

Making Tracks The Case for Building a 21st Century Public Transportation Network in Maryland

Maryland PIRG Foundation

Making Tracks The Case for Building a 21st Century Public Transportation Network in Maryland

Maryland PIRG Foundation

Sarah Payne, Frontier Group Elizabeth Ridlington, Frontier Group Kristi Horvath, Maryland PIRG Foundation Johanna Neumann, Maryland PIRG Foundation

March 2009

Acknowledgments

The authors wish to thank Eric Christensen of the Maryland Transit Administration and Richard Chambers, Esq., board member of the Transit Riders Action Council of Metropolitan Baltimore, for their review of this report. The authors would also like to thank Tony Dutzik, Travis Madsen and Susan Rakov of Frontier Group for their editorial assistance.

The generous financial support of the Rockefeller Foundation, Surdna Foundation, and Wallace Global Foundation made this report possible.

The authors bear responsibility for any factual errors. The recommendations are those of Maryland PIRG Foundation. The views expressed in this report are those of the authors and do not necessarily reflect the views of our funders or those who provided review.

© 2009 Maryland PIRG Foundation

With public debate around important issues often dominated by special interests pursuing their own narrow agendas, Maryland PIRG Foundation offers an independent voice that works on behalf of the public interest. Maryland PIRG Foundation, a 501(c)(3) organization, works to protect consumers and promote good government. We investigate problems, craft solutions, educate the public, and offer Maryland residents meaningful opportunities for civic participation.

For more information about Maryland PIRG Foundation or for additional copies of this report, please visit www.MarylandPIRG.org.

Frontier Group conducts independent research and policy analysis to support a cleaner, healthier and more democratic society. Our mission is to inject accurate information and compelling ideas into public policy debates at the local, state and federal levels. For more information about Frontier Group, please visit www.FrontierGroup.org.

Cover photo: DC metro station, Robert Simon, under license from www.istockphoto.com *Layout:* Harriet Eckstein Graphic Design

Table of Contents

| Executive Summary | 1 |
|---|----------------------------|
| Introduction | 4 |
| The Case for More and Better Public Transportation in Maryland Travel Trends The Benefits of Transit in Maryland State Transportation Funding Has Been Focused on Roads and Highways | 6 7 8 9 |
| A 21st Century Transportation Vision for Maryland Goals of Improved Public Transit in Maryland D.C. Metropolitan Area Improvements Baltimore Metro Area Improvements Statewide Improvements | 11 11 12 17 21 |
| From Vision to Reality: A 21st Century Transit System for Maryland Federal Government | 26 27 |
| State Policy | 28 |
| Conclusion | 29 |
| Notes | 30 |

Executive Summary

Transportation is an urgent problem for Maryland. Heavy automobile traffic is stealing time from Maryland families and businesses, and forcing consumers to burn more money at the gas pump. Traffic is also making our air less healthy, deepening our oil dependency, and creating more global warming pollution.

Clean, efficient public transportation already helps millions of Marylanders get where they need to go—saving consumers time and money, cutting air pollution, reducing our dependence on oil, and helping to drive economic growth.

To fix its transportation troubles and help ensure a healthier, safer and more prosperous future, Maryland must invest in public transportation for the 21st century. Officials must prioritize a set of important and connected transit projects, as well as provide the funding to make the vision of a brighter transportation future a reality.

Maryland's car-based transportation system is in trouble. It is leading the state to more traffic, greater oil dependency, more money spent on gas, and more global warming pollution.

- More Marylanders are driving farther in automobiles than ever before. Since the 1980s, the number of per-capita miles driven in Maryland has jumped nearly 50 percent.
- Marylanders have the second longest average commute time in the country, second only to New York. The average Maryland employee, for example, spends 30.2 minutes commuting to work each day. This problem has worsened drastically in recent decades: in 2005, drivers in the Baltimore area were wasting 700 percent more time in traffic than they did in 1982.
- Between 2002 and 2006, gasoline expenditures rose 81 percent in the state, causing Marylanders to spend over \$3 billion more to fuel their cars. While gasoline prices have fallen recently, Maryland's dependence on oil leaves us vulnerable to volatile world markets and dependent on foreign sources of energy.
- Transportation-based global warming pollution increased 37 percent

between 1990 and 2005 statewide, jeopardizing Maryland's efforts to cut global warming emissions.

Despite limited transit options and falling gas prices, more Marylanders are using public transportation. By doing so, they are delivering important economic and environmental benefits.

- The number of miles that passengers traveled on the state's public transportation services increased by 50 percent between 1991 and 2007. Ridership per capita increased 30 percent between 1991 and 2007. Between January and August 2008 alone, ridership rose 3.7 percent compared to the same period in 2007.
- Ridership has continued to grow even after gasoline prices began to fall: in October 2008, the number of passengers on Maryland's MARC system

rose 7.5 percent compared to October of the previous year.

• In 2005, use of Baltimore's public transit network alone averted nearly 10 million hours of traffic delays, saved consumers \$200 million, avoided burning over 30 million gallons of gasoline, and kept close to a million metric tons of global warming pollution out of Maryland's air.

Maryland can reduce traffic, shrink its oil dependency, help clean up its air, cut global warming pollution, and grow healthier communities by investing in public transit. Good transit investments for Maryland include the following (*not in order of priority*):

• Creating a true regional rail system for Baltimore by building the proposed Red Line light rail, extending existing light rail and subway service,

Figure ES-1. Year-Over-Year Change in Transit Ridership vs. Vehicle Miles Traveled, January-August 2008 versus January-August 2007¹



and improving connections among various transit lines and with other transportation facilities.

- Building the Washington Metro Purple Line to help commuters who travel suburb-to-suburb inside the Capital Beltway to avoid taking the Metro all the way into the District in order to get to work or home.
- Improving MARC commuter rail options and commuter bus services.
- Building transit to link urban centers with quickly growing areas, such as construction of the Corridor Cities Transitway connecting Montgomery and Frederick counties and a light rail line connecting southern Maryland with the Metro's Green Line.
- Taking advantage of transit statewide by helping counties, smaller cities and towns provide bus, carpool and bike-friendly services, such as the TransIT program operating in Frederick County.

To fix its transportation problems for the long-haul, Maryland needs a clear vision for 21st century transit and a plan to back up transit projects with dedicated and sustained funding. Maryland officials should:

• Lay out a clear plan and timeline for more and better public transit in Maryland. The

state needs a compelling vision for change. Unifying a variety of projects under a single plan will additionally help capture the efficiencies of integrated planning and design.

- Allocate funds to make the vision a reality. Maryland continues to spend large sums on expanding highways. While crumbling roads and bridges should be repaired, the focus of Maryland's transportation spending should be providing an investment for the future, not repeating past mistakes. The state should adjust its priorities for distributing money from the Transportation Trust Fund to provide dedicated and sustained funding for good transit investments.
- Urge Congress to enact a new federal transportation funding law. The new law should prioritize investing new capital in public transit; fixing existing roads and bridges rather than building more highways; and spending taxpayers' money more wisely by using federal dollars to invest in high-priority transportation solutions.
- Integrate transit into the state's long-term development plan. Focusing BRAC-related development projects and other new development around principles of smart growth and transit-oriented development is an excellent strategy for building healthy communities statewide.

Introduction

n a cold night in mid-February 1827, a group of 25 Baltimore bankers and merchants made a decision that would catalyze transportation in America. At a time when railroads were barely starting to be tested commercially in Europe and when slow boat transport on the Erie Canal was the fastest means of East-West shipping in the United States, this small group of Marylanders committed to financing the nation's first railway. Their vision, radical for its time, was a future in which passengers and goods could move between the East Coast and Midwest with efficiency, ease and speed. The resulting Baltimore & Ohio (B&O) Railroad opened in 1830, and ushered in a new transportation age not only for Maryland, but for the entire country.

Nearly two centuries later—after a period that included the Civil War, the harnessing of electricity, the invention of the automobile and countless other changes—Marylanders still benefit from the investment made by the founders of the B&O. Even today, MARC commuter trains on the Brunswick and Camden lines travel along the B&O right-of-way cleared in the 1820s.

Today, Maryland needs a similar longterm vision for transportation in our state. A quick glance at newspaper headlines reveals the challenges that are in store: we face a future in which we will struggle to meet the resource needs of a growing population—notably, needs for oil, clean air, and space—and in which global warming threatens our geography and economy alike. The choices Maryland's leaders make today will help to determine how our state will respond to those challenges for decades to come.

By investing in a 21st century network of public transportation, Maryland can address some of our most difficult problems—from traffic congestion to the loss of precious open space to sprawl—while providing the infrastructure Maryland will need to grow and thrive in the years ahead. Unlike the founders of the B&O, we do not need to place a bet on risky technology—in fact, commuter rail, light rail, and advanced bus systems are already helping to save oil, cut congestion and meet the transportation needs of people in Maryland and across the country.

To get there, however, Maryland's leaders must commit themselves to a vision of a future transportation system in which public transportation plays a leading role—and invest the state's resources accordingly. This report describes many projects deserving of that investment.

It may be asking too much to require

that Marylanders living in the year 2189 benefit from the investments we make in today's transit system in the same ways that we continue to benefit from investments made by the pioneers of the B&O railroad nearly two centuries ago. But the transportation choices we make today will have long and deep repercussions for Maryland's future. We must choose wisely.



Detail of a Baltimore & Ohio (B&O) Railroad map by Rand McNally & Co., circa 1876. Founded by a visionary group of Baltimore businessmen, the B&O was America's first commercial and passenger service railroad, and helped catalyze transportation for the nation as a whole. Photo credit: Library of Congress

The Case for More and Better Public Transportation in Maryland

Ver the past two decades, Marylanders have been driving more, spending more time every day stuck in traffic, and burning more gasoline, solidifying our dependence on oil. At the same time, more Maryland residents than ever are relying on public transportation to get them where they need to go. This increase in transit use is saving consumers time and money, keeping dangerous pollution out of our air, and helping to curb our addiction to oil.

Maryland's existing transportation system provides an important link between in-state locales and moves thousands of commuters daily to jobs within the District of Columbia. But the network as it now stands is far from meeting the blossoming transportation needs of a growing state and even farther from helping Marylanders deal with the massive challenges of successful growth in the 21st century. Today, the state's transportation infrastructure fails to deliver the clean, efficient, and energysmart solutions that will be essential in the coming decades.



Heavy traffic wastes time and money, increases our oil dependence, generates thousands of tons of global warming pollution—and is on the rise in Maryland. In 2003, Baltimore was ranked the U.S. city with the highest percentage of extreme commuters—with commutes that last 90 minutes or longer. Photo credit: Drouu, under license from www.sxc.hu



Figure 1. Per-Capita Vehicle-Miles Traveled in Maryland, 1980-2007³

Travel Trends

Maryland's population has grown significantly in recent years, but our automobile use has grown even faster. The number of miles driven per person in Maryland has increased steadily since the early 1980s, with Marylanders driving close to 50 percent more than they did roughly 20 years ago.²

With more people driving farther as our suburbs sprawl outward, traffic problems are getting worse. In 2003, for example, Maryland ranked in the top three states for "extreme" commutes—commutes that last 90 minutes or longer. Baltimore itself claimed the dubious honor of being the U.S. city with the highest percentage of extreme commuters.⁴ Two years later, the average Baltimore peak-period commuter was losing 44 hours a year to traffic, the equivalent of more than a week's vacation time. Overall, drivers in the greater Baltimore area wasted more than 56 million hours in traffic congestion in 2005—a more than 700 percent increase since 1982.⁵ Bad congestion extends far beyond Baltimore, however, impacting commuters statewide. Marylanders spend an average of 30.2 minutes commuting to work each day, ranking the state second only to New York for longest average commute time.⁶

The time drivers spend lodged in traffic amounts to dollars sucked out of Maryland's economy. The cost of congestion in the Baltimore area alone nearly doubled between 2000 and 2005, costing the area's economy \$1.1 billion in wasted time and wasted fuel in 2005.⁷ This does not include economic opportunities lost due to time spent stuck in traffic, or the lost potential of businesses and workers who chose not to locate in the Baltimore area rather than contend with the economic pitfalls and simple annoyance of bad traffic.

A significant portion of these dollars spent on congestion goes toward buying more fuel. Traffic congestion in the

Figure 2. Inflation-Adjusted Motor Gasoline Expenditures in Maryland's Transportation Sector, 1980-2006¹⁰



Baltimore area wasted more than 40 million gallons of gasoline in 2005, a year that also saw a major jump in gas expenditure in Maryland overall.⁸ Gasoline spending in the state has been generally on the rise since the early 1990s, with a steep 81 percent increase of \$3 billion between 2002 and 2006.⁹

While gasoline prices have recently declined, our dependence on gasoline for transportation leaves Maryland continually vulnerable to the whims of the global oil market, and also dependent on foreign sources for critical energy supplies.

The same rise in driving that has worsened traffic and cost Marylanders more money also helped cause a 37 percent jump in global warming pollution from transportation in Maryland between 1990 and 2005.¹¹ This increase threatens Maryland's efforts to reduce its contribution to global warming, which poses major threats to the future of our state's most cherished natural places, including the Chesapeake Bay.

The Benefits of Transit in Maryland

Faced with the many costs of driving, more people in Maryland are using public transportation. The number of passengermiles traveled on the state's public transit services, for example, increased 50 percent between 1991 and 2007.12 This increase was not just about population growth: per-capita ridership also increased by 30 percent between 1991 and 2007.13 Importantly, transit ridership has also remained strong despite the late 2008 dive in gasoline prices. Not only did transit use continue to rise nationally through fall 2008, but Maryland's MARC system reported a 7.5 percent jump in ridership compared to October of the previous year.¹⁴

As public transportation ridership in Maryland has been increasing over the past year, vehicle travel has been on the decline. The number of vehicle-miles driven on Maryland's roads declined by 0.8 percent





over the period between January and August 2008 compared to same period in 2007.¹⁶ During this same time, total ridership on Maryland's public transportation services rose by 3.7 percent.¹⁷

A 2007 report by the Texas Transportation Institute quantifies the benefits of increased transit use in Maryland. Public transportation in the Baltimore area alone saved travelers nearly 10 million hours of traffic delays in 2005, the equivalent of 4,800 years of work at a 40-hour-perweek job. The same services helped save Baltimore's economy \$200 million in wasted time and lost productivity in the same year.¹⁸

While saving time and money, public transit is also helping Maryland reduce its oil addiction and curb global warming pollution. In 2006, for example, Baltimore's public transit network kept 36 million gallons of gasoline from being burned, saving consumers \$94 million at the pump, and avoiding 960,000 metric tons of global warming pollution.¹⁹

Public transportation also provides a host of other important, if difficult to quantify, benefits. Transit provides a source of mobility to the poor, elderly, children and disabled, many of whom cannot afford a car or cannot drive. Investments in transit have helped spark the economic revitalization of areas around transit stations, helping to create vibrant communities that are less dependent on the automobile. Transit riders are free from the responsibilities of driving, meaning that they can use their time to read, chat, catch up on the day's news or, in an increasing number of transit vehicles, use wireless Internet to check e-mail or do important work.

State Transportation Funding Has Been Focused on Roads and Highways

Despite the obvious benefits of broader transportation options and investing in public transit, Maryland's focus has been on building more roads and highways. The billions of dollars needed for the planned Intercounty Connector (ICC), for example, will pay for 18 miles and 6 lanes of highway to link I-270 and I-95, but will also bring more sprawling development, greater oil dependence and more air pollution, while doing too little to solve Maryland's transportation problems. At the same time, Maryland has been forced to cut service on increasingly popular commuter rail and commuter bus services.

The construction of vast new highways to solve transportation problems is a hold-over from a previous era—an era of cheap gasoline, seemingly endless space for development, and ignorance of environmental threats like global warming. To meet today's 21st century transportation challenges, Maryland needs a new vision. The projects described in the pages to follow should be part of that vision.



A 21st Century Transportation Vision for Maryland

By investing in a wide variety of transit options—from subway and light rail to commuter buses and regional rail— Maryland can grow in smarter, cleaner and more efficient ways, while providing new transportation options to Marylanders. The following projects—many of which have been under discussion for years—can help Maryland achieve a 21st century vision for public transportation.

The projects included in this section are not listed in order of priority. Transit investments must be evaluated on a range of criteria, from their impact on air quality and global warming emissions to their potential to spark economic development and improve quality of life. Investments in commuter rail, for example, deliver different benefits to different constituencies than investments in improved bus service for inner-city neighborhoods.

As part of a transportation network, however, new transit projects connect and add value to one another—and so are more useful in combination than each one is alone. Together, these projects supply the vision of a new direction for transportation in Maryland, one in which the state would be wise to invest.

Goals of Improved Public Transit in Maryland

Any transit investment strategy for Maryland should have a blueprint to guide it—a set of goals that the state wishes to achieve. The state should set a target of completing investments, by 2030 at the latest, that would achieve the following goals:

- Fix Baltimore's struggling public transportation system to adequately serve the 2.6 million Marylanders who live in the city's metro area. Build more and better local transit options using a combination of subway, light rail and bus infrastructure. Improve commuter rail services to connect workers and employers more efficiently across a broader area.
- 2) Develop alternatives to highways on high-volume commuter corridors. Use regional rail to connect cities within Maryland, and buses to connect local hubs with each other, in areas such as the densely packed corridor between Washington, D.C., and Frederick.



Building the Metro Purple Line could provide a new alternative to many Beltway commuters, while connecting important population and employment centers in Maryland's D.C. suburbs. Photo credit: Robert Simon, under license from www.istockphoto.com

- Link rapidly growing areas, such as southern areas of the state, to urban centers like Baltimore and Washington, D.C., using a combination of light, commuter, and regional rail.
- 4) Integrate transit and land-use planning wherever transit projects exist, and particularly with regard to the new growth driven by the Base Realignment and Closure (BRAC) process. Use principles of transit-oriented development to combat sprawl and create a healthier future for Maryland's communities and economy.
- Develop local public transportation networks in cities and towns across Maryland using a combination of transit services to provide appealing alternatives to driving.

Achieving these goals will create a Maryland that is more economically vibrant, less dependent on oil, less impacted by traffic on the roadways, and capable of meeting the transportation challenges of the 21st century.

D.C. Metropolitan Area Improvements

Metro Purple Line

Within the Capital Beltway, Montgomery and Prince George's counties are densely developed and roadways are congested. During rush hour, many intersections operate well beyond their designed capacity. The Beltway, too, suffers from many hours of congestion daily. And these problems

Figure 5. Purple Line Corridor²¹



Map credit: Arturo Ramos

will only get worse in coming years as the region's population grows.

Construction of a transit line linking the two counties—known as the Purple Line—could provide a new alternative to many Beltway commuters, while connecting important population and employment centers in Maryland's D.C. suburbs.

Though a number of areas that would be served by the Purple Line already have transit access, that transit service is oriented to a hub-and-spoke model that best serves travelers seeking to move from the suburbs to the city and back, not those who need to travel from one suburb to another. The only transit between suburbs is by bus, which is slow and often unreliable because of traffic congestion. Many residents in the region depend on transit to get around: in both Silver Spring and Langley Park, for example, a quarter of households do not have access to a car.²⁰

The region's congestion problems are created, in part, by the segregation of employment centers from residential areas. The Purple Line would not only address mobility problems within the region but could also serve as a catalyst for redevelopment efforts that bring jobs and residences closer together.

Though the exact routing of the Purple Line has not yet been selected, the line would travel through a corridor with many residential, commercial and institutional centers. Along its 16-mile route from New Carrollton in Prince George's County to Bethesda in Montgomery County, the Purple Line would link Silver Spring, Langley Park and College Park.

It would also provide the beginnings of an "outer ring" for the Metro system, connecting transit lines at the periphery, rather than through downtown, as well as offering connections to MARC commuter rail, the Virginia Railway Express (VRE) and Amtrak. Thus, a traveler starting a trip from New Carrollton could ride the Purple Line directly to Silver Spring instead of having to ride the Orange Line into Metro Center and transferring to the Red Line for the outbound trip to Silver Spring. That routing involves a one-hour trip today, and would take an hour and 20 minutes in 2020 as the result of worsening traffic.²² On the Purple Line, the trip would require 40 minutes.²³ The speedier travel times possible on the Purple Line would provide a more appealing alternative to many commuters who now must travel the Beltway.

Both bus rapid transit (BRT) and light rail are under consideration for the Purple Line in configurations ranging from mostly shared lanes with traffic (which results in slower and less reliable transit service) to largely separate lanes with extensive tunneling and overpasses to allow transit vehicles to quickly bypass heavy traffic areas. While both options are an improvement over doing nothing, light rail provides a greater mobility benefit than does BRT. Comparing the highest investment options for light rail versus BRT, light rail attracts more new riders (21,000 versus 18,000),

Purple Line Regional Connections and the Woodrow Wilson Bridge

The northern arc of the Purple Line from Bethesda to New Carrollton is just one part of a broader vision for a circumferential transit line around Washington, D.C. A second important peripheral transit link would span the Potomac River between Alexandria, Va. and the National Harbor development in Prince George's County over the span of the Woodrow Wilson Bridge. Eventually, rail along the bridge could be extended to link to the initial segment of the Purple Line.

The Woodrow Wilson Bridge, which crosses the Potomac River on the south side of Washington, D.C., has been serving the interstate transportation demand in this corridor since opening in 1961—and the combination of its location and its high traffic volume make it a good candidate for the Purple Line's southern Potomac crossing.

Demand on the bridge has long outstripped capacity: designed to carry 75,000 vehicles a day for a period of 20 years, nearly 200,000 vehicles now use it daily. Congestion slows traffic and wastes gas, impeding commuters who shuttle between Alexandria, Va., and southwestern Maryland. As a result, a long-overdue update on the Wilson Bridge has been in the works since 2000.³¹

The bridge's recent twin-span reconstruction has, fortunately, been engineered with higher-efficiency transit in mind. In addition to eight automobile lanes and two pedestrian lanes, the bridge also comprises two transit-ready lanes, one in each direction. The use of these lanes has not yet been finalized, though they were designed flexibly so that they could accommodate high-occupancy vehicle (HOV), bus rapid transit, or rail use.

The new Wilson Bridge, in other words, is prepared to support a rail line that would create the southern connection between the Maryland and Virginia arcs of the planned Purple Line. A rail line would double the passenger-carrying capacity of the bridge, and provide a cleaner, cheaper, and more pleasant alternative to driving for the 95,000 Prince George's County residents who commute to Virginia every day.³² Providing continuous rail service in the Purple Line corridor would save time, serve more people, and make sense for commuters, while further connecting Maryland employers and workers with jobs and the labor force in Virginia.

carries more riders total (68,000 versus 59,000), and provides a faster trip from endto-end (50 minutes versus 59 minutes).²⁴ Light rail's ability to provide a faster trip is especially pronounced in the Montgomery County portions of the route.

The cost of building the Purple Line ranges from \$386 million for the least expensive BRT option, which provides limited benefits, to \$1.64 billion for the best light rail option.²⁵ The benefits of the cheapest BRT option, however, are so small that the cost-effectiveness of the system is relatively low. The medium and expensive BRT and light rail configurations are more cost effective.²⁶ The cost would be shared between federal, state and local sources.

Building the Purple Line will help to spur development around new transit stations. Done right, development can reinforce the counties' plans for compact growth and encourage transit use. For decades, transit-oriented development (TOD) has been used to create thriving urban and suburban corridors in modern cities. Its basic idea is both simple and sensible: mixed-use zoning around a major transit station (like a Metro stop) encourages compact, walkable development that is good for people, businesses and the environment alike. In the TOD corridors of cities like Portland, Oregon, and Arlington, Virginia, and around some of Maryland's existing Metro stops, a combination of mixed business and residential buildings, easy transit and pedestrian access, and attractive public spaces foster growth but not sprawl-and strengthen community identity. TOD around suburban stations often includes a larger residential and retail component, whereas urban stations are surrounded by more office space.

A number of the likely stations for the Purple Line are prime candidates for TOD, with a focus on land within a 15-minute walk of the transit station. The Maryland Department of Transportation and county planning departments have begun to promote TOD by analyzing the potential for redevelopment around existing and future transit stops. Prince George's County has identified major TOD opportunities around proposed Purple Line stations, including New Carrollton.27 At the New Carrollton station, which would serve both the Orange and Purple lines, the county envisions a development that could include 8,000 residences, 8 million square feet of office space that could draw 30,000 jobs, retail and public space, and hotels.28 New construction would be centered around a transit station as a commercial and retail hub, and the entire development would be pedestrian friendly, with landscaping, street-level amenities, and parking lots behind buildings. The area in the Takoma/Langley Crossroads is under study as well.29

In addition to assisting with the cost of building a transit project, the Federal Transit Administration will provide funding for TOD projects that enhance transit.³⁰ County governments in Prince George's and Montgomery counties have endorsed the plan, and through state grants and tax incentives, local funds, and federal support, Maryland can use the Purple Line to not only improve transit but to help create vibrant communities.

Corridor Cities Transitway

The I-270 corridor from the Capital Beltway to Frederick is one of the most congested commute routes in Maryland, and the problem is likely to get worse. Large population increases are expected for both Montgomery and Frederick counties. An additional 260,000 people may live in the two counties by 2025, representing a 50 percent increase in Frederick County's population compared to 2000 and a 20 percent increase in Montgomery County.³³

Current transit options in the corridor include a MARC train line that runs well to the west of I-270, local bus service in

BRAC Expansion, Smart Growth and Transit

By 2011, the Base Realignment and Closure (BRAC) process will bring 15,500 new military jobs to Maryland.³⁹ In turn, that will spur the creation of as many as 45,000 other jobs and attract tens of thousands of new residents. The biggest growth will occur in central Maryland, especially Harford and Anne Arundel counties.⁴⁰ This predictable and anticipated growth creates an opportunity for Maryland to improve transit to serve new residents, rather than simply building more roads and following the historical, sprawling development patterns that have characterized much of Maryland's late 20th century growth.

In the new communities built to serve the expansion, and in the old communities that must adapt to the expansion, public transportation could not only move people between and within regional hubs, but could also help spur compact, transit-oriented development. Rather than segregating residential and commercial areas, as is typical in most suburbs, the new town centers could feature denser, mixed-use zoning centered around transit stations that appeal to businesses and families alike.

Higher density development would free up land for the parks and green spaces that make this type of community additionally appealing—but would also reduce residents' dependence on cars. By locating the buildings people want to use—homes, businesses and public spaces like schools and libraries—close together, the new communities would become highly "walkable" and residents would have less need for automobiles. And, in addition to helping spur smarter growth, good transit infrastructure to connect these communities to each other and workers to urban and military centers would further help residents become increasingly independent from the cost, traffic and pollution associated with cars.

The state had set aside money to pay for infrastructure upgrades to support anticipated BRAC-related growth, including \$900 million for transportation projects.⁴¹ Some of this funding would have been used for cost-effective new and extended bus and rail services to move members of BRAC-impacted communities on local and regional routes. Unfortunately, many of these projects have been deferred as a result of a \$2.1 billion reduction in the Department of Transportation's six-year revenue forecast.⁴²

the southern portion of the corridor, and a commuter bus service.³⁴ However, the need for better transit in this corridor has long been recognized. Montgomery County's master plan for development first included a 14-mile transit corridor in the 1970s, and the county has protected the rights-of-way for such a corridor.³⁵ The communities of Gaithersburg West and Germantown have also anticipated construction of the

Corridor Cities Transitway, and have included transit-oriented development in their growth plans for the areas around likely transit stops.³⁶

That new transit line would be known as the Corridor Cities Transitway (CCT), running from the Red Line Metro station at Shady Grove to Clarksburg.³⁷ Eventually, the CCT could be extended all the way to Frederick. Whether light-rail service or bus rapid transit (BRT) is selected for the route, transit vehicles would operate on a separate right-of-way from other traffic and would serve a total of 13 stops.³⁸

Light Rail to Charles County

Southern Maryland is growing faster than any other part of the state. From 1970 to 2000, the area's population increased by 143 percent. By 2030, population is projected to increase by an additional 65 percent.⁴³ Much growth has been focused along the Route 301 corridor, the primary north-south route through Charles County. Growth has been especially pronounced in designated growth areas in and around Waldorf.

This growth is reflected in worsening traffic conditions. Already, a number of intersections along Route 301 in Waldorf operate above capacity, causing delays during rush hour.⁴⁴ By 2030, the number of intersections with excessive traffic will more than double.

State and local leaders have been struggling to address southern Maryland's growing congestion problems. In January 2008, Maryland announced it would spend \$12 million to build more park-and-ride lots and millions more for additional commuter bus service.⁴⁵ The state also announced plans to consider a light rail or bus rapid transit line linking southern Maryland to the D.C. Metro system.

The potential route of the light rail line would be from the Branch Avenue Metro stop on the Green Line in Prince George's County, down Route 5/Route 301, to the White Plains and Waldorf area. The state had planned to begin a feasibility study of this project in spring 2008. However, in September 2008, Maryland cut funding for the Southern Maryland Mass Transportation Analysis by \$2.4 million.⁴⁶

Southern Maryland commuters are eager for alternatives to driving. Ridership on a commuter bus line from La Plata to Washington, D.C. via Waldorf increased 8 percent from 2007 to 2008, and ridership on a bus route from St. Mary's County rose 12 percent.⁴⁷ A study in the late 1990s of a potential light rail line from Charles County linked to the Metro system forecast daily ridership of 25,000 passengers by 2020.⁴⁸

With the growth anticipated for southern Maryland in coming years, improved transit must be on the state's agenda for the region.

Baltimore Metro Area Improvements

In the late 19th century, Baltimore became one of the first cities in America to build an extensive streetcar system. Streetcars moved workers and shoppers through the city's districts, and the city was even an early herald of electric trolleys. Baltimore's transit network not only provided an important public service, but led the country in innovation as well.

Today, Baltimore has the beginnings of a modern rail system, but with its limited scope and poor design, existing service fails to meet the city's needs. By learning from its experience with its current rail lines and building additional lines, Baltimore can have a functional rail system that will better fulfill the transportation needs of city residents and spur economic development.

With just one light rail line and one subway line, Baltimore's existing rail system serves only a handful of the city's neighborhoods. The two lines fail to connect, though they do come close enough in downtown Baltimore that riders can walk from one line to the other. The rail lines were constructed in inexpensive corridors, not necessarily where they could provide transit service to the most residents or spur the most redevelopment of urban neighborhoods. Figure 6. Complete Baltimore Rail System, as Envisioned in 2002⁵³



Baltimore Regional Rail System Plan

As a result, neither suburban nor city residents are well served. Both contend with heavy traffic, particularly at rush hour, which results in wasted time and gasoline. And the problem is projected to get worse. As the region's population and employment increase, 44 percent of interstates serving the area will experience severe congestion during the morning commute in 2035.⁴⁹ No matter how frustrated commuters are with traffic, most have little choice but to drive.

At the same time, many Baltimore City residents do not have access to a vehicle and must depend on the region's limited transit network to get to work, to shopping centers, and to medical appointments. More than 200,000 city residents, or 32 percent of the city's population, lack access to a vehicle.⁵⁰ That's a higher rate of transit dependence than any city besides New York City, where residents have access to a robust rail network. In Baltimore City, in contrast, residents must rely on bus service that can be slow and unreliable or on trains that do not serve many locations.

Baltimore needs an expanded rail system that will provide improved transit service and support economic development. A complete rail network will enable suburban commuters to reach jobs in the city, and will help connect low-skill workers, who are concentrated in the city, with low-skill jobs, of which 70 percent are located in the suburbs.⁵¹ New rail lines and stations can help encourage redevelopment at locations throughout the city.

A comprehensive rail system for the Baltimore metropolitan area would have rail lines serving all corners of the city with 109 miles of track and 122 stations.⁵² Major residential and commercial centers would be linked by the rail system, which would also enable residents to access Amtrak, MARC commuter service, and the airport. Turning this vision into a reality would require construction of four new lines, starting with the Red Line to provide the city's first east-west rail link.

Red Line Light Rail

A new Red Line in Baltimore would connect I-70 at the western edge of the city to Canton and Turners Station in the east, running through Charles Center near the waterfront and the National Aquarium. With a diverse range of stops, the line would serve commuters as well as daytime travelers and tourists.

This proposed route is also economically significant for Baltimore City. The Red Line corridor is home to more than 200,000 people and hosts 192,000 jobs.⁵⁴ Baltimore has few major east-west roads, and thus travelers along the proposed Red Line route must navigate crowded city streets with many intersections. Vehicle travel is projected to increase on major east-west streets in coming years.55

Bus service already provides a transit option in the Red Line corridor, but traffic congestion makes the trip by bus slow and unreliable. Along Route 40, buses average just 11 miles per hour.⁵⁶

The 14-mile long route would run from the Centers for Medicare and Medicaid Services outside the Baltimore beltway to the west to Johns Hopkins Bayview Medical Center past I-895 to the east. Major employment, commercial and residential centers along the way include Security Square Mall, the Social Security Administration complex, Edmondson Village, the Inner Harbor, Fells Point, Canton, and Highlandtown. The Red Line would improve access to the University of Maryland, Baltimore, the University of Maryland Medical Center, and the Veterans Administration Hospital, and would also connect with the West Baltimore MARC station, the light rail line, and existing Metro subway.

The Red Line could be constructed as a light rail line or as a bus rapid transit line (BRT), though the light rail option provides greater benefits to riders. Traveling from one end of the Red Line to the other is faster in almost all light rail scenarios. If nothing is done to improve transit in the Red Line corridor, riding a bus from one end to the other will take 80 minutes. A light rail line could make the trip 25 to 44 minutes faster. In contrast, bus rapid transit would cut travel time by 11 to 37 minutes.⁵⁷ (And savings of 37 minutes are possible only if a BRT system is built that costs as much as light rail.)

Though both BRT and light rail perform equally well in serving transit-dependent households—an important fact given that in many of the neighborhoods along the Red Line more than half of households do not have a car—almost all options for a light rail-based line draw more new riders. A light rail line that cut travel times in half (compared to not upgrading transit at all) would draw as many as 13,300 new riders. In contrast, a BRT-based line with similar travel times and comparable construction cost would draw only 10,600 new riders daily.⁵⁸

Transit can also spur smarter development, as it has in several areas near existing D.C. Metro stations. Mixed development of commercial and residential spaces has grown in the revitalized Downtown Silver Spring shopping district, for example, offering residents a variety of shopping, dining and entertainment options within several blocks of the area's Metro stop. New light rail transit stations could also help spur redevelopment in Baltimore, including near the West Baltimore MARC station, other sites along Route 40, Patterson Park and Highlandtown.59 To encourage development around future rail stops, the Maryland Department of Transportation is providing assistance with redevelopment planning.

Green Line Extension

Baltimore City's northeast corner is home to major academic centers as well as many businesses, yet transit passengers lack rapid connection to MARC services, downtown Baltimore, and other transit lines. Traveling the roughly four miles from Morgan State University to Johns Hopkins Hospital and Medical School by today's MTA bus routes, for example, can take close to 50 minutes in 5 p.m. rush hour traffic—a pace of under 5 miles per hour.⁶⁰

As part of its long-term plan to improve public transit in Baltimore, the Maryland Department of Transportation and the MTA are working to extend services on the city's only subway line. The proposed Green Line is a lengthened version of the existing metro subway line, from its current terminus at the Johns Hopkins Medical Campus to Martin State Airport beyond the beltway in Baltimore County. Extending the route could involve more conventional heavy rail, or other transit mode options such as light rail or bus rapid transit.

A study by the Maryland Department of Transportation examined four transit options for this Green Line extension, including: heavy rail, light rail, BRT, and "enhanced bus" (limited stops on normal bus routes). Heavy rail, another term for conventional subway service, has the potential to be the fastest of the four options, traveling at 18-35 mph. But, at \$50-\$250 million per mile, it is also the most expensive. Light rail is likely to be just as fast as heavy rail (20-26 mph) but costs less, at \$20-\$60 million per mile. Bus rapid transit is slower and less expensive, with a cost-per-mile range of \$4-\$40 million per mile.⁶¹

The line would add 13 new stations to the eastern portion of the Green Line, running through the neighborhoods of Morgan State University and the Good Samaritan Hospital before reaching past I-695.The end of proposed extension splits: a southern spur connects with MARC service at Martin State Airport, and a spur to the north links commuters to an I-95 station several miles beyond the beltway. A separate new Green Line stop would also connect with MARC at Madison Square.

By offering faster, more frequent, and more dependable services over an expanded area, the Green Line would better serve a wide variety of transit users. Students and professors would have easier access to campuses such as Johns Hopkins Medical and Morgan State, while residents of northeast Baltimore would be directly tied into the city's rail transit network—a particular boon if other elements of the regional rail plan that would improve connectivity are also completed.

Currently, however, the MTA is studying an abridged version of the originally proposed Green Line route, investigating costs and feasibility of extending the line only as far as Morgan State University. While moving forward on the Green Line is a step in the right direction, shortening its length for the foreseeable future neglects many neighborhoods to the northeast—as well as the congestion savings that could be achieved by serving suburban commuters who would otherwise drive in order to get to work on time.

Yellow Line Rail

Along with the Red Line, Green Line and others laid out in the 2002 Baltimore Regional Rail System Plan, the Yellow Line has been on Maryland's drawing board for some time. Construction of the Yellow Line would address several shortcomings with Baltimore's existing Central Light Rail Line, while also extending service to new areas.

The Yellow Line could share track with the existing Central Light Rail Line in two sections: in the north between Lutherville and Hunt Valley, and in the south between Camden Yards and BWI. Between Lutherville and Camden Yards, the Yellow Line would run on a new set of tracks, which could be built at-grade or underground. Among the areas that could be served by the new line are Johns Hopkins and the University of Maryland, Baltimore; neighborhoods such as Waverly, Govans and Towson; Penn Station; and downtown Baltimore, particularly the attractions of the Inner Harbor.⁶² The new line would also include a new station along the northern section of the Beltway. Coupled with an accessible park-and-ride lot, this location could become an important transfer point for commuters opting to take transit rather than drive into the city for work.

In addition to the new section of track through the center of Baltimore, the Yellow Line could be extended west of BWI Business District station to access the BWI Amtrak station—providing a direct light rail link between BWI airport and MARC and Amtrak service to Washington, D.C. Further extension of the Yellow Line would provide service to other locations in suburban Howard County, including Columbia.

Building up subway, bus rapid transit, or light rail services in this corridor will provide the students, residents, commuters and employees of these areas with direct periphery-to-center transit that is affordable—and fast. The Department of Transportation estimates that the eight-mile trip from downtown Towson to Charles Center, for example, would take 18 minutes—far faster than rush-hour travel times. On the southern side of the line, travelers could get from BWI to downtown in under half an hour.⁶³

The Yellow Line is currently being forced to compete with other key transit improvements—including the Red and Green line proposals—for attention and funding. As part of the region's long-range transit plan, however, the Yellow Line is an important project, helping to knit together Baltimore's intermodal transportation network and adding high-quality transit service to areas currently without it.

Statewide Improvements

Improve and Expand MARC Commuter Rail Services

Commuter rail service provided by the Maryland Transit Administration (MTA) linking Washington, D.C., with Baltimore, Aberdeen, Frederick, and Martinsburg, W.Va., is extremely popular and the system cannot adequately serve ridership demand. In the first three quarters of 2008, ridership on the Maryland Commuter Rail Service (MARC) increased by 6.3 percent



Extending existing Central Line services will provide students, visitors and workers on Baltimore's perimeter with direct service to downtown and BWI airport. Photo credit: Bonnie Schupp, under license from www.istockphoto.com

Figure 7. Current MARC Service⁶⁵



compared to the same time period in 2007. Unfortunately, the 33,000 passengers that ride MARC trains daily exceed the system's intended capacity.⁶⁴

Passengers are well aware of overcrowding on MARC. During the busiest two hours each day, the majority of trains leaving Penn Station do not have enough seats for all passengers. Parking lots at most stations fill early each morning, forcing commuters to park illegally or to drive instead. Operating beyond the system's capacity also impairs the MTA's ability to provide good service. Repair yards and equipment storage areas are full and the MTA cannot easily respond to deviations from planned service.⁶⁶

Despite overcrowding on MARC trains, commuters find MARC better than the alternative: driving on the region's extremely congested roads. MARC service needs to be upgraded and expanded to provide more commuters an alternative to driving.

Unfortunately, recent budget shortfalls

have prompted the MTA to eliminate some non-peak service on its MARC commuter rail system. Cuts include eliminating service on a number of holidays, dropping the 11:00 p.m. train on the Penn Line, and curtailing service on the Brunswick Line by doing away with one evening train per night, Monday through Thursday.⁶⁷

Instead of cutting service, the state should focus on implementing the comprehensive plan for improving MARC service that the MTA announced in 2007. Changes include operating trains more frequently on weekdays, adding weekend service, improving reliability, and upgrading infrastructure throughout the system to make these improvements possible.

Weekday service would be improved by running trains as often as every 15 minutes during peak hours, versus at best every 25 minutes currently. During off-peak times, trains would operate every half hour, compared to no off-peak service on some lines today.⁶⁸ Service would be available later in the evening, reducing the risk that a commuter misses the last train home.

The MTA also aims to increase service reliability so that 95 percent of trains are on time, compared to roughly 90 percent today.⁶⁹

Some improvements—such as adding late-night and weekend trains, expanding some parking lots, and offering wireless internet on board—can be implemented as soon as funding is available.⁷⁰ Adding more track and replacing antiquated tunnels; extending service into L'Enfant Plaza and Northern Virginia to the south and Newark, Delaware, to the north; building new maintenance facilities; and expanding parking lots require a longer timeline.

These improvements would allow MARC trains to carry three to four times as many commuters as today, with ridership increasing on all three rail lines.⁷¹ The upgrades would also help deal with the influx of residents expected in communities surrounding Maryland's military facilities, including Aberdeen Proving Ground and Fort Meade, which will grow due to the Base Realignment and Closure process.

Implementing all the upgrades envisioned by MTA would cost \$200 million in the short term and \$3.9 billion by 2035. It would also require the cooperation of both Amtrak and CSX, which own or control the tracks and stations that MARC uses and serves.

Expand Commuter Bus Service

Commuter bus service differs from local bus service by using a different style of bus, operating only in peak travel directions, and offering limited hours. Commuter bus service uses motor coaches, similar to those used by touring companies, to carry commuters from residential areas to employment centers. Unlike local bus service that runs at regular intervals through the day and that serves passengers traveling either direction on a bus line, commuter bus service caters to those who are traveling at peak morning and evening rush hours in the same direction as the predominant flow of commuters.

Unfortunately, commuter bus service has been targeted for cuts during the recent downturn in state tax revenues. Cuts in

Maximizing Transit Investments

Part of MARC's popularity among people traveling from Baltimore to Washington, D.C., has to do with what they find at the end of their trip: connections to the extensive D.C. Metro subway system. Similarly, more people use the Metro system because it connects to commuter rail, which serves a large geographic area and other population centers. Public investments in the MARC and Metro systems, in other words, complement each other to help maximize overall benefit.

However, this magnifier effect is currently far stronger on the Washington end of MARC lines—and is largely under-utilized in Baltimore. Fewer people are likely to use MARC to get into Baltimore, for example, because the city lacks a comprehensive and convenient rail system for transferring to various destinations. Building an effective subway and light rail system in Baltimore would not only be useful in its own right, but would also boost MARC demand—and maximize Maryland's investments in both systems. service have been implemented from Bel Air to Baltimore, as well as on routes from Annapolis and Washington, D.C.⁷² The Route 921 commuter bus line, for example, between Annapolis and New Carrollton was eliminated as of mid-January 2009, as was the 412 commuter bus from Bel Air to Baltimore.⁷³ To prevent complete elimination of commuter bus service from Howard County to Baltimore, Howard County government has agreed to pay \$200,000, or 25 percent of the cost of bus service, to maintain some limited routes.⁷⁴

Given high demand, however, cutting commuter bus services seems counterintuitive. At least one-third of Maryland workers are employed in a county other than the one where they live.⁷⁵ Tens of thousands of people commute each day into Baltimore, Washington, D.C., and other major employment centers. They come from communities and neighborhoods too dispersed to be served by rail lines and too far away to be served by conventional bus service, but can be well-served by commuter bus lines.

Commuters around the state have flocked to commuter bus service in recent years. On Southern Maryland commuter bus lines, ridership in March 2007 was 3 to 12 percent higher than a year earlier.⁷⁶ Because of high ridership demand, Maryland added funding for more bus service in May 2008.⁷⁷

Another benefit of commuter bus service is that it can be deployed relatively quickly in response to an unexpected transit need. As gasoline prices rose over the summer and demand for transit increased, Maryland added commuter bus service.⁷⁸ And after a collision on the Bay Bridge over the summer forced the closure of one lane for emergency repair work, Maryland added six round trips to its commuter bus service from Kent Island to Washington, D.C., to ease congestion.⁷⁹

Maryland currently operates commuter bus service from a number of residential areas to employment centers. Ninety percent of Maryland's commuter bus service is for workers employed in Washington, D.C., and 10 percent is aimed at those who work in Baltimore.⁸⁰ Washington-based workers from Southern Maryland, the Eastern Shore, and Frederick and Montgomery counties are served by 371 daily trips. Baltimore employees have access to five routes from Columbia, Laurel, Bel Air, Havre de Grace and other suburbs to downtown Baltimore and Johns Hopkins Hospital with a total of 42 daily trips.⁸¹

Bus service could be improved by adding routes, expanding hours of service, and offering a guaranteed ride home to all commuter bus riders.

Additional bus service is needed for communities around Maryland. For example, no commuter bus service is available in Carroll County, though 15,000 county residents work in Baltimore County, 6,000 work in Baltimore City, and another 6,000 work in Howard County.⁸² Though 23,000 people who live in Anne Arundel County work in Baltimore City, there is no commuter bus service in that direction. Nearly as many residents of Howard County work in Anne Arundel County as in Baltimore City, yet no bus service is offered to them.

Extending the hours of bus service would make it possible for more commuters to use transit. Currently, the last bus on many commuter bus lines departs at 5:30 p.m. Employees who work even slightly unconventional hours cannot use commuter bus service. It also means that an employee who sometimes needs to stay late unexpectedly to complete a project is unlikely to be able to rely on a commuter bus.

Baltimore-area commuters would benefit from creation of a "guaranteed ride home" program, such as is already offered to commuters who work in the Washington area. With a guaranteed ride home program, a commuter who rides a bus (or participates in a vanpool or carpool) but who unexpectedly needs to leave work early or late can take a taxi home for free. Such a program is already available to people who work in the Washington area and live in Calvert, Charles, Frederick, Montgomery or Prince George's counties and who need to go home for a medical emergency or are forced by their employer to stay late.83 However, commuters in Baltimore do not have access to such a service. When commuters know that they will not be stranded at work, they are more likely to use transit. One study of commuters who switched to transit found that the availability of a ride home in emergencies was an important factor in that decision.⁸⁴ A guaranteed ride home program can be funded by the transit agency alone or jointly with employers.

Improve Transit in Smaller Communities

The many benefits of public transportation—including cuts in air pollution, dollars saved and improved traffic—are available to more than Maryland's big cities. Residents of smaller cities and towns also have much to gain by public investment in transit.

Already, a number of communities have started to claim these dividends. In Frederick County, for example, the TransIT Connector provides fixed-route bus services convenient to workers and consumers Monday through Saturday. Frederick County's other TransIT services also include commuter shuttles on five routes. Three of these link the city of Frederick with other cities and towns, such as Brunswick, Emmitsburg, Thurmont, and several locations in eastern Frederick County. A MARC connector shuttle gives Frederickarea residents access to rail transportation into Washington, D.C. A fifth line moves people along a Route 85-Crestwood Boulevard corridor, providing access to multiple business centers.85

TransIT also uses carpools and bike racks to help drivers get out of their cars in smaller county communities. These strategies add value to the system without adding much expense. By connecting people who want to make similar trips, for instance, Frederick's rideshare service facilitates carpooling-which saves money as well as wear-and-tear on family vehicles. To aid bikers, the buses of the TransIT Connector and Shuttle services also are all equipped with bicycle racks.86 This allows riders to bike to a TransIT stop, bring their bikes onboard for the bus trip, and then continue biking to their final destination. In Maryland, where biking is possible for the majority of every year, this simple addition to buses means that people from a wider geographical area can easily take advantage of the bus' services.

Transit systems like Frederick County's are good options in smaller communities because their vehicles rely on existing road infrastructure, rather than on installing new rail lines. This makes them relatively immediate and inexpensive transportation solutions-ones that ought to be used in more small cities and towns throughout Maryland. The state can play a role in making this happen by both allocating more transportation funds to transit options statewide, and helping to capture the efficiency of experience by connecting administrators in counties that seek to add transit with administrators of existing transit services.



Buses equipped with front-end bicycle racks help individuals from a wider geographic area take advantage of transit services. Photo credit: Frederick County Government

From Vision to Reality: A 21st Century Transit System for Maryland

A aryland must make sound investments in public transportation if it hopes to remain competitive in the 21st century—a time that looks increasingly likely to be one of increased concern about global warming, continued congestion problems, and volatile oil prices.

At the same time, however, Maryland faces a transportation funding shortfall. High gas prices and a slowing economy have led Marylanders to drive fewer miles and purchase fewer cars. While these trends are positive for congestion problems and global warming emissions, they also result in less funding for the state's Transportation Trust Fund, which pays for transit and highway maintenance and upgrades. The state projected that 2008 revenues would be \$115 million lower than estimated because of reduced motor fuel tax, vehicle titling revenues and vehicle registration income.⁸⁷ Over the next six years, Maryland will have billions less to spend on transportation infrastructure.⁸⁸

Many of the projects that will have to be deferred until more funding is available are transit related. They include \$165 million for MARC track improvements, station upgrades, and new rail cars; bus infrastructure; light rail equipment; and system-wide transit improvements, Baltimore subway upgrades, and planning studies.⁸⁹ New projects, especially the Purple Line and Corridor Cities Transitway, could also be delayed.⁹⁰

The recent federal stimulus package will provide an injection of much-needed dollars into Maryland's transit system. In February, for example, Governor O'Malley announced that roughly 40 percent of Maryland's transportation budget from the first wave of stimulus funds will be used to support public transit, a move which represents an important first step in the right direction. However, the stimulus package is just the beginning. Far more must be done to plan for and fund the future of transportation in our state.

Maryland must solve its transportation finance problems in ways that ensure the continued safe operation of the state's roads and transit systems, a commitment it has already made. But when it comes to expansion projects, the lack of readily available funds should not cause state officials to throw up their hands. Rather, the state

Spending Transit Dollars Effectively with StateStat

When it comes to using taxpayer dollars, Maryland is taking pains to adopt new accountability and efficiency tools. Under Governor O'Malley, Maryland's public agencies have begun to use StateStat, an innovative datatracking system for government.

By systematically collecting and examining data on performance outcomes in regular meetings, management is able to identify successes, failures, and areas ripe for improvement across a broad range of administrative domains. Regular TransitStat meetings allow management to identify the source of problems and drive continual performance improvement along basic measures. For instance, since starting TransitStat in 2007, the program helped reduce light rail absenteeism hours by 9.7 percent and unplanned overtime by 30.8 percent.⁹² These improvements both save money and improve service for riders.

should develop a long-range, strategic plan for transit investments, identify the price tag of completing that plan, and then work to obtain the necessary resources to get the job done.

Many levels of government and other institutions have a role to play in achieving the goal of a 21st century transit system for Maryland.

Federal Government

The main federal transportation funding law—the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)—will sunset in the fall of 2009. Congress is being called on to create a new transportation funding bill. It is possible that the coming federal bill will be the most sweeping reform of federal transportation policy in nearly two decades. The Congressional Budget Office projects that the portion of the federal highway trust fund that pays for highway projects is projected to run out of money sometime during fiscal year 2009, with the public transit portion of the account scheduled to run out of money soon thereafter.⁹¹America's aging transportation network is increasingly in need of costly repairs. Meanwhile, with the memory of soaring gas prices still fresh and concerns about oil dependence still acute, Americans now perceive the downside of the highwaycentered investment policies of the last few decades, which leave too many Americans with few transportation choices. In short, the status quo cannot continue.

Maryland officials should campaign for a new federal transportation funding law that makes a large investment in needed improvements to transit systems and intercity rail, while focusing federal highway investment on the need to maintain and repair existing infrastructure. Federal money should be used in a targeted and strategic way to encourage transportation investments that minimize oil dependence, congestion, environmental pollution and sprawl, and encourage the development of compact, livable communities where driving is an option, not a requirement.

Such a dramatic shift would benefit Maryland by providing additional resources for needed transit projects. In addition to pushing for new federal transportation priorities, Maryland should also work aggressively through existing avenues to obtain federal funding for transit infrastructure projects, including new rail lines in Baltimore City and in Montgomery and Prince George's counties.

State Policy

While the federal government has an important role to play in funding public transportation, Maryland must engage its own transportation future. Yesterday's systems are failing to cope with today's problems, and fixing the problems will take both time and money.

In Maryland, as in many states around the country, the budget crunch is forcing government to prioritize spending. Transportation funding as a whole is threatened, public transportation in particular. Yet backing away from public transit in favor of highways is counter-intuitive at a critical moment when consumers are demanding *more* transportation options, not fewer.

Maryland must take steps to solve its

transportation funding crisis—and this can be accomplished by prioritizing public transit projects and taking steps to improve the efficiency of existing transportation services.

When planning investments in the state's transportation network, Maryland should first fix what it already has by mending roads and bridges and improving existing transit services. With regard to new projects, the state should prioritize making time- and money-saving investments in public transportation, rather than attempting to meet transportation demand with more highways. By expanding use of programs such as StateStat, Maryland can also help ensure that the transportation dollars invested in transit are being spent purposefully and efficiently.

Further, Maryland should align other public policies with a 21st century vision for transportation that is less dependent on automobiles and can take full advantage of improved public transit. The state should require that all proposed transportation investments be evaluated for their impact on oil dependence and global warming pollution. State government buildings should be located, to the extent possible, in areas with accessible transit service. And the state should require local governments to adopt land-use plans and zoning reforms that allow for and encourage compact development in and around transit stations.

Conclusion

A aryland's existing transit network is an asset for the state and it provides a strong backbone for transit expansions to help address congestion from a growing population, assist the state in cutting its global warming pollution, and insulate residents from future increases in gasoline prices.

There are myriad potential solutions to Maryland's transportation funding challenges, but obtaining money for transportation improvements is only half the battle—the state also needs a visionary, forward-looking plan for investing that money in ways that create and sustain a safe, affordable and extensive transportation system for the 21st century. The projects listed in this report should make up the core of Maryland's transit "to-do" list over the coming years. The state simply cannot afford to allow these projects to remain undone—for the sake of mobility, consumers' pocketbooks, and environmental concerns.

Notes

1 Vehicle-miles traveled figures from U.S. Federal Highway Administration, *Travel Volume Trends: Monthly Reports*, January 2007 through August 2008 (adjusted monthly data). Available at www. fhwa.dot.gov/ohim/tvtw/tvtpage.cfm. Ridership figures from National Transit Database, *Monthly Module Adjusted Data Release: Maryland Unlinked Passenger Trips*, *January 2007 to August 2008*, 6 October 2008. Available at www.ntdprogram.gov/ ntdprogram/data.htm.

2 Percent increase in VMT per capita 1980 to 2007 is 48.4 percent. Vehicle miles traveled from U.S. Department of Transportation, Federal Highway Administration, Highway Statistics series of reports, Historical Summary to 1995 and annual reports from 1996 to 2006; 2007 vehiclemiles traveled estimates from U.S. Department of Transportation, Federal Highway Administration, Traffic Volume Trends series of reports, February 2007 to January 2008. 1980s population estimates from U.S. Census Bureau, Intercensal Estimates of the Total Resident Population of States: 1980 to 1990, August 1996; 1990s population estimates from U.S. Census Bureau, State Population Estimates: Annual Time Series, July 1, 1990 to July 1, 1999, 19 December 1999; 2000s population estimates from U.S. Census Bureau, Annual Population Estimates, Estimated Components of Population Change and Rates of the Components of Population Change for the United States, Regions, and States, and Puerto Rico: April 1, 2000 to July 1, 2007, 27 December 2007.

3 Ibid.

4 U.S. Census Bureau, "Extreme" Commute Rankings, 2003 American Community Survey Tables, 30 March 2005.

5 David Schrank and Tim Lomax, Texas Transportation Institute, 2007 Annual Urban Mobility Report: Baltimore Performance Measure Summary, September 2007.

6 U.S. Census Bureau, Americans Spend More than 100 Hours Commuting to Work Each Year, Census Bureau Reports, 30 March 2005.

7 See Note 5.

8 Ibid.

9 Based on state gasoline expenditure data for 1980 through 2006 from U.S. Department of Energy, Energy Information Administration, State Energy Data 2006: Transportation Sector Energy Price and Expenditure Estimates, Selected Years, 1970-2006, Maryland, 28 November 2008, adjusted for inflation based on U.S. Department of Commerce, Bureau of Economic Analysis, National Income and Product Accounts Table, Table 1.1.9: Implicit Price Deflators for Gross Domestic Product, 25 November 2008.

10 Ibid.

11 U.S. Environmental Protection Agency, State CO₂ Emissions from Fossil Fuel Combustion, 1990-2005, downloaded from www. epa.gov/climatechange/emissions/downloads/CO2FFC_2005.pdf, 5 January 2009.

12 Passenger miles traveled increased, per Federal Transportation Administration, National Transit Database, *TS2.2* - Service Data and Operating Expenses Time-Series by System, downloaded from www. ntdprogram.gov/ntdprogram/data.htm, 5 January 2009.

13 1990s and 2000s population estimates: see Note 2, U.S. Census Bureau. Passenger miles traveled: see Note 12.

14 Lena H. Sun, "As Gas Prices Fall, Transit Still Popular," *Washington Post*, 2 December 2008.

15 See Note 12.

16 U.S. Federal Highway Administration, *Travel Volume Trends: Monthly Reports*, January 2007 through August 2008 (adjusted monthly data). Available at www.fhwa.dot. gov/ohim/tvtw/tvtpage.cfm.

17 National Transit Database, Monthly Module Adjusted Data Release: Maryland Unlinked Passenger Trips, January 2007 to August 2008, 6 October 2008. Available at www.ntdprogram.com/ntdprogram/data. htm.

18 See Note 5, page 36.

19 U.S. PIRG Education Fund, A Better

Way to Go: Meeting America's 21st Century Transportation Challenges with Modern Public Transit, March 2008, 24.

20 U.S. Department of Transportation, Federal Transit Administration, and Maryland Department of Transportation, Maryland Transit Administration, *Purple Line Alternatives Analysis/Draft Environmental Impact Statement*, September 2008.

21 Map credit: Arturo Ramos, under GNU Free Documentation license from the Wikipedia Commons.

22 Washington Metropolitan Area Transit Authority, *Trip Planner*, downloaded from www.wmata.com/rider_tools/tripplanner/ tripplanner.cfm, 19 December 2008.

23 See Note 20.

24 Ibid.

25 Ibid.

26 Ibid.

27 Prince George's County Planning Department, *Countywide Master Plan of Transportation* (Power Point), downloaded from www.mncppc.org/county/Transportation_MP/Webpage_Presentation.ppt, 19 December 2008.

28 PB Placemaking for Maryland Department of Planning, Prince George's County Planning Department, and Washington Metropolitan Area Transit Authority, *New Carrollton Transit-Oriented Development Strategy Planning Study*, September 2004.

29 Royce Hanson, Chairman, Montgomery County Planning Board, *The Chairman's Blog: A New Look for Takoma-Langley Crossroads*, 15 January 2008, available at mncppc.typepad.com/chairman/2008/01/ a-new-look-for.html.

30 Maryland Department of Transportation, *About Transit-Oriented Development*, downloaded from www.mdot-realestate. org/tod.asp, 19 December 2008.

31 The Woodrow Wilson Bridge Project,

Project Overview: Project Rationale, downloaded from www.wilsonbridge.com/poprojectRationale.htm, 13 February 2009.

32 Sierra Club, *Rail on the Woodrow Wilson Bridge: The Region Needs Rail on the Wilson Bridge*, [factsheet] downloaded from www. sierraclub.org/dc/sprawl/purple-line/railon-the-wilson-bridge.html#facts on 13 February 2009.

33 260,000: Maryland Department of Transportation, *I-270 Multi-Modal Study: About the Project*, downloaded from www. i270multimodalstudy.com/about-the-project, 16 December 2008. Percentage increase: U.S. Department of Transportation and Maryland Department of Transportation, *I-270 Multi-Modal Corridor Study*, *Draft Environmental Impact Statement and Section 4(f) Evaluation*, May 2002.

34 Maryland Department of Transportation, *I-270 Multi-Modal Study: Corridor Cities Transitway*, downloaded from www. i270multimodalstudy.com/corridor-cities-transitway/alternatives, 16 December 2008.

35 Maryland Transit Administration, *Projects*, downloaded from www.mtamaryland. com/projects/, 16 December 2008.

36 Maryland-National Capital Park and Planning Commission, *Transportation: The Corridor Cities Transitway*, downloaded from www.mc-mncppc.org/Transportation/projects/corridor.shtm, 15 December 2008.

37 See Note 34.

38 Ibid.

39 Subcabinet for Base Realignment and Closure, *State of Maryland BRAC Action Plan Report*, December 2007.

40 Ibid.

41 Ibid, page 9.

42 Eric Christiansen, Maryland Transit Administration, personal communication on 17 February 2009. 43 Maryland Department of Transportation, US 301 Waldorf Area Transportation Improvements Project: Statement of Need and Purpose, 15 December 2006.

44 Ibid.

45 Christy Goodman, "Transit Funds Cover Commuter Lots, Light Rail," *Washington Post*, 20 January 2008.

46 John Wagner and Katherine Shaver, "MD to Cut Funding of Roads, Transit," *Washington Post*, 11 September 2008.

47 Nancy Bromley McConaty, "Waldorfto-D.C. Express Bus Route in the Works," *Southern Maryland Newspapers*, 27 June 2008.

48 Amit Paley, "Dyson Pushes Light Rail, Expansion of Bridge," *Washington Post*, 13 February 2005.

49 Baltimore Metropolitan Council, *Transportation Outlook 2035*, downloaded from www.baltometro.org/content/ view/811/537/, 17 December 2008.

50 The Abell Foundation, *The Abell Report*, Volume 18(4), November/December 2005.

51 Ibid.

52 Maryland Department of Transportation, *Baltimore Region Rail System Plan: Report of the Advisory Committee*, August 2002.

53 Maryland Department of Transportation, Maryland Transit Administration, *Baltimore Region Rail System Plan: Existing and Proposed Lines Adopted March 2002 by the Rail Plan Advisory Committee*, August 2002. Downloaded from www.baltimorerailplan. com/pages/map.htm on 29 January 2009.

54 Maryland Department of Transportation, *Red Line Corridor Transit Study: Alternatives Analysis/Draft Environmental Impact Statement*, September 2008.

55 Ibid.

56 Ibid.

57 Ibid.

58 Ibid.

59 Ibid.

60 Assuming "Morgan State University" as start point and "Johns Hopkins Medical School" as end point. Maryland Department of Transportation, Maryland Transit Administration, *Trip Planner* [powered by GoogleMaps], downloaded from www. mtamaryland.com on 29 January 2009.

61 Maryland Department of Transportation, *Transit Options Under Consideration*, downloaded from www.baltimoregreenline.com/vehicle-options on 26 January 2009.

62 Maryland Department of Transportation, *Baltimore Regional Rail System Plan*, August 2002, 13.

63 Ibid.

64 33,000: American Public Transportation Association, APTA Ridership Report: Third Quarter 2008, 4 December 2008. Designed capacity: Maryland Transit Administration, MARC Growth & Investment Plan, September 2007.

65 Maryland Transit Administration, MARC Train Service, downloaded from http://www.mtamaryland.com/services/ marc/schedulesSystemMaps/marcTrain-SystemMap.cfm on 26 February 2009.

66 Ibid.

67 Michael Dresser, "MTA Cuts Service; Keeps 10:05 Train from Washington," *Baltimore Sun*, 31 December 2008.

68 See Note 65.

69 Ibid.

70 Ibid.

71 Ibid.

72 See Note 67, and Michael Dresser, "MTA to Cut Commuter Bus Routes," *Baltimore Sun*, 17 October 2008.

73 See Note 67.

74 Maryland Department of Transportation, *Governor O'Malley*, *County Executive Ulman Work Together to Maintain Commuter Bus service from Howard County* (press release), 5 December 2008.

75 U.S. Census Bureau, *Journey to Work: Residence County to Workplace County Flows for Maryland*, 6 March 2003.

76 Matt Zapotosky, "Gas Prices Prompt Bus System Growth," *Washington Post*, 29 May 2008.

77 Maryland Department of Transportation, Governor O'Malley, BPW Fuel Expansion of Successful Commuter Bus Program: Governor's Effort to Expand Transit Receives \$3.36 Million for Additional Service (press release), 21 May 2008.

78 See Note 76.

79 Maryland Department of Transportation, Governor O'Malley Announces Expansion of Commuter Bus Service for Eastern Shore: Added Trips Provide Express Transit Option to Washington During Bay Bridge Construction (press release), 28 August 2008.

80 Maryland Transit Administration, *MTA Commuter Bus: General Information*, downloaded from www.mtamaryland. com/services/commuterbus/serviceInformation/Commuter_Bus_General.cfm, 19 December 2008. Update from Eric Christiansen, Maryland Transit Administration, personal communication on 17 February 2009.

81 Ibid.

82 See Note 75.

83 Commuter Connections, *Guaranteed Ride Home*, downloaded from www.mw-cog.org/commuter2/commuter/grh/index. html, 22 December 2008.

84 William Menczer, Program Analysis Officer, Office of Policy Performance and Management, Federal Transit Administration, *Guaranteed Ride Home Programs: A* Study of Program Characteristics, Utilization, and Costs, 19 May 2006.

85 Frederick County Government, *TransIT's Service Menu* [brochure], downloaded from www.co.frederick.md.us/documents/ Transit/08RideGuide.PDF on 21 January 2009.

86 Ibid.

87 Maryland Department of Transportation, *National Economic Downturn Impacts Maryland Transportation Program* (press release), 10 September 2008.

88 In September, the state estimated a six-year shortfall of \$1.1 billion. See Note 87. By November, the projected shortfall had risen to \$2.5 billion, per John Wagner, "\$2.5 Billion Hit to Maryland Transportation Forecast," *Washington Post*, 19 November 2008.

89 See Note 87.

90 See Note 88, John Wagner.

91 William W. Millar, American Public Transportation Association, *On Public Transportation Funding for Fiscal Year 2009*: Testimony Before the Subcommittee On Transportation And Housing And Urban Development, And Related Agencies Of The U.S. House Committee On Appropriations, 16 April 2008.

92 Maryland Department of Transportation, MTAStat—October, Volume 2, Number 6, October 2008. Transportation Sector Energy Price and Expenditure Estimates, Selected Years, 1970-2006, Maryland, 28 November 2008, adjusted for inflation based on U.S. Department of Commerce, Bureau of Economic Analysis, National Income and Product Accounts Table, Table 1.1.9: Implicit Price Deflators for Gross Domestic Product, 25 November 2008.