District Department of Transportation

DC Circulator

Transit Development Plan

Final Report
April 2011

Contents

EXECUTIVE SUMMARY

Executive Summary 2

Purpose 5

Planning Process 5

DC Circulator Strategic Goals and Objectives 6

Recommended Plan 6

Governance 11

CHAPTER 1: INTRODUCTION

1.1 Purpose 12

1.2 Planned Transit Service 13

CHAPTER 2: PLANNING PROCESS

2.1 Public Involvement 20

2.2 Strategic Goals and Objectives 20

2.3 Operations Analysis 20

2.4 Needs Assessment 21

2.5 Prioritize Future Growth 21

CHAPTER 3: STRATEGIC GOALS AND OBJECTIVES

3.1 Founding Goals 23

3.2 Proposed Goals, Objectives, & Performance Measures 24

CHAPTER 4: PUBLIC ENGAGEMENT

4.1 Rider Survey 29

4.2 Online Survey 32

4.3 Focus Groups 33

4.4 Community Advisory Panel 34

4.5 Open Houses 37

CHAPTER 5: OPERATIONS ANALYSIS

5.1 Fare Structure 40

5.2 Operations Analysis 41

5.3 Key Findings 51

5.4 Opportunities for Improving the Existing System 51

CHAPTER 6: GROWTH CORRIDORS AND PHASING

6.1 Activity Centers 55

6.2 Growth Corridors 57

6.3 Recommended Corridors 59

6.4 Phasing of Corridors 72

6.5 Route Development 77

CHAPTER 7: IMPLEMENTATION PLAN

7.1 Phase I Service Changes 78

7.2 Phase I Corridor Detail 81

CHAPTER 8: RESOURCE MANAGEMENT

8.1 Fleet and Facilities management 86

8.2 Bus Priority Treatments 90

8.3 Financial plan 92

8.4 Marketing 96

CHAPTER 9: GOVERNANCE

9.1 Decision-Making Procedures and Responsibilities 99

9.2 Standards for Decision-Making 100

9.3 Public Participation Process 101

9.4 Circulator Plan Updates 101

Appendices to this report are provided under separate cover.

Executive Summary

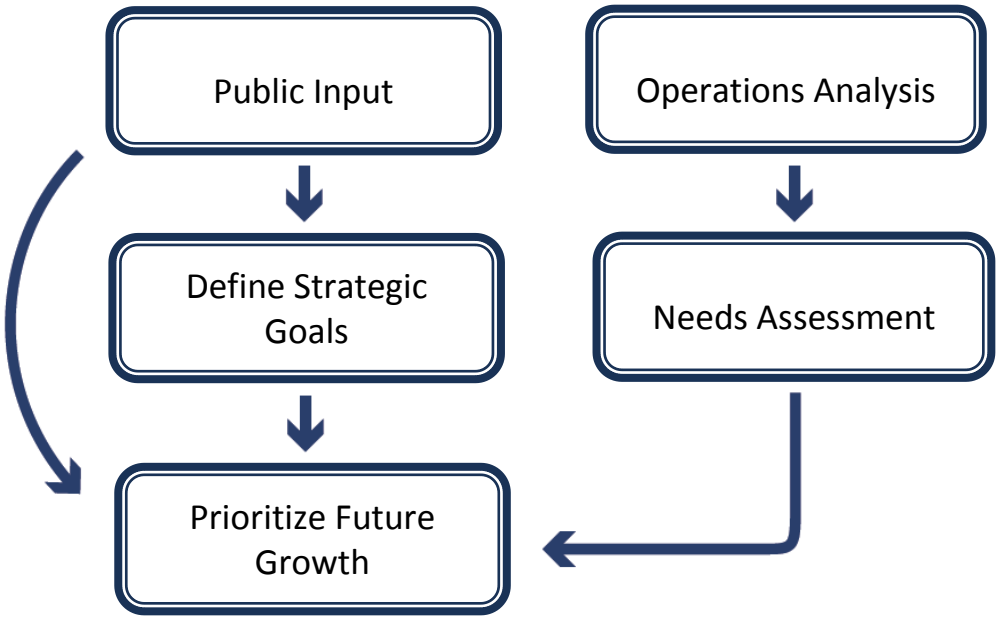
PURPOSE

The purpose of the *DC Circulator Transit Development Plan* is to guide the future growth of the DC Circulator bus system. Since beginning service in 2005, the Circulator has grown from an initial two routes to a more extensive network of six routes. It provided more than 4.8 million trips in 2010 and is the fourth largest bus system in the region in terms of ridership. This success has led to increased demand for additional Circulator service, and this plan is meant to provide a basis for directing that growth.

PLANNING PROCESS

DDOT followed a dynamic planning process that integrated extensive public input, detailed operations analysis, and a comprehensive needs assessment. These inputs ultimately allowed DDOT to evaluate and prioritize alternatives for system expansion. The identification and analysis of major activity centers and growth corridors were a central aspect to this planning process.

Figure ES-1: Planning Process for the Circulator Transit Development Plan



DC CIRCULATOR STRATEGIC GOALS AND OBJECTIVES

The strategic goals and objectives of the Circulator system have evolved after several years of actual operations and expansion of service. The goals, redefined with input from the public and key stakeholders, provide a framework for the future growth of the system. Performance measures were identified to reflect each goal and are used to analyze current operations and plan for the future.

GOAL 1: Provide a high-quality transit network

GOAL 2: Maximize financial and operational return on investment.

GOAL 3: Promote economic activity in existing and developing activity centers and support a transit-oriented lifestyle.

GOAL 4: Improve mobility within and access to and from the monumental core.

RECOMMENDED PLAN

The strategic goals and objectives guided the identification of potential new service, as well as an in-depth evaluation of current operations, ultimately leading to proposed service changes and recommended corridors for future growth.

Service Changes

- Increase the cash fare to $2.00. This would be the first Circulator fare increase since the system's inception and could generate over $1 million in revenue for Circulator operations.
- Consolidate bus stops to achieve limited-stop service on all routes.
- Establish a system-wide core span of service, resulting in new weekend and evening service on Union Station – Navy Yard.
- Move bus stop locations from the Union Station parking deck to Columbus Circle.
- Discontinue the Smithsonian–National Gallery of Art route and pursue enhanced National Mall service with the National Park Service.
- Suspend the Convention Center – Southwest Waterfront route until activity centers along the route are more fully developed and more robust service is offered on the National Mall.
- Reduce late-night service on the Woodley Park – Adams Morgan – McPherson Square Metro route to from 3:30 a.m. to 2:00 a.m.
- Invest in mid-life rehabilitation of the current fleet and include bus stop annunciators and dot matrix signs.

Recommended Corridors

The recommended corridors were selected based on current projections of demographic growth, economic development, and anticipated transit need. The 11 recommended corridors include:

Phase I: Near-Term (FY 2012-2015)

- Union Station – Skyland – Camp Simms
- Dupont Circle-Georgetown-Rosslyn extension to U St/Howard University
- North Mall—Union Station to Georgetown
- South Mall—Union Station to Arlington Cemetery
- Union Station—Navy Yard extension to NoMa
- Dupont Circle—Southwest Waterfront – Navy Yard

Phase II: Mid-Term (FY 2016-2018)

- Adams Morgan—H St NE
- St. Elizabeths Campus/Congress Heights—H St NE
- Tenleytown—Brookland

Phase III: Long-Term (FY 2019-2020)

- Tenleytown—Silver Spring
- Minnesota Avenue to Skyland

The recommended corridors considered existing and projected land uses, but the District's growth and needs are dynamic factors within the planning process. DDOT recognizes that effective long-term planning should adapt to the changing contexts and conditions of the District, including coordination with Streetcar and local Metrobus improvements. DDOT will reassess proposed service before any route is implemented through continued public participation and triennial updates to the Transit Development Plan.

Figure ES-2. Proposed DC Circulator Expansion Plan: Phase I Recommended Corridors (FY 2012 – 2015)

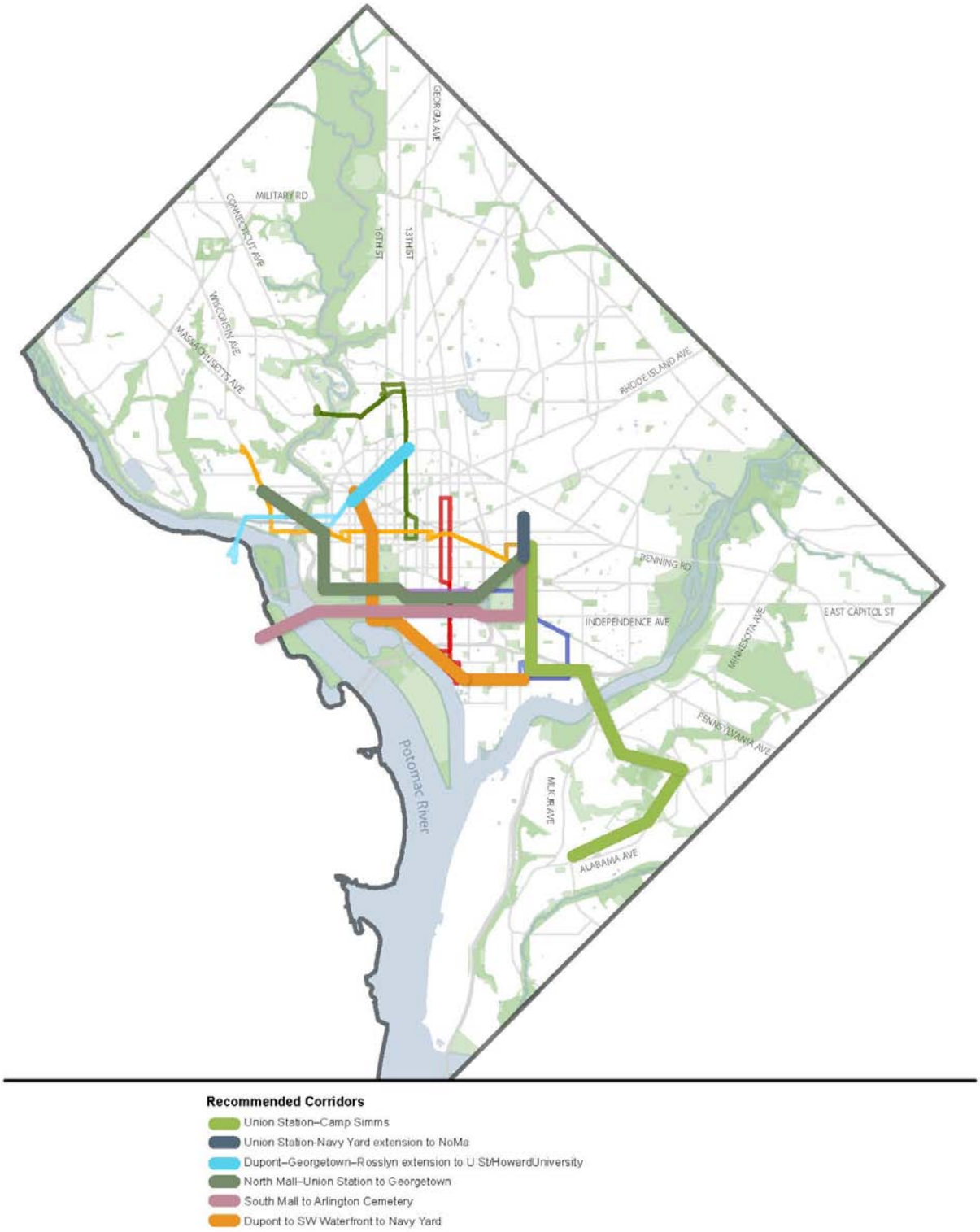


Figure ES-3. Proposed DC Circulator Expansion Plan: Phase II Recommended Corridors (FY 2016 – 2018)

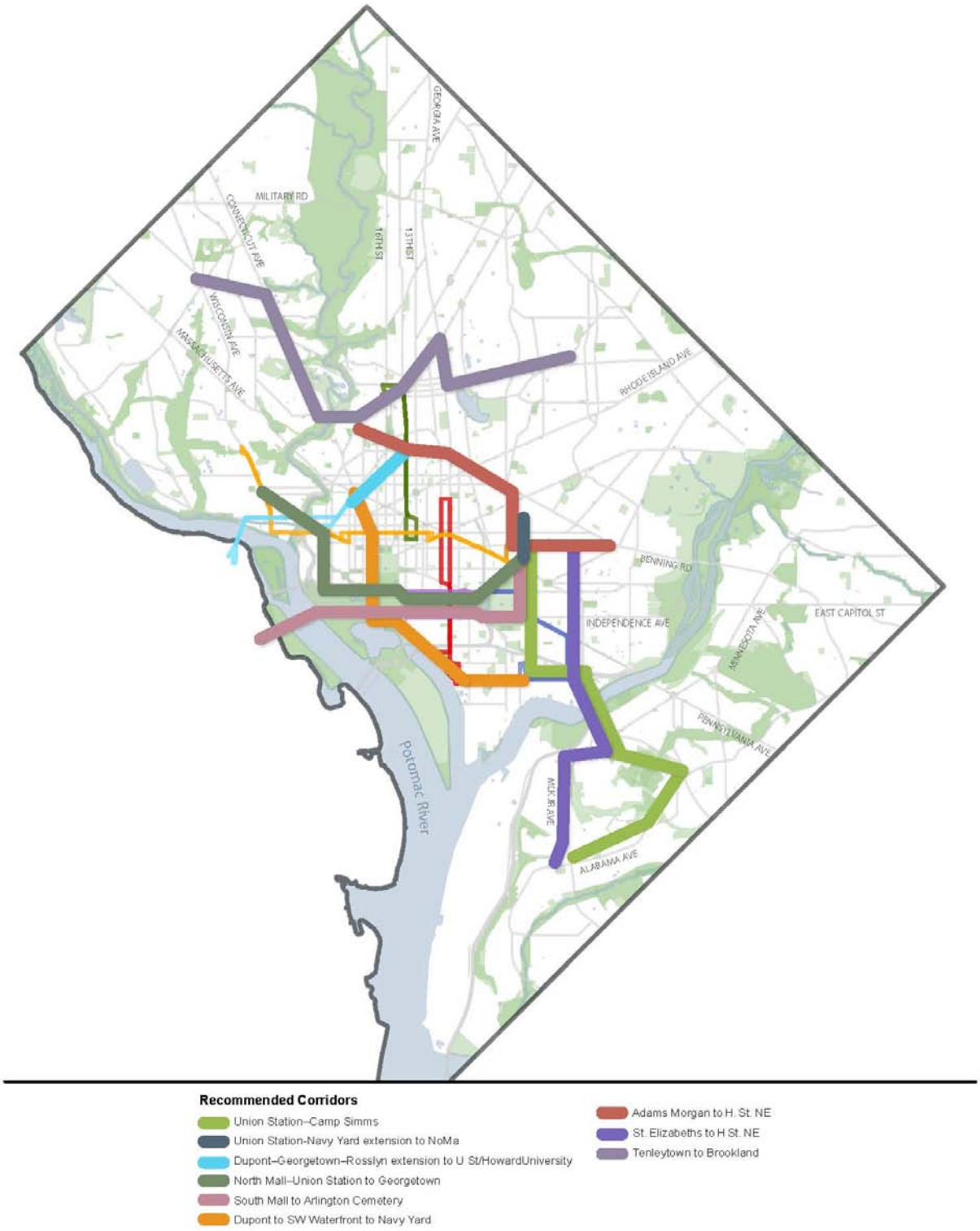
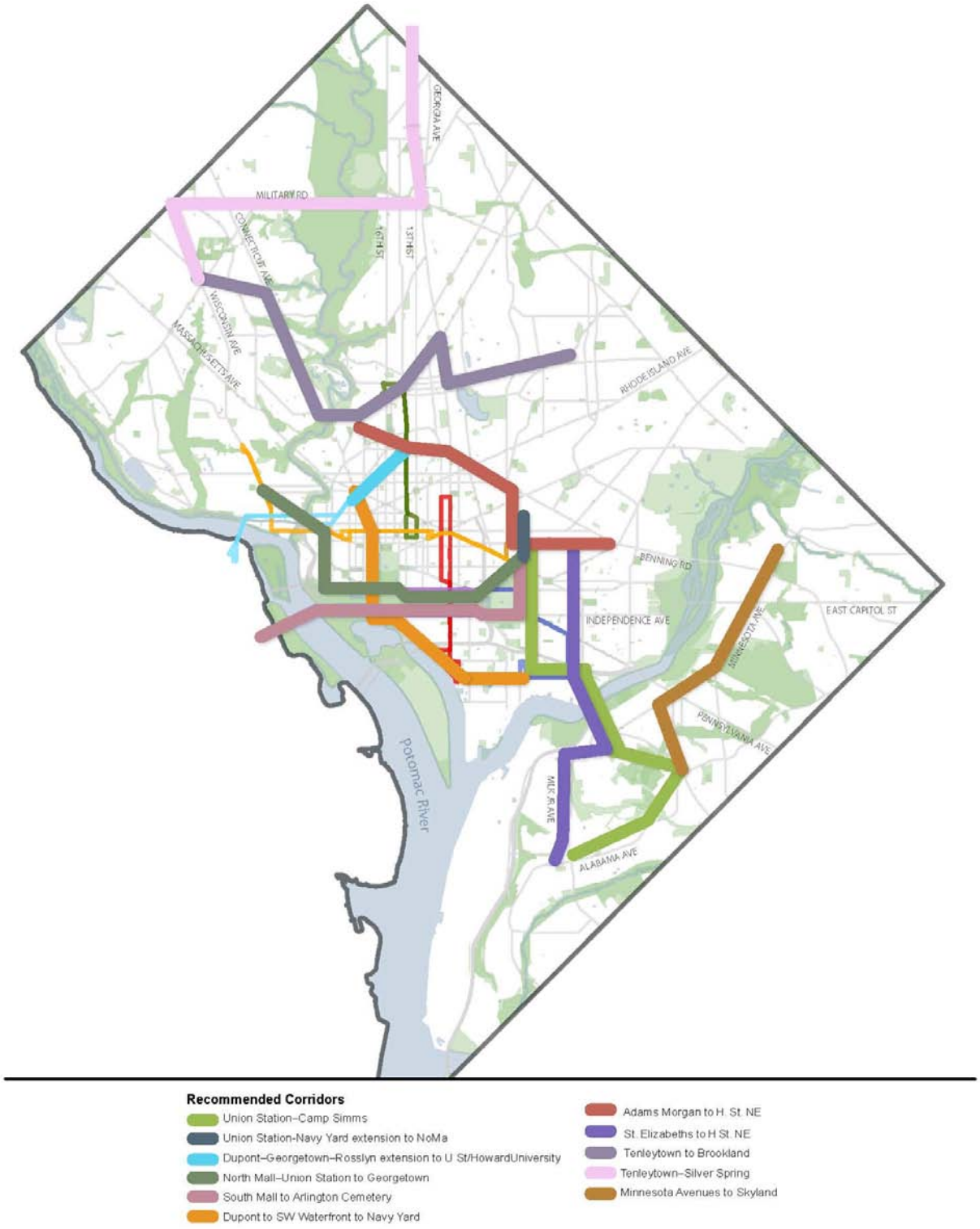


Figure ES-4. Proposed DC Circulator Expansion Plan: Phase III Recommended Corridors (FY 2019 – 2020)



GOVERNANCE

Along with the Transit Development Plan, DDOT is proposing an interim governance structure that will be aligned with the DC Streetcar governance system as it develops. Governance – including procedures and standards for decision-making, public participation, and general accountability – is essential as Circulator system continues to grow. The proposed policy establishes standards for all DC Circulator routes, including 10-minute headways and 20 boardings per revenue hour. It also commits DDOT to semi-annual public forums, regular updates of the *DC Circulator Transit Development Plan*, and public review periods for substantial changes to the existing system.

Chapter 1
Introduction

1.1 PURPOSE

The purpose of the *DC Circulator Transit Development Plan* is to guide the future growth of the DC Circulator bus system. Since beginning service in 2005, the Circulator has grown from an initial two routes to a more extensive network of six routes. The Circulator is known for its strong brand, including:

- Distinctive, comfortable buses;
- High-frequency service (all day, 10-minute headways);
- Easy to understand routes; and a
- Simple, affordable fare structure.

In 2010, the DC Circulator provided more than 4.8 million trips and now operates a fleet of 49 buses. It is the fourth largest bus system in the region in terms of ridership. This success has led to increased demand for additional Circulator service, and the purpose of this plan is to provide a basis for directing that growth. The plan was commissioned by the District Department of Transportation (DDOT) in partnership with DC Surface Transit, Inc. (DCST) – a non-profit formed by the business improvement districts, Washington Sports and Convention Authority, National Capital Planning Commission, and Destination DC to market and plan DC Circulator service.

The purpose of the plan is to:

- Provide a transparent planning and decision-making process through a broad outreach and participation process;
- Define measures and criteria to use in planning new service;
- Create a framework for service expansion and improvements; and
- Develop a usable, living plan for near- and long-term future growth.

The DC Circulator was originally conceived as "a simple, inexpensive, and easily navigable surface transit system that complements Metrobus and Metrorail", as provided by the Washington Metropolitan Area Transit Authority (WMATA).[1] The goal was to stimulate economic activity by facilitating visitor access to neighborhoods in the District of Columbia and to improve mobility for downtown workers around the central core during the workday. This plan will expand upon the original Circulator vision by planning for the growth of the service throughout the District over the next 10 years.

[1] *District of Columbia Downtown Circulator Implementation Plan*, July 2003

1.2 PLANNED TRANSIT SERVICE

This section provides a snapshot of planned transit service within the District and outlines the vision for land use changes and transit at the neighborhood and small area level. By reviewing existing studies and understanding the needs of key stakeholders, DDOT was able to identify where development would occur over the next 10 years and where improved transit connections were needed.

1.2.1 Existing Studies

DDOT analyzed transit needs through an extensive review of existing transportation and land use studies at both the District and neighborhood levels. Through the review of these studies, DDOT developed an understanding of transit service currently planned in DC (including the Streetcar network and WMATA's plans for increased limited stop bus service in its Priority Corridor Network). The plans that were reviewed to provide input to the Circulator planning process are listed in Box 1-1.

The plans reviewed include a number of small area plans and neighborhood-level transportation studies, as well as area visioning documents and action agendas. Neighborhood-level plans were reviewed for both transportation needs and any projected significant land use changes in the areas studied. Appendix B to this report documents a complete review of all these plans, including the aspects most relevant to Circulator planning.

Several plans, outlined below, are particularly relevant to the future growth of the DC Circulator.

Box 1-1.

Relevant Transportation & Land Use Studies

Transportation

- D.C. Circulator Implementation Plan (2003)
- D.C. Neighborhood Circulation Study (2009)
- D.C.'s Transit Future System Plan (2010)
- D.C. Comprehensive Plan, Chapter 4 – Transportation Element (2006)
- National Capital Parks Central Washington, D.C. Visitor Transportation Survey (2003)
- Washington, DC Visitor Transportation Study for the National Mall and Surrounding Park Areas – Environmental Assessment and Finding of No Significant Impact (2010)
- Draft National Mall Plan /Environmental Impact Statement (2009)
- An Evaluation of the Metrobus Priority Corridor Networks (2010)

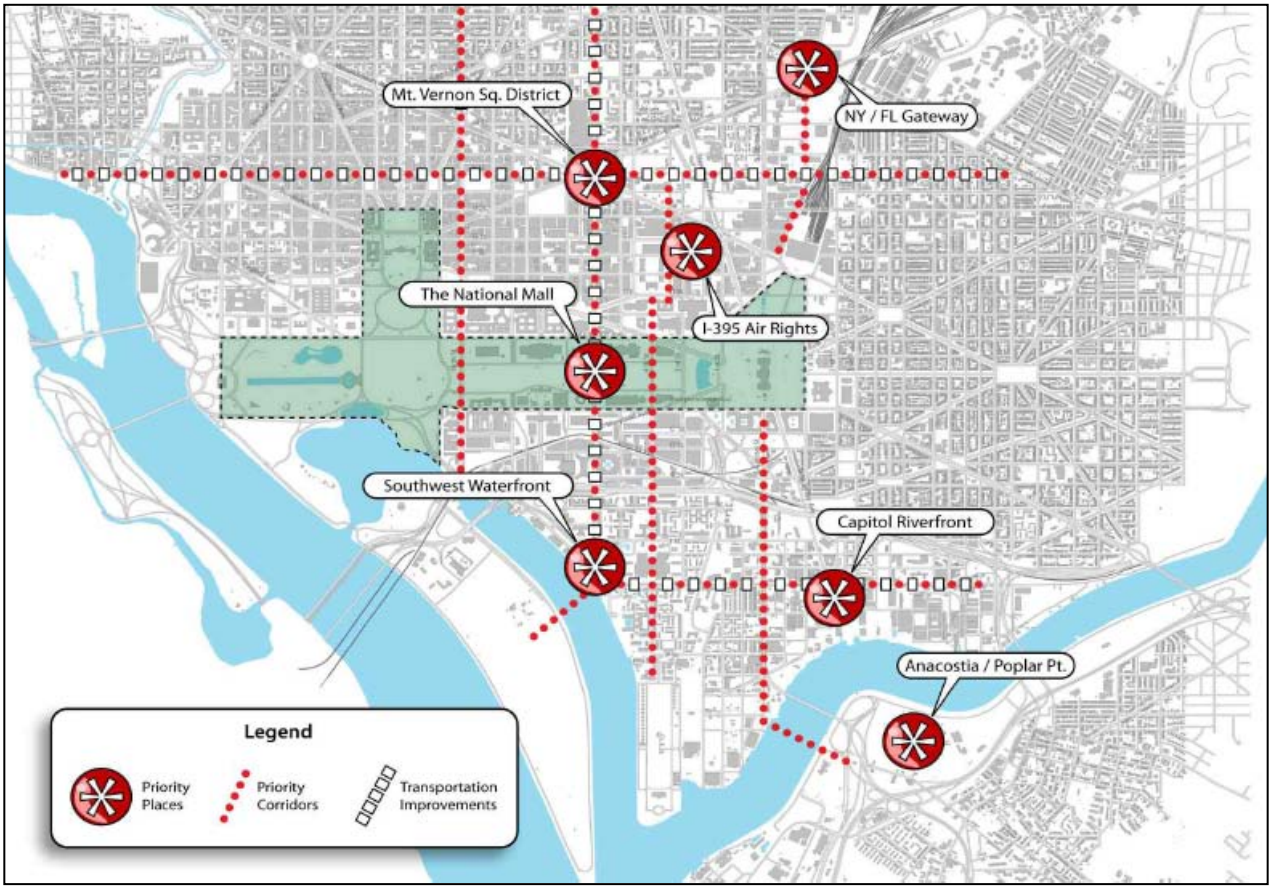
Land Use

- Mount Vernon Triangle Transportation and Public Realm Design Project Final Report (2006)
- NoMA (North Massachusetts Avenue) Neighborhood Access Study and Transportation Management Plan (2010)
- Draft White House Area Transportation Study (2010)
- NoMa Vision Plan and Development Strategy (2006)
- K Street Land Use Vision (2009)
- Brookland/CUA Metro Station Area Plan (2009)
- St. Elizabeths East Redevelopment Framework Plan (2008)
- Anacostia Transit Area Strategic Investment and Development Plan (2004)
- Pennsylvania Avenue SE Corridor Land Development Plan (2008)
- Convention Center Area Strategic Development Plan (2005)
- Center City Action Agenda (2008)
- Downtown Action Agenda (1999/2000)

Center City Action Agenda

The *Center City Action Agenda* (2008) identified a number of priority development nodes in the District that are locations of high activity that could potentially support high frequency service. Many of these locations are just outside the historic downtown core and could benefit from improved transportation, as they were not the focus of high-frequency transit service in the District as it developed to serve existing land use patterns (Figure 1-1).

Figure 1-1: Center City Action Agenda Priority Places

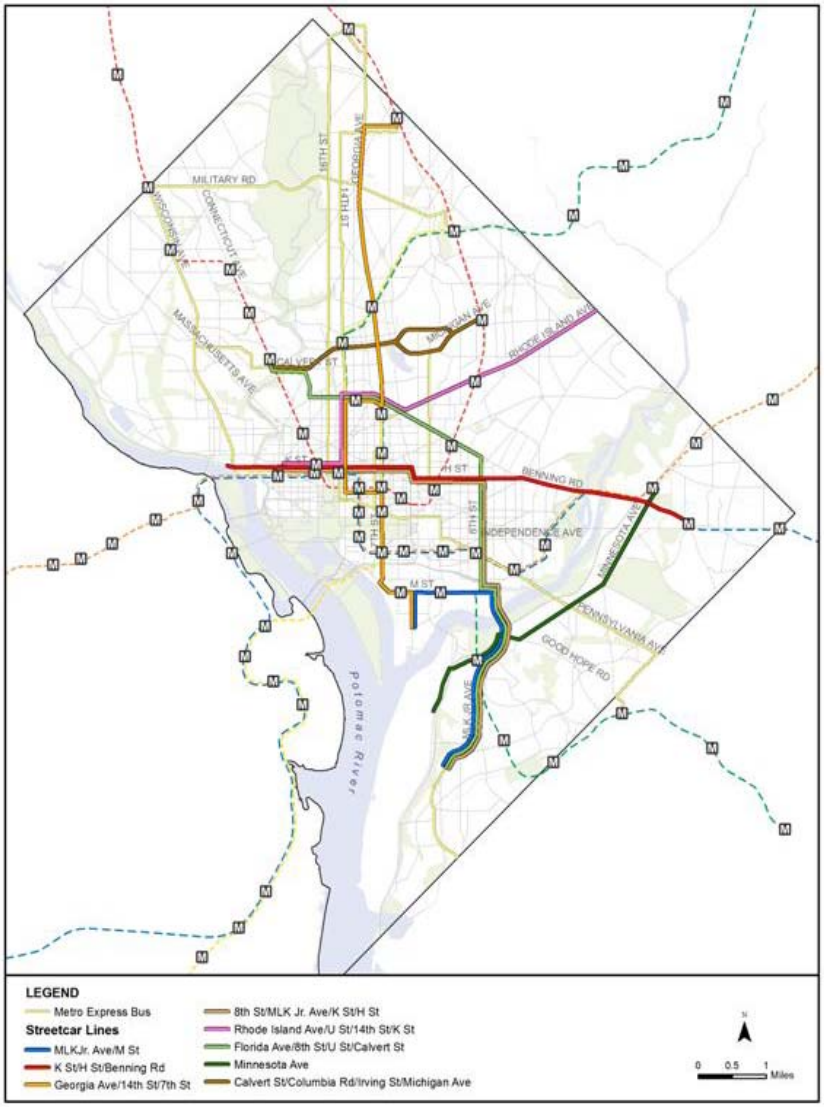


Source: *Center City Action Agenda (2008)*

DC Streetcar

DC's Transit Future System Plan (2010) identified potential transit corridors and a 37-mile streetcar network (Figure 1-2). The DC Streetcar will accommodate population and employment growth, provide enhanced mobility, promote economic development, and provide Metrorail coverage and core capacity relief. The plan identifies some corridors that were not selected for streetcar implementation, but would benefit from enhanced local bus or improved bus service. These corridors were considered during the Circulator planning process. There is some overlap between planned Streetcar and Circulator service in the final recommendations. DDOT anticipates phasing out Circulator service along some corridors when Streetcar is implemented, but recognizes that more in-depth study will be needed before implementation to rationalize any potential service changes.

Figure 1-2: Planned DC Streetcar Network

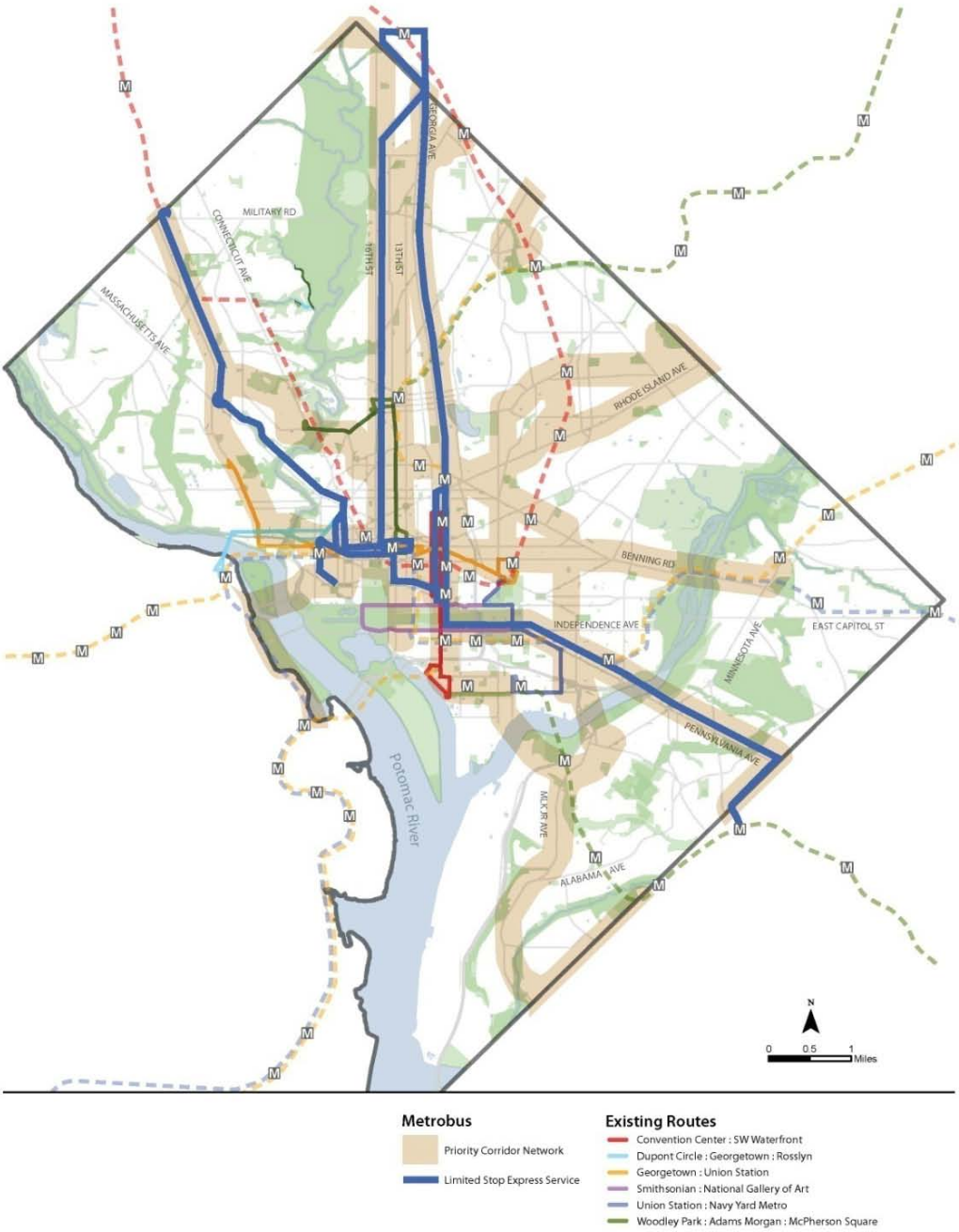


Source: *DC's Transit Future System Plan* (2010)

Metrobus Priority Corridor Network

An Evaluation of the Metrobus Priority Corridor Networks (2010) identifies corridors for Metrobus service enhancements, including high frequency, limited-stop services and priority measures. There is limited need for additional Circulator service in these corridors, as it would likely duplicate planned Metrobus improvements. However, as referenced above with the DC Streetcar, further studies are needed in justifying potential future service changes.

Figure 1-3: Metrobus Priority Corridor Network

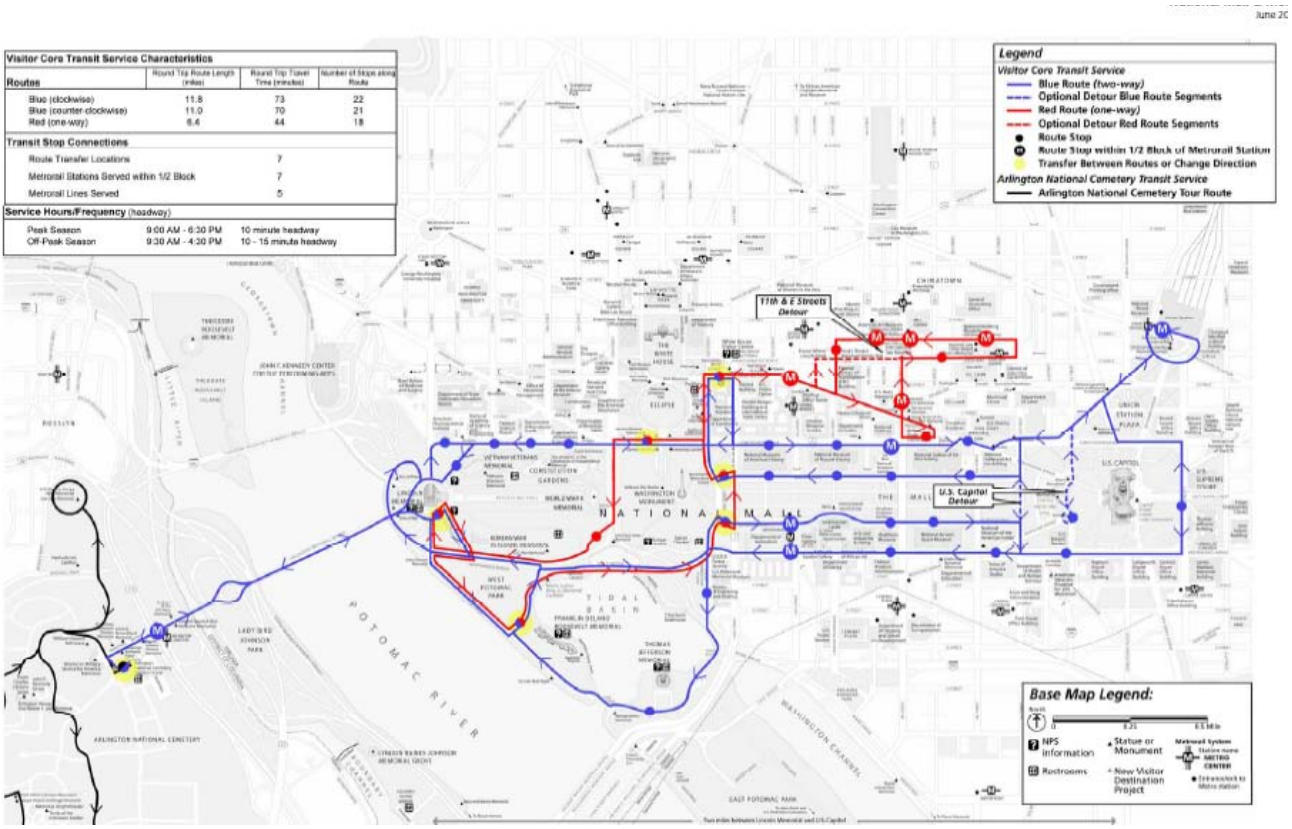


Washington, DC Visitor Transportation Study for the National Mall and Surrounding Park Areas

The National Park Service (NPS) is responsible for oversight of the National Mall, including planning, development, maintenance, and operations. Current visitor transportation access to the Mall (on roads controlled by NPS) is provided by Tourmobile, which is an unsubsidized concessionaire, operating on a contract that is renewed annually by NPS.

In its *Washington, DC Visitor Transportation Study for the National Mall and Surrounding Park Areas* (2010), NPS stated a commitment to providing affordable, convenient transit service on the Mall. Although Tourmobile is still under contract to provide this service for NPS, providing access to and from the National Mall was among the original goals of the DC Circulator and remains part of DDOT's vision for the system. Therefore, DDOT included activity centers on the Mall as part of this planning effort and will continue to work with NPS to offer Circulator in the area.

Figure 1-4: Visitor Core Transit Service: Preferred Alternative



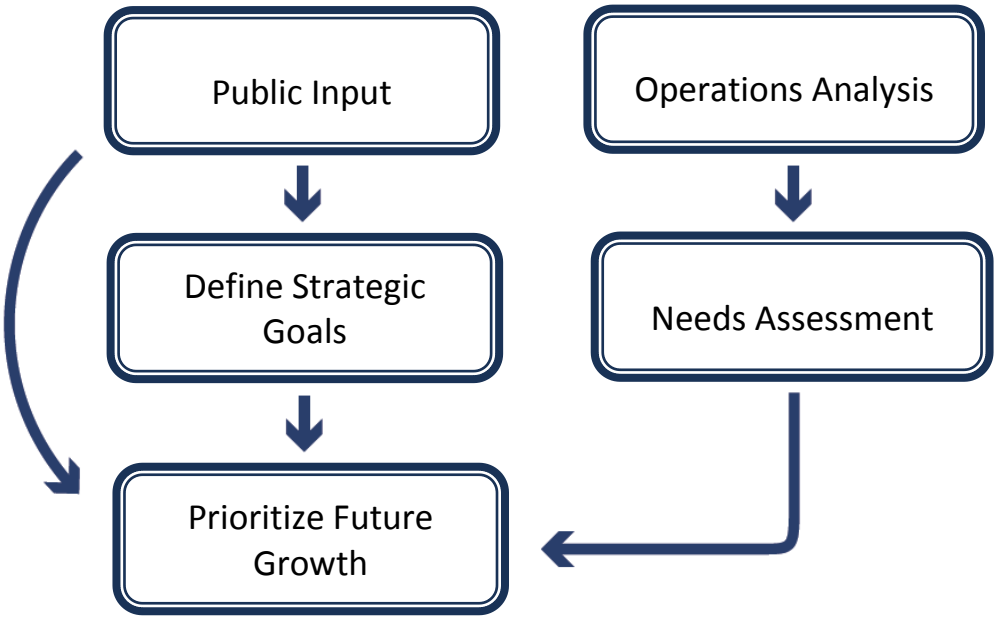
Source: Washington, DC, Visitor Transportation Study for the National Mall and Surrounding Park Areas (2010)

These plans demonstrate that the DC Circulator serves multiple contexts and is only one part of a greater transportation network. The *DC Circulator Transit Development Plan* attempts to incorporate a more comprehensive view in the planning, implementation, and continued development of the Circulator network. Additional detailed planning will be required to fully define the role of the Circulator, the DC Streetcar, Metrobus, and Metrorail in specific corridors before service changes are implemented. Similarly, DDOT recognizes that the District's demographic and economic growth is dynamic and transit planning must be appropriately flexible to deal with shifts in trends. In the meantime, this plan's outlining of the strategic goals, performance measures, operations, and emerging transit needs in the District serve as important first steps in carving out the Circulator's role within the larger transportation system.

Chapter 2
Planning Process

The *DC Circulator Transit Development Plan* is the result of a planning process focused on establishing a framework for new and expanded Circulator service throughout the District. The process aimed to increase transparency by involving a variety of stakeholders and providing numerous opportunities for public input. Figure 2-1 illustrates the planning process; each of the steps is elaborated upon in the remainder of the chapter. Although the different steps of the process are described discretely, planning was not strictly linear. The various steps outlined below continually informed the development of the Circulator plan.

Figure 2-1: Planning Process for the Circulator Transit Development Plan



2.1 PUBLIC INVOLVEMENT

DDOT collected input from a variety of sources to define priorities and inform the future growth of the Circulator. In addition to the annual DC Circulator rider survey, DDOT conducted rider and non-rider focus groups, established a Community Advisory Panel (CAP), interviewed key stakeholders, hosted an online survey, and held three public open houses. Chapter 4 describes in further detail the results of the public engagement efforts.

The results of the rider survey, focus groups, and initial CAP meeting were used to inform the strategic goals and objectives. The online survey, focus groups, and second CAP meeting results were used to identify an initial set of growth corridors. The two public open houses and the online survey provided an opportunity for a broader audience to comment on the initial set of corridors, while the final open house allowed the public to comment on DDOT's draft final recommendations.

2.2 STRATEGIC GOALS AND OBJECTIVES

Based on input from stakeholders and an analysis of current operations, DDOT defined the strategic goals, objectives, and performance measures that will guide the growth of the DC Circulator for the next 10 years. The development of the strategic goals and objectives began with a review of the original goals from the *2003 DC Circulator Implementation Study*. DDOT considered input from the online survey, rider survey, focus groups and initial CAP meeting to refine the goals and objectives. Performance measures were developed based on industry best practices and targets were set based on the historical performance of the system and the performance of peer systems. The final set of goals, objectives, and measures is detailed in Chapter 3.

2.3 OPERATIONS ANALYSIS

DDOT conducted a thorough review and analysis of current DC Circulator operations, including an evaluation of boarding and alighting activity at each stop; route and system productivity; and operational issues. Chapter 5 details the results of the operations analysis.

The operations analysis consisted of a comprehensive evaluation of the six existing routes based on the operational performance measures defined in Chapter 3. WMATA and DDOT provided the data (available at http://circulatordashboard.dc.gov) and bus stop locations were obtained from the Washington Region Bus Stop Database and the DC Circulator Bus Stop Inventory.

Passenger activity data (boardings and alightings) were collected as part of this study. Ride counts were conducted from June 17 to July 17, 2010 on a sample of buses on each DC Circulator route.[2] Ride checkers from WB&A Market Research rode randomly selected DC Circulator buses on weekdays and

[2] The Dupont Circle-Georgetown-Rosslyn route was not included in the passenger activity analysis as it did not begin service until September 2010.

Saturdays, counting all boarding and alighting passengers. Ride checkers logged boardings, alightings, departing load and stop times on a personal digital assistant, which was pre-programmed with all stops along each route. A complete report on the methodology, and a route-by-route graphic presentation of the results is provided in Appendix A.

2.4 NEEDS ASSESSMENT

The results of previous plans and updates were reviewed to identify opportunities and constraints associated with expanding the DC Circulator system. DDOT reviewed previous planning efforts to determine how the DC Circulator fits in with other transit, economic development, and land use plans, as well as community plans and projects.

The needs assessment reviewed existing studies and ongoing planning efforts, including transit plans, land use and small area plans, and two federal studies that address the need for increased Circulator service in the District. A complete review of the plans is included in Appendix B.

The review of existing studies identified transportation needs and planned or desired transit service in the District. It also outlined the vision for land use changes and transit at the neighborhood and small area level. Relevant recommendations were evaluated and incorporated into DC Circulator service changes or growth corridors, as appropriate.

2.5 PRIORITIZE FUTURE GROWTH

After defining the strategic direction for the system, analyzing operations and needs, and seeking public input, DDOT focused on identifying potential areas for expanded service over the next 10 years. The development of potential corridors for future Circulator service is at the heart of this study. The success of the Circulator has led to requests for bus service in many parts of the city; however, there are a limited number of corridors in which Circulator service—with all-day ten-minute frequencies and comprehensible routing — can be provided in a cost-effective manner. In addition, there is already a dense network of transit services, including Metrorail and high-frequency, limited-stop Metrobus. DDOT aims to avoid duplicating service unless there is a need for additional capacity or the Circulator can serve a unique purpose in the corridor.

Activity Centers

The identification of activity centers was the first step in determining where the Circulator could provide appropriate transit service. For the purposes of this study, activity centers are mixed-use centers of employment, residences, recreational and cultural uses, and retail activities. As described in the strategic goals and objectives, it is a priority for the DC Circulator to connect mixed-use activity centers

in order to improve mobility and foster economic activity. Because activity centers serve multiple trip purposes, they are likely to generate high ridership demand that warrants all-day ten-minute headways.

The Center City Action Agenda and the *DC Comprehensive Plan* provided a foundation for identifying 29 activity centers for possible Circulator expansion. While some of the centers may not be ready to support Circulator's high-frequency service today, they may be in need of such service within five to ten years. To understand the type and timing of development across the District, DDOT evaluated the size, growth rate, and land use characteristics of each activity center (Appendix E), pulling information from three primary sources:

1. DC Economic Partnership data on planned development square footage and type;
2. Metropolitan Washington Council of Governments population and employment projections for FY2020; and
3. Consultation with the DC Office of Planning and DDOT neighborhood and ward planners.

Growth Corridors

After identifying activity centers, DDOT evaluated the existing transit connections between them to identify transit needs and avoid duplication of existing service. A matrix of existing rail or high-frequency, all-day bus connections between activity centers can be found in Appendix F. An initial list of potential growth corridors was developed based on:

- Gaps identified in the transit matrix;
- Inputs from the many existing studies that were reviewed during the needs assessment phase of the planning process; and
- Suggestions from the Community Advisory Panel and the public.

The plan's strategic goals and objectives define two types of measures: operational performance measures and service planning measures. In determining specific growth corridors, DDOT used the service planning measures to screen an initial set of corridors. DDOT then held two open houses to solicit feedback. At the open houses, attendees were given the opportunity to provide written feedback and draw suggested corridors on a map. A comment form was also available online. Following the open houses, DDOT modified and finalized the proposed corridors based on input from the public and elected officials. The final set of corridors was phased based on the anticipated timing of development activity.

Chapter 6 offers descriptions of the activity centers and final proposed corridors.

Chapter 3
Strategic Goals and Objectives

Chapter 3 Key Questions

- What are the strategic goals and objectives that will guide the growth of the Circulator system?
- On what basis will current operations and future service planning be assessed?

3.1 FOUNDING GOALS

In 2003, DDOT joined with the Downtown Business Improvement District, the National Capital Planning Commission, and the Washington Metropolitan Area Transit Authority (WMATA) to explore the potential of a new circulation system in the DC core. Numerous reasons were presented for implementing the various proposed circulator services, including visitor and downtown worker mobility, economic development, and congestion relief.

The *2003 Circulator Implementation Plan* defined several goals for the new system, including:

- Improve connectivity between the monumental core and the Central Business District, promoting visitor accessibility and economic activity in District neighborhoods;
- Circulate visitors within the monumental core;
- Enable downtown workers to make business and shopping trips;
- Supplement Metrobus and Metrorail;
- Reduce private automobile and tour bus congestion; and
- Mitigate federal security measures (e.g., street closures which affect traffic flow).

After five years of operations, many of the Circulator's original goals are still applicable; for example, the need for improved connectivity between the monumental core and District neighborhoods. However, a better understanding about DC Circulator riders and changes in land use and plans since the original study both require an update of strategic goals and objectives. The identified goals define the purpose of Circulator service in the context of other transit services and the District's demographic and economic growth.

3.2 PROPOSED GOALS, OBJECTIVES, & PERFORMANCE MEASURES

A clear set of strategic goals and objectives for the Circulator are necessary to guide the growth of the Circulator system. Each strategic goal is a long-term outcome that the DC Circulator aims to achieve. A series of short-term objectives support and dictate measurable actions for each goal. DDOT used the goals, objectives, and measures to analyze existing operations, recommend service changes, and develop and evaluate growth corridors.

Two types of measures are associated with the stated goals and objectives. Operational performance measures (Goals 1 and 2) are used to track the success of operations and guide service changes to achieve continually improved performance. Service planning measures (Goals 3 and 4) served as criteria to guide the expansion of the DC Circulator network.

GOAL 1: Provide a high-quality transit network

Objectives:

1.1 Provide efficient, reliable, limited-stop, and high frequency service.

1.2 Ensure clean, safe, and courteous operations.

1.3 Design and maintain the system so that it is easy to use and understand.

1.4 Maintain an affordable and simple fare structure.

Operational Performance Measures:

A. **On-time performance:** An operational measure that gauges the efficiency and reliability of transit service, and affects customer satisfaction and understanding of the transit schedule. On-time performance is measured by the percent of bus arrivals within a designated service window.

- Target: 80% of arrivals within 15-minute headways

B. **Bus stop spacing:** The number of stops per mile for each route. As an operational measure, stop spacing reflects the nature of service along a transit corridor and the accessibility of that service to customers in the surrounding area. It also serves as a service planning measure, as stop spacing can be adjusted to improve service over time. DDOT will also aim to locate bus stops on the far-side of an intersection, where possible to facilitate travel speeds. This measure is highly contextual, so conformity to targets and standards will be considered carefully before implementing changes.

- Targets: Limited-stop service, <4 stops per mile, with stops located on far-side of traffic signal (where possible)

C. **Customer complaints:** The number of customer complaints per 10,000 riders. Subjective feedback on the overall quality of a transit system, particularly for efficiency, reliability, accessibility, affordability and ease-of-use of the service.

- Target: 0.20 complaints per 10,000 riders

D. **Accident rate:** The number of accidents per 10,000 revenue miles. The accident rate gauges the safety of a transit system. The DC Circulator strives for zero preventable accidents.

- Target: 0 preventable accidents per 10,000 revenue miles

GOAL 2: Maximize financial and operational return on investment.

Objectives:

2.1 Provide transit priority measures along Circulator routes.

2.2 Maximize the level of service that can be provided with the financial resources available.

2.3 Establish Circulator performance criteria and provide public evaluation reports.

2.4 Identify sustainable financing opportunities.

Operational Performance Measures:

A. **Cost per revenue hour:** Measures the cost of operating an hour of transit service. This operational performance measure reflects cost-efficiency—how much service can be provided for a given cost.

B. **Farebox recovery**: Fare revenue as a proportion of total expenses. Farebox recovery measures cost-effectiveness—the ability to meet transit demand given existing resources. Farebox recovery demonstrates how much of a transit service is actually paid for by revenues from rider fares.

- Target: 25% farebox recovery

C. **Subsidy per rider**: A measure of the funds necessary to meet operating expenses (less the earned revenue). Like farebox recovery, it measures cost-effectiveness.

- Target: $2.75 subsidy per rider

D. **Boardings per hour**: A measure of how many people are transported during a given hour of revenue operations. It measures service productivity and can be influenced by ridership demand, service area size, system speed, and traffic congestion.

- Target: 20 boardings per hour

GOAL 3: Promote economic activity in existing and developing activity centers and support a transit-oriented lifestyle.

Objectives:

3.1 Connect multi-use activity centers that demonstrate significant demand for transit throughout the day.

3.2 Complement existing transit options and link to other non-auto transportation modes.

3.3 Provide connections to ease Metrorail core capacity constraints.

3.4 Ensure widespread awareness and understanding of the Circulator system.

3.5 Maximize real-time information to customers.

3.6 Provide service that addresses multiple trip purposes (work, school, shopping, entertainment, etc).

Service Planning Measures:

A. **Number of activity centers served**: The number of activity centers served is a service planning measure that reflects accessibility among District neighborhoods. By serving multiple activity centers, the DC Circulator can attract all-day, bidirectional ridership and increase productivity.

- Target: 3+ activity centers per route

B. **Size of activity centers served**: This service planning measure recognizes the wide-ranging sizes and populations of activity centers, which dictate the type and frequency of transit service needed to enhance transportation. Large and medium-sized activity centers provide greater ridership potential.

- Target: At least one large or medium-sized center per route

C. **Variety of land uses at activity centers served:** The land use mix at each activity center. A greater mix of uses will lead to higher, more consistent ridership demand and thus increased productivity.

- Target: Serve activity centers with high density and at least four land uses

D. **Timing of development in activity centers served**: Activity centers are in various stages of development and have different transit service needs. The timing of development will guide the prioritization of future routes.

E. **High-frequency transit availability**: A measure of transit connections between activity centers, including DC Circulator, Metrorail and high-frequency Metrobus routes.[3]

- Target: Connect major activity centers where high-frequency options are lacking, while not duplicating existing service.

F. **Modal Connectivity:** By connecting to Metrorail and Metrobus, the DC Circulator can help relieve Metro's existing and anticipated core capacity constraints. Connection to the regional system also provides improved access to District neighborhoods for visitors and commuters.

- Target: Connect to existing high-frequency transit network

GOAL 4: Improve mobility within and access to and from the monumental core.

Objectives:

4.1 Provide transit options between the monumental core and existing activity centers throughout the District.

4.2 Provide transit choices between key visitor destinations.

4.3 Improve mobility of workers to/from employment centers around the Mall and monumental core.

4.4 Increased utilization of the DC Circulator system by visitors.

Service Planning Measures:

A. **Connections between the National Mall and activity centers:** Transit that links the Mall with other activity centers is a key measure of progress towards improving visitor accessibility to and economic activity within District neighborhoods. DDOT will strive to balance future service to ensure that large activity centers are connected to the monumental core

[3] Local, low-frequency Metrobus routes are not comparable to Circulator service quality.

B. **Number of visitor destinations served**: The number of visitor destinations served within and around the District's monumental core is a service planning performance measure.

- Target: Planned routes serving the monumental core and other popular visitor areas should connect at least four visitor destinations

C. **Non-residential ridership**: The number of non-residents utilizing the DC Circulator system.

- Target: Five percent increase in visitor utilization annually.

Chapter 3 Key Takeaways

- Strategic goals identify a long-term outcome that DDOT strives to achieve. Objectives outline specific, measurable actions needed to achieve the goals. Performance metrics measure progress toward the goals and objectives.
- DDOT uses strategic goals and objectives to assess current operations, recommend service changes, and plan future growth.
- Historic and current Circulator data are updated regularly at circulatordashboard.dc.gov.

Chapter 4
Public Engagement

Chapter 4 Key Questions

- What kinds of public outreach informed the development of the Circulator plan?
- What type of feedback about existing and potential Circulator service did the public provide?
- How did DDOT incorporate public feedback into its planning and implementation processes?

Public engagement is a fundamental element of successful transit planning and implementation. DDOT sought broad public participation in order to ensure a transparent planning and decision-making process. The development of this study used a variety of public involvement activities, including rider and online surveys, focus groups, community advisory panels, and open houses. This chapter summarizes those engagement efforts.

4.1 RIDER SURVEY

DDOT and DC Surface Transit, Inc. conducted the fifth annual DC Circulator rider survey. 1,064 respondents participated by completing an in-person survey. Figure 4-1 illustrates riders' satisfaction with the service, indicating that almost 99 percent of riders would recommend the DC Circulator to others. This figure has remained constant since the Circulator's inception in 2005.

Figure 4-2 presents the demographic profiles and trip purposes of the surveyed riders. While one of the primary original goals of the DC Circulator was to serve visitors, nearly 80 percent of riders reside in the District of Columbia and over 50 percent of riders use the DC Circulator to commute. In addition, nearly 60 percent of riders take trips greater than 10 blocks, supporting the public input indicating a desire for limited-stop service. Appendix D provides detailed information on rider characteristics and usage.

Figure 4-1: DC Circulator Rider Satisfaction

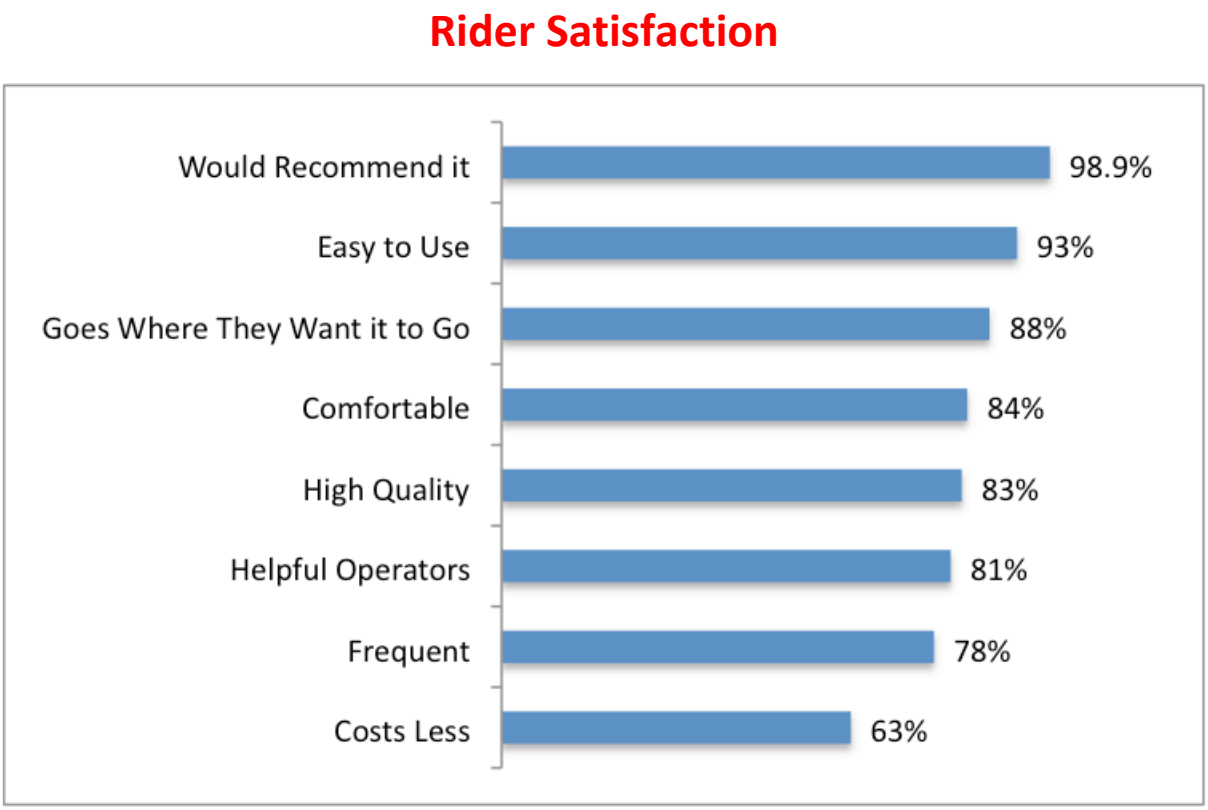


Figure 4-2: DC Circulator Rider & Trip Profiles

State of Origin	
District of Columbia	**79%**
Maryland	11%
Virginia	3%
Other	6%

Income	
<$20K	**25%**
$20-40K	22%
$40-60K	21%
$60-80K	14%
$80-100K	7%
$100K+	12%

Age	
18-24	22%
25-34	**33%**
35-49	24%
50-65	18%
66+	3%

Highest Education Level	
High School	12%
Some College/Tech	22%
College or Grad School	**61%**

Trip Purpose	
Work	**57%**
Shopping/Dining	42%
Recreational/Cultural	42%
Personal Business	27%
Work-Related	23%
School	13%

Type of Trip	
10+ blocks	**59%**
5-10 blocks	36%
Daily	**41%**
Several Times/Week	33%
Weekdays & Weekend	**69%**
Weekdays Only	26%
Roundtrip	**65%**
One-Way	35%

4.2 ONLINE SURVEY

To capture the viewpoints of a broader sample of residents, workers, and visitors, DDOT also hosted an online survey. Postcards with information about the survey were placed on Circulator buses (Appendix C) and distributed near Metro stations and at libraries to increase awareness about the availability of the survey. While online surveys do not rely on random samples, the results still provide valuable guidance as DDOT plans the future of the system.

Nearly 480 people provided open-ended answers to the following questions:

(1) "What should change about the DC Circulator over the next 5-10 years?"

(2) "What should stay the same?"

The most common responses to these questions were:

(1) "What should change about the DC Circulator over the next 5-10 years?"

- Extend evening hours/weekend service for all buses;
- Provide Union Station boarding and alighting at Columbus Circle;
- Ensure adherence to advertised 10-minute headways.

(2) "What should stay the same?"

- The 10-minute headways;
- The affordable fare;
- The limited-stop service.

In addition, 200 respondents suggested new routes or changes to existing routes.

- Over 100 people recommended changes or additional routes in the NW quadrant of the District.
- Sixty-seven (67) respondents recommended changes or new routes in the SE/SW areas of the District. Four (4) of those suggested new service East of the River.
- Twenty-six (26) people suggested a new route along H St NE to precede the DC Streetcar currently under construction.

4.3 FOCUS GROUPS

DDOT held two focus groups to identify ways to improve the DC Circulator system and to increase ridership and rider satisfaction. The groups were divided into Riders (11 participants) and Non-Riders (10 participants). Riders were recruited in person by professional interviewers on DC Circulator buses during peak and off-peak hours on the weekday and weekend to ensure different types of riders would be represented. Non-riders were recruited over the phone. Interviewers selected participants using scripted questionnaires to ensure diverse groups. The full focus group reports can be found in Appendix D.

4.3.1 Riders

Riders were defined as people who had ridden the DC Circulator in the past 30 days. The typical Rider used a variety of transportation modes to get around the District. Few had a car, and those who did used it infrequently in DC. Generally, Riders had positive impressions about the DC Circulator as a whole.

Specifically, Riders appreciated:

- Friendly bus operators;
- Colorful and "cheerful" bus design;
- Clean buses and a relaxing environment; and
- The simplicity of the DC Circulator and its frequent service.

Improvements that Riders wished to see included:

- Fewer stops on DC Circulator routes;
- Better adherence to advertised frequencies;
- Improved marketing and communication.

4.3.2 Non-Riders

The Non-Rider group was comprised of participants who had not ridden the DC Circulator in the past 30 days, but showed some interest in using public bus transportation and had visited the areas served by the DC Circulator in the past 30 days.

The focus group with Non-Riders demonstrated the potential for increased market capture among both DC and suburban residents. While most of the Non-Riders used a car to commute to work, they were more likely to rely on public transit when traveling into downtown DC. While Non-Riders had limited knowledge of the DC Circulator, once they were shown the system map and service features, they expressed interest in using the system. Non-Riders were particularly impressed by the ten-minute

headways and affordable fare. Lack of awareness about the DC Circulator appears to be a barrier preventing Non-Riders from exploring and using the system.

Both Riders and Non-Riders suggested areas in the District for expansion of Circulator service. Several members of each group, however, recognized that expansion must be balanced and methodical so as not to counteract the simplicity that is currently a fundamental feature of the system.

4.4 COMMUNITY ADVISORY PANEL

In addition to the surveys and focus groups, DDOT convened a Community Advisory Panel (CAP) to provide specific, in-depth input in two areas: (1) future priorities and (2) geographic expansion. DDOT invited a broad group of organizations and individuals to participate in the CAP, including all Advisory Neighborhood Commission chairs or their representatives, business associations, advocacy groups, universities, and representatives from pedestrian, bicycling, transit, and accessibility advisory groups. Appendix C has the report from each CAP meeting as well as the list of participants.

4.4.1 Meeting 1: Future Priorities

Seventeen (17) people participated in the first CAP workshop, which focused on setting high-level priorities for the growth of the DC Circulator. The results of this workshop were used to define the goals and objectives for the system (Chapter 4). Similar to the online survey, the CAP participants had an in-depth discussion about what they currently like and dislike about the DC Circulator and what they would like to see change over the next ten years.

The CAP discussed a number of desired changes, including: connectivity and coverage, operations, and marketing.

Connectivity and Coverage

Participants advised DDOT to take a holistic approach to planning – to consider the DC Circulator as part of a regional transit system and to limit duplication of existing high quality transit options. They also urged DDOT to maintain and improve the integration of DC Circulator– both among existing and new routes, and with regional transit service. The CAP members discussed the need for more cross-town and local service by the DC Circulator. Members expressed that the Circulator should serve arts and cultural opportunities and visitor destinations without losing its focus on connecting the District's activity centers.

Operations

The CAP recommended that DDOT focus on improving on-time performance for the system. Participants also suggested extending hours of operation on existing routes and pursuing core operational hours on all routes in the future. The CAP urged DDOT to maintain the simplicity of the route structure even as the system expands, and to make limited-stop service a priority. The CAP also mentioned transit priority enhancements, improved traffic enforcement, and congestion management as priorities for the Circulator to ensure its continued success.

Marketing

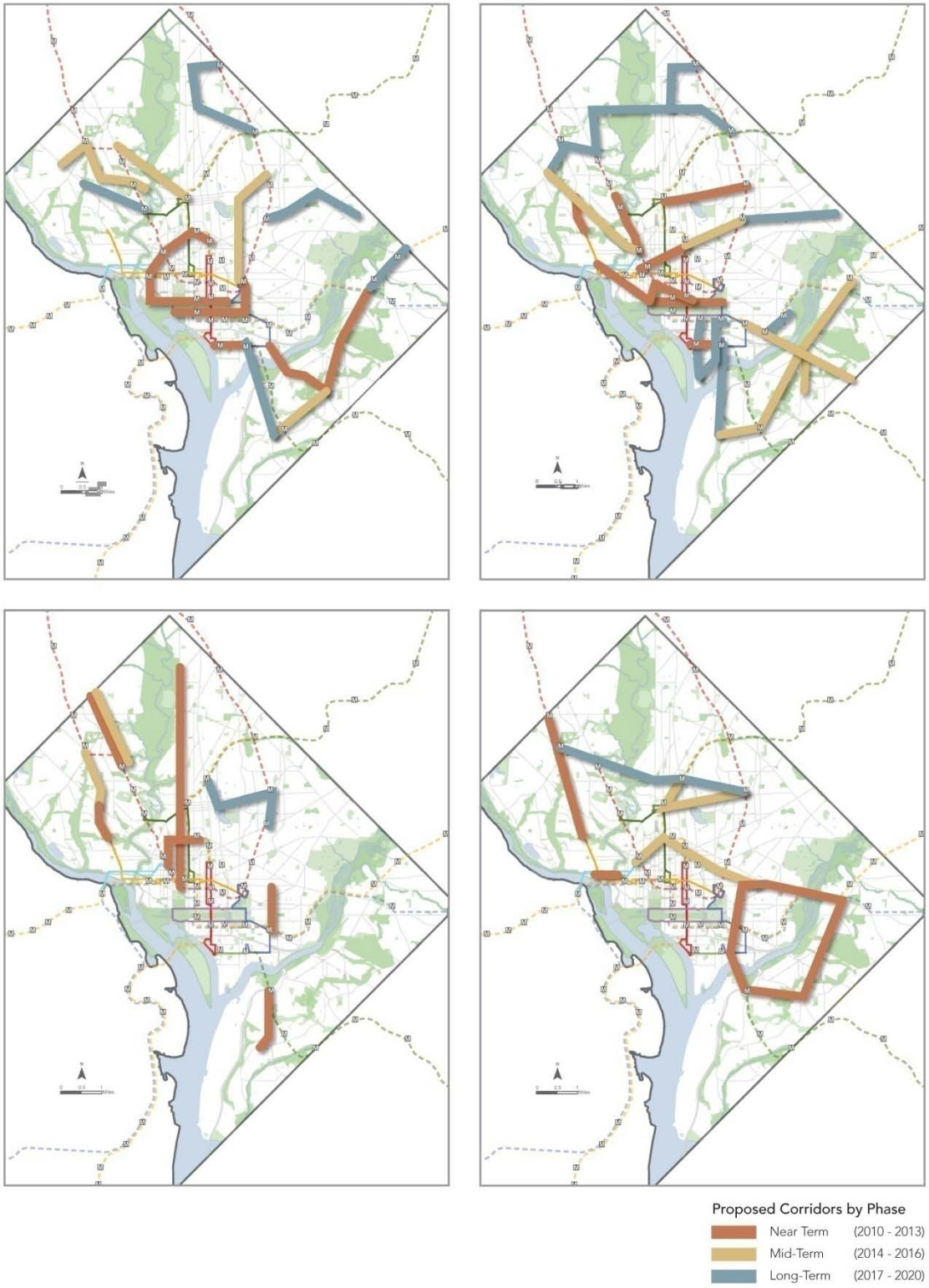
In addition to route coverage and operations, the CAP suggested DDOT improve its marketing efforts. The CAP recommended greater promotion of the Circulator one-day and weekly passes through partnerships with other agencies and businesses. CAP participants also emphasized the need to improve access to information for less tech-savvy riders.

4.4.2 Meeting 2: Geographic Expansion

Twenty-two (22) community members attended the second CAP workshop. A brief presentation updated the CAP on the project's status and described the process of identifying of activity centers - areas of current and projected growth around the District (Chapter 6). After the presentation, the CAP broke out into four groups to discuss potential corridors for Circulator service throughout the District over the next 10 years. Each group was given a budget and asked to draw short-, medium-, and long-term corridor recommendations on large maps of the District. Additional maps, including the planned streetcar network, WMATA's Metrobus Priority Corridor Network, and high frequency Metrobus service were available for the CAP members' reference while discussing potential Circulator corridors. The recommendations from the CAP were used to develop the initial set of potential areas of growth.

Figure 4-3 displays the CAP's recommendations. Several areas of the District received particular attention during the second meeting, including East of the River, an east-west connection across Rock Creek Park, and Ward 3/Wisconsin Ave.

Figure 4-3: Community Advisory Panel Recommendations



4.5 OPEN HOUSES

Two public open houses were held to present the potential corridors for future growth (Chapter 6 outlines the recommended corridors). The first public open house was held on Monday, November 8, 2010, at the Martin Luther King Jr. Memorial Library and attended by 39 people. The second public open house was held on Saturday, November 13, 2010, at the Benning Branch Library and attended by 26 people.

The primary purpose of the open houses was to solicit input on the recommended corridors. DDOT also presented information on the Circulator system, the planning process, the input gathered to-date, and the identified activity centers. The meetings had an open house format – presentation boards were set up and attendees were invited to walk around the room, read the boards, engage in conversations with staff, and fill out comment forms. The comment form included the questions:

- Will the recommended corridors serve your transit needs?
- Will the recommended corridors connect you to places you want to go?
- Are there activity centers that are not connected by the proposed corridors?
- Do you have any other comments related to the DC Circulator?

Participants were also given the opportunity to provide their own corridor suggestions on a map on the back of the comment form. The potential corridors were also posted online to give a broader audience opportunity to comment.

A summary of the public input gathered at these open houses and how the recommended corridors were modified in response to the input is covered in Chapter 6. Appendix C includes presentation boards and other meeting materials available at the open houses.

A final open house was held on March 31, 2011 to present the draft final recommendations in the plan. The comments from the meeting, as well as online feedback regarding the draft final plan, can be found in Appendix K.

Chapter 4 Key Takeaways

- Rider surveys, online surveys, focus groups, community advisory panels, and open houses were methods of public engagement used during the development of this plan.
- Key findings from the public input process included:
  - Extend evening hours/weekend service for all buses;
  - Provide Union Station boarding and alighting at Columbus Circle;
  - Improve reliability and ensure adherence to advertised 10-minute headways;
  - Maintain the simplicity and ease of using the Circulator service;
  - Affordability is important to current and potential riders.

Chapter 5
Operations Analysis

Chapter 5 Key Questions

- What are the operational characteristics of the six existing DC Circulator bus routes?
- What does operational analysis of each route tell us about ridership, cost-efficiency, and general quality of existing Circulator service?
- How can Circulator operations be improved, both at system-wide and individual route levels?
- How do DC Circulator operations compare with those of peer systems?

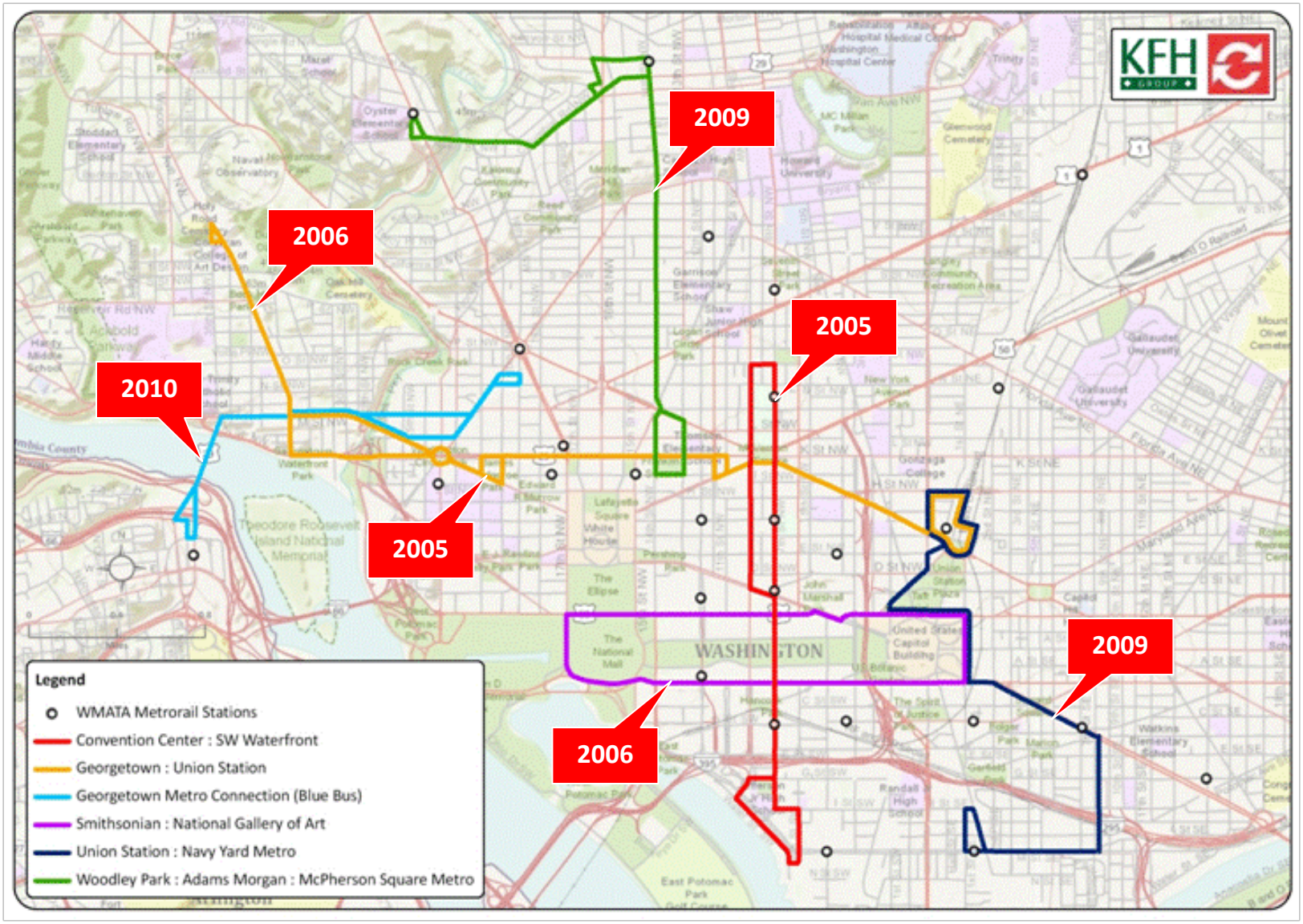
The DC Circulator is a six-route bus system with service spanning into each of the District of Columbia's quadrants. The current network is a culmination of several route expansions since the system's inception in July 2005. Figure 5-1 illustrates the growth of the system. The system opened in 2005 with two routes and grew to six routes in September 2010 with the opening of the Dupont Circle-Georgetown-Rosslyn route. The six current Circulator routes are:

- Georgetown – Union Station
- Convention Center – Southwest Waterfront
- Smithsonian – National Gallery of Art
- Woodley Park – Adams Morgan – McPherson Square Metro
- Union Station – Navy Yard
- Dupont Circle – Georgetown – Rosslyn

DC Circulator routes have unique hours of operation. Four of the routes provide daily service. The Union Station – Navy Yard route operates weekdays only, except for baseball season when it offers limited service on game days. The Smithsonian – National Gallery of Art route operates from March through October on Saturdays and Sundays only. It is important to consider these variations in service plans when analyzing the operating performance of each route.

The DC Circulator is owned by DDOT, managed by the WMATA, and operated by First Transit. This partnership also includes the non-profit agency, DC Surface Transit Inc. (DCST), which advises and implements the marketing and planning aspects of the DC Circulator.

Figure 5-1: Evolution of the DC Circulator

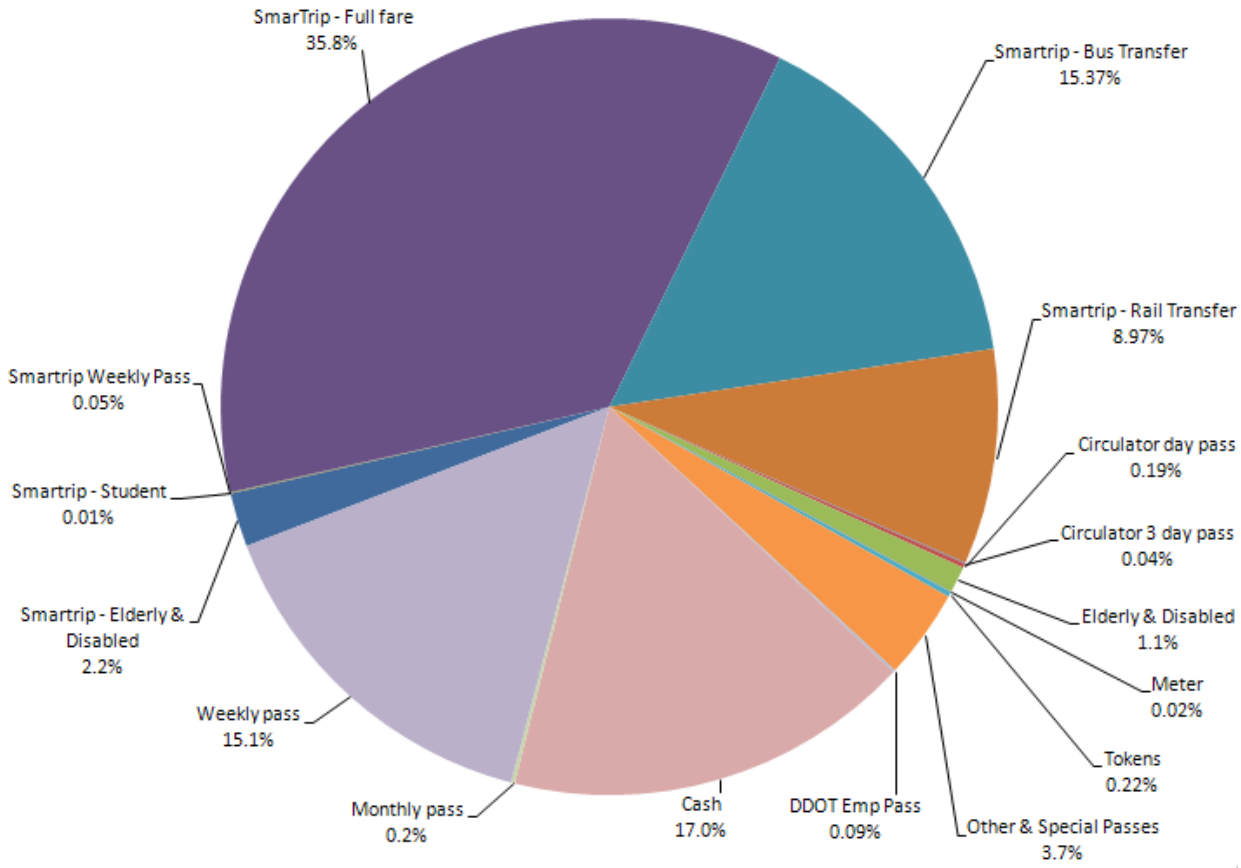


5.1 FARE STRUCTURE

The fare structure for the DC Circulator is built around a regular fare of one dollar per trip. Seniors or persons with a disability may utilize the service for half the cost of the regular fare. Students may ride the DC Circulator for free with the DC Student Travel Card and children under the age of five may ride free when in the company of a paying adult.

The DC Circulator has been using SmarTrip technology since the beginning of transit operations in 2005. With use of the SmarTrip card, riders are able to transfer for free from any DC Circulator vehicle within three hours or from any Metrobus vehicle within two hours. There is a 50 cent transfer fee withdrawn from the SmarTrip card for a transfer from Metrorail, except for seniors or persons with a disability. During the 12 months from June 2009 through May 2010, approximately 62.4 percent of Circulator riders used the SmarTrip card to pay the fare. Approximately 25 percent those users made a transfer from a bus, and about 14 percent transferred from Metrorail.

Figure 5-2: 2010 Cash and Pass Use on DC Circulator



A $3 day pass for Circulator is available via the Internet and from select multi-space parking meters throughout the District (three-day, weekly, and monthly passes are also available on the internet for $7, $11, and $40, respectively). The day pass is not highly visible or well-marketed and therefore experiences very little use.

When the Circulator was established in June 2004 the base fare was set at $1.00 and the transfer from Metrorail at $0.50. While various adjustments have taken place regarding transfers on SmarTrip cards versus paper transfers, no other changes to the fare have been enacted in almost seven years. Meanwhile, WMATA Metrobus fares have increased from $1.20 in 2004 to $1.70 in 2010 (with a 20 cent discount for using SmarTrip beginning in 2010). Currently, the cash fare on Metrobus is almost double that of the Circulator.

5.2 OPERATIONS ANALYSIS

DDOT conducted an in-depth analysis of the Circulator system using available data and close observation of bus operations from June to December 2010. As described in Chapter 3, the following performance measures are monitored to track progress towards the DC Circulator's goals and objectives:

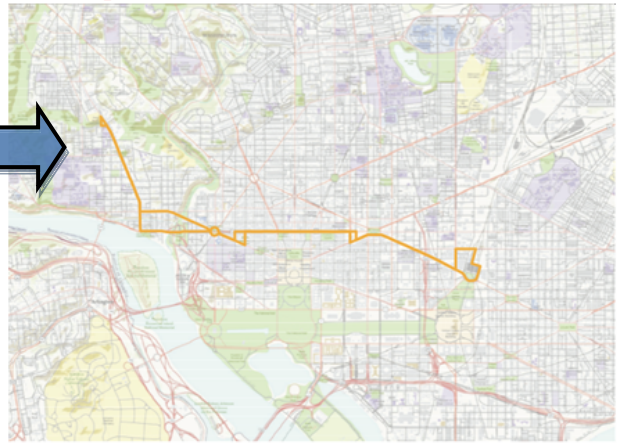
- On-time performance (percent of arrivals with headways under 15 minutes)
- Boardings per revenue hour
- Operating cost per revenue hour
- Farebox recovery
- Bus stops per mile
- Customer complaints per 10,000 passengers
- Preventable accidents per 10,000 revenue miles

In addition to these performance metrics, DDOT also examined passenger activity at system bus stops. Analysis on boardings and alightings at each bus stop provided information about where bus stops can be consolidated in order to achieve spacing that meets limited stop service guidelines. Detailed passenger activity data can be found in Appendix A.

The following segment profiles include in-depth analyses of the system and each of the six routes. A summary of DC Circulator route performance can be found in Table 5-1.

Circulator Route Profiles

Georgetown – Union Station



Route Description

The Georgetown-Union Station route provides an east-west link between the residential and commercial centers of Georgetown and the intermodal transit center at Union Station. Commuter Metrorail, and intercity bus services can all be fo[illegible] Union Station, as well as a transfer opportunity [illegible] Union Station-Navy Yard route. Further transfer o[illegible] between the Georgetown-Union Station route and the Convent Center-Southwest Waterfront route at Mount Vernon Square; t[illegible] Woodley Park-Adams Morgan-McPherson Square route at Fran[illegible] Square; and the new Rosslyn-Georgetown-DuPont route in Georgetown.

Key Characteristics

Opened for Service:	July 2005
Round-trip Route Length:	8.78 miles
Activity Centers Served:	Central Washington [illegible] Lower Wisconsin; Fo[illegible] End; Mt. Vernon Square
Days of Service:	Daily
Span of Service:	7:00 am – 9:00 pm
2010 Total Ridership:	2,266,713

Findings/Recommendations

- The Columbus Circle NE & 1st St NE stop in front of Union Stati[illegible] is the busiest boarding and alighting point on weekdays and weekends.
- Three consecutive K St stops (18th-19th-20th St[illegible] low activity and are recommended for consoli[illegible]
- Congestion and loadings on the route reduce the [illegible]avel speed slightly above a brisk walk during the peak hours, requiring mo[illegible] buses and more hours. Reducing the number of stops is not likely to reduce peak bus requirements. Priority transit treatments would greatly improve travel times.

Performance Measures *January – December 2010*	2010 Actuals	Vs.2009 Historical	Vs. Target
On-time performance	80.91%	n/a	●
Bo[illegible]dings per revenue hour	32	↑	●
Cost [illegible]r revenue hour	$79.51	↑	
Su[illegible]y cost per passenger	$1.91	↑	●
Farebox recovery	25.17%	↓	●
Bus stops per mile	4.97 (EB) 5.73 (WB)	n/a	● ●
Complaints per 10,000 passengers	0.19	↑	●
Preventable accidents per 10,000 revenue miles	0.60	↑	

Map showing location of route in the DC Circulator system.

Describes the route, including its history, connections to major activity centers, and transfer opportunities on the Circulator system and with other transit systems.

Key characteristics of the route, including the length, span of service, and ridership.

Route performance against the operational goals and measures outlined in Chapter 3. Columns include actual 2010 data, historical trend information, and how the actual compares to the target.

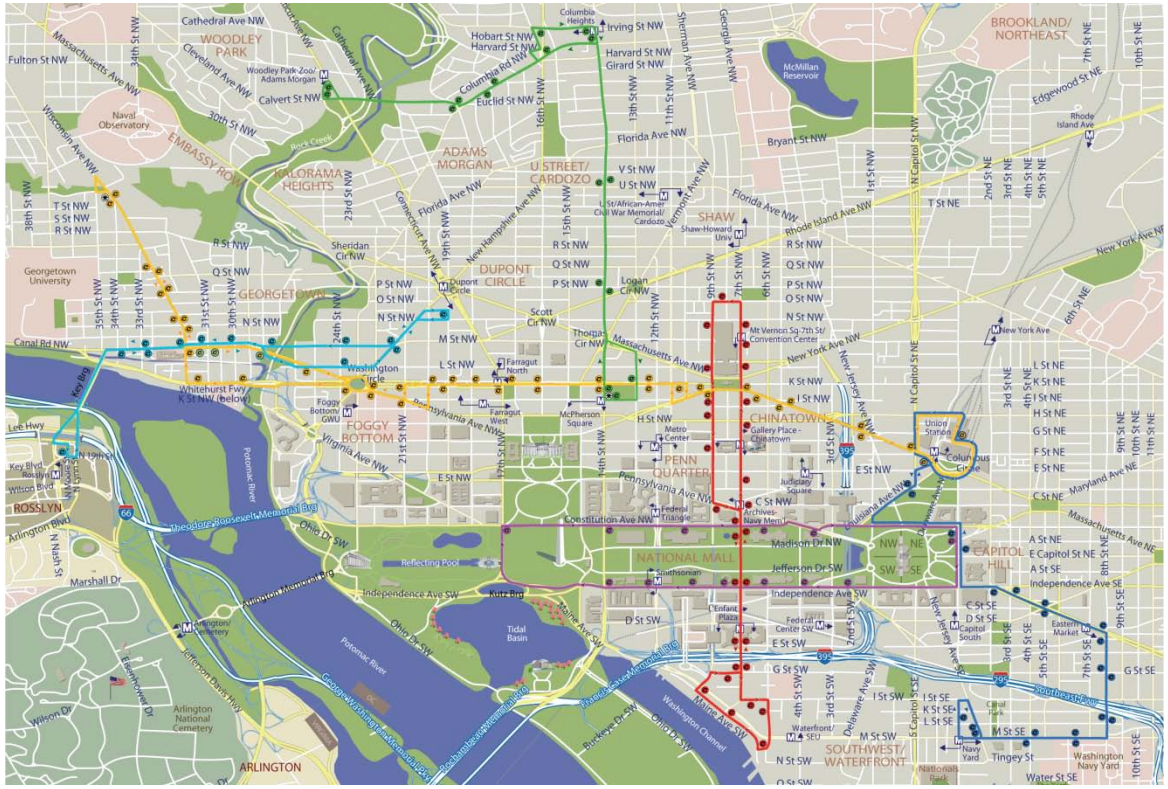
Findings and recommendations for service improvements based on analysis of operational performance data and observation of operations between June and December 2010.

Operational Performance Measures	Targets
On-time performance (within 15 min headways)	80%
Boardings per revenue hour	20
Cost per revenue hour	N/A
Subsidy cost per passenger	$2.75
Farebox recovery	25%
Bus stops per mile	<4
Complaints per 10,000 passengers	0.20
Preventable accidents (per 10,000 revenue miles)	0

Target Legend

- ● Actual is at least 85% of target value
- ● Actual is between 10% and 85% of target value
- ● Actual is less than 10% of target value

Summary of DC Circulator Bus System

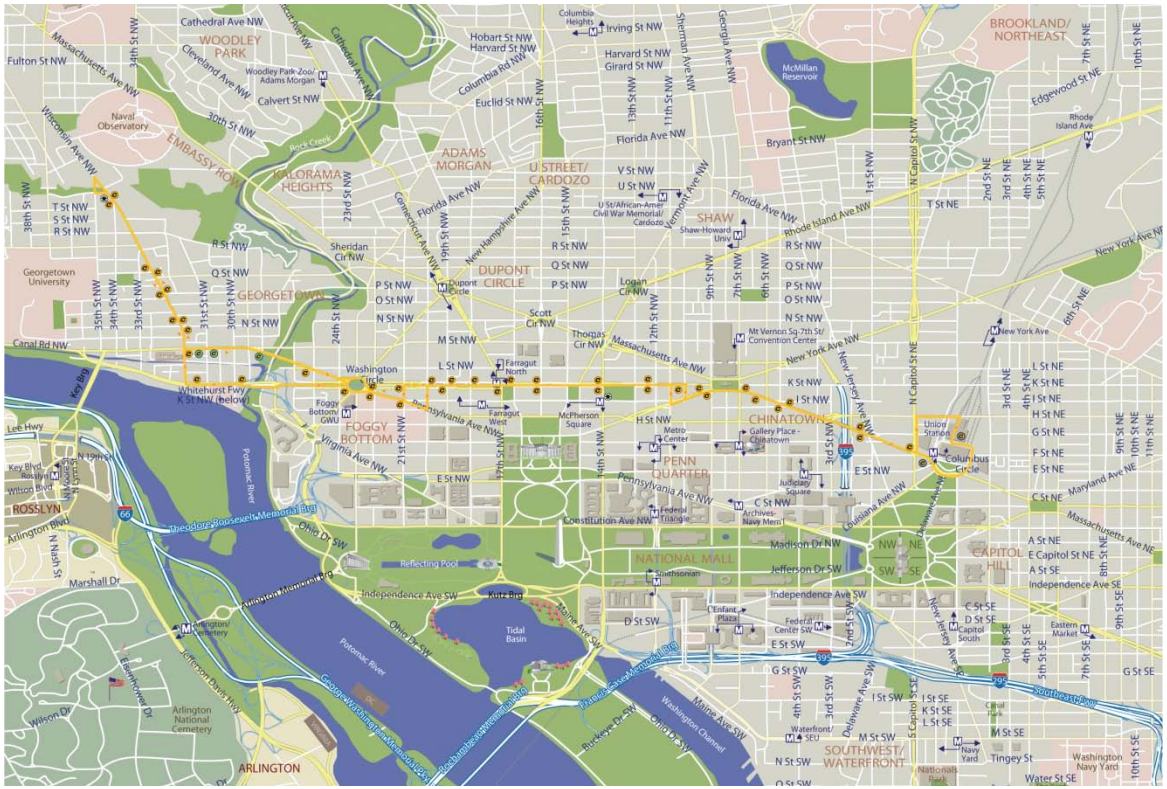


Performance Measure *Period of Performance: January – December 2010*	System Average	Vs. 2009 Actuals	Vs. Target
On-time performance (headways <15 min)	77.20%	n/a	●
Boardings per revenue hour	29	↑	●
Cost per revenue hour	$83.01	↑	
Subsidy cost per passenger	$2.31	↓	●
Farebox recovery	21.42%	↑	●
Bus stop spacing	4.04	n/a	●
Complaints per 10,000 passengers	0.31	↑	●
Preventable accidents per 10,000 revenue miles	0.49	↑	●

Findings/Recommendations

- Stop and transfer locations in the parking deck at Union Station are inconvenient, remote, and difficult to find. Efforts at wayfinding signage in Union Station are inadequate.
- Some of the original fleet is showing wear on interiors and minor body damage. As the fleet continues to age, maintenance will become increasingly difficult. Mid-life rehab should be considered in the near term.
- Observed drivers were friendly and helpful, answering visitor questions and providing other information. Drivers did not call out stops as required by the Americans with Disabilities Act (ADA) and the buses are not equipped with signs and annunciators for this purpose.
- Transfer locations between Circulator routes are not always clear, particularly between the Woodley Park-Adams Morgan and Union Station-Georgetown routes, and at the various stops in and around Union Station. This finding was also confirmed during focus group discussions.

Georgetown – Union Station



Performance Measures *January – December 2010*	2010 Actuals	Vs.2009 Actuals	Vs. Target
On-time performance	80.91%	n/a	●
Boardings per revenue hour	32	↑	●
Cost per revenue hour	$79.51	↑	
Subsidy cost per passenger	$1.91	↑	●
Farebox recovery	25.17%	↓	●
Bus stops per mile	4.97 (EB) 5.73 (WB)	n/a	● ●
Complaints per 10,000 passengers	0.19	↑	●
Preventable accidents per 10,000 revenue miles	0.60	↑	●

Route Description

The Georgetown-Union Station route provides an east-west link between the residential and commercial centers of Georgetown and the intermodal transit center at Union Station. Commuter rail, Metrorail, intercity buses, and transfers to the Circulator's Union Station-Navy Yard route are found at and near Union Station. The route also has transfer opportunities for Convention Center-Southwest Waterfront route at Mount Vernon Square; the Woodley Park-Adams Morgan-McPherson Square route at Franklin Square; and the Rosslyn-Georgetown-DuPont route The route has changed three times since 2005. An extension from Wisconsin and M Street to Wisconsin and White Haven was requested by the community. The westbound route was moved from lower K Street to M Street to accommodate Bridge reconstruction on Wisconsin Avenue. Service has subsequently been restored on K Street.

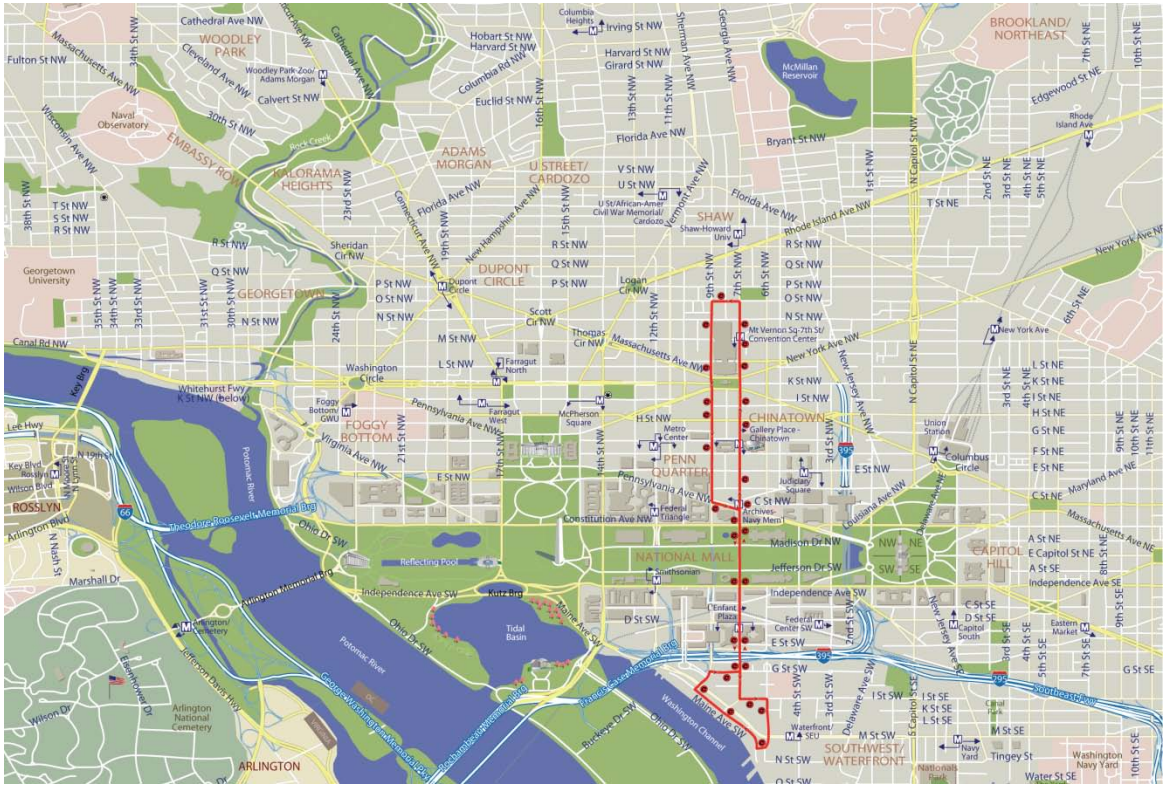
Key Characteristics

Opened for Service:	July 2005
Round-trip Route Length:	8.78 miles
Activity Centers Served:	Central Washington; Georgetown / Lower Wisconsin; Foggy Bottom/West End; Mt. Vernon Square
Days of Service:	Daily
Span of Service:	7:00 am – 12:00 am (S-Th) 7:00 am – 2:00 am (Fri-Sat)
2010 Total Ridership:	2,266,713

Findings/Recommendations

- The Columbus Circle NE & 1st St NE stop in front of Union Station is the busiest boarding and alighting point on weekdays and weekends.
- Three consecutive K St stops (18th-19th-20th Sts) have consistently low activity and are recommended for consolidation.
- Congestion and loadings on the route reduce the travel speed to slightly above a brisk walk during the peak hours, requiring more buses and more hours. Reducing the number of stops is not likely to reduce peak bus requirements. Priority transit treatments would greatly improve travel times.

Convention Center – Southwest Waterfront



Performance Measure *Period of Performance: January – December 2010*	2010 Actual	Vs. 2009 Actuals	Vs. Target
On-time performance	82.88%	n/a	●
Boardings per revenue hour	19	↓	●
Cost per revenue hour	$82.08	↑	
Subsidy cost per passenger	$3.75	↑	●
Farebox recovery	12.67%	↓	●
Bus stops per mile	6.35 (NB) 5.90 (SB)	n/a	●
Complaints per 10,000 passengers	0.33	↑	●
Preventable accidents per 10,000 revenue miles	0.32	↑	●

Route Description

The Convention Center-Southwest Waterfront route offers a north-south connection from the Washington Convention Center to the emerging Southwest Waterfront district. Between these two major destinations, the route serves numerous major activity centers. This bus service connects intermodal commuters to and from five Metrorail stations serving all five Metrorail lines. There are also transfer opportunities to the Georgetown-Union Station and the Smithsonian-National Gallery of Art routes.

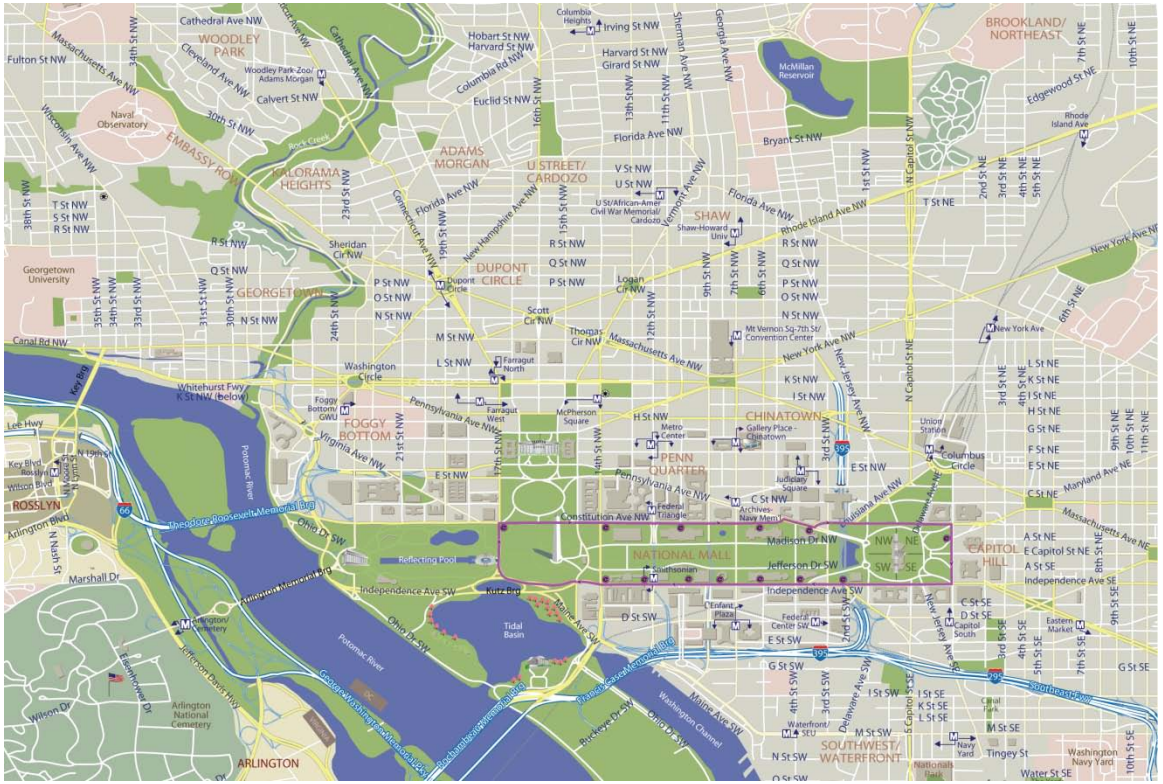
Key Characteristics

Opened for Service:	July 2005
Round-trip Route Length:	4.74 miles
Activity Centers Served:	Central Washington; Mt. Vernon Square; National Mall; Shaw/Howard University/14th & U St (Washington Convention Center); SW Waterfront/Waterside Mall
Days of Service:	Daily
Span of Service:	7:00 am – 9:00 pm
2010 Total Ridership:	547,469

Findings/Recommendations

- Between L'Enfant Plaza and Mount Vernon Square-Convention Center, the route duplicates Metrorail's Green/Yellow Line. Productivity and cost-effectiveness measures do not meet established targets.
- This service is likely to be more productive after the SW Waterfront area is more fully developed over the next four to five years. The route will also serve the visitor market if Circulator service is established on the National Mall – carrying tourists from the Mall to District neighborhoods and to additional visitor destinations north of the Mall.
- This route is recommended for suspension and should be reinstated after Mall service is established and development along the SW Waterfront increases.

Smithsonian – National Gallery of Art



Performance Measure *Period of Performance: March – September 2010*	2010 Actual	Vs. 2009 Actuals	Vs. Target
On-time performance	n/a	n/a	n/a
Boardings per revenue hour	10	↑	●
Cost per revenue hour	$133.86	↑	
Subsidy per passenger	$12.03	↓	●
Farebox recovery	6.29%	↓	●
Bus stops per mile	3.32		●
Complaints per 10,000 passengers	0.66	↑	●
Preventable accidents per 10,000 revenue miles	1.24	↑	●

Route Description

The Smithsonian-National Gallery of Art bus route is a seasonal, loop circuit that serves numerous destinations and landmarks around the National Mall. The route was conceived to meet the goal of improving visitor mobility around the Mall and connections between the Mall and District neighborhoods. However, the National Park Service (NPS) has the exclusive right to operate on Madison Ave and Jefferson Ave, which provide direct access to the monuments and museums. Consequently, the route has operated on Constitution Ave and Independence Ave. Transfer opportunities are available to the Convention Center-Southwest Waterfront route, which connects to further visitor destinations, such as the National Portrait Gallery.

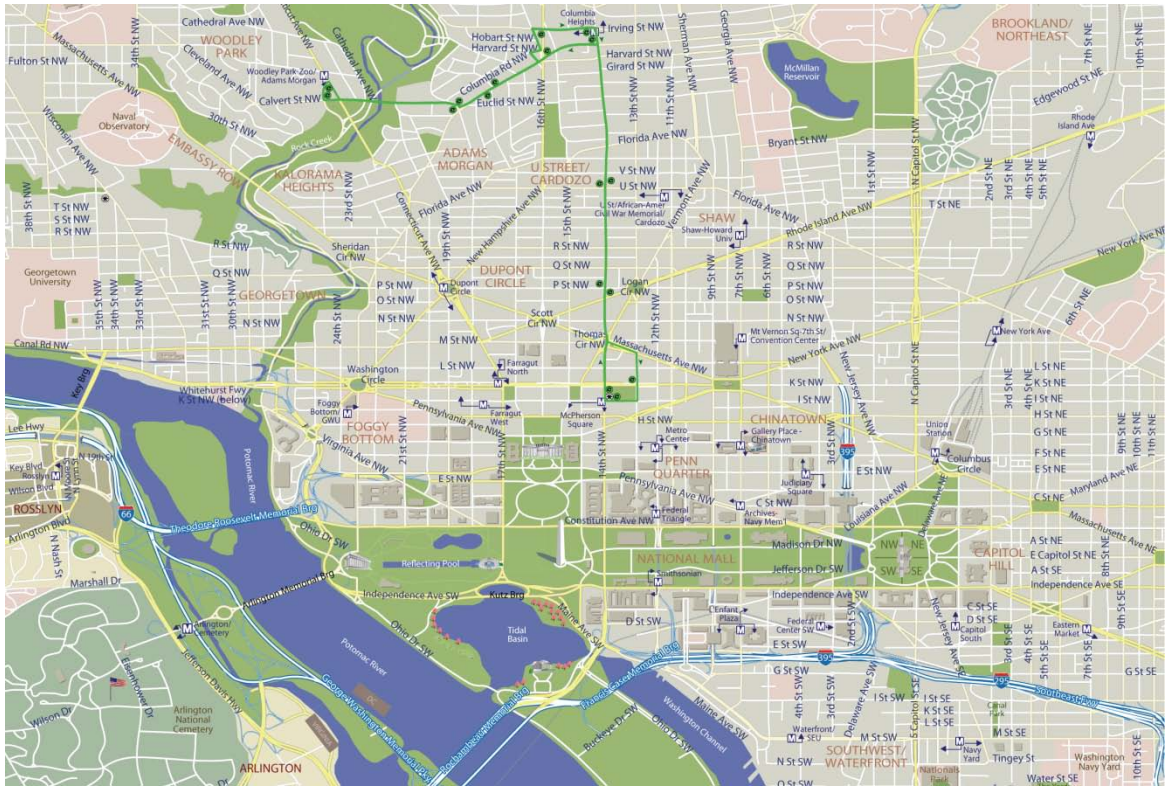
Key Characteristics

Opened for Service:	March 2006
Round-trip Route Length:	4.22 miles (loop)
Activity Centers Served:	National Mall
Days of Service:	Weekend (March – September)
Span of Service:	10:00 am – 6:00 pm
2010 Total Ridership:	15,113

Findings/Recommendations

- Boardings per revenue hour are significantly below the system standard of 20. The Circulator would enjoy higher visibility and provide better access to key visitor destinations if it operated on Madison and Jefferson. DDOT should continue discussions with NPS for permission to operate on these roads and discontinue service until access is granted.
- By providing only weekend service, the route misses an opportunity to connect federal employment centers such as the Departments of Education, Agriculture, and Labor. Future service should attempt to connect these centers, as well.
- There was no recorded passenger activity at Constitution Ave NE & 6th St, which is a transfer point to the Convention Center-SW Waterfront route. When Mall service is offered, marketing must be improved to promote the use of the rest of the system.
- Current route is recommended for elimination.

Woodley Park – Adams Morgan – McPherson Square Metro



Performance Measure *Period of Performance: January – December 2010*	Route Averages & Counts	Vs.2009 Actuals	Vs. Target
On-time performance	71.67%	n/a	●
Boardings per revenue hour	38	↑	●
Cost per revenue hour	$80.83	↑	
Subsidy per passenger	$1.59	↓	●
Farebox recovery	25.75%	↑	●
Bus stops per mile	2.36 (northbound) 2.36 (southbound)		●
Complaints per 10,000 passengers	0.12	↓	●
Preventable accidents per 10,000 revenue miles	0.32	↑	●

Route Description

The Woodley Park-Adams Morgan-McPherson Square Metro bus route provides a link from the neighborhoods and nightlife attractions of Adams Morgan and Columbia Heights to the McPherson Square Metro station and the surrounding employment destinations along K Street NW. This predominately north-south route also serves the 14th Street NW corridor, offering access to the U St and Logan Circle neighborhoods. In addition to providing a residential-to-employment connection, the route offers valuable connections between three Metrorail stations serving all five Metrorail lines. In addition, the bus stops along K St offer a transfer opportunity to the Georgetown-Union Station route.

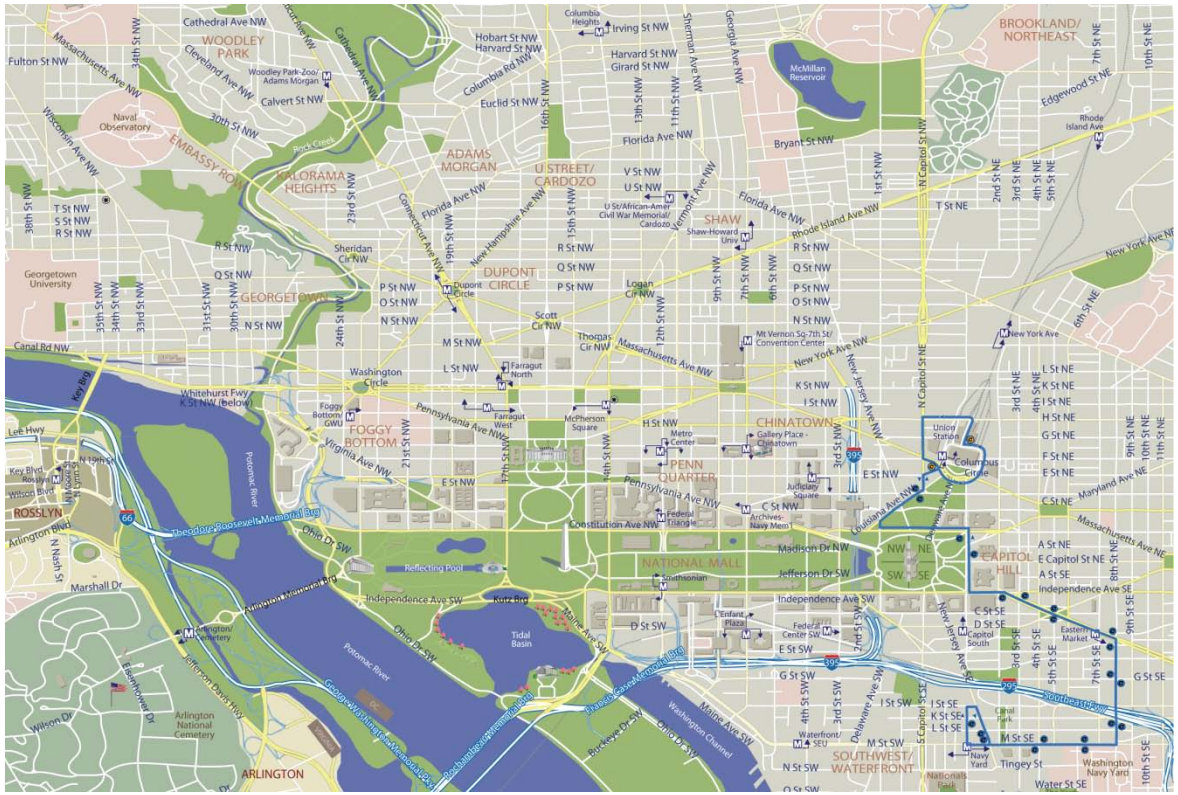
Key Characteristics

Opened for Service:	March 2009
Round-trip Route Length:	6.58 miles
Activity Centers Served:	Adams Morgan; Central Washington; Columbia Heights; Shaw/Howard University/14th & U
Days of Service:	Daily
Span of Service:	7:00 am – 12:00 am (S-Th) 7:00 am – 3:30 am (Fri-Sat)
2010 Total Ridership:	1,385,258

Findings/Recommendations

- Since beginning service in 2009, the route has become the second most popular service in the Circulator system. Ridership in 2010 increased nearly 53%.
- Weekday passenger activity is highest near the Columbia Heights Metro and the Woodley Park-Zoo Metro, indicating that this route provides a valuable connection from residential areas to employment destinations. Rider survey results confirm that 59% of riders use this route to get to/from work.
- Survey results indicate that limited-stop service on this route is very popular (< 3 stops/mile). Incorporating limited-stop service into the rest of the system may increase the attractiveness of the service.

Union Station – Navy Yard



Performance Measure *Period of Performance: January – December 2010*	2010 Actuals	Vs.2009 Actuals	Vs. Target
On-time performance	76.36%	n/a	●
Boardings per revenue hour	16	↑	●
Cost per revenue hour	$84.83	↑	
Subsidy per passenger	$4.21	↓	●
Farebox recovery	12.67%	-	
Bus stops per mile	2.97 (NB) 2.96 (SB)		●
Complaints per 10,000 passengers	0.32	↓	●
Preventable accidents per 10,000 revenue miles	0.55	↑	●

Route Description

The Union Station-Navy Yard route connects Union Station to Washington Navy Yard and Nationals Park. The route begins at the parking garage bus deck at Union Station, where it also connects to the Georgetown-Union Station route. First St between Columbus Circle and Constitution Ave is closed for national security purposes, forcing the bus to take a circuitous route between Union Station and Eastern Market. The route provides connections to the Red, Blue, Orange, and Green Metrorail lines. This route operates only on weekdays from 6:00 a.m. to 7:00 p.m., with extended service during Washington Nationals home games.

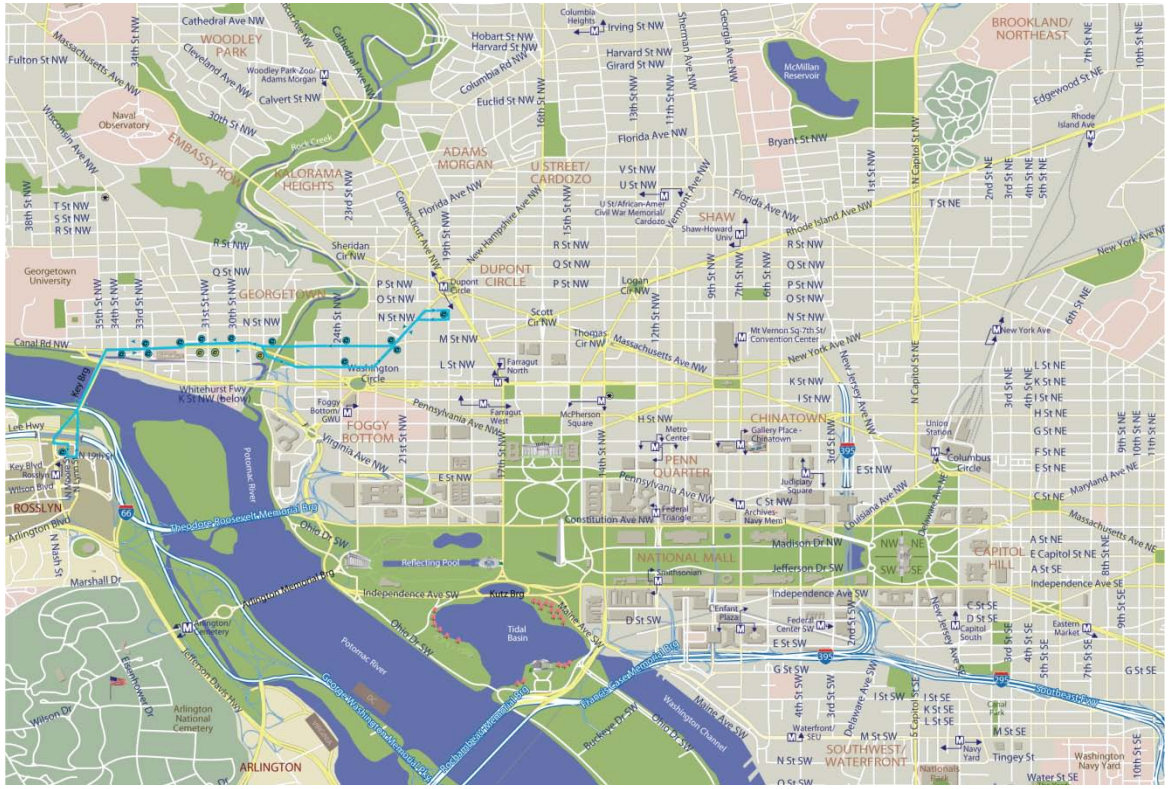
Key Characteristics

Opened for Service:	March 2009
Round-trip Route Length:	6.41 miles
Activity Centers Served:	Capitol Riverfront/South Capitol Corridor/Near SE/Buzzard Point; National Mall; Penn Ave SE/Eastern Market/Potomac Ave
Days of Service:	Weekdays (Weekends during Washington Nationals Home Games)
Span of Service:	6:00 am – 7:00 pm (Extended during Washington Nationals Home Games)
2010 Total Ridership:	409,213

Findings/Recommendations

- Productivity and cost-effectiveness measures do not meet established targets. Peak hour congestion and the routing required by the security blockages on First St NE add significantly to the travel time. DDOT should pursue opportunities to provide service on Second St NE.
- The span of service differs from the majority of routes in the system and is not aligned with the Circulator brand of offering a simple, easy to use system. The span of service should be expanded to include regular weekend and evening service, providing access to entertainment opportunities along 8th St NE.

Dupont Circle – Georgetown – Rosslyn



Performance Measure *Period of Performance: September – December 2010*	2010 Actuals	Vs.2009 Actuals	Vs. Target
On-time performance	81.35%	n/a	●
Boardings per revenue hour	27	n/a	●
Cost per revenue hour	$92.03	n/a	
Subsidy per passenger	$2.77	n/a	●
Farebox recovery	21.00%	n/a	●
Bus stops per mile	3.68 (EB) 3.83 (WB)		● ●
Complaints per 10,000 passengers	0.25	n/a	●
Preventable accidents per 10,000 revenue miles	0.66	n/a	●

Route Description

The Dupont Circle-Georgetown-Rosslyn bus route is the newest addition to the Circulator system, added in late August 2010. It provides service between the employment, residential, and entertainment areas around and between Dupont Circle and the Rosslyn neighborhood of Arlington, VA. In connecting these two popular destinations, the route also serves the West End area north of Washington Circle and the Georgetown neighborhood along M Street NW, while crossing the Francis Scott Key Bridge over the Potomac River. The route connects the two Metrorail stations at Dupont Circle (Red Line) and Rosslyn (Blue and Orange), which previously required a transfer at Metro Center.

Key Characteristics

Opened for Service:	September 2010
Round-trip Route Length:	4.26 miles
Activity Centers Served:	Dupont Circle; Foggy Bottom/West End; Georgetown/Lower Wisconsin
Days of service:	Daily
Span of service:	7:00 am – 12:00 am (S-Th) 7:00 am – 2:00 am (Fri-Sat)
2010 Total Ridership:	235,306 *(Sept – Dec only)*

Key Findings

- After only four months of operations, the Dupont Circle-Georgetown-Rosslyn already has the third highest boardings per hour rate in the system.
- The early success of this route can be attributed to the existing ridership base of the Georgetown Connection and the strong brand associated with the DC Circulator.
- This route offers guidance for future expansion: The Circulator brand is most successful when it connects mixed, multi-use activity centers that have all-day, bi-directional ridership.

Table 5-1: Summary of Circulator Route Performance

Route	On-time Performance	Boardings per Hour	Cost per Revenue Hour	Subsidy per Rider	Farebox Recovery	Bus Stops per Mile	Customer Complaints per 10,000 Riders	Accidents per 10,000 Revenue Miles
	Actual (Target: 80%)	Actual (Target: 20)	Actual	Actual (Target: $2.75)	Actual (Target: 25%)	Actual: (Target: <4)	Actual (Target: 0.2)	Actual (Target: 0)
System	77.2%	29	$83.01	$2.31	21.42%	4.04	0.31	0.49
Georgetown – Union Station	80.9%	32	$79.51	$1.91	25.17%	4.97 (east) 5.73 (west)	0.19	0.60
Convention Center – Southwest Waterfront	82.9%	19	$82.08	$3.75	12.67%	6.35 (north) 5.90 (south)	0.33	0.32
Smithsonian – National Gallery of Art (March – September)	n/a	10	$133.86	$12.03	6.29%	3.32	0.66	1.24
Woodley Park – Adams Morgan – McPherson Square Metro	71.7%	38	$80.83	$1.59	25.75%	2.36 (north) 2.36 (south)	0.12	0.32
Union Station – Navy Yard	76.4%	16	$84.83	$4.21	12.67%	2.97 (north) 2.96 (south)	0.32	0.55
Dupont Circle – Georgetown – Rosslyn*	81.4%	27	$92.03	$2.77	21.00%	3.68 (east) 3.83 (west)	0.25	0.66

*The Dupont Circle – Georgetown – Rosslyn route began in September 2010. Data reflects September through December 2010.

5.3 KEY FINDINGS

- The DC Circulator's most successful routes (Georgetown – Union Station, Woodley Park/Adams Morgan – McPherson Square, and Dupont Circle – Georgetown – Rosslyn) are also those that are best aligned with the Circulator brand. All three routes have large, easy to understand spans of service and serve the densest activity centers.
- Underperforming routes have shorter and less consistent spans of service. In addition, these routes meet fewer of the service planning measures outlined in Chapter 3; for example:
    - The Convention Center – Southwest Waterfront route significantly **duplicates** Metrorail and Metrobus service;
    - The Smithsonian – National Gallery of Art route serves only one **activity center** (the National Mall).
- Stop locations in the parking deck at Union Station are inconvenient, remote, and difficult to find. Efforts at wayfinding signage in Union Station are inadequate.
- Transfer locations between Circulator routes are not signed and are sometimes not intuitive.
- Some of the original fleet is showing wear on interiors and minor body damage. As the fleet continues to age, maintenance will become increasingly difficult.

5.4 OPPORTUNITIES FOR IMPROVING THE EXISTING SYSTEM

The operations analysis identified several opportunities to improve the DC Circulator. Improvements were identified based on performance data and/or input from stakeholders and the community.

- **Consolidate bus stops on routes to meet the limited-stop guidelines delineated in Chapter 3 (3 – 4 stops per mile).**
  Bus stop consolidation – particularly for low boarding/alighting stops within close proximity – may improve productivity, running time, and reliability.

  Bus stop consolidation will only provide small improvements along routes that face high traffic congestion (e.g. Georgetown – Union Station). Priority transit treatments are needed along these routes to significantly improve reliability.
- **Discontinue or replace the Smithsonian-National Gallery of Art route**.
  The low ridership, low productivity, and high subsidy cost per passenger for the Smithsonian-National Gallery of Art route suggests that the current service is not effective, and that it should be discontinued or replaced with a much-expanded and revised service that is capable of attracting significant ridership. Future improvements should include routing along Madison and Jefferson and connection to additional activity centers.

- **Move bus stop locations from the Union Station parking deck to Columbus Circle.**
  Stop and transfer locations in the parking deck at Union Station are inconvenient, remote, and essentially invisible unless a rider already knows about them. Efforts at wayfinding signage in Union Station attempts to address this, but the stop is far from the Metro station and signage is sparse. Columbus Circle is already the busiest boarding and alighting point for two Circulator routes (Georgetown – Union Station and Union Station – Navy Yard), which suggests the relocation of the parking deck stops would be well-received.

- **Revise routing and bus stops to improve the performance of the Union Station – Navy Yard route.**
  The end of the north-bound Navy Yard – Union station route may be improved with changes in re-routing and bus stop consolidation. Re-routing would streamline access between Union Station and the Capital Visitor's Center along First or Second St NE. Bus stop changes near the northern terminus – including the transfer of the stop from the Union Station parking deck to Columbus Circle – may also improve efficiency of the route.

- **Establish a system-wide core service standard.**
  Currently the routes vary considerably in terms of the span of service, end times, and days of the week. These variations are not aligned with the Circulator's brand of "simple" and "easy to understand." Consideration should be given to setting a core service standard (e.g., 15 hours of service per day, 7:00 a.m. to 10 p.m., daily), with additional later weekend service on particular routes that serve areas of nightlife or sporting events. Improved marketing could assist current and potential passengers in understanding the service days and hours.

- **Improve marketing and outreach to build ridership.**
  As the Circulator network develops and grows, DDOT should improve its planning and marketing efforts to facilitate connections between different routes and to alternate modes of transportation (e.g., Capital Bikeshare, Metrorail). This effort will be especially important if service on the National Mall is implemented. A robust marketing effort will be needed to encourage visitors to connect to the rest of the system and visit District neighborhoods.

- **Invest in mid-life rehabilitation of current Circulator fleet.**
  DDOT should invest in mid-life rehabilitation of its current fleet to ensure that buses continue to meet the aesthetic standards of the Circulator brand. In addition, current buses should be retrofitted and new buses should include LED dot-matrix signs and stop annunciators. These capital enhancements will allow Circulator buses to comply with ADA standards and will improve customer satisfaction amongst all riders.

Chapter 5 Key Takeaways

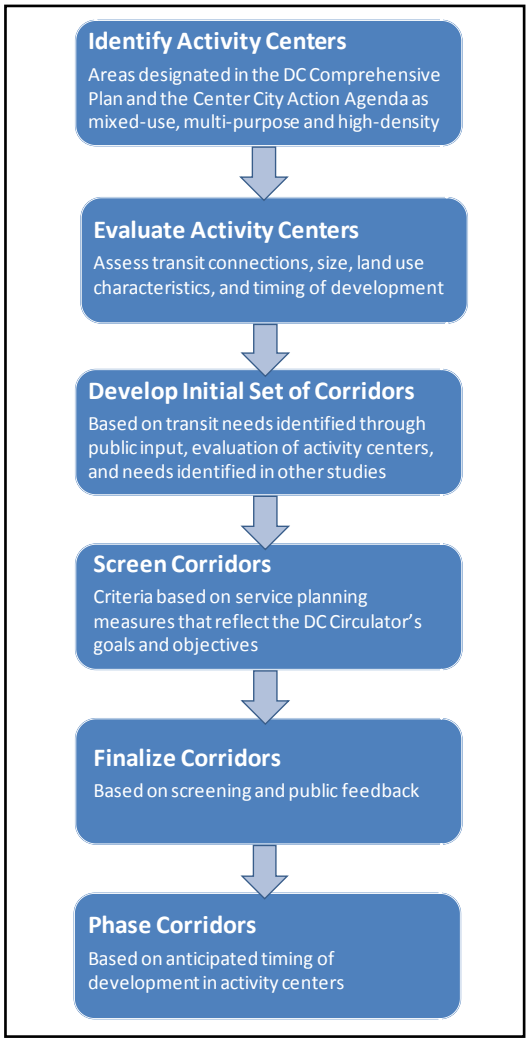
- DDOT conducted an analysis of the Circulator system and individual routes based on the operational performance metrics. These metrics included:
  - On-time performance
  - Boardings per hour
  - Subsidy per hour
  - Farebox recovery
  - Bus stop spacing
  - Perceived service quality
  - Safety
- The DC Circulator's most successful routes (Georgetown – Union Station, Woodley Park/Adams Morgan – McPherson Square, and Dupont Circle – Georgetown – Rosslyn) are also those that are best aligned with the Circulator brand. All three routes have large, easy to understand spans of service and serve the densest activity centers.

Chapter 6
Growth Corridors and Phasing

Chapter 6 Key Questions

- What areas of the District are ripe for future Circulator service?
- What are the proposed corridors for future growth and how do they compare?
- What is the anticipated timeline for development of selected corridors?

Figure 6-1: DC Circulator Planning Process



Based on the results of the planning process described in Chapter 2 (summarized in Figure 6-1), the recommended growth plan consists of a network of 11 new Circulator corridors, including two extensions to existing routes.

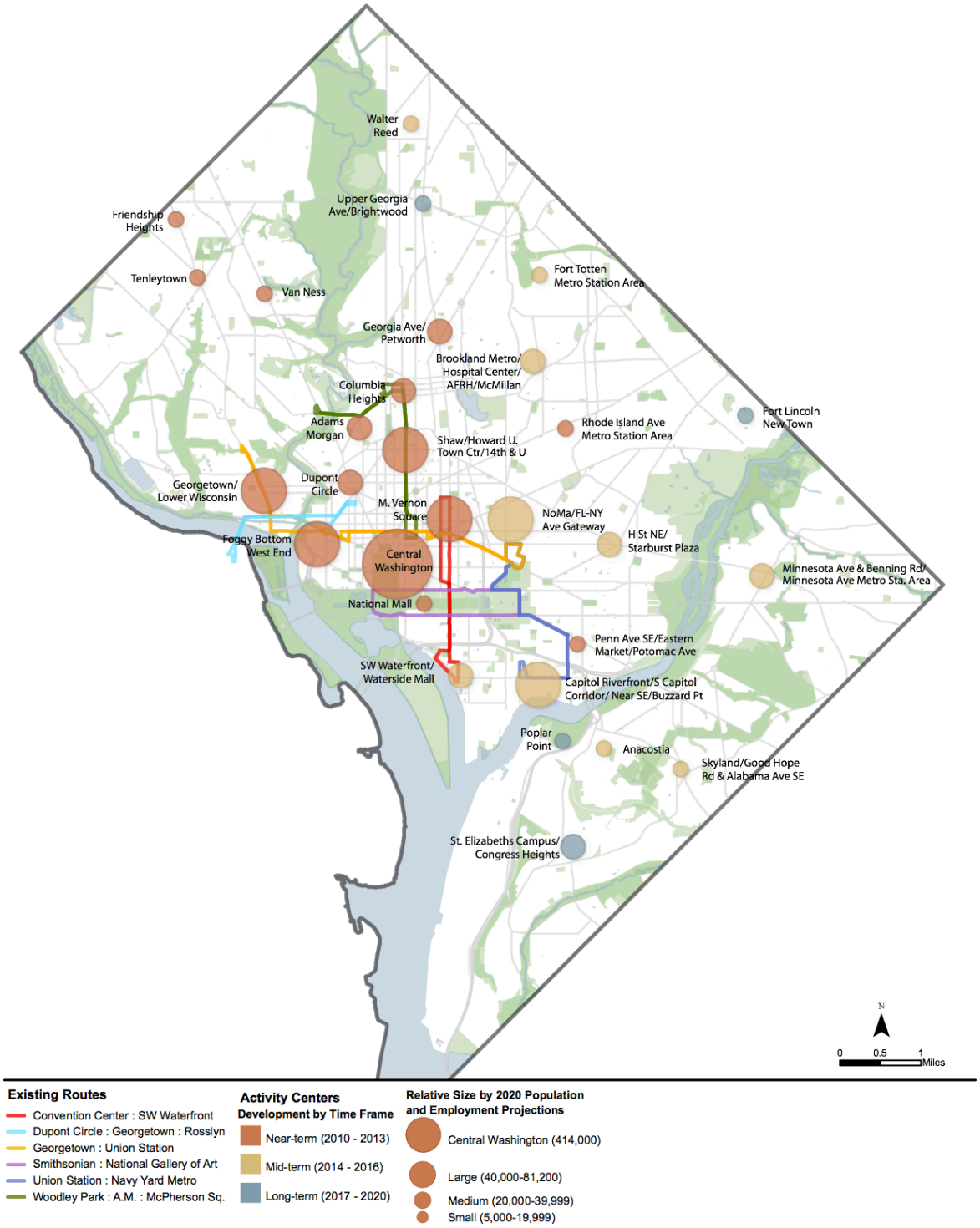
The following section describes the general areas recommended for DC Circulator service (i.e., activity centers), specific corridors identified for future Circulator expansion, and recommended phasing of the expansion. The identified corridors and recommendations are based on current projections of demographic and economic development patterns in the District. Long-term planning requires continuous re-evaluation of current land use patterns to ensure that new routes and service changes meet the needs of District residents, workers, and visitors. As described in Chapter 9, DDOT will update the ten-year plan every three years and re-evaluate recommendations as land use patterns change and new activity centers emerge.

6.1 ACTIVITY CENTERS

One of the goals of the DC Circulator is to connect mixed-use activity centers in order to improve mobility and foster economic activity. Activity centers serve multiple trip purposes and are therefore likely to generate high ridership demand that warrants all-day frequent service. For the purposes of this study, activity centers are mixed-use centers of employment, residences, recreational and cultural uses, and retail activities.

Relying on the *Center City Action Agenda* and the *DC Comprehensive Plan* as a foundation, DDOT identified 29 activity centers. Figure 6-2 illustrates the size and development timeframe for each activity center. While some of these centers may not be ready to support Circulator's high-frequency service today, they may be in need of such service within five to ten years.

Figure 6-2: Activity Centers Considered for Circulator Service



6.2 GROWTH CORRIDORS

The recommended corridors for Circulator expansion reflect a network that meets the transit needs identified in the planning process and embodies the DC Circulator's strategic goals and objectives. An initial set of corridors was developed based on missing transit connections between activity centers (Appendix F), inputs from the many existing studies that were reviewed during the needs assessment, as well as suggestions from the Community Advisory Panel and the public.

BOX 6-1.

Service Planning Measures

A. Number of activity centers served

B. Size of activity centers served

C. Variety of land uses at activity centers served

D. High-frequency transit availability

E. Modal connectivity

F. Connections between the National Mall and activity centers

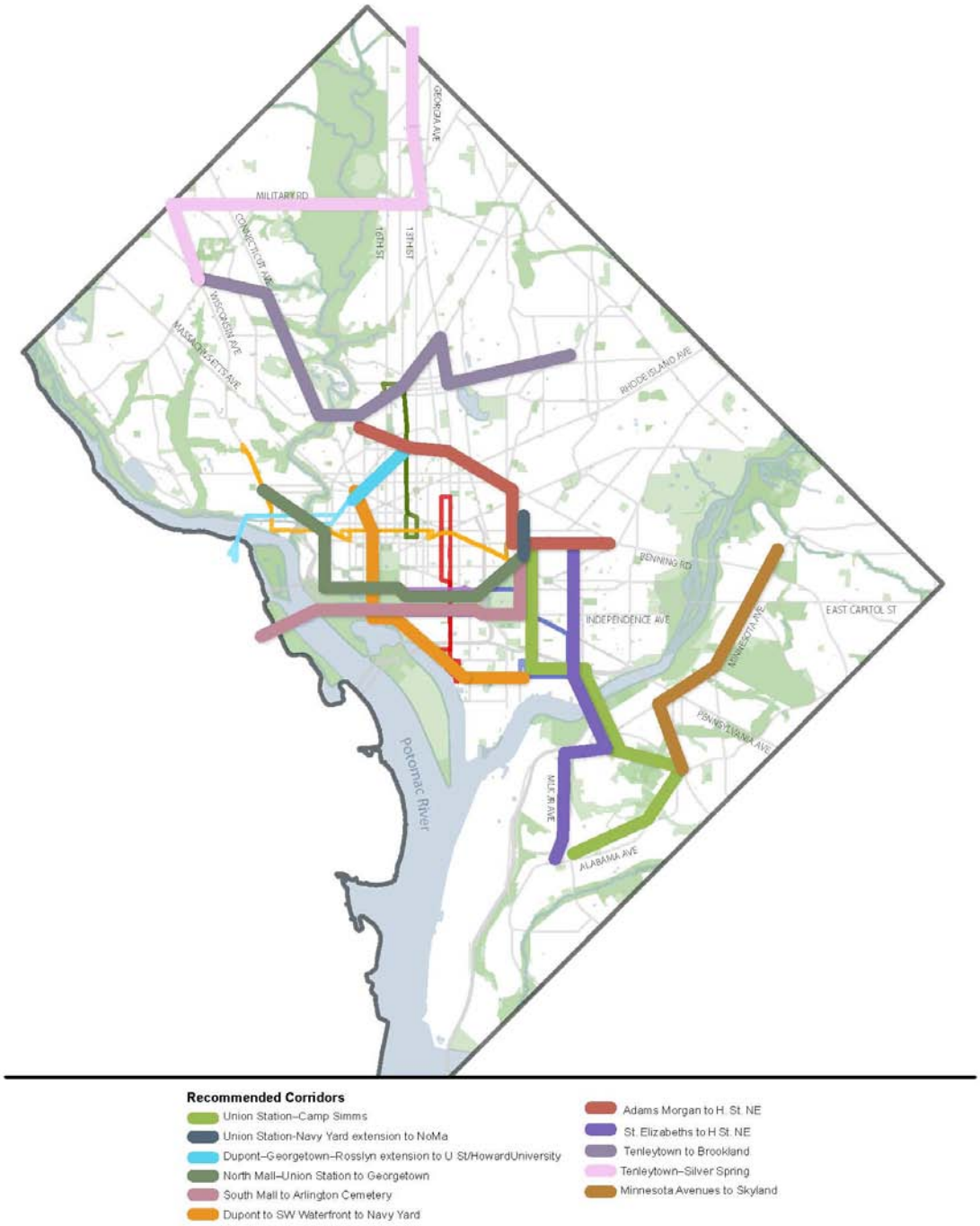
G. Number of visitor destinations served

The service planning measures outlined in Chapter 3 served as criteria for evaluating the growth corridors (Box 6-1). The full list of corridors considered can be found in Appendix H.

The final corridors were selected based on the evaluation of the corridors using the service planning measures and the results of two public open houses and an online survey.

Over the next 10 years, the DC Circulator will grow to serve 11 corridors: nine new corridors and two extensions to existing routes. Figure 6-3 represents general corridors for service rather than specific routes or alignments. More detailed route planning, as well as targeted public outreach, will be completed before specific routings are planned and implemented.

Figure 6-3: Final Recommended Corridors



6.3 RECOMMENDED CORRIDORS

The corridors described below are recommended for Circulator expansion over the next 10 years. There is minimal overlap between the recommended corridors and Metrorail or the Metrobus Priority Corridor Network. However, some of the corridors do overlap with existing local Metrobus service and proposed DC Streetcar alignments. Along most corridors, DDOT will phase out Circulator service as Streetcar service is implemented. DDOT recommended corridors in areas where there is overlap with local Metrobus if improved, high frequency connections are warranted. DDOT will work with WMATA to study these areas in greater depth and determine whether Circulator or high frequency Metrobus is the most appropriate brand of service.

The corridor profiles on the pages that follow summarize the characteristics and possible operational requirements of the corridors recommended for development. The profiles are presented by Phase, as described below and further detailed later in this chapter.

Phase I: Near-Term (FY 2012-2015)

- Union Station – Skyland – Camp Simms
- Dupont Circle-Georgetown-Rosslyn extension to U St/Howard University
- North Mall—Union Station to Georgetown
- South Mall—Union Station to Arlington Cemetery
- Union Station—Navy Yard extension to NoMa
- Dupont Circle—Southwest Waterfront – Navy Yard

Phase II: Mid-Term (FY 2016-2018)

- Adams Morgan—H St NE
- St. Elizabeths Campus/Congress Heights—H St NE
- Tenleytown—Brookland

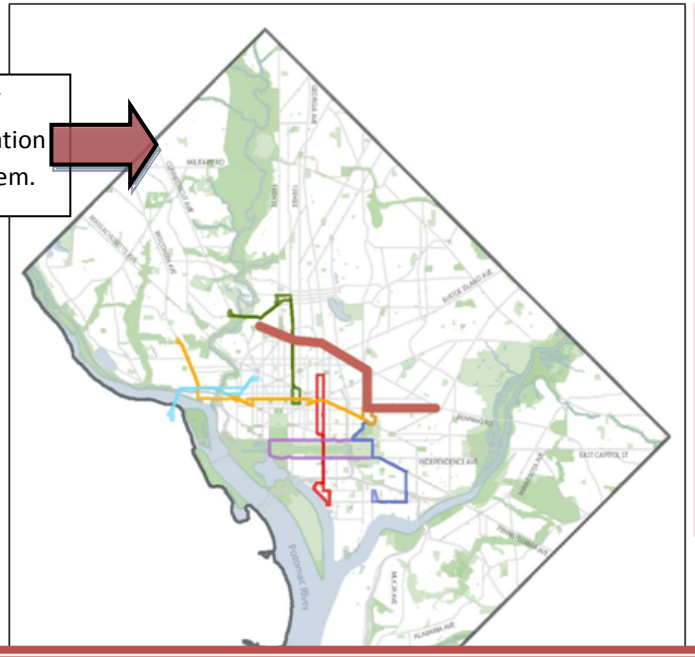
Phase III: Long-Term (FY 2019-2020)

- Tenleytown—Silver Spring
- Minnesota Avenue to Skyland

Circulator Corridor Profiles

Adams Morgan to H Street NE

Map showing location of proposed corridor in relation to the DC Circulator system.



Route Description

The Adams Morgan – H St NE corridor combines elemen
existing 90s and X Metrobus services, providing a new hi
frequency, one-seat ride between Adams Morgan and H
The corridor begins in the heart of the Adam Morgan re
entertainment district, and continues east
Street and Florida Avenue. Beyond the NoM
employment center, the corridor extends east to the bu
H St NE commercial, retail, and nightlife district. The cor
connects to other services at several locations, including
Metrorail (Red line, Union Station; Green and Yellow lines, U
Street) and Amtrak and commuter trains at Union Station.

Describes the recommended corridor, including connections to major activity centers and transfer opportunities within the DC transit system.

Key Characteristics

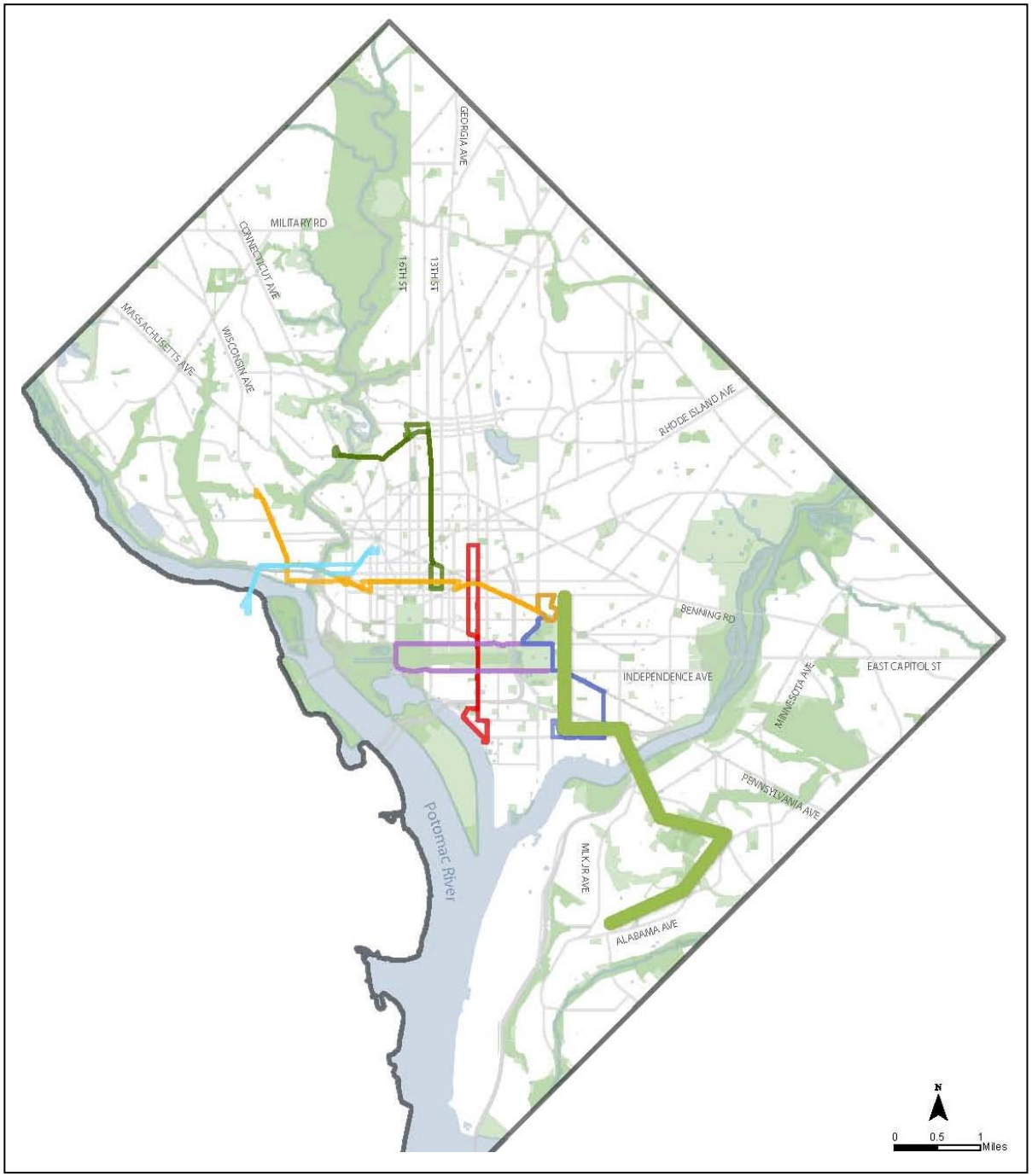
Round-trip Route Length:	9 miles
Peak Vehicles Needed:	7
Annual Operating Cost:	$5,000,000
Anticipated Ridership:	1,626,000
Activity Centers Served:	Adams Morgan; Shaw/Howa University Town Center/14th & U; NoMA/FL-NY Avenue Gateway; H St NE/Starburst Plaza

Key characteristics of the corridor, including the length, annual operating costs, and ridership.

Service Planning Objectives/Measures	Vs. Target
Connect multi-use activity	
Number of activity cen served	
served	
nters	

Service Planning Objectives/Measures	Targets
Connect multi-use activity centers	
Number of activity centers served	Connects 3+ centers
Size of activity centers	Includes 1+ large/medium center
Variety of land uses at activity centers served	4+ land uses at centers served
Complement existing transit options	Creates a new one-seat, high-frequency ride without duplicating service
Ease Metro core capacity constraints	Connects 4+ Metrorail stations
Connect monumental core with activity centers	Traverses the Mall
Connect key visitor destinations	Serves 4+ visitor destination

Phase I: Union Station – Skyland – Camp Simms



Route Description

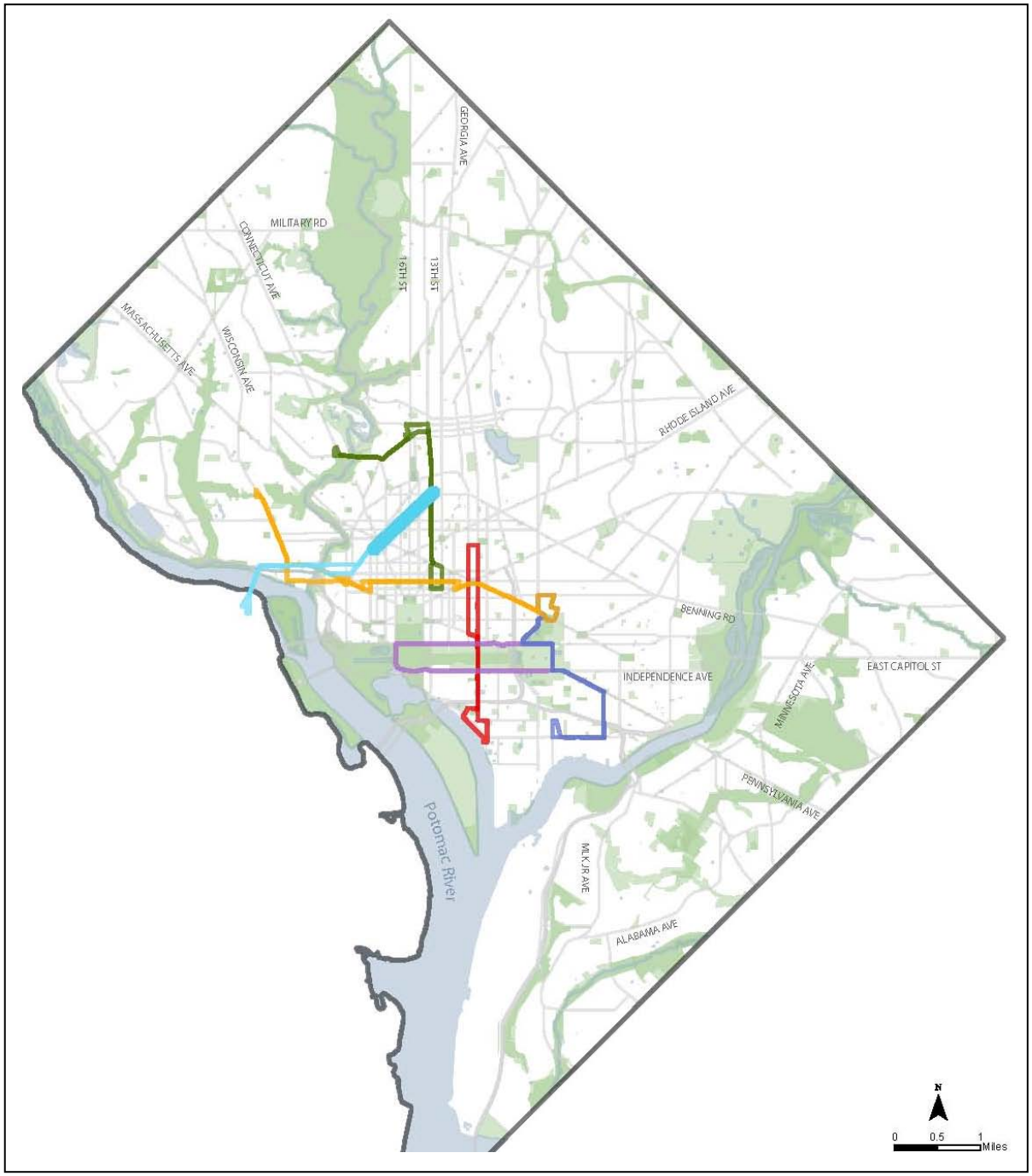
The Union Station – Skyland – Camp Simms corridor would provide service east of the Anacostia River, offering a direct connection between the emerging Skyland activity center at the intersection of Alabama Avenue and Good Hope Rd SE and Union Station and the Capital Riverfront area. This new connection would provide riders with improved access to a critical local retail location, as well as the intermodal transit center at Union Station. It would also offer direct connections to the Green Line (Navy Yard, Congress Heights), Orange and Blue lines (Capitol South) and Red Line (Union Station). Currently, Skyland is not served by Metrorail.

Key Characteristics

Round-trip Route Length:	14.0 miles
Peak Vehicles Needed:	12
Annual Operating Cost:	$4,150,092 (FY2012)
Anticipated Ridership:	1,000,000
Activity Centers Served:	NoMa/FL-NY Ave Gateway; Capitol Riverfront/South Capitol Corridor/Nea SE/Buzzard's Pt; Anacostia; Skyland/Good Hope Rd & Alabama Av SE; St Elizabeth's/Congress Heights

Performance Measure	Vs. Target
Connect multi-use activity centers	
Number of activity centers served	●
Size of activity centers	●
Variety of land uses at activity centers served	●
Complement existing transit options	●
Ease Metro capacity constraints	●
Connect monumental core with activity centers	●
Connect key visitor destinations	●

Phase I: Dupont Circle to U Street / Howard University Extension



Route Description

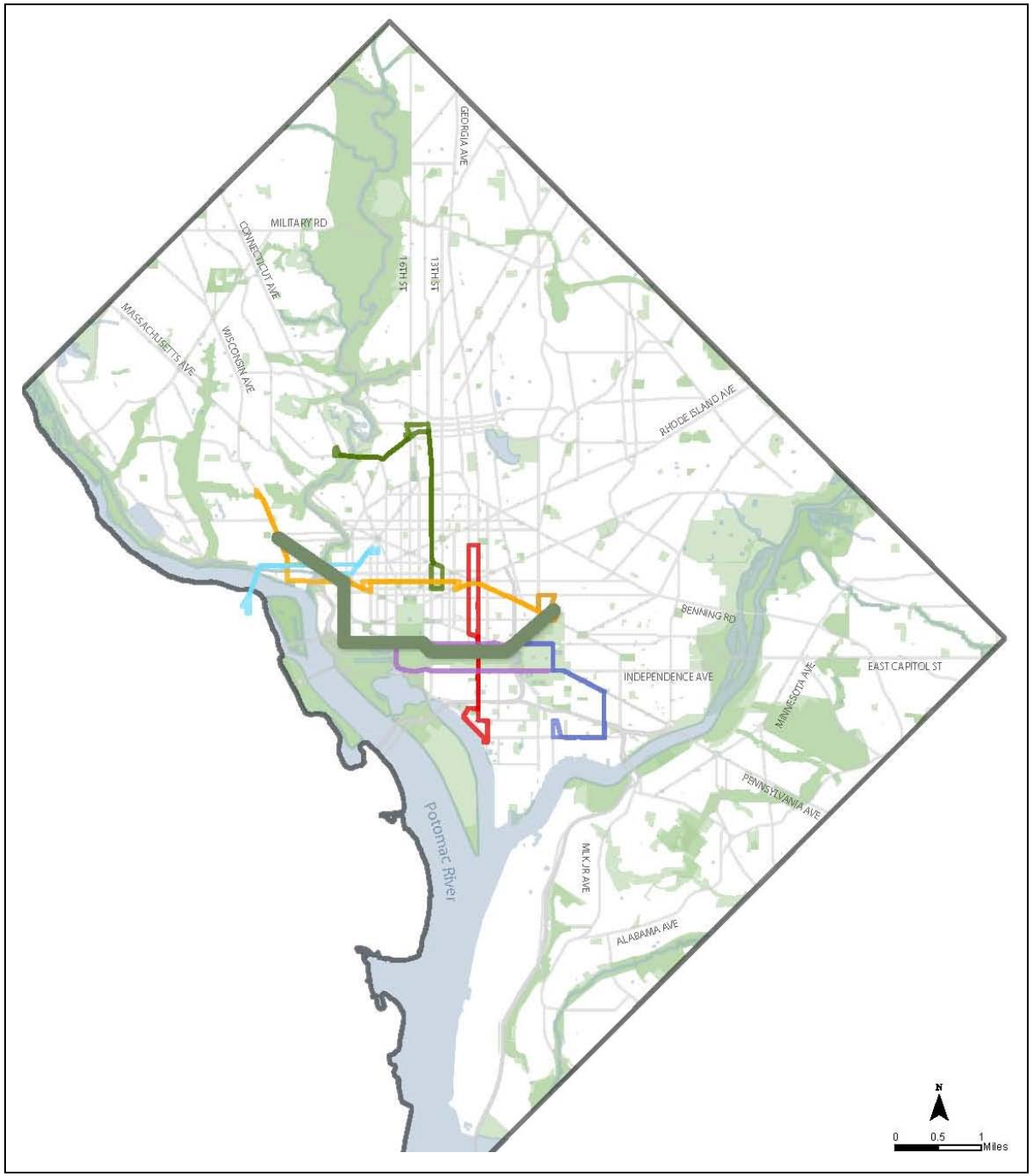
This corridor would extend the Circulator's newest route (Dupont Circle-Georgetown-Rosslyn) from Dupont Circle to U St NW and Howard University. The extension would incorporate U Street's commercial and nightlife district into a corridor that includes similar destinations in DuPont Circle and Georgetown. Howard University and George Washington University would also be linked with a new one-seat transit ride. The corridor would provide a midtown direct connection to all five Metrorail lines.

Key Characteristics

Round-trip Route Length:	3.6 miles
Peak Vehicles Needed:	3
Annual Operating Cost:	$1,575,910 (FY2013)
Anticipated Ridership:	525,000
Activity Centers Served:	Shaw/Howard Univ Town Center/14 & U St; Dupont Circle (on existing route: Foggy Bottom/West End; Georgetown/ Lower Wisconsin; Rosslyn)

Performance Measure	Vs. Target
Connect multi-use activity centers	
Number of activity centers served	●
Size of activity centers	●
Variety of land uses at activity centers served	●
Complement existing transit options	●
Ease Metro capacity constraints	●
Connect monumental core with activity centers	●
Connect key visitor destinations	●

Phase I: North Mall to Georgetown



Route Description

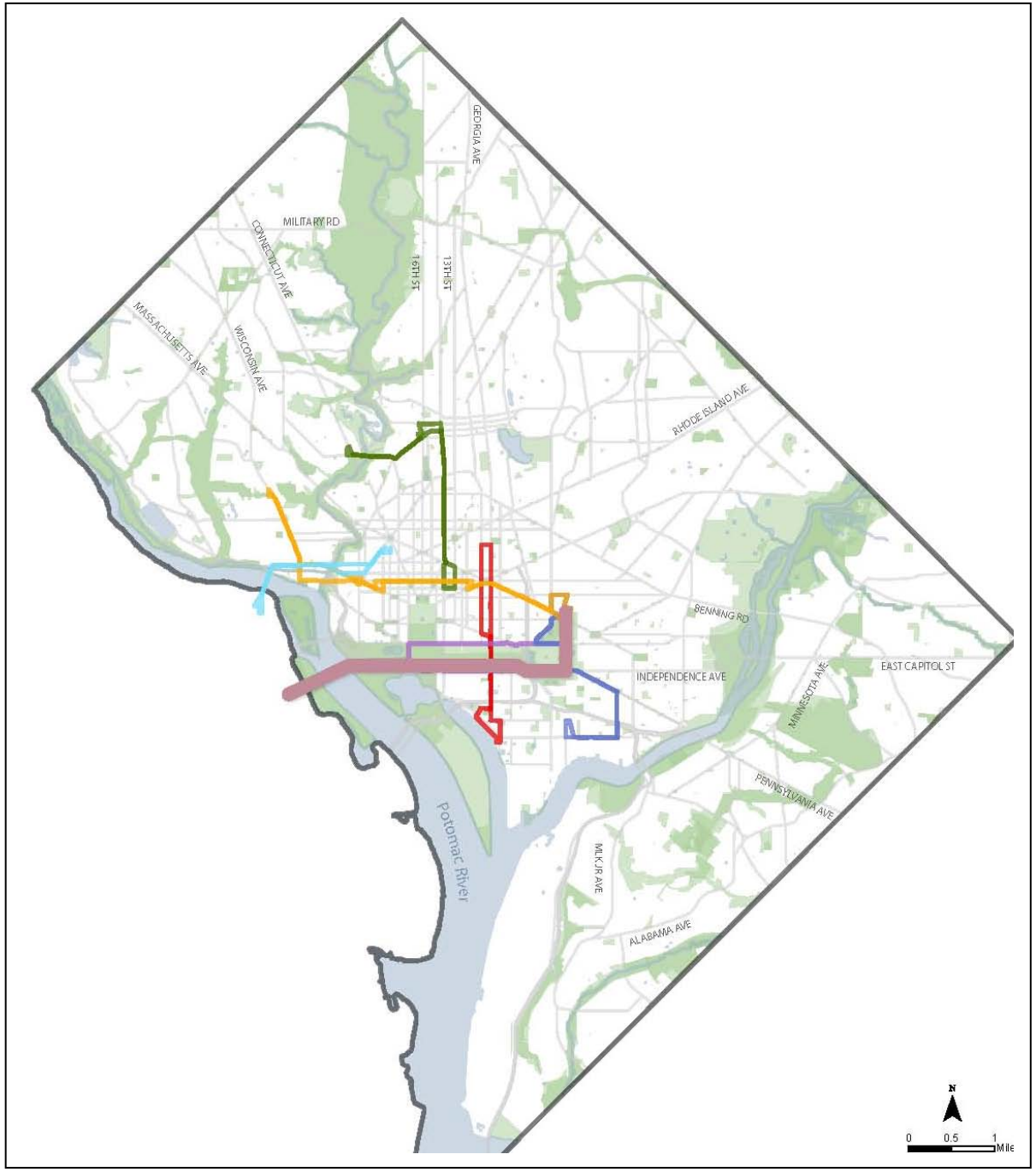
The significant distances between Mall museums and monuments create accessibility challenges for visitors. The paucity of one-seat transit options from the Mall area to other activity centers in the District limits the local economy's access to a potentially lucrative tourism market. The North Mall to Georgetown corridor helps to overcome these barriers. Starting at Union Station, this corridor encompasses the northern portion of the National Mall, including the Washington Monument and the Vietnam Veterans Memorial, two of the most popular and difficult to reach tourist destinations on the Mall. By extending the corridor north on 23rd St NW to George Washington University, visitors have a connection to Metro's Orange and Blue lines at Foggy Bottom and the core of Georgetown, a transportation link that doesn't exist today.

Key Characteristics

Round-trip Route Length:	9.4 miles
Peak Vehicles Needed:	10
Annual Operating Cost:	$4,496,618 (FY2013)
Anticipated Ridership:	1,900,000 (shared with South Mall route)
Activity Centers Served:	Georgetown/Lower Wisconsin; Foggy Bottom/West End; National Mall

Performance Measure	Vs. Target
Connect multi-use activity centers	
Number of activity centers served	●
Size of activity centers	●
Variety of land uses at activity centers served	●
Complement existing transit options	●
Ease Metro capacity constraints	●
Connect monumental core with activity centers	●
Connect key visitor destinations	●

Phase I: South Mall to Arlington Cemetery



Route Description

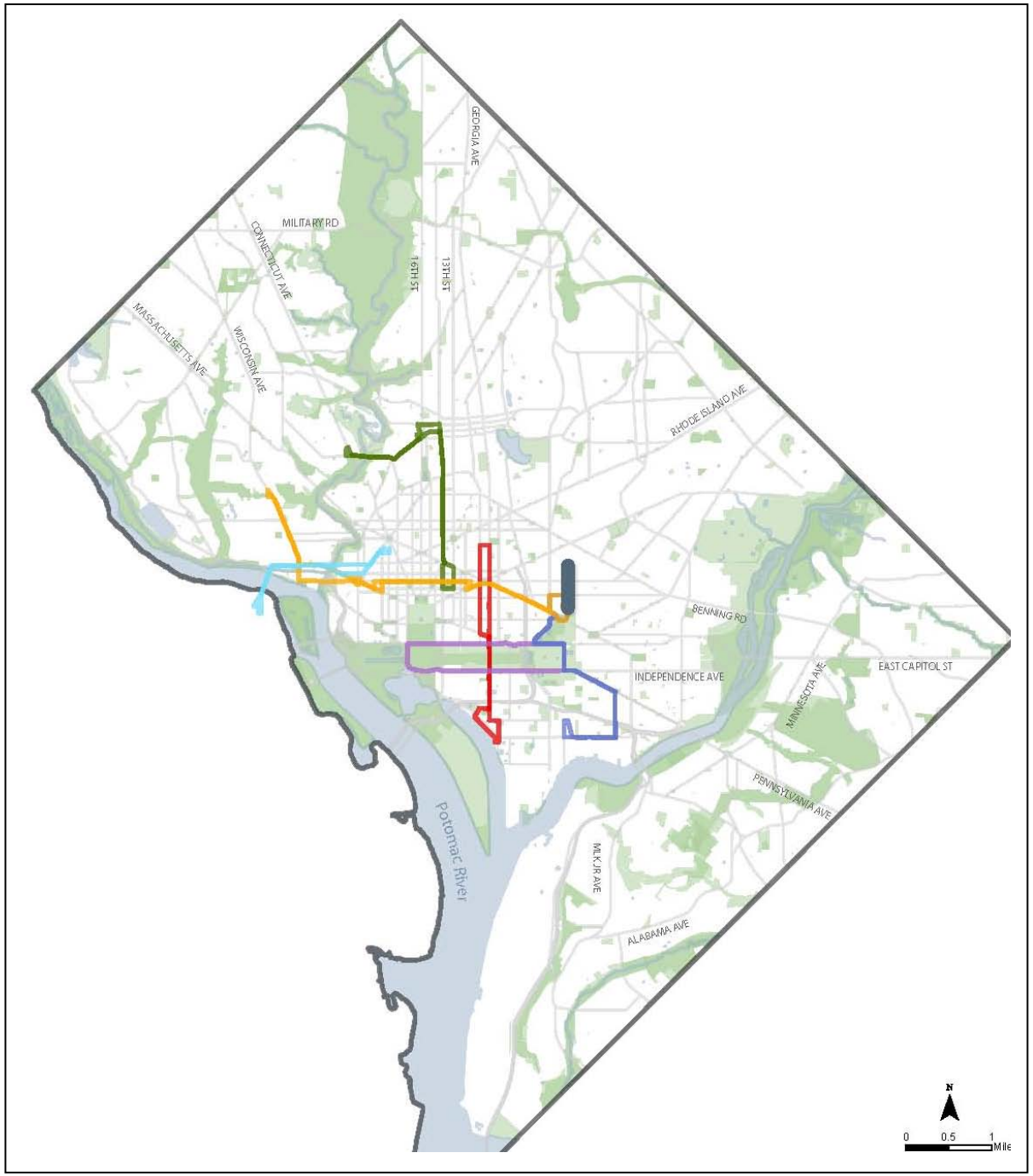
The South Mall corridor links Union Station to Arlington Cemetery along the southern boundary of the National Mall and the key destinations of the Washington Monument and World War II Memorial. Together with the North Mall to Georgetown, this corridor will provide affordable transit service to a robust tourist market. The corridor connects to Metro's Red Line and intercity trains at Union Station and the Metro Blue Line at Arlington Cemetery.

Key Characteristics

Round-trip Route Length:	10.4 miles
Peak Vehicles Needed:	11
Annual Operating Cost:	$4,946,279 (FY2013)
Anticipated Ridership:	1,900,000 (shared with North Mall route)
Activity Centers Served:	National Mall

Performance Measure	Vs. Target
Connect multi-use activity centers	
Number of activity centers served	●
Size of activity centers	●
Variety of land uses at activity centers served	●
Complement existing transit options	●
Ease Metro capacity constraints	●
Connect monumental core with activity centers	●
Connect key visitor destinations	●

Phase I: Union Station – Navy Yard to NoMA Extension



Route Description

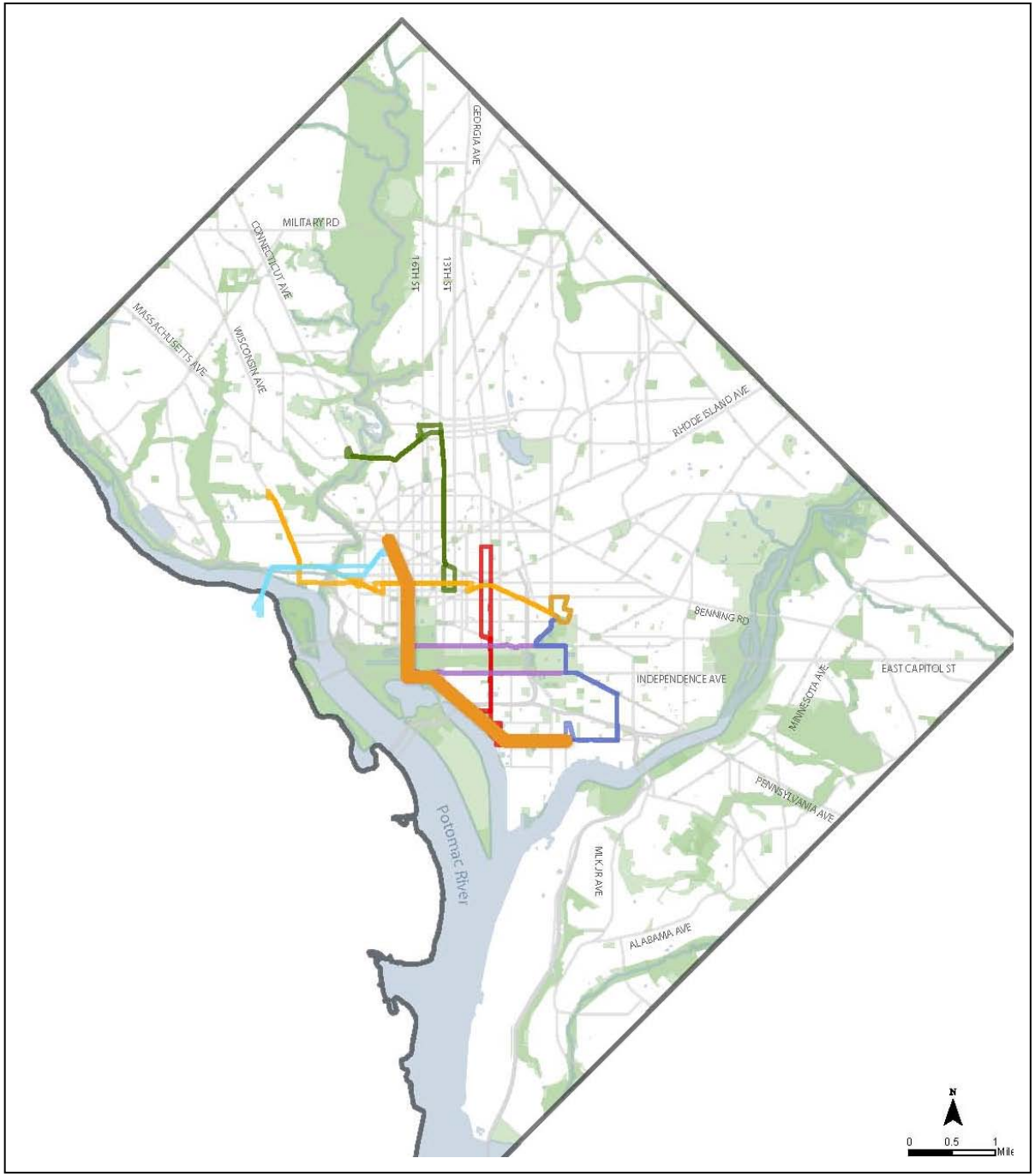
Given the rapid development of the NoMa area, providing Circulator service to augment the growing levels of activity is of vital importance. This corridor extends the current Union Station-Navy Yard service several blocks to the north in order to better serve the NoMa area. The service would provide NoMa residents and workers an easy connection to the Eastern Market and Capitol Riverfront areas, emphasizing the need to connect across the spokes of the Metrorail system.

Key Characteristics

Round-trip Route Length:	2.0 miles
Peak Vehicles Needed:	2
Annual Operating Cost:	$944,290 (FY2014)
Anticipated Ridership:	361,000 (addition to existing route)
Activity Centers Served:	NoMa/FL-NY Ave Gateway (on existing route: Capitol Riverfront/South Capitol Corridor/Near SE/Buzzard Point; National Mall; Penn Ave SE/Eastern Market/Potomac Ave)

Performance Measure	Vs. Target
Connect multi-use activity centers	
Number of activity centers served	●
Size of activity centers	●
Variety of land uses at activity centers served	●
Complement existing transit options	●
Ease Metro capacity constraints	●
Connect monumental core with activity centers	●
Connect key visitor destinations	●

Phase I: Dupont Circle – Southwest Waterfront – Navy Yard



Route Description

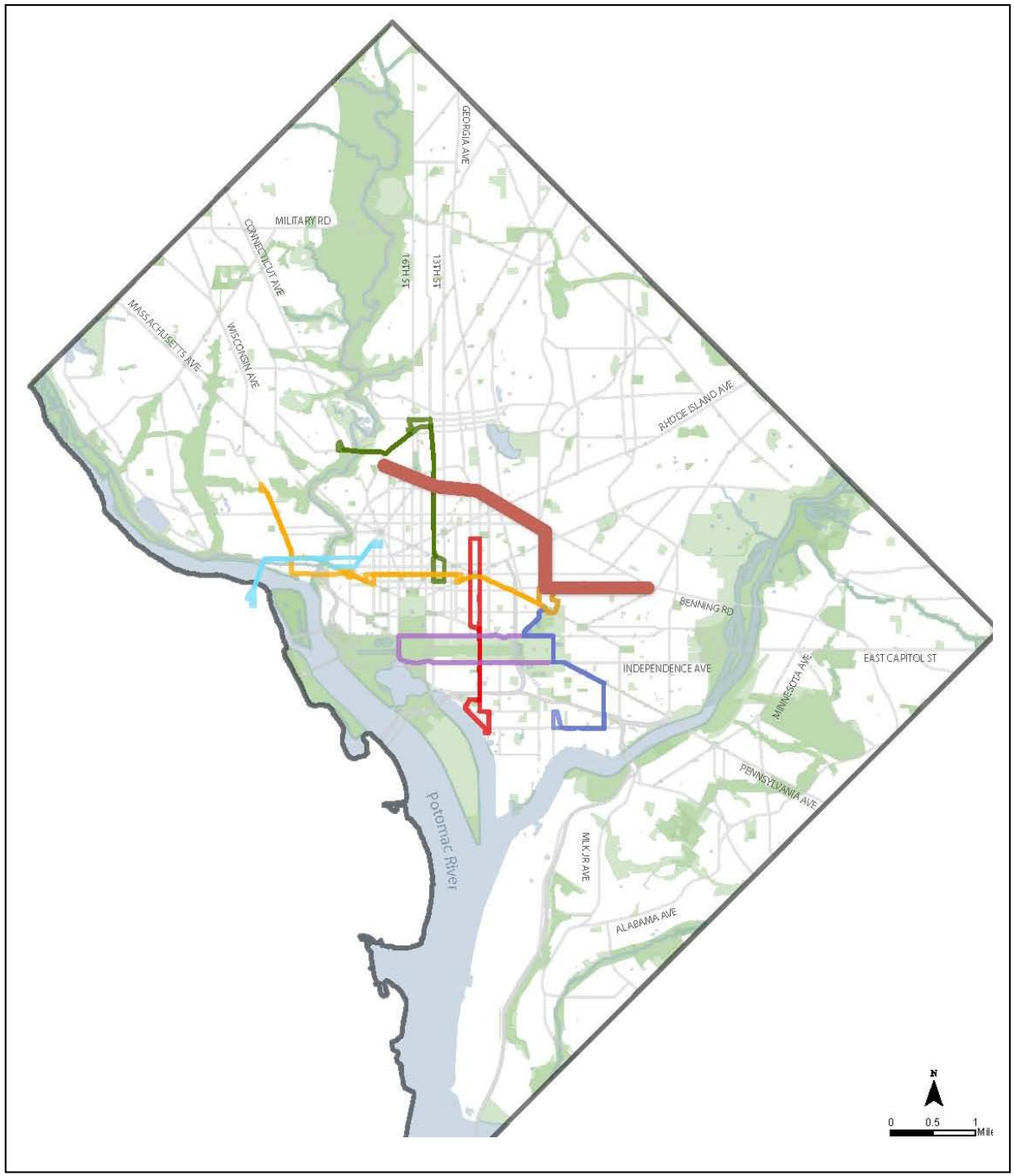
This new corridor will create a new direct connection between the vibrant Dupont Circle area with the growing Southwest Waterfront. Starting in Dupont, the corridor links the greater downtown together via Farragut Square and the White House. From there, it would continue south across the Mall, skirt the edge of the Tidal Basin and connect along Maine Avenue to the Waterfront Metro station (Green Line). The corridor links existing and emerging employment and entertainment areas with popular tourist destinations near the Mall. It is also anchored by Metro connections in the south (Green) and north (Red, Orange, and Blue).

Key Characteristics

Round-trip Route Length:	9.0 miles
Peak Vehicles Needed:	9
Annual Operating Cost:	$4,461,769 (FY2015)
Anticipated Ridership:	1,675,000
Activity Centers Served:	Dupont Circle; Central Washington; National Mall; SW Waterfront/Waterside Mall

Performance Measure	Vs. Target
Connect multi-use activity centers	
Number of activity centers served	●
Size of activity centers	●
Variety of land uses at activity centers served	●
Complement existing transit options	●
Ease Metro capacity constraints	●
Connect monumental core with activity centers	●
Connect key visitor destinations	●

Phase II: Adams Morgan to H Street NE



Route Description

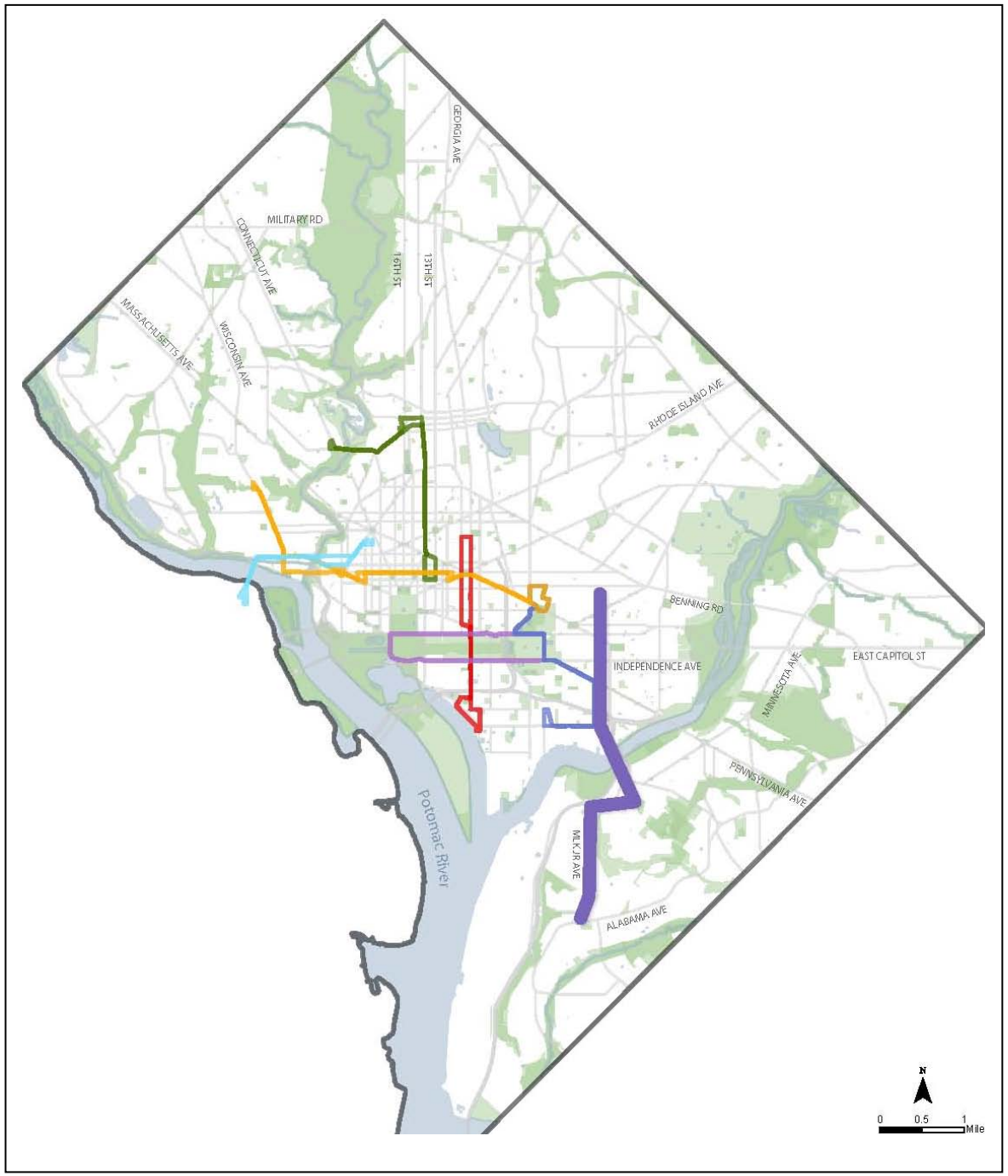
The Adams Morgan – H St NE corridor combines elements of the existing 90s and X Metrobus services, providing a new high-frequency, one-seat ride between Adams Morgan and H St NE. The corridor begins in the heart of the Adams Morgan retail and entertainment district, and continues east to NoMa traversing U Street and Florida Avenue. Beyond the NoMa activity and employment center, the corridor extends east to the burgeoning H St NE commercial, retail, and nightlife district. The corridor connects to other services at several locations, including Metrorail (Red line, Union Station; Green and Yellow lines, U Street) and Amtrak and commuter trains at Union Station.

Key Characteristics

Round-trip Route Length:	9.0 miles
Peak Vehicles Needed:	7
Annual Operating Cost:	$4,684,857 (FY2016)
Anticipated Ridership:	1,626,000
Activity Centers Served:	Adams Morgan; Shaw/Howard University Town Center/14th & U; NoMA/FL-NY Avenue Gateway; H St NE/Starburst Plaza

Performance Measure	Vs. Target
Connect multi-use activity centers	
Number of activity centers served	●
Size of activity centers	●
Variety of land uses at activity centers served	●
Complement existing transit options	●
Ease Metro capacity constraints	●
Connect monumental core with activity centers	●
Connect key visitor destinations	●

Phase II: St. Elizabeth's to H Street NE



Route Description

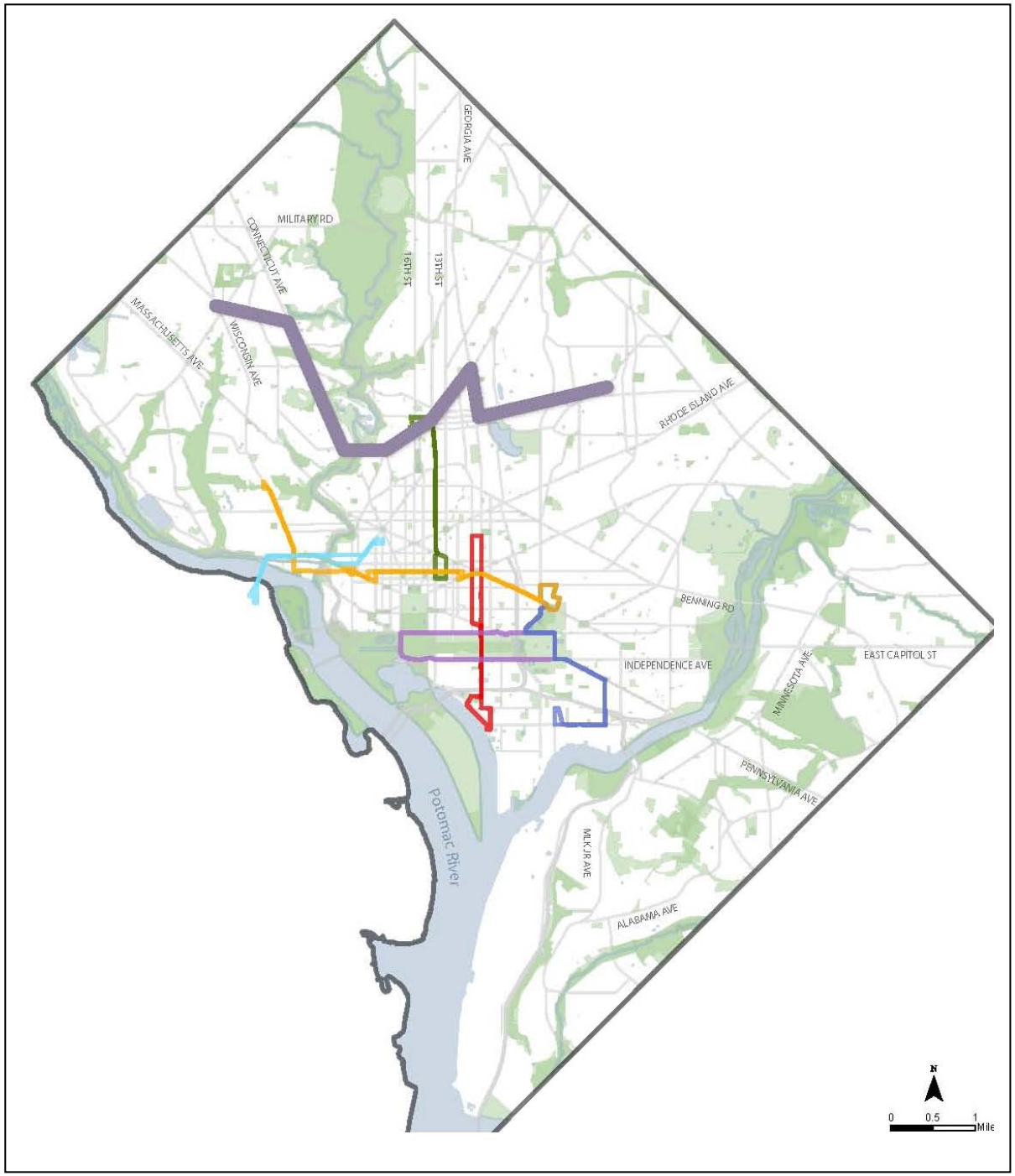
This corridor provides a north-south connection between the emerging activity center around the St. Elizabeth's campus (soon to house the Department of Homeland Security) and the retail areas immediately across the river via the 11th Street Bridge, including Barracks Row and Eastern Market. The corridor extends to the growing H Street NE commercial district by way of 8th Street on Capitol Hill. While the activity centers in this corridor are proximate to one another, they lack direct, high-frequency transit connections. This corridor connects Metro's Green line to the Orange and Blue lines at Eastern Market.

Key Characteristics

Round-trip Route Length:	12.0 miles
Peak Vehicles Needed:	12
Annual Operating Cost:	$6,558,800 (FY2017)
Anticipated Ridership:	2,168,000
Activity Centers Served:	H St HE/Starburst Plaza; Penn Ave SE/Eastern Market/Potomac Ave; Poplar Point; Anacostia; St. Elizabeth's/Congress Heights

Performance Measure	Vs. Target
Connect multi-use activity centers	
Number of activity centers served	🟢
Size of activity centers	🟡
Variety of land uses at activity centers served	🟡
Complement existing transit options	🟡
Ease Metro capacity constraints	🟢
Connect monumental core with activity centers	🔴
Connect key visitor destinations	🔴

Phase II: Tenleytown to Brookland



Route Description

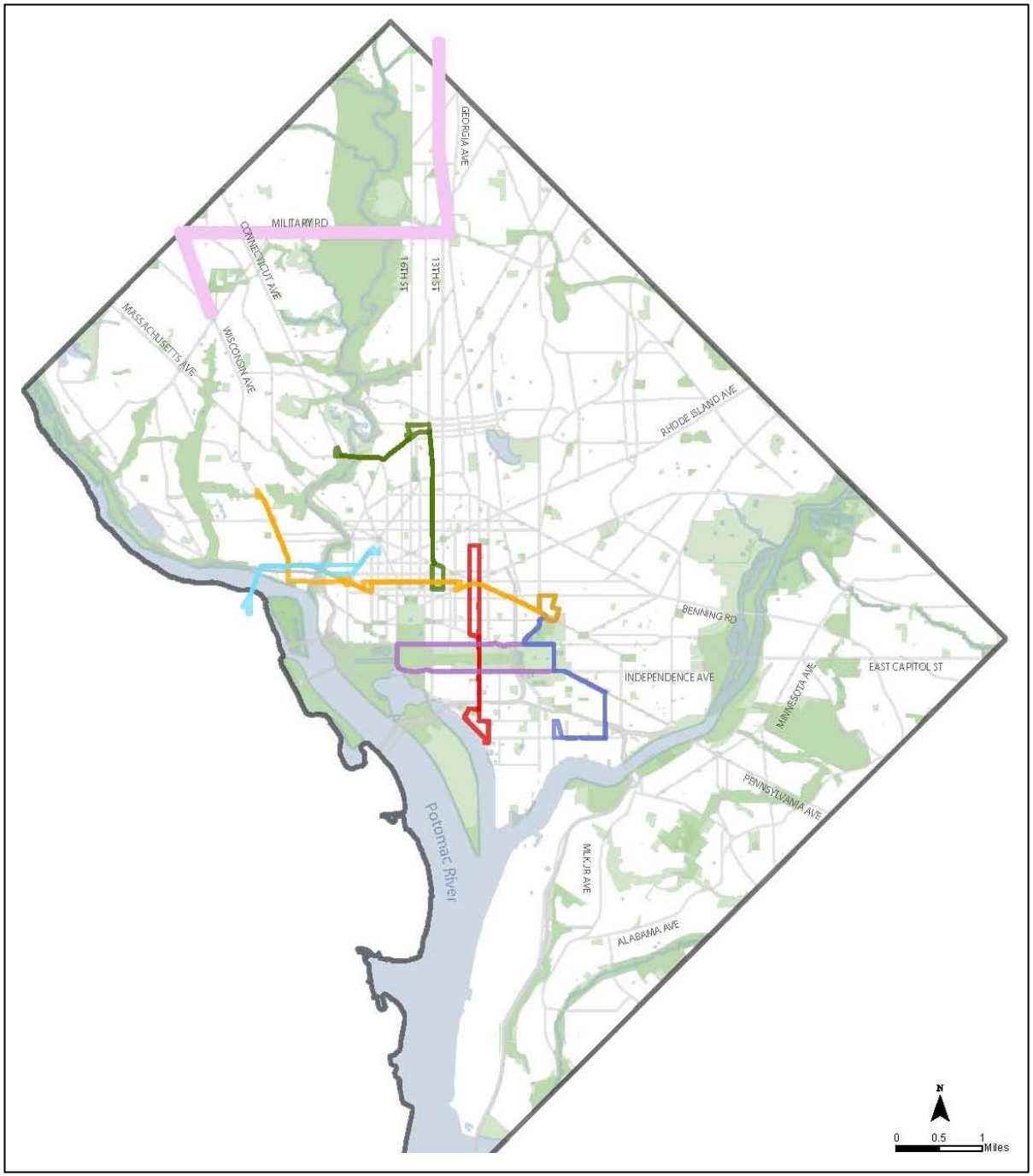
This corridor connects several key activity centers currently disconnected from the Metrorail network and also provides a key east-west route that transverses Rock Creek Park, improving access for residents on both sides of the park. The corridor begins in Tenleytown and ends in Brookland to connect the two branches of Metro's Red Line. It includes the mixed-use areas of Adams Morgan and Columbia Heights and the developing activity center near the Georgia Avenue/Petworth Metro station (Green/Yellow lines). The corridor also encompasses the Washington Hospital Complex, a significant employment center that has limited transit access, before terminating at the Brookland Metro Station.

Key Characteristics

Round-trip Route Length:	16.0 miles
Peak Vehicles Needed:	16
Annual Operating Cost:	$9,182,320 (FY2018)
Anticipated Ridership:	2,891,000
Activity Centers Served:	Tenleytown; Van Ness; Adams Morgan; Columbia Heights; Georgia Ave/ Petworth; Brookland Metro/ Hospital Center/AFRH/McMillan

Performance Measure	Vs. Target
Connect multi-use activity centers	
Number of activity centers served	🟢
Size of activity centers	🟢
Variety of land uses at activity centers served	🟢
Complement existing transit options	🟡
Ease Metro capacity constraints	🟢
Connect monumental core with activity centers	🔴
Connect key visitor destinations	🟡

Phase III: Tenleytown to Silver Spring



Route Description

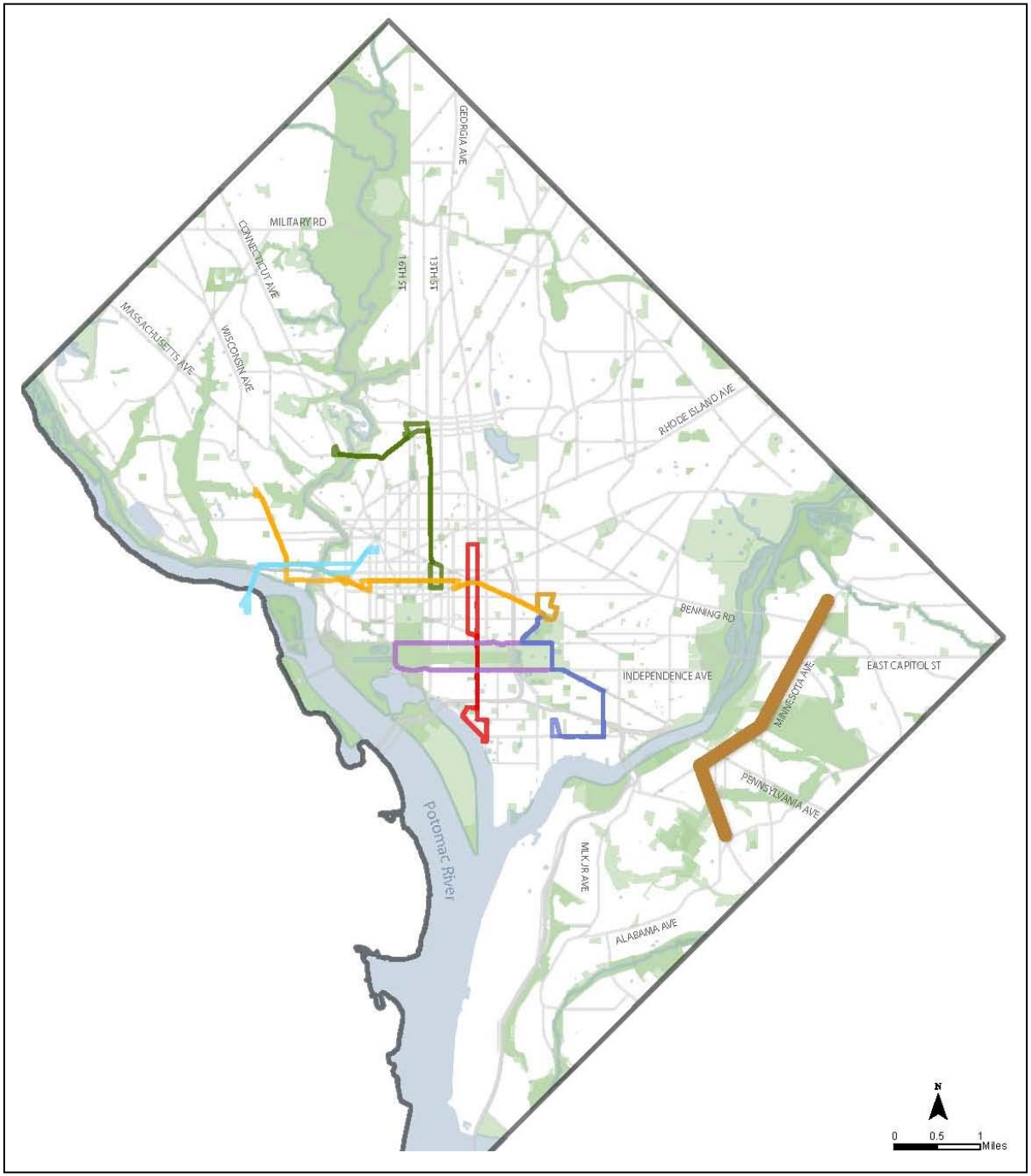
This corridor provides an additional east-west connection across Rock Creek Park, linking neighborhoods to regional activity centers at both ends. Some of these neighborhoods are bypassed by Metro's Red Line connection between Tenleytown and Silver Spring. This corridor includes the Northwest neighborhoods of Tenleytown, Chevy Chase and Brightwood. The Georgia Avenue retail corridor, and the future activity center on the Walter Reed campus are also part of the corridor, which ends at the large, regional employment and activity center in Silver Spring, MD.

Key Characteristics

Round-trip Route Length:	12.2 miles
Peak Vehicles Needed:	13
Annual Operating Cost:	$7,833,667 (FY2019)
Anticipated Ridership:	2,349,000
Activity Centers Served:	Tenleytown; Friendship Heights; Upper Georgia Ave/Brightwood; Walter Reed; Silver Spring

Performance Measure	Vs. Target
Connect multi-use activity centers	
Number of activity centers served	🟢
Size of activity centers	🔴
Variety of land uses at activity centers served	🟡
Complement existing transit options	🟡
Ease Metro capacity constraints	🟡
Connect monumental core with activity centers	🔴
Connect key visitor destinations	🔴

Phase III: Minnesota Avenue to Skyland



Route Description

Local circulation transit service between destinations east of the Anacostia River is currently lacking. The Minnesota Ave-Skyland corridor improves that circulation by creating a new link between these two emerging activity centers. This north-south corridor from Skyland to Minnesota Ave connects the commercial center along Pennsylvania Avenue SE at the foot of the Sousa Bridge to existing and future commercial developments at the intersection of Minnesota Ave and Benning Rd. The corridor's northern end point is the existing Minnesota Ave Orange line Metrorail station, offering residents a high-frequency connection to the Metrorail system.

Key Characteristics

Round-trip Route Length:	6.4 miles
Peak Vehicles Needed:	7
Annual Operating Cost:	$4,429,035 (FY2020)
Anticipated Ridership:	1,265,000
Activity Centers Served:	MN Ave & Benning/MN Ave Metro; Skyland/Good Hope Rd & Alabama Ave SE

Performance Measure	Vs. Target
Connect multi-use activity centers	
Number of activity centers served	●
Size of activity centers	●
Variety of land uses at activity centers served	●
Complement existing transit options	●
Ease Metro capacity constraints	●
Connect monumental core with activity centers	●
Connect key visitor destinations	●

6.4 PHASING OF CORRIDORS

With the selection of the final corridors, DDOT began to plan for development and implementation timelines. The timing of development illustrated on the Activity Center map (Figure 6-2) was a key driver in the phasing of corridor implementation. The timing of development indicates when the activity center would likely have sufficient employment and residential development to support all day high-frequency Circulator service.[4]

Phase I: Near-Term (FY 2012-2015)

- Union Station – Skyland – Camp Simms
- Dupont Circle-Georgetown-Rosslyn extension to U St/Howard University
- North Mall—Union Station to Georgetown
- South Mall—Union Station to Arlington Cemetery
- Union Station—Navy Yard extension to NoMa
- Dupont Circle—Southwest Waterfront – Navy Yard

Phase II: Mid-Term (FY 2016-2018)

- Adams Morgan—H St NE
- St. Elizabeths Campus/Congress Heights—H St NE
- Tenleytown—Brookland

Phase III: Long-Term (FY 2019-2020)

- Tenleytown—Silver Spring
- Minnesota Avenue to Skyland

The operating requirements associated with the recommended corridors are summarized in Table 6-8.

[4] The National Mall is a severely underserved area within the (already developed) Central Washington activity center. Corridors serving the National Mall were therefore prioritized for implementation.

Figure 6-5: Phase I Recommended Corridors (FY 2012 – 2015)

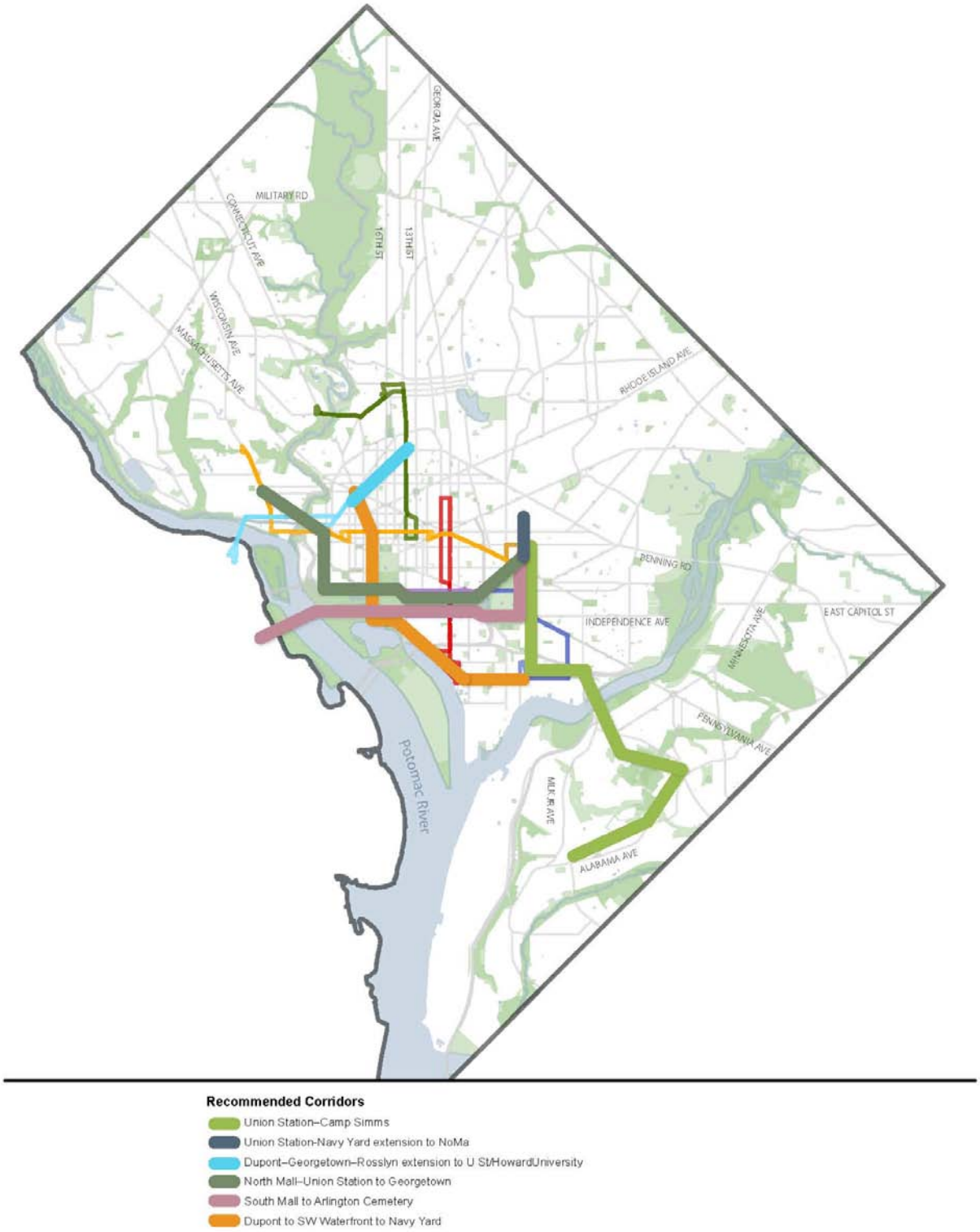


Figure 6-6: Phase II Recommended Corridors (FY 2016 – 2018)

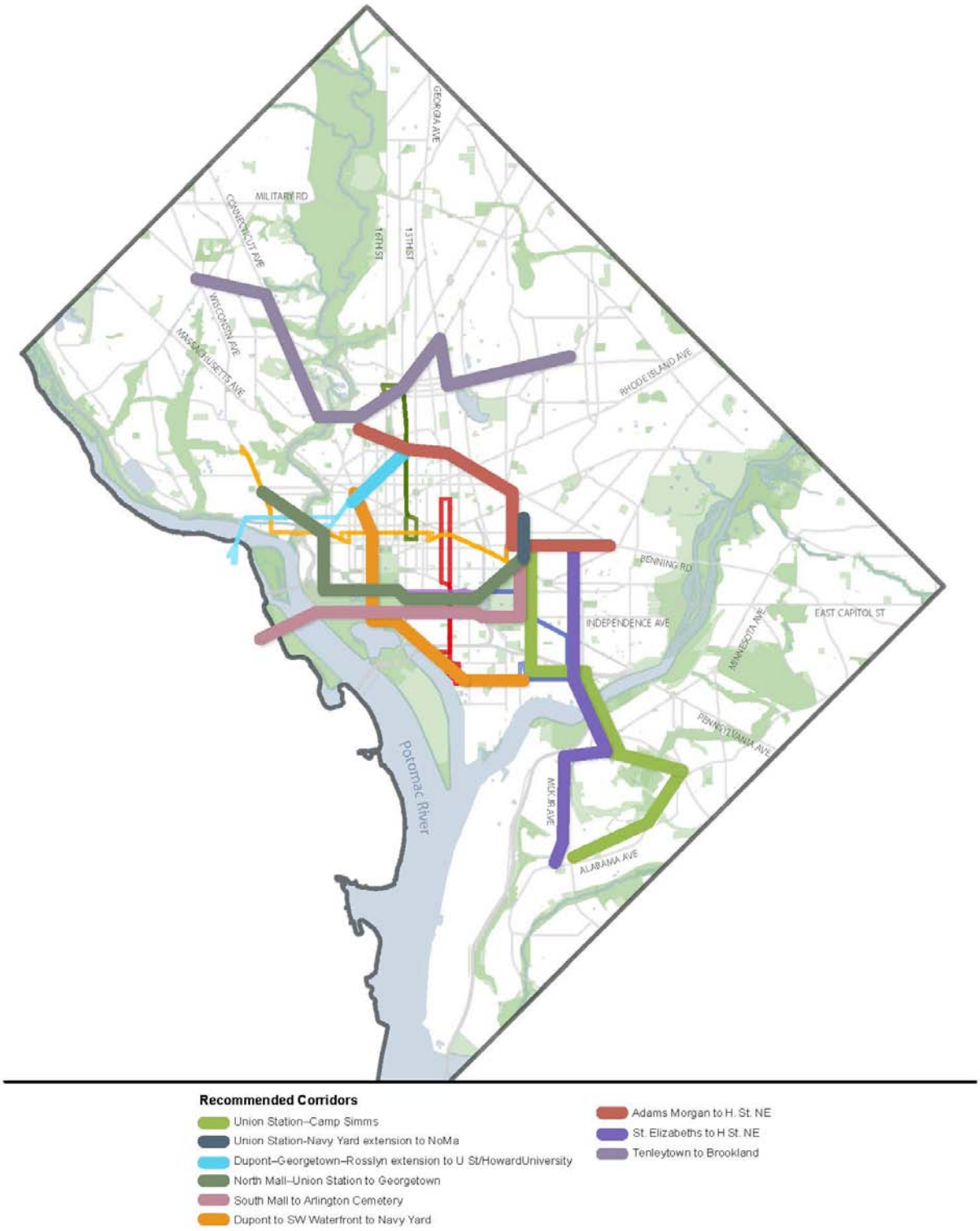


Figure 6-7: Phase III Recommended Corridors (FY 2019 – 2020)

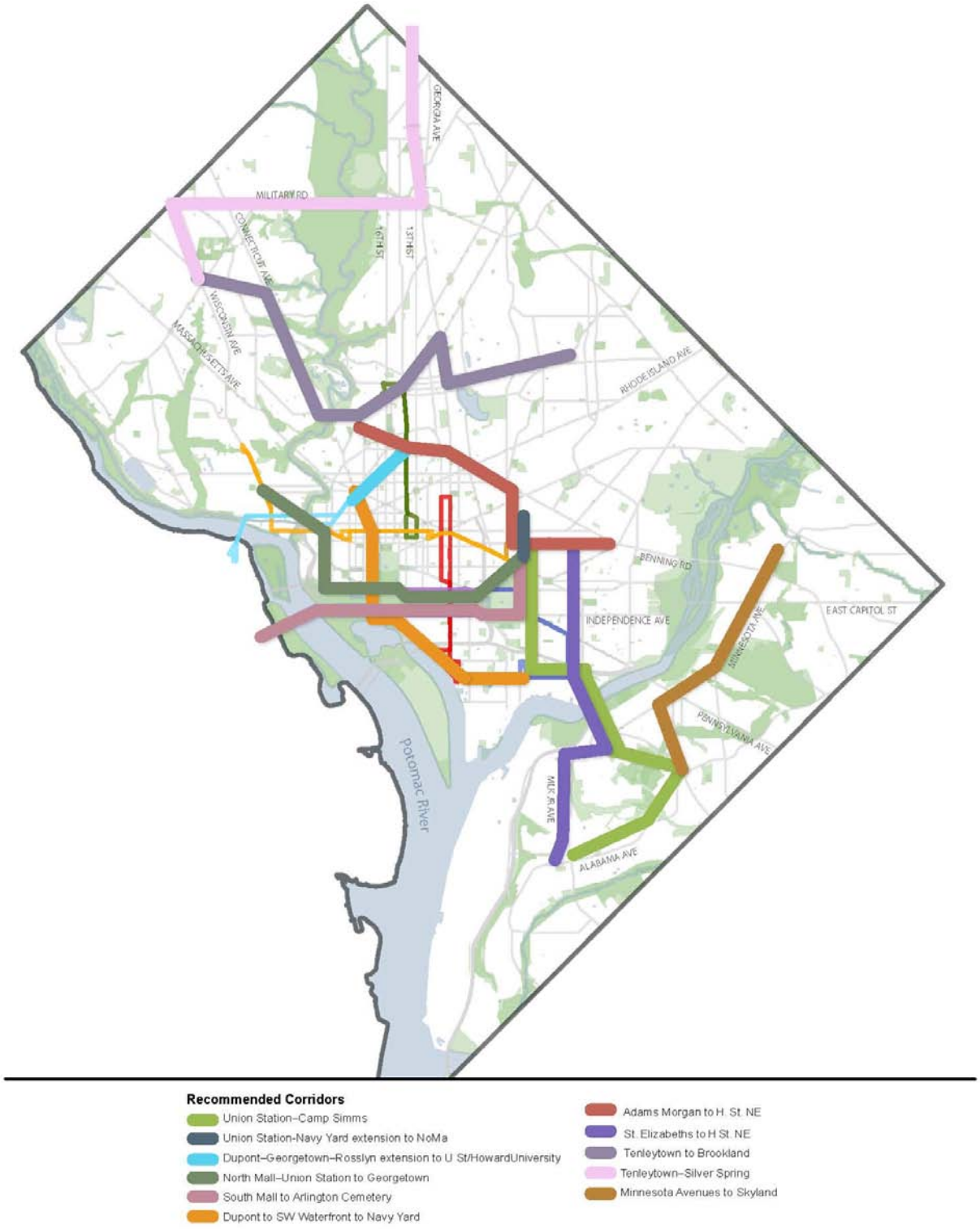


Table 6-8: Corridor Operating Cost Estimates

	Round-trip Route Length	Peak Vehicles	Peak + Spare Vehicles	Annual Revenue Hours	Annual Operating Cost [1]
Phase I (FY 2012 - 2015)					
Union Station – Skyland – Camp Simms	14.0	12	14	50,700	$ 4,150,092
Dupont Circle – Georgetown – Rosslyn extension to U St/Howard U	3.6	3	4	19,188	$ 1,575,910
North Mall – Georgetown/Lower Wisconsin	9.4	10	12	54,750	$ 4,496,618
South Mall – Arlington Cemetery	10.4	11	13	60,225	$ 4,946,279
Union Station - Navy Yard extension to NoMA	2.0	2	3	10,950	$ 944,290
Dupont – SW Waterfront/Waterside Mall – Navy Yard	9.0	9	11	49,275	$ 4,461,769
Phase I Subtotal	***48.4***	***47***	***57***	***245,088***	***$ 20,574,958***
Phase II (FY 2016 - 2018)					
Adams Morgan – H St NE/Starburst Plaza	9.0	7	9	49,275	$ 4,684,857
St. Elizabeth's Campus/Congress Heights – H St NE	12.0	12	14	65,700	$ 6,558,800
Tenleytown – Brookland Metro/Hospital Center/AFRH/McMillan	16.0	16	19	87,600	$ 9,182,320
Phase II Subtotal	***37.0***	***35***	***42***	***202,575***	***$ 20,425,977***
Phase III (FY 2019 - 2020)					
Tenleytown – Silver Spring	12.2	13	15	71,175	$ 7,833,667
Minnesota Ave Metro Station Area – Skyland	6.4	7	9	38,325	$ 4,429,035
Phase III Subtotal	***18.6***	***20***	***24***	***109,500***	***$ 12,262,701***
Total	**104**	**102**	**123**	**557,163**	**$ 53,263,636**

[1]Operating costs are reported for first year of implementation only and increase by 5% annually thereafter (with exception of FY2012 route additions). Costs are estimated based on existing contract with operator.

6.5 ROUTE DEVELOPMENT

Establishing a transit corridor provides guidance for planning, but it is only a preliminary step in a more detailed process of turning a corridor into an operable transit route. After a transit corridor is identified, a turnaround area at each end of the corridor must be determined. Then, DDOT must identify the stop locations along the corridor. WMATA's Guidelines for Bus Stop Design, Information and Placement (2009) will help determine where the roadway network will support establishment of a bus stop zone. Once start points, intermediate stops, and endpoints are established, a proposed routing using the existing street network can be determined. A staff member must physically drive the proposed route as a bus would drive it (pausing at each identified bus stop to account for boardings and alightings) and identify any adjustments as necessary. For example, a proposed turn may not be operable by a long transit vehicle because of short intersection radii or a proposed roadway segment may be too narrow for operations by a full size bus. Once a final route is determined, the staff member drives the route a number of times at different times of day (again, accommodating for boardings/alightings at each bus stop) to establish the likely end-to-end running time for the new route. Finally, DDOT will take the one-way running time, add in recovery time at the end of each one-way trip, and combine it with a headway time to determine how many buses will be needed to operate the route at a predetermined headway.

As defined in Chapter 9, DDOT is committed to continuing the public participation process started with the development of this plan and will provide opportunities for public input as specific routes are designed and implemented.

Chapter 6 Key Takeaways

- Analysis of existing and needed transit connections between 29 key activity centers, a review of previous planning studies, and public input informed the initial list of corridors considered for development.
- The planning criteria based on the DC Circulator's strategic goals and objectives, as well as public feedback further refined the selection of 11 final corridors for development.
- The activity centers connected by the 11 final corridors are in different stages of development. Corridor phasing was based on need and the timing of development in each center.
- Opportunities to assess the appropriateness of proposed transit service in the recommended corridors will occur throughout the public participation process and Plan updates,

Chapter 7
Implementation Plan

Chapter 7 Key Questions

- What are the potential service improvements recommended by the operations and corridor analyses?
- What are the recommended routes targeted by the implementation plan?
- What are the associated costs and resource requirements of the recommended service improvements and routes?

With operational analyses of the current corridors conducted and future corridors for development determined, an implementation plan to carry out the identified service improvements is a necessary next step. This chapter provides a multi-year implementation plan, focusing on Phase I service changes and recommended routes. Service improvements include changes to bus operations, consolidation of bus stops, and route extensions that can be accomplished in the near-term. Proposals for new routes are also part of the plan for continued improvements to the Circulator system.

DDOT is committed to involving the public in route and service changes. The improvements discussed in this chapter are recommendations and will be refined through a public outreach process. DDOT will hold a public hearing when discontinuing or implementing route, decreasing the span, or changing the fare structure or rate.

7.1 PHASE I SERVICE CHANGES

A number of service improvements are recommended for near-term implementation in Phase I. Many of the improvements are the result of various inputs from the operations analyses (Chapter 5) and corridor development process (Chapter 6). Corresponding savings, costs, and revenue noted below apply for the first year of implementation only.

- **Increase the cash fare to $2.00 (SmarTrip fare to $1.50).**

  DDOT recommends raising the cash fare on Circulator buses to $2.00. This leaves in place the simplicity of a round dollar base boarding charge and captures double the revenue from every cash-paying customer. On SmarTrip, Circulator should increase the base boarding

charge to $1.50 – a 50 percent increase but still comparable to Metrobus SmarTrip fare – and the transfer from Metrorail to $0.75. Senior and disabled rider fares are expected to increase to $1.00, from 50 cents.

In the event of a fare change, it will also be necessary to re-evaluate the Circulator's current day pass system. Currently, Circulator passes are underutilized and not well-advertised. As part of the continued development of the system, DDOT will develop new pass options that are more adaptive to and interoperable with existing fare payment technologies, such as SmarTrip.

- *Total Revenue:* $4,018,176 (FY2012)

- **Consolidate bus stops to achieve limited-stop service on all routes.**

  Bus stop consolidation is recommended for the Union Station – Georgetown route. Based on strong public support of limited-stop service, and after reviewing stop spacing guidelines used by WMATA and the Maryland Mass Transit Administration, DDOT determined that a three to four stop per mile guideline best suited the Circulator operating environment.

  - *Savings:* 0 peak period vehicles (FY2012)

- **Relocate the Union Station stop.**

  The current Union Station stop is located in the bus level of the parking garage. The bus stop will be moved back to the street level on Columbus Circle. The stop will ideally be located in front of Union Station, facilitating transfers with Metrobus and tourist bus services. Layover and comfort breaks for operators will still take place on the Union Station parking deck.

  - *Savings:* None (FY2012)

- **Discontinue the Smithsonian–National Gallery of Art route.**
  DDOT should discontinue the Smithsonian–National Gallery of Art route in anticipation of new National Mall service, proposed in 2013, which will better serve tourists, local visitors, and employees. The existing Smithsonian – National Gallery of Art route has extremely low ridership. This recommendation was implemented as part of April 2011 service changes.

  - *Savings:* 0 peak period vehicles, $129,167 in annual operating costs[5] (FY2012)

[5] The Smithsonian – National Gallery of Art route is operated only on weekends using five vehicles that provide weekday service on the Georgetown-Union Station route. Five (5) vehicles will be available for allocation elsewhere in the system during weekends only.

- **Suspend the Convention Center – Southwest Waterfront route.**

  DDOT should suspend the Convention Center – Southwest Waterfront route. DDOT's policy (outlined in Chapter 9) is to work to improve performance on a route before recommending elimination or suspension. In 2008, DDOT and DCST invested substantially in a marketing campaign in an effort to increase ridership on this route. Although a small increase was experienced in the three months immediately following the campaign, ridership dropped off afterwards. Currently, the Convention Center – Southwest Waterfront route is experiencing its lowest ridership since 2007.

  The route is also facing serious operational challenges due to the construction of several large development parcels: the Convention Center hotel, CityCenter DC, and the Southwest Waterfront. The ongoing construction has eliminated roadway and sidewalk capacity and forced the elimination of several key bus stops. Once these developments are open for business in FY2013 or 2014, they will help establish large, important activity centers with a high demand for frequent transit service. DDOT should reinstate service of the Convention Center – Southwest Waterfront route after the completion of construction and when these activity centers are more developed. The implementation of enhanced National Mall service may also be an appropriate time to reinstate service.

  During the suspension of service, Metrobus and Metrorail will continue to provide transit access for residents and visitors.

  - *Savings:* 6 vehicles, $2,472,084 in annual operating costs (FY2012)

- **Change the hours of late-night service on the Woodley Park – Adams Morgan – McPherson Square Metro route.**

  The operations of the popular Woodley Park – Adams Morgan – McPherson Square Metro route should be changed to end at 2:00 a.m. instead of 3:30 a.m., due to extremely low ridership.

  - *Savings:* 0 peak period vehicles, $57,557 in annual operating costs (FY2013)

- **Implement extended evening hours and new weekend service on Union Station – Navy Yard.**

  Weekday service on this route will be extended by two hours in the evening, and new weekend service (Saturday only) with a 15-hour service span will also be implemented. The extended evening weekend service will be a cost neutral change due to the elimination of the Smithsonian – National Gallery of Art route, which is currently funded for the spring and summer seasons (April through September) only. This service change is the first attempt to improve ridership on the Union Station – Navy Yard route, which is currently not achieving Circulator performance targets but is still a relatively new route that could benefit from

service improvements. This recommendation (weekday service from 6 a.m. to 9 p.m., Saturday service 7 a.m. to 9 p.m.) was implemented as part of April 1, 2011 service changes on a seasonal basis. Full daily extended hours are planned as part of the merging of this route with new service east of the Anacostia River, dependent on funding in the FY2013 budget.

- *Cost:* No vehicles, $117,475 in annual operating costs (FY2012)

- **Retrofit vehicles with bus stop annunciators and dot matrix signs.**

  This investment will improve compliance with the Americans with Disabilities Act, which requires the announcement of bus stops. In addition, the dot matrix signs will allow hearing-impaired persons to know the stop. These features are activated by the Automatic Vehicle Locator system already on the buses. These improvements will also improve the rider experience for visitors and others less familiar with the system.

  - *Cost:* $525,000 one-time cost for existing vehicles (FY2012); approximately $10,000 per vehicle for new vehicles

7.2 PHASE I CORRIDOR DETAIL

While DDOT began evaluating route options for Phase I recommended corridors, additional planning is necessary. As mentioned above, DDOT will solicit public input before implementing new or extended routes. As with the service changes, the corresponding savings, costs, and revenue noted below apply for the first year of implementation only.

- **Extend the Union Station – Navy Yard route East of the Anacostia River/Reroute onto 2nd St NE**

  Based on the proposed Union Station – Skyland – Camp Simms corridor, DDOT recommends extending the Union Station – Navy Yard route over the South Capitol St Bridge to serve Historic Anacostia, Skyland, the Giant Food at Camp Simms, and Congress Heights Metro. This extension will provide a one-seat ride from Anacostia and Skyland to employment, dining, and shopping opportunities at Navy Yard, Capitol Hill, and Union Station. DDOT also proposes rerouting Union Station – Navy Yard onto 2nd St to streamline the route and avoid congestion around Union Station.

  The extension of service East of the Anacostia River will be a phased implementation of single-route service from Congress Heights Metro to Union Station, as follows:

  - *October 1, 2011 to March 31, 2012: Five day service*
    Monday through Friday, from 6 a.m. to 7 p.m.
  - *April 1, 2012 to September 30, 2012: Six-day service*

Monday through Friday, from 6 a.m. to 9 p.m.
Saturday from 7 a.m. to 9 p.m.
Extended baseball service until midnight and on Sundays for home games between Union Station and Navy Yard only.

- *October 1, 2012 (assuming adequate FY2013 funding): Daily service*
  Monday through Friday, 6 a.m. to 9 p.m.
  Saturday and Sunday, 7 a.m. to 9 p.m.
  Extended baseball service until midnight and on Sundays for home games between Union Station and Navy Yard only.
    - *Cost:* 6 additional vehicles, $2,055,485 in additional annual operating costs[6] (FY2012)

- **Extend the Dupont Circle – Georgetown – Rosslyn route to U St/ Howard University**

  The existing Dupont Circle – Georgetown – Rosslyn route should be extended to U Street and Howard University Hospital via 18th St NW and U St NW. This extension will provide service to additional activity centers (Adams Morgan and Shaw/Howard University Town Center/14th & U St). DDOT will strive to develop routing that circumvents Dupont Circle and its related traffic congestion.

  - *Cost:* 3 vehicles, $1,575,910 in annual operating costs (FY2013)

- **North Mall (via Madison Drive NW): Union Station – Georgetown**
  South Mall (via Jefferson Drive SW): Union Station – Arlington Cemetery.

  DDOT proposes route alignments that provide access to key visitor destinations, as well as new connections between the Monumental Core and District neighborhoods. The recommended routes offer two one-seat rides from one end of the Mall to the other, serve the front door of the Mall, and connect the Mall with other major destinations and Metrorail stations.

  - *Cost:* 21 vehicles, $9,442,897 in annual operating costs (FY2013)

- **New connection from Union Station to NoMa**

  DDOT considered extending either the Union Station – Navy Yard route to NoMa or rerouting the Georgetown – Union Station route to access this burgeoning activity center. The Union Station - Navy Yard route is already longer than a standard Circulator route and Georgetown – Union Station has a strong ridership base. DDOT will continue to work with

[6] Assumes extended evening and weekend hours on Union Station – Navy Yard route.

the public and key stakeholders in Phase 1 to determine the best possible routing to improve transit access to NoMa.

- *Cost:* 2 additional vehicles, $944,290 in additional annual operating costs (FY2014)

- **Dupont Circle – SW Waterfront – Navy Yard**

  This route provides a new, direct transit connection between the Dupont Circle, Central Washington, SW Waterfront, and Navy Yard activity centers. The route could potentially serve the World War II Memorial, which was a need identified in previous visitor surveys. Traveling through downtown and the National Mall via 17th Street NW and continuing to Maine Ave SW to reach the SW Waterfront, this new service will provide a direct transit connection between several major activity centers.

  - *Cost:* 9 vehicles, $4,461,769 in annual operating costs (FY2015)

The total cost of all service changes and new/extended routes proposed from Phase I are detailed in Table 7-1.

Table 7-1 Phase 1 Service Changes and New Routes

		Incremental Change				
		Round-trip Route Length	*Peak Vehicle Needs*	*Annual Revenue Hours*	*Annual Operating Costs [1]*	
Route	**Description**					
Union Station - Navy Yard – Congress Heights Metro	Extend Union Station - Navy Yard to Congress Heights, includes extended evening & weekend hours	7.9	6	50,700	$	2,055,485
Dupont Circle - Georgetown - Rosslyn	Extend to U St and Howard Univ. Hospital	3.64	3	19,188	$	1,575,910
Georgetown to Union Station	Move Union Station stop to Columbus Circle, re-route to Lower K St, consolidate bus stops	0.1	0	1,300	$	-
Convention Center - SW Waterfront	Suspend route	-4.74	-6	(30,660)	$	(2,472,084)
Smithsonian - National Gallery of Art	Discontinue route	-4.22	0	(2,080)	$	(129,167)
Woodley Park - Adams Morgan - McPherson Square Metro	Cut back late night weekend service by 1.5 hours	0	0	(936)	$	(57,557)
Subtotal - Existing System		**2.68**	**3**	**37,512**	**$**	**972,587**
North Mall - Georgetown	New route	9.4	10	54,750	$	4,496,618
South Mall - Arlington Cemetery	New route	10.4	11	60,225	$	4,946,279
Union Station to NoMA	New or extended route	2	2	10,950	$	944,290
Dupont Circle - SW Waterfront - Navy Yard	New route	9	9	49,275	$	4,461,769
Subtotal - New Routes		**30.8**	**32**	**175,200**	**$**	**14,848,955**
Total Phase 1 Incremental Changes from Service Changes & New Routes		**33.48**	**35**	**212,712**	**$**	**15,821,543**

[1] Operating costs are reported for first year of implementation only and increase by 5% annually thereafter. Costs are estimated based on existing operator contract.

Chapter 7 Key Takeaways

- During Phase 1 (FY 2012-2015) of the 10-year plan, DDOT proposes to make a variety of service changes, including the discontinuation of two routes, with a savings of over $2.5 million.
- Over the next 5 years, DDOT plans to invest in several new corridors, prioritizing improved access to and from the monumental core, in order to increase tourist economic activity in District neighborhoods.
- Any new or discontinued routes or changes to the fare rates or structure will undergo a public review and comment period before they are established.

Chapter 8
Resource Management

Chapter 8 Key Questions

- What resources are needed to carry out the expansion outlined in this plan?
- How will the DC Circulator's capital needs change along with the planned operating growth?
- How can the DC Circulator better reach potential riders for existing and expanded Circulator service?

The resource management plan was developed to ensure that the Circulator can continue to provide high quality service as it expands. DDOT analyzed its transit assets and developed a high-level financial plan for the ten-year planning period. A marketing plan provides information on how the Circulator will further leverage its resources as it continues delivering high-quality transit service in the District.

8.1 FLEET AND FACILITIES MANAGEMENT

8.1.1 Fleet Inventory

As of September 2010, the Circulator fleet consisted of 49 vehicles, including 35 40-foot buses and 14 30-foot buses. All vehicles are low-floor, diesel buses, manufactured by Van Hool of Belgium. The 40-foot, three-door buses have capacity for 28 seated and 49 standing passengers. The 30-foot, two-door buses hold 21 seated and 27 standing passengers. The design features low-floor boarding and the entire fleet has fold-out ramps for wheelchair accessibility.

Most of the 40-foot buses are 2004 models, while the 30-foot buses are mainly 2009 models. The vehicles are classified as heavy-duty transit buses, typically expected to have a service life of 12 years. Based on that assumed service life, the 2004 buses would need to be replaced in 2016.

Typically, buses need significant maintenance during the 12-year life-span. During the course of this study, DDOT worked with its contract managers at WMATA and the contractor to perform a more detailed audit of the condition of the fleet. At the time of the audit, there were seven buses out of service, three with major air conditioning problems, one with a failed engine, one with a coolant leak, one with a blown head gasket and one for brakes. The audit noted a wide variety of other issues, but the most common were minor body and paint damage, door problems (particularly issues with the sensitive edges), window and curtain issues, inoperable washers, and leaky windshield seals.

The DC Circulator buses face a difficult duty cycle of many service hours, but relatively few miles. Many of the oldest buses will likely need a mid-life engine replacement. In addition, the seat upholstery on these buses was observed to be worn, possibly because of the sharp edge cushion design. Also, body or paint work may be needed as the buses approach the middle of their life cycle, due to the heavy urban traffic and the tendency of red paints to fade. Currently, the contract operator is responsible for vehicle maintenance. First Transit's contract stipulates that the vehicles are maintained in accordance with industry and manufacturer standards and warranty requirements to ensure clean, safe, attractive, and efficient operations at all times. The contractor is responsible for capital costs of major replacements and upholstery or bodywork.

8.1.2 Fleet Expansion and Replacement

Table 8-1 depicts anticipated fleet needs, including vehicle replacements and expansion vehicles for each phase of the planned Circulator expansion, as described in Chapter 6. The fleet replacement and expansion plan assumes:

- A 12-year service life,
- A 15% spare ratio, and
- An increase in the unit price of buses of 4% per year.

Assuming a 12-year service life, the original fleet will need to be replaced during Phases 1 and 2. Because the buses were not purchased using federal funding, they do not have to meet federal life-cycle requirements before replacement. Therefore, DDOT can spread the replacement of the original vehicles out over several fiscal years. Total fleet expansion under the proposed growth plan is estimated at 151 vehicles, which includes 116 new vehicles and 35 replacements.

Under a turnkey service provision in the current contract, First Transit has the ability to purchase vehicles to operate on DC Circulator routes. These vehicles are the same type as the fleet owned by the District and will be needed to maintain service when the contract is rebid. DDOT is proposing to end current turnkey services with a capital expenditure in FY2012, but maintaining the availability of turnkey services with First Transit and future contractors will ensure flexibility in service expansion, in case capital funds are insufficient for the purchase of new buses. Future contracts should include defined buy-out provisions and pricing for purchasing contractor-owned turnkey buses, should DDOT elect to purchase turnkey buses at any point in the contract. If DDOT does not purchase the vehicles before the end of an existing contract, bidders on future contracts would need to provide replacement buses or negotiate with the existing contractor to purchase the vehicles. This could potentially limit competition, cause service disruptions, or lengthen the procurement lead time.

Table 8-1. New and Replacement Vehicle Needs

	Vehicle Replacements				Expansion Vehicles					Total	
Year	Vehicle Type	Units	Unit Cost	Total Cost	Vehicle Type	Peak Vehicles	Peak Plus Spares	Unit Cost	Total Cost	Vehicles	Cost
2012	40'	6	$ 350,000 [1]	$ 2,100,000	30'	0	0	$ 448,000	$ -	6	$ 2,100,000
2013	N/A	0	$ -	$ -	40'	21	25	$ 518,000	$ 12,950,000	25	$ 12,950,000
	N/A	0	$ -	$ -	30'	3	4	$ 466,000	$ 1,864,000	4	$ 1,864,000
2014	N/A		$ -	$ -	30'	8	10 [2]	$ 485,000	$ 4,850,000	10	$ 4,850,000
2015	40'	10	$ 561,000	$ 5,610,000	30'	9	11	$ 504,000	$ 5,544,000	21	$ 11,154,000
2016	40'	10	$ 583,000	$ 5,830,000	40'	7	9	$ 583,000	$ 5,247,000	19	$ 11,077,000
2017	40'	9	$ 606,000	$ 5,454,000	30'	12	14	$ 545,000	$ 7,630,000	23	$ 13,084,000
2018	N/A	0	$ -	$ -	30'	16	19	$ 567,000	$ 10,773,000	19	$ 10,773,000
2019	N/A	0	$ -	$ -	30'	13	15	$ 590,000	$ 8,850,000	15	$ 8,850,000
2020	N/A	0	$ -	$ -	30'	7	9	$ 614,000	$ 5,526,000	9	$ 5,526,000
Total		**35**		**$18,994,000**		**96**	**116**		**$63,234,000**	**151**	**82,228,000**

[1] Unit costs are based on current prices with 4% annual inflation, except for the assumed replacement of turnkey contractor vehicles in 2012.
[2] Includes purchase of 6 buses for reinstated Convention Center – Southwest Waterfront Circulator route.

If DDOT does not purchase the vehicles, bidders on future contracts would need to provide replacement buses negotiate with First Transit to purchase the vehicles, potentially limiting competition, causing service disruptions, or lengthening the lead time.

DDOT will engage as soon as possible with First Transit regarding the conditions of sale of the vehicles at the end of the contract. Such a negotiated agreement should set the cost basis for purchase of the vehicles at the end of the base contract, the first option year, and the second option year.

8.1.3 Maintenance Facilities

The current DC Circulator facility is located at 1710 17th Street NE, Washington DC 20002, near West Virginia Avenue and New York Avenue. The size of the entire facility is 91,412 square feet, of which 30,271 square feet are occupied by the structure housing the offices, training area, maintenance bays, and parts storage. A secondary structure with two bays covers another 2,230 square feet, leaving a parking area of 58,911 square feet. The structure has substantial additional capacity, even with the use of several rooms for First Transit regional training. It was originally built to allow rooftop parking (of automobiles), but a roof membrane that has been added prevents such use at this time. The property is completely fenced and paved. First Transit has stated that it has the ability and willingness to grow, acquiring new facilities or parking as needed. Additional property adjacent to the current lot could be acquired if needed for future growth.

The facility has three overhead doors that allow for four indoor bus maintenance bays, though one is relatively narrow and is closed off by a wall and is used as a tire shop. Lifts are used for work underneath the buses. There is not a bay or paint booth for bodywork although alterations can be made to accommodate such space. There is indoor secure parts storage.

Typical standards for transit facility site design would require a 5.5 to 6 acres site for the current fleet of 49 vehicles. This would include on-site employee parking for all employees and a 100 percent circulation factor. First Transit makes the current facility functional by sharing the parking between the employees and transit vehicles.

First Transit leases the storage and maintenance facility. Bidders on future Circulator operating contracts will need to procure a different facility or take over the lease from First Transit. It is very difficult to find a site of sufficient size close to downtown. This constraint will likely affect competition on future contracts, with the likely result of fewer bidders and higher costs. A strategy often used by public transit systems that contract for operations is to have public ownership of the vehicles and facilities, which are leased to the successful operating contractor. This strategy is best used in systems that receive federal capital funding, because of the higher match ratio for capital on federal grants. However, even for a locally-funded system like the Circulator, investing in a facility and vehicles would lower hourly operating costs by generating greater competition for the contract and removing capital from the operating costs.

8.1.4 Facility Needs and Expansion

DDOT has outlined an aggressive growth plan for the DC Circulator, resulting in 36 new vehicles by the end of 2015 and 107 new vehicles by 2020. Additional storage and maintenance capacity will likely be necessary during the Phase I expansion. By the end of Phase III, DDOT is likely need to need over 10 acres of capacity to store and maintain the anticipated 154-vehicle fleet.

DDOT will continue discussions with the National Park Service in an effort to implement the Phase I plan and provide convenient, affordable Circulator service on the Mall. Twenty-five (25) vehicles would be needed to offer this service and DDOT would seek access to the current Tour Mobile facility to minimize deadheading on the Mall routes. The Tour Mobile facility is owned by NPS and located on 111,560 square feet (2.6 acres) in East Potomac Park, between Buckeye Drive and I-395. The maintenance building includes three bays, one pit and two open bays. The site also has two underground storage tanks for unleaded fuel. Although the National Capital Planning Commission, has redevelopment plans for the site, the NPS 2006 Visitor Transportation Study recommended the continued use of this facility to provide transit service in the monumental core.

It is also recommended that the District pursue a single District-owned bus garage, which would be used by the transit contractor. Having the facility in public hands will likely result in better contract rates because contractors will not have to include capital costs for leasing a facility. Public ownership will also level the playing field on contracting, as a facility lease would no longer drive pricing. DDOT should initiate a facility planning study in the near future to ensure that near–term expansion can be accommodated in available sites, and to develop a long-term strategy, including the identification of possible sites, development of site layouts, and estimated costs. This effort should be coordinated with similar efforts being conducted for the streetcar system, and in coordination with WMATA.

8.1.5 Capital Funding Mechanisms

The capital cost associated with vehicles and future facilities is significant, and under the current federal funding arrangements there is no Federal Transit Administration (FTA) funding available. WMATA is the direct recipient for all FTA funding, and it uses these federal capital dollars to meet the capital needs of the services it provides to the region. As is apparent from previous studies and planning efforts, this amount is not sufficient to meet the on-going replacement/repair needs of the existing WMATA services. It is unlikely that WMATA would be willing to sub-allocate these funds to the jurisdictions to meet the capital needs of the local bus systems, including Circulator. Based on these facts, the expansion of the Circulator system assumes the continued use of local capital funds.

8.2 BUS PRIORITY TREATMENTS

The implementation of bus priority treatments along Circulator routes is an important part of near- and long-term management of the system. Bus priority is a term used to describe techniques that improve the speed of bus travel at intersections and along corridors. Bus-only lanes, transit signal priority, off-board payment, queue jumps, and bus stop consolidation are all examples of bus priority treatments that may speed bus travel. In the District, bus priority treatments may be used to increase bus speeds and reliability, decrease bus delays, increase the percent of transit mode share, and increase corridor person throughput. Bus priority may also reduce vehicle and operations costs as the frequency and

duration of buses stuck in traffic is diminished, and the most effective outcomes may even decrease the number of buses required to operate a route at a fixed headway resulting in substantial ongoing operating cost savings.

8.2.1 Implementable Actions

Bus stop consolidation is one solution to speed bus travel which can be implemented in the near-term. Chapter 5 of this report recommends a system target for Circulator of fewer than four bus stops per mile. Implementing this standard on routes which do not currently meet this target will help to reduce bus stop dwell time, or the length of time required for the bus to decelerate, stop, load passengers, accelerate and merge back into traffic. As part of the Phase I service changes recommended in Chapter 7, bus stops should be consolidated as soon as practicable along the Union Station – Georgetown route, based on strong public support of limited-stop service.

A proprietary signal priority system vendor has approached DDOT with a proposal to install equipment in traffic signals and on Circulator vehicles to improve bus movement on the Union Station – Navy Yard Metro line. Pilot demonstrations such as this should be encouraged whenever possible.

Signage required for Circulator bus zones or signage needed to facilitate bus movements can also be implemented on an as-needed basis by DDOT.

8.2.2 Further Study

In order to achieve better time savings and operations efficiency, bus only lanes, transit signal priority, and queue jumps should also be considered along Circulator corridors. However, since these treatments can have impacts on road capacity and the surrounding street network, DDOT will need to conduct additional analysis before implementation.

Such analysis should be undertaken jointly by DDOT's planning, traffic, infrastructure, and transit functions. DDOT proposes to examine the following characteristics of each corridor/intersection to determine whether bus priority treatments are feasible and warranted:

- Hourly bus throughput (Circulator and other buses including Metrobus, commuter, and tour);
- Person throughput (before and after treatment, detailed modeling required);
- Net time savings/loss;
- Level of Service (LOS) for transit, vehicles, bicycles, and pedestrians (detailed modeling required);
- Transit reliability measured by on-time performance (before and after treatment);
- Metered or residential parking spaces that would require elimination;

- Enforceability (level of self-enforcement and required additional enforcement);
- Modes allowed (such as other buses, taxis, or HOVs);
- Operational cost savings; and
- Stakeholder feedback.

Off-board fare payment possibilities for the Circulator will be re-evaluated with implementation of the streetcar system in the District.

8.2.3 Regular Review

Circulator corridors should be analyzed for opportunities to implement priority bus treatments such as bus only lanes, transit signal priority, off-board payment, queue jumps, signage, and bus stop consolidation at regular intervals, including:

- As new Circulator routes are added;
- As part of regularly scheduled Circulator transit system planning updates;
- As previously planned roadway improvements undergo a design process; and
- As requested or needed with continued evolution of the District's transportation network.

Regular review should involve all DDOT administrations and should reflect stakeholder feedback obtained during planning studies and routing analysis. Funding to implement these physical or technological improvements remains a challenge; identifying specific funding sources tied to running way improvements in Circulator corridors will allow these projects to move forward expeditiously versus an ad-hoc approach.

8.3 FINANCIAL PLAN

This section describes a high-level financial plan for the ten-year planning period. It includes both the projected operating costs and the capital plan (including both replacement vehicles).

8.3.1 Operating Costs

For the purpose of this plan, the hourly operating costs for FY 2012 through FY 2013 are based on the base rates and turnkey rates established in DDOT's operating contract with First Transit, plus the estimated cost of fuel. After this time period, the hourly costs grow at a rate of five percent a year – the current growth rate in the contract.

8.3.2 Capital Costs

The capital cost portion of the financial plan incorporates the replacement vehicle needs and the expansion vehicles identified in the Fleet and Facilities Management section presented above. Vehicle prices are based on current/most recent actual prices, escalated by 4 percent per year. It includes the purchase (at a depreciated price) of the turnkey vehicles during Phase 1. The capital plan also includes costs in Phase 1 for retrofitting the existing fleet with bus stop annunciators and dot matrix signs.

8.3.3 Timing

The timing of service implementation will depend on the availability of funding, and the plan will need to be adjusted annually to reflect what is actually funded. DDOT is committed to comprehensively updating the plan every three years to address actual implementation, coordinate services with DC Streetcar and Metro priority bus implementation, and actual development patterns in activity centers. Funding for future updates is also included in the financial plan.

8.3.4 Revenue

The DC Circulator currently experiences an average fare per passenger of $0.60. With costs increasing at five percent per year in the proposed plan, a fare increase is necessary to reduce the subsidy per passenger covered by the District. The base SmarTrip fare is $1.50, and the base cash fare is $2.00. The financial plan assumes an average fare of $0.82, which accounts for both fare increases and an elasticity factor that accounts for potential lost ridership from fare changes. This elasticity factor (0.31) is an educated guess based on a literature review and not a precise data point, as the Circulator has never experienced a fare increase. After a fare increase is instituted and the impact assessed, the elasticity factor can be recalculated, and the average revenue per passenger can be more precisely determined.

Table 8-2: Financial Plan

	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
OPERATING									
Existing Services:									
Georgetown-Union Station	$ 6,576,658	$ 6,633,445	$ 6,965,117	$ 7,313,373	$ 7,679,042	$ 8,062,994	$ 8,466,143	$ 8,889,451	$ 9,333,923
Convention Center-SW Waterfront	$ 2,472,084	$ -	$ 2,644,011	$ 2,776,212	$ 2,915,022	$ 3,060,773	$ 3,213,812	$ 3,374,503	$ 3,543,228
Union Station-Navy Yard [1]	$ 2,094,607	$ 2,112,693	$ 2,218,328	$ 2,329,244	$ 2,445,707	$ 2,567,992	$ 2,696,392	$ 2,831,211	$ 2,972,772
Woodley Park-Adams Morgan-McPherson Square Metro [2]	$ 3,603,234	$ 3,750,448	$ 3,877,535	$ 4,134,869	$ 4,341,612	$ 4,558,693	$ 4,786,627	$ 5,025,959	$ 5,277,257
Smithsonian-National Gallery of Art [3]	$ 129,167	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Rosslyn-Georgetown-Dupont	$ 2,392,811	$ 2,219,653	$ 2,330,635	$ 2,447,167	$ 2,569,525	$ 2,698,002	$ 2,832,902	$ 2,974,547	$ 3,123,274
Subtotal Base Operating Costs	***$ 17,268,562***	***$ 14,716,239***	***$ 18,035,627***	***$ 19,000,865***	***$ 19,950,908***	***$ 20,948,453***	***$ 21,995,876***	***$ 23,095,670***	***$ 24,250,453***
Proposed Near Term Service Changes									
Discontinue Smithsonian-National Gallery of Art	$ (129,167)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Suspend Convention Center - SW Waterfront	$ (2,472,084)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Convert contractor-owned turnkey vehicles to DDOT ownership	$ (1,168,449)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Bus Stop Consolidation	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Georgetown-Union Station re-routes to Columbus Circle, K St.	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Extend service span for Union Station-Navy Yard (weekday PM, Saturday) [4]	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Reduce late night weekend hours on Woodley Park-Adams Morgan-McPherson	$ -	$ (57,557)							
Subtotal - FY 2012 Operating Costs	***$ (3,769,700)***	***$ (57,557)***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***
Proposed New Corridors [5]									
Extend Union Station-Navy Yard w/ East of Anacostia River (EoAR) Route to Congress Heights	$ 2,055,485	$ 2,265,773	$ 2,379,061	$ 2,498,015	$ 2,622,915	$ 2,754,061	$ 2,891,764	$ 3,036,352	$ 3,188,170
Extend service span of Union Station-Congress Heights Metro to 7-day service	$ -	$ 210,736	$ 221,273	$ 232,336	$ 243,953	$ 256,151	$ 268,958	$ 282,406	$ 296,527
Extend Rosslyn-Dupont to U St./Howard Univ. Hospital		$ 1,575,910	$ 1,654,706	$ 1,737,441	$ 1,824,313	$ 1,915,529	$ 2,011,305	$ 2,111,871	$ 2,217,464
Add North Mall-Georgetown/Lower Wisconsin Route		$ 4,496,618	$ 4,721,448	$ 4,957,521	$ 5,205,397	$ 5,465,667	$ 5,738,950	$ 6,025,898	$ 6,327,192
Add South Mall-Arlington Cemetery Route		$ 4,946,279	$ 5,193,593	$ 5,453,273	$ 5,725,937	$ 6,012,233	$ 6,312,845	$ 6,628,487	$ 6,959,912
Extend Navy Yard Route to NoMA/FL-NY Ave. Gateway			$ 944,290	$ 991,504	$ 1,041,079	$ 1,093,133	$ 1,147,790	$ 1,205,180	$ 1,265,438
Add Dupont-SW Waterfront-Navy Yard Route				$ 4,461,769	$ 4,684,857	$ 4,919,100	$ 5,165,055	$ 5,423,308	$ 5,694,473
Add Adams Morgan-H St. NE/Starburst Plaza Route					$ 4,684,857	$ 4,919,100	$ 5,165,055	$ 5,423,308	$ 5,694,473
Add St. Elizabeth's Campus/Congress Heights-H St. NE Route						$ 6,558,800	$ 6,886,740	$ 7,231,077	$ 7,592,631
Add Tenleytown-Brookland Metro via Hospital Center/AFRH/McMillan Route							$ 9,182,320	$ 9,641,436	$ 10,123,508
Add Tenleytown-Silver Spring								$ 7,833,667	$ 8,225,350
Add Minnesota Avenue Metro Station Area-Skyland									$ 4,429,035
Subtotal - New Corridors Operating Costs	***$ 2,055,485***	***$ 13,495,316***	***$ 15,114,371***	***$ 20,331,859***	***$ 26,033,309***	***$ 33,893,774***	***$ 44,770,783***	***$ 54,842,989***	***$ 62,014,173***

	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Other Operating Costs									
WMATA/DDOT Contract Administration	$ 643,238	$ 665,752	$ 689,053	$ 713,170	$ 738,131	$ 763,965	$ 790,704	$ 818,379	$ 847,022
Marketing	$ -	$ 600,000	$ 621,000	$ 642,735	$ 665,231	$ 688,514	$ 712,612	$ 737,553	$ 763,368
Total Operating Costs	**$ 16,197,585**	**$ 29,419,749**	**$ 34,460,051**	**$ 40,688,628**	**$ 47,387,578**	**$ 56,294,707**	**$ 68,269,975**	**$ 79,494,591**	**$ 87,875,016**
CAPITAL									
Purchase Turnkey Vehicles	$ 2,100,000								
Replace Existing Buses				$ 5,610,000	$ 5,830,000	$ 5,454,000			
Purchase New Expansion Buses		$ 14,814,000	$ 4,850,000	$ 5,544,000	$ 5,247,000	$ 7,630,000	$ 10,773,000	$ 8,850,000	$ 5,526,000
Stop Annunciators/Dot Matrix Signs		$ 815,000	$ 100,000	$ 210,000	$ 190,000	$ 230,000	$ 190,000	$ 150,000	$ 90,000
Total Capital Costs	**$ 2,100,000**	**$ 15,629,000**	**$ 4,950,000**	**$ 11,364,000**	**$ 11,267,000**	**$ 13,314,000**	**$ 10,963,000**	**$ 9,000,000**	**$ 5,616,000**
PLANNING									
Facility Assessment/Plan		$ 300,000							
10 Year Plan Update			$ 350,000				$ 400,000		
Total Planning Costs	**$ -**	**$ 300,000**	**$ 350,000**	**$ -**	**$ -**	**$ -**	**$ 400,000**	**$ -**	**$ -**
Total Annual Costs	**$ 18,297,585**	**$ 45,348,749**	**$ 39,760,051**	**$ 52,052,628**	**$ 58,654,578**	**$ 69,608,707**	**$ 79,632,975**	**$ 88,494,591**	**$ 93,491,016**
REVENUE									
Total Estimated Ridership	4,920,000	7,345,000	8,206,000	9,881,000	11,507,000	13,675,000	16,566,000	18,915,000	20,180,000
Projected Farebox Revenue [6]	$ 4,018,176	$ 6,610,500	$ 7,385,400	$ 8,892,900	$ 10,356,300	$ 12,307,500	$ 14,909,400	$ 17,023,500	$ 18,162,000
Projected Grants & Other Revenue to Support National Mall Routes	$ -	$ 10,440,000	$ 10,970,000	$ 11,510,000	$ 12,090,000	$ 12,690,000	$ 13,330,000	$ 13,990,000	$ 14,690,000
Total Annual Revenue	**$ 4,018,176**	**$ 17,050,500**	**$ 18,355,400**	**$ 20,402,900**	**$ 22,446,300**	**$ 24,997,500**	**$ 28,239,400**	**$ 31,013,500**	**$ 32,852,000**
SUBSIDY									
DC Government Operating Funding	$ 12,179,409	$ 22,809,249	$ 27,074,651	$ 31,795,728	$ 37,031,278	$ 43,987,207	$ 53,360,575	$ 62,471,091	$ 69,713,016
DC Government Capital and Planning Funding	$ 2,100,000	$ 15,929,000	$ 5,300,000	$ 11,364,000	$ 11,267,000	$ 13,314,000	$ 11,363,000	$ 9,000,000	$ 5,616,000
DC Government Total Annual Subsidy	**$ 14,279,409**	**$ 38,738,249**	**$ 32,374,651**	**$ 43,159,728**	**$ 48,298,278**	**$ 57,301,207**	**$ 64,723,575**	**$ 71,471,091**	**$ 75,329,016**

[1] Extended service span on Union Station - Navy Yard route was implemented on April 1, 2011 for spring/summer season and included in FY2012 baseline cost (and all years going forward).

[2] Savings from proposed reduced late-night weekend hours on Woodley Park - Adams Morgan - McPherson Square route is included in FY2014 baseline cost (and all years going forward).

[3] The Smithsonian - National Gallery of Art route was eliminated as part of April 1, 2011 service changes. Estimated operating costs for the route are based on FY2011 estimates.

[4] Costs from seasonal extended service span are already incorporated into Operating Costs for Union Station - Navy Yard route.

[5] Operating costs for new proposed corridors are estimated as follows: FY2012: Based off current contract rates (applies to East of Anacostia River extension of Union Station - Navy Yard route); FY2013: [Analysis-estimated revenue hours] x [$82.13 hourly rate of operations] (based on existing operator contract); FY2014-2020: Same as above, except with hourly rate increasing by 5% per year

[6] Revenue assumes average fare of $0.82 per passenger. It accounts for both fare increase and possible loss of passengers due to increased fares (elasticity = 0.31). Revenue from FY2013 and after assumes average fare of $0.90 per passenger. Current average fare is $0.60, or 60% of current base fare. If the Circulator base fare is not increased as recommended in this plan, the projected farebox revenue will drop.

8.4 MARKETING

The simplicity of Circulator routing and payment as well as its eye-catching design are critical marketing assets for the service. Throughout the public engagement process people repeatedly returned to the importance of these aspects of Circulator service in attracting and keeping riders.

8.4.1 Current Marketing and Customer Information Program

DC Surface Transit Inc. (DCST), a nonprofit organization established by DC business improvement districts (BIDs), the Washington Sports and Convention Center Authority, Destination DC, and the National Capital Planning Commission, is DDOT's partner for marketing the DC Circulator. The BIDs incorporate Circulator marketing into their communications programs and special events. Destination DC provides citywide, regional and national marketing services. The Circulator website maintained by Destination DC provides customer information and functions as a marketing tool.

Recently DDOT re-launched goDCgo.com, a travel information website and citywide transportation demand management program. The goDCgo staff and the website combine customized travel information with marketing of all transportation options in DC, including the Circulator.

Customer information services are also provided by DDOT's operations management partner, the Washington Metropolitan Area Transit Authority (WMATA) and its subcontractor, First Transit.

Feedback received during the public engagement process indicates that a more robust marketing program is needed than is currently being provided for the Circulator. A common statement expressed during the public engagement process was once a person took the Circulator, the simplicity of using it and its attractiveness would sell them on continuing to use it in the future. The non-rider focus group reflected this opinion as well. While they were not familiar with the Circulator, once the service was described to them they were enthusiastic about trying it.

Ridership might also be an indicator of the limitations of the current marketing program. The number of riders on the original two routes is showing signs of flattening out which might mean that the current marketing program has reached the limits of its effectiveness.

8.4.2 Transit Marketing Trends

The National Center for Transit Research's Center for Urban Transportation Research has identified the following trends in promoting transportation services: blog, podcasts, transportation demand management, ridematching, social networking sites (Twitter, Facebook, YouTube), and Wiki. With a nearly 70 percent penetration rate in U.S. households, the Internet and local media provide opportunities for transit agencies to:

- Engage potential riders;
- Solicit feedback on the system from current riders;
- Enhance the image of the system; and
- Reinforce the brand.

8.4.3 Expanding Market Penetration

Based upon the Circulator customer survey results, less than 10 percent of riders reside outside of the DC area (80 percent are DC residents). Participants in the public engagement process stressed the importance of marketing the Circulator to the tourist market in DC to make the city more accessible to them. This sentiment is aligned with the original Circulator feasibility study that noted the need to provide access to local restaurants and shopping opportunities in DC for tourists, conventioneers and business travelers.

The implementation plan calls for launching Circulator service on the National Mall. One of the objectives of providing DC Circulator service on the Mall is to improve access from the Mall to District neighborhoods and stimulate visitor economic activity in those neighborhoods. In order to realize this goal, riders will need to understand how future Mall service fits into the larger Circulator network. If DDOT is able to pursue this opportunity with NPS, it should collaborate with DCST, NPS, and the Trust for the National Mall to develop a marketing plan specific to this service area.

Recently, DDOT convened universities in the city to discuss their transit needs. The University of the District of Columbia expressed a strong interest in connecting its student body with Circulator service. Universities in other cities report good results with a student pass. This concept should be explored by DDOT as part of the implementation plan.

8.4.4 Integrated Transportation Marketing

When the Circulator service was launched in 2005 there was no transportation marketing capacity within DDOT, therefore, DCST provided marketing services to launch and sustain the service.

Beginning in 2010, DDOT inaugurated a transportation demand management program, goDCgo, as well as a bike sharing marketing program. Both of these DDOT initiatives are showing good results. The Circulator marketing program would benefit from being integrated into these broader DDOT transportation marketing efforts. Business improvement districts should similarly expand the scope of their involvement in transportation marketing beyond the Circulator to include the full range of DC transportation options.

Chapter 8 Key Takeaways

- Anticipated service changes to the Circulator system will have an impact on fleet and facilities resources.
- Bus priority treatments such as bus stop consolidation, improved signage, and other implementable pilot projects can improve the speed of bus travel at intersections and along corridors. DDOT will actively study the feasibility of other priority treatments to improve bus service in the District, including bus-only lanes, transit signal priorities, and queue jumps.
- The DC Circulator's capital needs and increasing costs over time will necessitate consideration for changes in the approach to operating costs (contracting), capital costs, fares, and possible federal funding assistance.
- Improved marketing efforts, including increased use of social media and an integrated transportation marketing approach, are needed to increase the Circulator's market penetration.

Chapter 9
Governance

Chapter 9 Key Questions

- How will decisions regarding the implementation of this plan be made?
- How does Circulator decision-making relate to decisions about streetcars?
- How will DDOT continue to engage the public and elected officials in Circulator planning?

To date, decisions about the Circulator have been made by DDOT with legislative and budget oversight provided by the DC Council. DC Surface Transit Inc. (DCST) provides planning, marketing, and operations advisory services.

The growth of the Circulator system and the advent of new DC surface transit in the form of streetcars have highlighted the need to clarify the decision-making process for DC transit. The project team for the Transit Development Plan recommends that DDOT be responsible for the implementation of the recommendations outlined in the Plan pursuant to the DC Council's adoption of the plan and the Council's ongoing oversight of DDOT's management of the Circulator. This governance structure for Circulator would continue until the DC Council adopts a governance structure for streetcar.

It is important to note the different roles of the Circulator and streetcar in the realm of DC economic and community development. Circulator service supports existing economic activity while streetcar will stimulate new and emerging activity centers in the city. Decisions about land use and financing for the streetcar will be different in nature and scope than decisions about Circulator operations and financing going forward. Additional streetcar planning is required to determine what the unified decision-making requirement might be for these two surface transit services.

9.1 DECISION-MAKING PROCEDURES AND RESPONSIBILITIES

Circulator routes within the corridors recommended in the plan and fare policies for the Circulator would be established through the DC government rulemaking process. Input would be solicited from the public and elected officials in developing new routes, significantly changing existing routes or enacting new fare polices as part of that rulemaking process. A sample DDOT Administrative Order that provides procedures for making Circulator decisions is included in Appendix J.

The sample Administrative Order requires DDOT to provide monthly performance reports to the DC Council to augment the oversight hearings and roundtables that the Council may choose to convene on Circulator matters throughout the year. The DC Council has the sole authority to authorize funding for Circulator operations.

9.2 STANDARDS FOR DECISION-MAKING

Establishing standards for Circulator decision-making is essential to achieving the goals of Circulator service. Standards enable public accountability for the management of Circulator service. If the standards fail to produce the results that were intended they can be revised. Below are the standards included in the model Administrative Order:

1. All Circulator operations shall be designed to achieve 10 minute headways.
2. Circulator routes must carry a minimum average of 20 boardings per hour. Circulator routes have 12 months to reach this average ridership level. In the event that a route does not carry an average of 20 boardings per hour service shall rerouted. If a route is rerouted but does not achieve an average of 20 boardings per hour within six months, it shall be eliminated.
3. Prior to initiating new service, DDOT shall conduct analysis to develop ridership estimates, stop locations, routing and span of service. DDOT shall provide their analysis and recommendations to the Mayor and District of Columbia Council.
4. New routes must undergo a public review and comment period before implementation.
5. Changes to existing routes must undergo a public review and comment period if addition or deletion of stops will affect the number of buses required to operate the route at the predetermined headway.
6. Changes to fare structure or rates must undergo a public review and comment period before establishment.
7. Persons submitting service requests and bus stop requests will have their suggestions evaluated for impact to DDOT's ability to maintain the predetermined headway, for adequacy and ability to serve a particular stop location, for impact on ridership, and for budgetary impact. A file shall be kept of the request and response to the requestor to document and guide future decision-making.

9.3 PUBLIC PARTICIPATION PROCESS

In addition to the public hearings that would be required for decisions described above, DDOT would also provide the public with opportunities for informal discussions about the Circulator twice a year. This would allow the public and elected officials to initiate discussions about issues that may be outside of the decisions that require public hearings. These semi-annual forums will also provide an opportunity for DDOT to receive feedback on decisions that have been made and changes that have been implemented.

Ongoing opportunities for public comment would be maintained on the DDOT and Circulator websites. The annual Circulator ridership survey will remain an important tool to gather information about rider satisfaction.

9.4 CIRCULATOR PLAN UPDATES

Every three years the Circulator 10-year Plan would undergo an update that would be integrated into the semi-annual public participation process described above. The Plan update will also include the use of other outreach tools used in this planning process, such as community and technical advisory panels, focus groups and stakeholder meetings depending on what is appropriate at that time.

Chapter 9 Key Takeaways

- The growth of the Circulator system and the ongoing development of the District's streetcar system have highlighted the need to clarify the decision-making process for DC transit.
- In the near-term, it is recommended that DDOT be responsible for the implementation of the Plan's recommendations, pursuant to the DC Council's adoption of the Plan and the Council's ongoing oversight of DDOT's management of the Circulator.
- Establishing standards for decision-making and institutionalizing public participation will help to improve governance of the Circulator system. Appendix J is a model DDOT Administrative Order that assists in this goal.
- It is recommended that this 10-year Transit Development Plan be subject to an update every three years that would be integrated into a semi-annual public participation process.