



Baltimore Washington Investment Corridor

Transit Futures Symposium

June 3, 2008

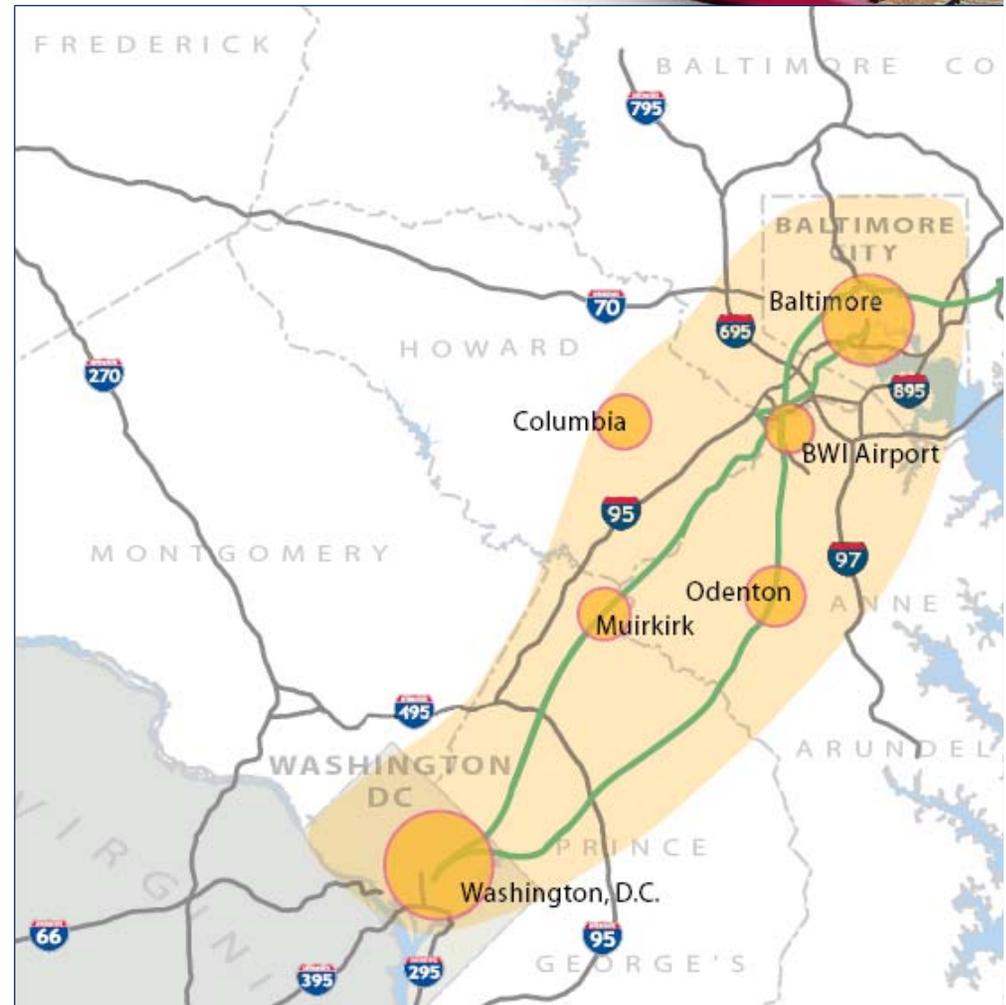
Today's Agenda

- Project History and Purpose
- Transit Projects in the Study Area
- Lunch
- Transit Market Analysis Presentation and Discussion
- Open Floor Discussion: What is the future of transit in the Baltimore-Washington Investment Corridor?

Purpose of Symposium

Why are we here?

- Discuss future of transit in the Baltimore-Washington Investment Corridor
- Examine data and analysis of transit markets for the Corridor generated in an ongoing MTA/MDOT study.
- Discuss transit needs in consideration of a wide range of transportation studies and related investments in the Corridor.



Baltimore-Washington Investment Corridor Study Context

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- Corridor connects two major metropolitan areas;
- Target for housing and employment growth;
- Anticipated BRAC growth at Fort Meade to exacerbate these trends;

Focus on Baltimore-Washington Investment Corridor

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- Baltimore-Washington Investment Corridor (BWIC), a Maryland economic generator in light of BRAC and other trends.
 - Transportation needs recognized in light of those anticipated changes.
 - Transit important part of the Corridor's transportation future as a Sustainable transportation strategy for congestion management and quality of life.
 - New legislation emphasizes TOD as a transportation strategy.
 - Transit and TOD, including bus and MARC improvements are all part of the Lt. Governor's BRAC Action Plan.

Transit in the Baltimore-Washington Investment Corridor

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- There are numerous studies and investments affecting the BWIC, reflecting the mobility needs for the Corridor.
- Reality of increased gas prices and increased transit usage on the corridor places additional significance on this issue.
- We seek your input on several issues:
 - How do we invest wisely in transit for this Corridor?
 - What should our transit priorities be?
 - Consider both long term and short term transit investments.
 - What can be done now and in the near future to prepare the region to be more transit-focused?
 - Local land use and targeted transportation programs and initiatives.
 - What are the opportunities partnerships?
 - What is an appropriate role for the private sector?

Project History and Purpose

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- This study stems from previous studies of extending the WMATA Green Line from Greenbelt to the BWI Marshall Airport
 - Phase I (Dec. 2006) – focused on the political and policy environment. Questions to be answered:
 - Are there public and private sector champions for the project? If so, will they be willing to help promote and pay for the project?
 - What is the existing and future land use environment for transit in the Corridor? Will it support a new transit investment?
 - Phase II (June 2007) – focused on the physical feasibility of the rail extension, including alignment and stations.
 - Analysis conducted for multiple destinations.
 - A presentation will be made on the approach and results of that initiative later.

Project History and Purpose

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What we learned from Phase I:

- Limited support for an extension of the Green Line by public and private sector stakeholders.
 - In general, local jurisdictions *stated* their support for extending the Green Line.
 - However, land use policy and development pipelines were not supportive of a new high capacity transit investment.
 - Most transit supportive land use investments are oriented around the MARC system.
 - Conflicting preferences expressed on preferred service destinations. No consensus emerged.
 - Considerable interest expressed in improved MARC service between Baltimore and Washington, particularly increases in daily trips, hours and days of operation.

Project History and Purpose

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What we learned from Phase II:

- We can do it. An extension of the Metrorail Green Line is physically feasible up the CSX/Camden Line right-of-way.
- But at a cost.
 - Financially
 - Environmentally

Project History and Purpose

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- Insufficient understanding of the market for an extension of the Metrorail Green Line, given information available at the time.
 - Ridership potential uncertain.
 - Funding not available.
- Administration priority towards system preservation in light of extensive investments in the MARC system and increased demand.
- State studies and plans for investments in MARC, TOD along MARC, Maglev, and Metrorail Green Line extensions share geographic markets and rights-of-way.
- Transportation needs in the Corridor not fully understood at the time, particularly with respect to anticipated BRAC growth.
- Study initiated in October 2007 to use existing data to identify potential transit markets and needs for the Corridor.
 - Trip distribution and land use data from MPO models.
 - BRAC employment and trip estimates.
 - Updated pipeline developments from each County jurisdiction.

Transit Projects in the Study Area

- MARC Growth & Investment Plan
- BRAC Transit Study
- TOD Studies and Projects
- Maglev Study
- WMATA Green Line Extension Feasibility Study

MARC Growth & Investment Plan

Presented by Harry Romano

Benefits of Investment in MARC

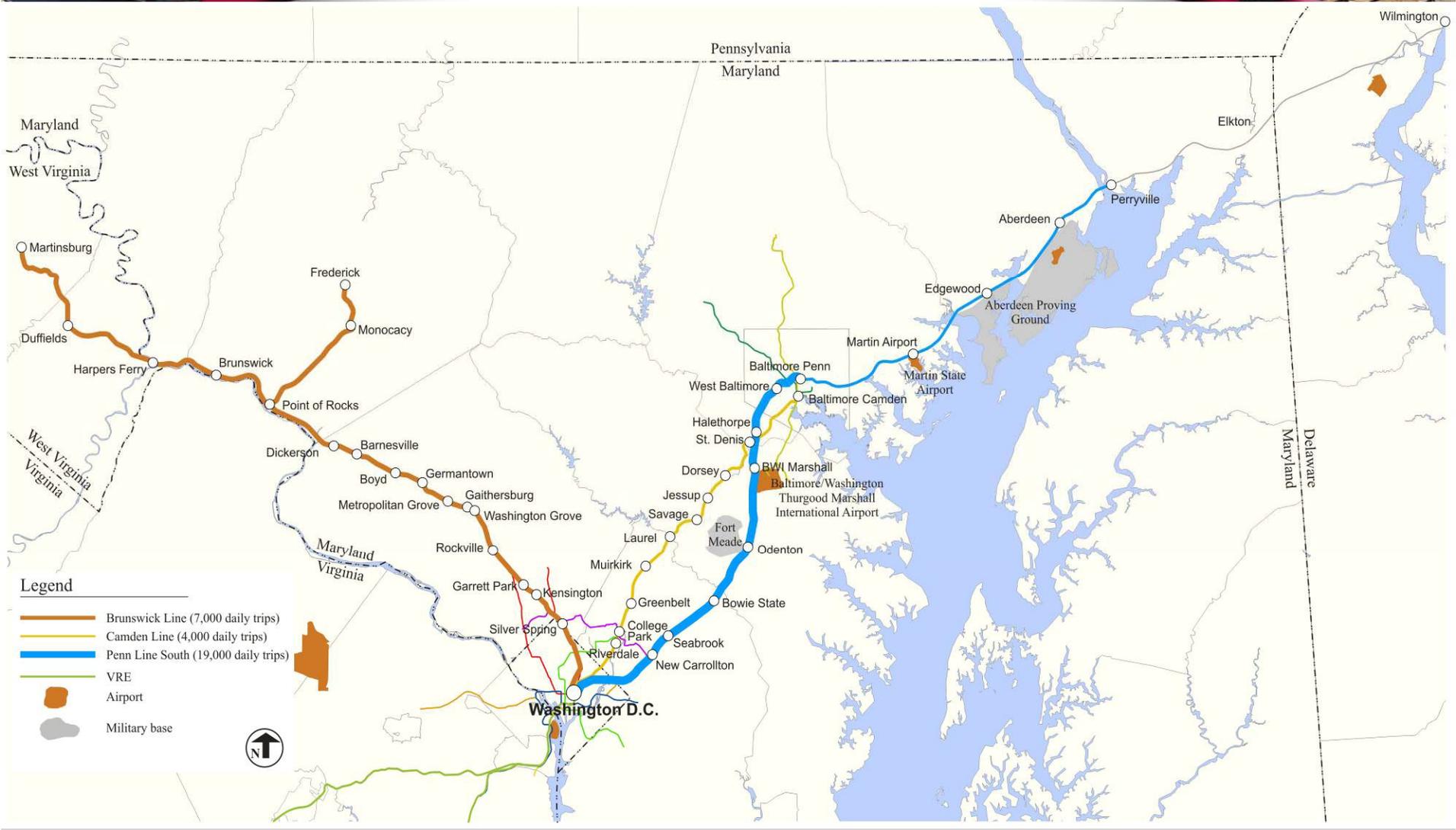
- Better service for current riders
 - Addresses existing problems with capacity, frequency and reliability
- Provide framework for mobility in Central Maryland
 - Provides fast, reliable transportation in key corridors
 - Strengthens economic and social ties between Baltimore and Washington
 - Serves BRAC-related travel markets
 - Offers mobility choice for commuters and regional travelers
 - Efficient and environmentally sustainable (air, water, energy) transportation investment
 - Reduces need to expand highways in areas with limited/expensive construction opportunities
 - Encourages efficient regional land use development and transit-oriented development
 - Provides backbone for integrated Baltimore region transit system
 - Supports more efficient rail freight movement

Objectives

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- Ridership
 - Increase passenger-carrying capacity threefold
 - Increase share of trips by MARC during peak travel periods
- Service
 - Increase peak service:
 - 15-minute headways on Penn Line
 - 20-minute headways on Camden and Brunswick lines
 - Increase off-peak service:
 - 30-minute headways on Penn Line
 - Increased mid-day service on Camden and Brunswick lines
 - Provide express and limited stop service
 - Provide late evening service
 - Provide weekend service
 - Improve reliability to 95% on-time or better

Existing Service



Legend

- Brunswick Line (7,000 daily trips)
- Camden Line (4,000 daily trips)
- Penn Line South (19,000 daily trips)
- VRE
- Airport
- Military base



Existing System Description

	Penn Line	Camden Line	Brunswick Line
Owner/operator	Amtrak	CSX	CSX
Stations	12	11	18
Route-miles	75	40	75
Weekday trains	47	18	19
Train sets	6	5	9
Frequency			
• Weekday peak	25 mins (Wash-Balt) 45 mins (Perryville)	30 mins	30 mins (Brunswick) 60 mins (Frederick)
• Weekday off-peak	Hourly (Wash-Balt) None (Perryville)	None	One mid-day train
• Weekend	None	None	None
Daily passenger trips	19,000	4,500	7,000
On-time performance (FY 07)	89%	91%	89%

Ridership Trends

- Ridership is at an all-time record level: 30,000+ daily trips
 - Recent growth has been at over 6% per year during past decade
 - Ridership now exceeds peak period system capacity of approx. 27,000 daily trips
- Ridership demand expected to continue to grow
 - Baltimore City residential revitalization
 - Suburban population growth
 - Strong employment growth in corridors served by rail – including BRAC-related effects
 - Continuing regional highway congestion
 - Expanded federal fare subsidy programs
 - High cost of gasoline

MARC is Running Near Capacity

- Capacity constraints threaten the ability of the MARC system to meet this demand with acceptable level and quality of service
- Parking lots at or near capacity
 - Perryville, Aberdeen, Edgewood, Martin Airport, Penn Station, West Baltimore, Halethorpe, Odenton, Brunswick, Point of Rocks, Germantown, Laurel
- Existing trains are crowded; standees on 60% of Penn Line trains in peak 2 hrs.
- Insufficient spare equipment
- Insufficient train storage
 - Overnight at Penn Station (no room to expand)
 - Mid-day at Washington (currently exceeds MTA-Amtrak agreement)
- Equipment maintenance shops are at capacity – cannot accommodate a larger commuter rail fleet
- MARC scheduling flexibility and ability to expand service constrained by infrastructure and presence of other operators (Amtrak service & freight)

Major Assumptions

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- CSX or Amtrak cooperation required, since MTA doesn't own or control:
 - Right-of-way
 - Washington Union Station, Baltimore Penn Station, and other major stations
 - Train dispatching and operations
 - Equipment maintenance priorities
- Investment will need to comprehensively address system capacity needs in multiple areas
 - Rail infrastructure upgrades and expansion
 - Additional main line tracks
 - Improved crossovers and track connections
 - Upgraded signaling and Penn Line electrification systems
 - Train storage and maintenance facilities
 - Rail cars
 - Station parking

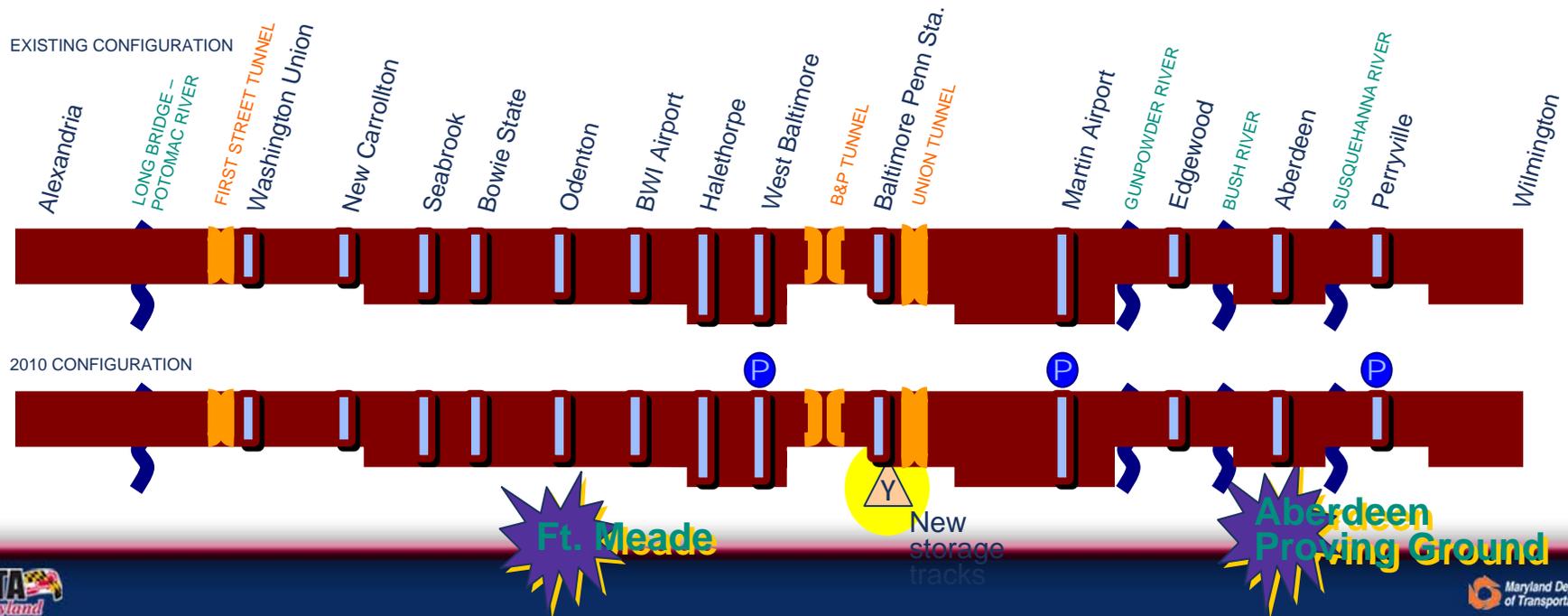
Phased Growth and Investment Plan

- Timeframes
 - Immediate (within 9 months)
 - 2010
 - 2015
 - 2020
 - Long-range (2035)

2010 Plan – Penn Line



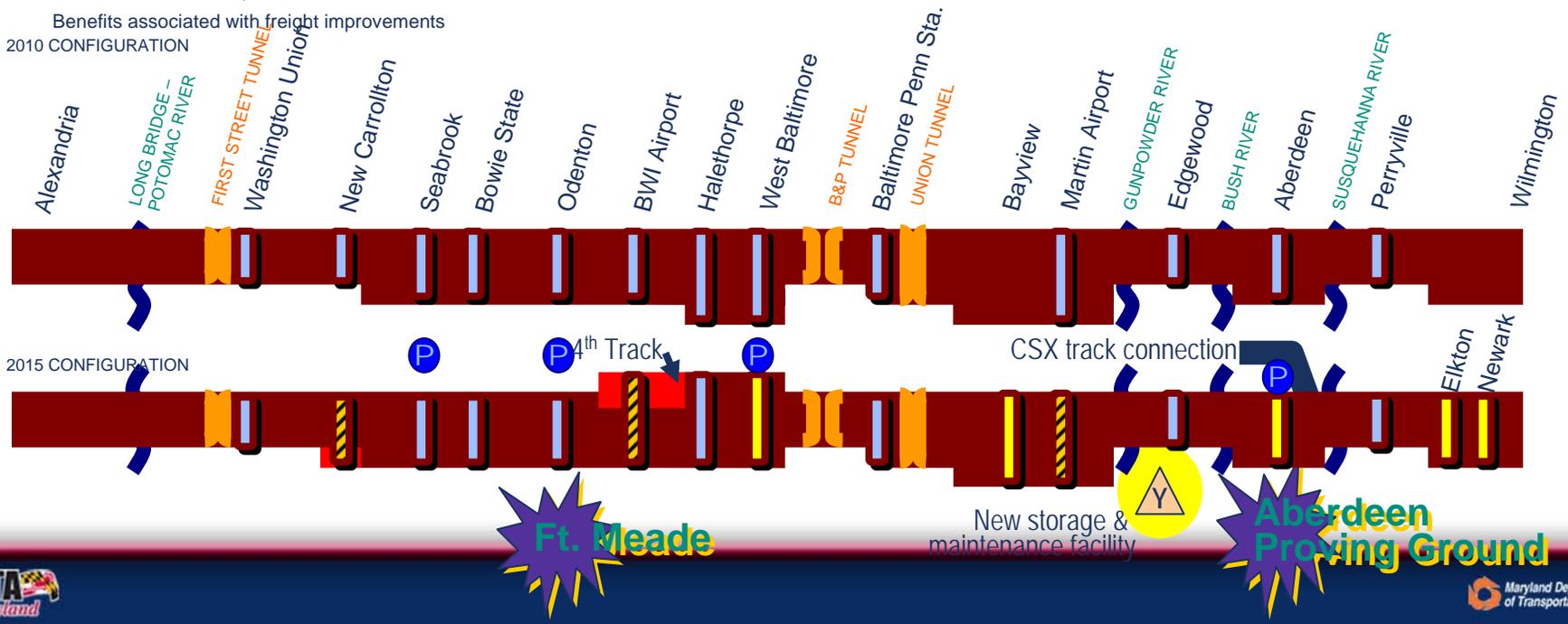
- Incremental Seating Capacity
 - +3,400 daily seats
- Rail Service Improvements
 - Lengthen existing trains to accommodate growing ridership demand
 - Additional peak and reverse-peak service
 - Late evening & weekend service
- Incremental Capital Investments – ~\$83m
 - Procure new coaches
 - Expand Baltimore area overnight train storage
 - Station platform lengthening, as required
 - Station parking expansion: West Baltimore, Martin Airport, Perryville
- Incremental Operating Cost – ~\$7m/yr.



2015 Plan – Penn Line

- Incremental Seating Capacity
 - +12,000 daily seats
- Rail Service Improvements-Washington-Baltimore
 - Increased peak and reverse-peak service (15-20 minute headways)
 - 30-minute headway off-peak service
- Rail Service Improvements North of Baltimore
 - Aberdeen: expansion of peak service and introduction of limited off-peak service
 - Martin Airport: expansion of peak service and introduction of hourly off-peak service
 - MARC peak service extended to Elkton, Newark
- More reliable service, with additional capacity and increased MARC-Amtrak separation
- Significant rail service provided for BRAC markets – enhanced service at Odenton and Aberdeen
- Transit-oriented development opportunities at several stations
- Connectivity with Baltimore region transit
 - Red Line at West Baltimore
 - Red Line at Bayview
- Improved reliability
 - 93% on-time performance
- Benefits associated with freight improvements

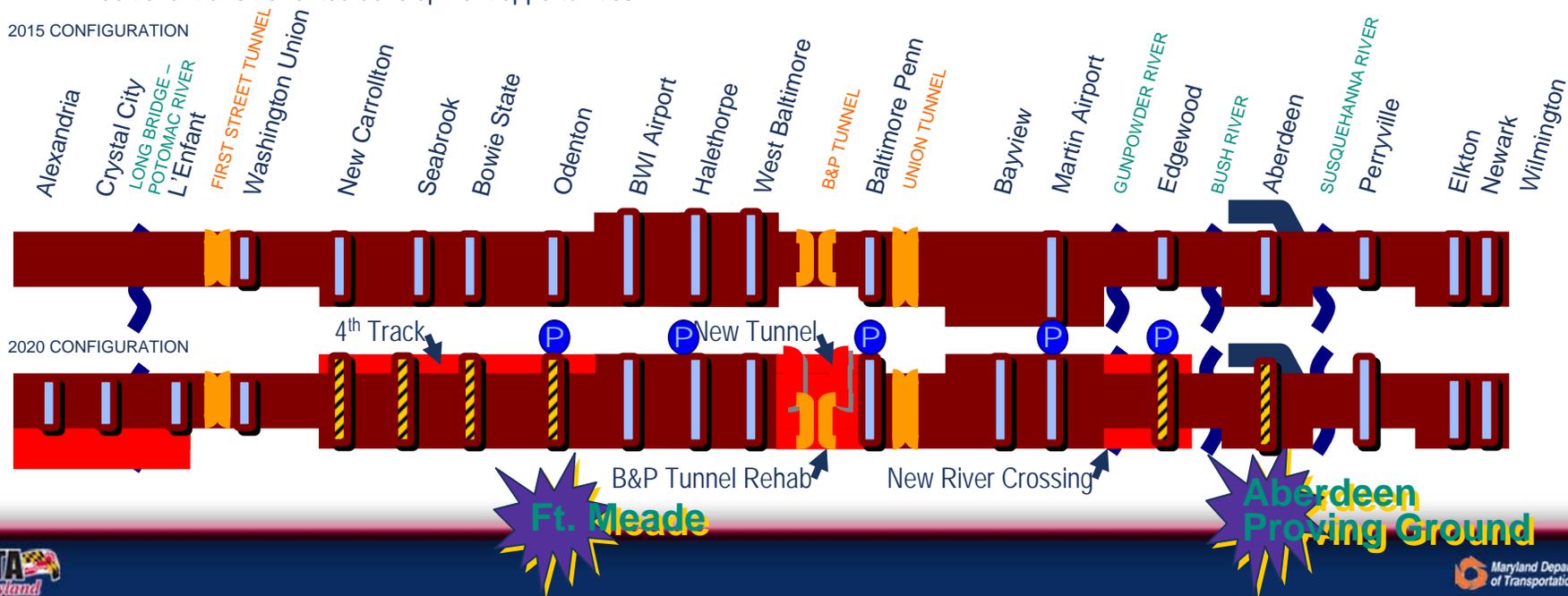
- Incremental Capital Investments – ~\$990m
 - 4 main tracks, West Baltimore-to-BWI Airport
 - Reconstruct BWI Airport Station
 - Relocate West Baltimore Station
 - New crossovers, BWI Airport-to-New Carrollton
 - Additional island platform at New Carrollton Sta.
 - Relocate Aberdeen Station
 - New Bayview Station and associated track improvements
 - Martin Airport Station improvements
 - Track A upgrade, Baltimore-to-Gunpowder River
 - New Elkton Station and associated track improvements
 - Odenton Station improvements
 - Station parking expansion
 - Additional rail cars
 - New overnight storage & maintenance facility
 - Aberdeen: CSX track connection for freight
- Incremental Operating Cost – ~\$20m/yr.



2020 Plan – Penn Line

- Incremental Seating Capacity
 - +16,000 daily seats
 - Rail Service Improvements
 - BRAC and BWI Airport Access Markets
 - Provides expanded service aimed at BRAC, airport and regional business travel markets, e.g. limited-stop trains at 30-minute headways
 - Washington-Baltimore
 - Expanded peak and reverse-peak service
 - Additional peak express service
 - Off-peak local and limited stop service
 - North of Baltimore
 - Extension of core Penn Line service to Aberdeen, with 20-30-minute peak headways and hourly off-peak service
 - MARC service extended to L'Enfant Plaza and Northern Virginia
 - Implementation and cost-sharing partnership with other rail constituents
 - Additional transit-oriented development opportunities
- Incremental Capital Investments – ~\$1,320m
 - New Gunpowder River crossing (total of 4 main tracks, enables increased MARC service to Aberdeen)
 - 4 main tracks through Edgewood Station
 - 4 main tracks, BWI Airport-to-New Carrollton
 - Station modifications to support 4 main tracks: Odenton, Bowie State, Seabrook, New Carrollton
 - Amtrak B&P Tunnel replacement (by Amtrak, approx. cost \$1B); Rehab of existing tunnel for MARC use
 - Additional station parking expansion at Odenton, Halethorpe, Baltimore Penn Station, Martin Airport and Edgewood
 - Additional rail cars and locomotives
 - Freight corridor improvements, Baltimore-to-Perryville
 - Incremental Operating Cost – ~\$14m/yr.

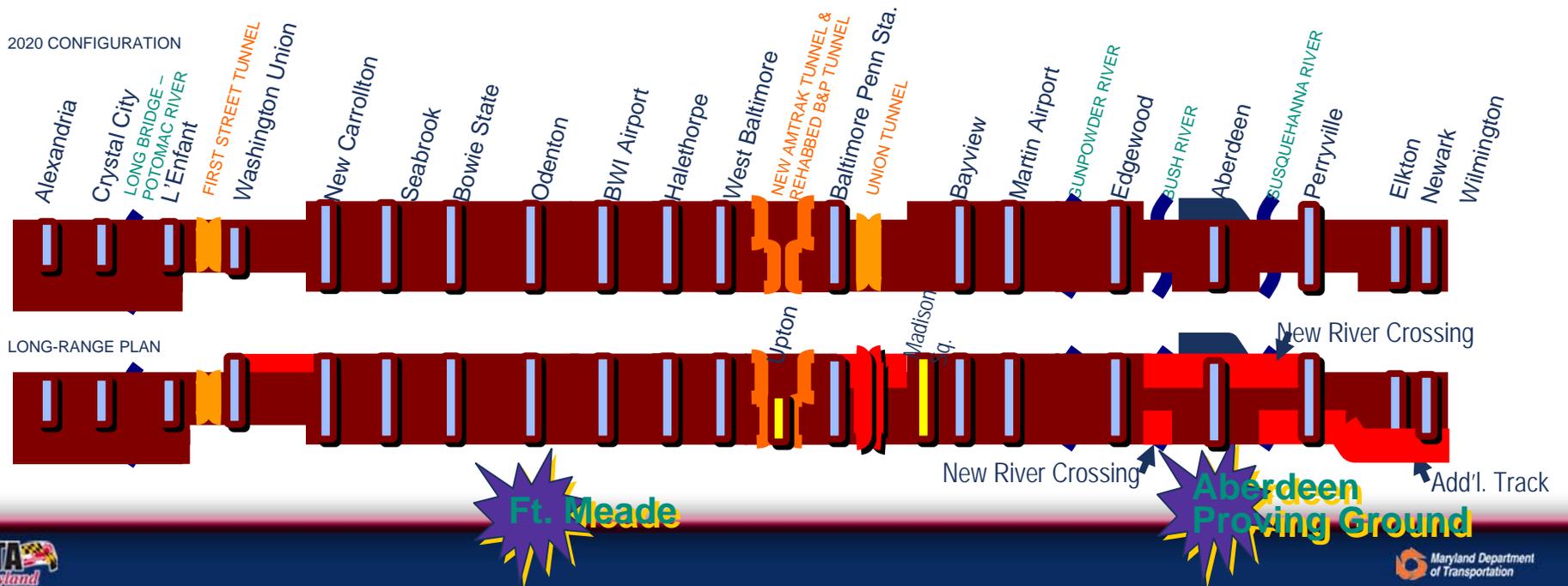
2015 CONFIGURATION



2035 Plan – Penn Line

- Incremental Seating Capacity
 - +13,000 daily seats
- Rail Service Improvements
 - Full 4-track railroad provides MARC with flexibility to optimize service to meet and anticipate demand
 - Enables “transit-like” service through Baltimore
- Achieves high degree of reliability
 - 95% on-time performance
- Connectivity with Baltimore region transit
 - METRO Green Line at Madison Square
 - METRO Green Line at Upton
- Additional service extensions possible (not included in cost estimates)

- Incremental Capital Investments – ~\$570m+
 - Union Tunnel expansion – complete 4-track railroad through Baltimore City
 - New Bush River crossing (total of 4 main tracks)
 - New Susquehanna River crossing (total of 4 main tracks)
 - Extend 4 track railroad through Perryville
 - 3 main tracks, New Carrollton-to-Washington
 - New Madison Square and Upton Stations, with convenient transfers to/from Baltimore Metro
 - Additional station parking expansion
 - Additional rail cars and locomotives
- Incremental Operating Cost – ~\$20m/yr.



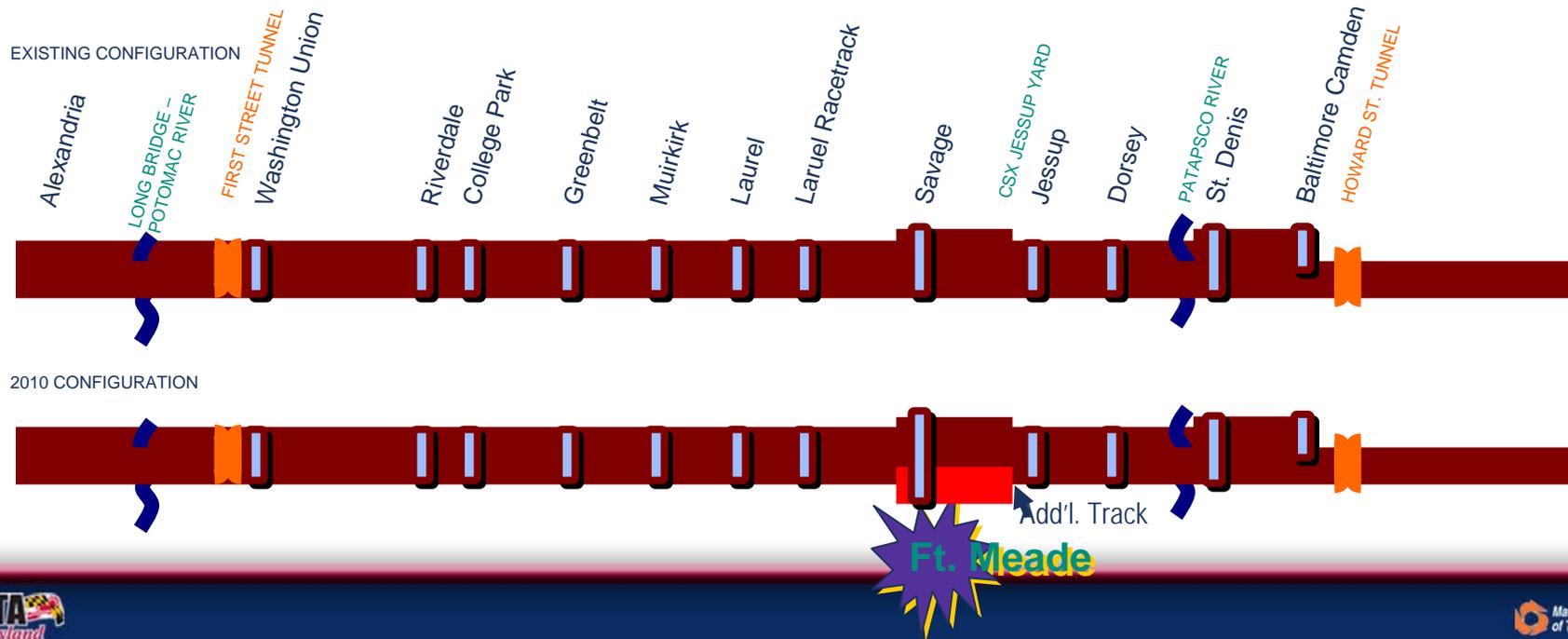
Penn Line Plan Summary

	2010	2015	2020	2035
Additional Daily Seats	3,400	12,000	16,000	13,000
Rail Service Improvements	<ul style="list-style-type: none"> Lengthen trains Additional peak and reverse peak trains Late evening and weekend service 	<ul style="list-style-type: none"> Additional peak and reverse peak trains Increase frequencies to Aberdeen Peak service to Elkton and Newark Connectivity to Baltimore Core services 	<ul style="list-style-type: none"> Introduction of limited stop trains at 30-minute intervals Additional peak express service N. VA extension 	<ul style="list-style-type: none"> Full 4-track railroad with "transit-like" service through Baltimore Connectivity to Baltimore Subway
Incremental Capital Investments	\$83 million	\$990 million	\$1.3 billion	\$570 million
Incremental Operating Cost	\$7 million/yr	\$20 million/yr	\$14 million/yr	\$20 million/yr

2010 Plan – Camden Line



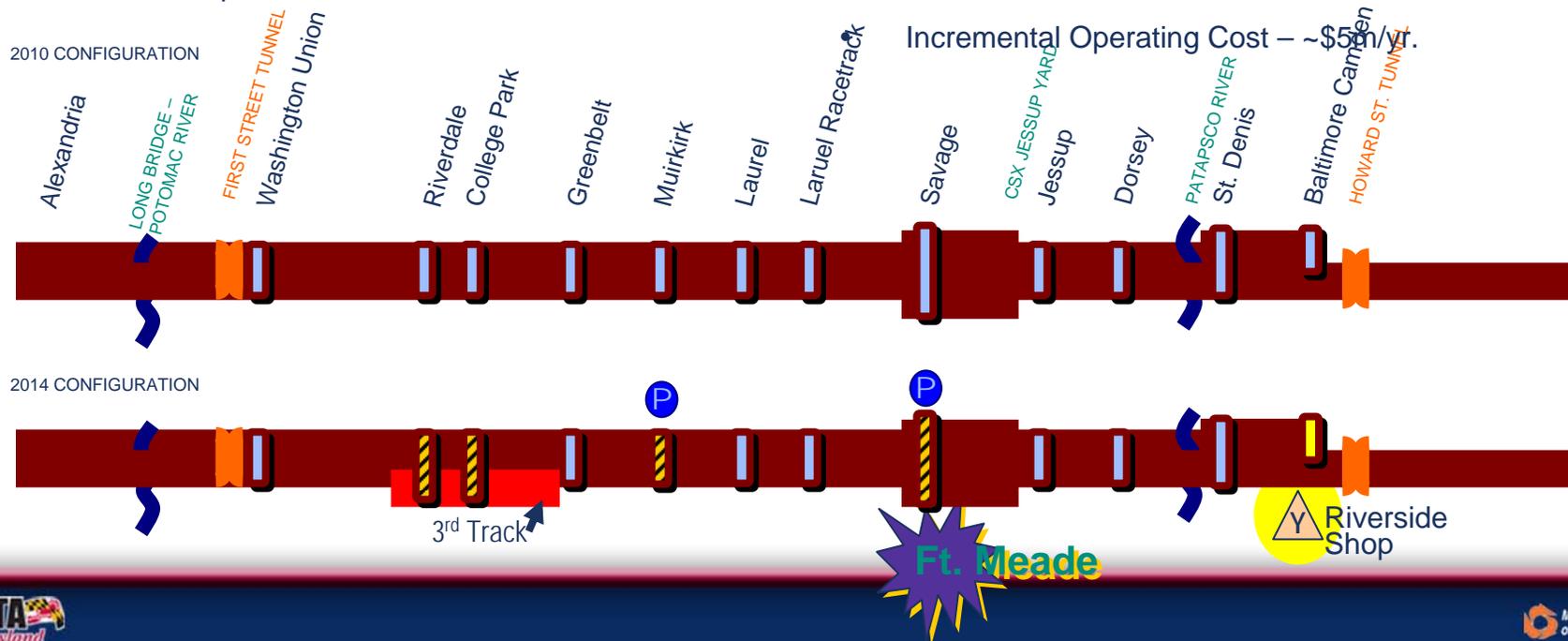
- Incremental Seating Capacity
 - +400 daily seats
- Rail Service Improvements
 - Lengthen existing trains to accommodate growing ridership demand
 - Additional mid-day afternoon train
- Improved reliability – 93% on-time performance
- Incremental Capital Investments – ~\$53m
 - Procure new coaches
 - 3 main tracks plus yard siding, Savage-to-Jessup
 - Aesthetic improvements and upgrades to stations
 - Station parking expansion
- Incremental Operating Cost – <\$1m/yr.



2015 Plan – Camden Line

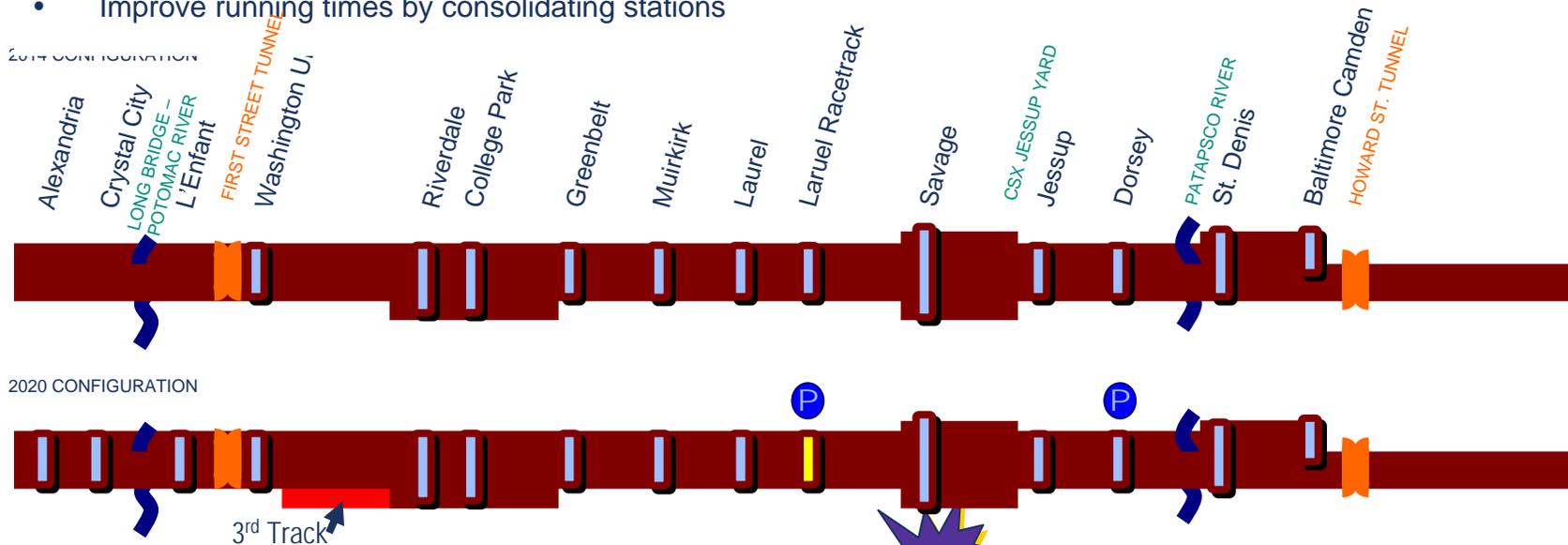


- Incremental Seating Capacity
 - +2,200 daily seats
- Rail Service Improvements
 - Additional peak and reverse peak trains
 - Improved rail-bus transfers and connecting bus service to Ft. Meade area from Savage Station
- Continued reliability improvement
 - Major failure avoidance, improved incident response
- Incremental Capital Investments – ~\$125m
 - 3 main tracks, Greenbelt-to-Riverdale
 - Camden Station – new station building
 - Muirkirk Station – ADA access and station improvements tied to ICC completion
 - Savage Station – improved rail-bus transfer facilities
 - Additional station parking expansion at Savage, Muirkirk
 - Additional rail cars



2020 Plan – Camden Line

- Incremental Seating Capacity
 - +6,600 daily seats
 - Rail Service Improvements
 - Peak headways reduced to 20 mins.
 - Limited mid-day service
 - Extension of service to L'Enfant Plaza and Northern Virginia
 - Continued reliability improvement
 - Major failure avoidance, improved incident response
 - Improve running times by consolidating stations
- Incremental Capital Investments – ~\$120m
 - Signal system upgrade
 - 3 main tracks, Riverdale-to-Washington
 - Station improvements and parking expansion at Laurel Racetrack
 - Additional station parking at Dorsey
 - Additional rail cars and locomotives
 - Incremental Operating Cost – ~\$3m/yr.

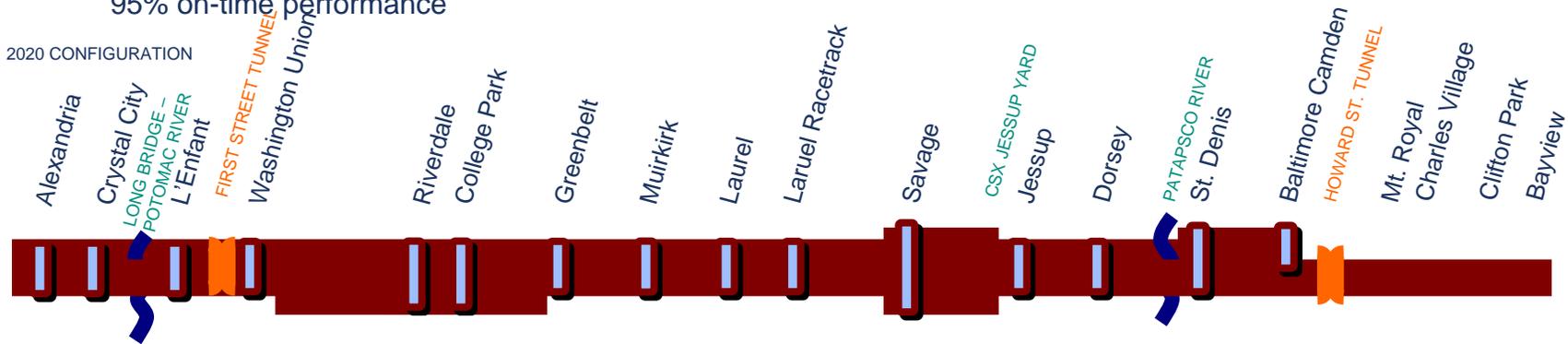


2035 Plan – Camden Line

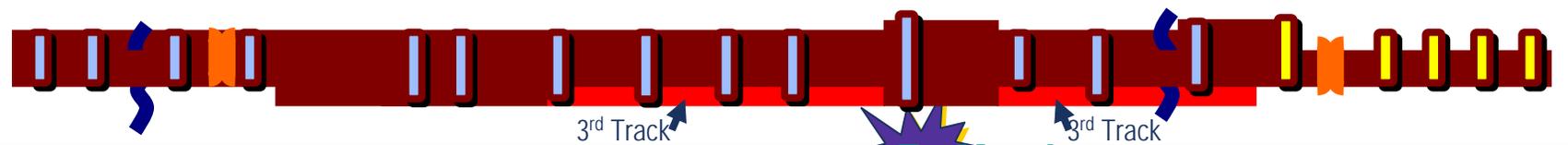


- Incremental Seating Capacity
 - +4,000 daily seats
- Rail Service Improvements
 - Increased peak and off-peak service
 - Weekend service
 - Extension of service through Baltimore City to Bayview (requires prior relocation of CSX freight traffic to new tunnel)
- Continued reliability improvement – 95% on-time performance
- Incremental Capital Investments – ~\$110m+
 - Additional triple tracking
 - Investments to support service extension to Bayview, including new lower level platform at Camden Station, Howard Street Tunnel infrastructure & life safety upgrades, new stations, train storage facilities
 - Additional station parking expansion
 - Additional rail cars and locomotives
- Incremental Operating Cost – ~\$5m/yr.+

2020 CONFIGURATION



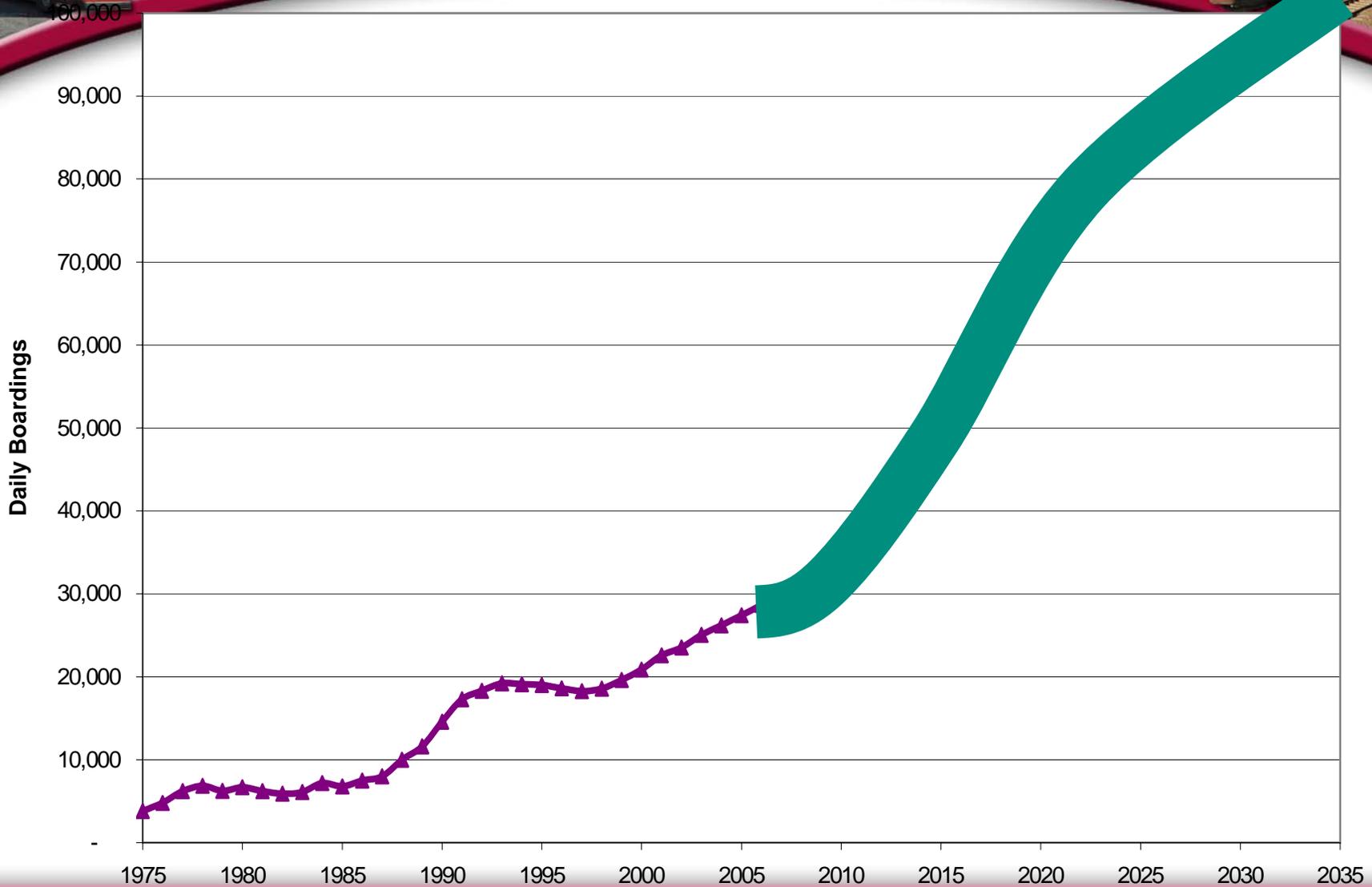
LONG-RANGE PLAN



Camden Line Plan Summary

	2010	2015	2020	2035
Additional Daily Seats	400	2,200	6,600	4,000
Rail Service Improvements	<ul style="list-style-type: none"> Lengthen trains Additional mid-day train 	<ul style="list-style-type: none"> Additional peak, reverse peak trains Connecting BRAC buses 	<ul style="list-style-type: none"> Peak headways reduced to 20 min. Limited mid-day service Northern VA extension 	<ul style="list-style-type: none"> Increased peak and off peak trains Weekend service Bayview extension
Incremental Capital Investments	\$53 million	\$125 million	\$120 million	\$110 million
Incremental Operating Cost	<\$1 million/yr	\$5 million/yr	\$3 million/yr	\$5 million/yr

Ridership and Passenger-Carrying Capacity



Projected Daily Seating Capacity

	Current	2010	2015	2020	2035
Penn	16,000	19,400	31,000	47,000	60,000
Camden	4,000	4,400	6,600	13,200	17,000
Brunswick	7,000	7,200	11,000	19,400	26,000
Total	27,000	31,000	48,600	79,600	103,000

Implementation Action Plan

- Immediate
 - Present MARC Growth and Investment Plan to Amtrak and CSX and solicit their support and cooperation
 - Present to Delegation and key staff, key State and local officials
 - Negotiate near term service improvements with Amtrak (additional peak trains, weekend service)
 - Negotiate additional mid-day Camden Line train with CSX
 - Identify funding for additional operating costs associated with near term improvements
 - Seek temporary source for immediate expansion of rail car fleet
 - Expedite delivery of projects and initiatives in progress (e.g., passenger info systems, parking expansion)

Implementation Action Plan

- Within 9 months
 - Initiate seat replacement on MARC bi-level coaches
 - Develop spec for new rail car procurement
 - Acquire rail cars from temporary source
 - Identify low-cost aesthetic improvements at existing stations
 - Identify near-term improvements at Washington Union Station
 - Review parking expansion plans with Counties
 - Design near-term Baltimore train storage improvements
 - Develop plan to improve car cleaning capability
 - Establish magnitude and source of required funding (2008 legislative session)

Implementation Action Plan

- Within 15 months
 - Place order for new rail car procurement
 - Initiate design of 2010 rail infrastructure improvements
 - Initiate planning & design of 2015 improvements with long lead times (e.g., track capacity improvements, station parking expansion entailing property acquisition)
 - Implement low-cost aesthetic improvements at existing stations, car cleaning improvements
 - Augment MTA resource capacity as necessary to implement program



FGGM BRAC Related Transit Issues: Defining the Issues

Presented by Gerald Cichy

“The Journey to Work”

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Improving the ease and convenience for FGGM, DISA, and NSA employees to get to work

- MTA’s 5-Step Approach for BRAC-Related Services
- FGGM Base Access (preliminary discussions)
 1. Buses terminating on base, with no routing through
 2. No off-loading of people at the gates
 3. Legal review of “close-door” service
- One-Seat Ride

“The Journey to Work”

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Improving the ease and convenience for NNMC employees to get to work

- MTA’s 5-Step Approach for BRAC-Related Services
 1. LOTS Service, including Shuttles to Rail Stations.
 2. BRAC Commuter Bus Study, with buses onto Base.
 3. MARC Initial, generally within existing resources.
 4. MARC Growth and Investment Study, to 2035.
 5. Market the Services, including Rideshare.
 6. *Possible 6th Focus* - Secondary Travel Needs.

MTA 5 Step Approach for BRAC Related Services:

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1. **LOTS** – Support review of Locally Operated Transit Systems (LOTS) through MTA funding of Transit Development Programs (TDP) in Howard and Anne Arundel Counties, and special studies where appropriate.
 - Present Service: CTC F Laurel to NSA, CTC K indirect to FGGM
 - MTA study– CTC F extension to FGGM, HT Gold to FGGM; CTC Staff suggested route revisions.
 - Future Service:
 - To be determined, including direct service onto the Base.
 - Possible Base-provided shuttles to Odenton and/or Savage MARC Stations.

MTA 5 Step Approach for BRAC Related Services:

2. BRAC Commuter Bus Study – MTA funding consultant study to determine Commuter Bus services to APG and Fort Meade.

- FGGM routes studied include origins from Baltimore City, Carroll, Queen Anne, Montgomery, Prince Georges and Northern Virginia (Alexandria & Reston), B-30 option.
- Future service locations still under consideration based on demand:
 - Montgomery County ICC Route:
 - WMATA Greenbelt as B-31:
 - Shuttle from Harry S. Truman Park & Ride:

MTA 5 Step Approach for BRAC Related Services:

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3. MARC Initial – Review of possible MARC services generally within existing resources

Service to/from Ft. Meade and Baltimore:

MARC Penn Line Baltimore to/from Odenton: 8 AM Trains, 8 PM Trains

MARC Camden Line Baltimore to/from Savage: 6 AM Trains, 6 PM Trains

MARC Penn Line Union Station to/from Odenton: 5 AM trains, 6 PM Trains

MARC Camden Line Union Sta. to/from Savage/Laurel: 3 AM, 3 PM

Total MARC AM and PM Trains stopping = 45 +/-

Total MARC Trains stopping at Odenton or Laurel/Savage = 59 +/-

MTA 5 Step Approach for BRAC Related Services:

3. MARC Initial, cont.

- City access via B-W Parkway and I-97/MD 32.
- Base Parking availability.
- Auto, Carpool and Vanpool access by base sticker and identification.
- Half trip on MARC Rail.
- Shuttle Bus essential as direct connection from Odenton, Savage and Laurel MARC Stations.
- Options for funding shuttle bus service include DOD/Base, EULs, TMA or LOTS.

MTA 5 Step Approach for BRAC Related Services:

4. MARC Growth and Investment Study – MTA efforts at funding longer term needs for MARC service to BRAC Facilities, and to Baltimore and Washington, DC.

- Potential Future Improvements through 2035:
 - Mid-Day / Evening / Weekend Service
 - Engine and Rail Car Improvements/Purchases
 - Station Improvements
 - Track Improvements/Expansion
 - Additional Yard Facilities

MTA 5 Step Approach for BRAC Related Services:

5. **Market the Services** – MTA effort to work with local jurisdictions and BRAC facilities to market transit services, including Rideshare and Commuter Choice, where appropriate:

- Present Effort: MTA marketing of present MARC, Commuter Bus and Core Bus.
- MTA funding of Rideshare Coordinators in Howard County and Anne Arundel County.
- MTA marketing of Commuter Choice through presentations and dissemination of information to businesses and citizens.
- Future Effort: Aimed at Coordinated and Cooperative effort to market Rideshare and Transit Alternatives to FGGM, EULs, and surrounding Business and Residential Community.

MTA 5 Step Approach for BRAC Related Services:

Perhaps a sixth focus would be:

Secondary Travel Needs – lessons learned from the Patuxent Naval Air Station BRAC experience. *Spouses of Pax River military, federal and contract workers sought additional MTA Commuter Bus service to reach jobs in the Washington area.*

- Present Effort: MTA runs Commuter Bus Services to and from Baltimore and Washington. MTA runs MARC Services to and from Baltimore and Washington.
- Future Effort: MTA could make service adjustments to MARC and MTA Commuter Bus service to meet the transit needs of Ft. Meade area working spouses to Baltimore and Washington, DC. depending on demand and funding availability.



Transit Oriented Development in the Baltimore-Washington Investment Corridor

Presented by Chris Patusky

What is TOD to MDOT?

- One strategy to address a variety of issues, including:
 - traffic congestion
 - affordable housing
 - air pollution, and
 - sprawl
- Creates compact, walkable communities centered around high quality transit services.
- *There is no one-size-fits-all mold, and TOD will look different depending on where you find it.*
- FTA Criteria encourages transit supportive land uses and provides authority for joint development.

TOD Objectives

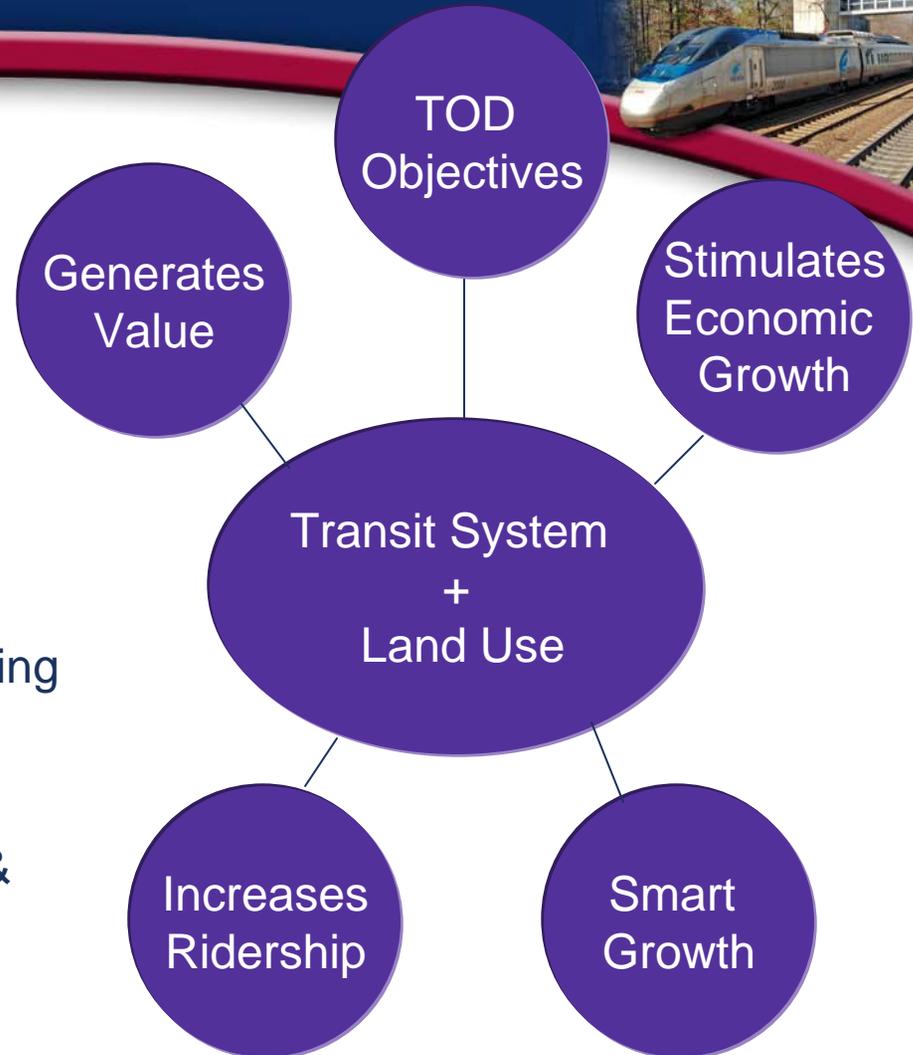
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- Higher density transit destinations
- More ridership potential
- New tax base
- New job opportunities
- Improved multimodal access
- Convenient commute to jobs, housing and entertainment
- Mixed-use, market driven, pedestrian friendly neighborhood
- Excellent opportunities for public private partnerships to enhance State owned or leased transit stations and parking areas.

Policy Approach

TOD must be linked to a Broader Strategy:

- Partnerships/Partner-building critical.
- TOD can be an integral part of a community's vision for growth.
- It may be a "means to an end" of achieving community objectives.
- It is more than transit.
- Can be a basis to gain greater support & success.
- Stakeholder involvement is essential.



TOD Policy Issues/Challenges

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- Funding Gap for Replacement Parking
- Paid Parking Policy Strategy
- Partnership/Agency Coordination
- MDOT Roles/Staffing
- TOD Legislation

Transit Oriented Development (TOD) Promoting Projects

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- MDOT can promote new development on its property in any one of three approaches:
 - Self-initiated **Requests for Proposals (RFPs)**, where MDOT engages in pre-development planning;
 - **General Solicitations**, where MDOT identifies properties with development potential and local government support and advertises for developers' proposals that meet TOD principles; and
 - **Transportation Public Private Partnerships (TP3s)**, where MDOT can receive unsolicited proposals (at any time) for the development of its transportation facilities (MTA land).

TOD Projects in the Baltimore-Washington Investment Corridor

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- In Pre-Implementation/Master Development Agreement Signed:
 - Savage MARC Station
- In Early Development/Developer's with Exclusive Negotiating Privileges:
 - Odenton MARC Station
 - Laurel MARC Station
 - WMATA Projects at Greenbelt, College Park & New Carrollton Stations
- In Pre-Development/No Agreements:
 - Muirkirk MARC Station

Savage MARC Station

- Located along Dorsey Run Road and Henkel's Lane off of MD 32 in Howard County.
- A 12.73 acre +/- site along the MARC Camden Line/CSX Railroad Tracks.
- MARC Camden Line has 4,300 average daily riders with an average of 540 trips a day at the Savage MARC Station. There are 914 surface parking spaces.



Savage MARC Station

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- Received an unsolicited TP3 proposal in September 2005.
- Advertised through a Request for Expressions of Interest in January 2006.
- Selection of Petrie-Ross Ventures as the development team to enter into exclusive negotiating rights.



Savage MARC Station

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- The developer plans a relatively high-density, pedestrian-friendly development program.
- The \$175 Million Development Program includes:
 - one (150+ room) hotel,
 - two restaurants,
 - plus 7,200 square feet of retail,
 - 420 multi-family residential units,
 - 78,600 square feet of office space, and
 - a 5 to 7-level parking structure with up to 1,000 spaces for MARC Commuters, along with other parking for the development. Total parking on the site will increase from 914 spaces to more than 2,000 spaces.
- Mix of retail could include sit-down restaurants, quick service food purveyors, coffee shops, cleaners, a bank, a parcel drop-off store, a salon, an ice cream store, etc.

Savage MARC Station Status, Issues, Next Steps

- Awaiting County Coordination on TIF.
- Phase 1 (MTA Garage) Construction anticipated in late 2008.



Odenton MARC Station



- Located along MD 175 and Morgan Road, just west of MD 170 and just east of Fort Meade and NSA.
- Transit Oriented Development of a 25-acre (+/-) site on State and County-owned property in the vicinity of the planned Odenton Town Center, including mixed-use, retail, residential, minimal office, a hotel, and two or more commuter-parking structures.



Odenton MARC Station

- The developer plans for a pedestrian-friendly development, including hiker/biker connections, public areas, etc.
- The \$150 Million Development Program includes:
 - 74,000 +/- square feet of retail space;
 - 572 + apartments and condominiums, including 60 units dedicated to affordable housing for seniors;
 - 250 + townhouses with some single family homes;
 - Two + parking garages for MARC commuters with a total of 3,500 parking spaces; and 1,245 additional parking spaces for the development.
 - Total parking on the site will increase from 2,000 spaces to nearly 5,000 spaces (4,745 spaces).

Odenton MARC Station Status, Issues, Next Steps

- Exclusive negotiating rights and right of entry.
- Transportation/Parking Costs exceed the revenue potential of the TOD.
- Planning/Concept Coordination.
- Community planning and outreach.



Laurel MARC Station

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- Located at the eastern terminus of historic Laurel Main Street in Prince George's County.
- Redevelopment of MARC parking (3.5 +/- acres).
- The \$31 Million Development Program includes 407,000 square feet of residential, retail, and commercial uses. All structures 4-6 stories in harmonious design with neighborhood character.



Laurel MARC Station Policy Issues / Next Steps

- Need to resolve parking, environmental, maintenance of traffic and financing issues.
- Extend exclusive negotiating rights beyond June 2008 OR re-advertise for other joint development opportunities.
- Meet with the City of Laurel to assess their support of the project.



WMATA TOD Projects

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- The MARC Camden and Penn Lines intersect with three Metro Stations, where there are TOD projects underway.
- Multi-agency Coordination (WMATA, MDOT, MTA, SHA, Prince George's County,...)
- Purple Line alignment - Coordination with WMATA, MTA and County to resolve any issues.



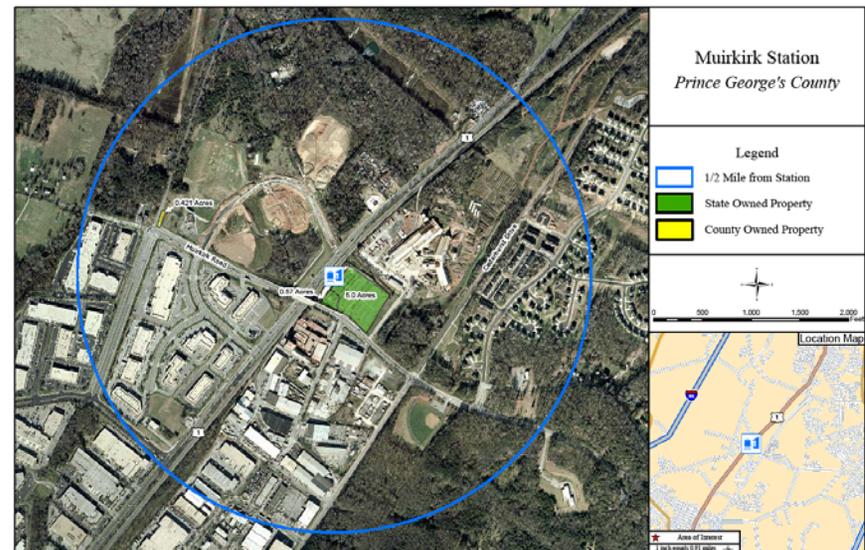
WMATA TOD Projects

- Greenbelt Station
 - Developer with exclusive negotiating rights.
 - Development team is in negotiations for transferring development rights.
 - Need for an interchange to support the TOD – no funding plan yet.
- New Carrollton Station
 - Developer with exclusive negotiating rights – north side.
 - South side available for joint development opportunity.
 - County update to transit district overlay zone – underway.
- College Park Station
 - Developer with exclusive negotiating rights.
 - Approximately 360 residential units, 2K SF retail, 348 K SF office
 - Development agreement anticipated in 2008/2009.

Muirkirk MARC Station



- Received a letter of interest from a developer at this Prince George's County MARC Station along the MARC Camden Line. No follow up as of yet on a proposal.
- No developer selected for exclusive negotiating rights.
- Developer has received a commercial re-zoning of their adjacent property.



The Baltimore-Washington Maglev Project

Presented by Mark Cheskey

Project Description

Operation	20 hours/day; 7 days/week
Distance	39 miles
Top Speed	250 mph
Average Speed	126 mph
Trip Time	18 minutes
Peak Headway	10 minutes
Stations	3
Fare* (Baltimore to DC)	\$18.95 – \$37.85
Ridership	27,200 daily in 2010
Train Sets	7 x 3 sections

** Note: Acela fare ranges from \$34 to \$54 one way*



TIER 1: Final Programmatic Environmental
Impact Statement, 2001

TIER 2: Baltimore-Washington Maglev Project
Draft Environmental Impact Statement
and Section 4(f) Evaluation
October 2003

Purpose and Need – TIER 1

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- The Tier 1 document established Purpose and Need based on legislation (SHORT AND SWEET)
- It will be a Maglev EIS – and HSR, Light rail or BRT are NOT on the table

Purpose and Need – TIER 2

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- The Tier 2 DEIS built off of the programmatic but added local elements
- For cooperating and other review agencies, the project would be a **POSITIVE** for the region!

Purpose and Need –Concurrence



- 20 agencies participated
- 6 identified as concurring
- All concurred

PURPOSE AND NEED CONCURRENCE FORM

Having reviewed the attached Purpose and Need concurrence/comment package and the summary presented above, the following agency (by signing this document):

<input type="checkbox"/> Federal Railroad Administration	<input type="checkbox"/> Corps of Engineers	<input checked="" type="checkbox"/> NPS
<input type="checkbox"/> Environmental Protection Agency	<input type="checkbox"/> Fish and Wildlife Service	<input checked="" type="checkbox"/> DDOT
<input type="checkbox"/> Concurs (without comments)	<input checked="" type="checkbox"/> Concurs (with minor comments)	<input type="checkbox"/> Does Not Concur

Comments / Reasons for Non-Concurrence: *CONDITIONS:*
 1) Remove the map (FIGURE 1-1) which shows B/W Parallel alignment and other alternatives
 2) Remove Section 1.4 which discusses alternatives - it does not fit into Purpose and Need

Note: Please do not provide "conditional" concurrence. You should either concur with the information as provided (without comments or with minor comments) or not concur until revisions are made or additional information is provided.

<input checked="" type="checkbox"/> National Park Service	<input type="checkbox"/> MD Dept. of the Environment	<input type="checkbox"/> MD Historical Trust
<input type="checkbox"/> National Marine Fisheries Service	<input type="checkbox"/> MD Department of Planning	<input type="checkbox"/> Metropolitan Planning Org.
<input type="checkbox"/> MD Dept. of Natural Resources	<input type="checkbox"/> Federal Highway Administration	

Provides Comments (below or attached) Has No Comments

COMMENTS:
 The National Park Service requests to be a concurring agency for all phases of the EIS process. NPS continues to oppose any further study and/or consideration of the Baltimore Washington Parkway Parallel alignment due to clear and unavoidable adverse impacts to the Historic Baltimore Washington Parkway and the wetland and other natural and cultural resources located along the corridor.

Additional Information Needed:

Signature: *Steven M. Weston* Date: *3/5/02*
 Regional Transportation Liaison

For the other two alignments, NPS will need to see detail design plans to assess impacts to adjacent and nearby National Park Service lands.

Project Solve

- Online record of the project
- Archive of DEIS and FEIS phases

The screenshot displays the Project Solve interface for the Baltimore-Washington Maglev - Pre FEIS project. At the top, a banner features the project logo and the text "The Baltimore-Washington Maglev Project". Below the banner, the site title "Baltimore-Washington Maglev - Pre FEIS" is shown, along with the creation date "a Project Site created on 1 May 06". A navigation sidebar on the left lists various site components: Administration, Agendas and Minutes, Archives - DEIS Phase, BW Maglev Inbox, Clippings, Links, Photos, Project Calendar, Project Memorandum, Tasks, Team Directory, Website, Z: Site Coordination, and Recycle Bin. The main content area contains a "Welcome!" message and a "Support Information:" section with contact details for Kristen Goddard, Mas Fukui, and ProjectSolve Support. A grid of icons at the bottom provides quick access to the same categories listed in the sidebar. A small image of a maglev train is visible on the right side of the interface.

Baltimore-Washington Maglev - Pre FEIS
a Project Site created on 1 May 06

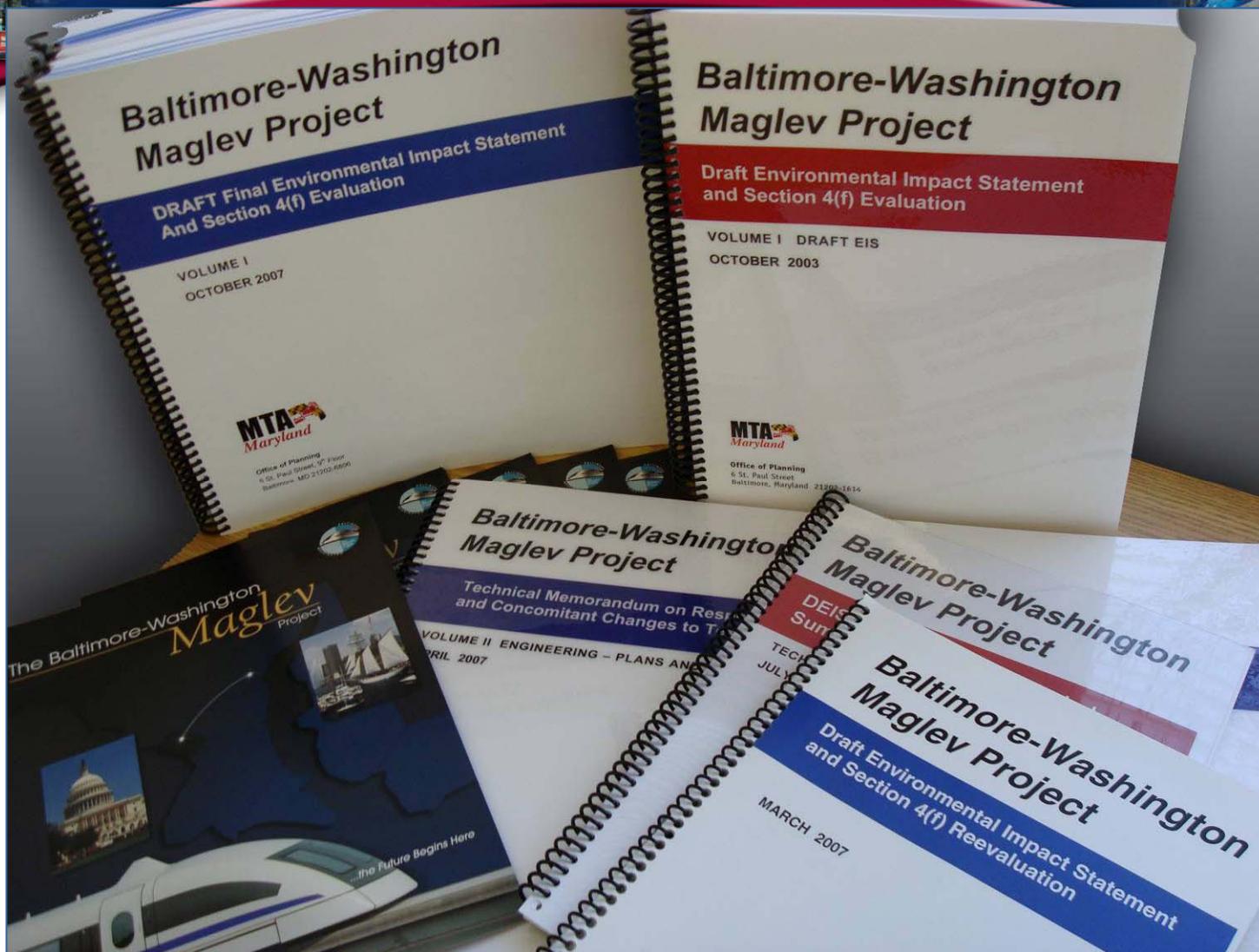
Welcome! The Baltimore-Washington Maglev site has been created as a resource for project team members. This site has been designed to facilitate information sharing among team members, track the current phase of the project, and archive the DEIS phase of the project.

Support Information:

- For questions regarding content, please contact [Kristen Goddard](#) at 410-891-1758.
- For questions regarding the use of the site, please contact [Mas Fukui](#) at 410-454-9762.
- For technical assistance, please have your local IT administrator contact ProjectSolve Support at support@projectsolve.com.

Navigation icons: Administration, Clippings, Project Memorandum, Tasks, Website, BW Maglev Inbox, Project Calendar, Agendas and Minutes, Archives - DEIS Phase, Team Directory, Photos, Links, Recycle Bin.

- Baltimore-Washington Maglev Project Reevaluation of Draft Environmental Impact Statement
March 2007
- Community Based Impact and Mitigation Summary: Supplement to the DEIS Reevaluation
August 2007





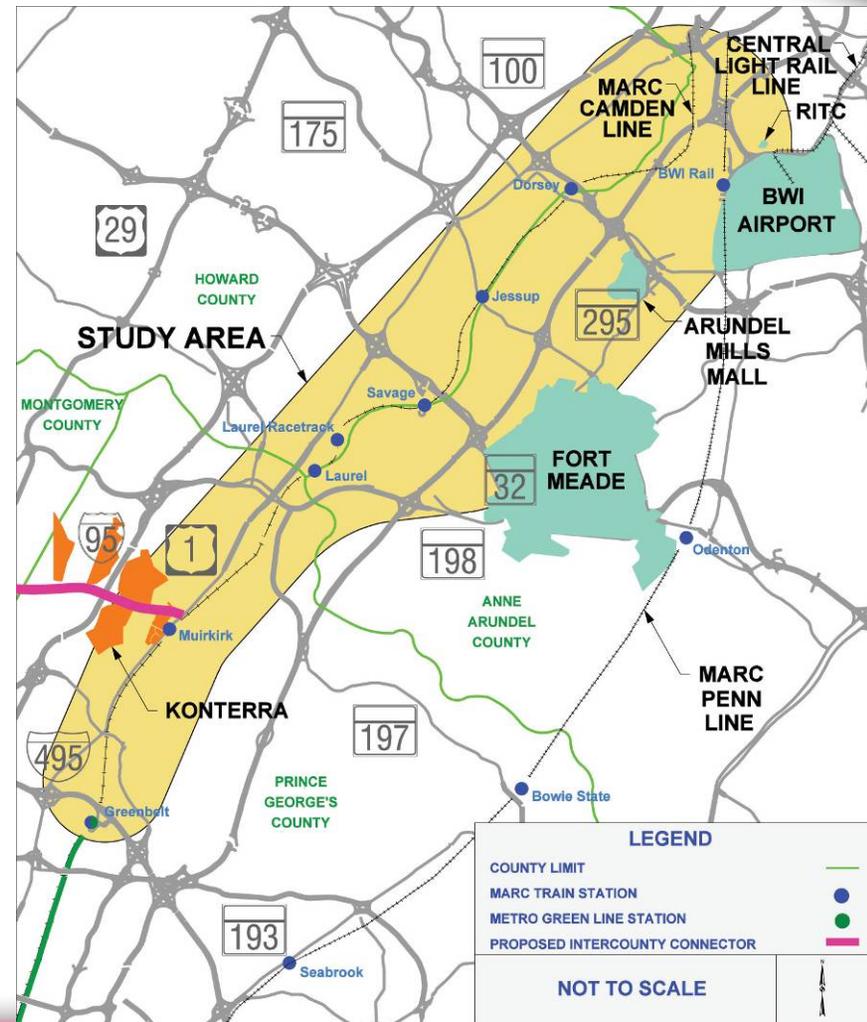
Metrorail Green Line Extension Feasibility Study

Presented by Harriet Levine

Metrorail Green Line Extension Feasibility Study



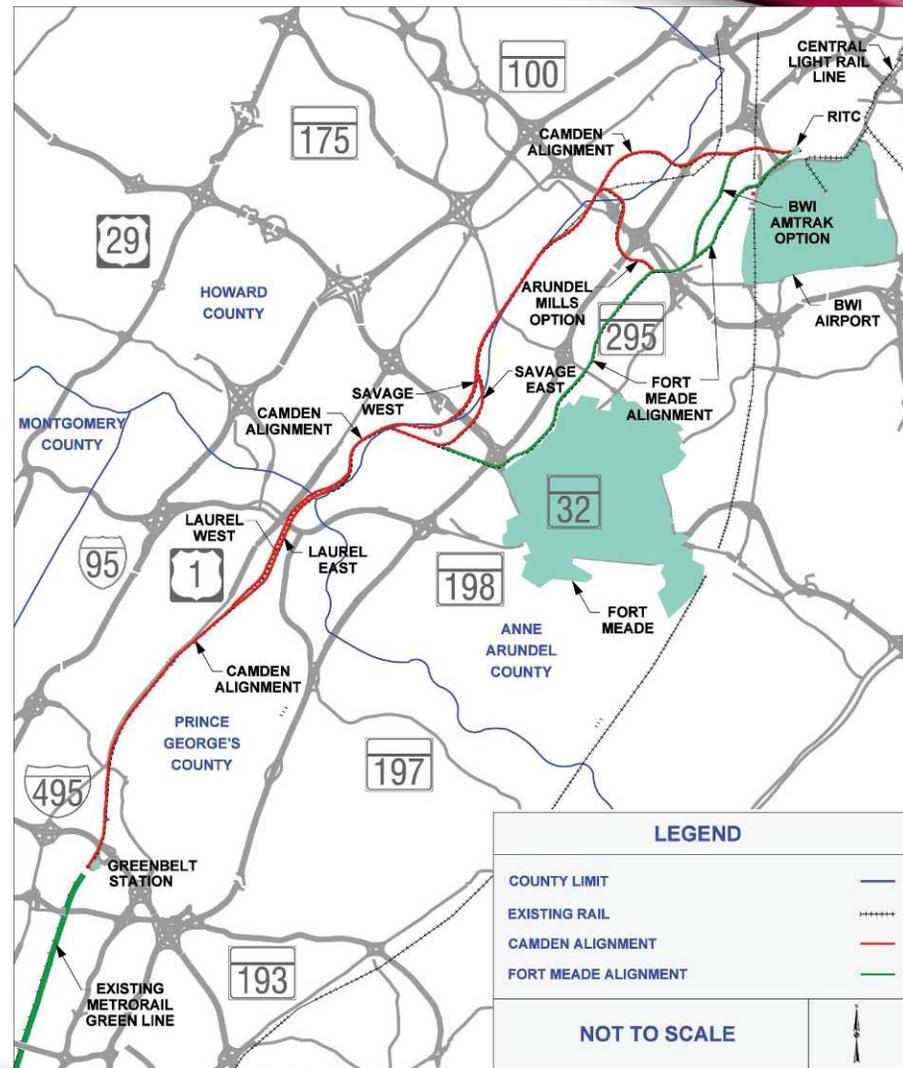
- High Level Feasibility Study
 - Completed August 2004
- Greenbelt to BWI Airport
 - Approx. 20 miles



Metrorail Green Line Extension Feasibility Study

Alignments

- Camden
- Fort Meade
- Several options
- Potential station locations
- WMATA extension



Metrorail Green Line Extension Feasibility Study

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Scope of Study

- Physical feasibility
 - Typical sections
 - Potential station locations
- Potential impacts
 - Available resource data, mapping and other studies
- Study did not include:
 - Agency coordination or public involvement
 - Ridership or origin/destination forecasts
 - Field work

Metrorail Green Line Extension Feasibility Study

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Assessment Factors

- Business and residential populations
- Enhancements to multi-modal connectivity
- Effects to environmental and community resources
- Possible station locations
- Possible displacements
- Costs

Metrorail Green Line Extension Feasibility Study

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Conclusions

- No fatal flaws
- Major issues need to be addressed:
 - Environmental issues regarding BARC, wetlands, and several historic properties/ districts
 - Residential community impacts
- Costs ranged from \$2.1 - \$2.6 billion**
- Need coordination with public, agencies, local jurisdictions, and major stakeholders on potential alignments and impacts.

Metrorail Green Line Extension Feasibility Study

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Conclusions

- A 4-mile extension to the Muirkirk/MARC station showed great potential
 - Could provide relief to Greenbelt station
 - Provides station outside the Beltway
 - The ICC terminates in this area
 - Would serve Konterra development
 - Minimal environmental and residential impacts
 - Cost estimated at \$485 million**

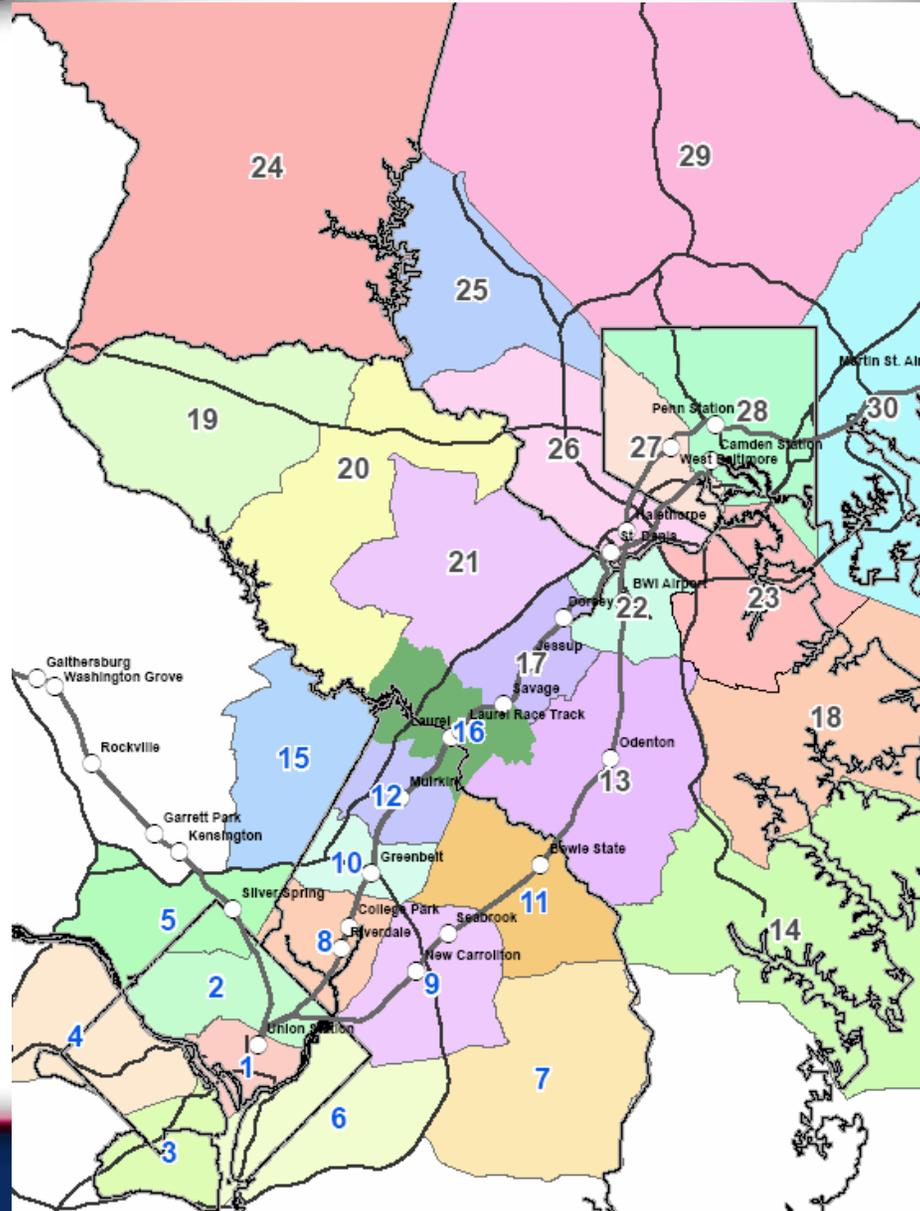
Transit Markets Analysis

Presented by Jeff Ensor

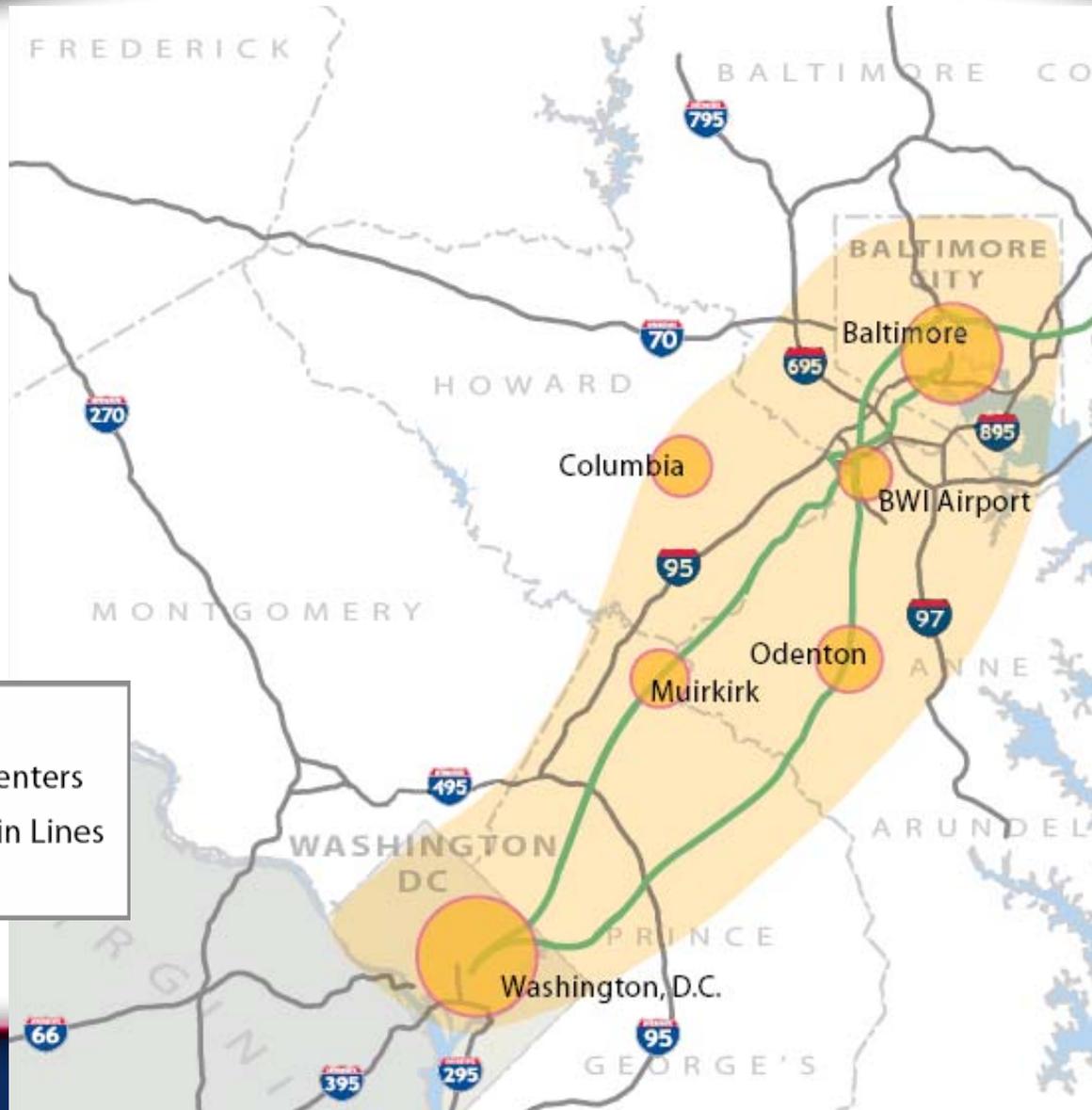
Transit Markets Analysis

- Study Approach
 - Demand driven, free of existing constraints
 - Focused on
 - Travel in corridor between Baltimore and Washington
 - Growth and future conditions
 - Identified land use, population, and employment trends
 - Developed high-level forecasts of potential transit demand
 - Screened demand to assess which markets might support high-capacity transit service
 - Developed recommendations for next steps

Districts within Study Area



Baltimore-Washington Corridor

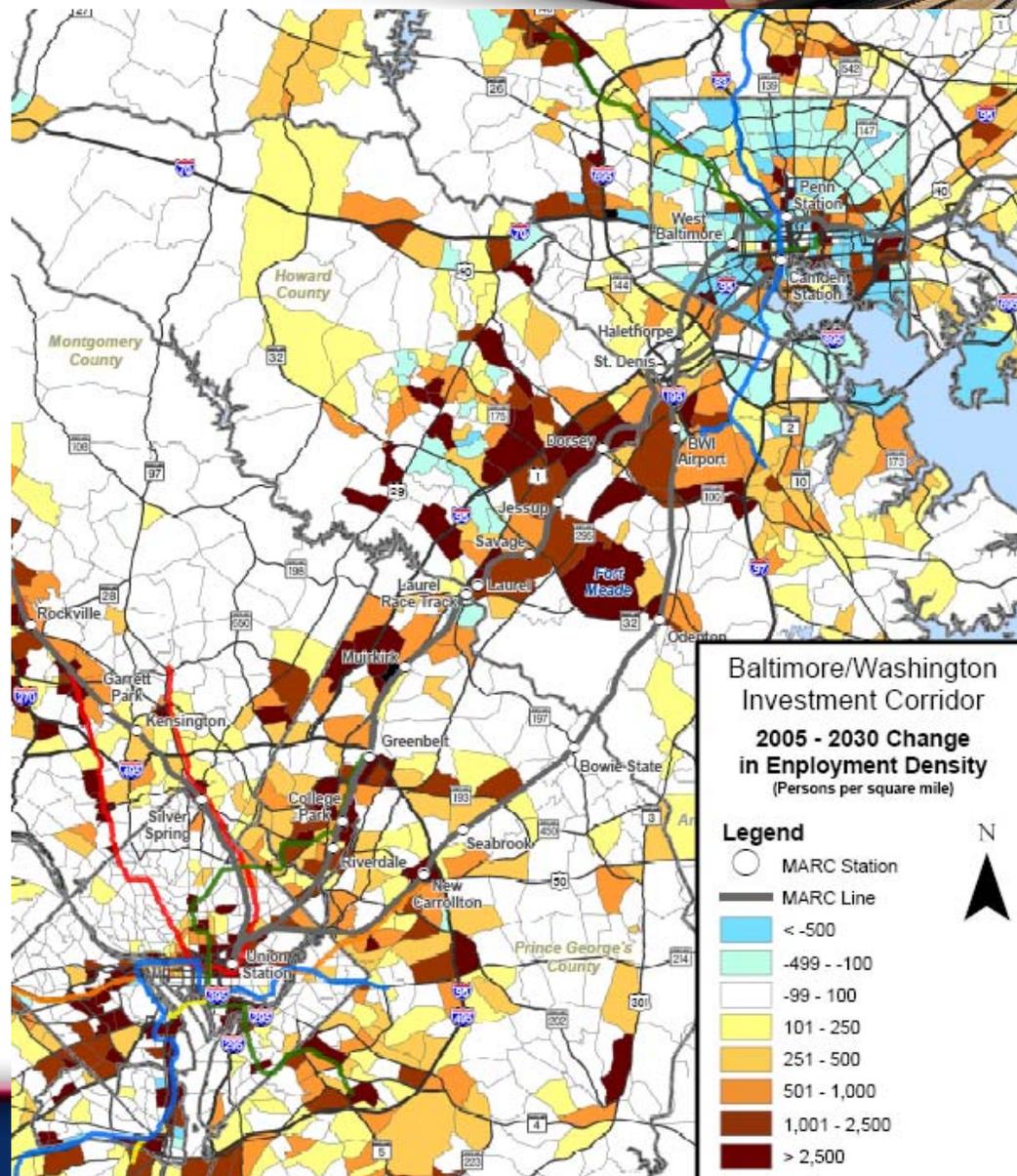


LEGEND

- ← Corridor
- ← Activity Centers
- ← MARC Train Lines
- ← Freeways

Employment Growth

- Fastest employment growth:
 - Muirkirk
 - Odenton (Ft. Meade)
 - Laurel
 - Jessup

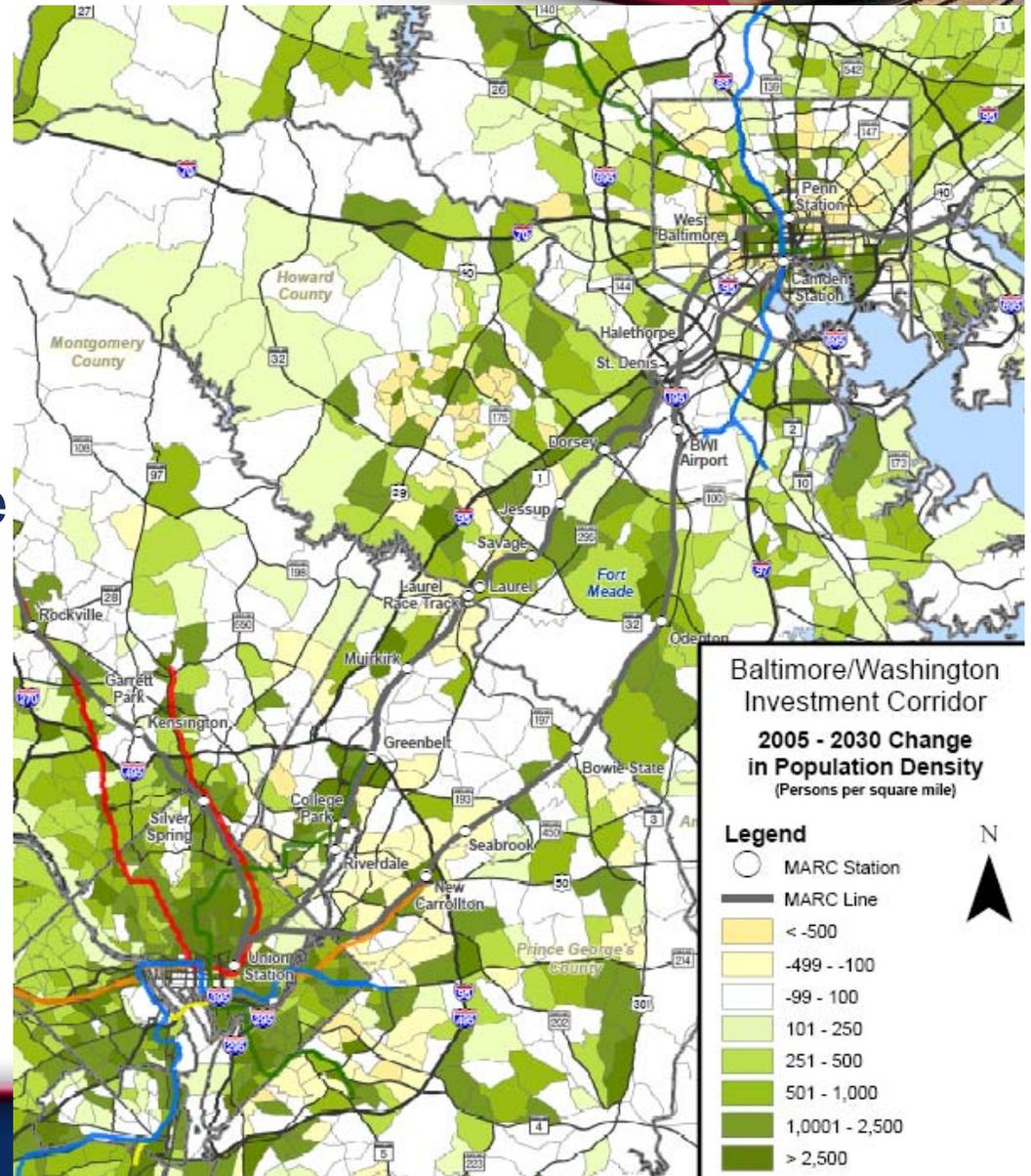


Data Source: Round 7.0 MWCOC and BMC Forecasts

Population Growth



- Fastest population growth:
 - DC core
 - Odenton (Ft. Meade)
 - Districts on the fringe of the study area



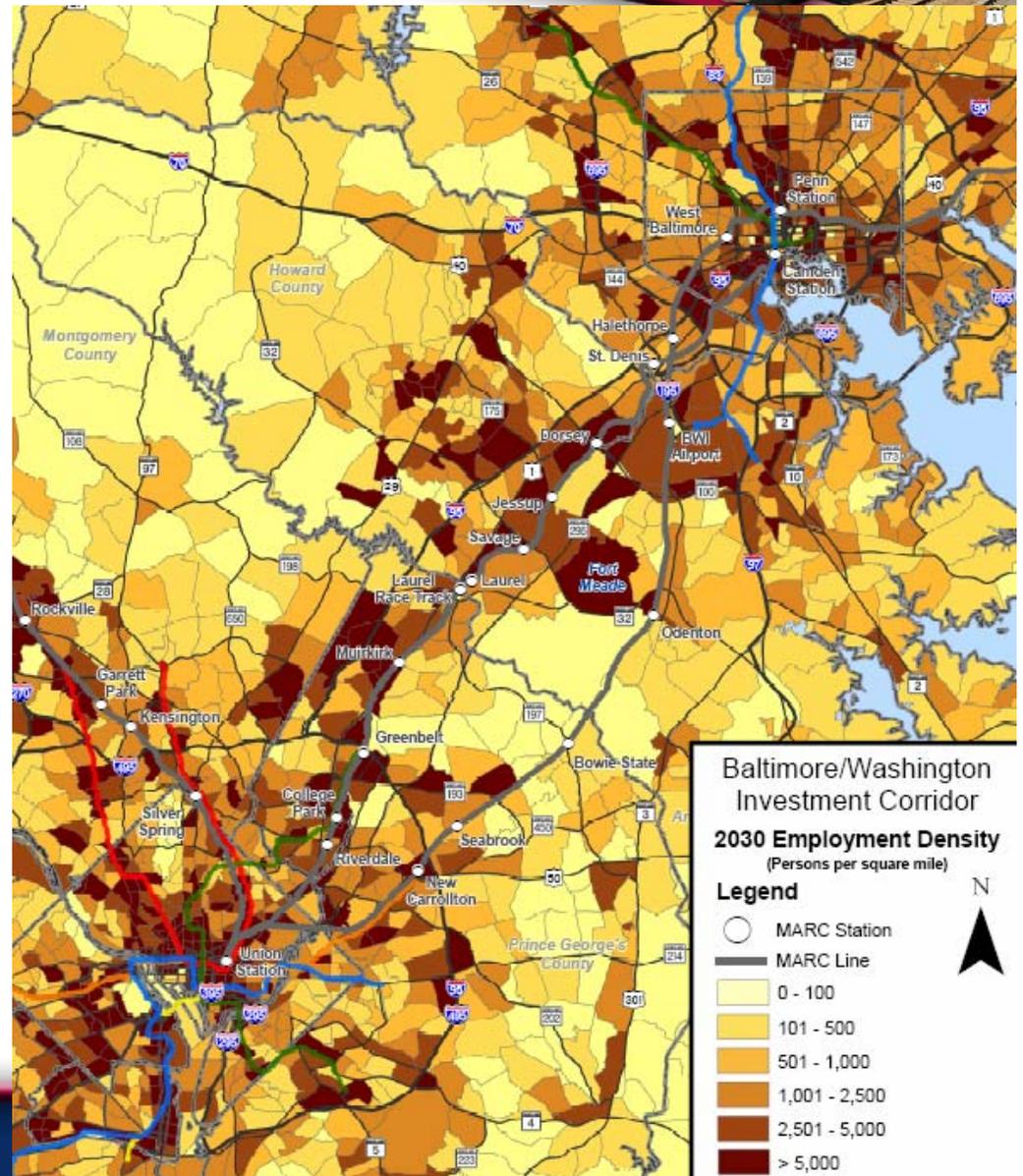
Data Source: Round 7.0 MFCOG and BMC Forecasts



2030 Employment



- Employment concentrations:
 - Route 1 Corridor
 - Odenton (Ft. Meade)
 - BWI Airport



Data Source: Round 7.0 MWCOC and BMC Forecasts



2030 Population



- Population concentrations:
 - Route 1 Corridor
 - Odenton (Ft. Meade)



Data Source: Round 7.0 MWCOC and BMC Forecasts

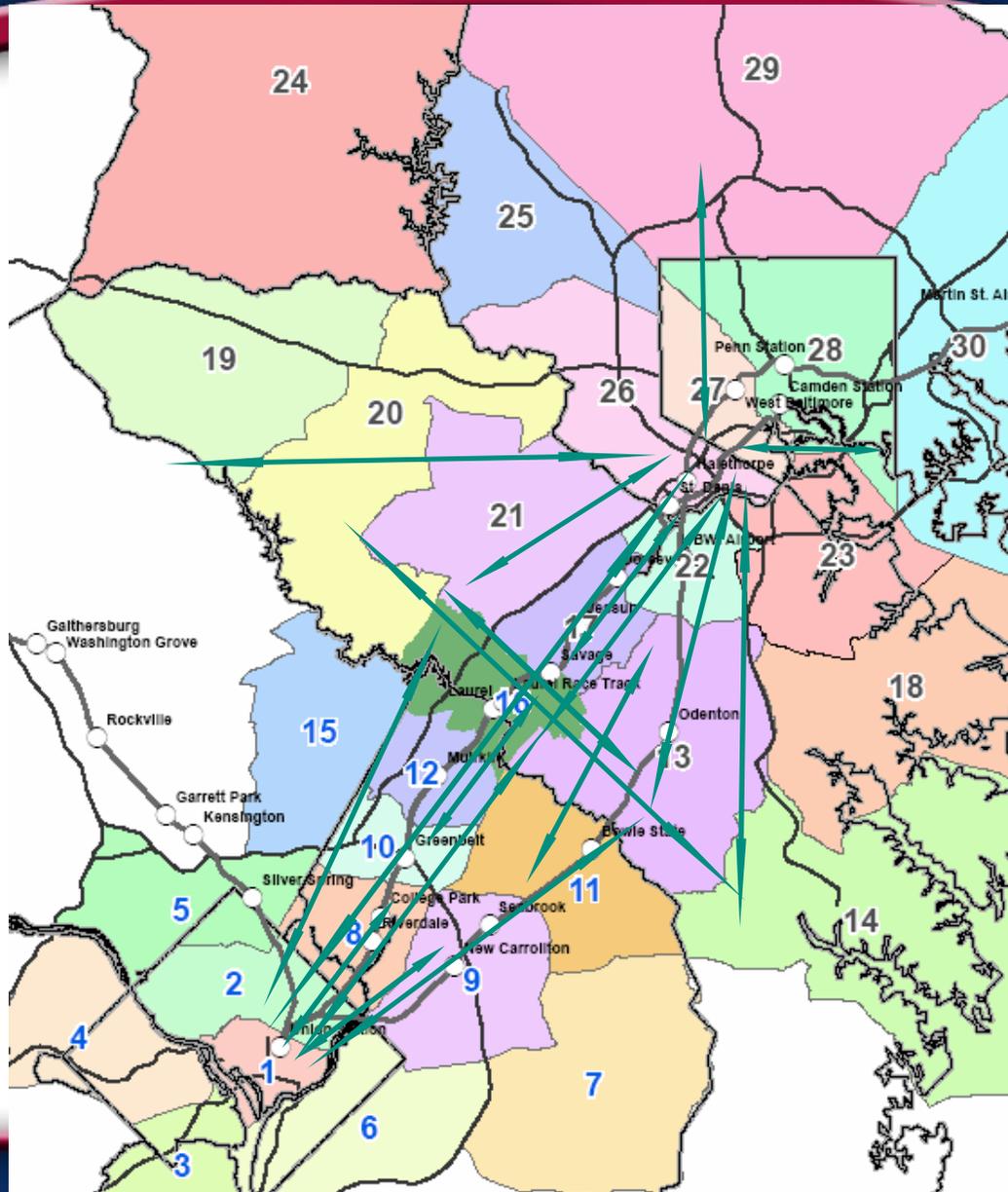


Travel Data and Methodology

90

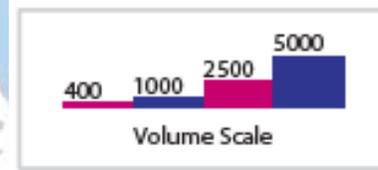
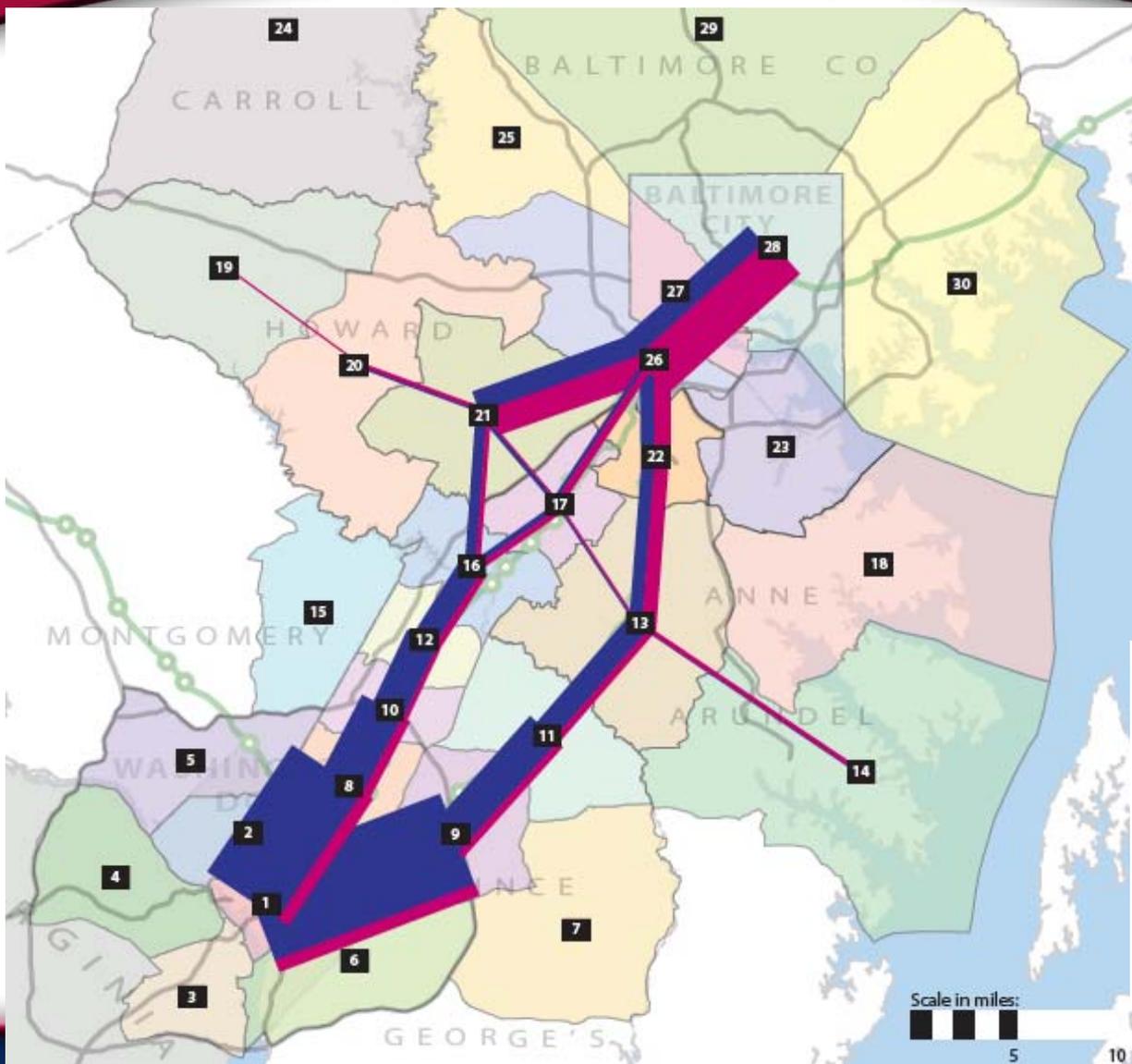
- Segmented market according to “regular commuters” and “non-commuters”
- Evaluated current (2005) and forecast year (2030) demand
- Aggregated person trips to 30 districts (900 origin-destination pairs)
 - Merged MWCOG and BMC trip distribution tables (round 7.0)
 - Replaced work trips with CTPP data using Fratar procedure
 - Incorporated adjustments for BRAC, BWI workers, BWI air passengers
- Estimated potential transit demand for each O-D pair
 - Assumptions based on trip type and transit orientation of destination district
- Aggregated O-D demands along common flows
- Identified most promising transit markets

Analysis of Transit Markets



Transit Volume Potential

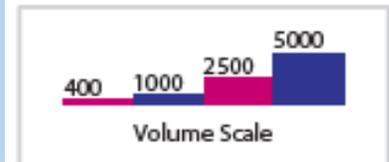
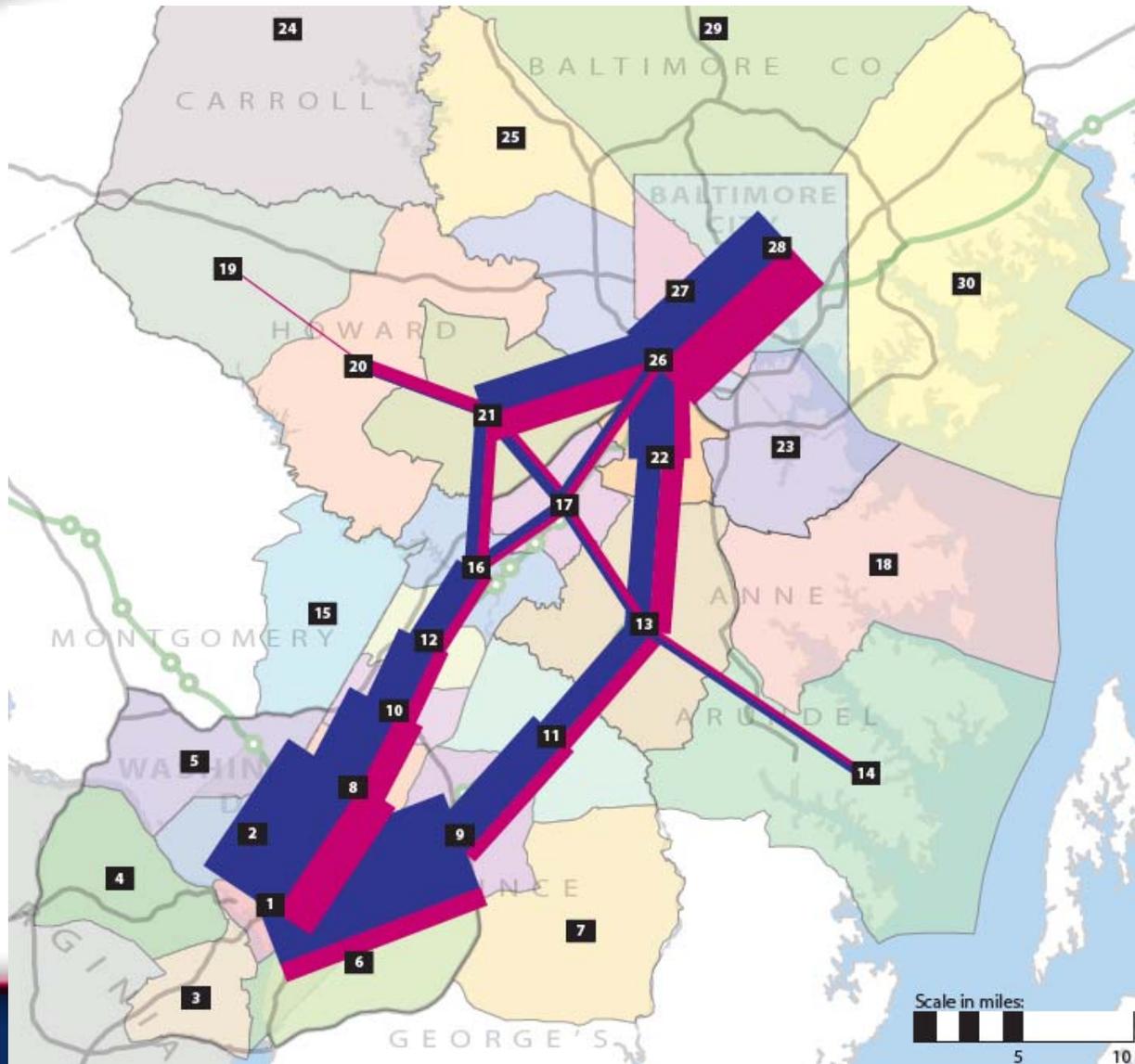
2005 AM Peak Period



To and from each district, blue and magenta represent opposite directions of travel along the corridors. Line widths connecting each district are proportional to estimated cumulative transit volumes.

Transit Volume Potential

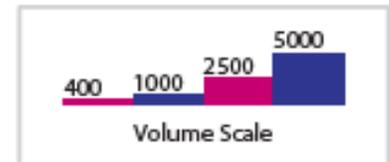
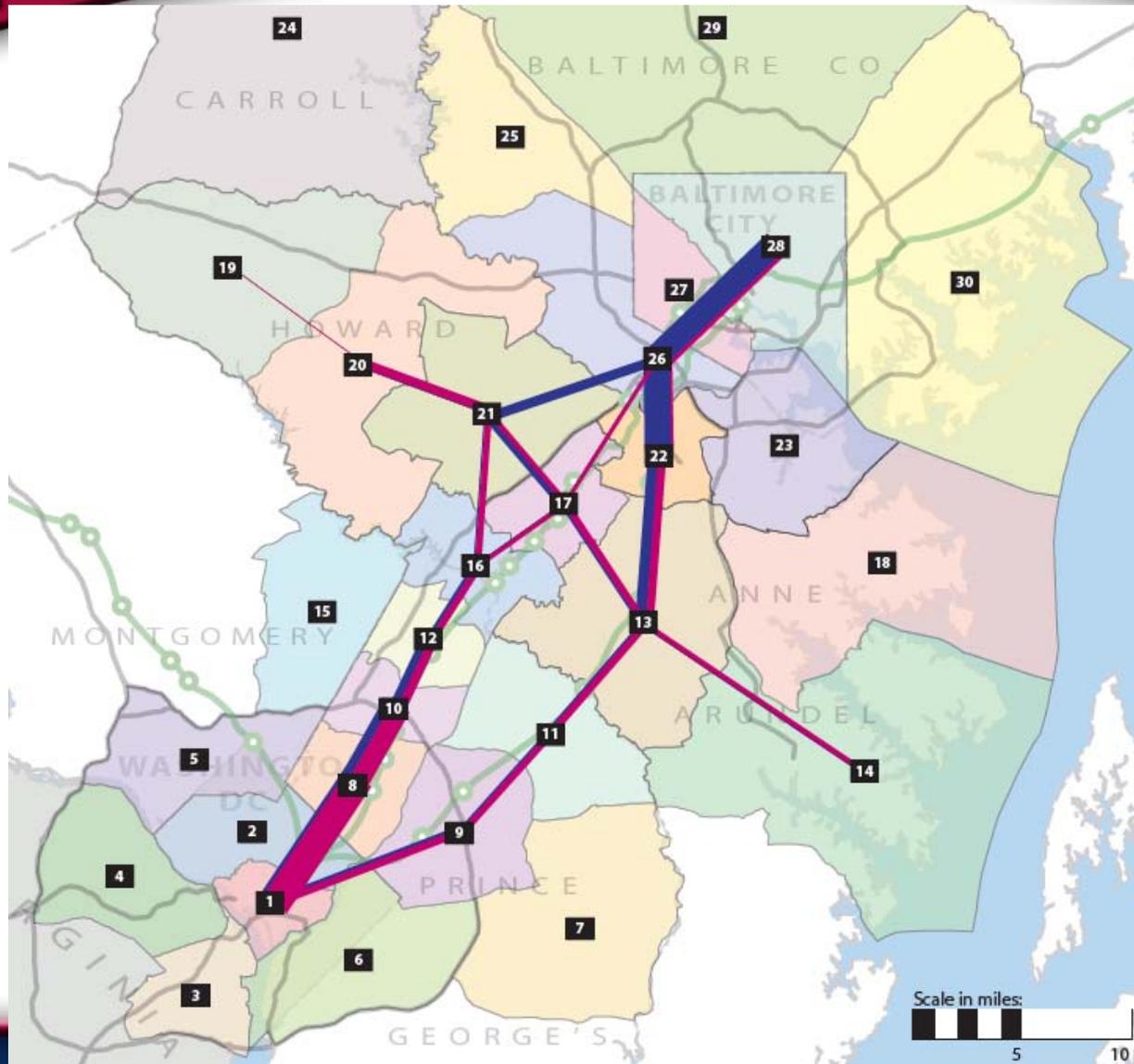
2030 AM Peak Period



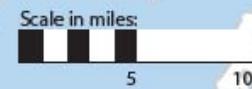
To and from each district, blue and magenta represent opposite directions of travel along the corridors. Line widths connecting each district are proportional to estimated cumulative transit volumes.

Transit Volume Potential

Growth from 2005 to 2030



To and from each district, blue and magenta represent opposite directions of travel along the corridors. Line widths connecting each district are proportional to estimated cumulative transit volumes.



Corridor Parallel to Camden Line

- Transit demand expected to grow, particularly in the reverse-commute markets
 - The densest corridor, where much of the job growth and development is anticipated to be concentrated
- Sizeable transit demand as far as Laurel

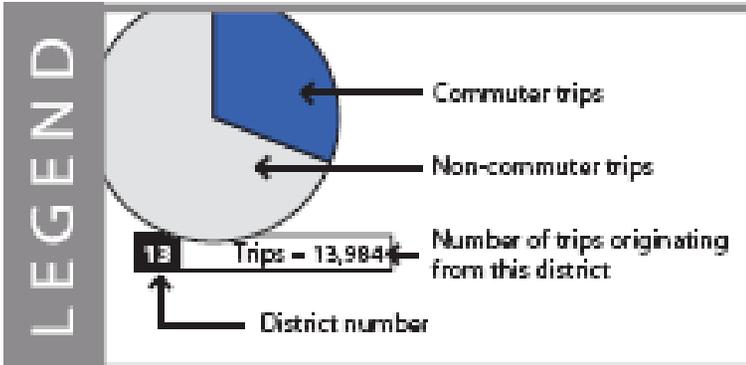
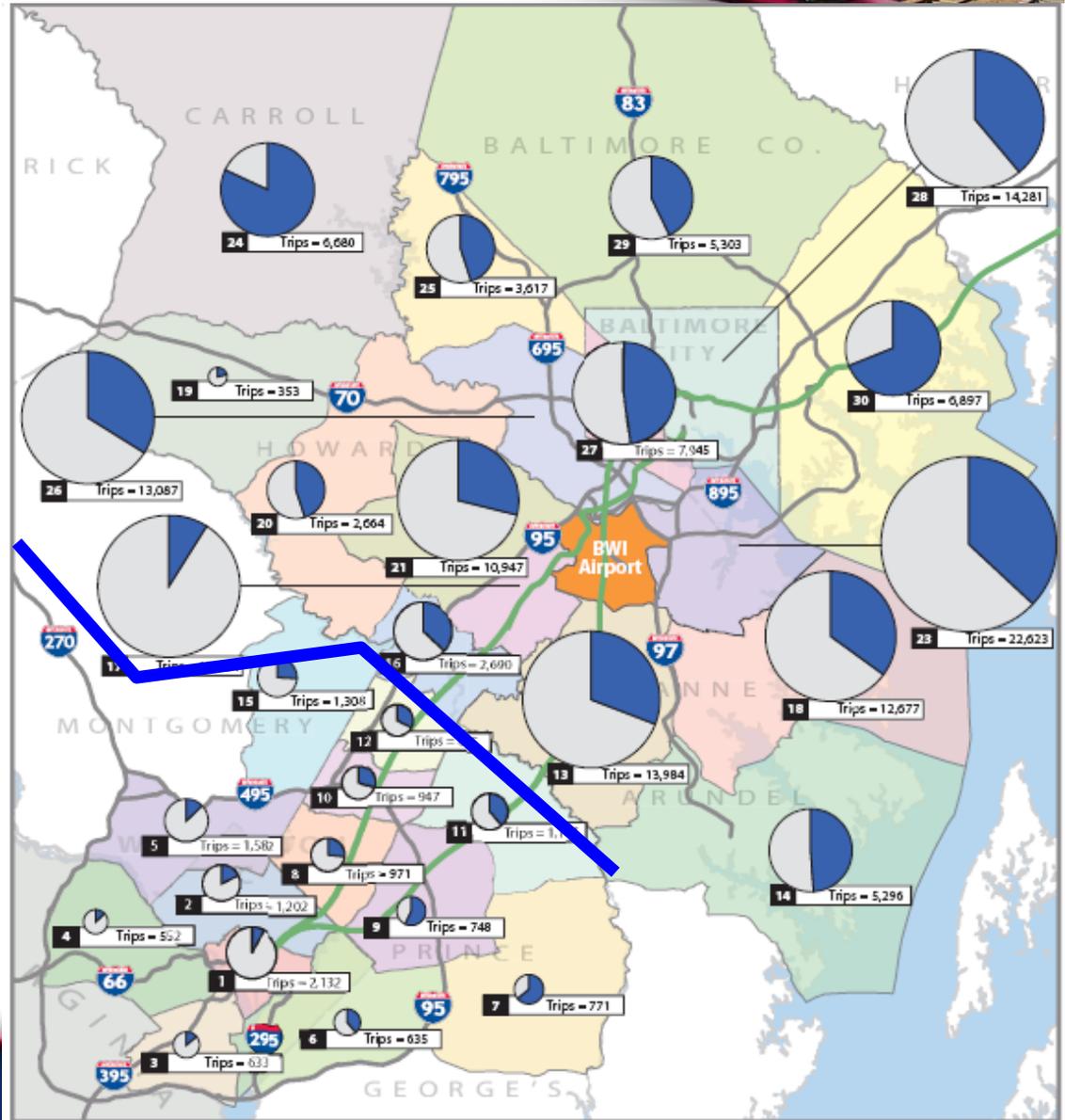
Corridor Parallel to Penn Line

- Strong growth anticipated for the reverse-commute market from Baltimore
- Many mid-length trips (e.g., to BWI or Ft. Meade); more uniform demand along corridor
- Slower growth anticipated for long-distance trips

Travel to/from BWI District

Year 2030

- Most BWI trips are to/from places north of the Patuxent River



Travel to/from Columbia

- Strong growth anticipated for Baltimore-Columbia reverse-commute market
- Insufficient demand to justify WMATA rail service
- Strong growth potential between Columbia and Odenton suggests BRT or commuter bus services should be explored

Summary of Growth-Related Findings

- Stable to modest growth anticipated for traditional radial commute market
- Growth anticipated for reverse-commute market and short suburb-to-suburb trips within corridor
- Competitiveness of transit will be driven by degree to which growth can be oriented toward existing transit services

Policy Recommendations

- Encourage expected corridor development to cluster around TODs
- Incorporate transit-friendly design elements into state's transportation investments
- Revisit institutional arrangements for provision of new and expanded transit services

Operational Recommendations

- Begin route-level service planning in the Odenton-Columbia corridor
- Monitor existing commuter bus services to Columbia and increase frequencies where necessary
- Enhance feeder bus services to MARC stations
 - Priority treatment in station areas
 - Timed transfers
- Expand local fixed-route bus service to accommodate future demand
- Consider longer span of service for MTA LRT

Capital Investment Recommendations

- MARC Growth & Investment Plan
 - Make Penn Line improvements necessary to meet current demand shortfalls; expand off-peak and weekend service
 - Pursue phased implementation of Camden Line service improvements and investments
- WMATA Green Line Extension
 - Perform AA for extension to Laurel (include Columbia in the travel shed)
- Odenton-Columbia Corridor
 - Identify opportunities for transit priority treatment and/or ROW preservation

Open Floor Discussion

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- How do we invest wisely in transit for this Corridor?
 - What should our transit priorities be?
 - Consider both long term and short term transit investments
- What can be done now and in the near future to prepare the region to be more transit-focused?
 - Local land use and targeted transportation programs and initiatives
- What are the opportunities partnerships?
 - What is an appropriate role for the private sector?

Next Steps

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- Confer with MTA Administrator and Secretary
 - Consultant's analysis and recommendations
 - What we heard today
- Follow up from this event to today's participants
 - Distribution of meeting proceedings
- Future stakeholder outreach
 - Elected officials and other State agencies