



COMMONWEALTH of VIRGINIA
Office of the
SECRETARY of TRANSPORTATION

Interstate 81 Corridor Improvement Program and Fund Update

Commonwealth Transportation Board Meeting
October 2022



Agenda

2019 Acts of Assembly

Performance Measures Comparison

Project Development Process

Assessment of Strategies

Annual Program Allocations and Financing Plan

Takeaway Scorecard

2019 Acts of Assembly

- Chapters 837 and 846 – CTB Report Requirements
- Report by December 15 to General Assembly
 - Performance of the I-81 corridor
 - Effectiveness of operational strategies and capital improvements
 - Status of projects
 - Current and projected I-81 Fund balance
- Annual program allocation
- Financing plan
- Schedule of projects and strategies

Performance Measures - Baseline Comparison

Safety and Performance of I-81

- Crash frequency and severity
- Person-hours of delay
- Number of incidents involving lane closures
- Average duration of incidents involving lane closures

Performance Measures - Baseline Comparison Updated

Year	VMT (millions)	Person Hours of Delay (Thousands)			Lane-Impacting Incidents			Hours of Lane Closures		
		Northbound	Southbound	Total	Northbound	Southbound	Total	Northbound	Southbound	Total
2019	15.06	2,116	1,471	3,587	1,894	1,691	3,585	2,329	1,812	4,141
2021	15.21	1,702	1,434	3,136	1,247	1,175	2,422	1,797	1,570	3,367
Percent Change	+1.0%	-19.6%	+2.5%	-12.6%	-34.2%	-30.5%	-32.4%	-22.8%	-13.4%	-18.7%

Years	Equivalent Property Damage Only Crashes		
	Northbound	Southbound	Total
2015-2019	50,094	48,907	99,001
2017-2021	51,274	48,169	99,443
Percent Change	+2.4%	+1.5%	+0.5%

Operational Improvement Project Status

Operational Improvement Type	Status
Curve improvements (static and flashing chevrons)	COMPLETE
Safety Service Patrol (SSP) enhancements	COMPLETE
Lift and tow on SSP vehicles	COMPLETE
Towing and Recovery Incentive Program (TRIP)	COMPLETE
Traffic camera installations	COMPLETE
Digital message sign installations	COMPLETE
Arterial Signal Improvements	ONGOING



Arterial Signal Improvement Project Status

Corridor-wide Arterial Improvements

- Parallel route upgrades
 - Minor geometric improvement projects to facilitate access to and from I-81 during incidents are **complete** (3 projects in Rockbridge County)
- Traffic signal upgrades
 - Bristol District – 1 project **complete**, 1 project advertised for construction, 1 project to be advertised in 2023.
 - Salem District – 1 project **complete**, 1 project under construction (Dec. 2023 completion), 1 project to be advertised December 2022.
 - Staunton District – 2 projects to begin construction early 2023, 2 projects to be advertised for construction November 2022.

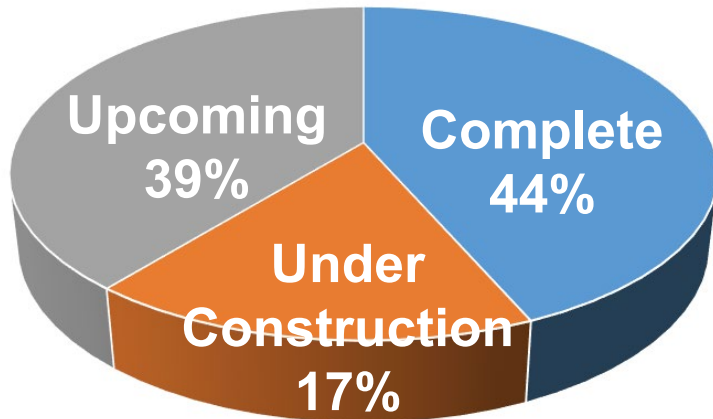
Capital Improvement Project Status

**Total of
64
Projects**



Capital Improvement Project Status - Bristol District

- **9** upcoming projects
– \$220M
- **4** projects under construction
– \$33M
- **10** projects - construction complete
– \$47.5M



**Exit 47
Smyth County**
Northbound
acceleration lane
and ramp extension



Capital Improvement Project Status - Bristol District

Completed Projects:

- Exit 19 NB Decel Lane Extension (Abingdon)
- Exit 26 SB Accel & Decel Lane Extension (Emory)
- Exit 39 SB Accel & Decel, NB Decel Lane Extension (Seven Mile Ford)
- Exit 44 SB Accel Lane Extension (Marion)
- Exit 47 NB Accel Lane Extension (Marion)
- Exit 67 Decel Lane Extension (South of Wytheville)
- Exit 84 SB Decel Lane Extension (North of Fort Chiswell)

Projects Under Construction:

- Exit 17 SB Acceleration Lane Extension (Abingdon)
- Exit 39 to MM 40.6 NB Truck Climbing Lane (Seven Mile Ford)
- Exit 47 SB Accel; Exit 54 SB Auxiliary Lane (South of Rural Retreat)

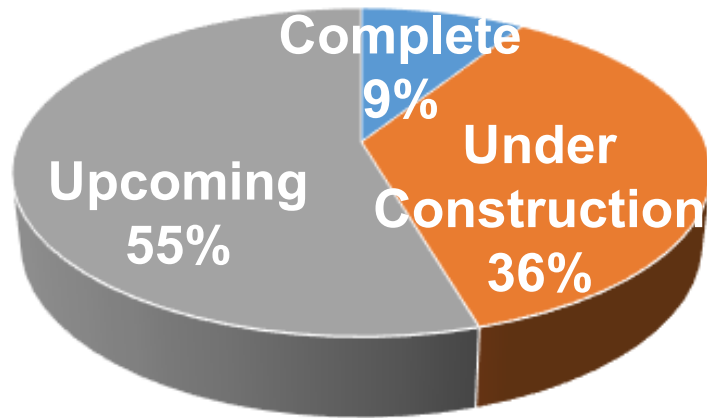
Capital Improvement Project Status - Bristol District

Upcoming Projects:

- **MM 9.7 to MM 8.1 SB widening to three lanes (Bristol)**
- **Exit 32 to MM 33.5 NB Truck Climbing Lane (Glade Spring) – Advertise Summer 2023**
- **MM 34 to MM 33 SB Truck Climbing Lane (Glade Spring) – Advertise Summer 2023**
- **Exit 45 NB Decel Lane Extension (Marion)**
- **Exit 72 NB Decel Extension and I-77 Exit 41 to I-81 SB Exit 72 Auxiliary Lane – Design-Build with Request For Qualifications advertisement Spring 2023. (Wytheville)**
- **I-81 Exit 73 to I-77 Exit 41 SB Decel Lane Extension and Ramp Reconstruction (Wytheville)**
- **Exit 73 to Exit 72 SB Auxiliary Lane (Wytheville)**
- **Exit 81 SB Decel Lane Extension (Fort Chiswell)**

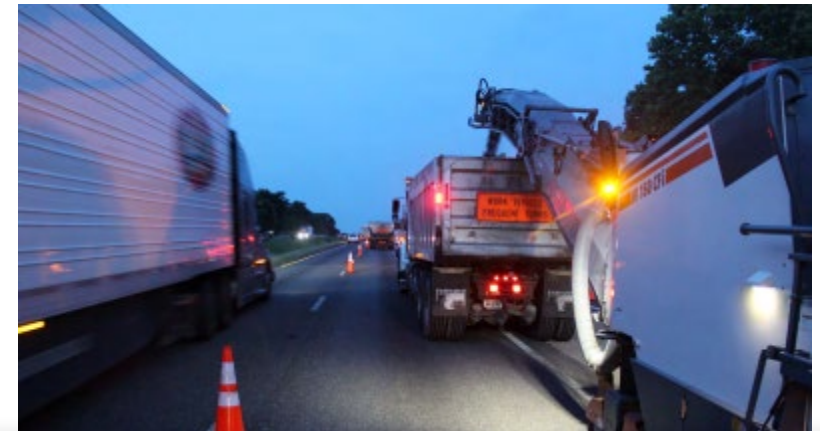
Capital Improvement Project Status - Salem District

- 6 upcoming projects - \$796M
- 4 projects under construction – \$300M
- 1 projects - construction complete – \$4.8M



**Exit 137-141
Salem and
Roanoke County**

**Northbound and
southbound widening**



Capital Improvement Project Status - Salem District

Completed Projects:

- Exit 89 NB Acceleration Lane Extension (Pulaski)
- Troutville Rest Area SB Entrance and Exit Extension (2 projects) - Troutville

Projects Under Construction:

- Exit 137 to Exit 141 Widening NB and SB (Design Build, 2 projects bundled) - Salem

Upcoming Projects:

- MM 116 to Exit 128 Widening NB Only – Construction 2027 (Christiansburg to Ironto)
- Exit 128 to Exit 137 Widening NB Only – Construction 2027 (Ironto to Salem)
- Exit 143 to Exit 150 Widening NB & SB – Construction 2025 (Roanoke to Troutville)

Capital Improvement Project Status - Salem District

- **Upcoming Projects Continued:**
 - **Exit 162 NB Accel Lane Extension – Construction 2025 (Buchanan)**
 - **Exit 105 NB Accel Lane Extension – Construction 2026 (Radford)**
 - **Exit 94 SB Accel Lane Extension – Construction 2025 (Pulaski)**

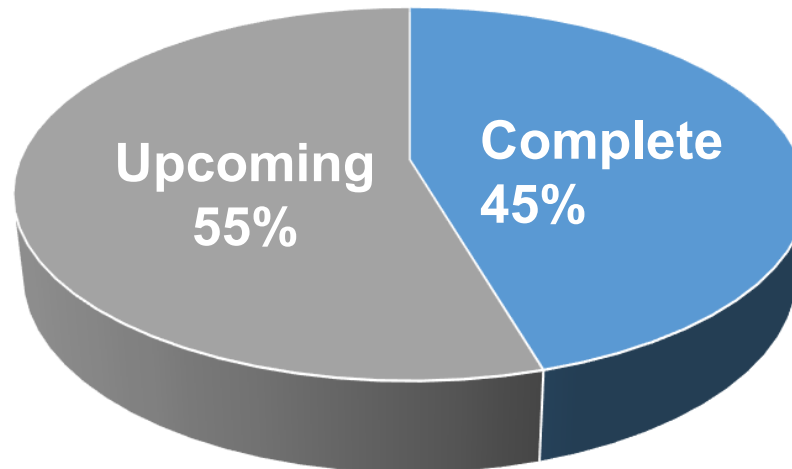
Capital Improvement Project Status - Staunton District

- **12** upcoming projects
– \$963M
- **0** project under construction
- **10** projects - construction complete
– \$19.8M



Exit 205 Rockbridge County

Acceleration lane extension,
off-ramp widening, and turn
lane construction



Capital Improvement Project Status - Staunton District

Completed Projects:

- Exit 302 NB Accel, Exit 302 SB Decel, Exit 283 SB Accel,
- Exit 269 NB Decel, Exit 279 SB Accel
- Exit 291 NB Accel, Exit 296 SB Accel, Exit 304 NB Accel
- Exit 205 SB Accel, Exit 205 NB Accel (Raphine)

Projects Under Construction: None

Upcoming Projects:

- Exit 221 to Exit 220 SB Auxiliary Lane – Construction Fall/Winter 2023 (South of Staunton)
- Exit 221 to Exit 225 NB and SB Widening – Construction Summer 2023 (Staunton)
- Weyers Cave NB and SB Truck Climbing Lanes – Construction Spring 2025
- Exit 242 to Exit 248 NB and SB Widening – Construction Summer 2025 (Harrisonburg)
- Exit 299 to Exit 296 SB Widening – Construction Fall/Winter 2024 (Strasburg)

Capital Improvement Project Status - Staunton District

- **Upcoming Projects Continued:**
 - **Exit 313 to Exit 317 NB and SB Widening – Construction 2027 (Winchester)**
 - **Mt. Sidney Rest Area SB Decel Lane Extension – Construction 2026**
 - **Mt. Sidney Rest Area SB Accel Lane Extension – Construction 2026**
 - **Mt. Sidney Rest Area NB Accel Lane Extension – Construction 2026**
 - **Rockbridge County Shoulder Improvements – Construction 2026**
 - **Exit 188 NB Accel Extension – Construction 2025**

Program Website Improve81.org

IMPROVE 81



What Is The I-81 Improvement Program?

The I-81 Corridor Improvement Program consists of innovative, targeted improvements that will have a substantial effect on the safety and reliability of a critical portion of our nation's infrastructure.



Fiscal Year 2023-2028 Performance (in millions)

Interstate I-81 Improvement Funding

Fund	Previous	FY23	FY24	FY25	FY26	FY27	FY28	Total
I-81 Regional Fuels Tax*	\$ 217.3	\$ 78.8	\$ 80.0	\$ 80.7	\$ 81.4	\$ 83.2	\$ 85.2	\$ 706.6
I-81 Bond Proceeds	\$ 101.9	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 14.8	\$ 0.0	\$ 116.7
I-81 TIFIA Proceeds	\$ 97.9	\$ 0.0	\$ 258.2	\$ 0.0	\$ 0.0	\$ 379.8	\$ 0.0	\$ 735.9
I-81 Allocation from IOEP	\$ 162.0	\$ 95.9	\$ 101.3	\$ 110.1	\$ 109.2	\$ 107.6	\$ 107.8	\$ 793.9
Total	\$ 579.1	\$ 174.7	\$ 439.5	\$ 190.8	\$ 190.6	\$ 585.4	\$ 193.0	\$ 2,353.1

Fund balance as of July 31, 2022

\$290.4 million

*Fuel Tax Revenue includes funds available for debt service

I-81 Multimodal Improvement Plan: Virginia Breeze



Virginia Breeze: System Overview



VALLEY FLYER

Blacksburg — Washington,
D.C.



CAPITAL CONNECTOR

Martinsville — Richmond —
Washington, D.C.



PIEDMONT EXPRESS

Danville — Washington, D.C.



HIGHLANDS RHYTHM

Bristol — Washington, D.C.

- State-sponsored intercity bus service that runs 7 days a week, 365 days per year
- Four (4) Virginia Breeze routes, each providing connections to rural communities
 - Two (2) routes - Valley Flyer and Highlands Rhythm - service I-81
- Ticket prices range from \$21 to \$60

I-81 Virginia Breeze Service

September 2013

- *Virginia Statewide Intercity Bus Study* identifies high-level needs for service

December 2017

- The first Virginia Breeze route is put into service, connecting Blacksburg to Washington D.C. via I-81

March 2020

- *Virginia Breeze I-81 Service Expansion Study* identifies unmet needs and service alternatives for connecting Bristol to Washington D.C. via I-81

November 2021

- The 4th Virginia Breeze route – the Highlands Rhythm – is put into service



Virginia Breeze: Highlands Rhythm

Top Performing Stops

- 1) Harrisonburg
- 2) Dulles Airport
- 3) Washington D.C.
- 4) West Falls Church
- 5) Radford

Northbound	Southbound
Departure: 11:00 AM (Bristol)	Departure: 12:50 PM (Washington D.C.)
Arrival: 6:55 PM (Washington D.C.)	Arrival: 8:30 PM (Bristol)

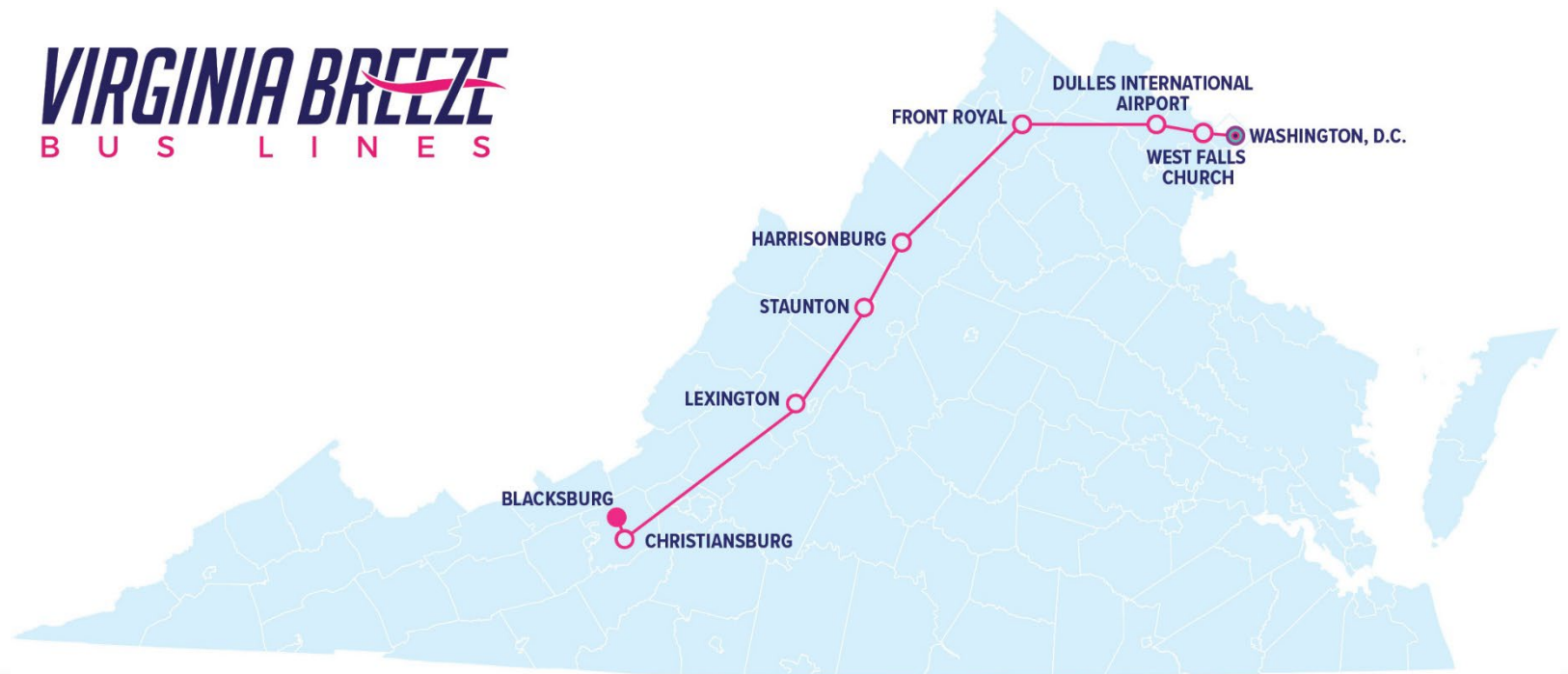


Virginia Breeze: Valley Flyer

Northbound	Southbound
Departure: 8:00 AM (Blacksburg)	Departure: 9:35 AM (Washington D.C.)
Arrival: 2:05 PM (Washington D.C.)	Arrival: 3:40 PM (Blacksburg)

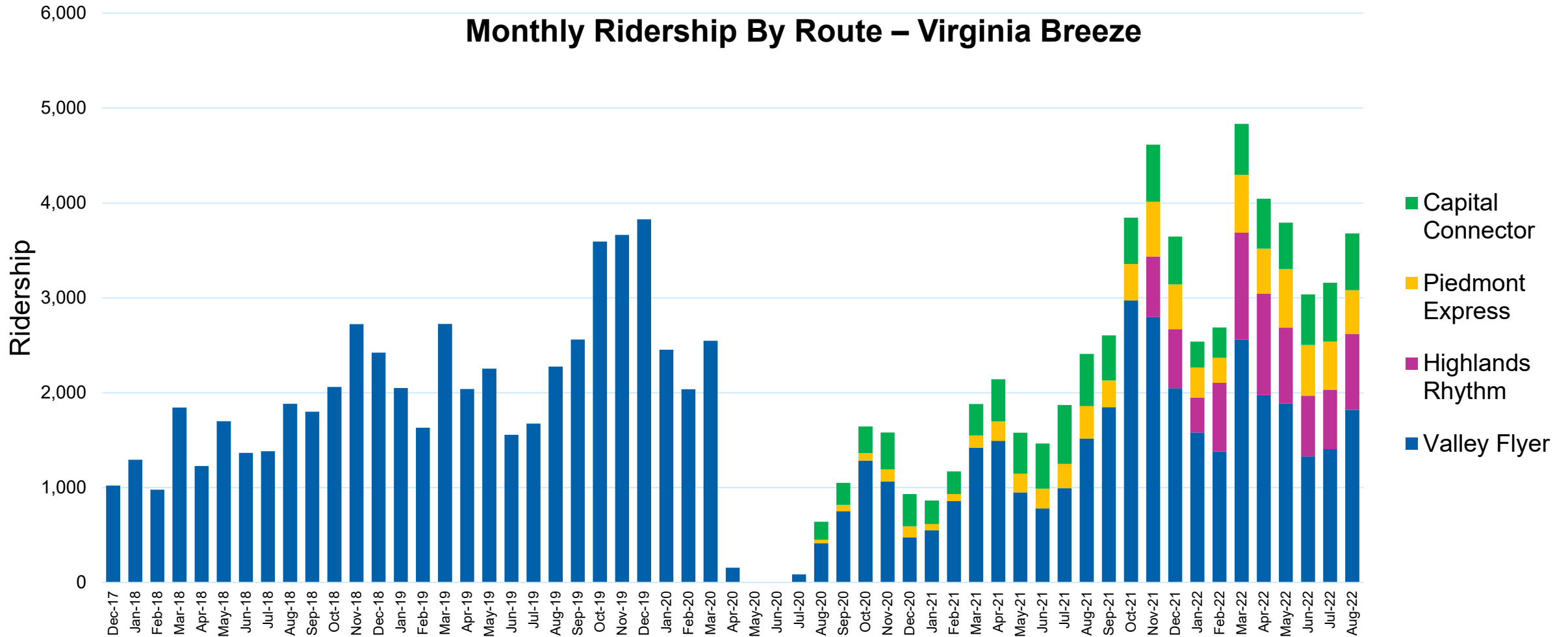
Top Performing Stops

- 1) Blacksburg
- 2) Dulles Airport
- 3) Harrisonburg
- 4) Washington D.C.
- 5) West Falls Church



Virginia Breeze Performance

Monthly Ridership By Route – Virginia Breeze



Virginia Breeze Performance

- **FY22 on-time performance (calculated by stop): 85%**
- **FY22 farebox recovery rate (% of costs covered by fares): 52%**
- **More than 110,000 rides provided on these routes since December 2017**
- **Pre-booked tickets allow DRPT to accommodate increased ridership demand**
 - **December 1, 2019: Added 12 additional Valley Flyer buses to address demand**



I-81 Multimodal Funding: Transit

I-81 Multimodal Financial Plan (Transit)		
Description	Capital*	O&M (Annual)
Virginia Breeze Service Extension to Bristol**	-	\$243,000
Virginia Breeze Extension Stops	\$60,000	-
Improvements to Existing Stops	\$40,000	-

Notes

* Pending review of ridership levels

**Includes 15% contingency, 3-years of operating funds per CTB IOEP policy (does not include farebox revenue or federal revenue)

FY22 Operating Revenues

FY22 Operating Revenues (I-81 VA Breeze Service)		
Source	Amount	Percent (%)
I-81 Multimodal Transit Funding (IOEP) Bristol Ext	\$243,000	10%
FTA Funding (5311(f) and CARES)*	\$920,672	38%
Farebox Revenues	\$1,275,209	52%
Total Operating Cost	\$2,438,881	100%

Notes

* FTA CARES funds are one-time stimulus funds. Once these funds are expended, FTA 5311(f) funding will be utilized.