



MOMENTUM
metro The Next Generation of Metro

momentum at a glance

Metro is at a critical juncture. Since the current rail and bus system was planned, the Washington metropolitan region has grown tremendously, and so has transit ridership. Yet investments and upgrades to the system have not kept up. Today's customers are experiencing the effects of years of chronic underfunding and underinvestment: aging equipment, deteriorating infrastructure and less-reliable service. Recent efforts to renew the system are helping matters, but will only bring the system back to where it should have been all along.

Meanwhile, the region is projected to continue to grow over the coming decades, and this growth will place even more pressure on a system that is already nearing capacity. Without an eye to the future of the Metro system – and how it might keep up with continued strong growth in the metropolitan area – the region's competitiveness itself may be at stake. Certainly, Metro must not only continue to rehabilitate the system, but it must also anticipate future growth to ensure that the region remains livable and competitive.

To plan for the future while rebuilding the system, Metro's leadership has created *Momentum*, a strategic plan that will guide Metro's decisions and business plans over the next 10 years and ensure that the system continues to support the region. Building on the Board of Director's governance improvements, a renewed safety and performance management culture, and the accomplishments of MetroForward, *Momentum*:

- Ensures that Metro will provide the transit system the Washington region needs to deliver hundreds of millions of trips to residents and visitors each year;
- Provides vision and guidance for decision making to efficiently meet the needs of today while proactively preparing to support the future needs of a healthy, prosperous, and competitive region tomorrow;
- Establishes priorities for near- and long-term action and establishes a vision for Metro's regional role that is consistent with language in the Metro Compact;
- Sets the stage for addressing Metro's chronic funding challenges, and among other items, specifically calls for an aggressive effort to

secure a reliable and sustainable source of funding for the system; and

- Calls on Metro to fill a critical role in regional transit leadership.

The General Manager/CEO's business plan and annual budget, which are already being implemented, support and ensure achievement of the long-term strategies in *Momentum*. It also bridges near-term activities to Metro's Regional Transit System Plan (RTSP), a transit expansion plan for the region in 2040 which will be released by mid-2013, and *Region Forward*, a broadly-endorsed 2050 vision to help the region meet future challenges.



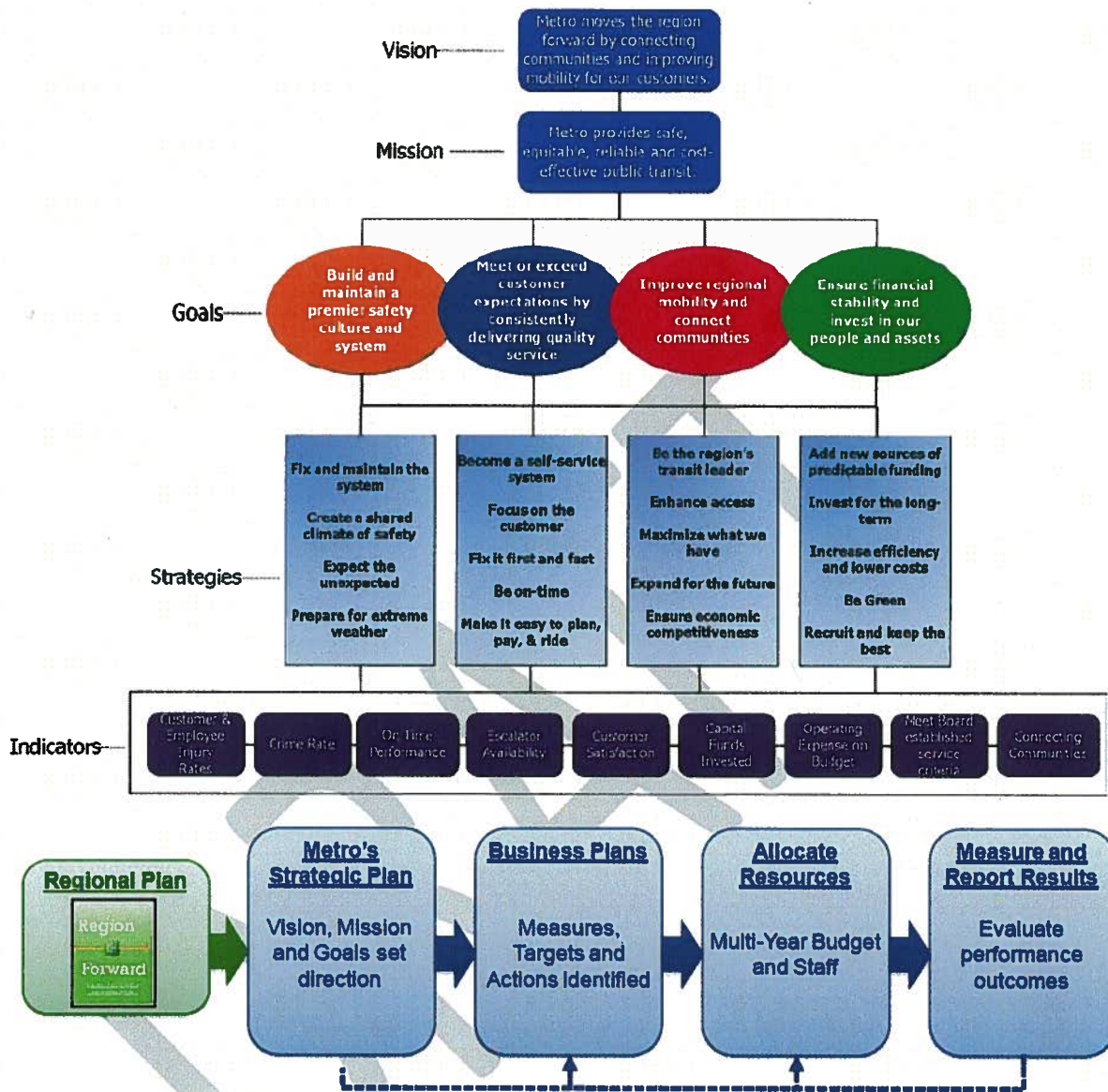


Figure 1 - Strategic Plan Architecture

Metro by the Numbers

In the late 1970s, Metro trains carried just over 100,000 passengers a day and hundreds of thousands of passengers on the bus system. In the last 20 years, rail average weekday ridership system-wide has gone from just over 500,000 in 1990 to almost 750,000 today, or 220 million trips annually, while bus ridership has stayed at a stable level of roughly 450,000 daily trips, or 134 million trips annually. Since Metro's opening, most rail stations in the core of the system have seen ridership more than double.

Notably, transit usage region-wide is on the rise:

- MWCOG's 2007/2008 household travel study found that 18 percent of the region's commuting trips are on transit – more than three times the national average;
- In the system's core, 43 percent of workers use transit to get to work; and
- Non-work trips on Metrorail are on the rise, and approximately 17 percent of all weekday trips are now conducted for non-work reasons (e.g. entertainment, shopping, etc.).

Today, Metro is the largest and most-used transit provider in the Washington region, providing more than 1.2 million safe, clean and reliable trips each day to a population of 4.6 million within a 1,300 square-mile area. By way of comparison Metro operates the second-largest heavy rail transit system, sixth largest bus network and fourth largest paratransit service in the United States. During the peak period, in addition to a growing local population base and tourists, more than 40 percent of Metro's riders are federal government employees.

Metro's Impact on the Region

Imagine for a moment the Washington region without Metro. Images of increased traffic congestion and lost productivity come to mind, and it turns out that these images likely understate the benefits that Metro conveys to the region today. *Making the Case for Transit* (2011) found that without Metro and the regional transit system that it feeds:

- There would be one million more auto trips per day;

Metrorail Average Weekday Ridership

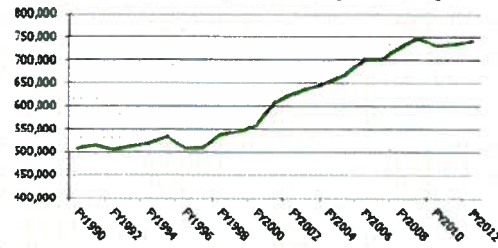


Figure 2 - Metrorail Average Weekday Ridership FY 1990-2012

Daily Ridership Growth

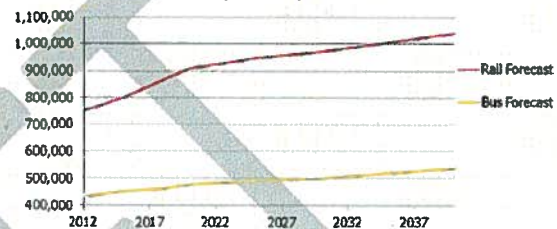


Figure 3 - Metrorail and Metrobus Daily Ridership Growth (forecast to 2040)

- Congestion would increase by 25 percent, resulting in billions of dollars in lost productivity annually;
- More than 1,000 new lane miles would be needed on highways and arterial roads;
- All river crossings would need four to six additional lanes;
- Downtown Washington would require 200,000 more parking spaces, which is the equivalent of 166 blocks of five-story garages, at a cost of at least \$4 billion (2012), excluding land;
- Congestion at peak times would increase 25 percent, costing over \$1.5 billion annually in wasted time and fuel;
- Households would spend an additional \$489 million/year in auto expenditures, including an additional 40.5 million gallons of fuel annually; and
- Air quality would worsen with an additional 260 tons of volatile organic compounds, 22 tons of particulate matter and 500,000 tons of CO₂ in the air.

Importantly, Metro does far more for the region than provide transportation alone. It also provides

economic, social, and environmental benefits which contribute to the region's health and vitality.

- Within a half-mile of rail stations and bus stops there are two million jobs, which account for 54 percent of all jobs in the region.
- Land within a half-mile of Metrorail stations accounts for less than one percent of the region's land, but absorbed 14 percent of the region's job growth between 2004 and 2010.
- The land around Metrorail stations generates \$3.1 billion annually in property tax revenues to the jurisdictions and of that, it is estimated that \$224 million would not exist without Metro. This increment helps pay for vital local services, such as:

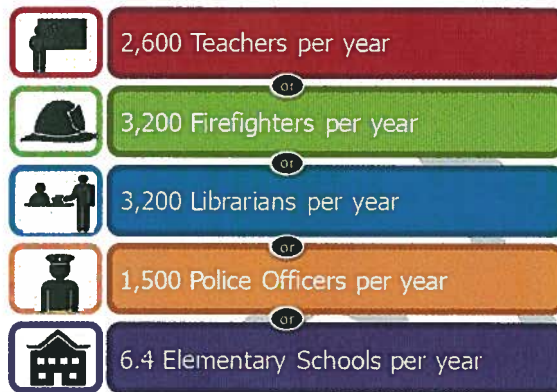


Figure 3 Source, WMATA Office of Planning, Preliminary Analysis

Rebuilding Inside and Out

Metro has been rebuilding inside and out, and the Board of Directors has been laying the foundation to rebuild Metro itself. From bringing on a new General Manager to putting in place the largest capital program since the inception of Metro, the Board has taken numerous actions to better equip the agency to succeed, including providing for a stronger governance foundation. As a result, Metro has made substantial progress on **improving system safety, reforming the agency's governance, and stabilizing its finances.**

With continued investment, it is projected that Metro will get through the intensive MetroForward "catch up" phase in the years ahead, which has already delivered:

- An aggressive escalator rehabilitation program;

- Continued improvement of elevator availability;
- Station repairs at Judiciary Square, Shady Grove, Rockville, White Flint, Twinbrook and Union Station;
- 461 new MetroAccess vehicles in service;
- Over 200 replacement or rehabilitated buses in service;
- Electrical upgrades to accommodate additional 8-car trains on some lines; and
- Replacement of over 14.7 miles of rail, 36 No. 8 guarded switches, 16,000 ties, 11,731 cross ties, 62,723 linear feet of running rail, 20,745 fasteners, 8,849 insulators and 9,829 linear feet of grout pads.

Metro is also preparing for future operations of the Silver Line to Dulles by expanding its fleet with its 7000 series railcars, the most advanced in the industry, expanding and training its workforce, and adding capacity for maintenance at its rail yards.

Stakeholder Support for Momentum

After initial intensive discussions by the Board and the executive leadership team, Metro drafted a new vision, mission and goals that reflect the priorities of the region. With this new strategic framework in hand, the Board of Directors and management launched a comprehensive outreach program for *Momentum*. Reflective of Metro's broad reach across the region, the outreach plan was extensive, seeking input from Metro's customers, the general public, jurisdictional and federal funders, key regional civic organizations, Metro's own employees, and stakeholders. Business and advocacy groups further extended the initiative's reach. Metro's partners simultaneously joined the effort to promote maximum exposure, regional reach, and breadth of input.

Among the most prominent shared areas of feedback from stakeholders were the following sentiments:

- ***Make no small plans (for Metro):*** Metro requires a grand vision and robust investments. Half measures will not do;
- ***Metro is critical to the region's future:*** The transit system is the region's circulatory system; tending to it is essential to competitiveness, prosperity, and enhanced qualities of life;

- **Continue rebuilding:** “Fix it” and make the system more reliable;
- **Reduce crowding:** Metro needs more capacity on both rail and bus;
- **Provide better customer information:** Customers want all types of trip information, on-demand, everywhere; and
- **Ensure stable funding:** Citizens, leaders, and businesspeople alike are unified in calling for sustainable, reliable funding for Metro.

Focusing on the Future

Over the next three decades, the Washington region is forecast to experience increased growth, including a 30 percent increase in population and a 39 percent increase in employment. This would be equivalent to adding the population of the city of Philadelphia or Houston to the region.

The region is expanding beyond its historical urbanized areas into previously undeveloped suburbs while adding more density to developed areas. Numerous villages, “town centers”, urban revitalization areas, and revitalized inner suburbs are signs that the D.C. area now functions as a “regional city” – one that needs transit provision in places where the original system was never designed to go and may not be effective in meeting this new demand.

Additionally, planned expansions of local transit services such as light-rail transit (LRT), bus-rapid transit (BRT), streetcar, commuter rail, and local bus service will feed additional demand onto the rail system and eventually the system’s core, where 70 percent to 80 percent of existing rail trips link or terminate. These new, regionally significant transit projects and services total almost \$7 billion and include projects such as:

- Metrorail Silver Line Phase II to Dulles Airport and Loudoun County (VA);
- Streetcars on H Street, NE and Anacostia SE (DC) and Columbia Pike and US 1 (VA);
- Bus Rapid Transit/Busways on Veirs Mill Road (MD), Corridor Cities (MD), Crystal City/Potomac Yard (VA), Van Dorn to Pentagon (VA), and K Street, NW (DC);
- Light Rail Transit on the Purple Line (MD); and
- Potomac Yard Metro station (VA).

All of the above projects depend on Metro to be in prime operating condition to absorb new passengers – yet there is no funding currently to upgrade the regional core itself to accommodate this demand. Moreover, there is limited coordination between the 15 or so systems that also provide service in the region, raising the potential for a disorganized and inefficient future transit network that does not deliver convenience, simplicity, or interoperability for the customer.

Delivering the Transit System the Region Needs

Tomorrow’s Washington region will require mobility solutions that not only alleviate system congestion today, but ones that connect new communities, deliver a safe and comfortable passenger experience, become a preferred means of travel in the region, and do so in a manner that is financially sound and sustainable. This is no simple task, to be sure, and serving tomorrow’s Washington region will certainly require exploring and making difficult decisions, today.

After achieving a steady state of maintenance, Metro’s first priority will be maximizing the current transit network and squeezing every last bit of capacity out of the system. Such plans may indeed better serve the region as it has evolved over the last 35 years, but they are only the foundation necessary to meet the needs of the region of the future.

Metro leaders have already begun the planning and engineering work necessary to serve the region today and tomorrow. This foundational work lays out three clear investment thresholds that the region must consider, each of which has differing funding needs, as well as differing levels of impact on the metropolitan area’s mobility, sustainability, and prosperity.

Maintain the Existing System

Once rehabilitated, the system will require ongoing and sustained reinvestments as it continues to age and deteriorate – the system never becomes free of capital needs. Current estimates suggest that Metro requires at least \$1 billion (in \$2012) per year simply to support and maintain the existing system, even after rehabilitation. This amount achieves a “state of good repair” for the existing system, but would not be enough to address issues of crowding and capacity nor serve the needs of a growing region.

Metro 2025

Metro leaders have already formulated a series of seven initiatives to not only meet current demand but also prepare the system to keep up with the other regional investments and help the region maximize the return on these investments. These initiatives, which should be completed by 2025 if they are to have maximum impact, will increase system and core capacity and improve the effectiveness of the rail and bus networks. They will also make it more likely that the region's non-Metro transit investments will have the results that the region needs and expects. These projects, which require an additional \$500 million in funding annually through 2025 would:

- Enable Metrorail to operate all eight-car trains during peak periods, and have the rail cars, power, and storage to do so;
- Complete the Metrobus Priority Corridor Network (PCN);
- Improve core stations including pedestrian underground connections, mezzanines, platforms, and stairs/escalators;
- Add pocket tracks/turnbacks where necessary to eliminate choke points;
- Install a next-generation communications infrastructure for customer-facing needs, such as trip planning, payment, and regional transit network navigation;
- Accommodate bus service growth and emerging corridors through fleet expansion; and
- Add infrastructure to increase service between key stations.

Metro 2040

Implementing Metro 2025 means that the region will have the transit network that can serve the region in the next decade. However, it stops short of giving the region a transit system that is built with the future in mind. Questions about whether the region will live up to its growth potential without a transit system built to accommodate the world in 2040 are

fair to ask – as is asking about the quality, conditions, and reliability of the system in 2040 should the region still rely on one built for 2025.

Elements of Metro 2040, all of which require Metro 2025 as a precursor, are still preliminary as Metro's long-range plan is still under development and elements remain to be identified and evaluated. Those that have been identified and are in the preliminary evaluation stage are listed below, and those that are specific to Metro will require additional capital funding of approximately \$740 million per year through 2040, in addition to the investments in Metro 2025 and funding necessary to maintain the system as it is. Examples of some of the components of Metro 2040, which in full will be released in the Regional Transit System Plan in mid-2013, currently include the following:

- Separate the Blue and Yellow lines from the Orange and Green Lines, respectively, through the system core;
- Build express tracks for the Silver/Orange Lines in VA;
- Create Metrorail extensions on Orange (VA) and Blue (VA and MD) lines;
- Add BRT or LRT from Dunn Loring (VA) to Tysons (VA) and White Flint (MD) across the Legion Bridge;
- Add BRT or LRT from New Carrollton (MD) to Alexandria (VA) across the Wilson Bridge;
- Deliver enhanced commuter rail and bus service;
- Build streetcar connections across Potomac River;
- Deliver enhanced and coordinated regional BRT system; and
- Build streetcar extensions to Lincolnia and on Route 7 to Tysons.

The Strategy

The strategies support the vision of tomorrow’s transit ride as well as give guidance to the types of investments and decisions that Metro can and must make in order to achieve this vision and support the region.

Goal 1 – Build and Maintain a Premier Safety Culture and System

<p>Fix and Maintain the System</p>	<p>Metro will continue its efforts to return to and keep the system equipment and infrastructure in good condition. Metro will use data-driven and science-based methods to allocate resources, use system safety practices and principles and environmental design to enhance safety, and seek to meet or exceed national safety and security standards for transit.</p>
<p>Create a Shared Climate of Safety</p>	<p>Metro will work with employees, riders, jurisdictional partners, and the general public to make sure that everyone does their part in creating and sustaining a culture of safety and security in stations, vehicles, support facilities, and access points. Metro will enhance its communications feedback loops to bring critical safety information to empowered agents quickly, to prevent accidents before they happen.</p>
<p>Expect the Unexpected</p>	<p>Metro will continue to support the region’s emergency transit management and security readiness protocols, and seek to make transit emergency protocols widely- and easily-understood. Metro will maintain regional evacuation capability and prepare for any event that requires wide-scale response. On a smaller scale, Metro will continue to improve incident response timing, planning, preparation and investigation.</p>
<p>Prepare for Extreme Weather</p>	<p>Extreme weather is becoming more commonplace. Metro will continue to design and build the system, as well as implement operational protocols, which assume extreme weather may become the “new normal”. Facility enhancements, new equipment and strategic partnerships will also improve Metro’s ability to adapt to changing weather patterns.</p>

Goal 2 – Meet or Exceed Expectations by Consistently Delivering Quality Service

<p>Become a Self-Service System</p>	<p>Metro was designed to become a self-service system. Completing this design objective will ensure that customers can experience the system smoothly and Metro can re-allocate resources optimally.</p>
<p>Focus on the customer</p>	<p>Metro will focus on the needs of Metro’s customers at all stages of a trip, and optimize its customer-facing employee approach.</p>
<p>Fix it first and fast</p>	<p>Metro’s results focused maintenance approach is critical to keeping assets in a state of good repair and services running reliably. Metro will collect and utilize data on the performance of Metro’s system in order to deploy resources.</p>
<p>Be on-time</p>	<p>Metro is dedicated to delivering service on time. Metro will continue to adjust service delivery to improve reliability, reduce crowding, and better serve travel markets.</p>

Make it easy to plan,
pay, & ride

Metro will provide customers with accurate and timely information for navigating the region and for trip planning, including real-time information on arrivals and departures, or delays and incidents. Adopting new technologies and policies will help Metro offer easy and seamless planning and payment options for trips throughout the region.

Goal 3 – Improve Regional Mobility and Connect Communities

Be the region's transit
leader

Metro is not only the region's largest transit provider, but is chartered as the region's transit planning entity. Through leadership and partnerships, Metro will guide regional integration, ensuring that today and tomorrow's regional transit services move people where they want to go, seamlessly.

Maximize what we
have

Metro will meet growing demand and address overcrowding by optimizing the capacity of the existing infrastructure. In addition, Metro will work with local jurisdictions to implement transit priority improvements on the street to move buses faster.

Enhance access

Access to and linkages between stations/stops and services is the basis for a successful transit network. Metro and its partners have added sidewalks and bike lanes and connected local bus services to stations, but there is still much work to be done. Metro will continue to improve the usability of multiple modes of transit and the overall accessibility of the entire system to all riders.

Expand for the future

Metro will work with local partners to enlarge the rail and bus network to provide high-quality transit to communities across the region.

Support the region's
economic
competitiveness

Transit is the backbone of the region and a key to its vitality. Metro will continue to support the development of places where people want to invest, live and work.

Goal 4 – Ensure Financial Stability and Invest in our People and Assets

Add new sources of
predictable funding

Metro will work with regional and federal partners to develop a reliable funding source for transit. Metro is already working with regional partners to develop multi-year budgets to form the basis of stable funding agreements.

Invest for the long-
term

Vehicles, tunnels, bridges, stations and systems are all valuable physical assets for the region that will require replacement. Metro will prioritize and replace assets with a view to providing long-term safety, reliability and cost savings.

Increase efficiency and
lower costs

Metro will operate efficiently by focusing on key cost drivers, improving business processes, and using technology more effectively.

Be Green

Metro will employ technologies and practices to reduce consumption of natural resources and pollution. Lower energy usage, alternative fuels, and sustainable development criteria will be considered for new facilities and vehicles.

Recruit and keep the best

Continued growth and development throughout the region will require Metro to respond as a high performance organization. Metro will develop the people to meet the task by hiring quality candidates, providing training and career development, offering competitive compensation and acknowledging exemplary employees.

Implementing Momentum

Delivering the transit system that the region needs will require an unequivocal commitment of additional resources from internal and external stakeholders. Simply put, the rehabilitation work being accomplished at the time of the writing of this document will not be nearly enough to keep up with the region's needs, and without additional resources it will be unlikely that the region can continue to enjoy a transit network that contributes to competitiveness and makes the Washington metropolitan area one of the most desirable places to live and work.

Metro's annual PRIAA capital appropriation, and the regional demand for expanded transit capacity.

In the near future, *Momentum* will generate numerous action items and identify roles and responsibilities, as well as sources of funding, for action.

Next Steps

In the immediate future, *Momentum* can move into an action phase with the following:

1. Consensus from the Board on the plan;
2. Feedback and endorsement from key stakeholders such as the jurisdictional funders; Congressional Delegation and others;
3. After endorsement, execution of the most effective funding mechanism; and
4. Integration into General Manager and Department business plans.

With the above in hand, *Momentum* can immediately begin work on delivering the transit system of the future and the network that the region needs and deserves.

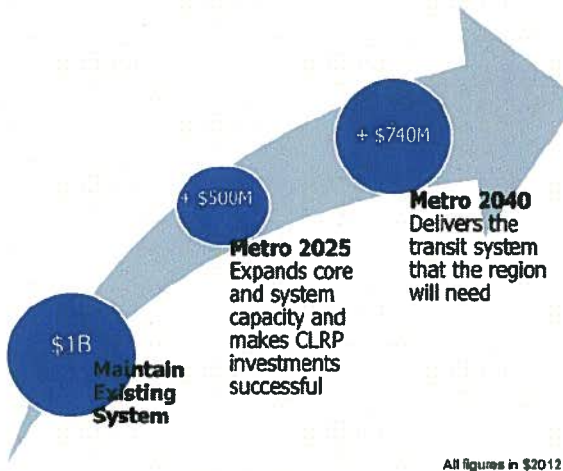


Figure 4 Momentum's Order of Magnitude Annual Capital Funding Needs

To accomplish the goal of continuing to support the region through the transit vision articulated in *Momentum*, Metro must first tackle two funding issues. First, Metro must work to ensure it continues to receive the robust capital funding from its local, state and federal partners that it has in recent years. Second, Metro must work with the region to find new mechanisms that could generate revenue for Metro, especially considering federal and state funding uncertainty, the looming expiration of