

T&E COMMITTEE #2
October 7, 2013

MEMORANDUM

October 3, 2013

TO: Transportation and Environment Committee
FROM: *Go* Glenn Orlin, Deputy Council Administrator
SUBJECT: Countywide Transit Corridors Functional Master Plan: overview; general bus rapid transit (BRT) issues; Bicycle-Pedestrian Priority Areas; Brunswick Line expansion

Councilmembers: Please bring your copy of the Draft Master Plan to this worksession.

1. Schedule. This is the first of five planned worksessions on this plan. The agenda for this worksession is to:

- Receive a presentation of the Draft Plan by Planning staff
- Hear remarks from representatives of the Executive Branch and the Transit Task Force
- Discuss the types of decisions to be made in the plan and the types of decisions that should not be made in the plan
- Identify issues/options that Councilmembers wish to have explored before acting on a plan, in addition to those to be raised by Council staff
- Review and make recommendations on Bicycle-Pedestrian Priority Areas
- Review and make recommendations on adding a third track for CSX's Brunswick Line

The tentative agendas for the subsequent worksessions are:

October 11: Review and make recommendations on east-county routes, including:

- US 29 (Corridor 9)
- New Hampshire Avenue (Corridor 5)
- University Boulevard (Corridor 8)

October 14: Review and make recommendations on mid-county routes, including:

- Georgia Avenue (Corridors 1 & 2)
- Veirs Mill Road (Corridor 10)
- Randolph Road (Corridor 7)

October 18: Review and make recommendations on west- and north-county routes, including

- MD 355 (Corridors 3 & 4)
- North Bethesda Transitway (Corridor 6)

October 21: Review and make recommendations on any follow-up issues

2. Overview. The Planning Board is recommending a master-planned network of eight BRT lines, covering about 81 miles and 101 stations. Two of the corridors—Georgia Avenue and MD 355—are each split into two segments due to their length, so the Draft Plan presents the system as 10 corridors. The BRT network would be in addition to the Corridor Cities Transitway, a master-planned BRT line between Shady Grove and Clarksburg. This system is considerably pared down from the 161.5-mile network of exclusive bus lanes proposed by County Executive Leggett’s Transit Task Force in May 2012.

Portions of three of these lines are already in master plans: Georgia Avenue North (Corridor 1) between Glenmont and Olney; Veirs Mill Road (Corridor 10) within Aspen Hill; and MD 355 South (Corridor 4) within White Flint. The Georgia Avenue Busway and Veirs Mill Road BRT Line are in project planning by the Maryland Department of Transportation, funded with \$5 million and \$6 million, respectively, provided by the County. Project planning is also underway for the White Flint segment of Corridor 4, funded as part of the White Flint District West: Transportation project.

Compared to a Year 2040 No Build scenario—which includes the Purple Line and Corridor Cities Transitway—the proposed system is projected to result in a 1.1-1.9% reduction in vehicle-miles of travel and a 2.7-5.5% reduction in vehicle-hours of travel countywide. The ridership forecasts in the Draft Plan and Appendix likely are understated to a degree, in that they do not reflect the substantial amount of system integration that could occur, with Ride On and Metrobuses using portions of the BRT guideways to reduce transit travel times.

3. Decisions to be made in this plan. Fundamentally the Master Plan should make three types of recommendations for each corridor: the route; the general location of stations; and the minimum right-of-way needed. Even these recommendations should be considered as guides rather than prescriptions. A subsequent project planning study would likely indicate that a route should be diverted slightly to serve a major destination. For example, MD 355 South (Corridor 4) might be diverted a block east to serve the Twinbrook Metro Station. Similarly, a station location in the Plan means that there would be a station in the vicinity. For example, the Plan calls for a station on New Hampshire Avenue (Corridor 5) at Powder Mill Road. The Council received testimony requesting that it be located at Elton Road instead. But Elton Road is only a block away. In this case, then, the Draft Plan’s recommendation effectively means the station could be at either location or somewhere else close by.

The most concern has been raised about the minimum right-of-way recommendations. The “minimum right-of-way” is the strip of land to be reserved along most of a corridor for the roadway, sidewalks/bikeways, landscaping and utilities. However, the right-of-way is expected to be wider than the minimum at certain spots along a corridor, primarily at major intersections where turn lanes are needed, and at stations where sufficient platform width is required. Minimum rights-of-way also do not include temporary easements that are often needed during construction. This is not a new concept, all master plans approved during the last few decades have identified minimum rights-of-way for highways and streets with the understanding that they do not assume the added width for turn lanes, etc.

The document identifies particular cross-sections for each route segment, ranging from 30.0 miles of two new lanes in the median or along the side exclusively for buses, to 22.8 miles with a one-lane reversible or bi-directional bus lane, to 4.9 miles of curb or managed lanes, to 23.9 miles of mixed-traffic operations (©1). Identifying these cross-sections is important in determining what right-of-way

should be reserved, but the Plan should *not* prescribe what the ultimate cross-section would be. This is better left for subsequent project planning of the corridor, when the details are fleshed out considerably and when there is the opportunity for considerable public input, both from groups and individuals.

For example, based on the traffic and ridership forecasts to date, the Draft Plan's recommendation is that the Randolph Road BRT buses run in mixed traffic along the entire length of the line. This means that while the service could have certain BRT features (less frequent stops, low-level boarding, off-board fare collection, etc.), it would not have exclusive bus lanes, thus limiting its effectiveness. As a result the Draft Plan does not recommend widening the current master-planned right-of-way in any of its segments. However, a project planning study might determine that lanes could be repurposed in some segments (either as curb or contraflow lanes) which would give the BRT vehicle its own guideway and provide better service—but within the same minimum right-of-way.

Council staff recommendation: In the tables describing the corridor segments, change the “Treatment” column to “Possible Treatment,” change the “R.O.W.” column to “Minimum R.O.W.”, and change the “Lanes” column to “Possible Lanes.” Furthermore, the “Minimum R.O.W.” column should have a footnote indicating that it does not include right-of-way needed for turn lanes, stations, or other necessary spot elements. As the Committee reviews each corridor in subsequent worksessions, it might revise some of the specific information in these tables.

The cross-sections identified by the Draft Plan are quite modest. Planning staff has just completed a review of its recommendations to determine how much more frontage would be needed by widening the minimum right-of-way. Of the 81 route-miles, 67.5 miles would have no additional frontage. Of the remaining 13.5 miles, about 700 properties would be affected. However, 11.5 route-miles of these would take only $\frac{1}{2}$ foot-to-5 feet more, and just 2 miles would require more than 5 feet.

4. Cost and funding. The Executive’s fiscal impact statement is on ©2-3. The statement does not ascribe a cost estimate for the proposed system, noting that it is not possible due to many variables and unknowns about it. Nevertheless, informally Council staff has learned that the cost estimate for design, land acquisition and construction of the Draft Plan’s proposal is in the \$2.5-3.0 billion range, in constant (i.e., today’s) dollars. Depending on the rate of inflation and the years of construction, the cost would then likely be in the \$3.0-4.0 billion range in current (i.e., year-of-construction) dollars. This estimate is not unreasonable given its scope, and considering that the cost of the Intercounty Connector was \$2.4 billion, the cost of the Purple Line will be \$2.2 billion (half in Montgomery County), and the cost of the planned (but not yet programmed) improvements to I-270 north of Shady Grove is projected to be \$4.9 billion—\$2.8 billion within Montgomery County alone.

Much of the testimony and correspondence has raised concerns about how this system would be financed. There are many potential revenue sources. One is Federal aid. Like the Corridor Cities Transitway, both the Georgia Avenue Busway and Veirs Mill Road BRT projects are currently following planning processes that would make them eligible for Federal aid. Another is State aid. A result of the latest revenue increase is that the State is programming \$10 million for the detailed planning of a portion of whatever BRT system is recommended by the Council in this Master Plan. Future State funds could be allocated in MDOT’s Consolidated Transportation Program (its capital program) for BRT routes if the Council and Executive identify them as among their highest priority. Another source is development exactions, requiring that a development benefiting from a BRT line not

only dedicate right-of-way for it but also contribute financially towards its construction. Still another possibility is a public-private partnership, whereby an equity partner provides the funds to build the system in exchange for guaranteed annual payments over an extended number of years, as is being considered for the Purple Line and Baltimore's Red Line. County funding, of course, is another possibility, whether through general obligation bonds or proceeds from one or more special taxing districts on those properties which stand to reap a substantial benefit from the system.

The infrastructure financing question is a central one, no doubt, *but it is not material for this or any master plan*. No County master or sector plan, whether it is a comprehensive plan for an area or a functional plan such as this one, has ever dictated a financing strategy, nor should it. Council staff can recall only two plans in the last quarter-century where financing was even a major concern. One was the 1994 Clarksburg Master Plan, in which development districts were suggested, but not mandated. The other was the 2010 White Flint Sector Plan; during the deliberations on that plan a financing plan was being developed concurrently, but not as part of the Sector Plan itself. (A possible third following this model may be the upcoming White Oak Science Gateway Master Plan.) But in none of these plans was a financing strategy included. Council staff urges the Council not use time during these worksessions to discuss funding issues, as they are not germane to the task at hand. There will be plenty of time for that later, once one or more routes proceed through project planning and are thus better defined in terms of scope, impacts, benefits, and cost.

5. Issues/options to be raised in future worksessions. Council staff will attempt to address the major concerns raised in the public hearing testimony and correspondence, especially as they pertain to specific corridors. Furthermore, Council staff will be in a position to make corridor specific recommendations regarding route, stations, and right-of-way.

Councilmember Andrews has provided a list of questions, most of which are route-specific (©4). If other Councilmembers have questions or issues they would like have addressed, this worksession would be an opportunity to raise them. Know that it is unlikely that any more traffic or ridership forecasts can be done within the schedule the Committee and Council has set for the review of this plan.

6. Bicycle-Pedestrian Priority Areas (BPPAs). The State Code allows the designation of BPPAs in the State's *Bicycle-Pedestrian Master Plan* if both a county and the State agree. As the Draft Plan notes, a BPPA is an area where the enhancement of bicycle and pedestrian traffic is a priority, especially in terms of signing and pavement marking, curb height, location of bus stops, assigning appropriate speed limits, streetlighting, and other relatively minor capital improvements and operations. To date the County has designated White Flint and Wheaton CBD as BPPAs, and the State has confirmed White Flint.

The Planning Board wishes to formalize the County's designation of BPPAs in master plans. The Draft Plan thus recommends identifying all Metro Station Policy Areas and Road Code Urban Areas as BPPAs, as well as nine other areas where there is or expected to be significant bicyclist and pedestrian activity. The full list of these areas is on page 66, and maps showing the boundaries of the nine other areas are on pages 67-71.

Council staff recommendation: Concur with the Draft Plan.

7. MARC Brunswick Line. In 2007 the Maryland Transit Administration (MTA) released its MARC Growth & Investment Plan which called for major improvements along all three commuter rail lines over the subsequent four decades. For the Brunswick Line one of its proposals was to add a third track along much of it to allow for off-peak and weekend passenger service. The Draft Plan recommends assuming a third track along the Brunswick Line north of Metropolitan Grove, although it does not assume a wider right-of-way yet, pending the result of a future project planning study.

During the past year MTA has been working on an update to the Growth & Investment Plan. A draft of its main points, as pertaining to the Brunswick Line, is included on ©5-8. The draft notes the need for a third track at Barnesville Hill (the grade in both directions from the Barnesville Station) in the 2020-2029 decade, and additional triple tracking during the subsequent two decades. However, Council staff has also heard recently from MTA staff that other types of enhancements could allow for off-peak and weekend service without a third track.

Council staff has invited MTA staff to brief the Committee on the Growth & Investment Plan update, especially as it pertains to the Brunswick Line. Hopefully MTA will be able to provide more clarity on the third track issue.

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Recommended Transit Corridor Network

Corridor	Bi-directional One-Lane Median	Curb Lanes	Managed Lanes	Mixed Traffic	Reversible One-Lane Median	Two-Lane Median	Two-Lane Side Running	Total
Georgia Avenue North				0.9	8.6			9.5
Georgia Avenue South		1.7		2.0				3.7
MD 355 North				1.6		12.5		14.1
MD 355 South		1.2				8.2		9.3
New Hampshire Avenue				2.8	3.8	1.8		8.5
North Bethesda Transitway				0.3	1.5		0.9	2.7
Randolph Road				10.1				10.1
University Blvd				2.8	2.7			5.5
US 29		1.1	0.9	3.4		5.6		11.0
Veirs Mill Road	6.2							6.2
Total	6.2	4.0	0.9	23.9	16.6	28.1	0.9	80.7



OFFICE OF MANAGEMENT AND BUDGET

Isiah Leggett
County Executive

Jennifer A. Hughes
Director

MEMORANDUM

September 24, 2013

TO: Nancy Navarro, President, County Council
W.L.

FROM: Jennifer A. Hughes, Director, Office of Management and Budget

SUBJECT: Fiscal Impact of the Countywide Transit Corridors Functional Master Plan

The County Executive has expressed his clear intent to consider affordability as he moves forward with phased project implementation of the proposed Rapid Transit System (RTS) contained in the Planning Board Draft of the Countywide Transit Corridors Functional Master Plan. A key first step in that process will be to utilize state funding for concept planning for three corridors (Routes 29, 355 and Randolph Road) to supplement the concept planning that is already underway for the Veirs Mill and Georgia Avenue corridors and the Corridor Cities Transitway (CCT). After concept planning is completed, more meaningful estimates can be prepared for the County Council.

Attached is a list of factors that require more clarification to provide a reliable fiscal impact statement for the County Council's consideration of the Countywide Transit Corridors Functional Master Plan.

JAH:jdm

cc: Timothy L. Firestone, Chief Administrative Officer
Thomas J. Street, Assistant Chief Administrative Officer
Joseph F. Beach, Director, Department of Finance
Arthur Holmes, Director, Department of Transportation

Attachment

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MONTGOMERY COUNTY
SEP 24 2013

(2)

Office of the Director

101 Monroe Street, 14th Floor • Rockville, Maryland 20850 • 240-777-2800
www.montgomerycountymd.gov

Factors Influencing the Fiscal Impact of the Planning Board Draft of the Countywide Transit Corridors Functional Master Plan

It is not possible at this time to develop reliable capital and operating costs for the Planning Board Draft of the Countywide Transit Corridors Functional Master Plan. The major cost implications of the Plan are the design, construction, operation and maintenance of a Rapid Transit System (RTS). At this time, there are too many variables associated with such a project to generate reliable cost estimates. Some of these variables include:

Conceptual Planning: Detailed conceptual planning for each proposed corridor is needed to accurately project ridership, number and type of buses needed, most appropriate lane treatments, essential ROW that must be acquired, location and design of RTS stations, construction and eventual operating costs. Additionally, an environmental impact analysis has not been conducted at this time.

The Draft Plan states on page 11:

More detailed analysis is required to determine the final treatment and typical section, the slope impacts required to build that typical section, and the number of travel lanes and turn lanes required to provide an adequate level of traffic service. The final rights-of-way required for the recommended transit corridors must be determined during facility planning and design for individual corridors, at which time the cost of construction must also be determined.

Coordination with Other Jurisdictions: Many of the Draft Plan's ten proposed corridors are situated on state roads and are under the purview of the State Highway Administration (SHA). Any changes to these roads will have to pass state review and conform to all state and federal regulations. Additionally, the MD355 corridor passes through the Cities of Rockville and Gaithersburg, and the Veirs Mill corridor has a section within the City of Rockville. Proposed lane treatments within municipalities are subject to the municipality's review and approval. Two sections of the New Hampshire Avenue corridor pass through Prince George's County, requiring lane treatments and stations for those sections to be subject to review and approval by Prince George's County.

Cost Sharing: Currently, it is unknown what cost sharing opportunities may be available to help defray local contributions including federal, state, and regional aid as well as the opportunity for public/private partnerships. However, \$10 million is expected to be allocated by the Maryland Department of Transportation (MDOT) for concept planning for three corridors: US29, MD355, and Randolph Road. Concept planning is currently underway for the Veirs Mill corridor and the Georgia Avenue Busway. The plan is silent regarding which entity will be responsible for operation of the RTS system.

Integration with Existing/Envisioned Transit Options: It is unknown at this time how the RTS will integrate with existing and envisioned transit related options including: RideOn, MetroBus, MetroRail, the CCT, the Purple Line and Park and Ride.

Timing of Implementation: There is currently no schedule for implementation of the Plan. Due to the long-term nature of the Plan, costs are likely to fluctuate over time.

Orlin, Glenn

From: Gibson, Cindy
Sent: Sunday, September 22, 2013 11:57 PM
To: Orlin, Glenn
Subject: Fwd: Questions pertaining to Final Draft of Countywide Transit Corridors Functional Master Plan

Glenn- FYI

Sent from my iPhone

Begin forwarded message:

From: "Hondowicz, David" <David.Hondowicz@montgomerycountymd.gov>
Date: September 12, 2013 at 2:09:51 PM EDT
To: "Gibson, Cindy" <Cindy.Gibson@montgomerycountymd.gov>
Cc: "Mandel-Trupp, Lisa" <Lisa.Mandel-Trupp@montgomerycountymd.gov>
Subject: Questions pertaining to Final Draft of Countywide Transit Corridors Functional Master Plan

Cindy:

The questions I understand you have requested from Phil about BRT at this point are as follows:

Councilmember Andrews' questions regarding the Planning Board's Final Draft of Countywide Transit Corridors Functional Master Plan – September 2013

1. How does recommendation pertaining to Route 355 North impact the Shady Grove Sector Plan staging requirement for a grade-separated interchange at Route 355 and Gude Drive?
2. To what degree does any part of the Final Draft change current recommendations in already approved Sector and/or Area Plans along the various proposed alignments and what specifically are those changes?
3. How does recommendation pertaining to Route 355 North impact, if at all, MTA planning of CCT connection with the Shady Grove Metro Station?
4. It is unclear from reading the Final Draft whether or not any lanes are repurposed for BRT on Route 355 within Rockville/Derwood. What steps is Planning Board staff taking to provide Rockville City with whatever additional information it needs to provide applicable feedback soon enough to incorporate into Council review of the overall Final Draft for Route 355 (North & South)?
5. How, if at all, does the Final Draft recommendation for Viers Mill Road impact the existing service lanes to any degree?
6. Is any impact anticipated on the apparently high regular bus ridership along Viers Mill Road if a single, reversible lane for BRT constructed there?
7. How do the shared use paths on Georgia Avenue North (in the vicinity of Aspen Hill and Leisure World) and Route 355 North (Rockville City/Derwood area) impact/relate to the available ROW for BRT operations there?
8. What are the projected headways for each alignment in the Final Draft?
9. A chart identifying all repurposed lanes and the resulting impact on general traffic along each proposed alignment is needed.

David

(4)



Brunswick Line: Near-Term 2013 to 2019 (Planned)

Maintain a State of Good Repair -

\$50 million*

- Explore parking facility expansions
- Positive train control

Increase Ridership - \$1 million*

- Lengthen existing trains to accommodate growing ridership
- Expand "Meet the MARC" connecting services

Systemwide - \$254 million*

- Procure 54 MARC IV multi-level railcars to replace plus increase number of seats - \$180 million
- Procure 10 new diesel locomotives to replace electric locomotives - \$40 million
- Overhaul 63 MARC III railcars - \$34 million

Improve Service - \$1 million*

- Expanding utilization of LOTS systems to increase connectivity
- Maintain 94-95% on-time performance

Enhance the Customer Experience -

\$7 million*

- ADA-Compliant Public Address System and LED signage
- Develop system uniformity standards (aesthetics, signage, brand)
- Closed Circuit Television System through Homeland Security Grants
- Install additional bike racks/lockers at stations
- Increase EV chargers available to riders



*Certain additional costs yet to be determined.

Brunswick Line: Long-Term 2020 to 2029 (Potential)

Maintain a State of Good Repair -

\$176 million*

- 3 main tracks, Barnesville Hill
- Add another new Montgomery County station or expand an existing station
- Point of Rocks platform expansion providing access to Frederick branch and improved facilities
- Parking facility expansions as deemed necessary
 - Germantown Parking Garage
- Brunswick parking lot – additional access point
- Duffields – potential new station at Northport
- Brunswick Maintenance service facility expansion

Systemwide- \$138 million*

- Overhaul 26 MP36 diesel locomotives - \$65M
- GP39 (6) Repower 6 GP39 diesel locomotives - \$15M
- Overhaul 34 MARC IIB railcars - \$31M
- Overhaul 54 MARC IV multi-level railcars - \$27M

Increase Ridership - \$26 million*

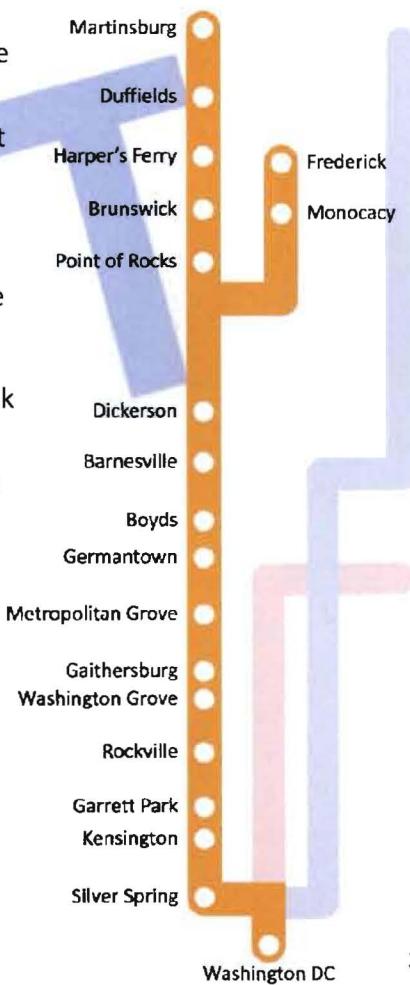
- Lengthen existing trains to accommodate growing ridership
- New Corridor Cities Transitway Station at Metropolitan Grove

Improve Service - \$55 million*

- Increase limited stop and express service
- One reverse peak service to Brunswick
- One additional round trip from Brunswick to DC
- Washington Terminal planned expansion
- Maintain 94-95% on-time performance

Enhance the Customer Experience - \$8 million*

- E-Ticketing
- Harpers Ferry ADA improvements
- Install additional bike racks/lockers at stations
- Increase EV chargers available to riders



*Certain additional costs yet to be determined.

Brunswick Line: Future 2030 to 2050 (Potential)

Maintain a State of Good Repair

- Additional triple tracking
- Parking facility expansions to be determined

Increase Ridership

- Lengthen existing trains to accommodate growing ridership

Systemwide

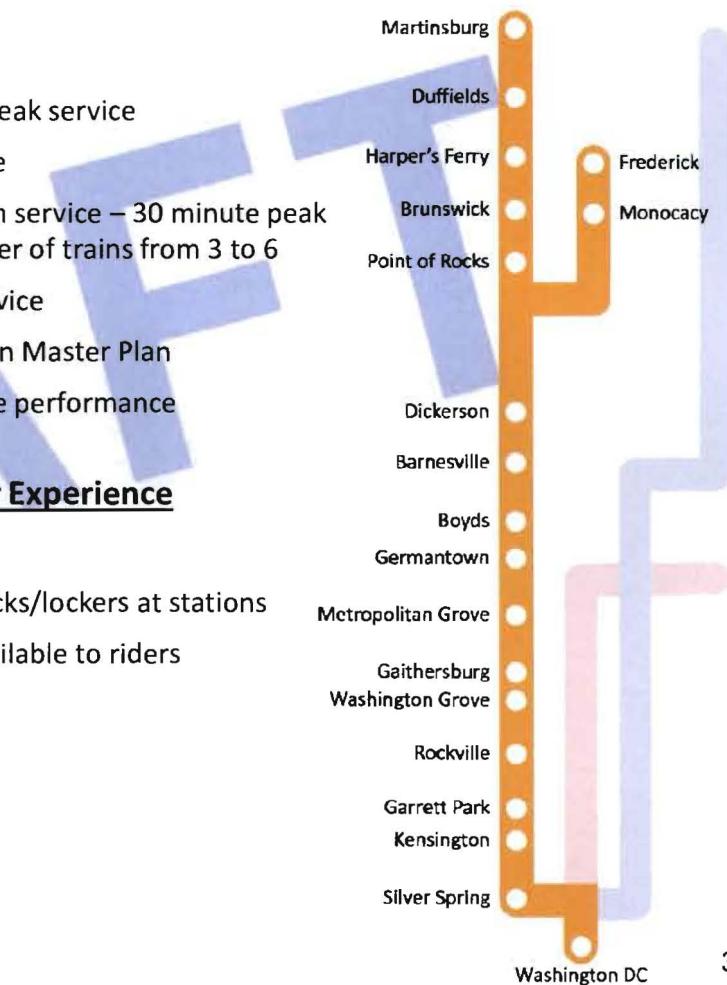
- Overhaul 26 MP36 diesel locomotives
- Purchase expansion diesel locomotives
- Replace 34 MARC IIB railcars
- Overhaul 63 MARC III railcars
- Overhaul 54 MARC IV multi-level railcars
- Overhaul 50 expansion railcars
- Purchase 50 expansion railcars

Improve Service

- Increased peak and off-peak service
- Reverse commute service
- Improve Frederick branch service – 30 minute peak headway, increase number of trains from 3 to 6
- Limited reverse-peak service
- Washington Union Station Master Plan
- Maintain 94-95% on-time performance

Enhance the Customer Experience

- Expanded TOD presence
- Install additional bike racks/lockers at stations
- Increase EV chargers available to riders



Brunswick Line – Summary

Brunswick Line Capital Improvements	Near-Term Cost (\$M)	Long-Term Cost (\$M)	Total Cost (\$M)
Maintain a State of Good Repair	\$50*	\$176*	\$226*
Increase Ridership	\$0*	\$25*	\$25*
Improve Service	\$0*	\$55*	\$55*
Enhance the Customer Experience	\$7*	\$8*	\$15*
TOTAL	\$57*	\$264*	\$321*

Brunswick Line Operating Improvements	Near-Term Cost (\$M)	Long-Term Cost (\$M)
Incremental Operating Costs	\$2/year*	\$6/year*

*Certain additional costs yet to be determined.

