

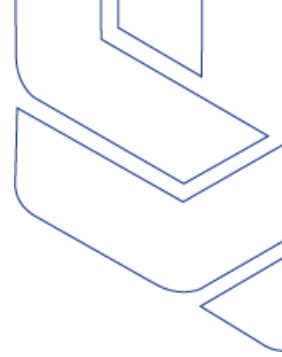
# Regional Transit Needs Assessment

*February 24, 2016*

*Baltimore Metropolitan Council*



# Study Process



- Scope developed with board member staff
- Report written by BMC staff as a report to the Board of Directors
- Public participation through a qualitative study
- Comment sought collectively from all members, and from individuals on county specific issues
- Relies on state/local data and previous studies



# Study Scope

## Overview

- Existing Service
- Transit Users
- Demographics
- Peer Systems

## Analysis

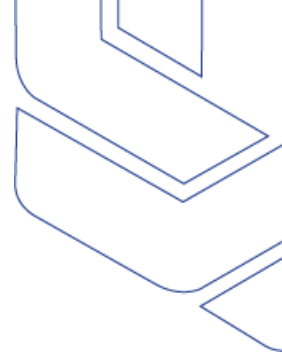
- Wayfinding
- Access
- Performance
- Welfare/Safety

## Recommendations

- Local Priorities
- By Mode
- Address 5 Needs



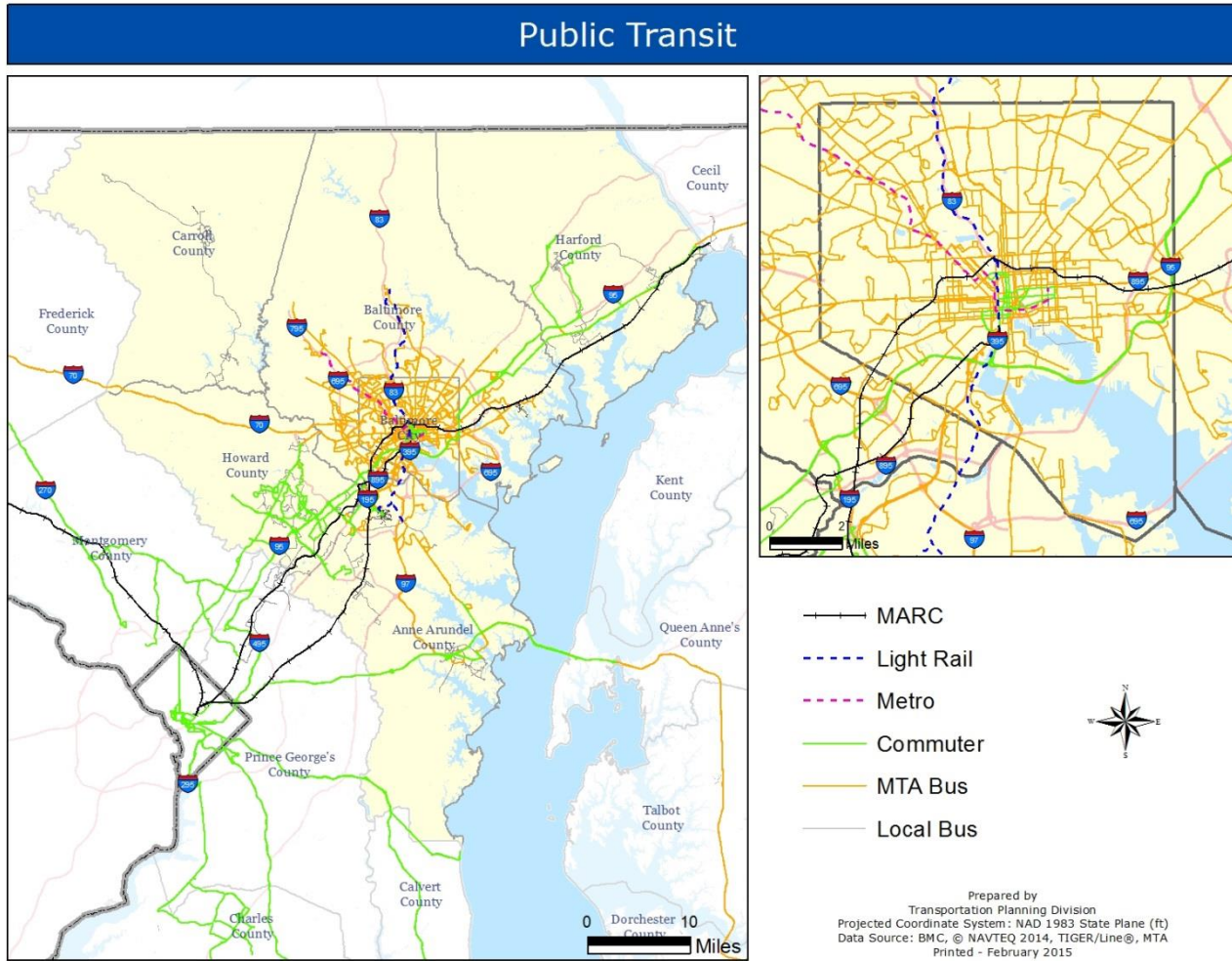
# Multi-modal Analysis & Inventory



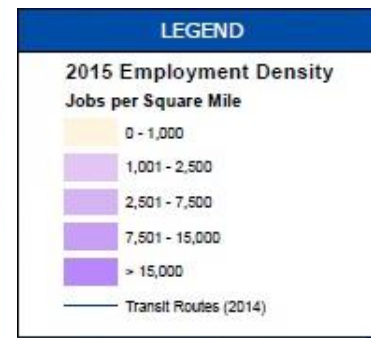
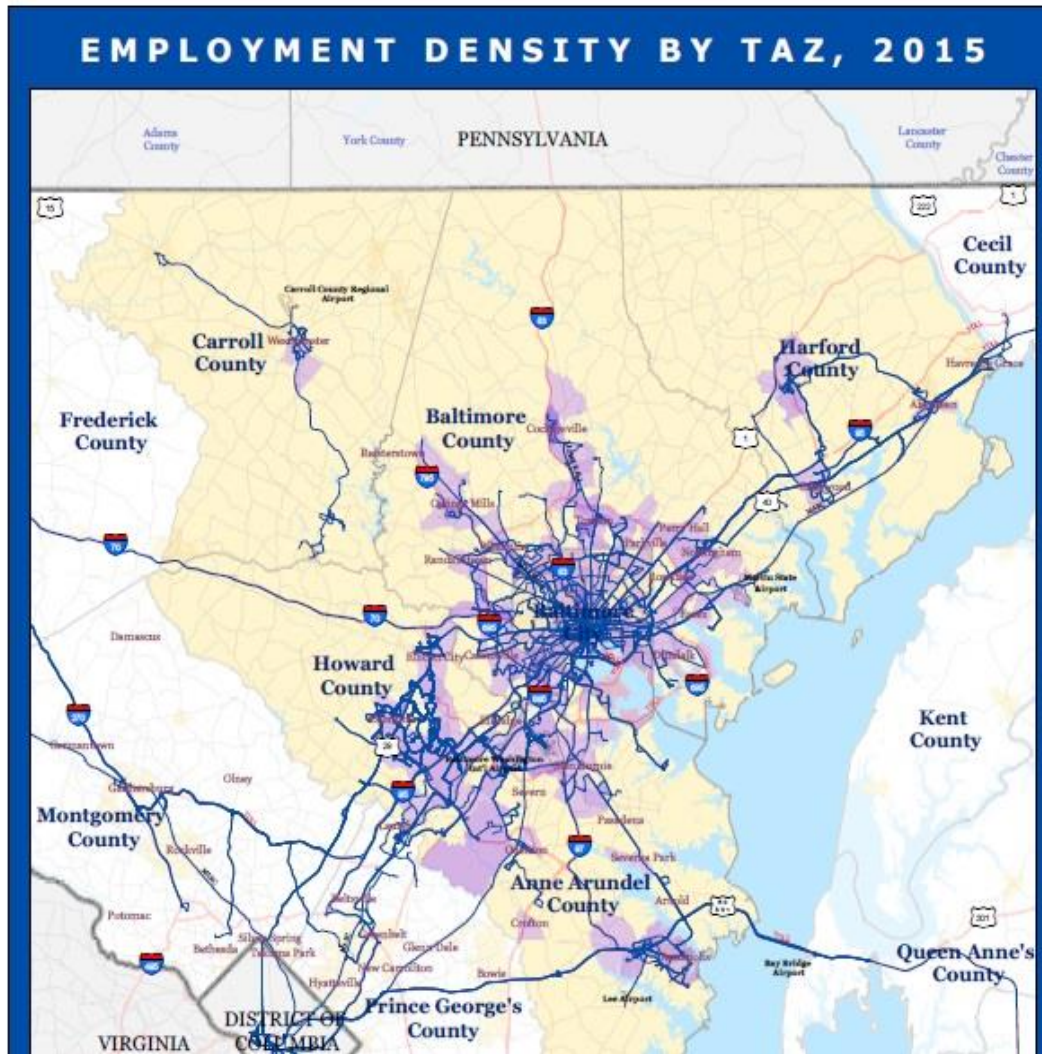
- Local Bus
- Commuter Bus
- Light Rail
- Metro
- MARC
- LOTS
- Circulator
- York Shuttle
- Private/College Service
- Water Taxi/Harbor Connector
- Paratransit



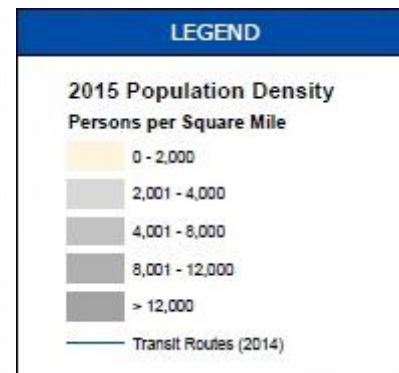
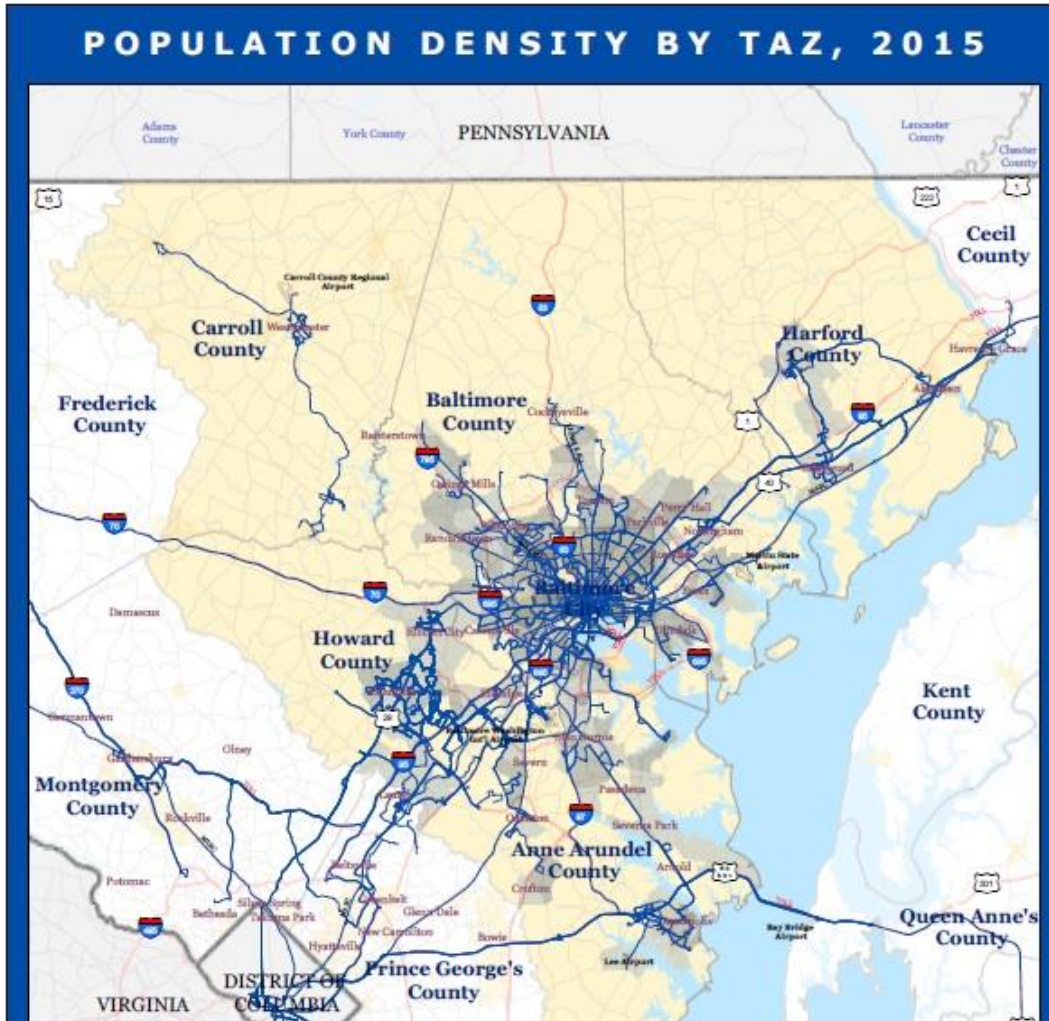
# Current Core Service Network



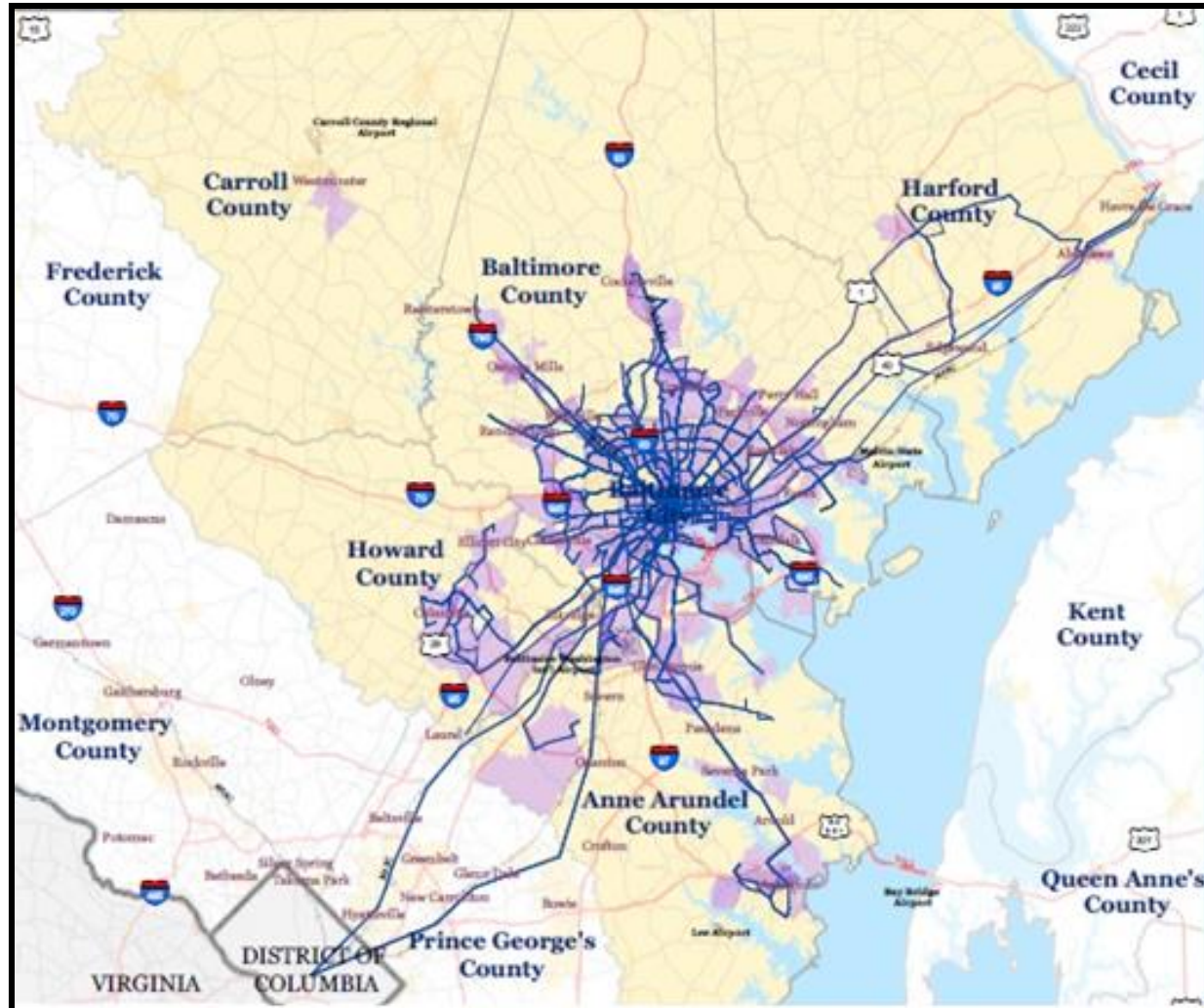
# Core Service/Job Density



# Core Service/Pop. Density

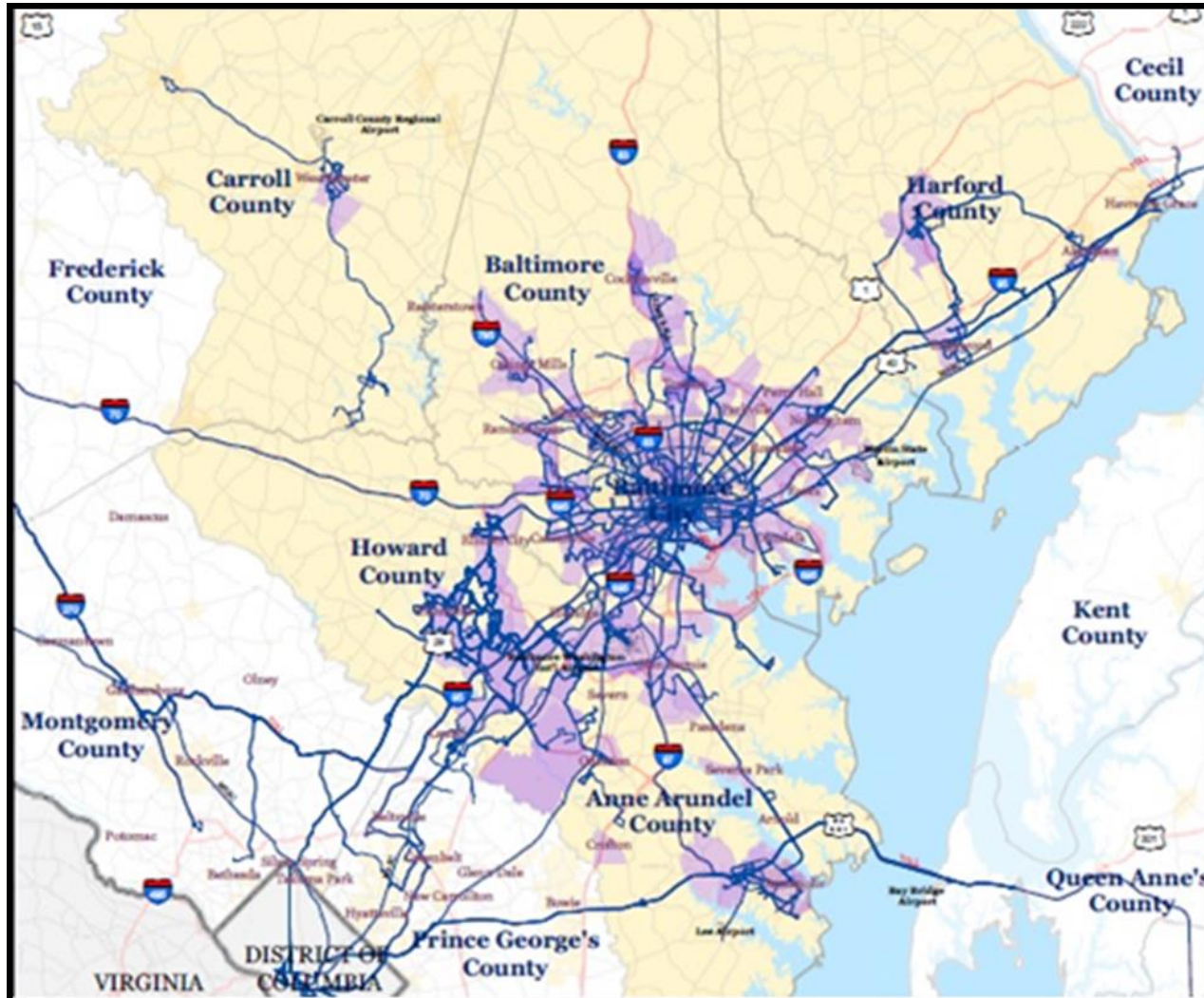


# Job Density 1990

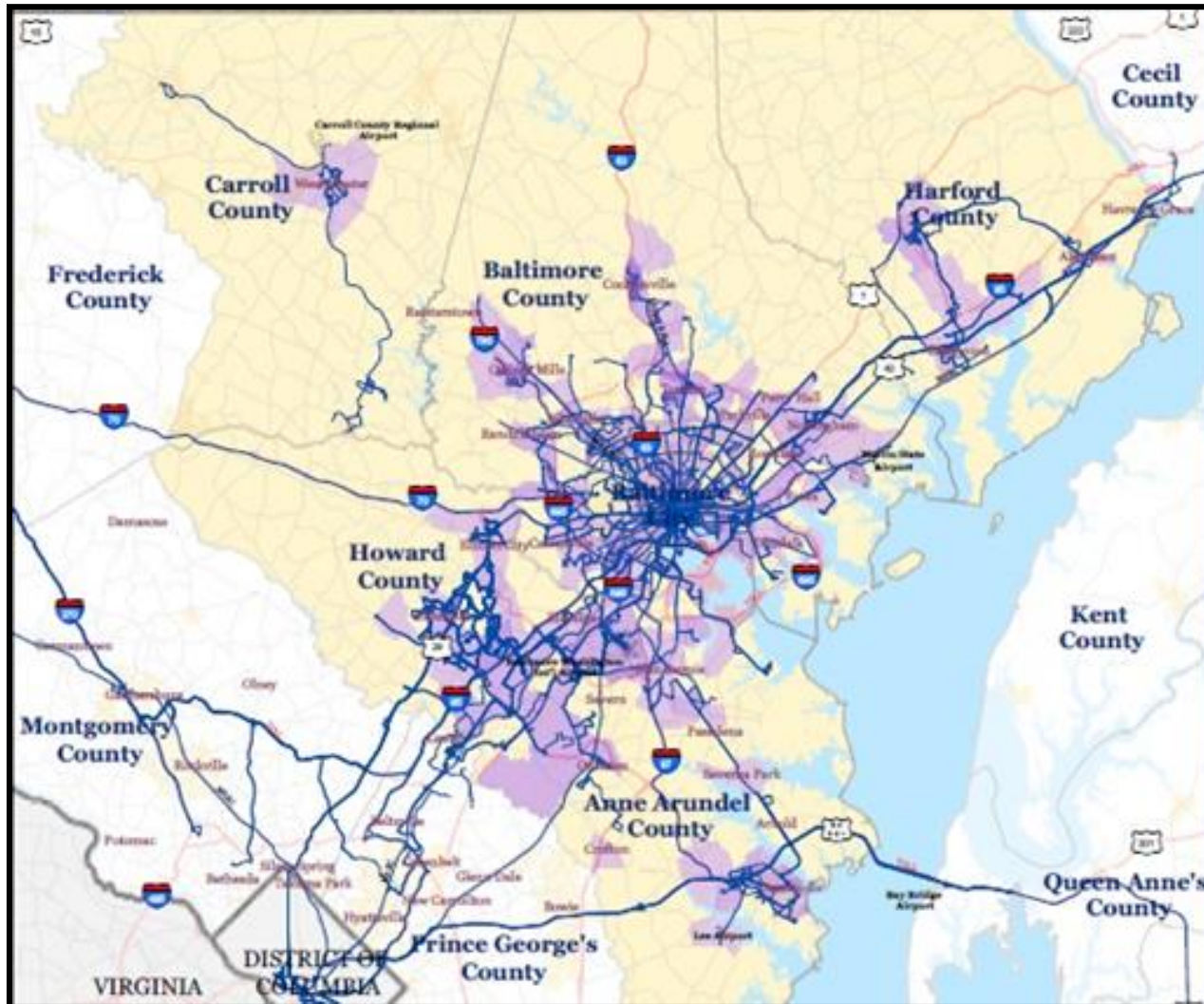




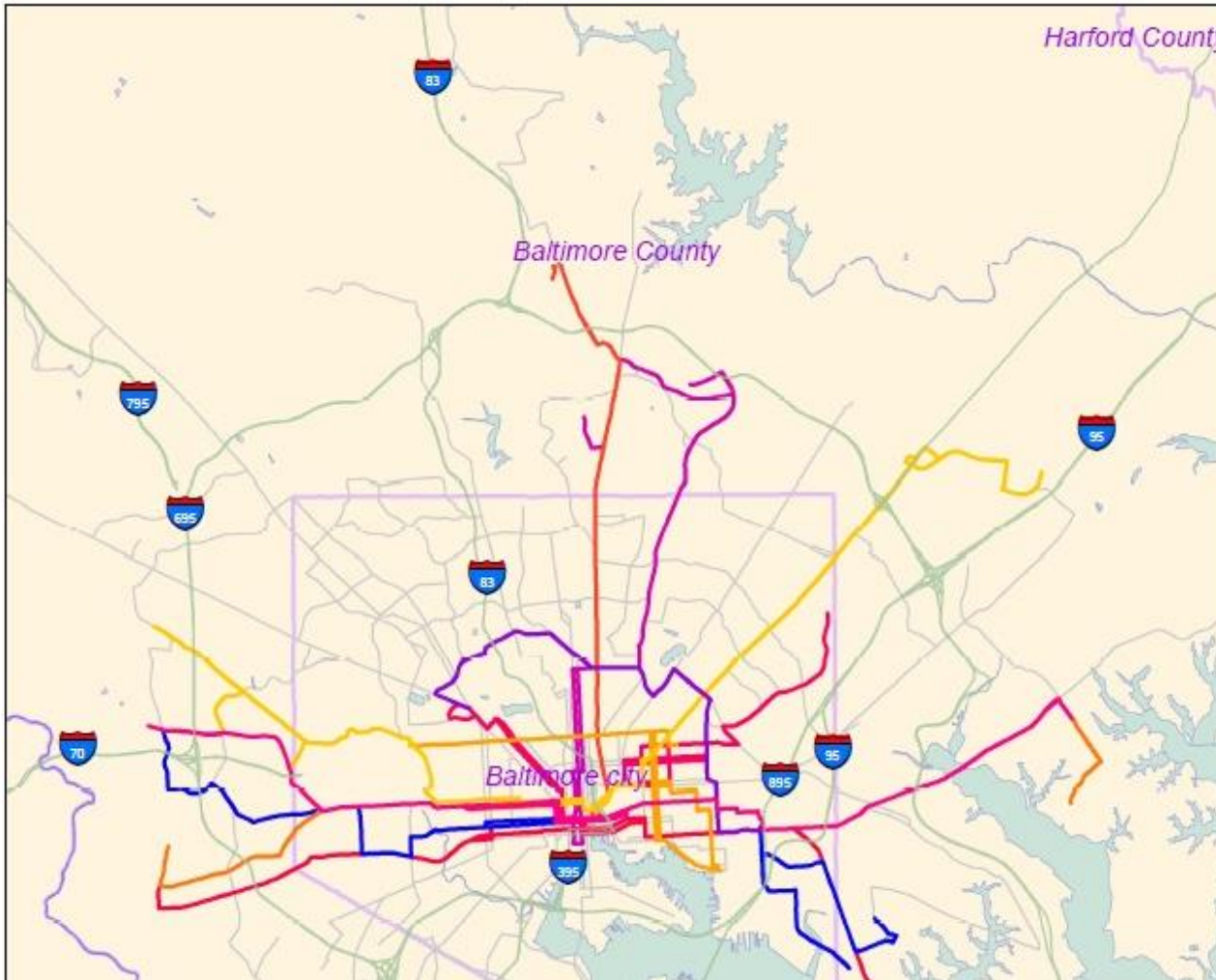
# Job Density 2015



# Job Density 2040



# Top 10 MTA Bus Routes

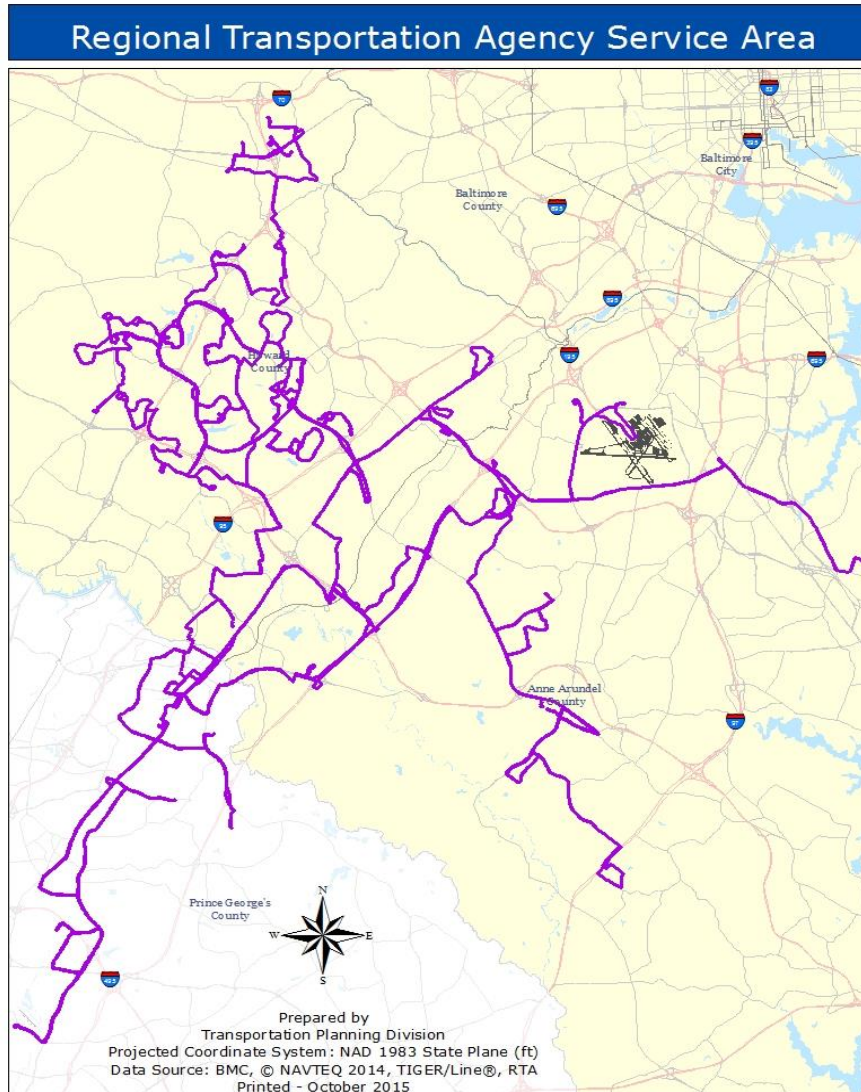


Route	2014 Boardings
15	13,600
13	12,500
23	12,100
8	11,000
10	10,900
5	9,900
QB 40	9,900
3	9,900
22	9,400
20	9,300

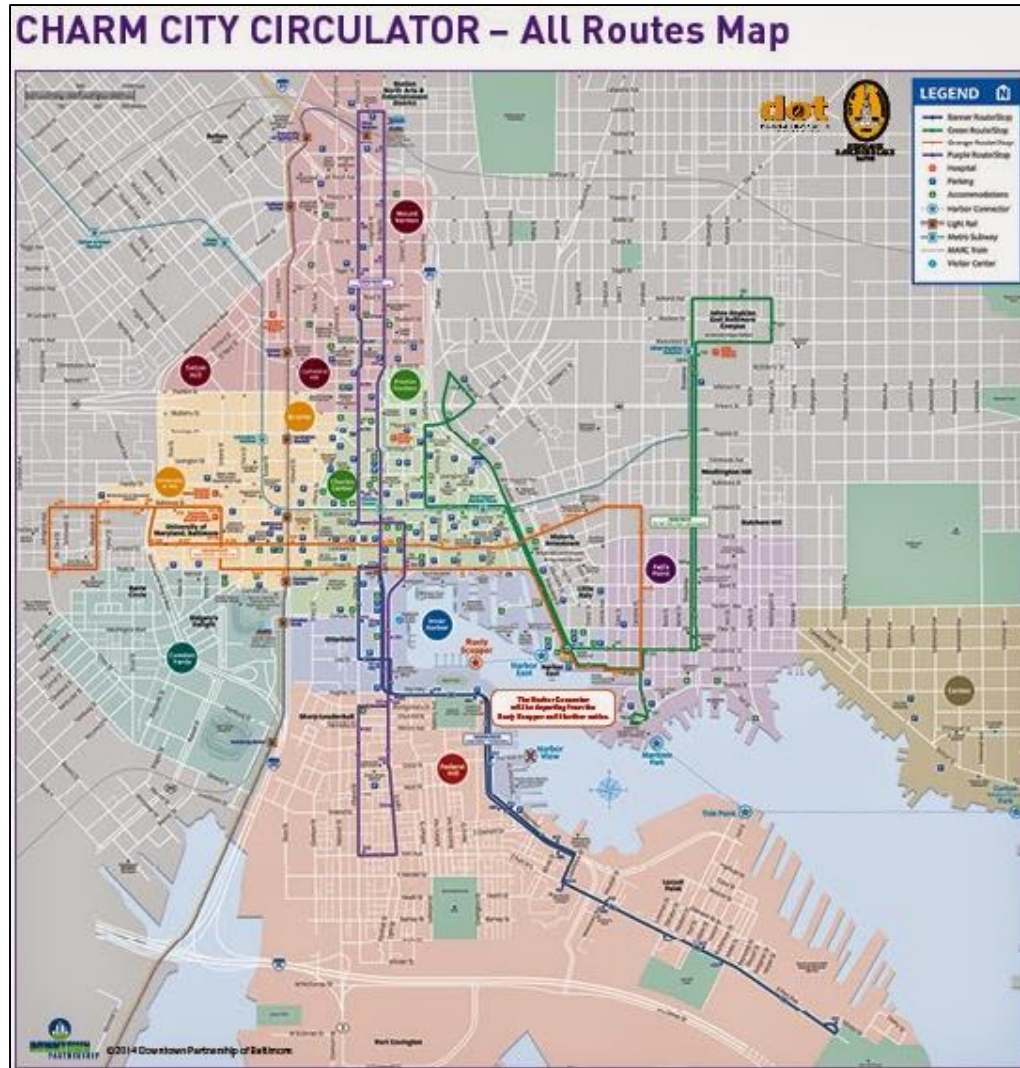
Legend	
Top Bus Routes	
Route 15	(Yellow line)
Route 13	(Orange line)
Route 23	(Dark Orange line)
Route 8	(Red line)
Route 10	(Dark Red line)
Route 5	(Magenta line)
QuickBus 40	(Pink line)
Route 3	(Purple line)
Route 22	(Dark Purple line)
Route 20	(Blue line)



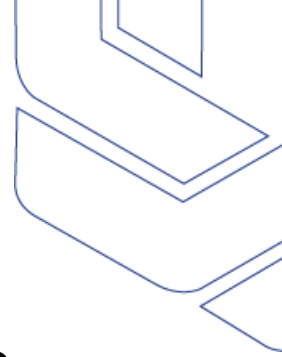
# Regional Transportation Agency Agency



# Charm City Circulator



# Transit Riders Analysis



- Study includes demographics, modes, income, routes, and motivations
  - 80,000 daily transit commuters
    - 6% of all commuters ride transit
    - 76% of commuters are in Single Occupant Vehicles
  - 43% are from households less than \$50,000
  - 56% are female
- Transit riders come from vulnerable populations



# Peer Systems

BMC ranked MTA service by mode against peer regional networks and found the following:

- **MTA Buses**  
11th of 16 operating expense per mile; 10th of 16 operating expense per hour
- **MARC**  
3rd of 5 service efficiency, one of the largest commuter rail systems in USA
- **METRO**  
3rd of 6 operating expense per hour, a small heavy rail system
- **LIGHT RAIL**  
3<sup>rd</sup> of 8 in operating expense
- **COMMUTER BUS**  
Major route realignments in 2014 increasing frequency and coverage



# Light Rail Sample Peer Comparison

Agency	Urbanized Area (UZA) Name	UZA Population (Service Area Population)	Operating Expenses	Average Fleet Age in Years	2012 Vehicles Operated Maximum Service		2012 Unlinked Passenger Trips	
					Amount	Rank	Amount (Thousands)	Rank
<b>APTA Peers</b>								
Central Puget Sound Regional Transit Authority (ST)	Seattle, WA	3,059,393 (2,781,740)	\$51,370,132	4.3	26	16t	8,701.10	17
Maryland Transit Administration (MTA)	Baltimore, MD	2,203,663 (2,203,663)	\$43,345,659	18.3	38	14	8,796.30	16
Metro Transit	Minneapolis-St. Paul, MN-WI	2,650,890 (1,805,940)	\$27,886,232	7.7	27	15	10,498.20	14
Santa Clara Valley Transportation Authority (VTA)	San Jose, CA	1,664,496 (1,880,876)	\$61,685,649	10.7	55	13	10,372.90	15





# Analysis



# System Needs

Information

Access

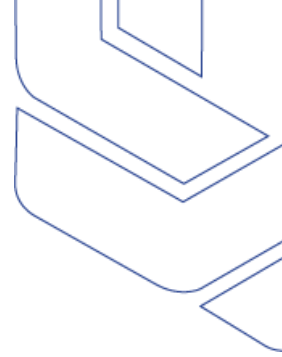
Performance

Safety/Security

Economic Integration



# Information



- **Rider**
  - Real time data is unavailable to riders
  - On-line trip planning lags behind peers
  - Signage/maps are confusing
- **Transit/Planning Agencies**
  - “On time” performance is not tracked well
  - Rider survey does not provide detail
  - Model based reporting is not fully utilized



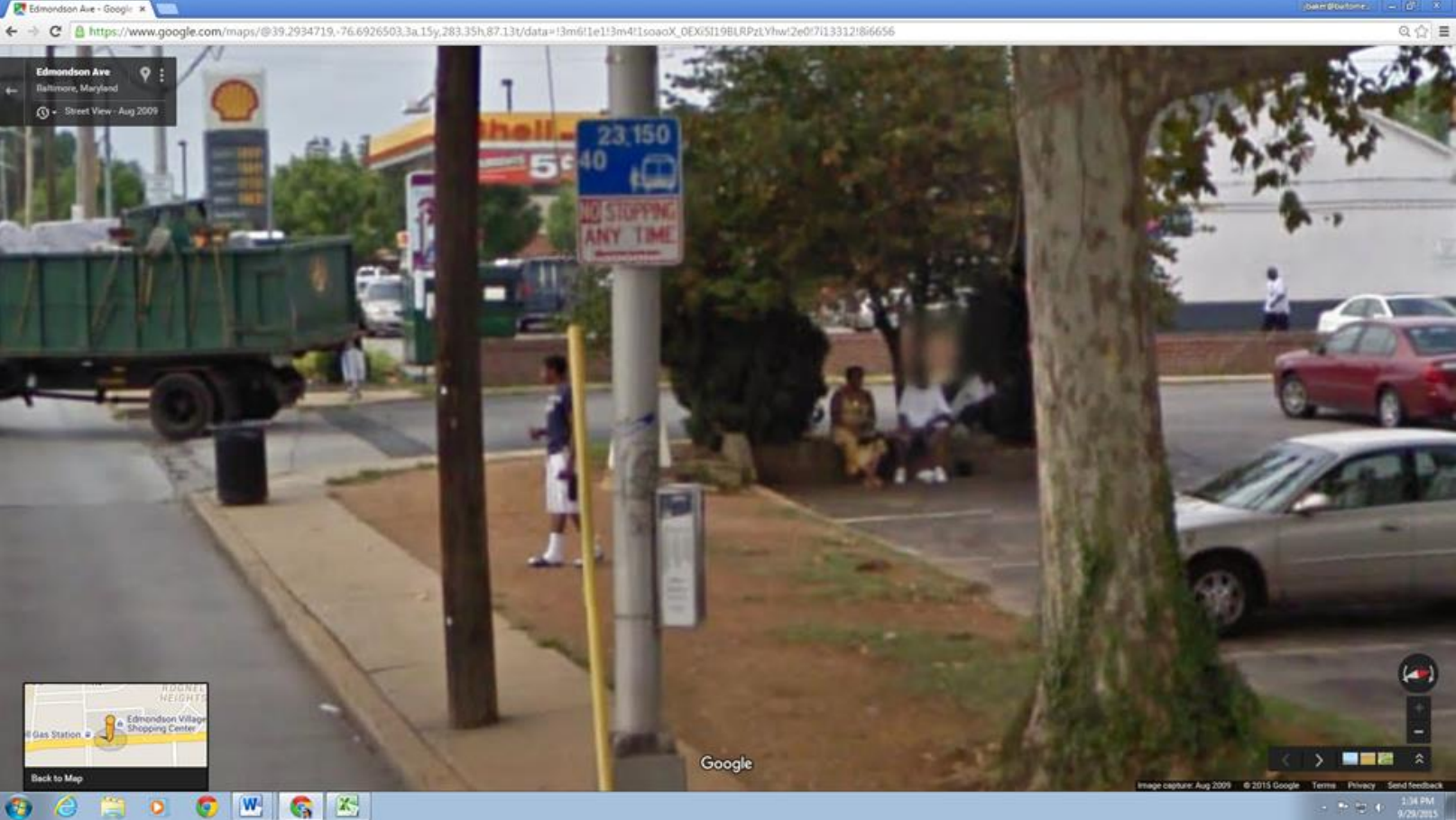


# Access

- Universal fare collection would greatly increase ease of access
- Fare collection can be made simpler and more efficient
- Station amenities vary greatly, and are often non-existent at bus stops
- Hubs are not fully utilized and modes are not integrated



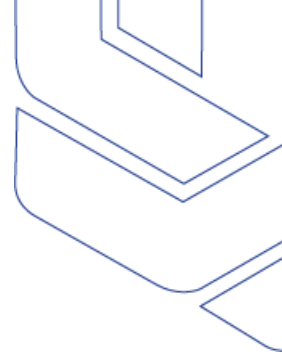
# Edmondson Avenue



# Towson Town Center



# Performance

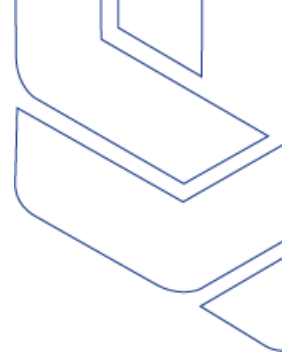


- Almost all individual modes rate well with peers (*not bus*)
- Lack of connectivity holds system back
- Major ridership is along the Woodlawn to Bayview corridor
  - High concentration of zero car households
- Major bus routes struggle with on-time performance





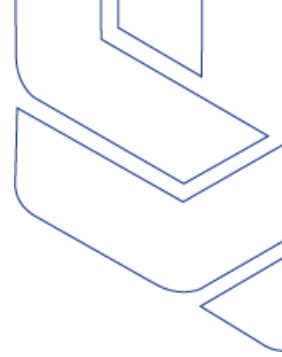
# Safety/Security



- MTA recently won national award for rail
- Reporting lacks useful detail
  - 60% of incidents categorized as “other”
  - Only 3% of incidents deemed preventable
- Data provided does not line up with public sentiment, which does not view system as safe
- Many bus stops lack lighting & shelter



# Economic Integration



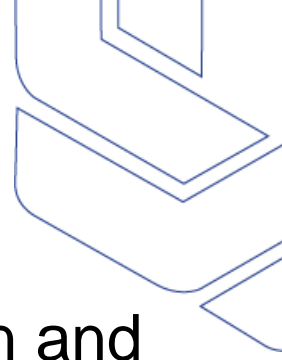
- Major job centers are well covered
- A Woodlawn to Bayview connection would create regional economic access
- Despite coverage, last mile challenges keep potential riders away
- We do not maximize land surrounding current/planned transit investment



# Recommendations



# All Modes



- Routinely Articulate Long Term Multi-modal Vision and Functional Plans for Each Transit Mode
  - *ie.* – *MARC Growth and Investment Plan*
- State of Good Repair – Asset Management approach
- Unified Transit Fare Collection (MTA, LOTS)
- Improve Accessibility at Stations/Stops
- Transit Oriented Development
- Incentivize transit – fares/employer subsidies
- Information – Real Time, Mapping, Call Centers
- Improved Coordination – MTA, LOTS, Locals

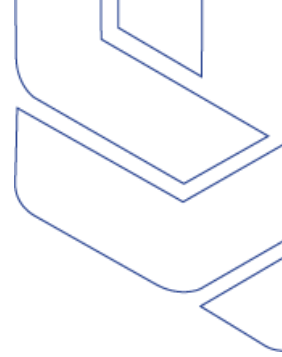


# Core Bus

- Bus Lanes/Bus on Shoulder, Signal Prioritization need to be studied
- Reporting Performance Metrics
- LOTS & Circulator capital and operating funds
- Expedite BNIP improvements
- Real Time arrival info
- Bus stop improvements



# MARC



- Station improvements at Odenton, West Baltimore, Aberdeen, and Penn stations
- New Bayview station
- Study a Madison Square or Upton MARC station
- Penn & Camden expansion for additional evening and weekend service



# Metro

- Lexington Market station redesign
- Green line extension to Morgan State

# Light Rail

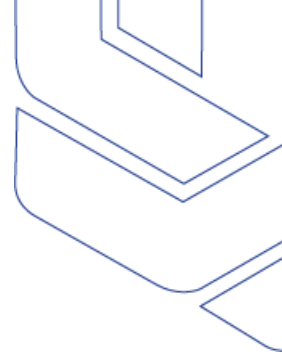
- Signal coordination/prioritization study
- Howard Street Revitalization Plan

# Commuter Bus

- Parole Intermodal facility w/ BRT or premium bus service to DC, Baltimore
- Regional Park-&-Ride improvements
- BRT, Commuter BRT study



# Key New Initiatives

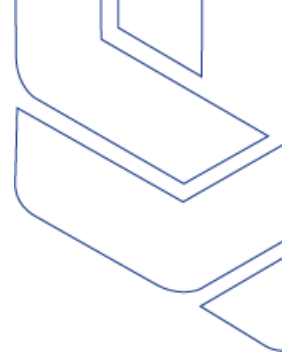


- Woodlawn to Lexington Market fixed transit line through West Baltimore MARC station with station area development
- Fixed transit line between Harbor East and new Bayview MARC station
- First and last mile options, including private shuttles in work centers like BWI/Ft. Meade
- Premium Commuter Bus expansion





# Performance Measures



- Develop system to routinely archive and report on system performance
- Publish regular on-time performance summary reports for the biggest 10 bus routes
- Open transit data to create open source solutions
- Additional service to improve hours of service, span of coverage, headways, and relieve overcrowding



# Recommendations by County

- **Anne Arundel** – Odenton TOD, Commuter Bus, Annapolis/Parole Intermodal
- **Baltimore City** – Southeast connection, Green Line Extension, Madison Square/Upton MARC station, Woodlawn to Lexington Market, West Baltimore/Bayview Stations, MARC service improvements, Lexington Market, Commuter Bus, BNIP, Circulator, Penn Station
- **Baltimore County** – Sparrows Point service
- **Harford** – MARC Aberdeen, Bus Queue Jump
- **Howard** – LOTS capital assistance, BRT, MARC



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