

Springfield to Quantico Enhanced Public Transportation Feasibility Study

Elected Officials Briefing
September 16, 2021



Virginia Department of Rail and Public Transportation

Meeting Agenda

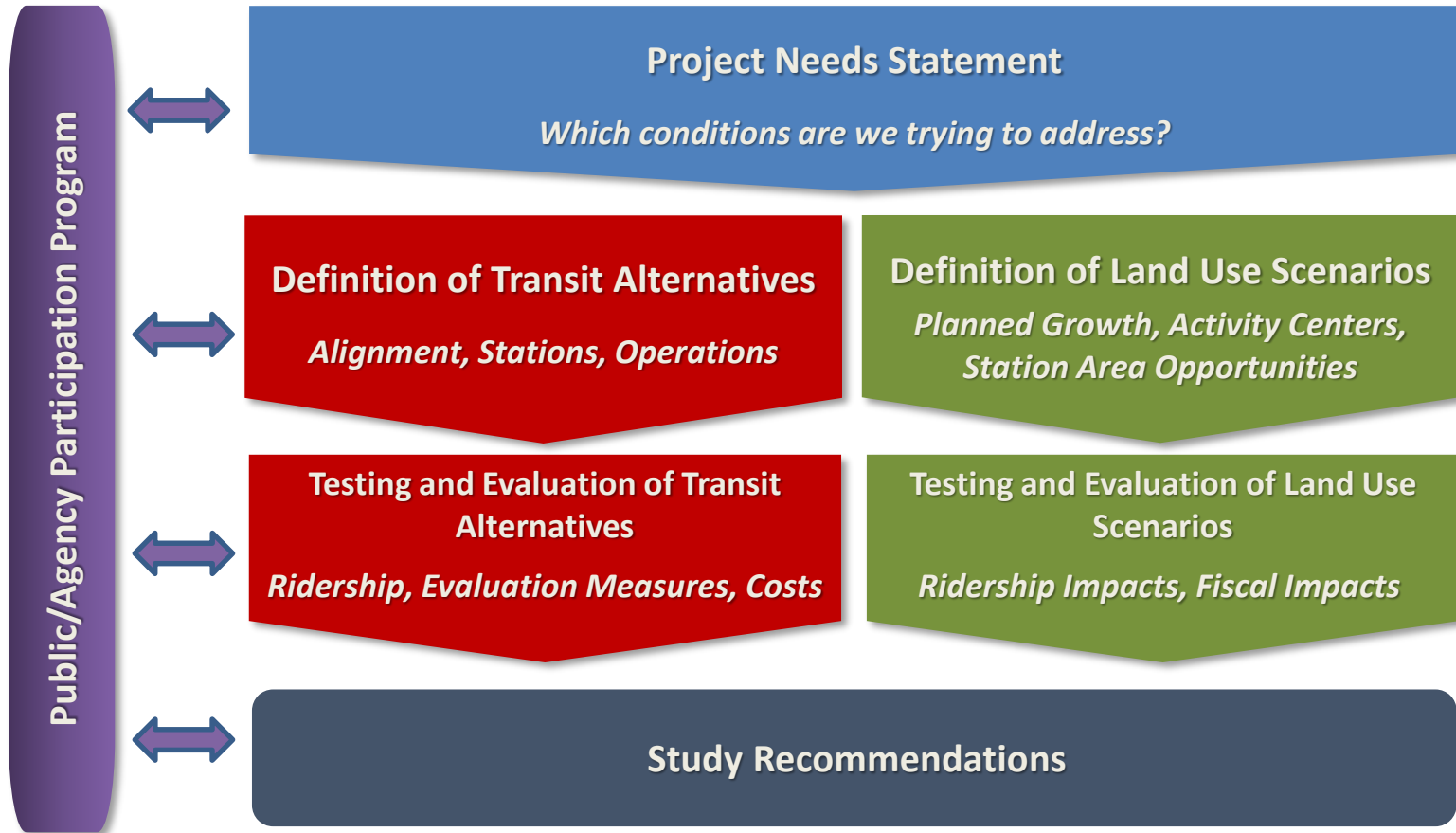
- Introductions / Welcome
- Public and Stakeholder Outreach Status
- Summary of Evaluation Results
- Sensitivity Tests
- Land Use Assessment
- Next Steps

Study Outcomes

Comprehensive, objective evaluation of a range of potential future enhanced transit alternatives that compares the cost, benefits, and impacts of each option to inform recommendations about future investment in the corridor.



Study Technical Approach



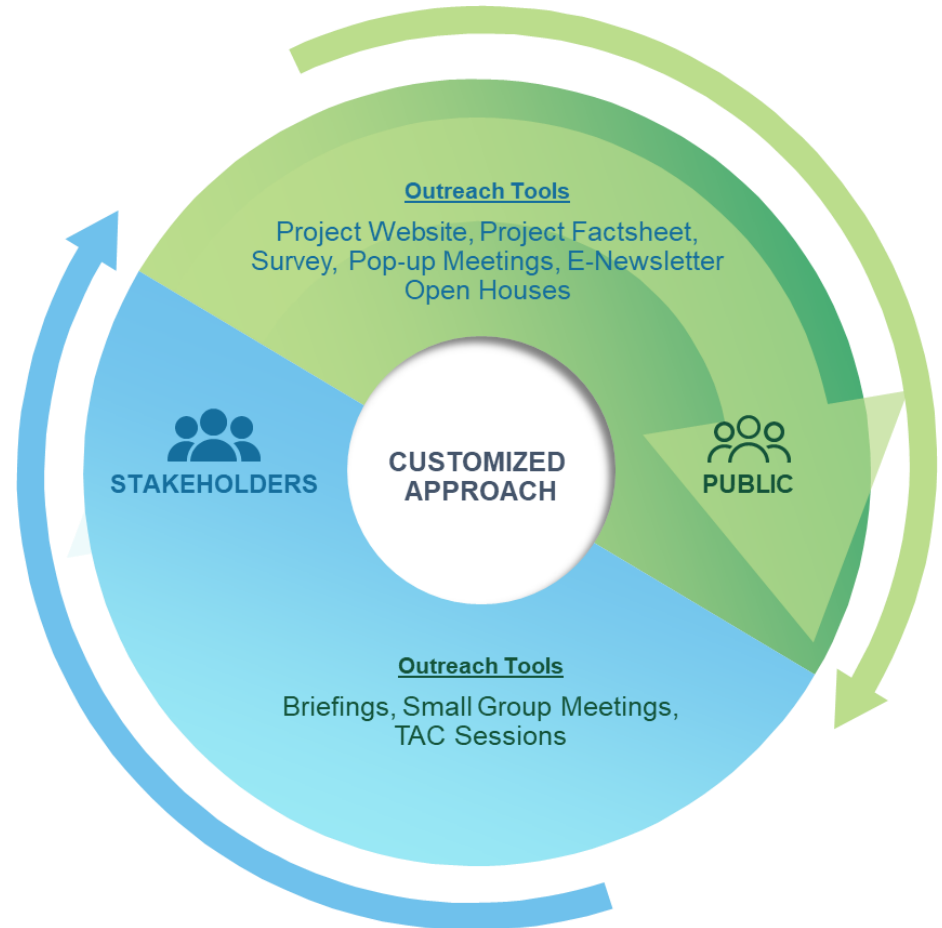
Study Schedule



Public and Stakeholder Outreach

Outreach Status

- Completed Activities
 - Public Meeting #1 (May 4th)
 - Public Meeting #2 (July 27th)
- Upcoming Activities
 - 3rd Round Virtual Public Meetings – September 21st and 23rd



<http://www.drpt.virginia.gov/transit/springfield-to-quantico/>

Virtual Public Meeting – July 27th

- 83 registered participants not including DRPT staff and the consultant team hosting the meeting.
- 42 people attended the meeting, including two dial-in participants
- Over 40 zip codes were submitted by registrants covering both Prince William and Fairfax counties.
- Closed captioning services were provided.
- Spanish interpretation services were available.
- Meeting recording available: <http://drpt.virginia.gov/transit/springfield-to-quantico/>



September Public Meetings

- Key Objectives:
 - Summarize findings
 - Show impact of land use assumptions
 - Provide context on next steps for future investment
- Pop-ups held to distribute flyers
- Help us get the word out!

YOU'RE INVITED!



Join us for a public meeting about potential transit enhancements for Fairfax and Prince William counties.

The Virginia Department of Rail and Public Transportation (DRPT) is conducting a feasibility study of enhanced public transportation services between the Franconia-Springfield Metro station in Fairfax County and the Quantico Marine Base in Prince William County. Enhanced transit could include options such as new and enhanced express bus services, increased VRE commuter rail service levels, Bus Rapid Transit (BRT), or an extension of Metrorail.



DRPT is offering the same meeting on two nights for your convenience.



Register ahead of the meeting by scanning the QR code or visiting:

www.drpt.virginia.gov/transit/public-meetings/

Tuesday, September 21, 2021, 7 p.m.

Thursday, September 23, 2021, 7 p.m.

For more information and to stay up to date on the study progress and upcoming public involvement opportunities visit our study website: www.drpt.virginia.gov/transit/springfield-to-quantico/

DRPT is committed to ensuring that no person is excluded from participation in, or denied the benefits of, its services and activities on the basis of race or ethnicity. If you are unable to participate in this public involvement opportunity due to a disability, please contact the DRPT Compliance Officer at 804.786.4496, ext. 411. You may also contact the DRPT Compliance Officer at compliance@drpt.virginia.gov.

Forgoing language and making informed decisions will be provided with reasonable notice to the open meeting.

Questions?

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(703) 239-3321







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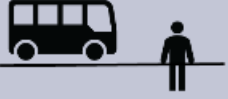


Summary of Evaluation Results

How will we evaluate feasibility?

Goals for Enhanced Transit		
Ridership Potential  Increase transit usage in the study corridor	Congestion Mitigation  Reduce the amount of traffic congestion in the study corridor	Equity  Provide a fair distribution of costs and benefits across different population groups
Regional Accessibility/Connectivity  Increase access to regional activity centers and meet identified service gaps	Cost-effectiveness  Ensure that resources are used efficiently	Development Potential  Create opportunities for development around stations or stops

Ridership Potential

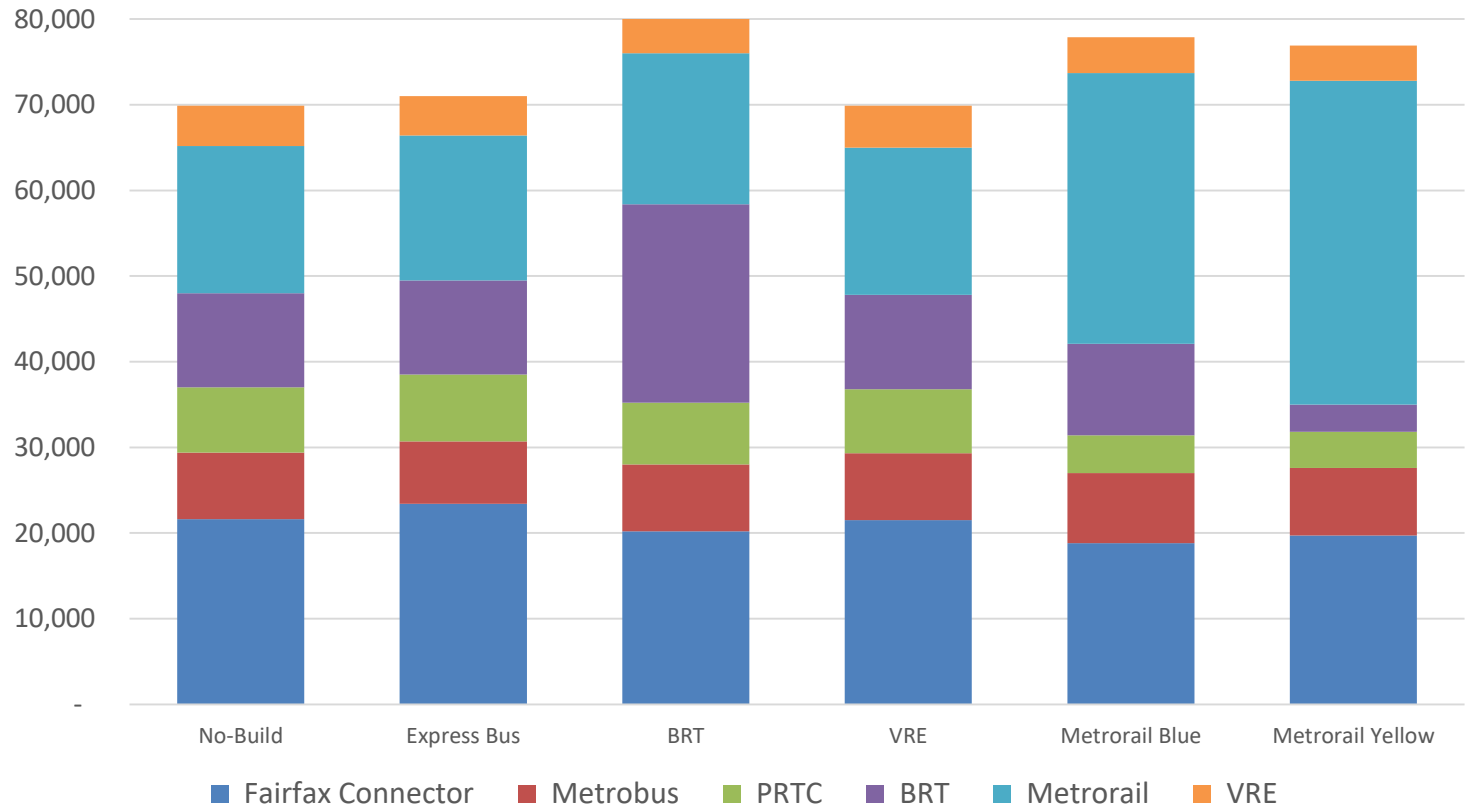


Increase transit usage in the study corridor

Total Transit Boardings

BRT Alternative has the highest number of transit boardings in the Study Corridor.

Total Transit Boardings in the Study Corridor



A 'boarding' is counted every time someone gets on a new transit vehicle

Includes only rail stations in the Study Corridor (Note: VRE alternative does not include new stations.)

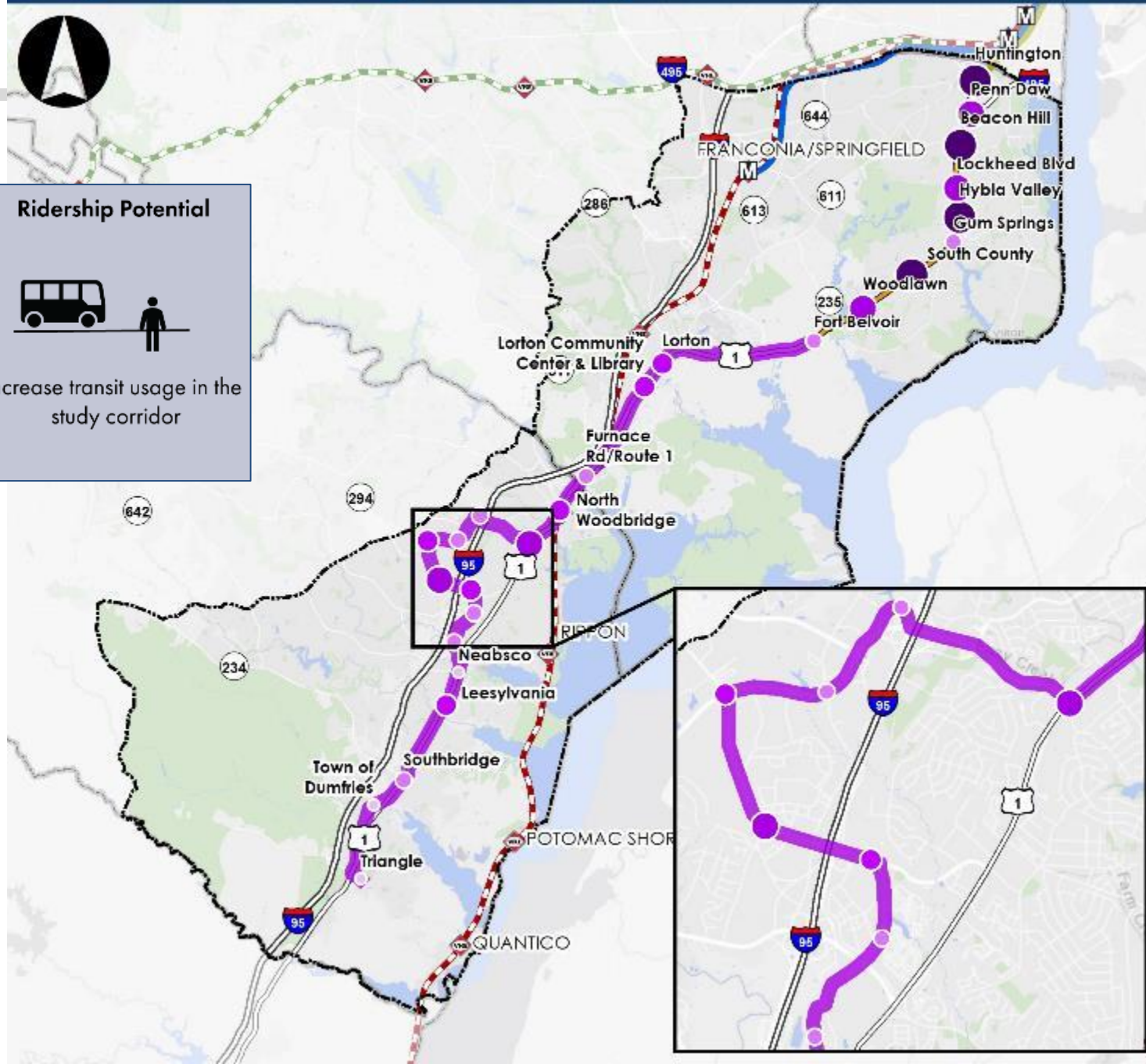
Projected BRT Daily Boardings



Ridership Potential



Increase transit usage in the study corridor



Metrorail Stations

Virginia Railway Express (VRE) Stations

County Boundary

Richmond Highway BRT

Metrorail Routes

Blue

Yellow

VRE Routes

Fredericksburg

Manassas

Potential BRT Alignment

Projected BRT Daily Boardings

< 250

250 - 500

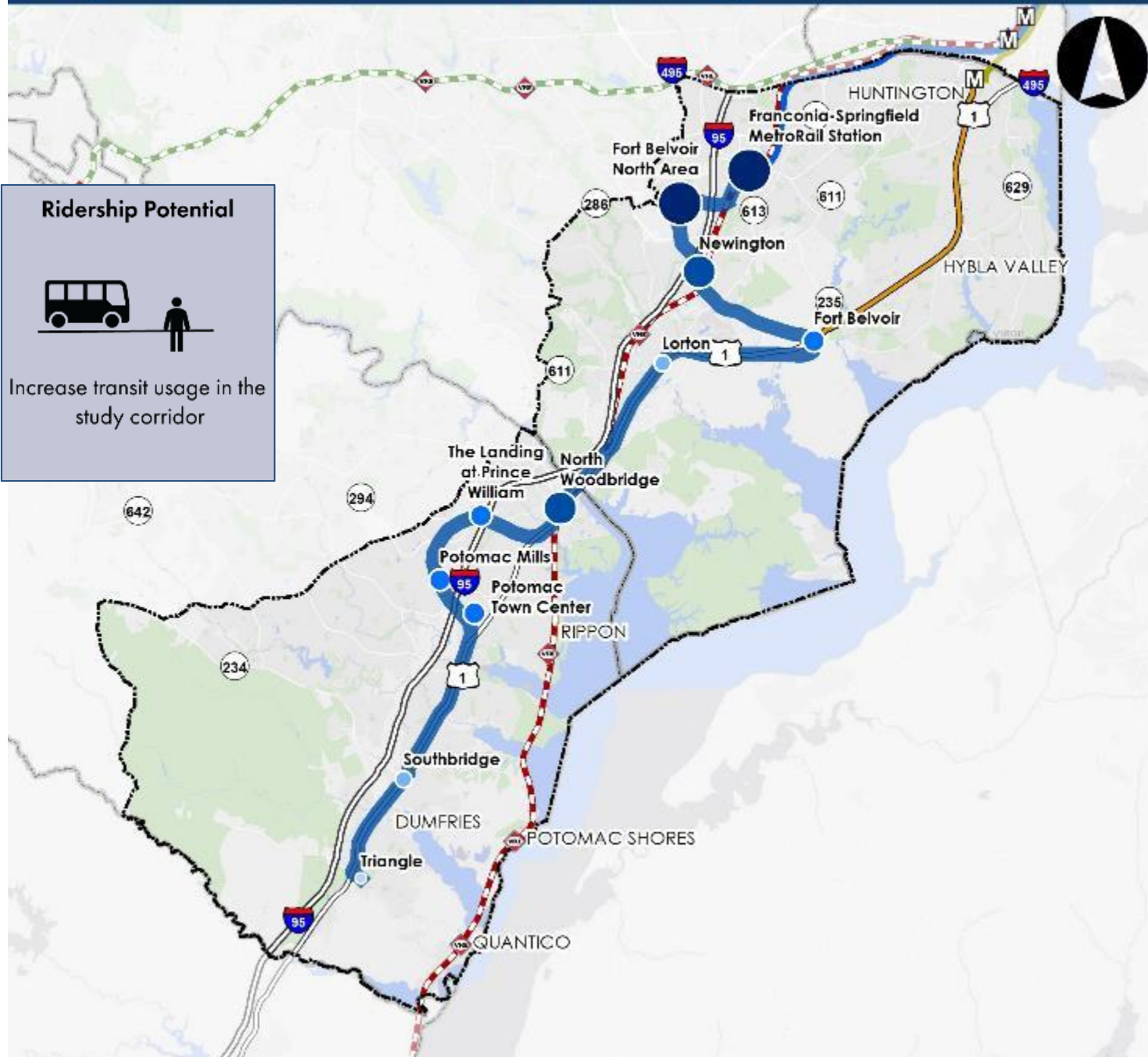
500 - 750

750 - 1,000

> 1,000



Projected Blue Line Daily Boardings



Ridership Potential

Increase transit usage in the study corridor

- Metrorail Stations
- Virginia Railway Express (VRE) Stations
- County Boundary

- Metrorail Routes**
- Blue
 - Yellow

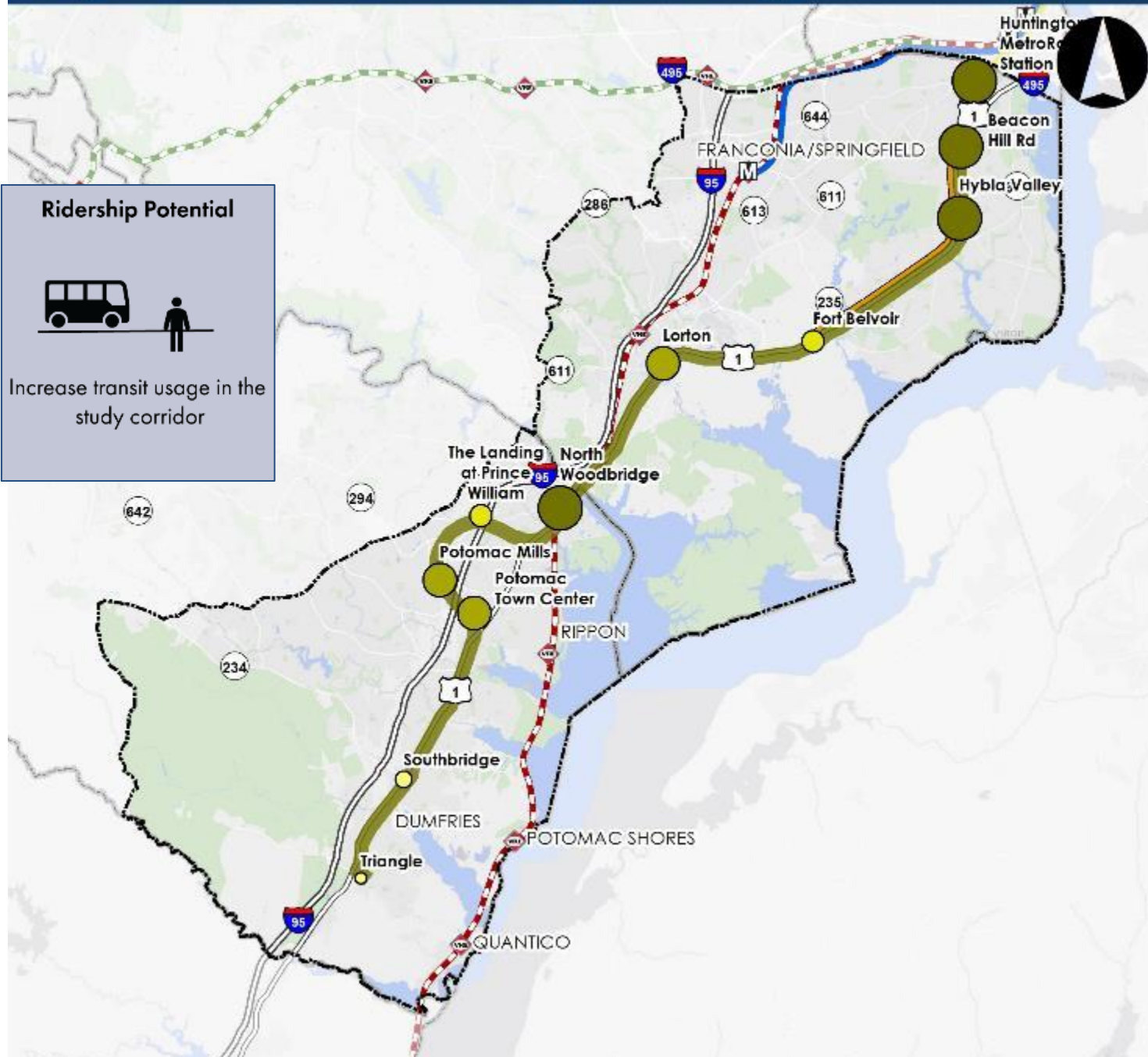
- VRE Routes**
- Fredericksburg
 - Manassas
 - Richmond Highway BRT

Blue Line Alignment

- Projected Blue Line Daily Boardings**
- < 1,000
 - 1,000 - 1,500
 - 1,500 - 2,000
 - 2,000 - 2,500
 - > 2,500



Projected Yellow Line Daily Boardings



Ridership Potential

Increase transit usage in the study corridor

Metrorail Stations

Virginia Railway Express (VRE) Stations

County Boundary

Richmond Highway
 BRT

Metrorail Routes

Blue
 Yellow

VRE Routes

Fredericksburg
 Manassas

Potential Yellow Line Alignment

Projected Yellow Line Daily Boardings

- < 1,000
- 1,000 - 1,500
- 1,500 - 2,000
- 2,000 - 2,500
- > 2,500



Ridership Potential

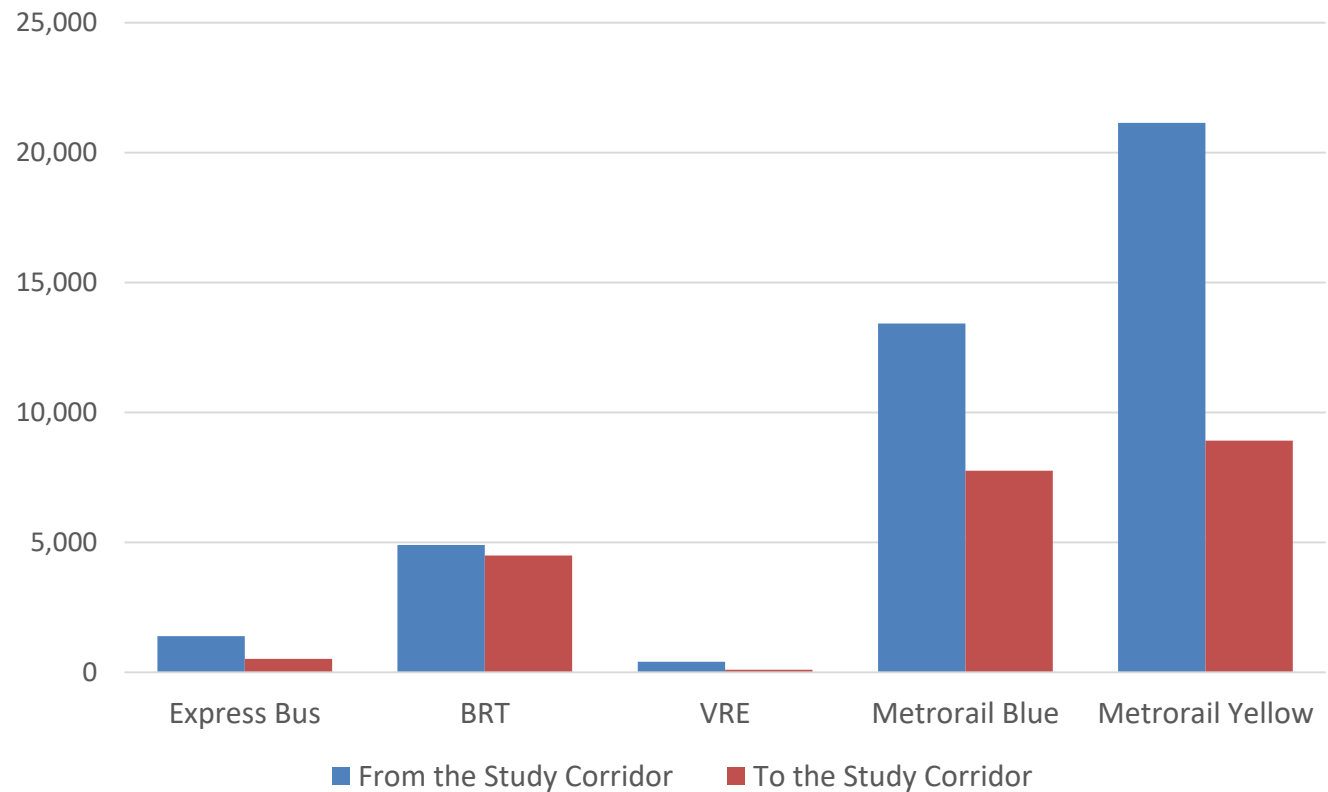


Increase transit usage in the study corridor

New Transit Trips

The Yellow Line Alternative creates the most new transit trips to and from the Study Corridor compared with the No-Build.

New Transit Trips in the Study Corridor



Unlike boardings, transit trips are only counted once end to end, regardless of how many routes are used.

Summary of Evaluation Results

	Additional Express Bus	BRT Extension	Additional VRE Service*	Metrorail Blue	Metrorail Yellow
Ridership Potential	★★	★★★★	★★	★★★★	★★★★
Congestion Mitigation	★	★★	★	★★★★	★★★★
Regional Accessibility	★★	★★★★	★★	★★★★	★★★★
Equity	★	★★	★★	★★★★	★★★★
Cost-Effectiveness	★★★★	★★	★	★	★

* Additional Service Above Transforming Rail in Virginia Improvements Included in Baseline

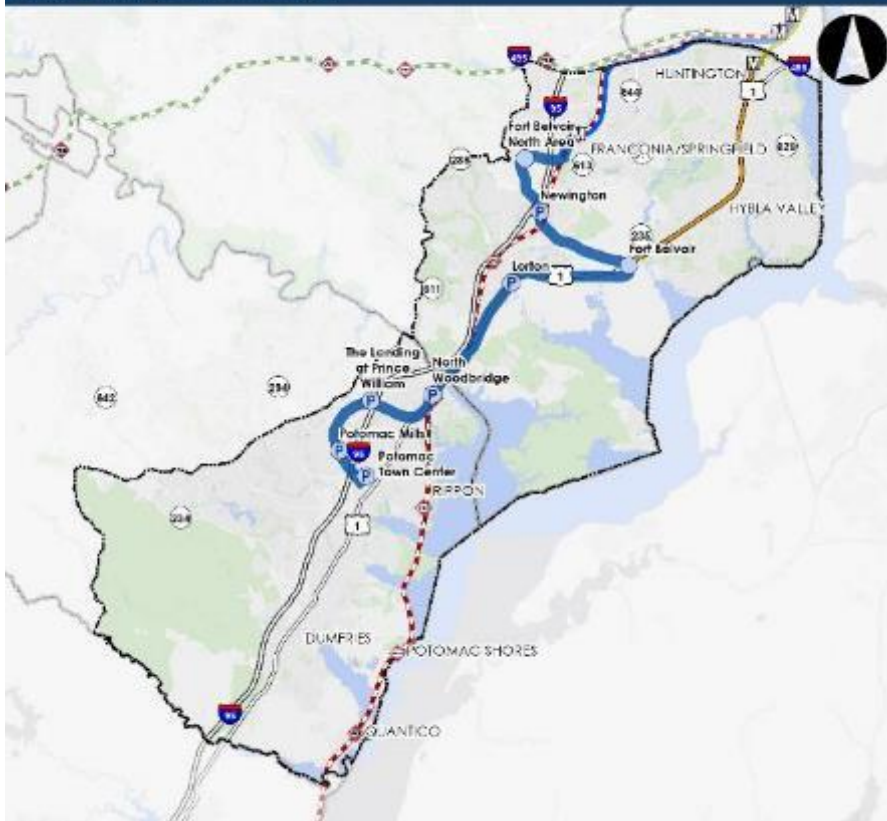
Sensitivity Tests

- Can we make the alternatives more cost efficient by shortening the alignment?
- Uncertainty in long-range planning - What might happen to ridership forecasts if people keep teleworking?
- How would significant changes in land use change ridership forecasts?

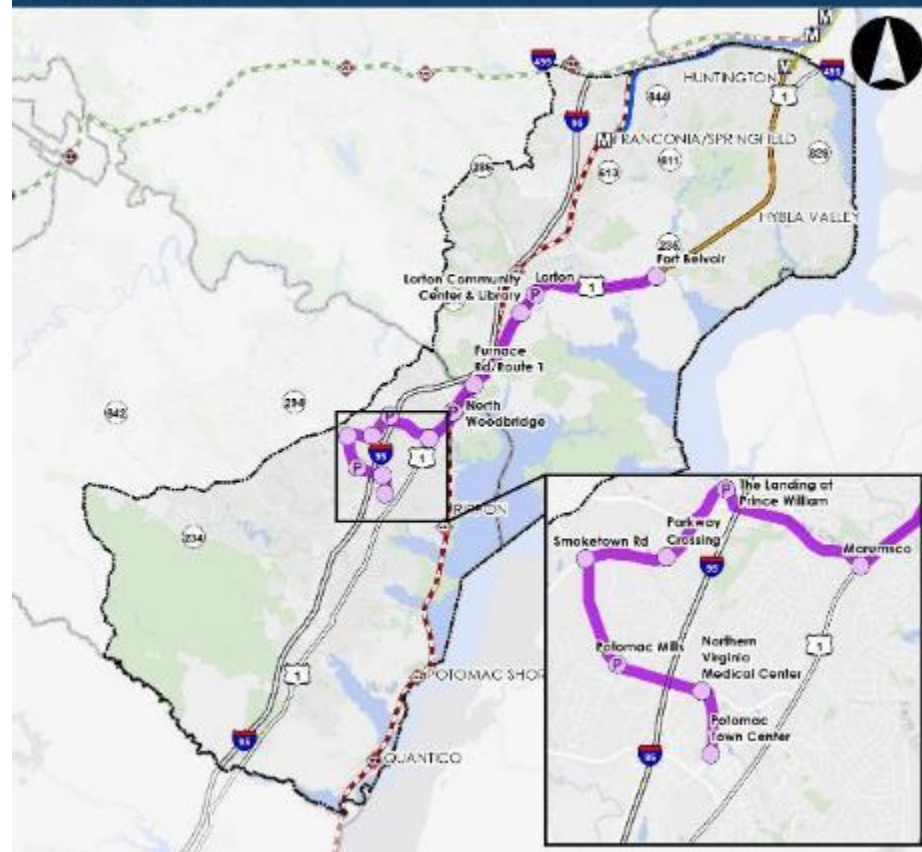
Shorter Alignments

- Tested shorter versions of the Blue Line, Yellow Line, and BRT alternatives
- Remember: Initial model results showed very low ridership for BRT and Metrorail stations south of Potomac Town Center and low cost-efficiency

Blue Line Alternative



BRT Alternative



Shorter Alignments

Can we make the alternatives more cost efficient by shortening the alignment?

Key Sensitivity Results

Change as compared to Full Alignments

	BRT	Metrorail Blue	Metrorail Yellow
Total Corridor Transit Boardings	-4%	--	--
New Transit Trips in Study Corridor	-32%	-10%	-6%
Cost per Rider	+2%	-16%	-18%

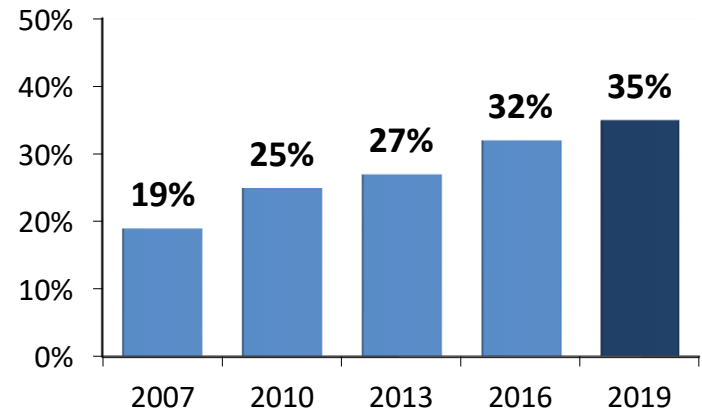
Metrorail ridership is forecast to be less impacted by a shortened alignment than BRT. The shorter alignment results in improved cost-effectiveness for the two Metrorail alternatives.

Telework Sensitivity Tests

Uncertainty in long-range planning - What might happen to ridership forecasts if people keep teleworking?

Base telework conditions – (MWCOC SOC Survey 2019)

- In 2019, 35% of regional workers teleworked regularly or occasionally vs 19% in 2007
- 33% of Fairfax/Prince William workers teleworked 1.1 days/week, a similar frequency to other regional workers



Telework increased substantially during the pandemic – estimated that 60-65% of regional workers worked at home

Telework Sensitivity Tests

Uncertainty in long-range planning - What might happen to ridership forecasts if people keep teleworking?

Key Sensitivity Results

Change as compared to Initial Results

	Future Telework Assumption	BRT Alternative Ridership Impact	Metrorail Alternatives Ridership Impact
Low Telework	45% telework an average 1.1 days/wk	-8%	-12%
High Telework	55% telework an average 1.5 days/wk	-17%	-26%

As shown above, Metrorail would be impacted more significantly by changing telework because of the higher percentage of office-based work trips, as compared with BRT.

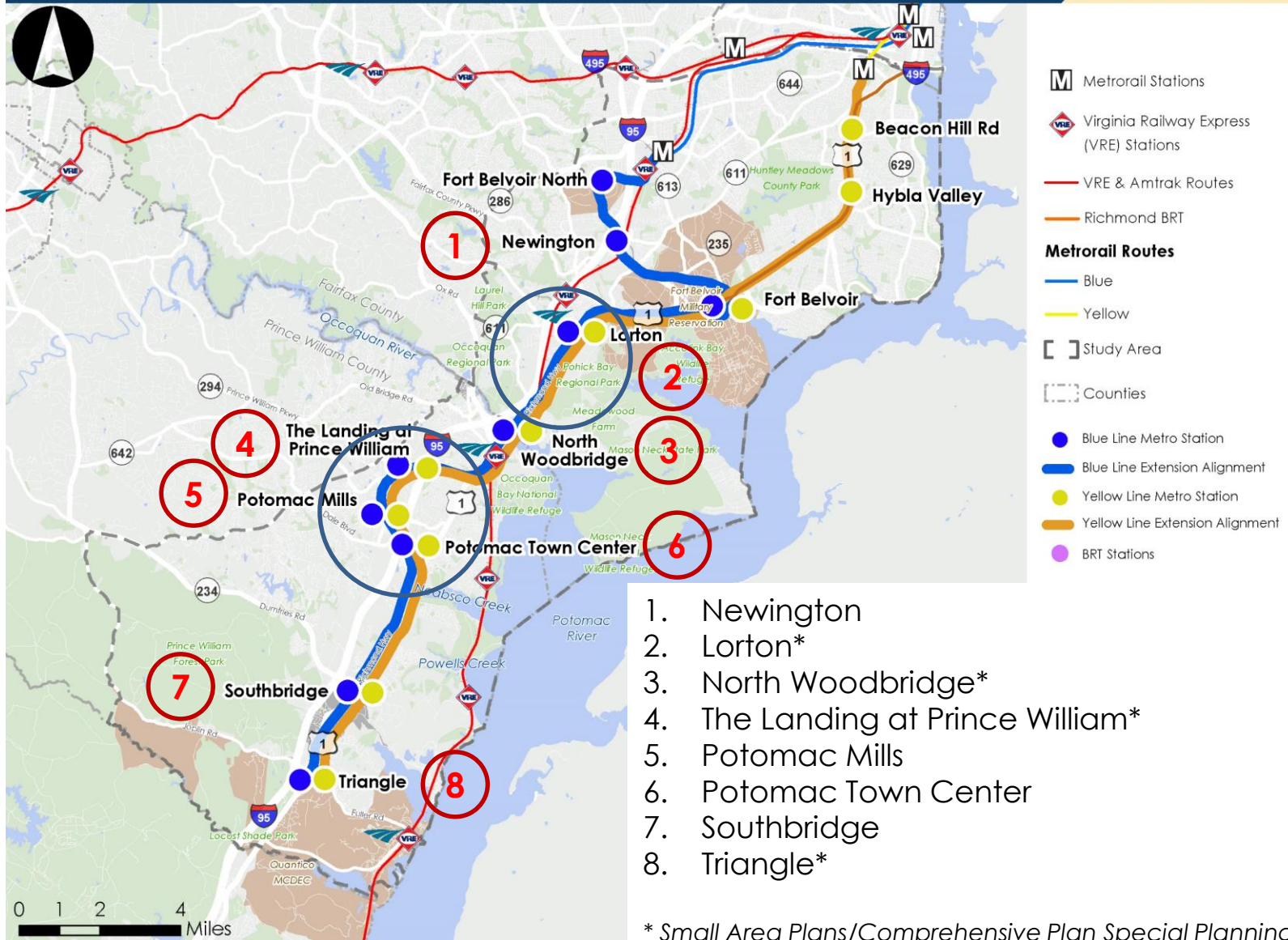
Land Use Assessment

How would significant changes in land use change ridership forecasts?

- All of our initial model results used MWCOG Cooperative Land Use Forecasts for 2045.
- This sensitivity analysis looked at two different land use scenarios that added transit-oriented development (TOD) by increasing densities around the station areas:
 - Metrorail-focused TOD
 - BRT-focused TOD

Station Areas Considered for Additional Density

Potential Metro Stations

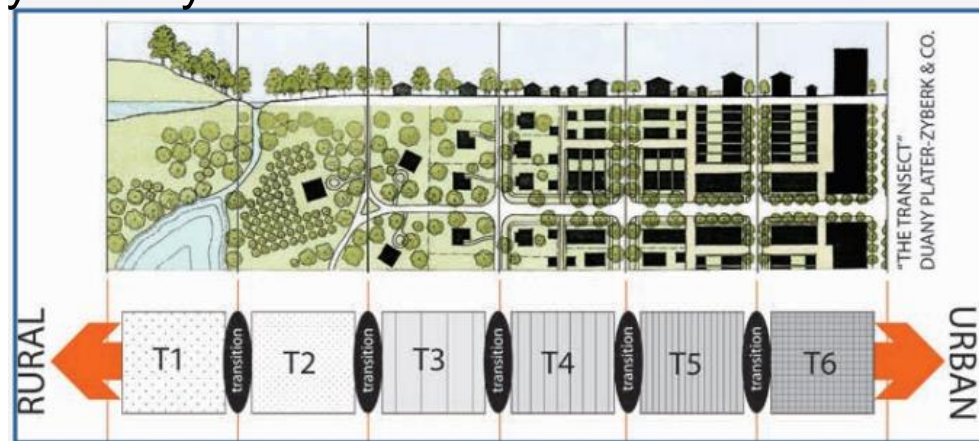


1. Newington
2. Lorton*
3. North Woodbridge*
4. The Landing at Prince William*
5. Potomac Mills
6. Potomac Town Center
7. Southbridge
8. Triangle*

* Small Area Plans/Comprehensive Plan Special Planning Areas

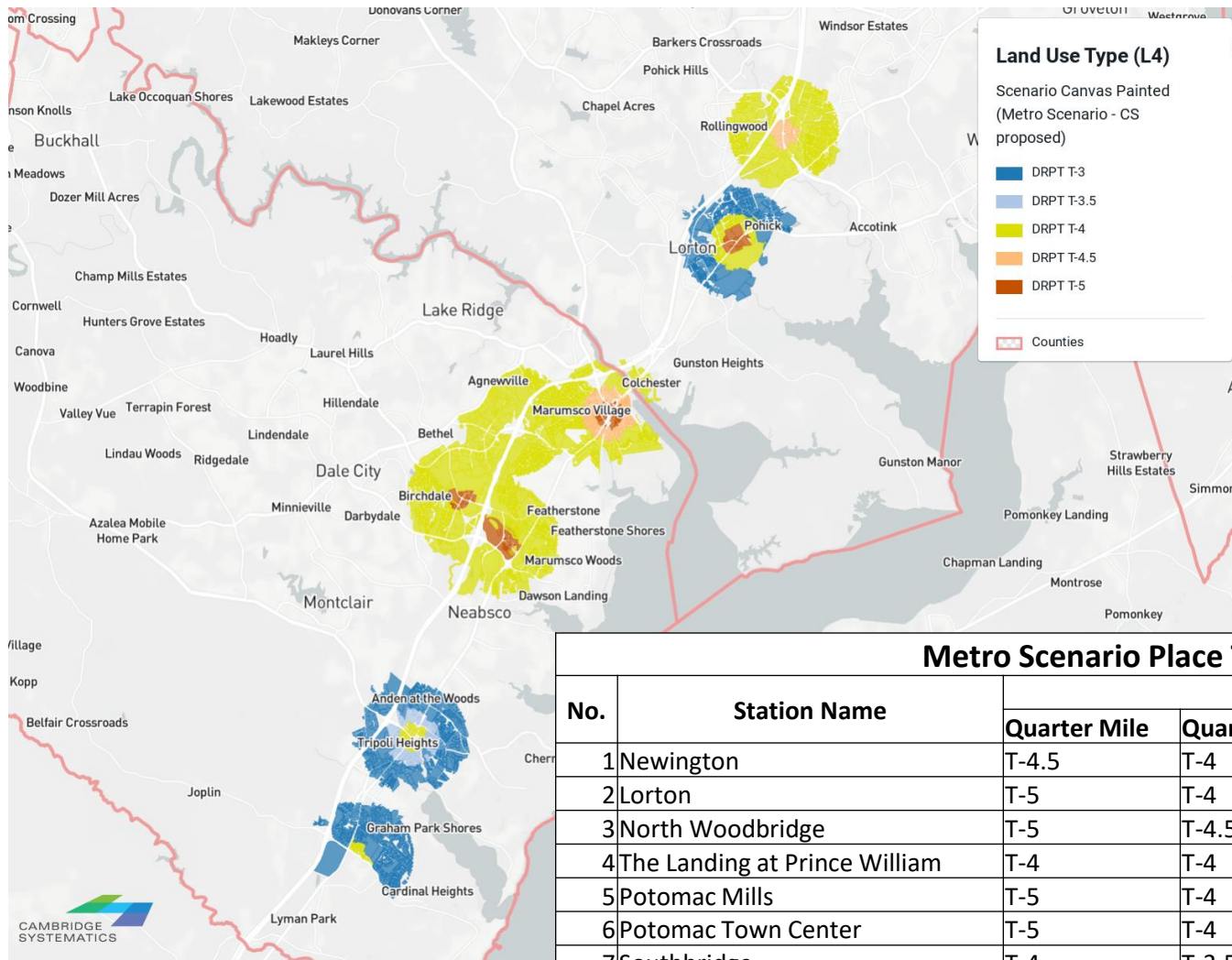
Density Assumptions and Place Type

For each station area, identified current and planned (MWCOCG Forecasts) place types based on activity density



MULTIMODAL CENTER INTENSITY			
Center Type	Activity Density (Jobs + people/acre)	Gross Development FAR (residential + non-residential)	Net Development FAR (residential + non-residential)
P-6 Urban Core	70.0 or more	1.0 or more	1.6 or more
P-5 Urban Center	33.75 to 70.0	0.5 to 1.0	0.8 to 1.6
P-4 Large Town or Suburban Center	13.75 to 33.75	0.21 to 0.5	0.3 to 0.8
P-3 Medium Town or Suburban Center	6.63 to 13.75	0.10 to 0.21	0.15 to 0.3
P-2 Small Town or Suburban Center	2.13 to 6.63	0.03 to 0.10	0.05 to 0.15
P-1 Rural or Village Center	2.13 or less	0.03 or less	0.05 or less
SP Special Purpose Center	Varies	Varies	Varies

Land Use Assumptions - Metrorail Scenario



To develop the land use scenarios, more intense place types were assumed within 1 mile of station areas.

Metro Scenario Place Types

No.	Station Name	Place Type		
		Quarter Mile	Quarter to Half Mile	Half to One Mile
1	Newington	T-4.5	T-4	T-4
2	Lorton	T-5	T-4	T-3
3	North Woodbridge	T-5	T-4.5	T-4
4	The Landing at Prince William	T-4	T-4	T-4
5	Potomac Mills	T-5	T-4	T-4
6	Potomac Town Center	T-5	T-4	T-4
7	Southbridge	T-4	T-3.5	T-3
8	Triangle	T-4	T-3	T-3

Metrorail Scenario by Station

Station Name	Increase in Population	% Population Increase	Increase in Jobs	% Jobs Increase	Activity Density (pop+emp / acres)
Newington	43,900	346%	2,600	9%	14.3
Lorton	11,600	63%	2,900	48%	20.6
North Woodbridge	18,900	67%	12,400	218%	27
The Landing at Prince William	25,500	97%	11,800	118%	28.6
Potomac Mills	22,500	146%	6,700	45%	28
Potomac Town Center	29,100	105%	12,700	120%	25.7
Southbridge	8,000	28%	5,600	88%	12.2
Triangle	2,200	19%	3,700	285%	8.8
Yellow Total	117,800	76%	55,800	102%	
Blue Total	161,700	96%	58,400	70%	

Land Use Impacts on Ridership

How would significant changes in land use change ridership forecasts?

Key Sensitivity Results

Change as compared to Initial Results

	Residents Added to Station Areas	Jobs Added to Station Areas	Ridership Increase
Blue Line Alternative	162,000 (+96%)	59,000 (70%)	+66%
Yellow Line Alternative	118,000 (+76%)	56,000 (+102%)	+32%
BRT Alternative	134,000 (+80%)	45,000 (+53%)	+29%

TOD Readiness Best Practices

- Land Use & Zoning

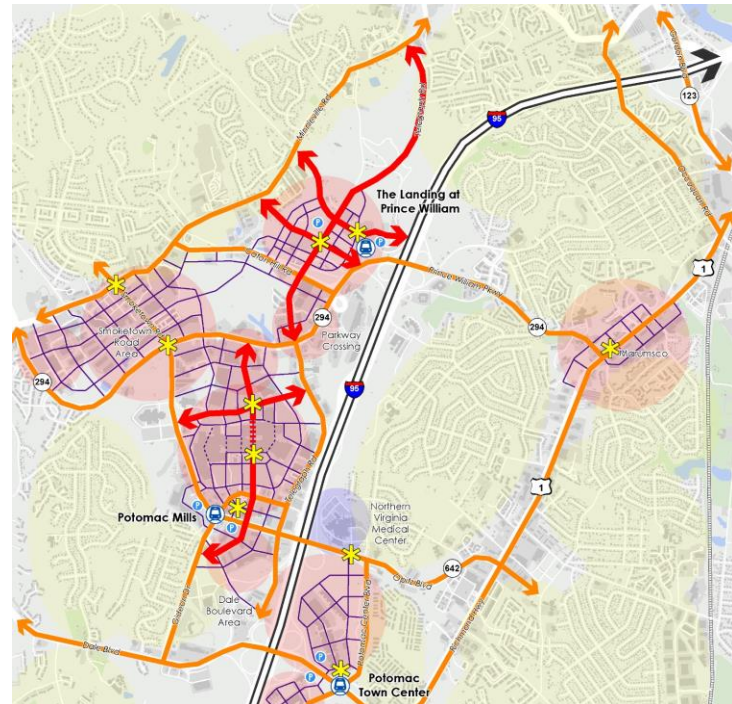
- TOD supportive zoning + urban design guidelines
- Design reviews
- Station Area Plans

- Transportation

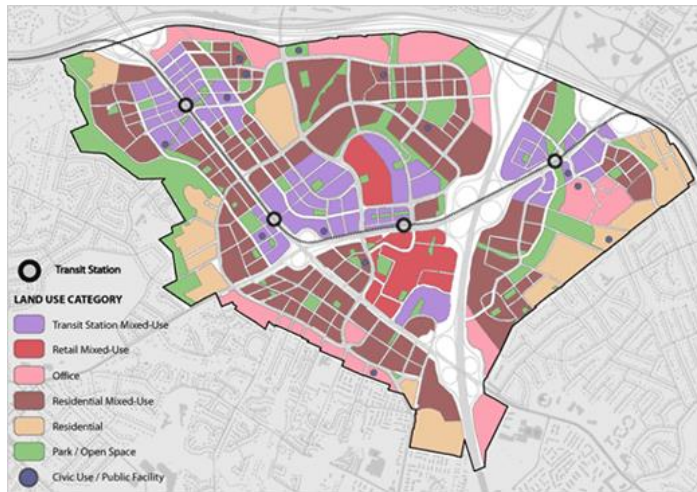
- Arterials as Multimodal Corridors
- Network of walkable streets with small blocks
- Ped/Bike Network
- Feeder Transit/Shuttle Service
- Micromobility
- TDM + Shared Parking

- Implementation

- TOD Rezoning
- District-wide funding mechanisms
- Process/Framework for Property Consolidation



Case Studies - Suburban TOD



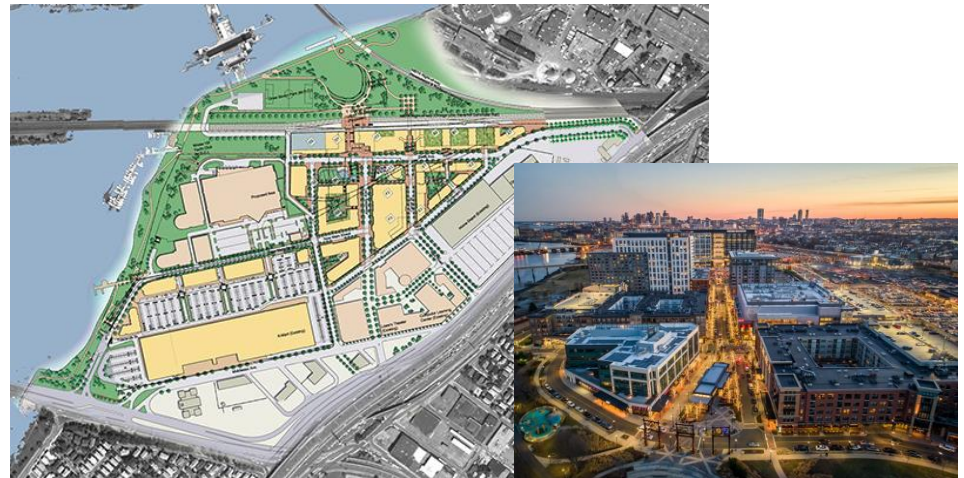
Tysons, Fairfax County, VA



Dunn Loring + Mosaic District, Fairfax County, VA



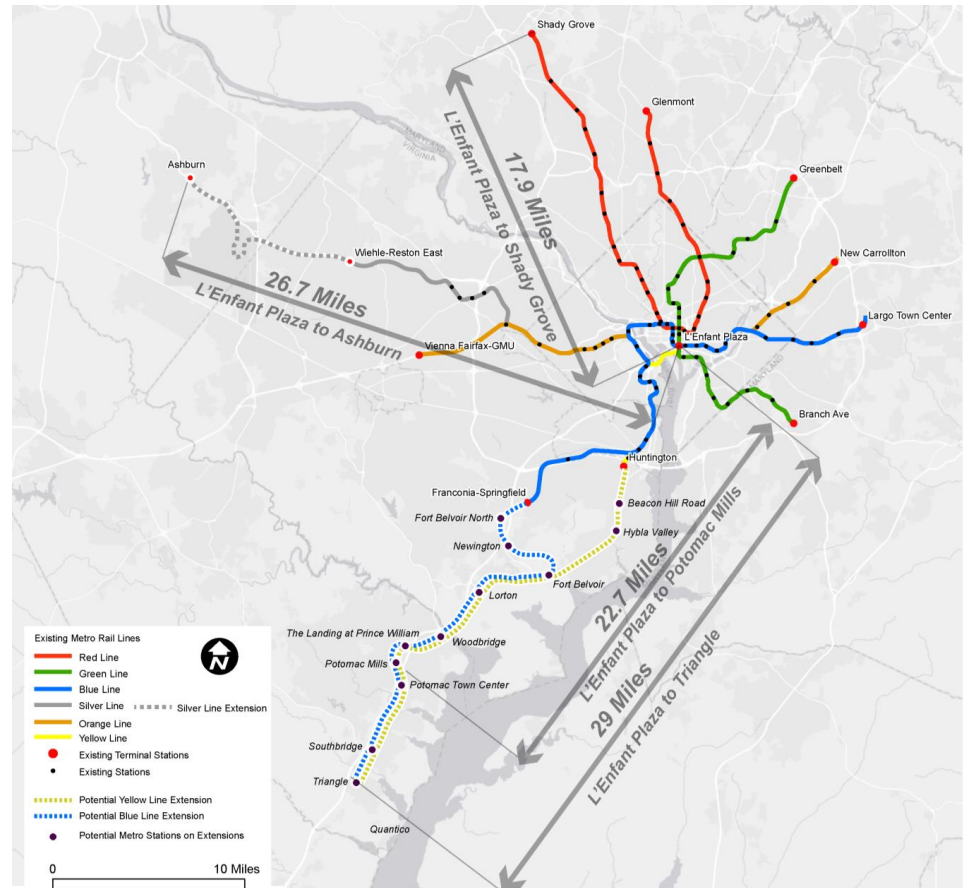
Pike & Rose and White Flint, Montgomery County, MD



Assembly Square, Somerville, MA

Other Considerations for Metrorail Extensions

- Metrorail extension would be a significant addition to the Metro system
- Legal / governance implications of adding Prince William County to the WMATA compact jurisdictions
- Annual capital and operating budget subsidy contributions for Prince William County (and an increase for Fairfax County)



Discussion & Meeting Wrap-Up

Next Steps

- Public meetings – September 21st and 23rd
- Draft report will be completed by early October
- Elected officials briefing - October
- Final report submitted to General Assembly by December 1, 2021

Extra Slides – for backup only

Transforming Rail Ridership Gains

The majority of the ridership increase associated with Transforming Rail in Virginia improvements are included in the No-Build.

Existing VRE Boardings in Study Corridor	No-Build VRE Boardings in Study Corridor	VRE Alternative Boardings in Study Corridor
2,600	4,700 (82% from existing)	4,900 (4% from No-Build)

*Includes only rail stations in the Study Corridor. (Note: VRE alternative does not include new stations.)

Some additional boardings would occur outside of the Study Corridor

Congestion Mitigation

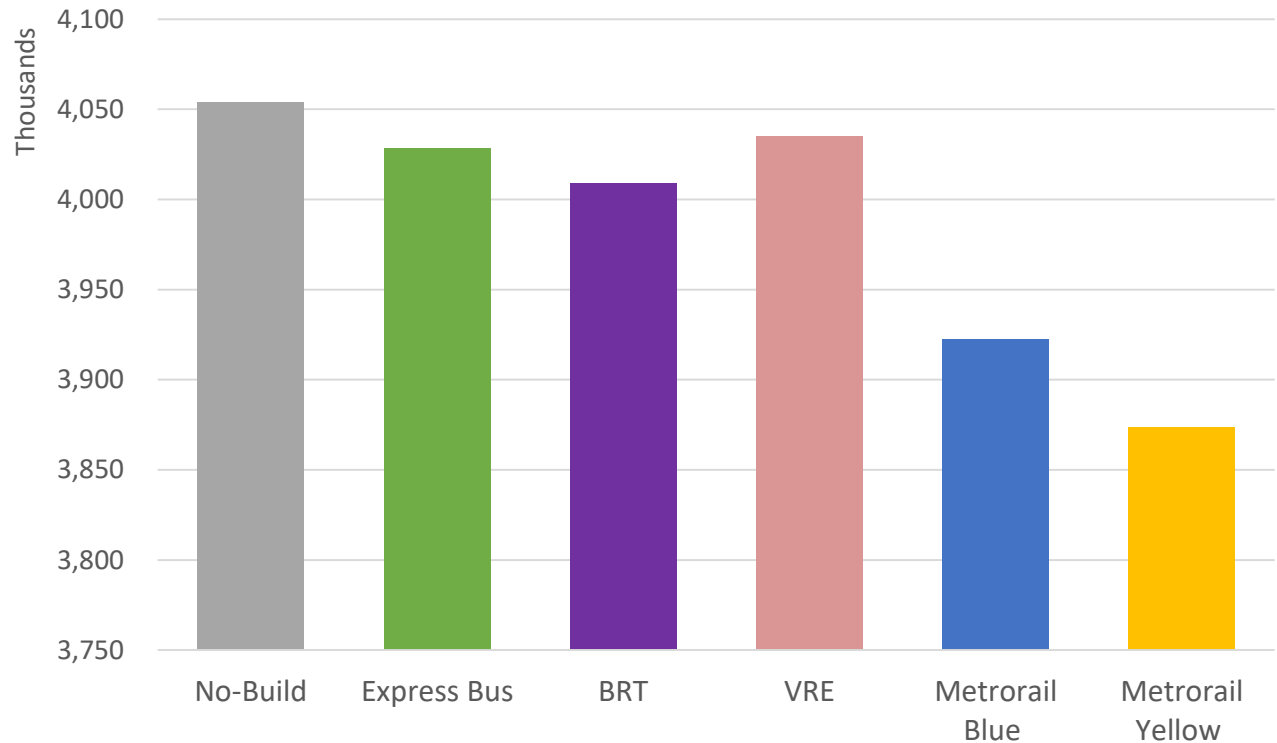


Reduce the amount of traffic congestion in the study corridor

Congested VMT

All of the alternatives decrease congestion on roads in the Study Corridor compared with the No-Build.

Congestion in the Study Corridor



Includes “severe congestion” and “congestion” – so lower is better

Regional Accessibility/ Connectivity

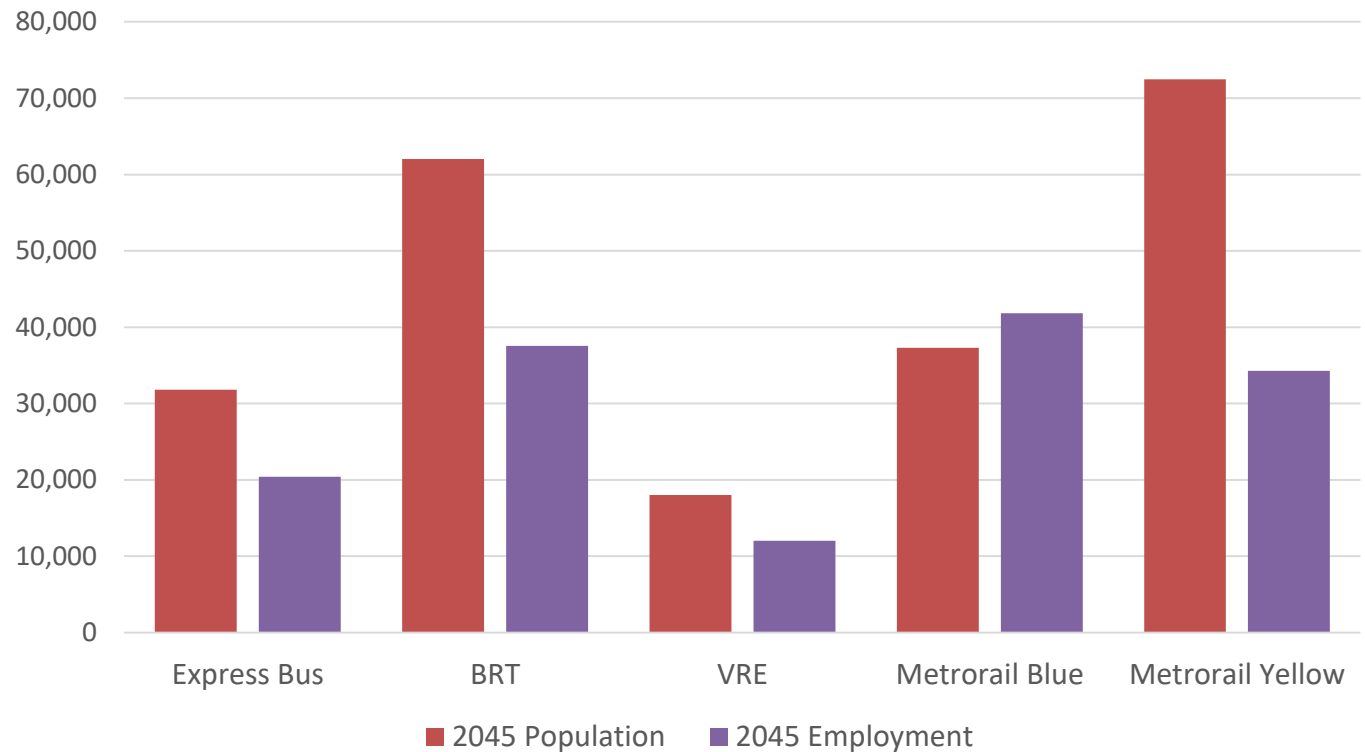


Increase access to regional activity centers and meet identified service gaps

Walk Access to Transit

By 2045, the Yellow Line and BRT Alternatives will provide high quality transit to the most residents. The Blue Line Alternative will have the most jobs within a half-mile of transit

Jobs and Population near Transit



Within a half-mile of transit stops with new/improved service

Includes only rail stations in the Study Corridor. (Note: BRT alternative only includes the extension south of Ft. Belvoir.)

Regional Accessibility/ Connectivity

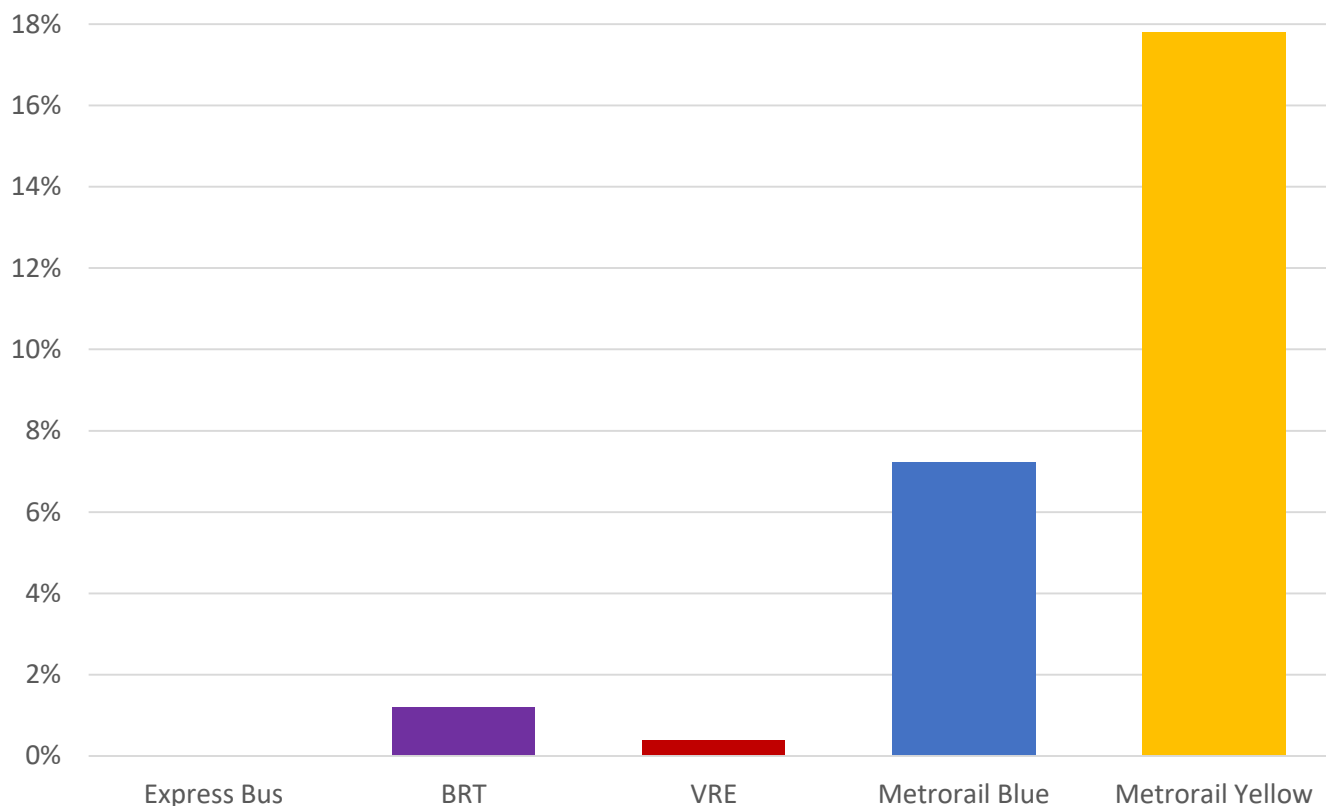


Increase access to regional activity centers and meet identified service gaps

Access to Jobs

The Yellow Line Metrorail Alternative provides the biggest increase in accessibility to jobs by transit for Study Corridor residents.

New Jobs Accessible within 60 mins by Transit (Peak)



Percent of new jobs accessible to residents of the Study Corridor within 60 mins by transit as compared to the No-Build.

Equity



Provide a fair distribution of costs and benefits across different population groups

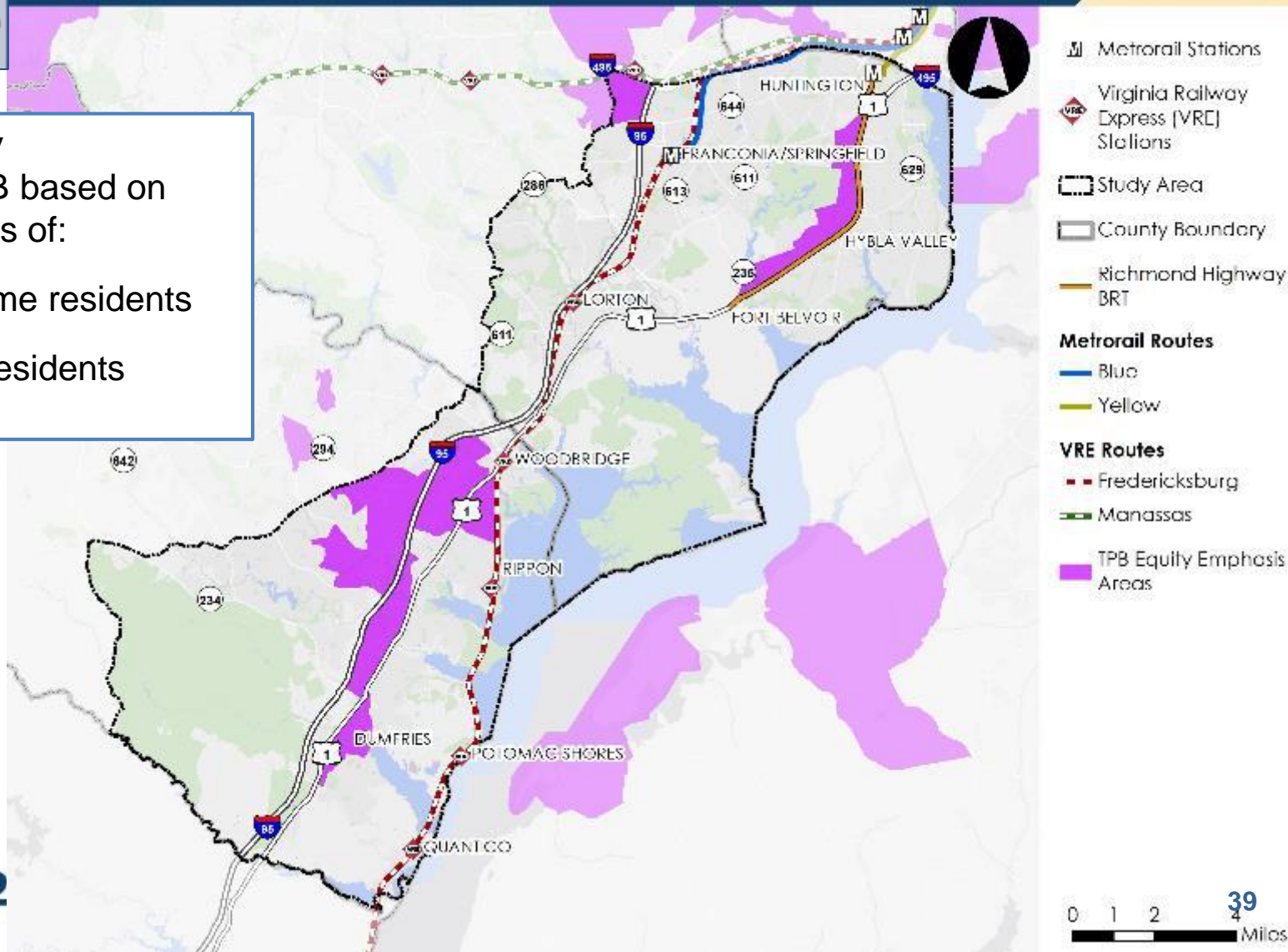
Equity Emphasis Areas

Equity Emphasis Areas



Developed by MWCOG/TPB based on concentrations of:

- Low-income residents
- Minority residents



Equity

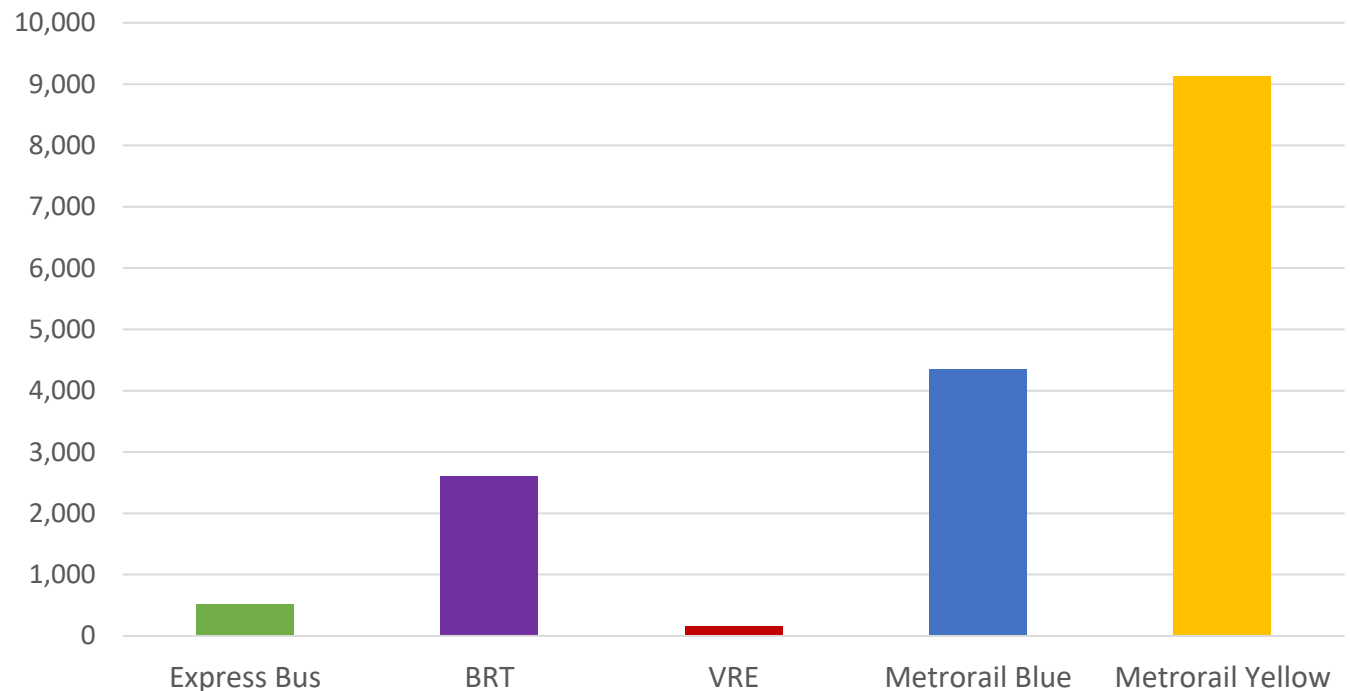


Provide a fair distribution of costs and benefits across different population groups

Equity Transit Trips

- Across all Alternatives, new transit trips from EEAs grow more than from the overall Study Corridor.
- The Yellow Line Alternative includes the most new transit trips made by EEA residents

New EEA Transit Trips from the Study Corridor



New transit trips from EEAs in the Study Corridor as compared to the No-Build.

Equity

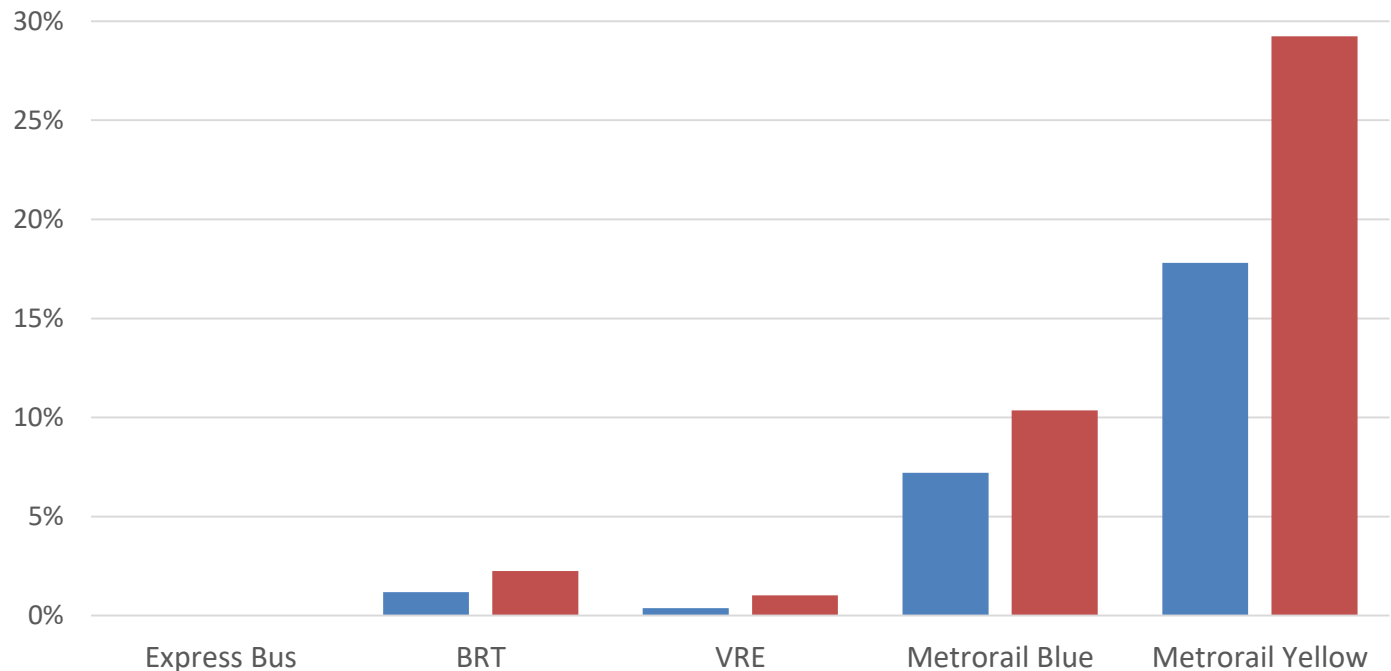


Provide a fair distribution of costs and benefits across different population groups

Job Accessibility for EEAs

- Across all Alternatives, job accessibility for EEAs grow more than for the overall Study Corridor.
- The Yellow Line Alternative shows the biggest increase in accessibility for EEA residents

New Jobs Accessible within 60 mins by Transit (Peak)



Percent increase in the average number of jobs accessible for residents of EEAs in the Study Corridor as compared to the No-Build

Equity

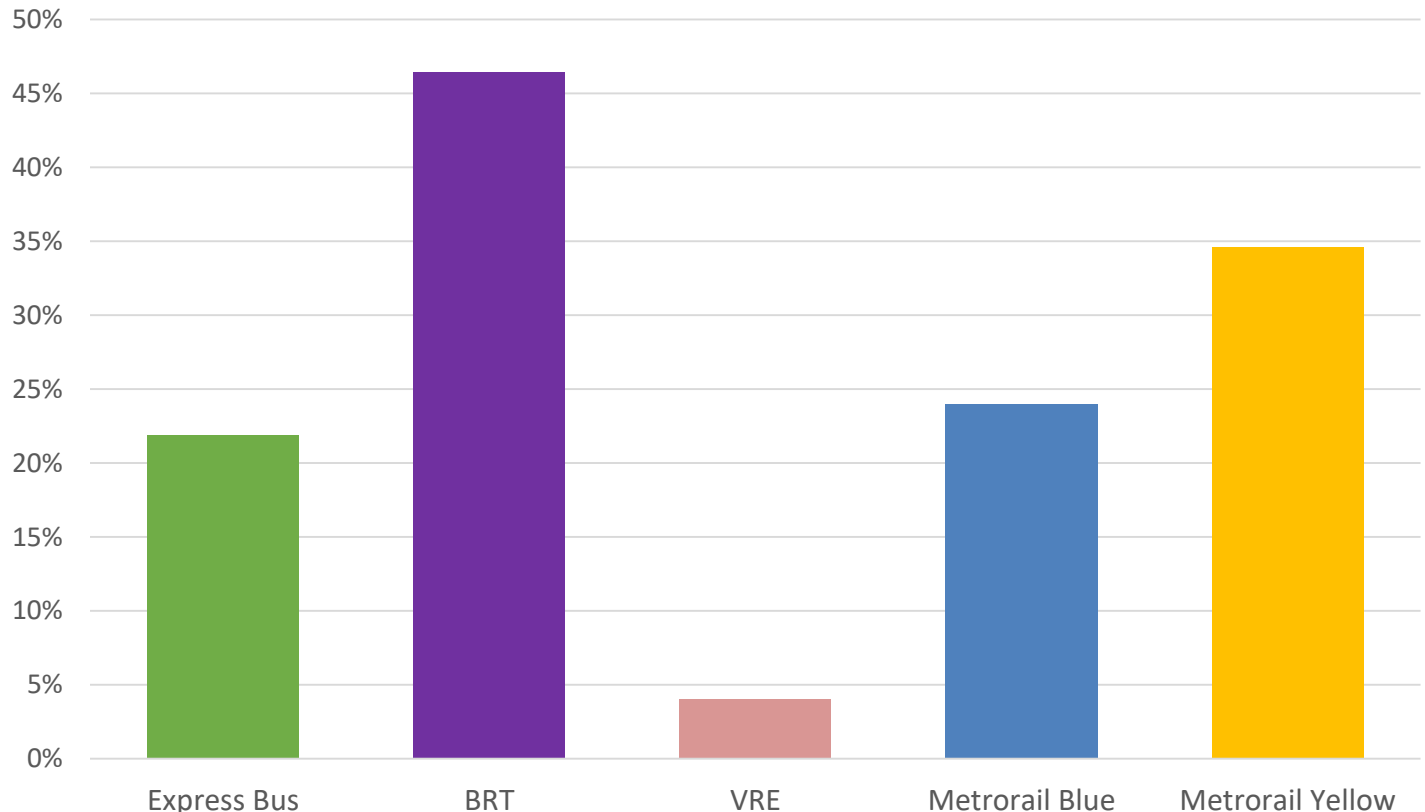


Provide a fair distribution of costs and benefits across different population groups

EEA Residents at Transit Stations

Residents near the BRT Alternatives are more than 45% residents of EEAs and most likely to be low-income and/or minority.

Portion of Residents near Transit that live in EEAs



EEA percentage of the people who live within half-mile of transit

Cost-effectiveness

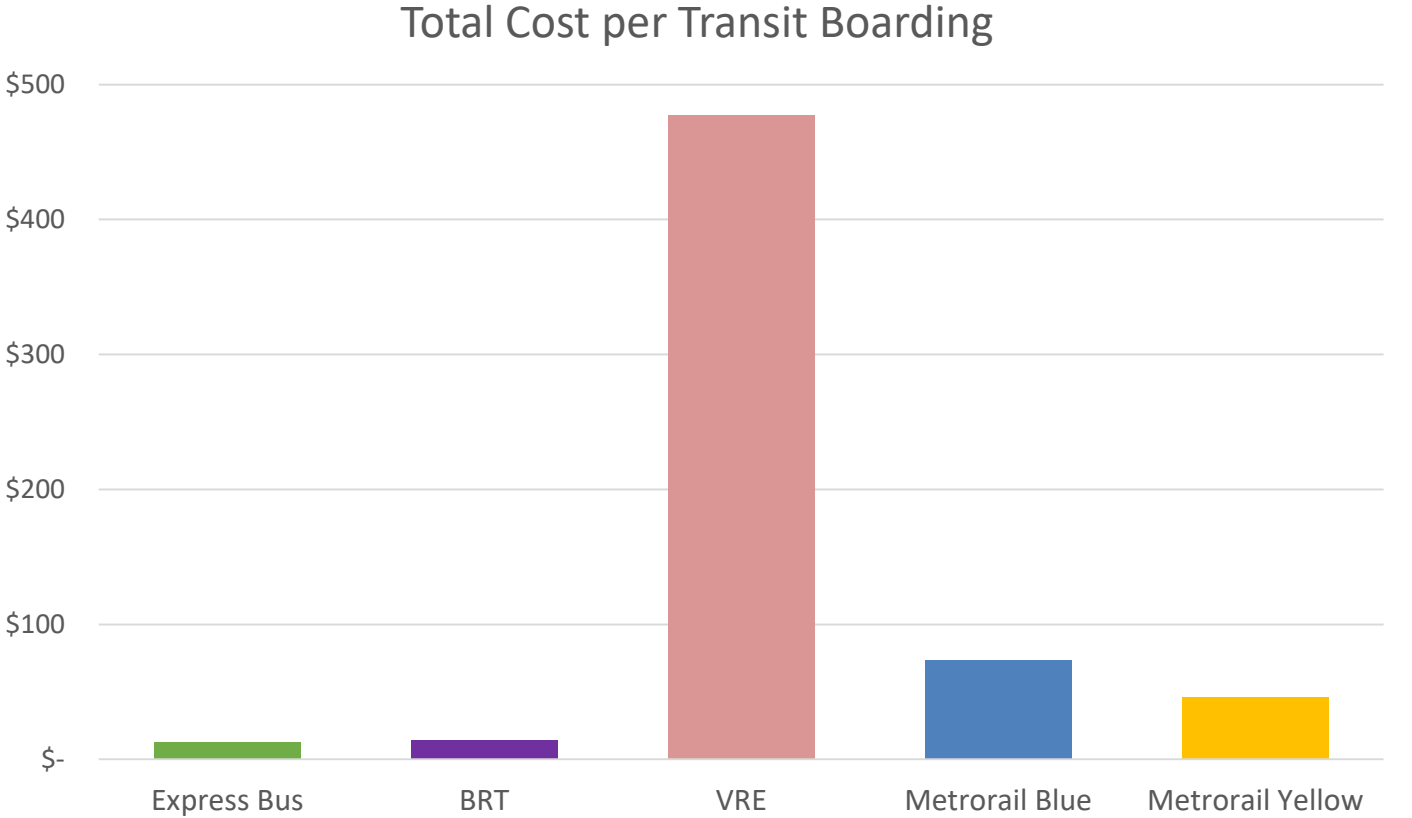


Ensure that resources are used efficiently

Total Cost per Transit Boarding

The Bus Alternatives are significantly more cost effective than the rail alternatives.

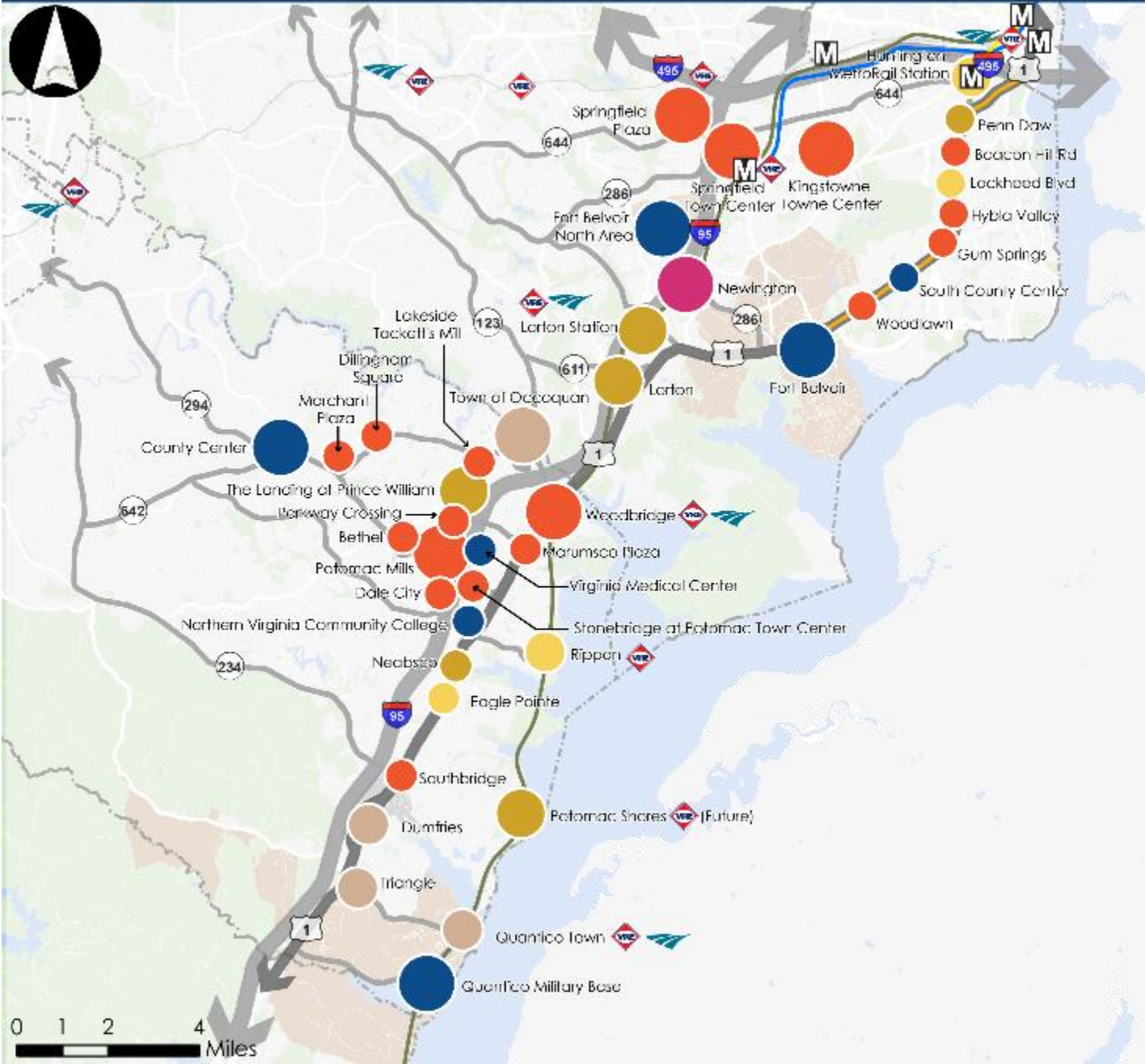
Estimated cost per transit boarding in the Study Corridor – lower is better. Note that the VRE ridership gains due to Transforming Rail in Virginia are in the No Build and are not reflected here.



All costs in 2019 \$

Preliminary Alternatives Considered

Activity Centers



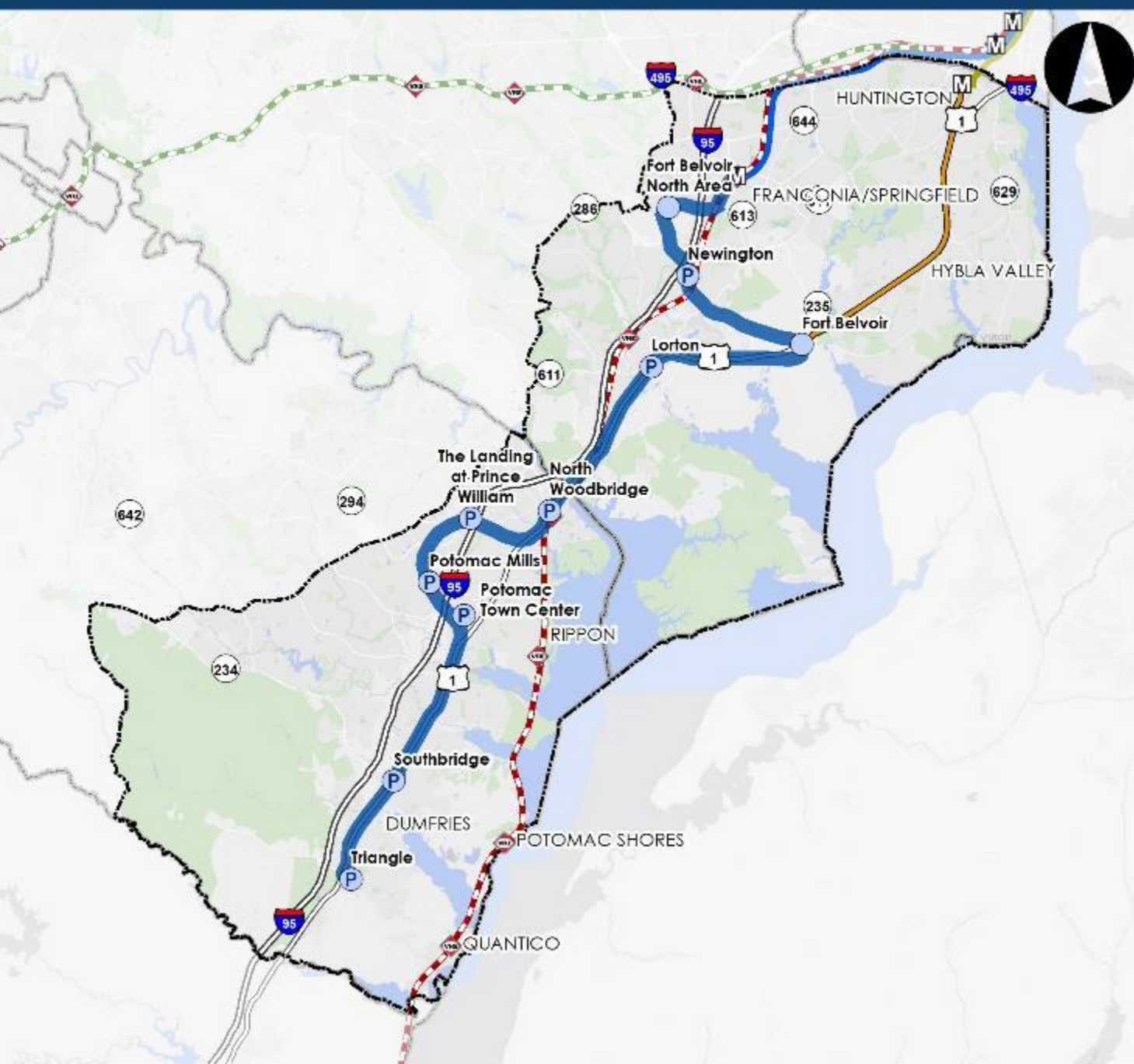
- M** Metrorail Stations
- Virginia Railway Express (VRE) Stations
- Amtrak Stations

- Penn Daw
- Beacon Hill Rd
- Lockwood Blvd
- Hybla Valley
- Gum Springs
- South County Center
- Woodlawn

- Metrorail Routes**
- Blue
 - Yellow
- VRE/Amtrak Route
- Richmond Hwy BRT

- Place Types of Activity Centers**
- Suburban Commercial
 - Institutional/Military Campus
 - Mixed Use
 - Historic Small Town
 - Suburban Residential
 - Industrial

Blue Line Alternative



- Metrorail Stations
- Virginia Railway Express (VRE) Stations
- County Boundary

Metrorail Routes

- Blue
- Yellow

VRE Routes

- Fredericksburg
- Manassas
- Richmond Highway BRT

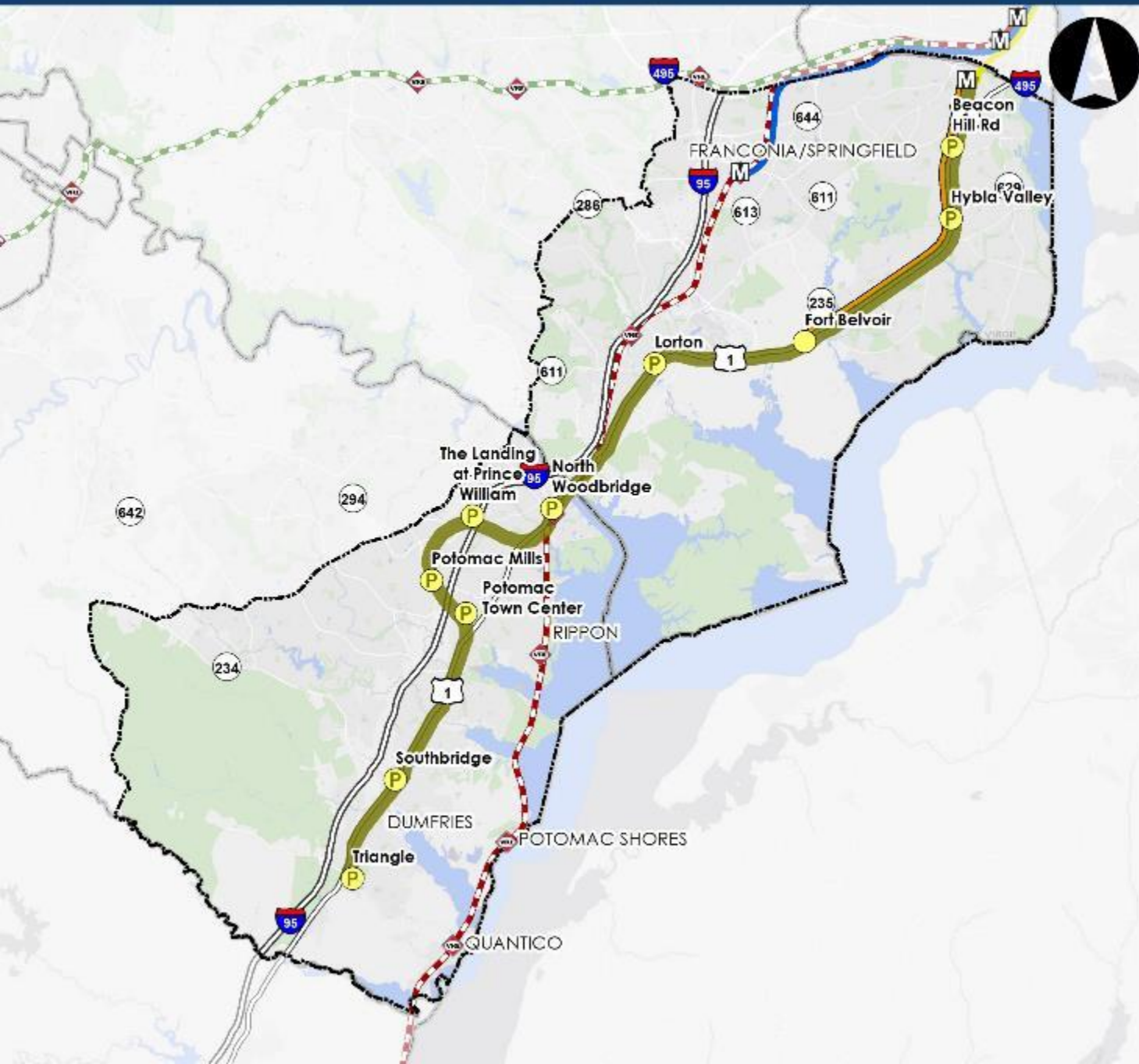
Blue Line Alignment

Blue Line Stations

- With Parking
- Without Parking



Yellow Line Alternative



M Metrorail Stations

◆ Virginia Railway Express (VRE) Stations

▭ County Boundary

— Richmond Highway BRT

Metrorail Routes

- Blue
- Yellow

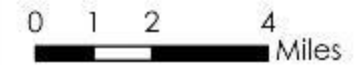
VRE Routes

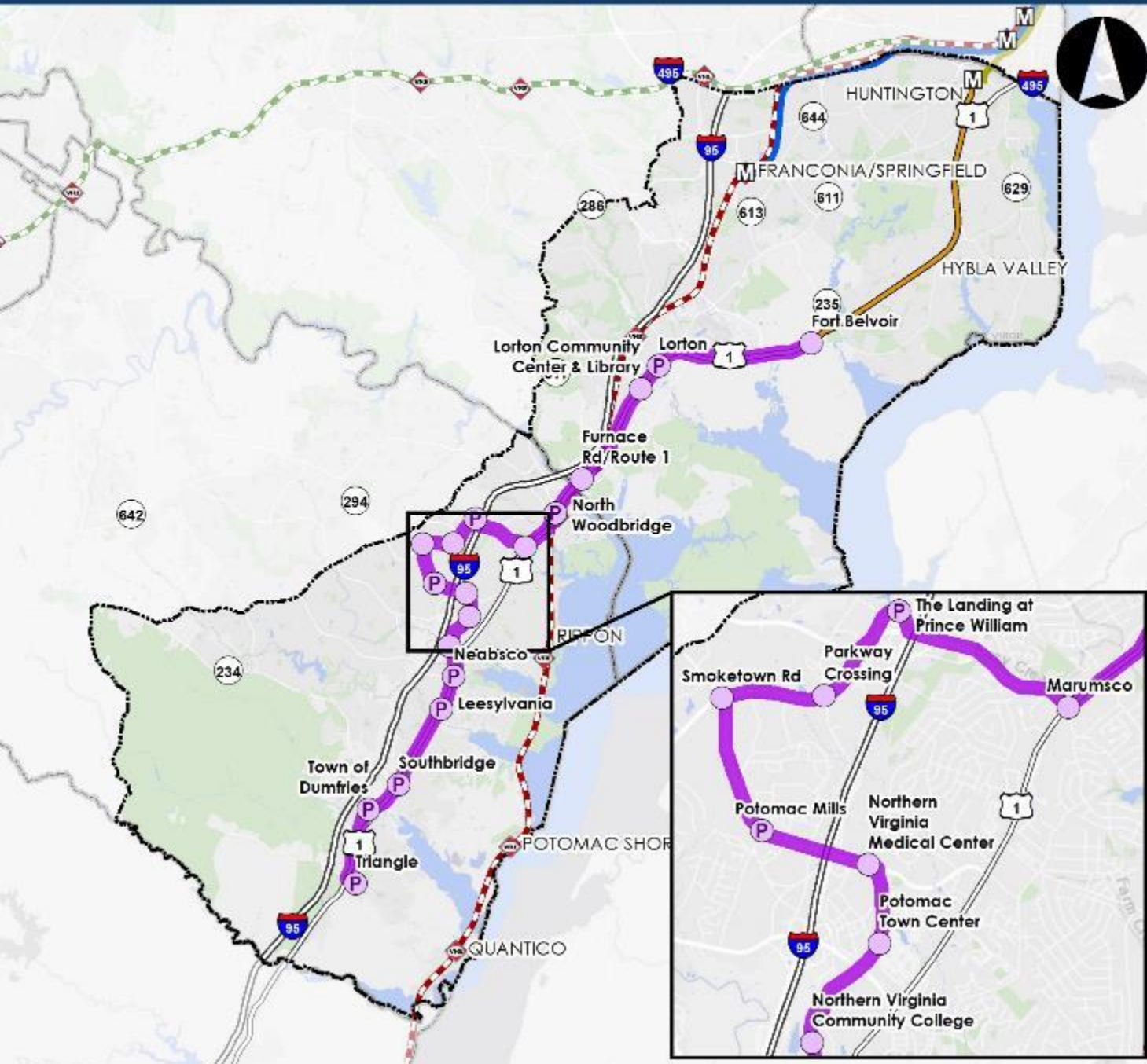
- Fredericksburg
- Manassas

— Yellow Line Alignment

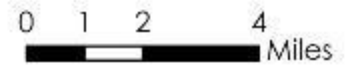
Yellow Line Stations

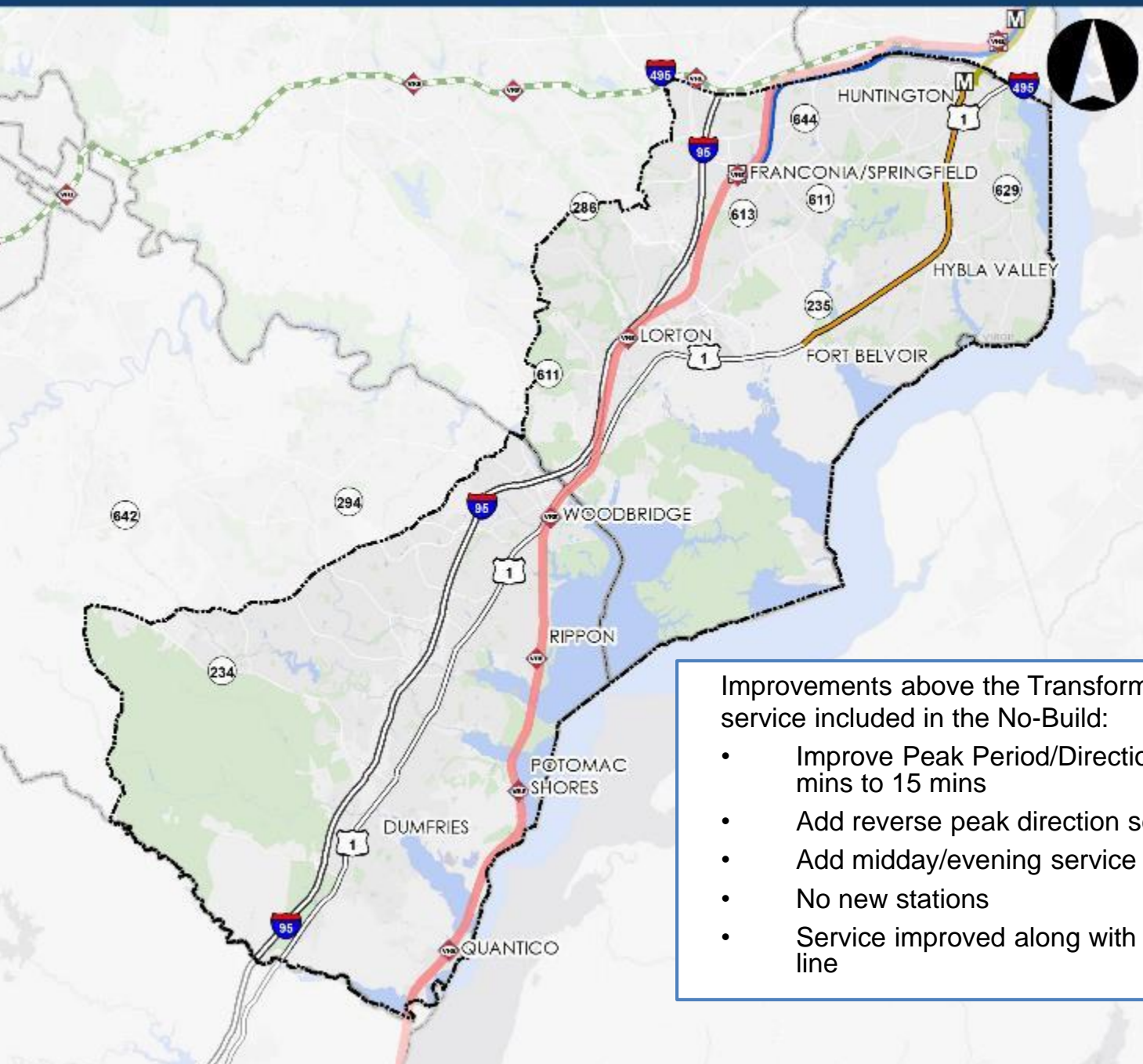
- Ⓟ With Parking
- ⦿ Without Parking





- Metrorail Stations
- Virginia Railway Express (VRE) Stations
- County Boundary
- Richmond Highway BRT
- Metrorail Routes**
 - Blue
 - Yellow
- VRE Routes**
 - Fredericksburg
 - Manassas
- BRT Alignment
- BRT Stations**
 - With Parking
 - Without Parking



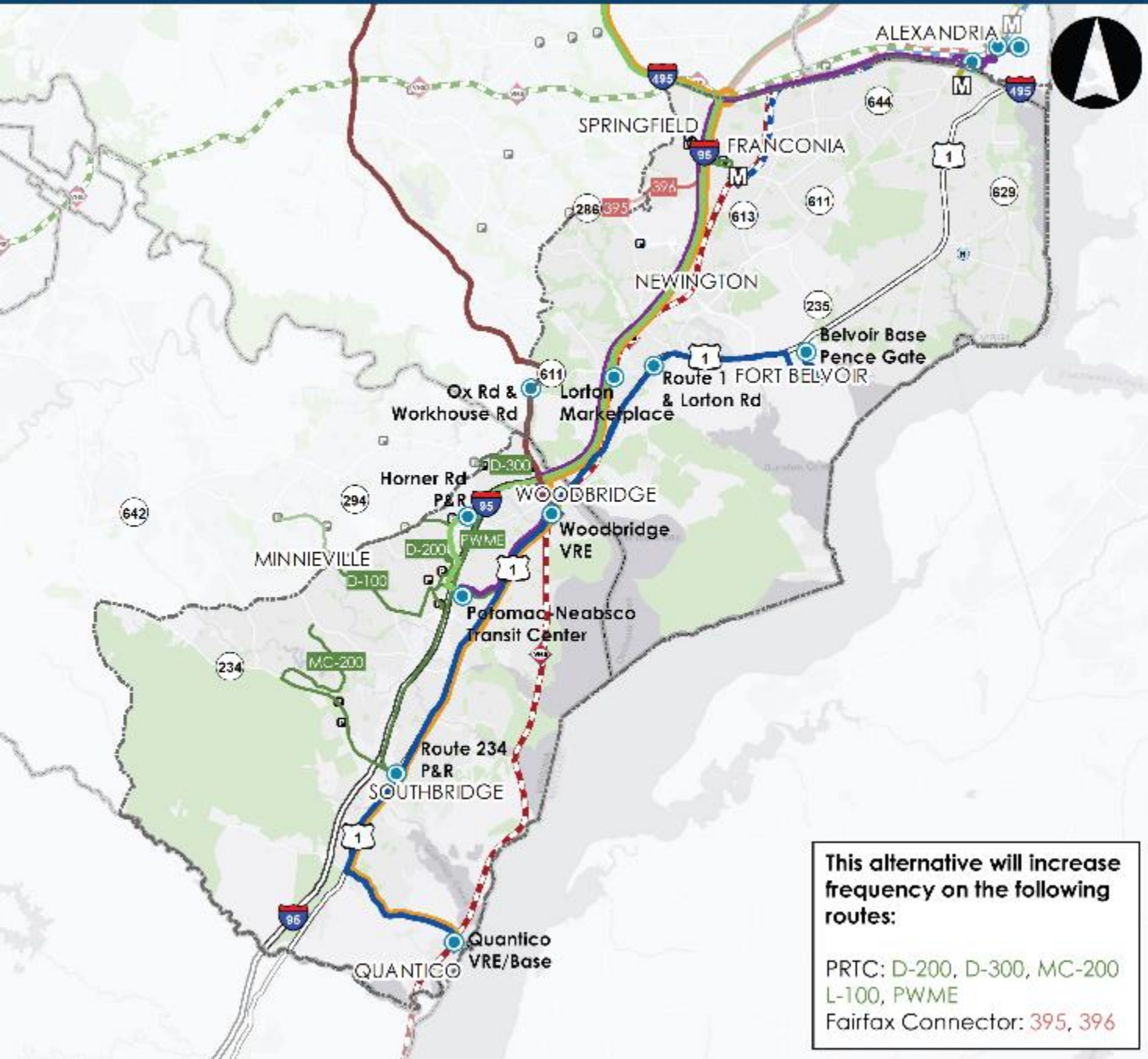


- Metrorail Stations
- Virginia Railway Express (VRE) Stations
- County Boundary
- Richmond Highway BRT
- Metrorail Routes**
 - Blue
 - Yellow
- VRE Routes**
 - Manassas
 - Increased Frequency along Existing VRE Alignment

Improvements above the Transforming Rail in Virginia service included in the No-Build:

- Improve Peak Period/Direction frequency from 20 mins to 15 mins
- Add reverse peak direction service
- Add midday/evening service
- No new stations
- Service improved along with whole Fredericksburg line

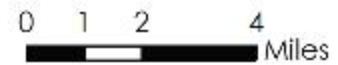
Express Bus Alternative



- Study Area
- Proposed Stops
- New Express Bus Routes**
 - Quantico/Dale City/Woodbridge - Ft. Belvoir
 - Quantico/Dumfries/... - Tysons
 - Woodbridge - Alexandria
 - Woodbridge - Fairfax City
 - Woodbridge - Reston
- Existing Routes with Increased Service**
 - Fairfax Connector
 - OMNIRIDE
- Metrorail Routes**
 - Blue
 - Yellow
- VRE Routes**
 - Fredericksburg
 - Manassas
 - I-95
 - US Route 1

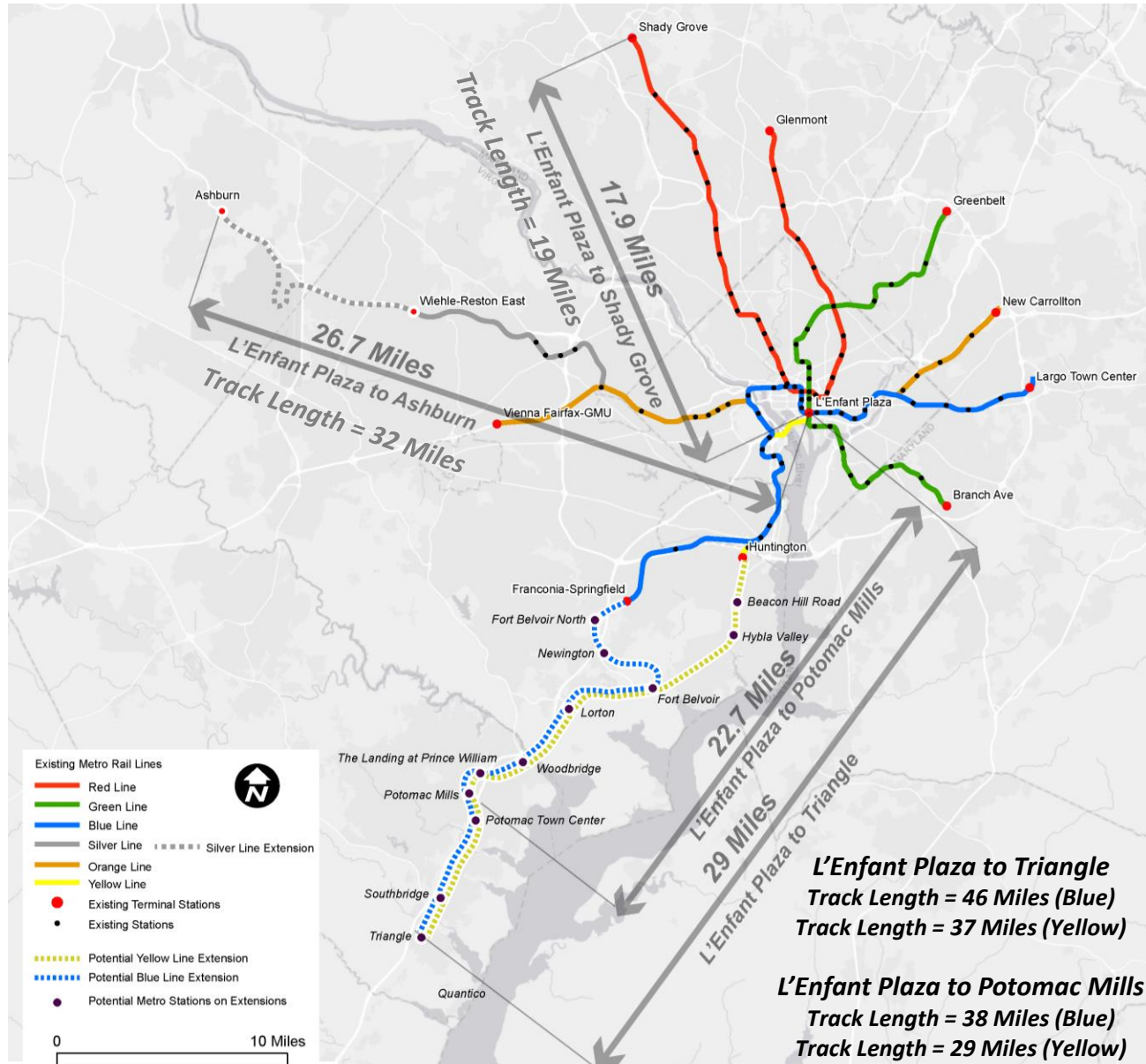
This alternative will increase frequency on the following routes:

PRTC: D-200, D-300, MC-200
 L-100, PWME
 Fairfax Connector: 395, 396



Regional Reference

Transit extensions would be longer than existing Metrorail lines



Summary of Evaluation Results

Goal	Measure	Additional Express Bus Service	BRT Extension	Additional VRE Service*	Metrorail Blue Extension	Metrorail Yellow Extension
Ridership Potential	Total Transit Boardings	71,000	80,600	69,900	77,900	76,900
	New Transit Boardings	1,100	10,700	-	8,000	7,000
	New Transit Trips	953	4,696	256	10,592	15,034
	Change in Transit PMT	50,674	103,952	19,831	408,917	462,541
Congestion Mitigation	Change in Congested VMT	(25,617)	(45,094)	(18,607)	(131,780)	(180,391)
Regional Accessibility	Walk Access to Population	31,796	62,038	18,014	37,288	72,486
	Walk Access to Jobs	20,431	37,555	12,051	41,827	34,285
	Change in Regional Job Accessibility	0.0%	1.2%	0.4%	6.8%	7.2%
	Change in Access to Job Centers	0.5%	5.4%	0.4%	12.0%	20.6%
Equity	New EEA Transit Trips	520	2,599	153	4,346	9,122
	Change in EEA Job Accessibility	0.0%	2.2%	1.0%	7.1%	9.9%
Cost-Effectiveness	Cost per Rider	\$ 4.58	\$ 40.19	\$ 342.87	\$ 159.50	\$ 103.69
	Cost per Transit PMT	\$ 0.13	\$ 1.89	\$ 7.09	\$ 5.24	\$ 4.74

* Additional Service Above Transforming Rail in Virginia Improvements Included in Baseline

Land Use Intensity Thresholds

Inputs for Urban Footprints Scenario Modelling

Place Type & Transect Zone Description	Net floor area ratio (FAR)	Gross residential density (du/ac)	Gross population density (pop/ac)	Gross employment density (emp/ac)	Gross Activity Density (pop+emp per ac)	Gross parking density (spcs/1000 sq ft)
T-1 Very low intensity	0.02	0.10	0.22	0.40	0.62	2.24
T-2 Low intensity	0.12	1.18	2.14	1.67	3.81	1.97
T-3 Moderate intensity	0.28	4.69	8.11	4.64	12.75	1.7
T-3.5 Moderate intensity	0.59	12.20	21.01	8.23	29.24	2.07
T-4 Moderate intensity	0.91	17.96	30.92	12.47	43.39	1.67
T-4.5 Moderate-to-high intensity	1.36	32.03	54.55	22.52	77.07	1.78
T-5 High intensity	1.75	42.79	72.88	29.52	102.40	1.66
T-5.5 High intensity	2.21	54.43	92.69	37.04	129.73	1.52
T-6 High intensity	3.15	76.59	129.84	59.98	189.82	1.27

Place type T-4.5 (or higher) achieves the Metro guideline of > 50 activity density.

WMATA Ridership Thresholds: Suburban Metrorail

Criteria	Metric	Thresholds		
		Low	Medium	High
Density	Population Density (People per Acre)	< 31.7	31.7 – 47.5	> 47.5
	Employment Density (Jobs per Acre)	< 19	19 – 26	> 26
	Activity Density (People + Jobs)	< 50.7	50.7 – 73.5	> 73.5
Ridership	Ridership per Mile	< 3,500	3,500 – 7,000	> 7,000

Source: Transit Corridor Expansion Guidelines (2015)

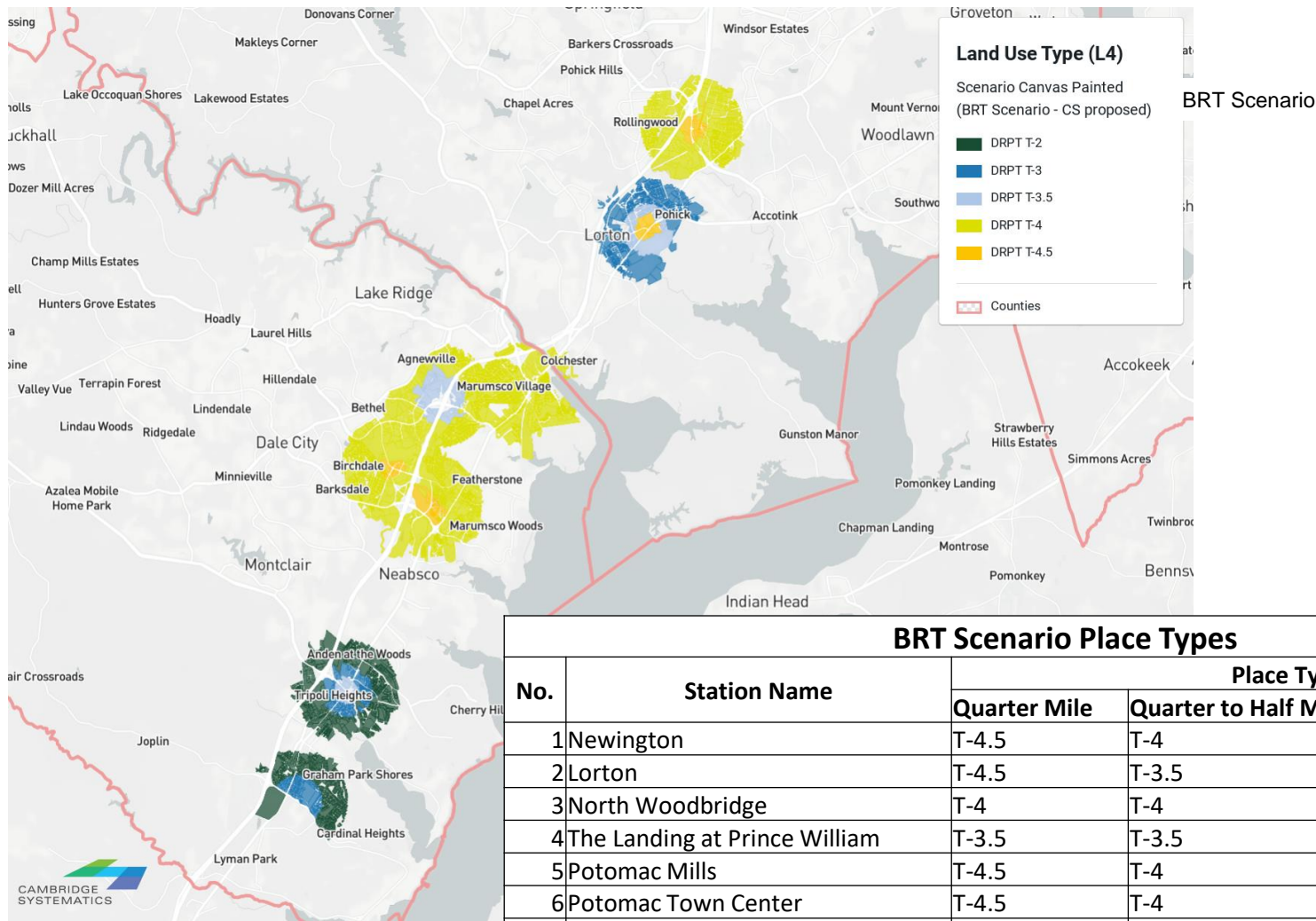
Ridership per Mile = Total Number of Daily Entries/Number of Miles of Extension

Existing (and Planned) Density at Potential Stations in Study Area

No.	Station	Location	Population Density (1 Mile Radius) (People/Acre)	Employment Density (1 Mile Radius) (People/Acre)	Activity Density (1 Mile Radius) (People + Jobs/Acre)	Place Type
1	Beacon Hill Road**	Fairfax County, VA	10.6	1.8	12.4	P4
2	Hybla Valley**	Fairfax County, VA	12.4	2.1	14.5	P4
3	Fort Belvoir	Fairfax County, VA	2.4	0.7	3.1	P-MB
4	Fort Belvoir North	Fairfax County, VA	4.0	2.4	6.4	P-MB
5	Newington	Fairfax County, VA	3.9	5.7	9.6	P4
6	Lorton**	Fairfax County, VA	6.8	1.5	8.3	P3
7	North Woodbridge**	Prince William County, VA	6.0	1.3	7.3 (26.7 – 40.0)**	P4
8	The Landing at Prince William**	Prince William County, VA	7.1	2.5	9.6 (11.0 – 23.0)**	P4
9	Potomac Mills	Prince William County, VA	4.4	5.9	10.3	P4
10	Potomac Town Center	Prince William County, VA	6.8	4.0	10.8	P3
11	Southbridge	Prince William County, VA	4.2	0.9	5.1	P3
12	Triangle**	Prince William County, VA	2.6	0.5	3.1 (6.7 – 18.0)**	P3

** Higher Density proposed in Small Area Plans

Land Use Assumptions - BRT Scenario



BRT Scenario Place Types

No.	Station Name	Place Type		
		Quarter Mile	Quarter to Half Mile	Half to One Mile
1	Newington	T-4.5	T-4	T-4
2	Lorton	T-4.5	T-3.5	T-3
3	North Woodbridge	T-4	T-4	T-4
4	The Landing at Prince William	T-3.5	T-3.5	T-4
5	Potomac Mills	T-4.5	T-4	T-4
6	Potomac Town Center	T-4.5	T-4	T-4
7	Southbridge	T-3.5	T-3	T-2
8	Triangle	T-3	T-3	T-2



Original LU Test - Metrorail Scenario by Station

Station Name	2045 Baseline Population	2045 Baseline Jobs	Metrorail Scenario Population	Population Increase	Metrorail Scenario Jobs	Jobs Increase	Metrorail Scenario Activity Density
Newington	12,700	28,600	56,500	344%	26,700	-7%	27.3
Lorton	18,400	6,100	25,200	37%	13,500	123%	7.8
North Woodbridge	28,200	5,700	47,700	69%	18,900	229%	27.6
The Landing at Prince William	26,300	10,00	55,200	110%	22,600	126%	30.3
Potomac Mills	15,400	14,800	43,800	185%	19,800	34%	29.9
Potomac Town Center	27,700	10,600	62,200	124%	23,400	121%	27.4
Southbridge	28,500	6,400	33,400	17%	11,900	86%	11.4
Triangle	11,300	1,300	12,000	6%	5,300	312%	8.2
Yellow Total	155,900	54,900	279,500	79%	115,400	110%	
Blue Total	168,600	83,500	336,000	99%	142,000	70%	

WMATA's threshold for Activity Density is 50.7

Original LU Test – Land Use Impacts on Ridership

How would significant changes in land use change ridership forecasts?

Key Sensitivity Results

Change as compared to Initial Results

	Residents Added to Station Areas	Jobs Added to Station Areas	Ridership Increase
Blue Line Alternative	167,000 (99%)	59,000 (70%)	16,700 (76%)
Yellow Line Alternative	124,000 (79%)	61,000 (110%)	12,600 (38%)
BRT Alternative	134,000 (79%)	45,000 (53%)	7,500 (33%)