	127	27%
4	156	33%
5 (Excellent)	107	22%
Fairfax Connector does not offer service where I live	19	4%
Don't know	6	1%
No Response	3	1%
TOTAL	**477**	**100%**

Comparison to TSP Winter 2021, Previous Market, and On-Board Surveys

- The TSP Winter 2021 survey found that about 75 percent of the frequent rider respondents identified as being satisfied or very satisfied with the Fairfax Connector service. Only about 9 percent were dissatisfied.
- The market survey found that current riders are generally satisfied with Fairfax Connector with majority of performance measures falling into a "strengths" category. The market survey asked respondents to rate their general perception of Fairfax Connector on a 0 to 10 scale. The result was 65 percent of current riders rating the Fairfax Connector favorably, rating the service in the 8 to 10 range. Only 2 percent of current riders rated the system in the 0 to 3 range.

Service Improvements

Using recent transit studies and feedback received in previous public outreach, FCDOT identified improvements and new bus routes that could be implemented in the future. Survey respondents were asked to choose up to two types of Fairfax Connector service improvements that are most important to them. Respondents could provide this feedback on each proposed route in different areas of the county:

- Reston and Herndon Area Routes
- Centreville, Chantilly, Vienna, and Tysons Area Routes
- Franconia, Springfield, and Huntington Area Routes

A general, not-route-specific option was also available for each area if respondents did not want to comment on a specific route.

Table 11 shows the number of responses received for each improvement type and rider type. FCDOT can use this information to prioritize when certain types of improvements are implemented for specific routes in the future. Overall, the most important types of improvements were more frequent buses on weekdays during rush hour, adjusting routes to connect to different places, and more frequent buses on weekdays during non-rush hour. The following sections provide charts of existing, new, and general route feedback by route and rider type.

Table 11: Improvement Priorities

KEY: 7 Lowest Priority → Highest Priority 1

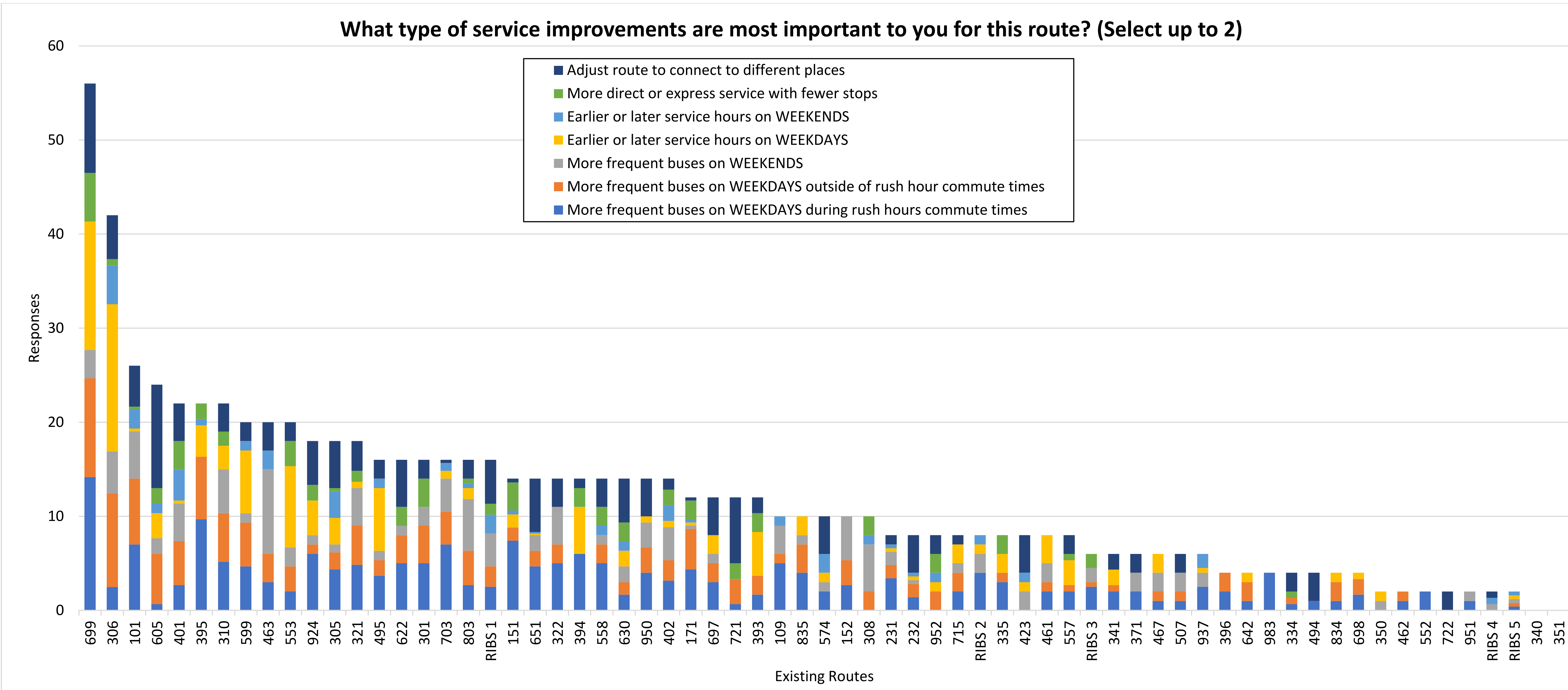
Improvement Type	Overall		Frequent Riders		Occasional Riders		Non-Riders	
More frequent buses on WEEKDAYS during rush hours commute times	1	560	1	291	2	158	2	93
More frequent buses on WEEKDAYS outside of rush hour commute times	3	454	3	228	3	144	3	70
More frequent buses on WEEKENDS	4	416	4	180	1	159	4	69
Earlier or later service hours on WEEKDAYS	5	289	5	166	6	86	6	36
Earlier or later service hours on WEEKENDS	7	178	7	79	7	77	7	18
More direct or express service with fewer stops	6	263	6	109	5	91	5	58
Adjust route to connect to different places	2	491	2	241	4	132	1	110

Frequent Rider Feedback

PRIORITIES FOR EXISTING ROUTES

Route 699 received the most responses from frequent riders, with routes 306, 101, 605, and 401 following behind. The most important types of improvements to existing routes for frequent riders were: (1) More frequent buses on WEEKDAYS during rush hours commute times, (2) More frequent buses on WEEKDAYS outside of rush hour commute times, and (3) Adjust route to connect to different places. **Figure 13** shows how responses varied route by route.

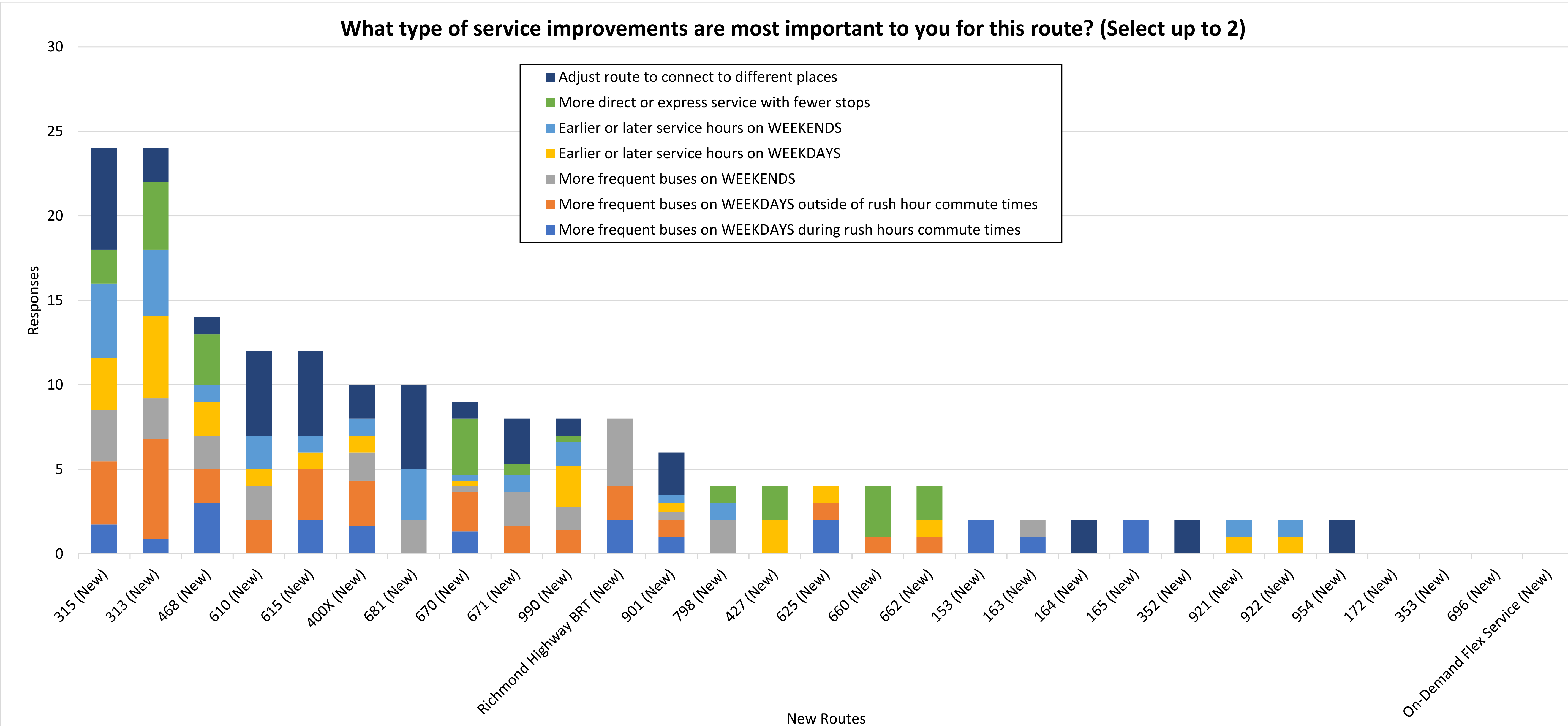
FIGURE 13: IMPROVEMENT PRIORITIES FOR EXISTING ROUTES (FREQUENT RIDERS)



PRIORITIES FOR NEW ROUTES

Route 315 received the most responses from frequent riders, with routes 313, 468, 610, and 615 following behind. The most important types of improvements to existing routes for frequent riders were: (1) Adjust route to connect to different places, (2) More frequent buses on WEEKDAYS outside of rush hour commute times, and (3) More frequent buses on WEEKENDS. **Figure 14** shows how responses varied route by route.

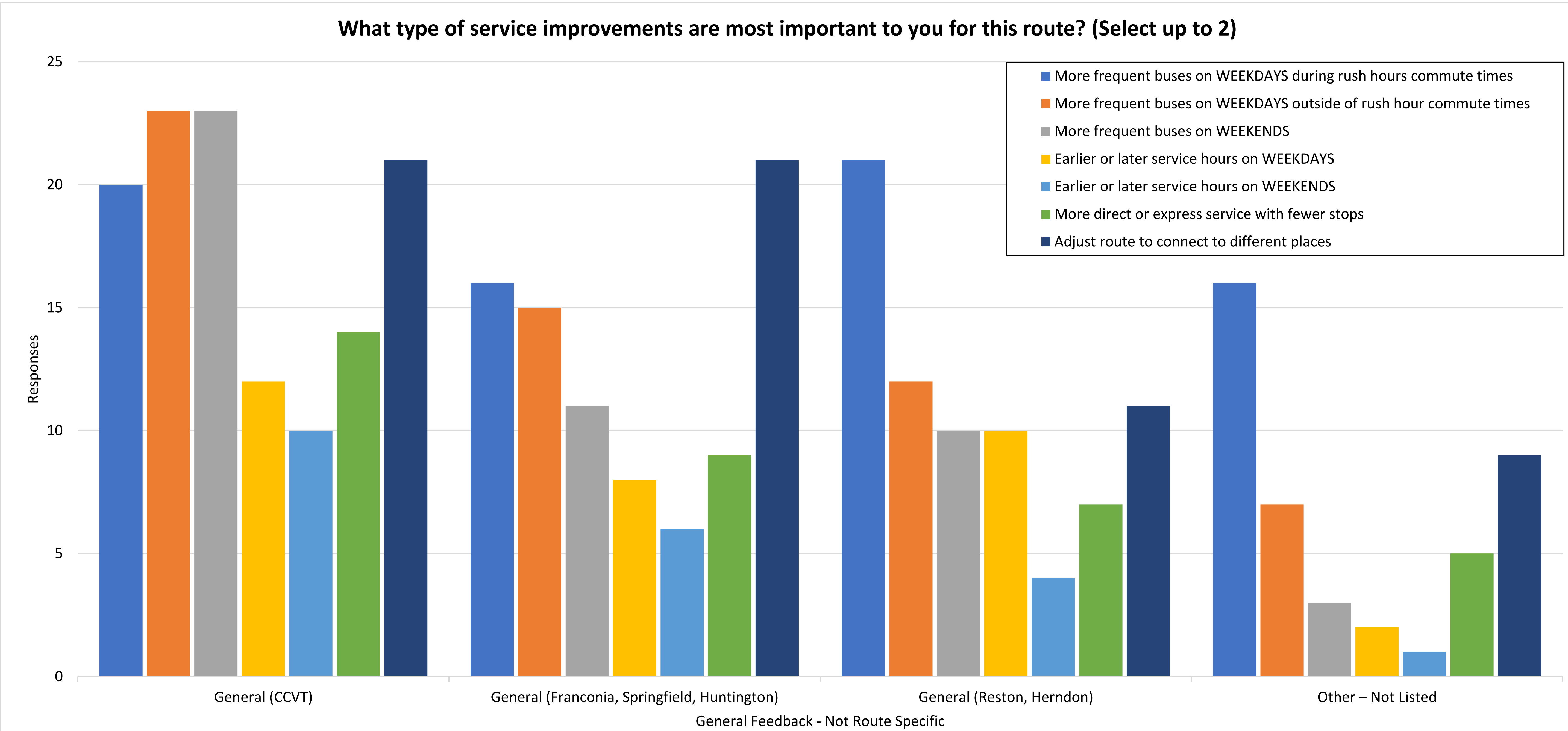
FIGURE 14: IMPROVEMENT PRIORITIES FOR NEW ROUTES (FREQUENT RIDERS)



GENERAL/NOT ROUTE SPECIFIC FEEDBACK

Respondents could also provide general feedback not specific to a particular route and provide feedback on routes not explicitly listed in the survey. **Figure 15** shows this feedback from frequent riders.

FIGURE 15: IMPROVEMENT PRIORITIES FOR GENERAL AREAS (FREQUENT RIDERS)



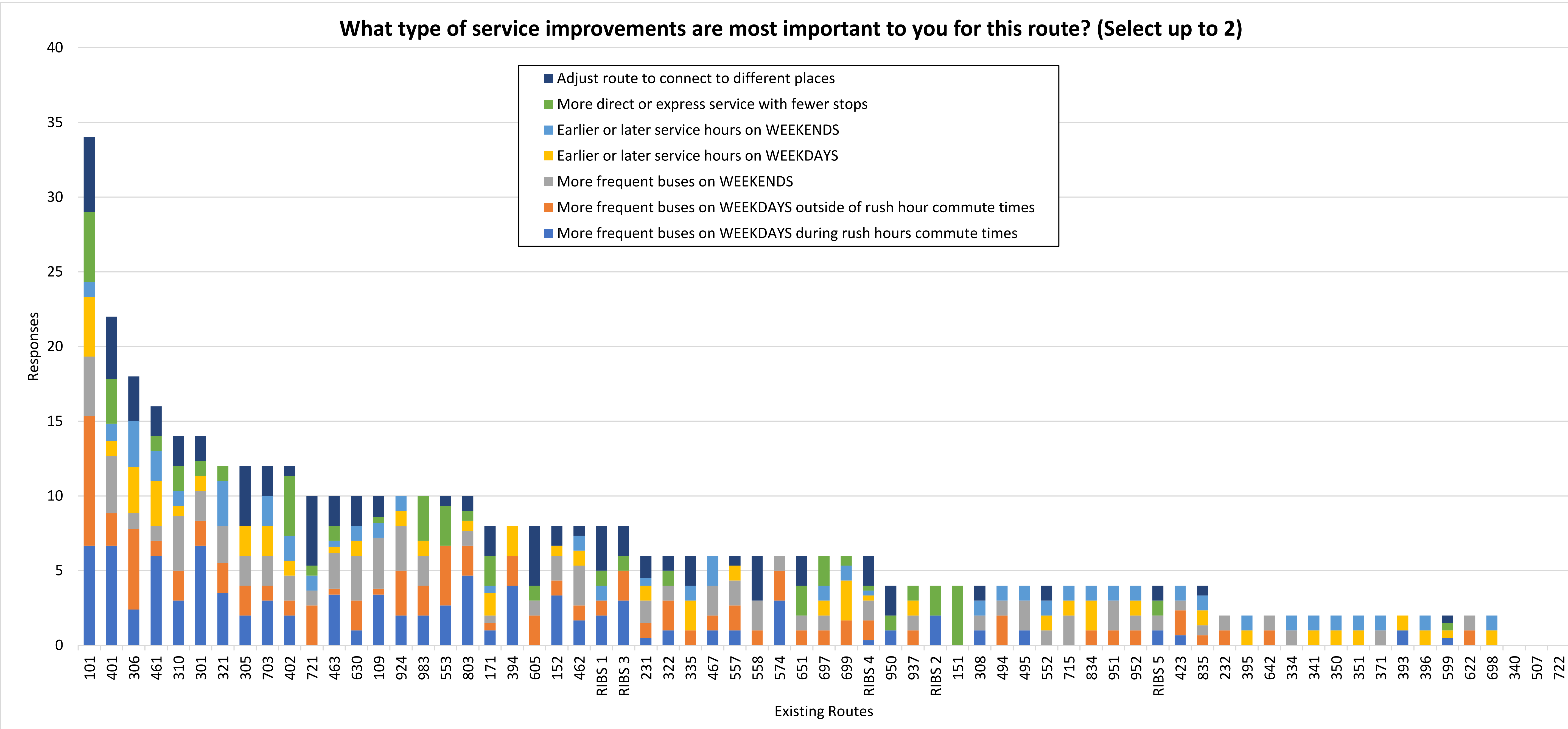
CCVT = Centreville, Chantilly, Vienna, and Tysons area

Occasional Riders Feedback

PRIORITIES FOR EXISTING ROUTES

Route 101 received the most responses from occasional riders, with routes 401, 306, 461, and 310 following behind. The most important types of improvements to existing routes for occasional riders were: (1) More frequent buses on WEEKDAYS during rush hours commute times, (2) More frequent buses on WEEKDAYS outside of rush hour commute times, and (3) More frequent buses on WEEKENDS. **Figure 16** shows how responses varied route by route.

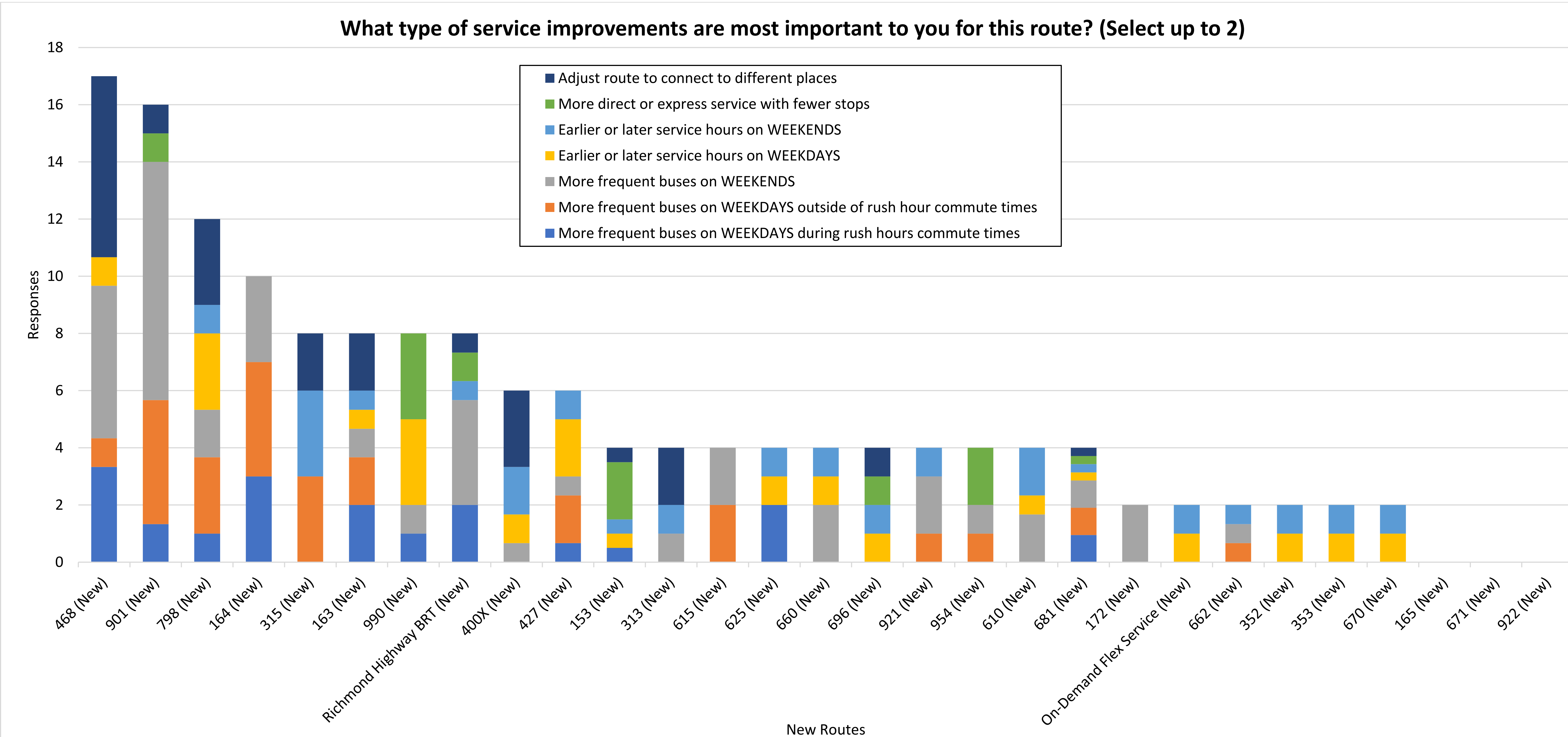
FIGURE 16: IMPROVEMENT PRIORITIES FOR EXISTING ROUTES (OCCASIONAL RIDERS)



PRIORITIES FOR NEW ROUTES

Route 468 received the most responses from occasional riders, with routes 901, 798, 164, and 315 following behind). The most important types of improvements to existing routes for occasional riders were: (1) More frequent buses on WEEKENDS, (2) More frequent buses on WEEKDAYS outside of rush hour commute times, and (3) Adjust route to connect to different places. **Figure 17** shows how responses varied route by route.

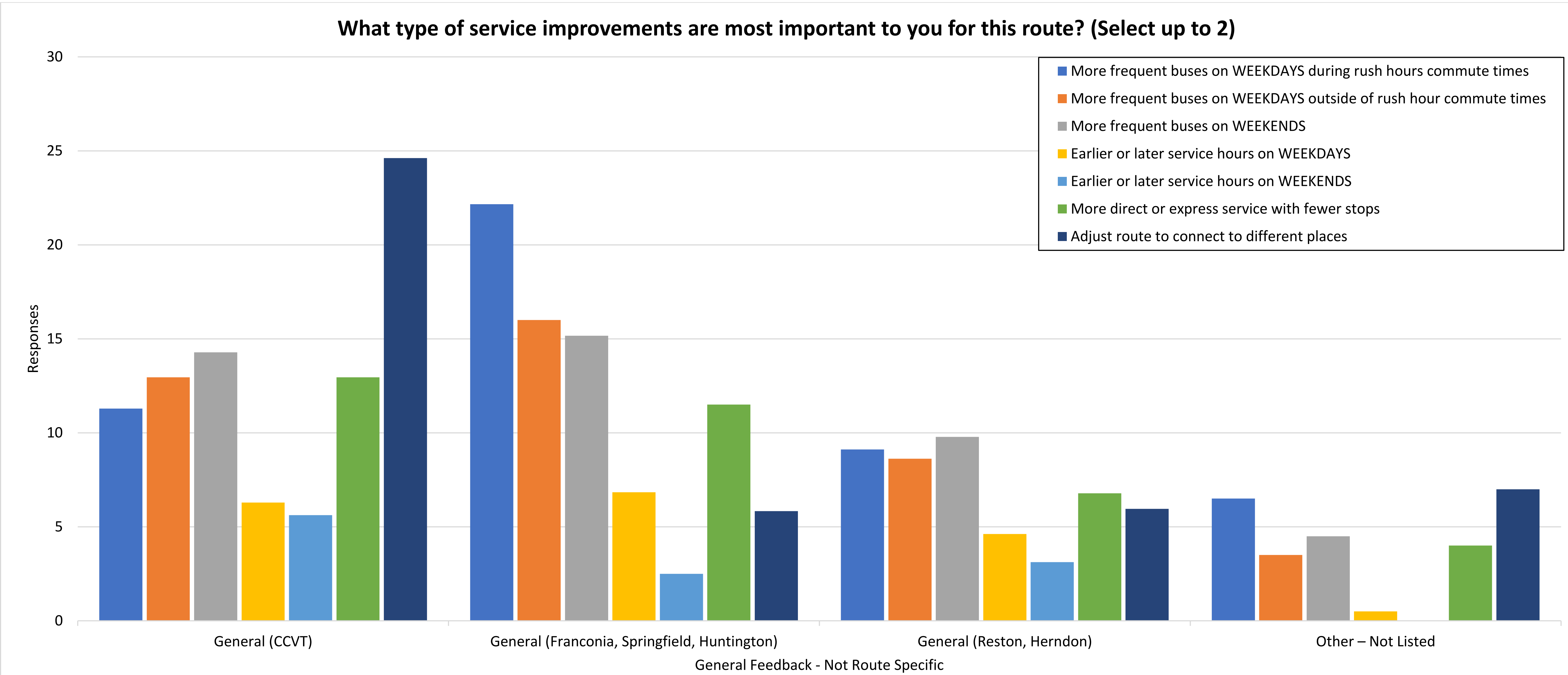
Figure 17: Improvement Priorities for New Routes (Occasional Riders)



GENERAL/NOT ROUTE SPECIFIC FEEDBACK

Respondents could also provide general feedback not specific to a particular route and provide feedback on routes not explicitly listed in the survey. **Figure 18** shows this feedback from occasional riders.

FIGURE 18: IMPROVEMENT PRIORITIES FOR GENERAL AREAS (OCCASIONAL RIDERS)



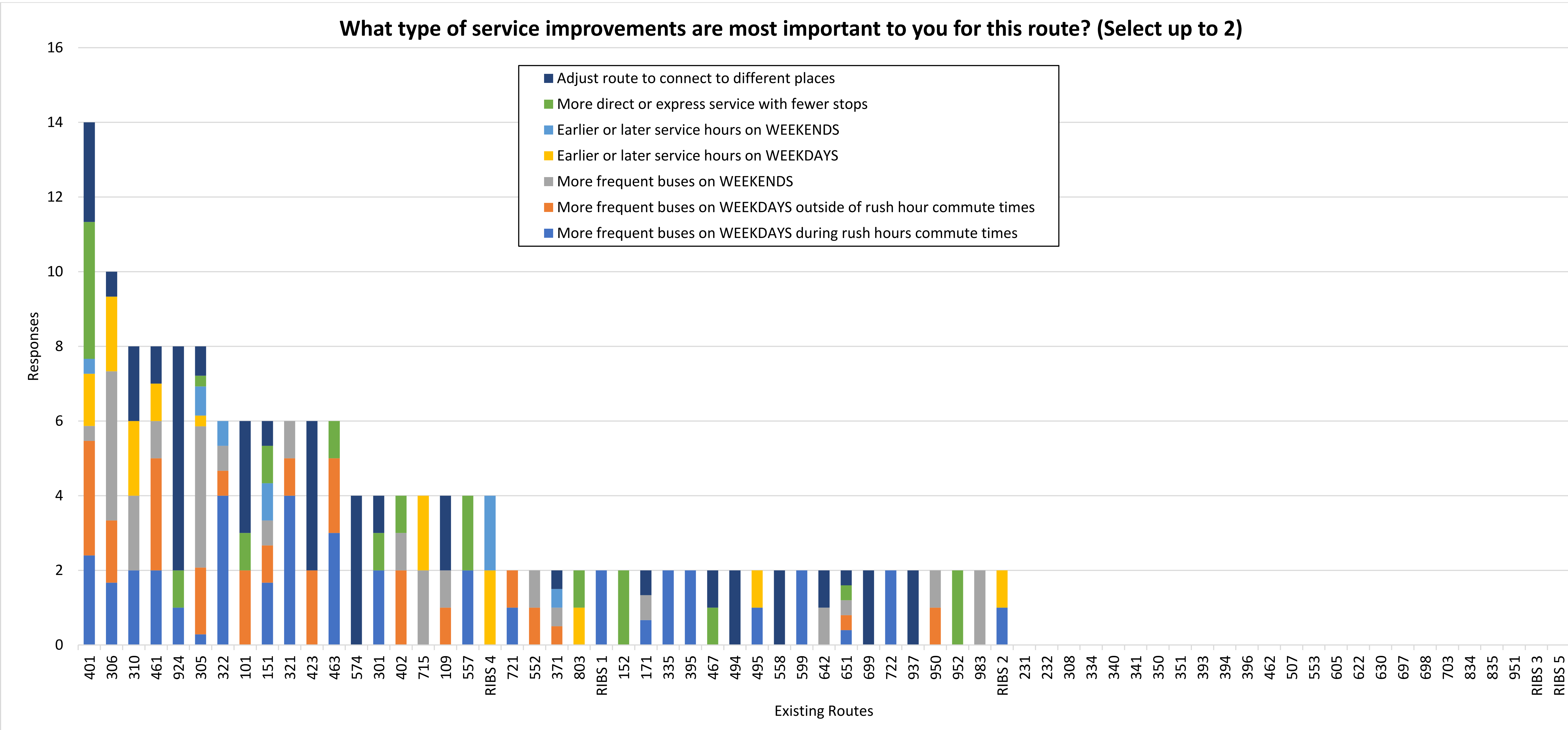
CCVT = Centreville, Chantilly, Vienna, and Tysons area

Non-Rider Feedback

PRIORITIES FOR EXISTING ROUTES

Route 401 received the most responses from non-riders, with routes 306, 310, 461, and 924 following behind. The most important types of improvements to existing routes for non-riders were: (1) More frequent buses on WEEKDAYS during rush hours commute times, (2) Adjust route to connect to different places, and (3) More frequent buses on WEEKDAYS outside of rush hour commute times. **Figure 19** shows how responses varied route by route.

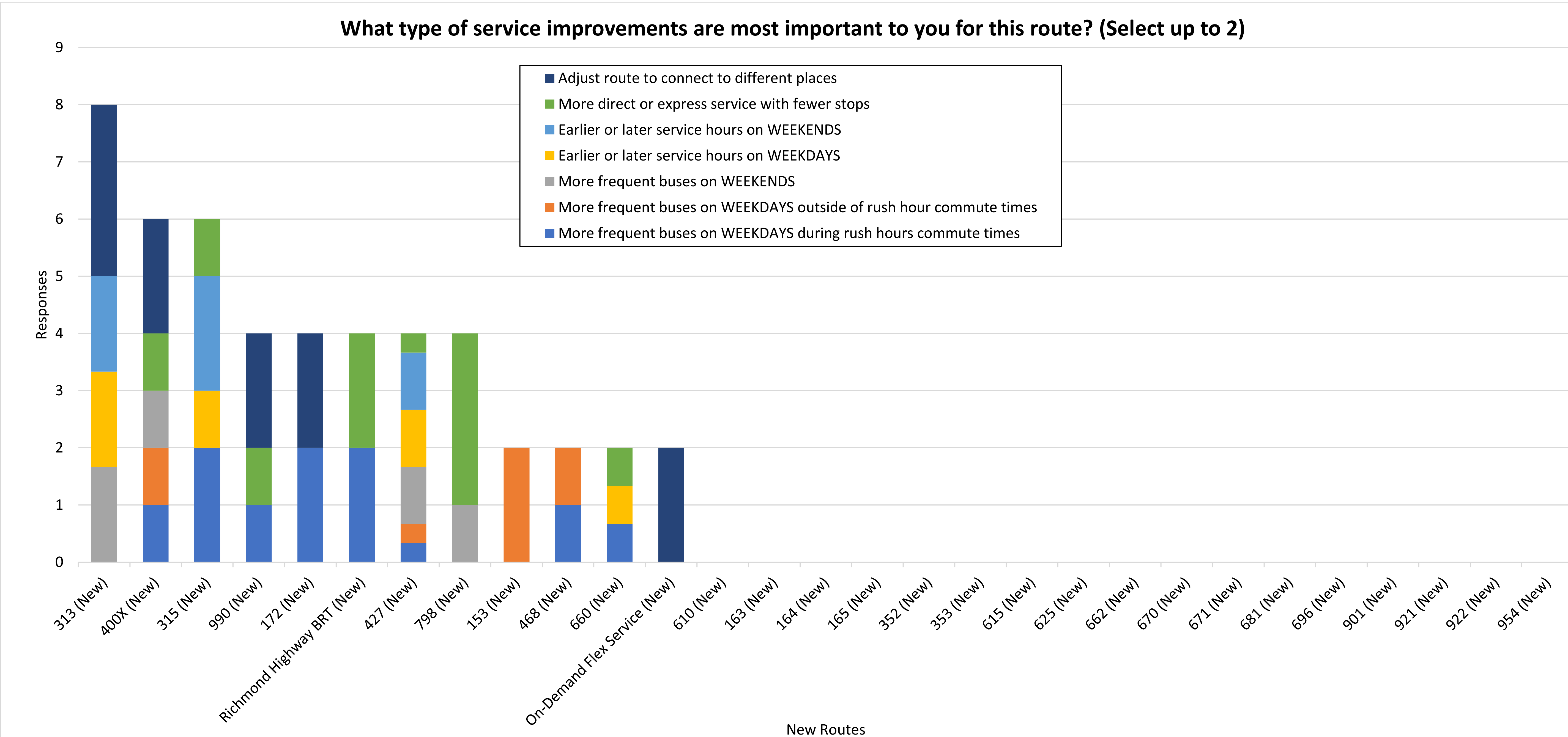
FIGURE 19: IMPROVEMENT PRIORITIES FOR EXISTING ROUTES (NON-RIDERS)



PRIORITIES FOR NEW ROUTES

Route 313 received the most responses from non-riders, with routes 400X, 315, 990, and 172 following behind. The most important types of improvements to existing routes for non-riders were: (1) Adjust route to connect to different places, (2) More frequent buses on WEEKDAYS during rush hours commute times , and (3) More direct or express service with fewer stops. **Figure 20** shows how responses varied route by route.

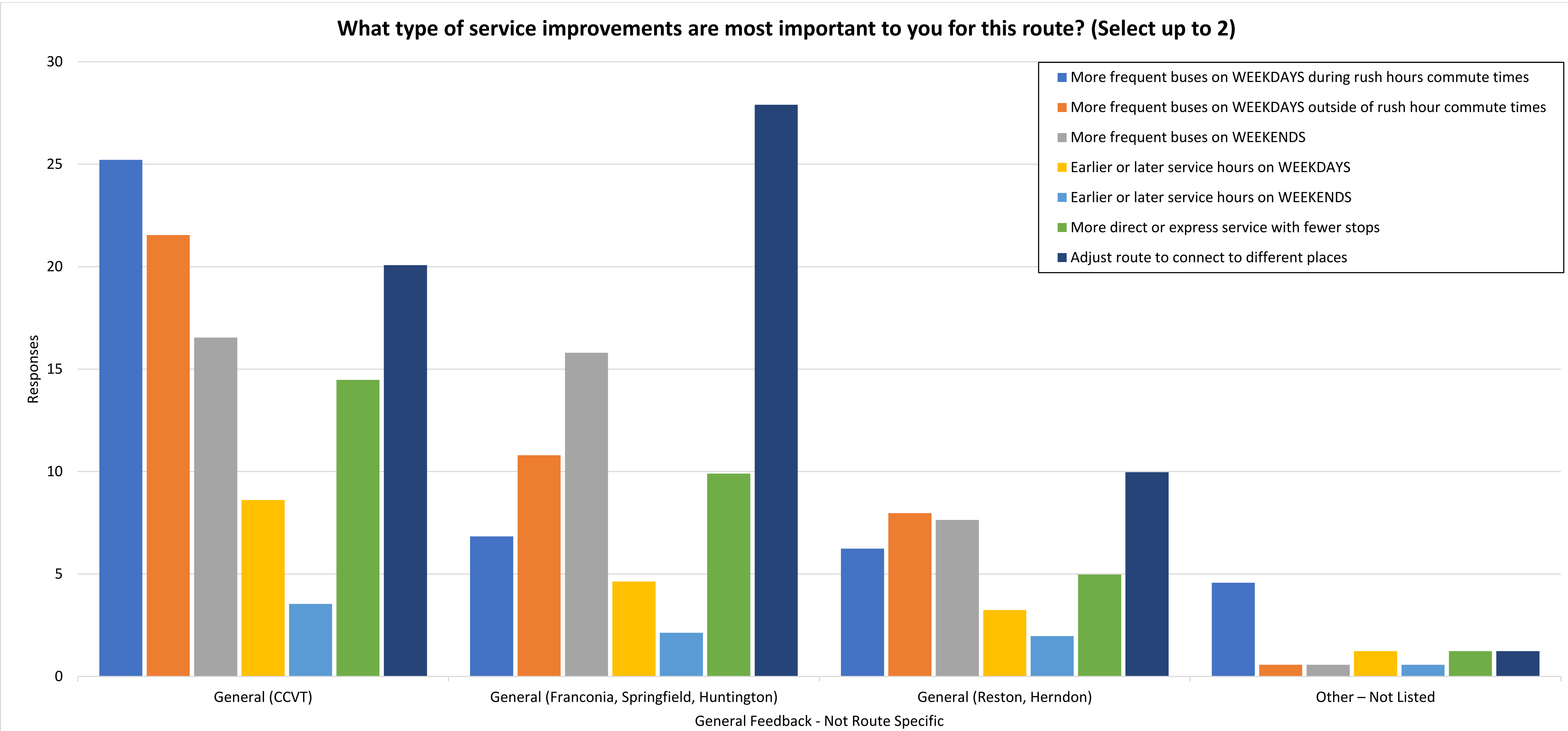
FIGURE 20: IMPROVEMENT PRIORITIES FOR NEW ROUTES (NON-RIDERS



GENERAL/NOT ROUTE SPECIFIC FEEDBACK

Respondents could also provide general feedback not specific to a particular route and provide feedback on routes not explicitly listed in the survey. **Figure 21** shows this feedback from non-riders.

FIGURE 21: IMPROVEMENT PRIORITIES FOR GENERAL AREAS (NON-RIDERS)



CCVT = Centreville, Chantilly, Vienna, and Tysons area

Other Types of Improvements

Respondents had the option to provide additional feedback on other types of service improvements. For this question, they were given eight options and they could select up to three answers. There were 945 responses from frequent riders. The top response among frequent riders was better schedule and bus arrival time information. Responses from occasional and non-riders generally followed a similar priority for the most important types of improvement. The responses are shown in **Figure 22** and **Table 12**.

FIGURE 22: OTHER TYPES OF IMPROVEMENTS (FREQUENT RIDERS)

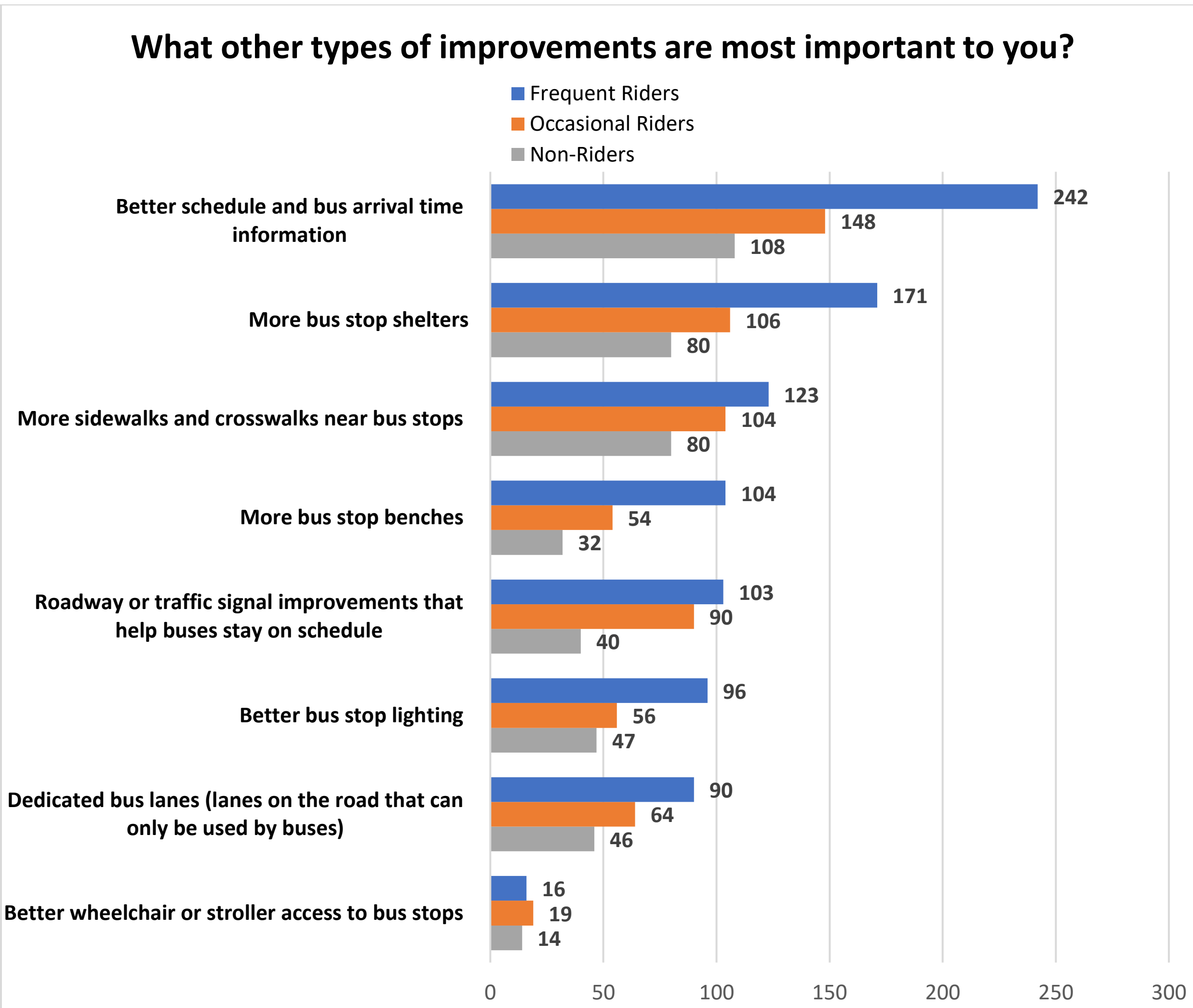


TABLE 12: OTHER TYPES OF IMPROVEMENTS

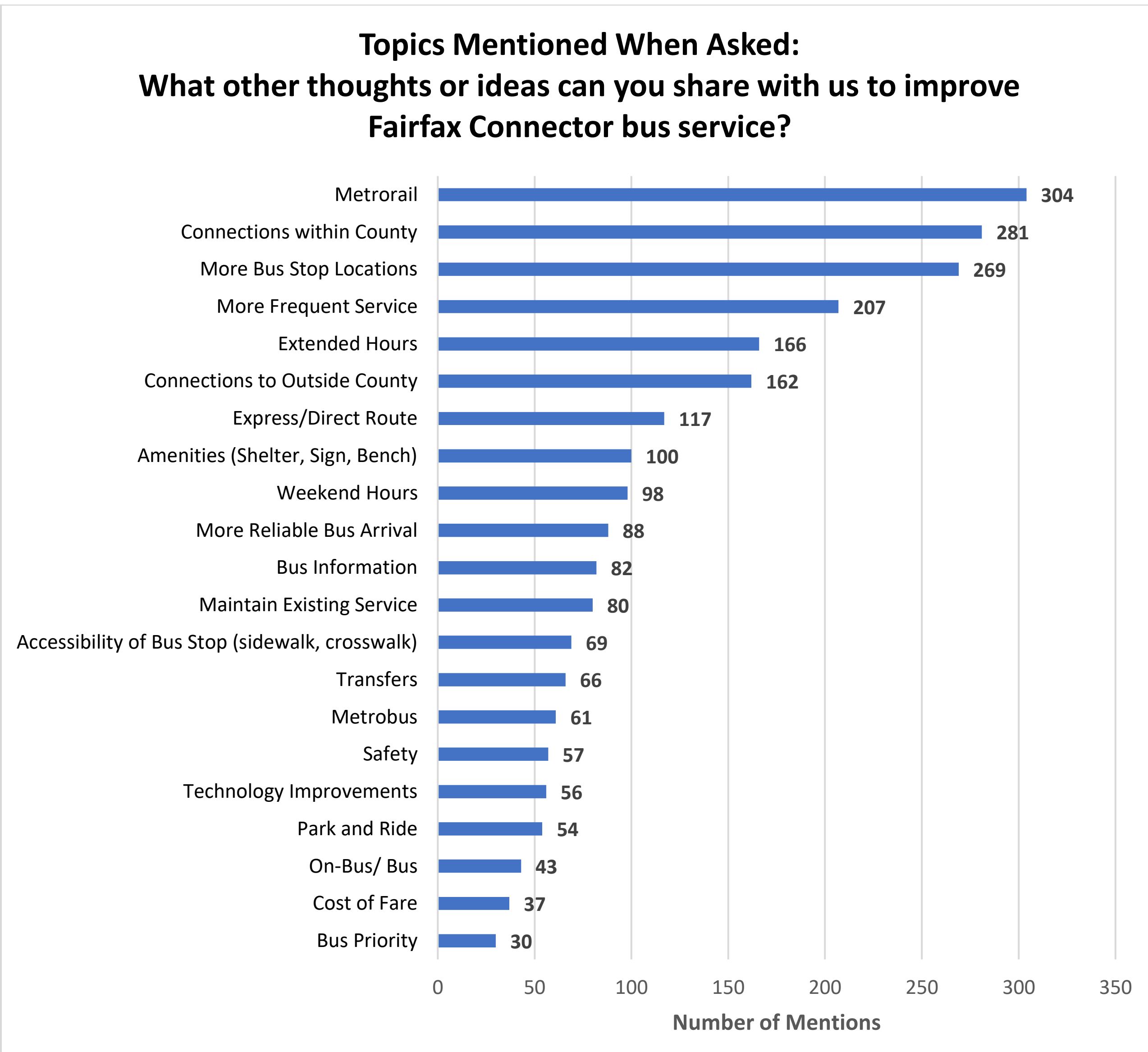
Types of Improvements	Total Count / Percent of Responses					
	Frequent Riders		Occasional Riders		Non-Riders	
Better schedule and bus arrival time information	242	26%	148	23%	108	24%
More bus stop shelters	171	18%	106	17%	80	18%
More sidewalks and crosswalks near bus stops	123	13%	104	16%	80	18%
More bus stop benches	104	11%	54	8%	32	7%
Roadway or traffic signal improvements that help buses stay on schedule	103	11%	90	14%	40	9%
Better bus stop lighting	96	10%	56	9%	47	11%
Dedicated bus lanes (lanes on the road that can only be used by buses)	90	10%	64	10%	46	10%
Better wheelchair or stroller access to bus stops	16	1%	19	3%	14	3%
TOTAL	**945**	**100%**	**641**	**100%**	**447**	**100%**

Open-Ended Comments

Free Response

Respondents had the option to provide additional feedback and thoughts on the Fairfax Connector service. There were 1,287 free-response comments provided. There were 12 comments provided by mail, 18 by email, 1 by phone, and the rest via online survey. These responses were categorized into several common themes and topics, as shown in **Figure 23**. The most common topic was references to Metrorail connections, followed by connections to locations within Fairfax County, more bus stop locations, and more frequent service.

FIGURE 23: OPEN-ENDED COMMENT TOPICS



Samples of free-response comments within each theme are provided below. These are direct quotes from the survey responses (some grammatical edits have been made). A full database off all comments has been provided to FCDOT to accompany this summary document.

METRORAIL

- "If buses could try to consider the arrival of trains when they stop at Metro stations, that would be great. For instance, if a train is arriving in the next four to five minutes, maybe the bus(es) could wait to allow people to potentially transfer."
- "Wherever possible, consider the associated Metro train or long-distance commuter bus schedules so "neighborhood" riders would arrive at transit nodes with a decent chance of transferring to another mode without a long wait."
- "Synchronize times and destinations of buses in shared routes and with Metro trains. I have to endure lengthy wait times at the Franconia-Springfield Metro Station arriving from Washington exactly when two buses (341 and 494) depart to my destination (Saratoga Park and Ride)"

CONNECTIONS WITHIN COUNTY

- "I wish Route 494 exited at Route 7 off the Beltway. It's a minimum ONE MILE walk from Galleria Boulevard to the office parks on Route 7. Crossing six lanes of Galleria Boulevard traffic is no joke. Exiting at Route 7 would open an entire office park sector that is completely UNSERVED."
- "Restoring the bus route along Sleepy Hollow Road (Route 613) and adding Tysons and East Falls Church Metro to that route would be greatly appreciated and used."
- "Fairfax Connector needs to supplement Metrobus in the Bailey's Crossroads area to make it easier to get to destinations in the north/south directions. There is no good way to get from Bailey's Crossroads to Kingstowne, Springfield, or destinations along Arlington Boulevard without long waits and/or having to make 2 or 3 transfers."

MORE BUS STOP LOCATIONS

- "The County keeps promoting 'multimodal transportation' but does nothing to extend bus service into areas that are car-dependent. For example, why isn't there a bus that runs from downtown McLean along Route 123 through Tysons? There's no parking at the McLean Metro station and having a reliable bus might encourage some drivers not to park all day where they shouldn't!"
- "My grandson attends Northern Virginia Community College on Little River Turnpike. We live on the intersection of Maple Street and Main Street. The nearest bus stop is University Drive and Main Street. It would be beneficial to the students living in our area to have a bus route that goes the entire length of Main Street."
- "There is no public transportation from the over-50-years-old HiddenBrooke Condo Community on Hunter Village Drive in Springfield. Some residents don't drive anymore. Would it be possible to have a small bus that could go down our street, Hunter Village Drive, throughout the day to the Springfield Metro and Springfield Plaza?"

MORE FREQUENT SERVICE

- "Shorter times between buses. This is the main reason I do not ride the bus. It is a 45-minute wait time between buses on the routes I would take."

- "The Fairfax Connector bus service could help the community by having more accurate bus arrival time and more frequent buses. I used to live in a busy part of Maryland where buses ran every 5-15 minutes and now in Fairfax County, sometimes I'd have to wait 30 minutes to catch the next bus."
- "The buses need to be more on time than they are so that connections are not missed. The buses can sometimes be over five minutes late, which makes me miss my connection. Also, it would be great if the buses ran more frequently during rush hour like the Metro does to accommodate similar service frequencies."

EXTENDED HOURS

- "Commuter service should begin at 6:00 AM, not 7:00 AM. I start work in DC at 7:30 AM and would not arrive on the new schedule until 8:30 AM. That doesn't work for me. I prefer the bus to driving but won't be able to ride. (Apologies to the bus drivers who get the early routes.)"
- "Frequency will increase ridership. As someone who uses Connector exclusively on weekends, better frequency important for me. It's pretty painful taking the 50-minute 630 bus and the inflexibility it provides on when I can start my journey, and when I can head home. There's also a startling lack of Sunday service on some newer routes, which is concerning because Sunday is just as busy of a day as Saturday, and there should be no reason there's no Sunday service on these routes."
- "Connector should provide more limited and express cross-county service 7-days a week. I love living in Springfield but I want to be able to travel to Chantilly and Herndon for work, play, and so on without it taking literal hours to travel."

CONNECTIONS TO OUTSIDE COUNTY

- I live in the Vienna area, and it would greatly help to have options to connect with Manassas, Leesburg, and the two major airports in Northern Virginia—Dulles and Reagan.
- "Fairfax Connector needs to supplement Metrobus in the Bailey's Crossroads area to make it easier to get to destinations in the north/south directions. There is no good way to get from Bailey's Crossroads to Kingstowne, Springfield, or destinations along Arlington Boulevard without long waits and/or having to make 2 or 3 transfers."
- "We need more Connector routes available to and from DC, areas of MD that do not have Connector service from Virginia, and the Fairfax area, as well as Connector routes in the future from the Fairfax area to Alexandria or the southern MD area."

EXPRESS/DIRECT ROUTE

- "We need a direct route from Fair Lakes to the Dulles Airport and back to Fair Lakes. Transport to Wiehle Avenue is NOT direct and takes very long time."
- "We need direct express bus to downtown from Herndon/Reston. The Metro will not be efficient due to the numerous stops. There used to be a bus to L'Enfant Plaza. I am disappointed Metro has not considered express routes. The lack of parking at Metro stations and length of trip (in time) has me continuing to drive downtown."
- "I think you have a great service. The only comment I would like to make is there used to be a direct bus connection (commuter bus) between Fort Hunt/Waynewood area and Washington DC downtown. It would be great if that would be re-considered."

AMENITIES (SHELTER, SIGN, BENCH)

- "Route numbers need to be placed on bus stop signs. The stop announcements on a bus, when working, do not match the actual stops on the route."
- "We definitely need more bus shelters and sidewalks, or at least a concrete pad for people to stand on. There's nothing worse than having to wait for a bus in the pouring rain with no shelter and sometimes standing in mud because there's not even a concrete pad to stand on. At least don't make us stand in mud."
- "There are several stops especially in Reston (for example, corner of Wiehle Avenue and North Shore Drive) that do not have any outdoor lighting, but the bus lights are on at night so when you get off of the bus you're blinded. It's especially bad at that corner because there's no sidewalk or anything. It's just the grass on the side of the road and you hope you don't trip and fall into traffic."

WEEKEND HOURS

- "I think ridership is so low because people don't want to wait around a long time for a bus. I would love to reduce my car usage, but the buses either run sparingly on the weekdays or not at all on the weekends. In other European cities, like London, buses are running every ten minutes, so you feel comfortable using them. I truly believe in the saying if you build it, they will come. Maybe people are not relying on buses today, but if you build a system in which they think it's an actual alternative to using their cars, not just something people use out of necessity, then people might start using them."
  "For Route 466, it would be great to run weekend service. It also only runs on weekdays during rush hour and it's every 30 minutes, so it's not really great to take since Metro times aren't same."
- "Keep up the good work! Consider work schedules for essential workers—weekends, evenings, etc."

MORE RELIABLE BUS ARRIVAL

- "The bus service is great, but the most important thing is more predictability in the schedule. I'm fine with only seeing two buses per hour if the schedule is reliable. Fairfax County has the bus stop text message system but it might be nice to upgrade that to be more integrated with travel plans."
- "My main complaint is about the bus transfer to/from the Metro at the Vienna-Fairfax/GMU station. When I arrive at the station, I always seem to just barely miss the next bus or train. This problem is especially bad in the evenings when I usually have to wait 30-40 minutes just to catch the next bus. I can see the bus leaving when getting off the Metro some days and it is frustrating."
- "Buses should NEVER be AHEAD of schedule. I am very forgiving of getting behind schedule—that can happen for any number of reasons—but there is no reason, no excuse to ever be ahead of schedule and therefore leave before the stated time. That is unconscionable!"

BUS INFORMATION

- "Whenever I use the bus, I never know when it will arrive. Put an electronic map at each stop so I can see how much longer the wait will be or if a bus just went by, in which case I might not want to wait."
- "I would like a better way to view bus locations through the Fairfax Connector system via an application on my smart phone."

- "It is difficult to navigate the bus service system. Any additional support with that would be helpful (better apps, better maps at bus stops and, on an app/website). I do not use the Fairfax Connector often because I am not always sure that I can get from Point A to Point B, or C."

MAINTAIN EXISTING SERVICE

- "Please keep the Annandale Road Route 803. This is the only public transportation from Annandale to the Falls Church Metro station, and a lot of people rely on it since Metrobus canceled their bus on this route."
- "Very simply, I am against you eliminating Route 585 if you do not provide any other routes that service the area of Franklin Farm east of Fairfax County Parkway. As it stands, the proposed changes have NO service in that area which is unacceptable."
- "There has been a bus traveling on Walney, Poplar Tree, and Stringfellow Roads in Chantilly for over 20 years and it should continue to provide that local service so that it is not required that everyone drive to a park and ride lot. Thank you for your attention to my comments."

ACCESSIBILITY OF BUS STOP (SIDEWALK, CROSSWALK)

- "Having to fold a stroller really impacts my utilization of Fairfax Connector buses. It is very difficult to manage children and stroller-folding next to traffic, and because of this I generally only ride when my husband and I are both available."
- "There is a bus stop on Wiehle Avenue heading north in between Baron Cameron Avenue and North Shore Drive. That bus stop is not paved and not connected to the sidewalk. Getting off at that stop can mean walking in mud or snow, in the dark, to get to the sidewalk on North Shore Drive. That needs to be fixed."
- "Lack of sidewalks/crosswalks is the biggest downside I've noticed using Fairfax Connector in Reston. Stops in my area often have sidewalks on one side of the road but not the opposite side and sometimes not even a way to cross nearby without jaywalking."

TRANSFERS

- "Synchronize times and destination of buses in shared routes and with Metro trains. I have to endure a lengthy wait at Franconia-Springfield Metro Station arriving from Washington exactly when two buses (Routes 341 and 494) depart to my destination (Saratoga Park and Ride)"
- "If buses could try to consider the arrival of trains when they stop at Metro stations, that would be great. For instance, if a train is arriving in the next four to five minutes, maybe the bus(es) could wait to allow people to potentially transfer."
- "The buses need to be more on time than they are so that connections are not missed. The buses can sometimes be late by 5 minutes or more, which makes me miss my connection. Also, it would be great if the buses ran more frequently during rush hour like the Metro does to accommodate to that."

METROBUS

- "If WMATA will not restore the 11Y express services between Mount Vernon and Washington, DC, Fairfax Connector should fill that gap. As I noted earlier in this survey, there is no direct bus service at all between Mount Vernon and Old Town, neither on the George Washington Parkway or Fort

Hunt Road. Route 101 goes to Huntington Metro Station, which is a detour for people heading north. Getting to Old Town is half the challenge. I understand that the Fairfax Connector does not exist to serve Old Town and DC-bound commuters, but there is a need for this transportation. I, along with many co-workers, used to ride the 11Y regularly. I doubt if I will ever commute by public transportation again."

- "Please offer routes that connect Annandale and Falls Church, particularly from areas around Annandale High School to around Falls Church High School. High School students can get free bus passes for the Connector bus, but this is useless for those living near Falls Church High School who have to use the public Metrobus routes."
- "Fairfax Connector needs to supplement Metrobus in the Bailey's Crossroads area to make it easier to get to destinations in the north/south directions. There is no good way to get from Bailey's Crossroads to Kingstowne, Springfield, or destinations along Arlington Boulevard without long waits and/or having to make 2 or 3 transfers."

SAFETY

- "The buses leaving the bus station at Wiehle Metro have so much trouble getting into traffic. It's a very bad design with that exit. Often there is a man there to help with departing buses getting into traffic and very often he does not do anything. It is very frustrating."
- "Need to have a bus shelter and bench reinstalled at the Fairfax County Connector bus stop at the corner of Lorton Market Street near the intersection of Groom Cottage Drive in Lorton, VA. There was previously a bus shelter and bench at this stop about 12 years ago. Due to a serious wind storm, the shelter at that time was damaged and as a result was never replaced. During the winter season it is very difficult for me, being a senior, to stand out there in the cold with other ridders waiting for the bus to show up to take to work in the mornings."
- "Bus stops in Reston tend to be dark. Bus drivers occasionally don't see me when I am waiting at a stop. Are motion detector lights possible?"

TECHNOLOGY IMPROVEMENTS

- "Some kind of notification device either at a stop or on an app, and stop geofencing option to let the driver know a nonregular rider is at the stop would greatly help. I've had drivers drive pass me even when I'm waving them down because it's not my regular schedule/driver. When a stop is moved or shelter built, Connector should provide better notification of where the stop is moved to."
- "The Fairfax BusTracker is completely misleading. It is advertised as a real-time bus status system when in reality it is simply broadcasting the prebuilt schedule with no actual real-time updated information. It's not a bus tracker. It's a schedule display with a misleading name. This has to be fixed."
- "I appreciate the real-time information available via BusTracker, particularly when my bus is running late, but the interface could really use a refresh. (I'm in my mid-40s, so I remember when all tech interfaces looked like that.) Think about attracting younger riders: Connector needs a pleasing smartphone interface."

PARK AND RIDE

- "It is difficult for me to get from the Wiehle Avenue/Sunset Hills Road area of Reston to my work near the Reston South Park and Ride. Service to and from the Reston South Park and Ride, even if there are connections, would be much appreciated. I think the more typical use of the Fairfax Connector is north in the morning and south in the evening. Please consider accommodating both directions in the new plan."
- "More parking is needed, though I do not see how this can be done at the Gambrill Park and Ride station because it is close to Fairfax County Parkway and it is a very busy bus line. Perhaps there is another location which is on the parkway that can be opened up for people to park during the weekdays. From where I am (I ride every day) Route 395 seems to be a very busy bus line with lots of people using it to get to the Pentagon or connect on to the Metro."
- "Repair and maintenance of bus stop shelters in Reston Park and Ride. The benches are not clean, not inviting, and the area is in disrepair with old, empty newspaper receptacles."

ON-BUS/ BUS

- "I would like to hear happier instrumental sounds during onboard announcements for stop requests or when approaching within 2 minutes for stops/end of line. Improved illumination for SmarTrip fare and balance reader. Maps labeled at Metro stops with popular sites and attractions would also be helpful to riders."
- "If you could please keep the older buses cleaner, especially in the back of the bus, that would be great."
- "Most buses are well under maximum occupancy. Connector should implement smart traveler prediction and deploy smaller vans/buses to add more frequency but reduce the environmental impact."

COST OF FARE

- "I am a high believer that fares should be low (max of $2.50) as public transportation is the greatest chance people from low-income areas can work in high income areas and move up in the world."
- "Connector bus service would be much enhanced if there were NO CHARGE. This would allow more low-income residents, especially the working poor, to ride the Connector. It would also speed up boarding by allowing passengers to board as well as deboard from both the front and rear doors."
- "Buses should be more frequent and fare free for simple things like shopping. I only use Connector with DASH Bus for connecting to Metro."

BUS PRIORITY

- "Bus lanes/queue jumps should be added on Fairfax County Parkway, US 50, Centreville Road; road treatments to make all of those roads safer to cross and improve bus on-time performance are needed. In general, installing BRT features on some of the major roads will improve bus performance and encourage more people to ride, especially with high gas prices. Routes 901 (Centreville Road), 990 (Fairfax County Parkway), and any route along US 50 could benefit. If Route 901 has good ridership, a Route 901X could run express along Route 28 to better connect the Silver Line with Centreville and Manassas."

- "Having dedicated bus lanes will help mass transit to happen faster and be more sustainable. It will allow for a better scheduling and planning."
- "I love the bus lanes in Alexandria. I think that should continue all the way down Route 1 to generate additional ridership."

Specific Routes

Free-response comments that mentioned specific route numbers were identified and categorized, and a summary of comments on the five routes with the most responses are included in this section as a sample. A full database off all survey comments has been provided to FCDOT to accompany this summary document.

The top five routes mentioned in comments were routes 101, 305, 306, 401, and 699. Four direct quotes per route number are listed below.

ROUTE 101

- "I would like to see better punctuality. It appears that sometimes buses do not show up at all or show up randomly during the rush hour period."
- "Try to connect the Connector schedule with the departure/arrival schedule of the Metro where feasible, especially at the terminal/end of the line stations."
- "Leave Route 101 the same as it is currently. The new Route 101 is USELESS to people in zip code 22308 who primarily use it to get to Huntington Metro Station. Also, sometimes high school students in the Fort Hunt corridor take this route to get to West Potomac High School. The new 164 route is USELESS to people in zip code 22308 (who want to go to Huntington Metro). The Metrobus 11Y is nearly useless as well as unreliable."
- "The route is excellent as is. Mount Vernon is a major employer and tourist destination, so direct service will maximize ridership. Consider a second route with direct service from Huntington via Fort Hunt Road to Mount Vernon Hospital, another major employer. The proposal requires a transfer at Collingwood Road; if implemented, a pedestrian walk light would be necessary. It is not clear why this route would temporarily discontinue service to Mount Vernon since it is an employment and tourism destination. In general, the presentation is somewhat confusing since the route sheets differ from the overall map."

ROUTE 305

- "Better align the stops in the morning and evening to coincide with Route 395 at Gambrill Road Park and Ride. Often Route 305 arrives a minute or so after Route 395 leaves in the morning and leaves a minute or so before Route 395 arrives in the evening. At least in the evening, the 305 should be expected to wait at the Gambrill Park and Ride if an express Route 395 is inbound to pick up transfers."
- "I would be able to take better advantage of the Route 305 bus if it ran outside of rush hour commute time and on weekends."
- "It would be helpful if you added at least one time during the day other than rush hour, e.g., noon or 1:00."
- "Add stops along Silverbrook Road between Route 123 and Hooes Road. This area has no bus service and needs better service outside of rush hours."

ROUTE 306

- “Add the following trips that were formerly operated by Metrobus 17A: Eastbound starting at 8:05 AM, 9 AM, and between 4:09 PM and 8:58 PM; Westbound starting at 6:50 AM, 7:20 AM, 7:50 AM, 2:55 PM, 7:55 PM, 9 PM, and 10:05 PM.”
- “This route needs to expand until 12 AM on weekdays and throughout the weekend for folks who need to get to another destination. The route needs to expand because George Mason University students rely on this route.“
- “GMU Facilities employees all start at 6 AM, so people have to drive or rely on vanpools to commute to and from work.”
- “Route 306 needs to add weekend service and extend weekday service until 11 PM or midnight.”

ROUTE 401

- “Thor Drive and Gallows Road neighborhood needs to have more stop, especially on Pence Court. I barely can use the bus because of the inconvenient schedule. It's far away and inaccessible from my destinations. I'd like to use the bus to go to work in Alexandria and Downtown DC. Please add some stops near Aston St or other streets. I also believe the route should not only be going north to south. We need another route where I can get to Alexandria or DC from Thor Drive neighborhoods. The bus is a mile walk from my home and it is not easy for me to use the bus.”
- “We need increased service between Tysons Corner area and Dunn Loring.“
- “My comments apply to Route 402 as well. This is the ONLY bus from Annandale into Tysons, and the only bus to Dunn Loring Metro station. Frequency isn't terrible, but it's a popular route thus should have even better frequency. Why not run it every 15 minutes? My only complaint is that the route is circuitous. Once I rode from Springfield to Tysons and it took forever. Never again. The bus bays at the Inova Hospital and Dunn Loring Metro made the route much longer because of all the left turns to get into the bays. This was my primary bus from Annandale into Tysons (near the mall) but it took a long time; too long for people who have other transportation choices (i.e., drive) to use. Make it faster!”
- “The Route 401 stop at Greensboro (northbound) and Spring Hill Road is UNSAFE. At a minimum, it needs a paved patch for alighting.”

ROUTE 699

- “Add a stop in Stringfellow park and ride for morning pick up and afternoon drop off.”
- “Route 699 should serve multiple destinations in downtown DC—Metro Center, Gallery Place/Chinatown (to access the Capital One Arena), and other downtown destinations. This would be really helpful in reaching more destinations in the District.”
- “The 699 bus is an essential service for accessing Washington, DC. Please consider increasing frequency and adding additional bus service.”
- “I love the 699 bus route! Makes my commute so much better. It would be nice to have bus service from DC to Fairfax later in the evening on weekdays. Sometimes I work late or get dinner after work but then I can't take the bus home because the last westbound bus departs at 6:45 PM.”

4. Survey Summary

The public survey for the TSP provided an opportunity to gather information on current travel patterns, service improvement priorities, and open-ended comments from the public. This information will be used to guide public transit and bus service improvements over the next 10 years.

The survey is one of several sources of public input for the TSP. Findings are compared with those of three previous countywide survey efforts: the first round of public outreach for the TSP, the market survey, and the on-board survey. Summarized comparisons between the three surveys are in **Table 13** in **Attachment A**.

The survey was responded to by different amounts of frequent riders (477 respondents), occasional riders (344 respondents), and non-riders (284 respondents)—providing a mix of views and opinions but leaning more towards frequent and occasional riders. In general, the survey yielded similar results to previous survey efforts on Fairfax Connector service, particularly on opportunities for improving the service. The most important service improvements to frequent riders, occasional riders, and non-riders alike were frequency during both rush and non-rush hours and connectivity to different places. Overall, the survey met its purposes of gauging community preferences and priorities for route improvements, which will assist Fairfax County in prioritizing future Fairfax Connector service improvements.

5. Online Community Input Meeting Summary

In addition to the survey, the public could also provide input and ask questions during two online community input meetings. Meetings were held on the following dates, and recordings were posted to Fairfax Connector's website:

- Monday, March 28, 2022 at 7:00 p.m.
- Thursday, March 31, 2022 at 7:00 p.m.

The meetings consistent of a presentation from FCDOT staff and a question and answer session. The presentation provided an overview of:

- The TSP process
- Previous countywide outreach efforts and outreach conducted during development of area service plans
- What was heard from previous outreach and how that was used to develop proposed service plans for the TSP
- Levels of service for the proposed TSP service plans
- Examples of route improvements and new routes proposed in the TSP
- Ways to provide input

The majority of questions that were asked from attendees were clarifications on changes to specific areas or questions/suggestions on particular routes. This included:

- Reston service changes and timing of Silver Line Phase 2 opening

- McLean service clarifications
- Interest in student passes for Manassas and Manassas Park
- Chantilly, Centreville, and Fair Oaks service clarifications and interest in timed transfers at Monument Drive Garage
- Falls Church service clarification and interest in WMATA coordination and plans for Metrobus improvements
- Interest in increased weekend service so it is more in line with weekday service
- Interest in upgraded bus fleet for more consistency
- Interest in understanding how service changes will be communicated in the future
- Route 101—concern over indirect service
- Route 151—clarification of midday service
- Route 341—request for increased frequency
- Route 401/402/400X—service clarification on how Route 400X will work
- Route 651—request for later service
- Route 681—request to introduce this service sooner
- Route 798—service clarification
- Route 901—interest in connections with Route 983

6. Online Stakeholder Input Meeting Summary

Community stakeholders were also engaged through two meetings that followed a similar format to the online community input meetings. Stakeholder meetings were held on Tuesday March 29, 2022—one with business stakeholder and another with community organizations. A summary of these meetings is included in **Attachment B**.

Input received from stakeholders included:

- The most important types of service improvements of the business and community stakeholders were more frequent buses on weekdays during both rush hour and non-rush hour commute times, earlier or later service hours on weekends, and more direct or express service with fewer stops.
- The most important types of other improvements were better schedule and bus arrival time information, more sidewalks and crosswalks near bus stops, more bus stop shelters, and roadway or traffic signal improvements that help buses stay on schedule.
- Effective communication strategies for sharing future bus service changes with the community included use of multiple social media platforms, communication on the bus or at stations in multiple languages, Board newsletters, and messaging around the benefits of increased travel options.
- The importance of safe sidewalk connectivity to bus stops was emphasized by multiple stakeholders.

Attachment A

Additional Survey Results Summary

Survey Comparison Summary

TABLE 13: HIGH-LEVEL SURVEY COMPARISON

Survey Topic	TSP Spring 2022 Survey	TSP Winter 2021 Survey	Market Survey	On-Board Survey
Current Travel Frequency	• 1,114 respondents • 43% frequent riders • 31% occasional riders • 26% non-riders	• 2,901 respondents • 34% frequent riders • 32% occasional riders • 34% non-riders	• 2,624 respondents • 7% frequent riders • 27% occasional riders • 66% non-riders	• 3,672 respondents • 91% frequent riders • 9% occasional riders • 0% non-riders (this survey was conducted on bus trips, making all riders frequent or occasional)

Future Travel Frequency	N/A	• 48% will use Fairfax Connector frequently
		• 36% will use occasionally
		• 15% will not use it
			• 35% will use Fairfax Connector
			• 8% will ride at least weekly in the future
			• Out of current riders (those that rode Fairfax Connector in the last 30 days):
			  ○ 13% will use it less frequently
			  ○ 60% will use it more frequently
				N/A

Age Demographics[1]	• 1% - Under 19 Years Old • 4% - 19-24 • 15% - 25-34 • 21% - 35-44 • 19% - 45-54 • 21% - 55-64 • 19% - 65+	• 1% - Under 18 Years Old • 4% - 18–24 • 13% - 25–34 • 21% - 35-44 • 22% - 45-54 • 21% - 55-64 • 18% - 65+	• 0% - Under 18 Years Old • 3% - 18–24 • 26% - 25–34 • 19% - 35-44 • 20% - 45-54 • 16% - 55-64 • 16% - 65+	• 5% - Under 18 Years Old • 13% - 18–24 • 25% - 25–34 • 19% - 35-44 • 18% - 45-54 • 15% - 55-64 • 5% - 65+

Survey Topic	TSP Spring 2022 Survey	TSP Winter 2021 Survey	Market Survey	On-Board Survey
Gender Demographics[1]	• 45% - Female • 54% - Male • 1% - Other	• 44% - Female • 54% - Male • 1% - Other	• 51% - Female • 49% - Male	• 42% - Female • 58% - Male
Household Income Demographics[1]	• 6% - $20k or less • 12% - $20k to $50k • 23% - $50k to $100k • 25% - $100k to $150k • 34% - $150k or more	• 5% - Less than $25k • 6% - $25k to less than $50k • 24% - $50k to less than $100k • 27% - $100k to less than $150k • 38% - $150k or more	• 2% - Less than $25k • 5% - $25k to less than $50k • 24%- $50k to less than $100k • 24% - $100k to less than $150k • 45% - $150k or more	• 34% - $30k or less • 37% - $30k to $70k • 18% - $70k to $125k • 11% - More than $125k
Race Demographics[1]	• 68% - White • 7% - Black or African American • 18% - Asian • 1% - Native American or Alaska Native • 1% - Native Hawaiian or Pacific Islander • *32% - Net Minority* • 10% Hispanic or Latino • 90% Not Hispanic or Latino	• 74% - White or Caucasian • 8% - Black or African American • 15% - Asian or Pacific Islander • 1% - American Indian or Alaskan Native • 1% - Native Hawaiian or Other Pacific Islander • *26% - Net Minority* • 10% Hispanic or Latino • 90% Not Hispanic or Latino	• 75% - White or Caucasian • 6% - Black or African American • 16% - Asian • 5% - Spanish, Hispanic, or Latino • 1% - Pacific Islander • 1% - Middle Eastern • *25% - Net Minority*	• 33% - White or Caucasian • 14% - Black or African American • 14% - Asian • 12% - Hispanic or Latino • 1% - Native Hawaiian or Other Pacific Islander • 1% - Some other race • 4% - Two or more races • *67% - Net Minority* • 24% Hispanic or Latino • 76% Not Hispanic or Latino
Access to a Personal Vehicle	• 76% have access to a personal vehicle • 34% of frequent riders do not have access to a personal vehicle	• 86% have access to a personal vehicle • 30% of frequent riders do not have access to a personal vehicle	• 90% of Fairfax County residents use their car as a primary mode of transportation	• 52% of trips are made by riders who have at least one car at their home • 39% of riders had a car available for them to use

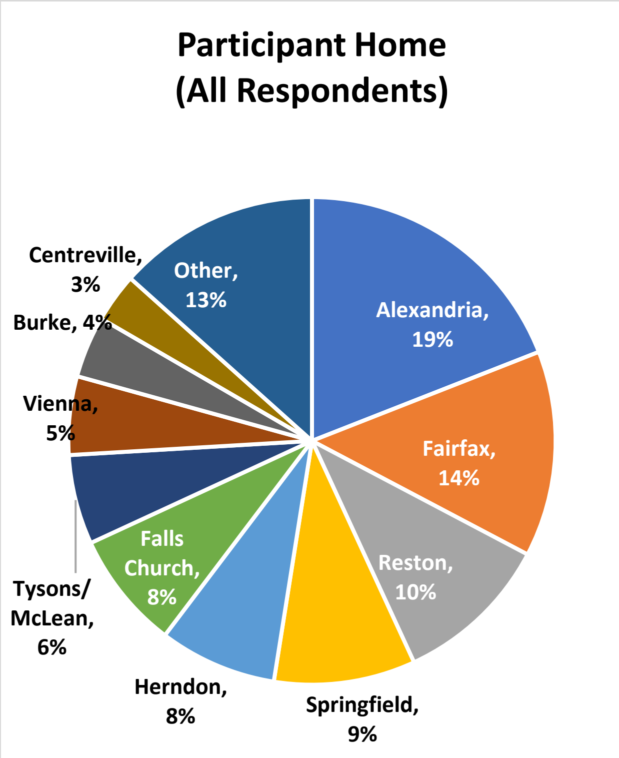
Survey Topic	TSP Spring 2022 Survey	TSP Winter 2021 Survey	Market Survey	On-Board Survey
			• 6% consider public transport their primary mode • Out of current riders: ○ 39% consider public transportation their primary mode ○ 13% consider Fairfax Connector as their primary mode	
Less Frequent Rider Travel Mode	N/A	• Out of occasional and non-riders, 63% drive alone in a personal vehicle to make their most frequent trip • The second most common alternative to Fairfax Connector is Metrorail (12% of occasional and non-riders)	• 90% of Fairfax County residents consider their primary mode of transportation to be a personal vehicle	• Almost 50% of riders would use a car when their Fairfax Connector routes are not available • 23% would get a ride from someone else who has a vehicle • 21% would use an app-based transit service • 21% would use their own vehicle

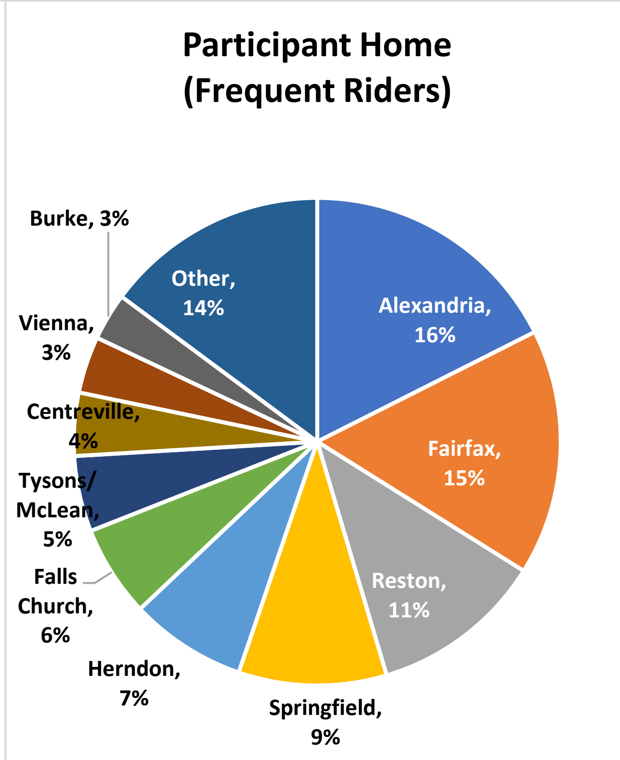
Survey Topic	TSP Spring 2022 Survey	TSP Winter 2021 Survey	Market Survey	On-Board Survey
Less Frequent Rider Reasons for Not Riding Fairfax Connector	N/A	• Top reasons for why occasional or non-riders do not ride the Fairfax Connector: ○ Bus does not come frequently enough ○ Preference of other travel modes ○ Bus does not travel when they want ○ Not having bus service where they start or end their trips	• Respondent's primary mode of transportation (90% personal vehicle use) rated higher than the Fairfax connector because of: ○ Fits into lifestyle ○ Available when you need it ○ Goes to the places you need to go ○ Is a fast way to travel ○ Is easy to use ○ Reliability	N/A
Frequent Rider Satisfaction	• 82% of frequent riders rated the Fairfax connecter service at least a 3 on a scale of 1 (poor) to 5 (excellent) in the area they travel most and in the area they live • 69% of frequent riders rated the Fairfax connecter service at least a 3 on a scale of 1 (poor) to 5 (excellent) in the area they travel most	• 75% of respondents identified as being satisfied or very satisfied with Fairfax Connector service • 9% were dissatisfied	• Current riders are generally satisfied with Fairfax Connector • 65% of current riders rated the Fairfax Connector favorably on a scale of 0 to 10, rating the service 8 to 10 range • 8% of current riders rated the system in the 0 to 3 range	N/A
Frequent Rider Needs for Improvements	• Frequent riders' top service priorities: 1. More frequent buses on WEEKDAYS during	• Frequent riders' top areas needing improvement: ○ More service when I want	• Current riders noted that the most appealing incentives to increase ridership are:	• Top priorities that would make riders ride more frequently: ○ More frequent service

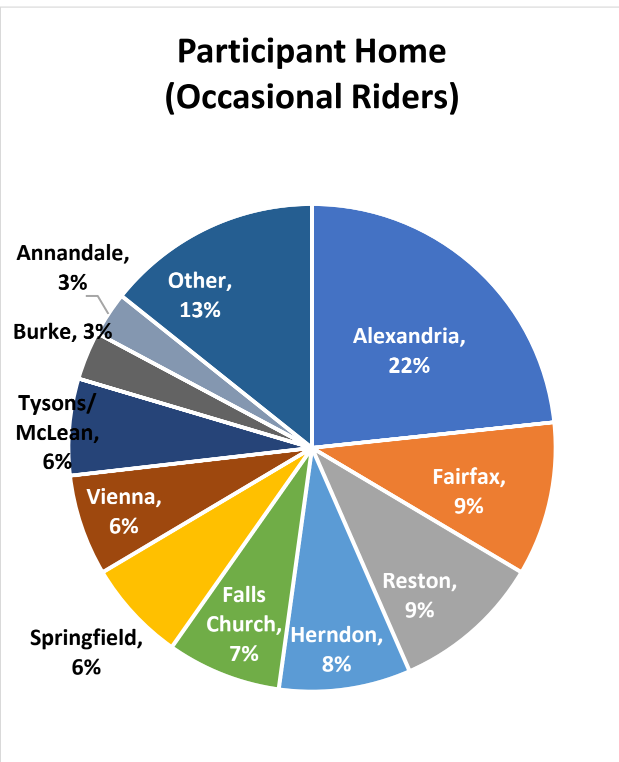
Survey Topic	TSP Spring 2022 Survey	TSP Winter 2021 Survey	Market Survey	On-Board Survey
	rush hours commute times 2. Adjust route to connect to different places • Frequent riders' top 3 areas of improvement: 1. Better schedule and bus arrival time information 2. More bus stop shelters 3. More sidewalks and crosswalks near bus stops	o Information about the bus o More stops where I want to get picked up or dropped off o Bus stops that are easier to get to	o Providing accurate real-time information o More frequent service o Having stops closer to where you like or where you are going	o Operating later or earlier in the day o Offer express bus service o Have stops closer to origins and
Opportunities for Improvements	• All respondents top service priorities: 1. More frequent buses on WEEKDAYS during rush hours commute times 2. Adjust route to connect to different places 3. More frequent buses on WEEKDAYS outside of rush hour commute times	• Top needs for making Fairfax Connector a more appealing travel choice: o Having the bus available when needed o Getting to the destination on time o Being A fast way to travel o Going to more places you need to go	• See above for current rider incentives • What would make drivers consider using the Fairfax Connector: o Having more stops close to where they live or go o Having faster and more direct service o Having more frequent service, especially during off-peak hours and weekends, o Reduced cost or adding rebates	• Top priorities for improvement: o More frequent service o Operating later or earlier in the day o Offer express bus service o Have stops closer to origins and destinations

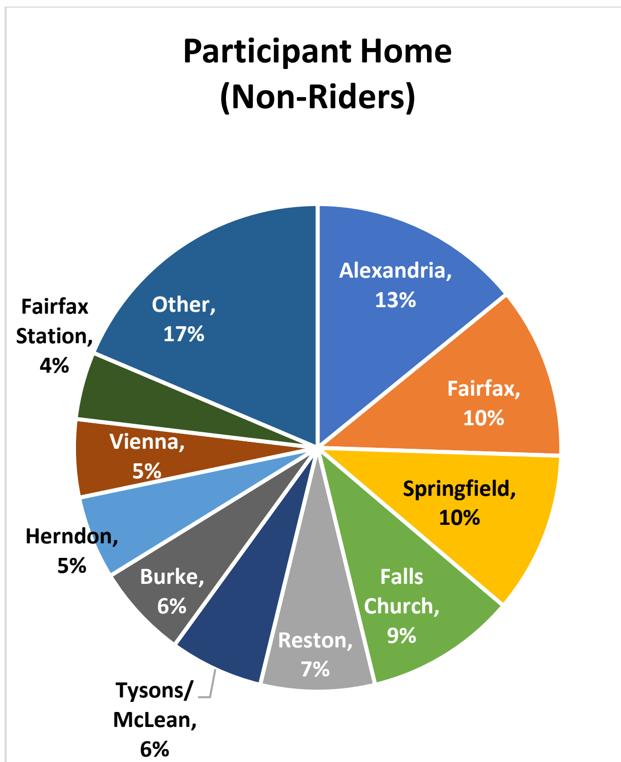
[1]Demographic percentages based only those respondents answering

Participants by Home Location—Additional Tabulation

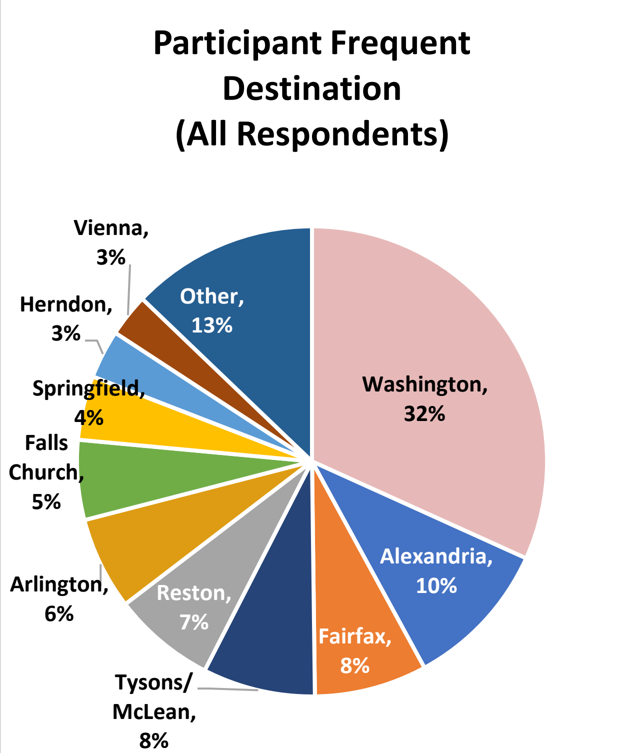


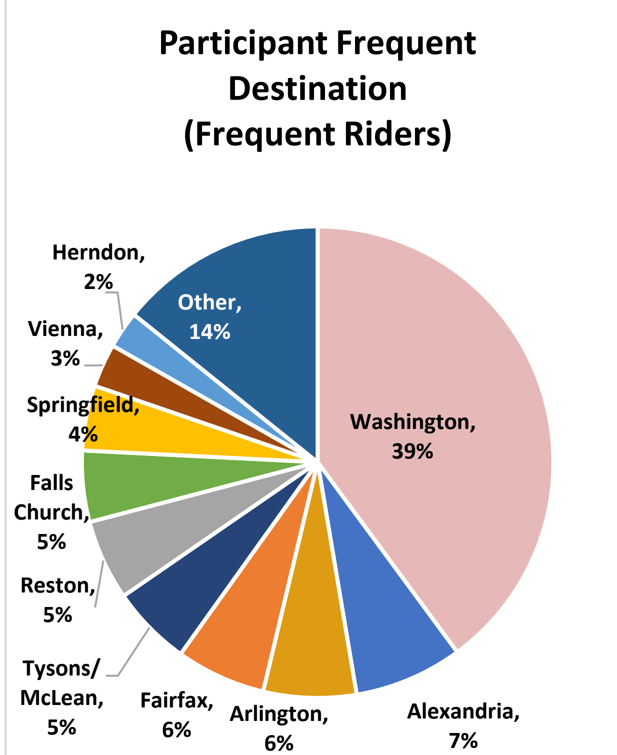


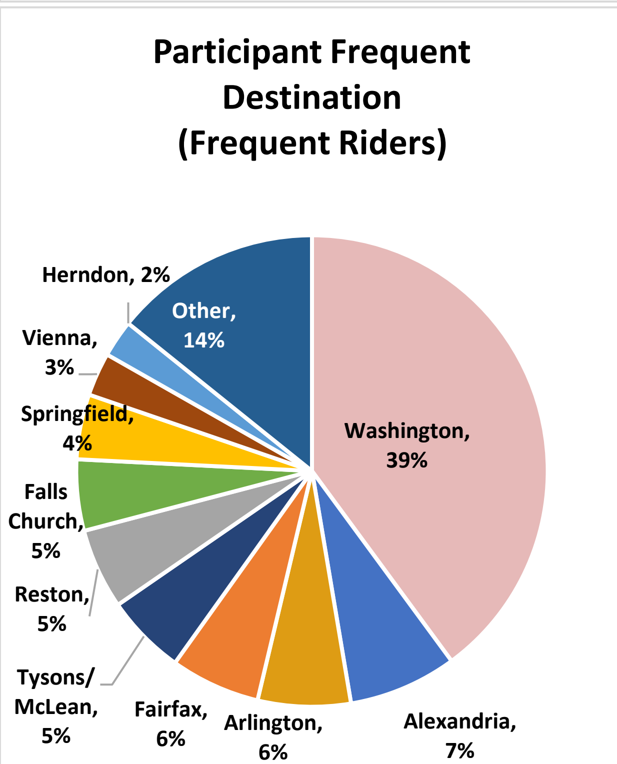


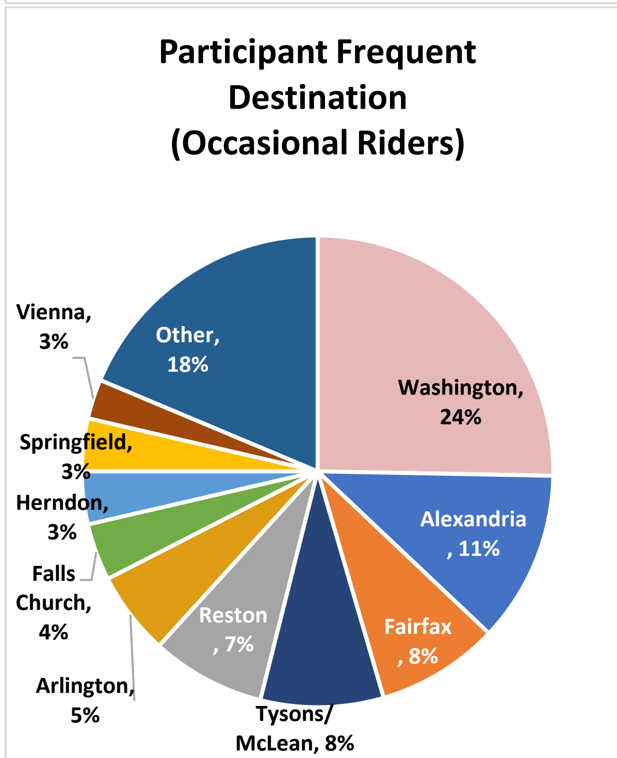


Participants by Frequent Destination—Additional Tabulation









Attachment B

Business and Community Stakeholder Meetings Summary

Meeting Summary

SUBJECT: Business and Community Stakeholder Meetings
DATE/TIME: *Business Stakeholders:* Tuesday, Marcy 29, 2022, 10:00 a.m.
Community Stakeholders: Tuesday, Marcy 29, 2022, 1:00 p.m.
LOCATION: Virtual Microsoft Teams Meetings
ATTENDEES:

<table>
<tr><th>Organization</th><th colspan="2">Attendees</th></tr>
<tr><td rowspan="2">Fairfax County Project Team</td><td>Michael Felschow (PM)
Hejun Kang
Christian Soughe Bissai
Ed Reid
Stuart Boggs
Kyla Davis</td><td>Fairfax County Department of Transportation</td></tr>
<tr><td>Kala Quintana
Nicole Daly</td><td>Fairfax County Marketing and Communications</td></tr>
<tr><td rowspan="4">Business Stakeholders</td><td>Colin Horner</td><td>The Rotunda Condominium</td></tr>
<tr><td>Joan Clark</td><td>Transportation Association of Greater Springfield</td></tr>
<tr><td>John Boylan</td><td>Dulles Chamber of Commerce</td></tr>
<tr><td>Deena Gordon Parla</td><td></td></tr>
<tr><td rowspan="4">Community Stakeholders</td><td>Tracy McCarty</td><td>Cunningham Park PTA</td></tr>
<tr><td>Jane Materna</td><td>Fairfax County Commission for Women</td></tr>
<tr><td>Steve Lee</td><td>Korean American Association of Greater Washington</td></tr>
<tr><td>Carey Galloway</td><td>Friend of Guest House</td></tr>
<tr><td>Kimley-Horn Project Team</td><td>Tyler Beduhn (PM)
Sina Musie</td><td>Project Consultants</td></tr>
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1. **TSP Background**
    - Stakeholder meetings are essential to identify challenges and opportunities for improvement. Feedback and input are appreciated and encouraged to develop a successful Transit Strategic Plan.
    - Fairfax County currently has about 100 different routes. These are a mix of routes that operate on weekdays as well as Saturdays and Sundays. Some routes offer rush hour only service, and other routes provide several limited-stop or express services.
    - There is also Metrorail service in Fairfax County, with Connector routes serving all of these stations, as well as several Metrobus routes that operate in Fairfax County.
    - The TSP is a 10-year plan that acts as a blueprint outlining desired changes that will improve transit services. It is a living document that can adapt to changes in the community in the coming years.
    - Inputs to the TSP include market surveys, on-board surveys, bus service reviews, stakeholder input such as this, and public meetings which are also occurring this week.
    - Service recommendations for the TSP have been gathered from the Bus Service Reviews.
    - Fairfax County has identified planned improvements and modifications, and through the public outreach we want to gather input to help us prioritize the implementation of these improvements.

- Next steps are the implementation plan and financial plan, approval of the plan by the Board anticipated in mid-FY 2023 and implementation throughout the life of the planning document.

2. Input Received in Previous Public Outreach

- Last year we conducted an initial survey for the TSP, which included preferences of frequent, occasional, and non-riders. This information was used to verify the vision and goals for Fairfax County bus service
- In 2019 there was an onboard survey conducted to hear from existing riders. One piece of that survey was origin and destination, or travel pattern, information that is very helpful in planning for a more effective bus service.
- The year before that in 2018 there was a market survey conducted to better underway reason why resident do or do not use Fairfax Connector bus service.
- During the bus service reviews, over 3,500 comments were received from the public, which were very helpful for developing the service plans we are asking for input on now.
- What we heard
    - The community wants increased frequency of buses, especially during non-rush hours.
    - The community wants greater span or hours of service such as during midday, on weekends, or later into the night.
    - The community wants faster travel from point A to point B using the bus
    - The community want improved connectivity so that the bus is a more viable travel option.
    - The community wants Fairfax Connector to provide the more accurate, reliable and user-friendly information about the service as possible.

3. Proposed Service Plans

- Input received from stakeholders and the public will help prioritize different types of service changes
- Near-term (budget neutral) and mid-term to long-term service plans (would require additional resources) have been developed. Details of the improvements can be found on the TSP website www.fairfaxcounty.gov/connector/tsp.
- The proposed service plans will result in increased total population, minority population, and low-income households within reach of the system. They will also increase the number of routes operating with 15- or 20-minute frequency, and the number of routes that operate all-day on weekdays and weekends.

4. Discussion and Polling

Following the presentation slides on the TSP, the project team facilitated discussions with the stakeholders. This section captures results from both Business and Community Stakeholder meetings. A virtual polling system was used to initiate dialog. Each question is shown in the following section, along with an overview of response and follow-up discussion. These responses were used to understand the communities each stakeholder represented.

QUESTION 1: What types of service improvement are most important to you? (Select up to 2)

- More frequent buses on WEEKDAYS during rush hours commute times
- More frequent buses on WEEKDAYS outside of rush hour commute times
- More frequent buses on WEEKENDS
- Earlier or later service hours on WEEKDAYS
- Earlier or later service hours on WEEKENDS
- More direct or express service with fewer stops
- Adjust route to connect to different places
- Other

QUESTION 1 RESULTS

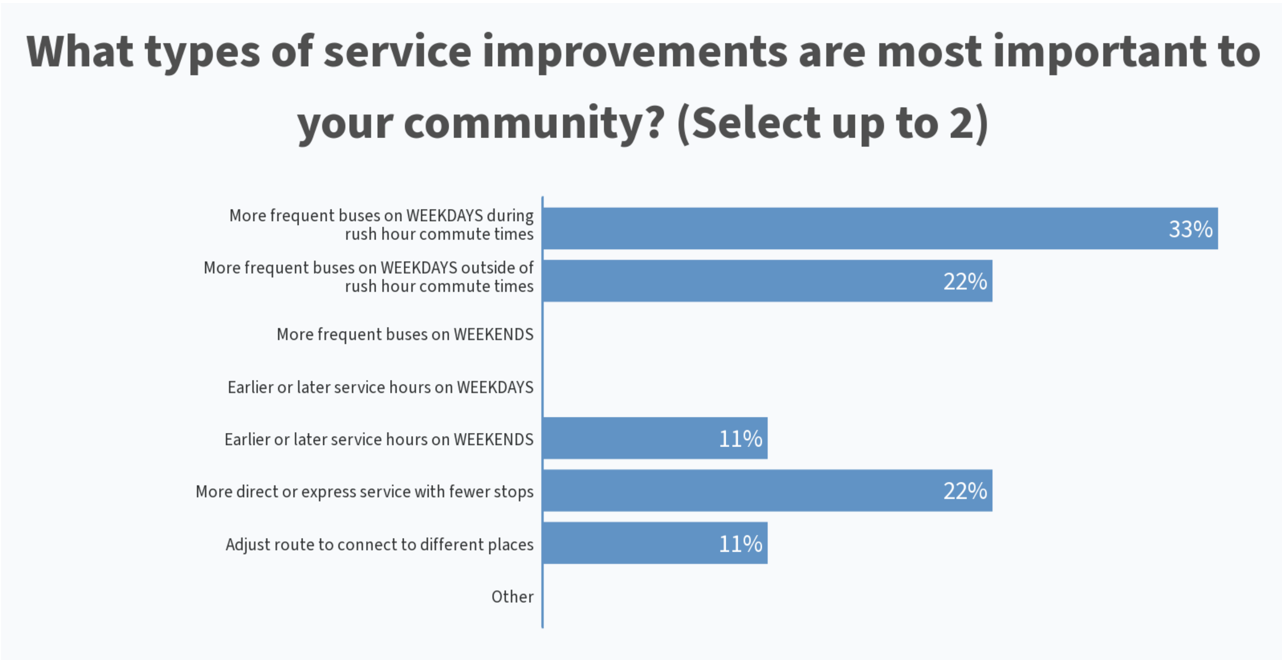
The most important service improvements to business stakeholders were:

1. More frequent buses on WEEKDAYS during rush hours commute times
2. More frequent buses on WEEKDAYS outside of rush hour commute times
3. More direct or express service with fewer stops

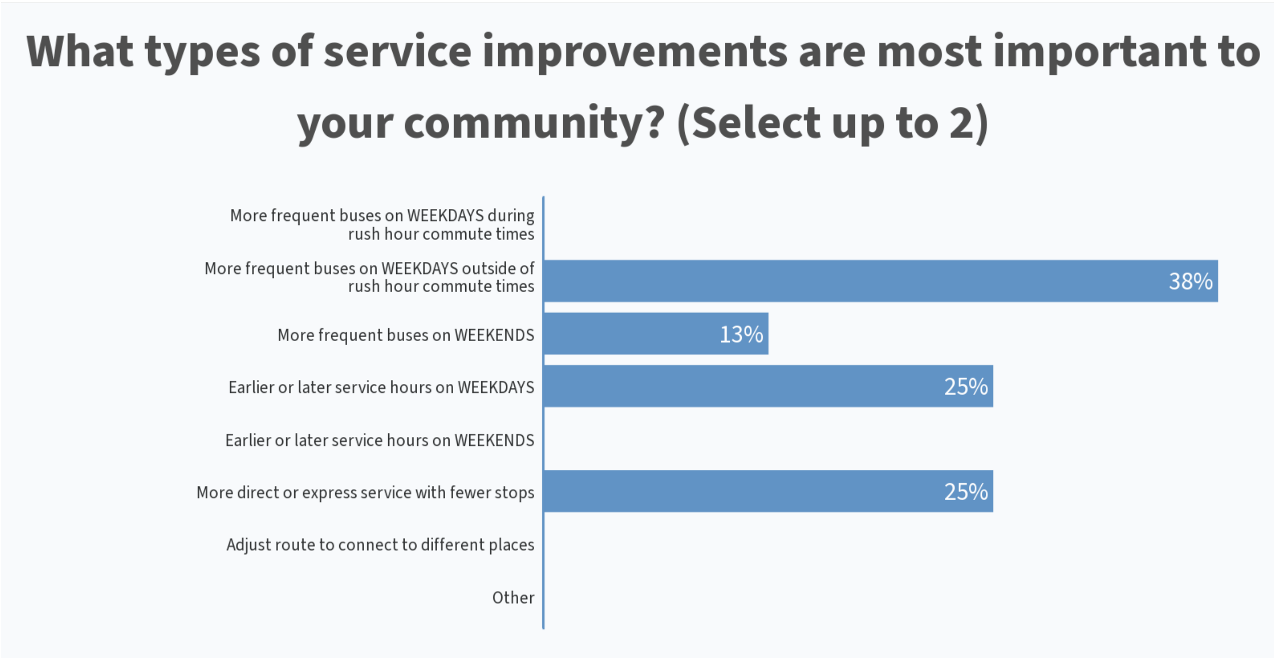
The most important service improvements to community stakeholders were:

1. More frequent buses on WEEKDAYS outside of rush hour commute times
2. Earlier or later service hours on WEEKENDS
3. More direct or express service with fewer stops

Business Stakeholders:



Community Stakeholders:



A summary of discussion points around this question is shown below for each meeting, as applicable.

Community Stakeholder Discussion

- Retails hours end at 10 or 11 at night and people have schedules outside the typical 8 to 5 period. Women will tend to need flexible working hours which may not be covered well by typical peak service hours. Very often hourly jobs will require punctuality as well, occurring outside the typical "commuting" period.

Question 2: What other types of improvements are most important to your community? (Select up to 3)

- Better bus stop lighting
- Better schedule and bus arrival time information
- Better wheelchair or stroller access to bus stops
- More bus stop shelters
- More bus stop benches
- More sidewalks and crosswalks near bus stops
- Roadway or traffic signal improvements that help buses stay on schedule
- Dedicated bus lanes (lanes on the road that can only be used by buses)
- Other

Question 2 Results

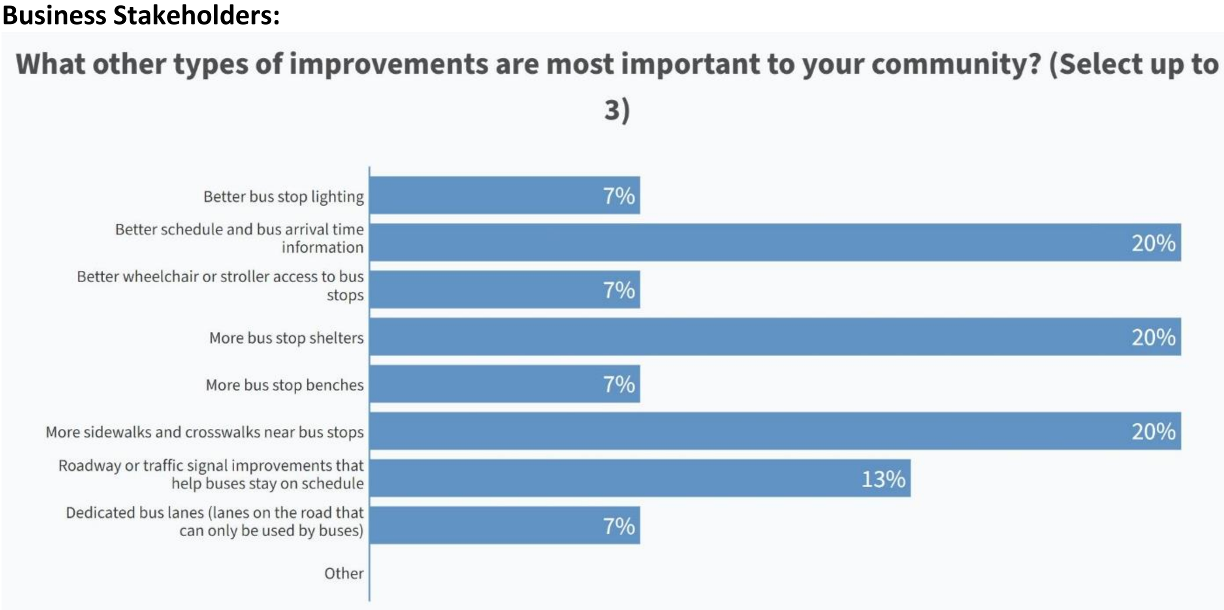
The most important other types of improvements to business stakeholders were:

1. Better schedule and bus arrival time information
2. More bus stop shelters
3. More sidewalks and crosswalks near bus stops

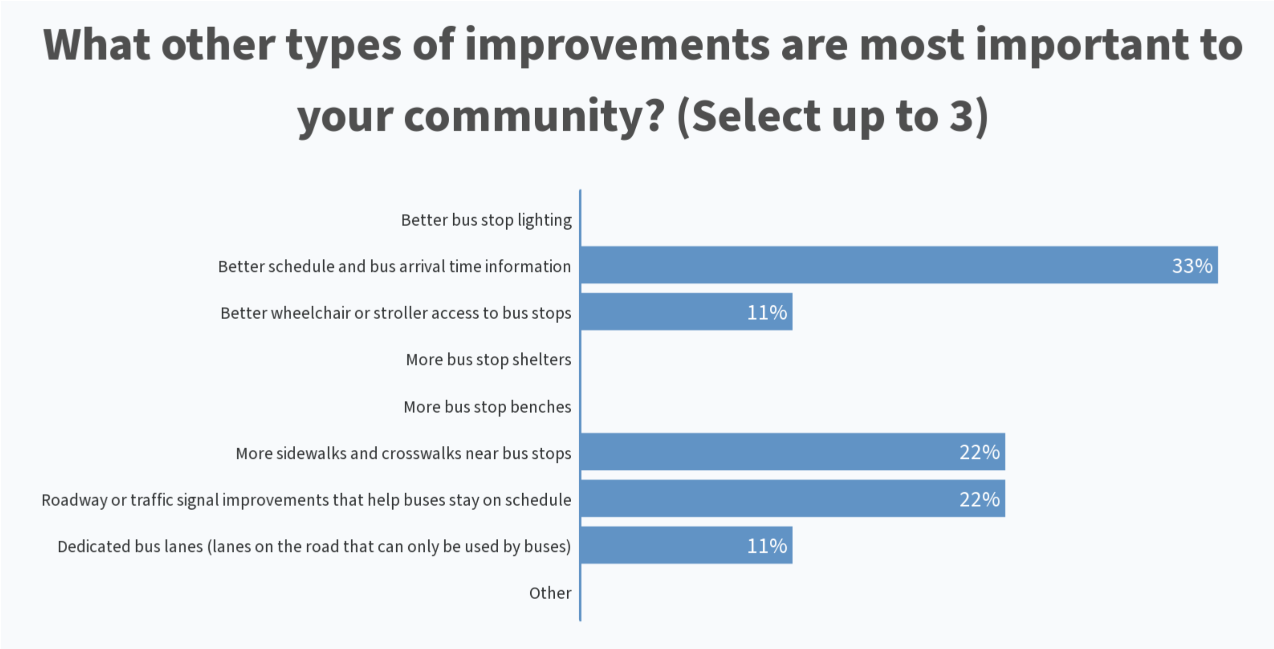
The most important other types of improvements to community stakeholders were:

1. Better schedule and bus arrival time information
2. More sidewalks and crosswalks near bus stops
3. Roadway or traffic signal improvements that help buses stay on schedule

Business Stakeholders:



Community Stakeholders:



A summary of discussion points around this question is shown below for each meeting, as applicable.

Business Stakeholder Discussion

- What are behaviors post pandemic and how are we driving them back to buses?
- People in some cases need to stand on the side of the road with no shelter or lighting.
- No crosswalks are a challenge in some areas.

Community Stakeholder Discussion

- Wheelchair and stroller access are important to emphasize. If it isn't available, people won't be able to use it. If it is available, continuing to advertise and indicate its availability will reinforce community use of the service. New stops are being constructed; however, the sidewalks have not necessarily accompanied the new stops, leaving those locations inaccessible for the time being.
- Stakeholders emphasized the use of traffic signals and roadway improvements to help transit.

QUESTION 3: As the bus service changes are implemented in the future, what is the most effective way to communicate these changes to your community?

QUESTION 3 RESULTS

Business Stakeholder Discussion

- Social media (multiple platforms)
- More messaging around existence/benefits of increased options and links between Metro Station and bus lines.
- Connecting with HOA management and local management of real estate
- Public meetings
- It is difficult to reach everyone

Community Stakeholder Discussion

- Interviews with local media and Q&A sessions
- Communication on the bus in multiple written and verbal languages
- Board newsletters
- Pamphlets and signage on buses and at transit stations

QUESTION 4: What are potential concerns your community may have about proposed bus service improvements?

QUESTION 4 RESULTS

Business Stakeholder Discussion

- Hard to reach out to everyone in the community—proud of Fairfax for how they are trying to reach out to the community.
- The improvements will be beneficial. The problem in Tysons is that often we cannot safely walk to bus stops/Metro. There are missing sidewalks.
- What provides the most bang for the buck?

Community Stakeholder Discussion

- In general, my perception is that the county buses are a safe zone. I would like riders and drivers to feel safe while on the bus.
- I haven’t seen Mason District or Annandale specific improvement plans to be able to comment on this.

QUESTION 5: What other thoughts or ideas can you share with us to improve Fairfax Connector bus service for your community?

Business Stakeholder Discussion

- Routes need to be reliable. Too frequent changes in routes make them hard to rely on and understand.
- Buses take twice as long than driving—is there a way to say what the average time a bus takes to get to destinations? This may help with selling bus services vs people driving individual vehicles.
- How are we getting large employers involved and giving them info to give to their employees?

Community Stakeholder Discussion

- In Korea, especially crowded downtown area, traffic is crazy. The subway used to be the only way to get around the city but recent years, bus services are getting the best use. This is because bus stops are set up with computerized schedule notification system and get to destination closer than subway.
- Is bus service improvement gear toward creating transportation to and from residence area to business areas or just navigating around the community?
- Consider revising routes to not only focus on home to work, but focuses on all services, including community services, schools, retail, food.

5. **Public Outreach**
   - Current Public Survey is open until April 16, 2022
   - Additional comments and questions can be submitted through the following:
     - Email: fairfaxconnector@fairfaxcounty.gov
     - Call 703-339-7200, TTY 703-339-1608
     - Mail to:
       Fairfax County Department of Transportation
       C/O Transit Planning – Public Comment TSP 2022
       4050 Legato Road, Suite 400
       Fairfax, VA 22033