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Executive Summary:

Introduction:
The Rosslyn Multimodal Transportation Study is an evaluation of existing and planned transportation facilities, services and operations for Rosslyn over the next 20 years. The principle impetus of this study is the rapidly changing scale of development occurring in Rosslyn and the increased demand this development places on all modal elements of the existing Rosslyn transportation system. This study catalogues and assesses the basic framework of the Rosslyn multimodal transportation system including: streets, public transportation, bicycle facilities, pedestrian facilities, parking and curb space management, and Transportation Demand Management (TDM) and identifies deficiencies along with opportunities for improvements to the system. Recommended improvements to Rosslyn’s transportation system are based on and consistent with Arlington County’s Master Transportation Plan (MTP). The study is intended to inform the transportation component of the new Rosslyn Sector Plan Addendum to be undertaken in 2011-12. Recommendations made in the study should act as a starting point for discussion during the larger sector plan process.

Arlington’s integration of transportation into all aspects of urban development emphasizes accessibility options and gives priority to the movement of people rather than vehicles. As part of this strategy, Arlington focuses high-density commercial and residential development around Metrorail stations and corridors with extensive transit service, while maintaining lower-density residential neighborhoods elsewhere.

Arlington’s vision of transportation is a system that provides modal choices and equal access to all users. It advocates the concentration of investment on projects that yield the greatest good not only from a transportation standpoint, but also in terms of overall quality of life. The vision includes walkable, mixed-use neighborhoods well served by public transportation and pedestrian facilities in which residents, employees and visitors can spend more time enjoying the attractions of the region and less time traveling. Arlington County seeks to continually expand the availability of transportation options, serving more travelers as the region continues to grow.

One noteworthy transportation concern is how to transition Rosslyn from a community with significant cut-through vehicle traffic to a destination. The one-way couplet of Lynn Street and Fort Myer Drive encourages the movement of vehicle traffic through the core of Rosslyn and creates heavy directional flow of traffic during the peak periods, blocking of intersections and pedestrian crossing conflicts. The change of Lynn Street and Fort Myer Drive to two-way operation is intended to provide better curb space access that supports transit, improve vehicle circulation and turning movement options at the core of Rosslyn, incorporate bicycle access and advance safety and access improvements for pedestrians. Re-balancing the right-of-way is an integral part to improving Rosslyn’s sense of place, supports the development of a multi-modal transportation system and is the tradeoff between mobility and accessibility.

Primary Recommendations:

Streets:
The Rosslyn street network was developed in the 1960’s with the intent of providing efficient vehicular flow through the neighborhood to Washington, D.C. and the regional highways. Rosslyn’s streets lack many of the characteristics that engender a comfortable and enjoyable walking environment. On many blocks, sidewalks are too narrow for pedestrians and commerce, street-side loading overwheels pedestrian areas, sidewalk amenities are limited, and traffic volumes and speeds are intimidating.

In recent years, some improvements have been made that have greatly enhanced the Rosslyn streetscape. Additional improvements are needed both to the sidewalks and streetscape and to the overall street network. Chief recommendations of this study are that Rosslyn’s primary north-south streets, Lynn Street and Fort Myer Drive, should be rebuilt to switch them from their current four-lanes in a single direction to better balanced two-directional streets. Sidewalks, crossings, curb space assignment and streetscape should also be revised. Removal of the existing Fort Myer underpass of Wilson Boulevard could help to transform the Rosslyn street system and would allow for reallocation of considerable street space to other uses. As the financial costs and disruptions of that change may prove substantial, it is advised that a full engineering study be undertaken to ascertain costs and develop a potential reconstruction plan.

In addition to Fort Myer Drive and Lynn Street, many of the other streets in Rosslyn can be remade as better-functioning urban streets. Each of the primary streets within Rosslyn has been evaluated as part of this study and potential changes have been recommended as documented in the Street Cross-Sections. New street sections would enhance the street grid and significantly improve vehicular circulation within Rosslyn by breaking up existing super blocks.

Transit:
Rosslyn’s economic development has been heavily dependent upon the wealth of transit services that are provided within the area. In addition to having one of the busiest Metrorail stations in Virginia, five jurisdictions currently provide regular bus service to Rosslyn. The two blocks of N. Moore Street, between Wilson Boulevard and Lee Highway act as Rosslyn’s transit center where more than 40,000 transit trips a day are accessed.

Currently a project is underway to construct a new entrance to the Rosslyn Metro station via three new, high-speed, high-capacity elevators in the Central Place plaza. The existing station entrance will also be spruced up and a new ADA-accessible route to the station from Fort Myer Drive will be provided. The Rosslyn Commuter Store will be relocated to a spot adjacent to the Metro station entrance and the bus stops and passenger waiting areas along Moore Street will be enhanced.

Future transit service improvements including additional ART bus service and an increase in the frequency of the Metrobus Route 36B are envisioned. Metrorail overcrowding on the Orange
Line is proposed to be addressed by an increase in the use of 8-car trains. The Washington Metropolitan Area Transit Authority (WMATA) also has rerouted some Blue Line trains to permit more Orange and eventually Silver line trains to pass through the Potomac River tunnel. The Blue Line service change has been addressed in part through the addition of new Metrosbus service between Rosslyn and Crystal City. Blue Line trains continue to service Rosslyn, but at a reduced frequency. The addition of the Silver Line will further reduce Blue Line frequency. These new services place additional demand on central Rosslyn to accommodate more bus stops. Reconfiguration of Lynn Street and Fort Myer Drive can create opportunities for additional bus stops and passenger loading. Current and expanded commuter bus service from Loudoun and Prince William counties could also be better integrated into the transit center by relocating to new stops on Lynn Street and Fort Myer Drive.

**Pedestrians and Bicyclists:**
Rosslyn has some of the highest pedestrian volumes (greater than 2,100 persons in an hour on select segments of sidewalk) recorded in Arlington County. Approximately one-seventh (14%) of all trips made in Rosslyn are made by foot. Many of those are by office workers and residents traveling to shops and restaurants during the course of the day. Although Rosslyn’s sidewalks are highly used by pedestrians they are not always very accommodating of walkers. Sidewalks can be narrow, and lacking of amenities that make walking comfortable and enticing.

It is recommended that Rosslyn’s sidewalks be upgraded through land redevelopment and County-initiated street reconstruction projects. Using the MTP for guidance, the study identifies, street by street, the desired clear width for each sidewalk. Those widths vary between 6 and 14 feet. In addition to greater widths, Rosslyn sidewalks can be enhanced by improved wayfinding to better direct visitors to popular destinations and through the addition of more amenities such as street trees, public art, sidewalk cafes and public seating areas.

A small share (about two percent) of trips in Rosslyn are currently made by bicycle, although counts on nearby bicycle facilities show that two-wheeled travel appears to be on the rise. Rosslyn is close to several regional trails but it can be somewhat difficult to access due to barriers such as highways and a lack of desirable on-street connections. The study identifies where bicycle lanes and other improvements can be added to complete the network of bike facilities in Rosslyn and provide better access to the Potomac River bridges, and regional trails. As Rosslyn is within a few miles of the Washington DC core, the entire Rosslyn-Ballston corridor and the Pentagon City/Crystal City area, bicycling can be a very practical means of travel for persons based in Rosslyn.

**Parking and Curb Space:**
Central Rosslyn has more than 22,000 off-street parking spaces, about 17,000 of which are associated with commercial (office, hotel, retail) developments. Much of that parking is located in garages open to the public, particularly during weekday work hours. The large supply of public parking keeps daily parking rates relatively cheap (average about $5 to $8 per day). Off-street parking is much harder to find in the evenings and on weekends. As Rosslyn redevelops, and the recent trend of reduced parking requirements continues, garage parking fees are expected to increase. Additional shared-parking arrangements between adjacent developments and uses should be achieved through site plan conditions. Such arrangement will help keep construction costs down while still ensuring that adequate parking is supplied. Shared-parking should also provide more opportunities for evening/late night and weekend garage openings to help support emerging restaurant and theatre activities in Rosslyn. In addition to increasing the utilization of shared-parking arrangements, the minimum parking requirements for new office and hotel developments should be reduced. Reducing the number of new parking spaces in Rosslyn will help to discourage single-occupant driving as well as reduce the cost of new development projects. Parking requirement reductions should be implemented along with enhancements to the Transportation Demand Management (TDM) programs implemented by those developments.

Curb space is a highly desired amenity across Arlington and especially in Rosslyn. Currently the commercial center of Rosslyn has about 400 to 450 on-street parking spaces which are metered at rates of $0.50 to $1.25 per hour. On-street parking must compete for curb space with many other uses including loading zones, bus stops and taxi stands. In the Master Transportation Plan, Arlington adopted a curb space allocation hierarchy that places greater emphasis on curb space use that serve larger numbers of people. A recent evaluation of Rosslyn’s curb space for this study identified a number of areas where underutilized curb space (primarily signed “No Parking”) could be reallocated to other uses. In addition to periodic curb space reallocation, other strategies such as dynamic pricing should be employed to match curb space availability and demand. Where opportunities exist, new streets should be added to the Rosslyn street grid and on-street loading zones should be reassigned to new alleys in order to create additional curb space.

**Demand Management:**
As Rosslyn continues to grow and existing properties are reconstructed to higher densities of residences and commercial space, transportation demands will increase accordingly. Current projections call for as many as 4,000 new residents and 15,000 new jobs in Rosslyn over the next 20 years. Accommodation of the increased travel demand will require a robust array of transportation options for both commuters and residents of Rosslyn.
Transportation Demand Management measures, such as those provided by Arlington Transportation Partners (ATP), including Commuter Stores, employer outreach and the family of websites that provide travel information and fare media, will become increasingly important to accommodating the expected growth without overcrowding transportation systems. In the future TDM efforts will need to expand at the County and community level, with greater emphasis placed upon services such as ride-sharing, express buses and teleworking as the best options for the large contingent of Rosslyn workers that commute from outside the region’s central core jurisdictions. Parking costs in Rosslyn that are now relatively low due to the large supply of daytime commercial garages should rise in the future as supplies of parking become more constrained. Increased parking and gas prices may shift even more drivers to travel modes other than single occupancy vehicle trips.
Section I. Study Overview

Study Area:

Rosslyn is one of the most dynamic, high-density, mixed-use activity centers in Arlington County. Located directly across the Potomac River from the District of Columbia, Rosslyn is often viewed as the “Downtown” of Arlington County. Bounded by George Washington Memorial Parkway and Lee Highway to the north, Rhodes Street and Fairfax Drive to the west, 12th Street and Arlington Boulevard to the south, and Meade Street and Interstate 66/VA Route 110 to the east, the Rosslyn Metro Station Area (see adjacent map) is the eastern end of the Rosslyn-Ballston Corridor. Rosslyn is situated at the confluence of several major local and regional highway facilities including: Interstate Route 66, US Route 29 (Lee Highway), US Route 50 (Arlington Boulevard), the George Washington Memorial Parkway, and the Wilson Boulevard/Clarendon Boulevard corridor. Rosslyn is connected to Georgetown and Downtown Washington by the Metrorail system tunnel under the Potomac River, by the Key Bridge, and by the Theodore Roosevelt Bridge which carries both US Route 50 and Interstate Route 66 across the Potomac River.

Rosslyn has a complex multimodal transportation system which includes the Rosslyn Metrorail Station (served by the Orange Line, Blue Line and future Silver Line of the Washington Metropolitan Area Transit Authority’s Metrorail system) and a number of public and private bus operations. Additional elements of the Rosslyn multimodal transportation system include an active bicycle/pedestrian system and a complex network of on-street parking and curb space dedicated to a wide array of uses.

Study Purpose:

The 1992 Rosslyn Transit Station Area Plan Addendum and its predecessor (the 1977 Rosslyn Transit Station Area Study) have served as the basis for the vision of Rosslyn for over thirty years. Given the level of growth and development which has taken place in Rosslyn during this time and the level of redevelopment expected to occur in Rosslyn over the next twenty years, Arlington County has recognized the need to develop a new Rosslyn Sector Plan Addendum to help guide Rosslyn’s future growth. The new Rosslyn Sector Plan Addendum will focus on four key improvement areas including: urban design; building heights; multimodal transportation; and open space. The purpose of the Rosslyn Multimodal Transportation Study is to inform the multimodal transportation component of the Rosslyn Sector Plan Addendum. Recommendations made in the study will act as a starting point for discussion during the Rosslyn Sector Plan Update process.

In its current condition, Rosslyn is supported by a multimodal transportation network that provides options for how people travel to, from, and within Rosslyn. While the existing system generally supports the current activity of Rosslyn in a functional manner, it has areas of potential improvement. Furthermore, as Rosslyn is experiencing a rapidly changing scale of development, increased demands are being placed on all modal elements of Rosslyn’s existing transportation system. In anticipation of future growth, a basic framework for improvements to Rosslyn’s multimodal transportation system must be established to ensure that Rosslyn will continue to be a place that allows for the efficient transport of persons and goods.

A number of transportation-related topics were examined during the conduct of this study including: streets, public transportation, pedestrian facilities, bicycle facilities, parking and curb space management, and Transportation Demand Management (TDM). Within these categories, recommendations were developed to upgrade and improve the transportation infrastructure, to support current and planned development activities, and to establish new programs and policies to improve the multimodal transportation system.

While the fundamental form of the street system and of the Metrorail system in the area will likely remain essentially as they exist today, the operational details associated with these elements will need to be continually monitored and regularly modified to reflect the ever changing needs of area residents, employees, and visitors. Emphasizing the concept of “Complete Streets” and the creation of a fully integrated system incorporating all modes of travel are the key elements of the process.

Study Goals:

The overall goal of this study is to provide an analysis of the transportation system in Rosslyn as it currently exists, and to identify opportunities for system improvements based on expected future demands. The Rosslyn Multi-Modal Transportation Study was researched and written in the first half of 2011 in advance of the Rosslyn Sector Plan Addendum effort.
which is expected to commence later in the same year. This study builds upon technical work conducted by consultants in prior years (2005 – Rosslyn Curbspace Study, by HOK & Associates, 2008 – Rosslyn Multimodal Transportation Plan by PBS&J). This staff developed study considers technical data and evaluations as well as policy context established by the recently adopted Arlington Master Transportation Plan (MTP).

**Study Organization:**

This study is presented in four sections:

1. The **introduction** identifies the study area, purpose, and overall goal of the Rosslyn Multimodal Transportation Study.

2. The **development and travel demand forecast** section identifies the level of development that has occurred in Rosslyn to date. It also utilizes the latest regional forecasts to project the expected growth in population and employment levels that are anticipated to take place in Rosslyn over the next two decades.

   Other data is also presented to quantify the existing travel demand in Rosslyn and the travel modes currently used to travel to, from and within Rosslyn. Goals of Arlington’s MTP that seek to minimize the growth in traffic on local streets call for shifting more travel to non-driver modes. Based upon an analysis of travel demand trends, potential future travel mode shares for Rosslyn commuters are identified.

3. The **existing conditions and preliminary recommendations** section is divided into six chapters that are largely centered upon modes of travel. They include: Rosslyn Streets; Transit in Rosslyn; Walking in Rosslyn; Bicycling in Rosslyn; Rosslyn Parking and Curb Space Management; Transportation Demand Management. These sections correspond closely with the modal elements of the MTP.

   Each chapter includes information on existing conditions, identified deficiencies or areas for improvement, relevant County policy, and recommended actions (i.e. policy, service changes or physical improvements). Some of the most technical portions of the chapters, including maps and street cross-sections, have been placed in the study Appendices.

4. The study concludes with a **summary of transportation recommendations** that highlights the most important aspects of the existing conditions and reiterates the study’s recommendations for future actions.
Section II. - Development and Travel Demand Forecast

Development and Travel Demand Forecast:

Over the past five decades, the character of Rosslyn has changed dramatically. Originally developed as a low density commercial area, Rosslyn was once dominated by pawn shops, lumber yards, vacant lots, and other marginal commercial and industrial land uses. Today Rosslyn is a vibrant, high-density, mixed-use urban activity center.

As has been observed over the past several decades, Rosslyn continues to experience growth and redevelopment as office buildings originally constructed in the early 1960s are replaced by larger, multi-use office, retail, residential, and hotel complexes. In fact, recent forecasts suggest that the rapid pace of redevelopment in Rosslyn will continue over the next twenty years. The implications of this intense level of redevelopment include an increase in travel demand which will have to be accommodated by Rosslyn’s multimodal transportation system.

Planning and Redevelopment:

Redevelopment of Rosslyn from a tawdry collection of warehouses and service establishments to a high-density urban office environment first began in the early 1960s under the guidance of the 1962 Rosslyn Master Plan. In 1977, the Arlington County Board adopted the Rosslyn Sector Plan, followed later that year by the completion of the Rosslyn Transit Station Area Study. The first of a series of Metro Station Area studies, this document provided a detailed examination of existing conditions within the Rosslyn station area and developed recommendations on how to improve land use, zoning, transportation, community facilities, and urban design in Rosslyn. An addendum to the Rosslyn Transit Station Area Study was later adopted by the County Board in 1992. The Rosslyn Station Area Plan Addendum generally confirmed the goals and recommendations of the original study while refining the vision for Rosslyn as a livelier, less automobile-oriented place with more activity on the sidewalks and a class “A” office downtown.

In 2011, Arlington County is scheduled to begin work on the Rosslyn Sector Plan Addendum. In an effort to achieve the preferred vision for Rosslyn identified in the 1992 Rosslyn Station Area Plan Addendum, the new Rosslyn Sector Plan Addendum will address four key improvement areas. These four key improvement areas include: urban design; building heights; multimodal transportation; and open space. The purpose of the Rosslyn Multimodal Transportation Study is to inform the transportation component of the Rosslyn Sector Plan Addendum.

Current and Future Redevelopment:

Rosslyn is currently experiencing a significant amount of redevelopment as aging buildings from the 1960s are replaced with much larger, mixed-use development. Several large-scale redevelopment projects including Rosslyn Central Place, 1812 N. Moore Street, Rosslyn Commons, and 1776 Wilson Blvd are approved or currently under construction in Rosslyn and will add approximately 1,250,000 square feet of office space, 96,000 square feet of retail space, and 850 residential units to Rosslyn. Additional large-scale redevelopment proposals anticipated in Rosslyn over the next few years include Rosslyn Gateway and Rosslyn Plaza. See map below for more details.

Recent forecasts indicate this high level of redevelopment has the potential to continue through 2030. In 2010, Rosslyn was home to approximately 10,900 people and 35,500 jobs. Recent estimates indicate that by 2030 Rosslyn will be home to approximately 14,600 people and 53,400 jobs, an increase of 34% and 51% respectively.
improving peak hour level of service. Further coordination with the Virginia Department of Transportation would be necessary in developing a roadway network that would keep Arlington Boulevard through vehicle traffic on regional roadways around the core of Rosslyn. The Rosslyn Multimodal Transportation Plan indicates that high levels of transit use are projected in Rosslyn. “The findings clearly indicate the importance of public transportation services throughout Arlington County, both today and in the future.

Given the presence of the Rosslyn Metrorail Station in the center of the project study area, and the high level of fixed route bus service in and around the station area, public transportation is clearly an important mode of travel within the context of the overall multimodal system.”

Rosslyn experiences a significant amount of “through” traffic during the AM and PM peak periods. Through traffic is defined as traffic neither having a trip origin nor destination within Rosslyn. Through traffic on I-66, and George Washington Memorial Parkway impact regional circulation and access to the Rosslyn area, and Lee Highway (US Route 29) and Arlington Boulevard (US Route 50) have a greater impact to traffic circulation at the core of Rosslyn during the peak periods. Through traffic headed to and from the Key Bridge presents the most disruptive impact to level of service during the peak periods. Primarily through traffic headed from Arlington Boulevard along Lynn Street during the AM peak period to the Key Bridge and in the reverse along Fort Myer Drive during the PM peak period presents the greatest issue.

The Arlington Master Transportation Plan has a goal of maintaining peak period vehicular traffic in 2030 at no more than 5% above 2005 levels while accommodating a growth in population of approximately 34% and employment of approximately 51%. This will require reducing the relative proportion of Single Occupant Vehicle (SOV) travel by providing infrastructure, information and services that encourage travel using other modes including transit, carpooling, walking, and bicycling. Transportation Demand Management (TDM) strategies would support the full range of travel options, including choices of travel mode, time and route, or eliminating trips through telecommuting and compressed work weeks. Additionally, the parking strategy will be crafted to reflect the overall goals of the transportation plan.

The impressive level of growth anticipated to occur in Rosslyn over the next twenty years should cement Rosslyn’s role as the “Downtown” of Arlington County well into the 21st century. There are, however, many challenges associated with this type of growth and redevelopment. From a transportation standpoint, Rosslyn will need to address existing deficiencies in its multimodal transportation system and work to accommodate increased travel demand in order to keep up with its growing and changing environment.

Travel Demand Forecast:

To understand the impact of development and growth in Rosslyn the March 2008, Rosslyn Multimodal Transportation Plan prepared by PBS&J was reviewed (See list of related studies). Chapter 3 – Land Use and Development of the report summarized the projected population and employment changes. Chapter 5 – Future Travel Demands of the report indicated that “in order to obtain a better understanding of the magnitude and spatial orientation of the change in future travel demand which would be associated with the planned development change in the study area, a two-step process was followed.”

First, an examination was made of the outputs of the regional travel demand forecasting process in and around the Rosslyn area and second a more detailed traffic simulation analysis was used to examine the operations of the local street system. In the case of the Rosslyn Multimodal Transportation Plan the regional base year of 2002 was used and 2030 was used as the long range plan forecast year.

The Rosslyn Multimodal Transportation Plan indicates that high levels of transit use are projected in Rosslyn. “The findings clearly indicate the importance of public transportation services throughout Arlington County, both today and in the future. Given the presence of the Rosslyn Metrorail Station in the center of the project study area, and the high level of fixed route bus service in and around the station area, public transportation is clearly an important mode of travel within the context of the overall multimodal system.”

* Round 8.0 forecast figures for GFA, hotel rooms, and residential units are used from 2015 onwards, but the base is amended with new development information.
** The residential units are sourced from the 2010 Census with the addition of the net change of residential units from April 2010 to December 2010.

The 2008 Rosslyn Multimodal Transportation Plan projected that the through traffic will “decrease from about 71.0 percent of total daily traffic in the year 2002 to about 64.2 percent of the total daily traffic in the year 2030. However, destined Rosslyn traffic is anticipated to increase from about “29.0 percent of total daily traffic in 2002 to about 35.8 percent of total daily traffic in 2030.” The total of the projected locally destined and through traffic percentages will result in a relatively small change in the total number of through trips in 2030.

Overall, the 2008 Rosslyn Multimodal Transportation Plan indicates that vehicle traffic will increase at a "relatively modest rate between the base year of 2002 and the plan forecast year of 2030". “The average stopped delay per vehicle is anticipated to increase by only about 0.1 minute (approximately 6 seconds) during the AM and PM peak hours between 2002 and 2030.”
Working in Rosslyn:

In 2010, Rosslyn had a population of 10,900 residents and about 35,300 jobs. About one-sixth of all the employment in Arlington currently is located within Rosslyn, although Rosslyn is home to only about 1 in 20 Arlington residents. By 2030, Rosslyn is projected to grow to include approximately 14,600 residents and 53,400 jobs. This is about a 34% increase in residents and a 51% increase in employment. Rosslyn is anticipated to gain nearly 4,000 residents over the next two decades. However, those new residents will likely hold only a small percentage of the new jobs that are expected to be created. Rosslyn will remain an employment destination for commuters from around the Washington, D.C. region.

The 2007/2008 Household Transportation Survey indicated that 45% of commuters in the Rosslyn-Ballston corridor drive alone to work. Since a high percentage of SOV traffic during peak periods comes from outside Rosslyn, focus will be on working on demand side strategies that address commute patterns from outside of Arlington.

Transportation Network:

The transportation network for Rosslyn is comprised of a network of existing and planned/proposed streets, transit services, bikeways, trails and sidewalks. An inventory of this network provides the basis for determining present and future transportation conditions.

- **Street Network:** This includes facilities of regional and local significance. Regional roads include facilities such as Interstate Route 66, Lee Highway (US Route 29), Arlington Boulevard (US Route 50) and the George Washington Memorial Parkway. The local street network includes a collection of locally significant roadways such as Wilson Boulevard, Clarendon Boulevard, Lynn Street, Fort Myer Drive, N. Nash Street, N. Quinn Street, N. Scott Street and 19th Street N.

- **Transit Network:** This includes existing and envisioned transit services and facilities, Metrorail, Metrobus, ART bus and other services and providers. For transit services, location, connectivity and capacity were evaluated.

- **Bicycle Network:** This includes existing and envisioned off-street shared use paths, bicycle lanes, on-street bicycle lanes and other pathways that connect non-vehicular modes to origins and destinations.

- **Pedestrian:** This includes existing and envisioned sidewalk networks and other pathways used for pedestrian connections.

- **Demand Management:** In addition to the physical infrastructure for transportation, numerous transportation services or programs are provided by Arlington County and other agencies to manage demand, including commuting services and information for businesses, residents and guests; services for individuals including CommuterStores, call center, and online information, ridematching, and transit fare sales; and comprehensive marketing programs.

Travel Mode Share:

Over the past twenty years Arlington has focused on managing the modal share distribution, by centering development around the Metro stations and implementing transportation strategies that provide options for multimodal travel. Arlington has been successful in significantly reducing the need for single occupant vehicle trips in the Metro areas, including Rosslyn. Transportation planning strategies and goals for Rosslyn are based on reducing the need for SOV travel and increasing the convenience of other modes, especially during the peak periods as a means to accommodate development and growth in Rosslyn.

A variety of modes is used to get commuters to work in Arlington and is reflected in the Mode Share chart. Mode of transportation to work refers to the principal mode of travel that workers usually used to get from home to work. The 2007/2008 Household Travel Diary Survey indicated that County-wide over half of commuters drive to work alone, about 18% carpool, 11%
use transit and 16% bike or walk to work. While the overall percentage of commuters using transit is 11%, it should be noted that transit use is much higher in the Rosslyn-Ballston (R-B) corridor (19%) and in the Jefferson Davis (JD) corridor (19%). It should be noted that there are only a limited number of surveys that have been done which identify the travel modes of Arlington and Rosslyn travelers. Each survey relies upon a fairly small sample size and can have a relatively high statistical variance. Therefore the calculated percentages should be seen as approximate rather than exact.

While Arlington residents on average make more total trips per day than do residents for the entire DC Metro region they on average travel fewer miles per day (15.6 miles vs. 25.6 miles) then do residents for the DC Metro region and on average drive fewer miles (13.1 vs. 21.6) then do residents for the DC Metro region.

**Rosslyn Trips:**
The MWCOG Household Travel Diary survey found that 45% of total Rosslyn trips come into Rosslyn, 45% go out of Rosslyn, and 10% stay within Rosslyn. 29% of all trips that come into Rosslyn originate in Arlington, 19% start from the District of Columbia, 11% from Southern Fairfax County, and 10% from Central Fairfax County. The majority of trips ending in Rosslyn originate in the Rosslyn-Ballston corridor or from outside the urban areas of Arlington. 66% of all trips that begin in Rosslyn end in Arlington, and a majority of these trips end in the Rosslyn-Ballston corridor. Other popular destinations for Rosslyn trips are the District of Columbia and southern Fairfax County.

35% of all Rosslyn trips are made for work, 29% are for returning home, and 11% are shopping trips. About half of all trips ending in Rosslyn are work trips indicating that Rosslyn has more jobs than residences. 35% of all Rosslyn trips are drive-alone trips, and 24% are made by train. The share of bus trips is relatively low (4%), while walking trips are more significant (14%). Mode share changes by time of day. For example, there is more train use in the morning peak hours (6:00-10:00), but more walking and carpooling/vanpooling in the evening peak hours (3:00-7:00).

**Mode Share Goals for Rosslyn Office Workers:**

The 2010 mode share for Rosslyn office workers is reflected in the Office Worker Mode Share Summary table. This mode share in the Rosslyn area is the result of the public investment priorities that the County has made over the past 20 years. The County focused on improving the reliability, comfort and convenience of Metrorail, ART and Metrobus service, improving access to transit and improving bicycle circulation. Additionally, modal choices such as express bus service, shuttles and slug lanes help to shape the transportation modal distribution in Rosslyn. The investment has paid off and Rosslyn now has one of the highest transit usage percentages in the region.

The Forecasted 2030 Mode Share Summary reflects a continued transition from driving alone to work to transit, bicycling and walking to work. Getting to work in Rosslyn has overcome the initial mode inertia shift during the past 10 years. The shift over the past 20 years will be grounded in the existing transportation networks that have been established and incremental changes in the modal choices. The respective comparative advantages of transit, car/vanpooling, bicycling and walking over the next 20 years should outweigh the option of driving alone. However, regional HOT (High Occupancy Toll) Lane proposals could be counterproductive to these strategies, since SOV’s would be allowed to use HOV facilities and could degrade the quality of service for car/vanpools.

Concerted strategies will be needed to shift more trips into non-drive-alone modes of travel. A certain amount of this shift can be induced by planned physical infrastructure and service improvements such as the new Metrorail entrance and the addition of Silver Line service. Bicycling and walking can also be increased by proposed facility additions and enhancements as well as increased local population densities, rising fuel prices and better balance in jobs and housing location. Carpooling, vanpooling and express bus services which are the primary non-driving alternatives for persons commuting from Outer Ring jurisdictions can gain travel share from a combination of rising fuel prices, increased costs for parking in Rosslyn, employer-provided incentives and enhanced HOV road facilities.

**Strategies to Manage Future Mode Shares:**

Economic growth does not necessary contribute to mode shift. The County will need to continue to invest capital funds into the transit program and other modal choices. The scarcity of free or low cost parking, has an impact on the shift to other modes, the low cost of parking directly influences travelers’ decision whether to use transit or an auto for the commute trip.
It is unlikely that the MTP goal of keeping peak hour vehicular trips within 5% of 2005 levels can be induced by these improvements alone. In addition, aggressive demand management communication and incentive strategies will be needed to convince commuters in appropriate areas to make mode shifts that work conveniently for them.
Chapter A. - Rosslyn Streets

Existing Conditions:

The current local street network in Rosslyn can be described as a disconnected grid system with linkages provided to regional arterial routes including: I-66, Lee Highway (US Route 29), Arlington Boulevard (US Route 50) and the George Washington Memorial Parkway. Major east-west oriented streets are Lee Highway (a one-way pair of surface arterial streets carrying US Route 29 along either side of the depressed I-66 mainline facility); the N. Scott Street/Key Boulevard/19th Street corridor; the Wilson Boulevard/Clarendon Boulevard one-way pair (which combine at their intersection with N. Oak Street into the two-way section of Wilson Boulevard); and the limited access section of Arlington Boulevard (US Route 50). Other important east-west streets such as 18th Street, 16th Road, and 14th Street/Fairfax Drive function as two-way local collector type facilities.

Principal north-south oriented streets include the one-way pair of N. Lynn Street and Fort Myer Drive which links Key Bridge and the George Washington Memorial Parkway on the north with Arlington Boulevard on the south. Other north-south oriented streets such as N. Arlington Ridge Road, N. Kent Street, N. Moore Street, N. Nash Street, and N. Pierce Street function as two-way local collector streets.

The central “core” area of the Rosslyn street system is essentially the same as that defined in the 1968 Rosslyn Area Traffic Study. The major difference between the traffic circulation system recommended in the 1968 study and what exists today is the absence of the complete “Loop Road”. The Loop Road was envisioned as a two-way system of interconnected streets consisting of N. Nash Street, 17th Street, N. Kent Street, and 19th Street that would encircle the center of high-density Rosslyn and separate through traffic from the more local streets. An element of this loop road concept was three grade-separated crossings of Fort Myer Drive, N. Lynn Street and Wilson Boulevard. Due to a variety of issues only the Fort Myer Drive grade separation was ever opened for vehicular traffic. The N. Lynn Street and Wilson Boulevard sections are currently configured as a pedestrian connection and a County park facility (Freedom Park). Long term, it is not anticipated that the Loop Road will ever be built for vehicular use and that the existing portions of the roadway rather than a bypass roadway. It is possible that with redevelopment of adjacent property the Fort Myer Drive overpass may be removed and 17th Street could be rebuilt at the street grade.

Connections between the Rosslyn local street system and the regional arterial routes are provided by a series of grade separated interchanges. On the north side of the Rosslyn area, N. Lynn Street / Fort Myer Drive one-way pair connect to the Lee Highway (US Route 29) one-way pair and provide access to the ramps which link to and from both I-66 and the George Washington Memorial Parkway and the approaches to the Key Bridge across the Potomac River. On the south side of Rosslyn, the merger of Fort Myer Drive and N. Lynn Street into the two-way Meadow Street facility takes place just prior to the interchange of Meadow Street with Arlington Boulevard (US Route 50). On the east side of Rosslyn, Wilson Boulevard provided a link to VA Route 110 which connects further to the south with Interstate 395 Corridor.

Traffic Volumes:
The streets that serve Rosslyn are subject to a wide range of travel demands over the course of a typical weekday. As Rosslyn is an employment center (approximately 35,000 jobs), a residential neighborhood (over 10,000 residents), and a primary visitor destination (more than 2,000 hotel rooms), it is the origin and destination of a lot of vehicular traffic. In addition to the locally-generated traffic, some of Rosslyn’s streets also carry significant regional traffic that pass through the area on the way into or out of Washington, D.C.

<table>
<thead>
<tr>
<th>Traffic Counts in vehicles per day (VPD)</th>
<th>1980’s</th>
<th>1990’s</th>
<th>2005 Recent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interstate 66 (west of Lynn)</td>
<td>68,500</td>
<td>93,000</td>
<td>N/A</td>
</tr>
<tr>
<td>Washington Blvd (west of Meade)</td>
<td>60,300</td>
<td>58,000</td>
<td>56,000</td>
</tr>
<tr>
<td>Lee Hwy. (west of Lynn)</td>
<td>30,000</td>
<td>37,500</td>
<td>35,000</td>
</tr>
<tr>
<td>Wilson Blvd. (west of Lynn)</td>
<td>15,000</td>
<td>16,500</td>
<td>17,000</td>
</tr>
<tr>
<td>Wilson Blvd. (west of Nash)</td>
<td>10,000</td>
<td>13,000</td>
<td>14,000</td>
</tr>
<tr>
<td>Clarendon Blvd. (west of Oak)</td>
<td>8,400</td>
<td>12,000</td>
<td>13,600</td>
</tr>
<tr>
<td>Lynn St. (south of Lee)</td>
<td>20,000</td>
<td>25,000</td>
<td>20,000</td>
</tr>
<tr>
<td>Fort Myer Dr. (south of Lee)</td>
<td>13,000</td>
<td>11,600</td>
<td>15,000</td>
</tr>
<tr>
<td>Meade St. (south of Art Blvd)</td>
<td>6,000</td>
<td>5,800</td>
<td>5,000</td>
</tr>
<tr>
<td>19th St. (west of Lynn)</td>
<td>8,000</td>
<td>9,300</td>
<td>7,500</td>
</tr>
<tr>
<td>Key Blvd. (west of Fort Myer)</td>
<td>3,300</td>
<td>5,500</td>
<td>4,700</td>
</tr>
<tr>
<td>Quinn St. (south of Lee)</td>
<td>3,300</td>
<td>3,700</td>
<td>N/A</td>
</tr>
<tr>
<td>Fairfax Dr. (west of Fort Myer)</td>
<td>4,500</td>
<td>3,800</td>
<td>3,900</td>
</tr>
<tr>
<td>Rhodes St. (south of Wilson)</td>
<td>4,500</td>
<td>5,300</td>
<td>4,500</td>
</tr>
</tbody>
</table>

Sources: VDOT and Arlington County DES
Several regional highways, such as Interstate-66, the George Washington Memorial Parkway and Arlington Boulevard, provide access to Rosslyn but primarily transport high traffic volumes part the community on the way to other regional destinations. Traffic count data from the mid-1980’s, mid-90’s, 2005 and recent years for local and regional streets in the Rosslyn area is provided above.

An analysis of the provided traffic volumes over the last 25 years shows that traffic on many of Rosslyn streets has remained relatively unchanged even as development and redevelopment of the area has taken place. However, there are some results that should be noted, including N. Lynn Street south of Lee Highway which appears to have experienced significant traffic increases over the past few years. Fort Myer Drive and Key Boulevard also appear to have gained significant volumes of daily traffic recently. It should be noted that traffic counts can vary due to factors such as day of the week, weather, method and equipment used in collection. It may be beneficial to conduct additional counts to verify that apparent trends are actually occurring.

**Peak Period Levels of Service:**
While the average daily traffic volume information is of interest, the volume of traffic seeking to use the study area street system during morning and afternoon peak travel periods is perhaps even more important in terms of defining how congested the area might be on a typical weekday. Arlington County conducts a regular traffic count program to observe the number of vehicles moving through its important signalized intersection. This traffic count program records both the number of vehicles on each intersection approach and the number that proceeds straight through or turns left or right at the location. At most of these locations, the number of pedestrians crossing the street is also recorded. The resulting peak period vehicle turning movement and pedestrian counts are then used to adjust the traffic signal timing and phasing along major travel corridors to minimize delays for system users.

The adjacent table presents a summary of the most current AM and PM peak hour level of service at the major intersections in the Rosslyn area. It should be noted that Level of Service is a traditional metric used to gauge vehicular traffic flow and congestion levels, it does not consider quality of service for transit, bicyclists or pedestrians, nor does it account for safety or environmental considerations. As such, Arlington County considers it a partial tool for assessing street function. Overall, the information indicates that while the Rosslyn street system is being well used during the AM and PM peak periods, the system is generally able to accommodate the observed travel demands with minimal levels of congestion. Four locations have been found to exhibit operating operational Level of Service (LOS) D conditions during either AM or PM peak periods. These intersections are:

- Eastbound Lee Highway and N. Lynn Street (PM only)
- 19th Street and N. Lynn Street (PM only)
- Wilson Boulevard and N. Lynn Street (AM only), and
- Fairfax Drive and N. Lynn Street (PM only)

Five other locations were found to be experiencing severe or unacceptable levels of congestion at LOS “E” or “F” during either the AM or PM peak hours. These intersections are:

- Westbound Lee Highway and N. Lynn Street (LOS F in AM, C in PM)
- Eastbound Lee Highway and Fort Myer Drive (LOS E in AM, F in PM)
- Eastbound Lee Highway and N. Lynn Street (LOS F in AM, D in PM)
- Fairfax Drive and Fort Myer Drive (LOS F in AM, B in PM), and
- Fairfax Drive and N. Lynn Street (LOS F in AM, D in PM)

Most locations with the worst congestion levels (E or F), experienced this condition only during the AM peak hour. Only the eastbound Lee Highway and Fort Myer Drive intersection experienced severe congestion in both the morning and evening peak periods.

<table>
<thead>
<tr>
<th>Intersection</th>
<th>AM Level</th>
<th>PM Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geo Wash Pkwy &amp; Key Bridge</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>WB Lee Hwy &amp; Scott St</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>WB Lee Hwy &amp; Oak St</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>WB Lee Hwy &amp; Lynn St</td>
<td>F</td>
<td>C</td>
</tr>
<tr>
<td>EB Lee Hwy &amp; Nash St</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>EB Lee Hwy &amp; Ft Myer Dr</td>
<td>E</td>
<td>F</td>
</tr>
<tr>
<td>EB Lee Hwy &amp; Lynn St</td>
<td>F</td>
<td>D</td>
</tr>
<tr>
<td>Key Blvd &amp; Quinn St</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Key Blvd &amp; Ft Myer Dr</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>19th St &amp; Moore St</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>19th &amp; Lynn St</td>
<td>B</td>
<td>D</td>
</tr>
<tr>
<td>Wilson Blvd &amp; Rhodes St</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>Wilson Blvd &amp; Quinn St</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Wilson Blvd &amp; Pierce St</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Wilson Blvd &amp; Oak St</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>Wilson Blvd &amp; Nash St</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Wilson Blvd &amp; Ft Myer Dr</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>Wilson Blvd &amp; Lynn St</td>
<td>D</td>
<td>C</td>
</tr>
<tr>
<td>Clarendon Blvd &amp; Rhodes St</td>
<td>B</td>
<td>B</td>
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<tr>
<td>Clarendon Blvd &amp; Pierce St</td>
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<td>B</td>
</tr>
<tr>
<td>Clarendon Blvd &amp; Oak St</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>Fairfax Dr &amp; Ft Myer Dr</td>
<td>F</td>
<td>B</td>
</tr>
<tr>
<td>Fairfax Dr &amp; Lynn St</td>
<td>F</td>
<td>D</td>
</tr>
<tr>
<td>Wilson Blvd &amp; Kent St</td>
<td>B</td>
<td>A</td>
</tr>
</tbody>
</table>

Source: 2008 Rosslyn Multi-Modal Transportation Plan, PBS&J
It is also of interest that the most severely congested intersections are located at the north and south "gateways" to Rosslyn, at, respectively, Lee Highway and Arlington Boulevard. Particularly in the case of the Lee Highway corridor, these are the locations where the effects of through traffic on the street system would be most noticeable as vehicles attempt to access the Key Bridge and Roosevelt Bridge connections between Arlington and Georgetown/ Washington D.C.

In May 2012, Kittelson & Associates, Inc. performed a license plate survey to determine the percentage of cut-through traffic along N. Meade and N. Lynn Streets from Arlington Blvd (US 50) to the Key Bridge during the morning peak period. License plate data was collected at the two entrances (origin) onto N. Meade Street from US 50 and at the end of N. Lynn Street as it enters onto the Key Bridge (destination) during the three-hour weekday a.m. peak period (7:00 - 10:00 a.m.).

Of the total 6,913 vehicles observed to access the Key Bridge via N. Lynn Street, 1,246 vehicles (18 percent) originated from the eastbound Arlington Road off-ramp, and 546 vehicles (8 percent) originated from the westbound Arlington Boulevard off-ramp during the weekday morning three-hour peak period. Of the 2,707 recorded vehicles on the eastbound Arlington Boulevard off-ramp, 1,246 vehicles (46 percent) were traveling to the Key Bridge. Of the 1,859 recorded vehicles on the westbound Arlington Boulevard off-ramp, 546 (29 percent) were traveling to the Key Bridge. Taken together, 39 percent of all traffic that exited Arlington Boulevard to travel north on N. Meade and N. Lynn Streets was destined for the Key Bridge.

On average, it took nearly five minutes (4 min, 44 sec) to travel the half-mile from the eastbound Arlington Boulevard off-ramp to the Key Bridge. It took over five minutes (5 min, 22 sec) to travel from the westbound Arlington Boulevard off-ramp to the Key Bridge. Together, the average travel time speed for cut-through traffic between the Arlington Boulevard off-ramp and the Key Bridge was found to be 6.25 miles per hour.

Based on the results of this analysis, 39 percent of all traffic that exits Arlington Boulevard to travel north on N. Meade and N. Lynn Streets during the three hour morning peak period can be classified as “cut-through” traffic destined for the Key Bridge. The results of this study indicate that redirecting traffic around the core of Rosslyn would assist with improving peak hour level of service. Further coordination with the Virginia Department of Transportation would be necessary in developing a roadway network that would keep Arlington Boulevard through traffic on regional roadways around the core of Rosslyn.

Actions taken to better accommodate these through traffic movements, such as the provision of additional turn lanes at key intersections or the creation of new ramps and highway connections, appear to have the potential to improve the overall traffic circulation system operations of the study area. Combined with the other findings that the intersections along the streets within the Rosslyn study area itself are typically operating at acceptable levels of service during even peak travel periods, it would appear that the basic Roslyn area street system is adequate for the accommodation of current and near term future traffic demands. The future Level of Service depends upon a number of factors including redevelopment, street network, operations and management, street reconfiguration and signal timing.

**Cut-Through Traffic:**

**Speed Limits:**

The posted speed limit on most of the local streets within Rosslyn is 25 miles per hour. However, several Rosslyn area streets including: Wilson Boulevard, Clarendon Boulevard, Fort Myer Drive, Lynn Street and Lee Highway have posted speed limits of 30 miles per hour or greater. The Arlington Master Transportation Plan (MTP) Streets Element recommends that 25 miles per hour be the standard speed limit for all arterial streets within Arlington’s “downtown” districts, such as Rosslyn, where there are high volumes of pedestrian crossings and high-density land development. Upon completion of an engineering study, the County could reduce the speed limit on its streets (Wilson, Clarendon, Lynn and Fort Myer) from 30 to 25 miles per hour. VDOT’s approval is required to change the speed limit on Lee Highway.

**Complete Streets:**

The street network gives physical form to urban places. It bounds the private realm (buildings and other development), while at the same time defining spaces for pedestrians, bicycles, transit, landscaping, and vehicles, both parked and moving, in the overall street system of a city or neighborhood. Streets perform different functions and all travel modes can be accommodated differently. In the development of the future street network for Rosslyn, the accommodation of Pedestrians, bicycles, transit, and vehicles will be considered.

Complete Streets accommodate the transportation needs of all surface-transportation users, motorists, transit riders, bicyclists, and pedestrians; they are also designed to support the type and character of planned/existing adjacent land uses. Complete Streets also promote environmental quality, enhance community identity and values, and respect historic resources, including neighborhoods and commercial areas. To understand the concept of Complete Streets, it is important to think beyond the roadway itself to its overall encompassing environment and potential uses.

The recently adopted Arlington MTP focuses on multi-modal use of public streets and rights-of-way. Streets have traditionally been
seen as the domain of the automobile but are essential facilities for nearly all forms of transportation including individual and mass transit, taxicabs, bicyclists and pedestrians. Moreover, our local streets are not just transportation facilities they also serve as and shape many of our community's most public spaces.

The MTP establishes six broad goals for Arlington’s transportation policy that direct the policies and implementation actions for street development and management that are identified in this document. Those goals are:

1. Provide high-quality transportation services.
2. Move more people without more traffic.
3. Promote safety.
4. Establish equity.
5. Manage effectively and efficiently.
6. Advance environmental sustainability.

To achieve these goals, streets are generally recommended to provide the following:

- Minimum 6-feet wide sidewalk clear-widths. Most should be 8- to 12-feet wide.
- Minimum 5–feet wide bicycle lanes or other bicycle accommodations,
- 10 to 11-feet wide travel lanes. Curb lanes with bus or significant truck traffic should generally be 11-feet wide,
- 7-to 8-feet wide parallel parking lanes
- Left turn lanes at major intersections
- Transit stop facilities and other operational accommodations (if serviced by transit)
- Bicycle parking
- Pedestrian countdown traffic signal heads should be installed at all signalized intersections and signalized crossings.
- Pedestrian signals must provide adequate time for safe pedestrian passage
- Pedestrian push buttons where the pedestrian signal phase needs to be called
- Curb extensions that shadow on-street parking and reduce crosswalk distances at intersections

- Median pedestrian refuges (minimum six-feet in width) at marked crosswalks longer than 65 feet (measured from curb to curb)
- Street trees and other curb-side and median landscaping for aesthetics, urban cooling and natural stormwater management

Green Streets Measures:
Arlington’s MTP established County policies that our streets in addition to being transportation facilities are important public spaces. Streets also can have significant affect on the human and natural environments. The redesign of Rosslyn’s street system that is expected to occur along with the property redevelopment needs to keep that in mind. Specifically streets should employ “green” measures that expand beyond the planting of street trees to include natural means to collect and filter rainwater entering the street. The measures can include greater use of permeable pavement materials that enable more water to infiltrate the soil below and collection areas that use plants and other biological means to filter and retain stormwater.

Energy use and distribution is another aspect of streets that is gaining greater attention in Arlington. Electrical use for street features such as traffic signals and street lights is being reduced through use of more efficient LED light sources and more efficient placement of street lights. Both technology and technique will factor into future street design. The County’s recently adopted policy determinations for the Community Energy Plan explores measures such as “district heating and cooling” that can significantly affect future Rosslyn street design by introducing new utility lines below the street pavement for steam and/or heated and cooled water. Space below grade should be reserved within the street right-of-way that can accommodate the pipes and facilities needed to convey electricity, heated and cooled water or steam that is generated by potential future district energy projects. New buildings should also be constructed with the facilities necessary to accept the products of a district energy system.

The Street Network:
The street network is the foundation for the entire transportation system, supporting all modes of travel in Rosslyn and will be an important element in the future. Supporting vehicular traffic is important but not the highest priority for Arlington, streets and intersections should operate at an acceptable level-of-service during most hours of the day.
Arlington County has been actively engaged in redesigning many of its arterial streets to make them safer for all users and more accommodating of non-motorized travel. In addition to streetscape improvement projects that have widened sidewalks, planted street trees and enhanced street lighting, many street improvement projects have redesigned street travel lanes. For example, it is County practice to determine the appropriate width of vehicular travel lanes. Arterial curb lanes with significant bus and truck traffic should be 11-feet wide. Interior and dedicated turn lanes are generally designed to be 10-feet wide. Accommodations may be made for bicyclists that include dedicated bike lanes or shared curb lanes up to 14-feet wide. Raised medians are another design element for which Arlington has an adopted standard.

**Street Network Recommendations:**

The Rosslyn Transportation Study proposes the following new streets, realignments of existing streets, two-way conversation of existing streets and major intersection reconfigurations:

**New Street Sections:**

Travel distances can be decreased for all modes through improved connectivity of the street system that can be achieved in part by the addition of new street sections that split larger-than-standard city blocks or super blocks. In addition to travel distance improvements, traffic flow may be enhanced and new opportunities for more direct loading and on-street parking can be achieved through the addition of new street sections. New street sections would likely be implemented as part of property redevelopment projects. At a minimum, new Rosslyn street sections should be considered with redevelopment at the following locations:

- A new section of N. Quinn Street between Wilson and Clarendon Boulevards (under construction),
- A new section of 18th Street, between N. Kent Street and N. Arlington Ridge Road,
- A new section of 18th Street, between N. Lynn and N. Kent streets,
- A new section of 18th Street, between N. Nash and N. Oak Street,
- A new section of N. Pierce Street, between Wilson Boulevard and 18th Street.

**New Ramps and Highway Connections:**

The results of the May 2012 Rosslyn Area License Plate Survey indicate that 39 percent of all traffic that exits Arlington Boulevard to travel north on N. Meade and N. Lynn Streets during the three hour morning peak period can be classified as “cut-through” traffic destined for the Key Bridge.

Working with regional partners like the Virginia Department of Transportation (VDOT), Arlington County should explore opportunities to reroute non-locally bound traffic off of local streets such as N. Lynn Street and Fort Myer Drive through the construction of new ramps and highway connections.

**Lynn Street and Fort Myer Drive Retrofit Alternatives:**

Three alternatives have been identified for future traffic flow and configuration of the sections of Lynn Street and Fort Myer Drive between Lee Highway and Fairfax Drive. See Appendix II for illustrations that display the proposed lane arrangements for Alternative 2 and 3.

**Alternative 1 - Enhanced One-Way**

- Keeps the existing primary travel patterns and lanes while adding some features such as new bicycle lanes and enhanced crosswalks within the existing street space.

**Benefits:**
- Enhances pedestrian environment over the current conditions
- A bicycle network can be added to the existing street network

**Costs:**
- Low construction/implementation costs
- Lynn Street remains vehicle storage for Key Bridge

**Alternative 2 - Two Way Conversion**

- Converts N. Lynn Street and Fort Myer Drive to two-way operations between Lee Highway and Fairfax Drive.

**Benefits:**
- Enhances connectivity for motor vehicles resulting in more direct and shorter trips
• Provides more direct routing for bus access to/from the Metrorail station. The existing Moore to Lynn Street bus alley could be removed.
• Enhances activity levels at the street level and enhance ground level retail environment.
• May enable the reallocation of enough street space to create new bicycle lanes and widened sidewalk areas.
• May help to moderate traffic speed

Costs:
• Will reduce peak hour traffic capacities on Fort Myer and Lynn Street and result in reduced levels-of-service for motor vehicle traffic
• Expense for physical conversion (traffic signals, signage, median rebuilds, etc) can be significant.
• Additional traffic movements at intersections can make pedestrian crossings more difficult.

Alternative 3- Two Way Conversion and Tunnel Removal – Converts Lynn Street and Fort Myer Drive and would fill in the existing Fort Myer Drive tunnel to bring the entire street to approximately the same grade.

Benefits (It addition to those of Alternative 2):
• Allows for relocation of some bus stops to Fort Myer Drive; can lessen bus demands for Moore Street curb space
• Permits the installation of a signalized at-grade pedestrian crossing of Fort Myer Drive between the Metrorail station and Art Institute building
• Frees up 10 feet of street right-of-way currently used by the tunnel walls and drainage facilities. Allows for space to be reallocated to widened sidewalks, a landscaped median, an additional turn lane or other purpose.
• Provide new options for vehicular access into several buildings situated on Fort Myer Drive
• Expands the overall functionality of the two-way conversion of Fort Myer Drive
• Reallocates street space to other uses such as sidewalk, bicycle lanes and parking.

Costs (In addition to those of Alternative 2):
• Substantial costs for demolition of tunnel structure and restoration of street
• Significant temporary loss of street capacity and area accessibility on Fort Myer Drive and Wilson Boulevard during the demolition and restoration process.
• Puts more traffic through the Fort Myer Drive/Wilson Blvd. intersection leading to likely degradation of levels-of-service for motorists and pedestrians. Potential reduction of safety due to increased amount of intersection conflict.

Traffic Circulation Maps:
Alternatives 2 and 3 are visually represented in the traffic circulation maps found in Appendix II. These maps show what the traffic circulation patterns in Rosslyn could potentially look like by converting Fort Myer Drive and N. Lynn Street to two-way traffic. These maps also illustrate the location of proposed on-street parking, bike lanes, mid-block crossing, ramp reconfigurations, and slip lane removals. For example, the traffic circulation maps show the removal of slip ramps at the corner of eastbound Lee Highway and Fort Myer Drive and the corner of N. Nash Street and Wilson Blvd. The proposed reconfiguration of various ramps at Arlington Blvd and the Meade Street Bridge are also represented in the maps.

17th Street Conversion:
A section of 17th Street currently passes on a structure over Fort Myer Drive and terminates just west of Lynn Street. The roadway provides pedestrian and vehicle access to the 1755 Fort Myer Drive building and pedestrian access into Freedom Park. A one-lane ramp splits off of 17th Street and links into northbound traffic lanes on Lynn Street. Should southbound traffic be introduced on Lynn Street, the ramp will no longer function correctly and should be modified into a pedestrian connection between the two streets.

If redevelopment of the 1755 Fort Myer Drive building occurs, construction of a new section of 17th Street that can provide a direct connection of Fort Myer Drive to Lynn Street should be considered. The new street connection could also serve as the vehicular access to the new building and the existing section of elevated 17th Street could be repurposed to be an extension of Freedom Park.

Traffic Signals:
The two-way conversion of both N. Lynn Street and Fort Myer Drive will require significant changes to traffic signal operations in Rosslyn. As intersections along N. Lynn Street and Fort Myer Drive go from one-way to two-way operation, signal timing and phasing will need to be altered. The two-way conversion of N. Lynn Street and Fort Myer Drive should also allow for numerous vehicular and pedestrian upgrades at a variety of key intersections.

As part of the approval of the Rosslyn Central Place development, a new traffic signal was approved for a mid-block pedestrian crossing of N. Lynn Street between Wilson Boulevard and 19th Street. The signal and new crosswalk provide a safe at-grade pedestrian crossing as an alternative to the existing Skywalk section that is slated for removal. Other new traffic signals could be implemented in the future. One candidate would be a pedestrian-activated mid-block signal for a new crossing of Fort Myer Drive between the Metro station and the Art Institutes building. Removal of the existing underpass structure and regrading of Fort Myer Drive is required for such a crossing to be physically possible. Also, a new signal and pedestrian crossing at the intersection of N. Moore Street and eastbound Lee Highway could be created as a means to enhance pedestrian access from N. Moore Street to Gateway Park. In
addition, the intersection of Wilson Boulevard and N. Moore Street could be reconfigured with an extended median and the installation of a signalized crossing of Wilson Boulevard.

**Street Cross Section Proposals:**

County staff has prepared typical cross-sections for 25 locations in the Rosslyn street network. For each of the cross-sections there is an illustration of the existing conditions using measurements taken on-site and at least one proposed recommendation. The recommendations seek to implement the complete street measures (such as wide sidewalks) identified in this report. In some cases the recommended cross-section calls for a widening of the street right-of-way (as measured from back-of-sidewalk to back-of-sidewalk) most likely through the redevelopment process. The cross-section illustrations can be found in Appendix I.

**N. Moore Street:**

N. Moore Street between Lee Highway and Wilson Boulevard is a local street on which transit vehicles and pedestrians currently are the predominant but not exclusive users. About 500 buses (and countless shuttles) access the seven Moore Street bus stops on an average weekday, and the roadway is also routinely used for access to the 1700 N. Moore Street and 1900 N. Moore Street building garages. In addition the street is used by taxicabs and other private vehicles for curbside pick-up and drop-offs. Upon completion of the Central Place buildings two additional garage entry points will be accessed from N. Moore Street.

Due to its central location within the densest area of Rosslyn, there is significant public interest in transforming N. Moore Street into a more pedestrian-oriented street with public spaces that can accommodate festivals or other events. The southern block of N. Moore Street (between 19th Street and Wilson Blvd) will soon be reconstructed with special paving materials, decorative lighting, a raised mid-block pedestrian crossing and other features that will enhance its pedestrian character. In the future N. Moore Street could be modified to minimize vehicular traffic use and to incorporate physical changes that enable more pedestrian-oriented activities within the street. One option consists of N. Moore Street being a transit-oriented street on weekdays that on the weekends can be transformed to function as a pedestrian-oriented street.

Currently more than 800 transit and shuttle vehicles load and unload passengers on N. Moore Street on a typical weekday, although that number is substantially lower on weekends. To divert transit operations off of N. Moore Street for even a weekend requires the establishment of new bus stops on Lynn Street and/or Fort Myer Drive along with the conversion of those streets to two-way operations. Relocation of some vehicular activity could create opportunities for conversion of some street space to plaza area. The festival street section would include both the northern section of N. Moore Street and portions of the southern section of N. Moore Street, although measures would have to be employed to permit some local vehicle traffic access in and out of the existing and planned parking garages.

Future redevelopment of the north block (Lee Highway to 19th Street) of N. Moore Street could help enhance the special transit and pedestrian orientation of the street by placing garage access and loading docks for the new buildings on a new alley rather than off of Moore Street. Public seating, enhanced landscaping, portable food vending, movable canopies and other features could be employed to enhance the public realm and better accommodate pedestrian activities during festival events.

**Street Section Summary:**

- Create a network of multimodal streets that accommodate all modes of transportation to accommodate the appropriate mix of pedestrian, bicycle, transit buses, motor vehicle travel and parking on all streets. Reconstruct streets to match cross-section proposals (see Appendix I).
- Improve local circulation by converting N. Lynn Street and Fort Myer Drive to two-way traffic operations.
- Reconstruct Fort Myer Drive & Wilson Boulevard to an at grade intersection. Install a signalized mid-block pedestrian crossing of Fort Myer Drive near the Rosslyn Metro station.
• With redevelopment, remove service drive streets on Lee Highway, Fort Myer Drive and N. Lynn Street and replace them with property access from new internal streets or alleys.

• Create additional new street segments and pedestrian passageways to break up larger-than-standard-sized blocks and improve circulation within Rosslyn.

• As a measure to enhance pedestrian and motorist safety, reconstruct the highway ramp intersections with local streets (N. Lynn Street near I-66 and Key Bridge, Meade Street and Fort Myer Drive near Arlington Blvd) to create intersections that are closer to 90 degree and crossing paths that are shorter.

• Explore opportunities to reroute non-locally bound traffic off of local streets such as N. Lynn Street and Fort Myer Drive through the construction of new ramps and highway connections.

• Consider rerouting bus stops and vehicle trips off of N. Moore Street, particularly for weekend festivals and events. Install new, signalized pedestrian crossings at the Wilson Boulevard and Lee Highway intersections of N. Moore Street to enhance connections to Gateway Park.
Chapter B. – Transit in Rosslyn

Existing Conditions:

The Rosslyn Metrorail station is among the busiest in Virginia. In 2011 over 34,000 persons entered or exited the Rosslyn station on an average weekday. Over the prior ten years (2000 thru 2010), the average daily ridership grew by approximately 18%. The number of Metrorail passengers traveling through Rosslyn on the Orange and Blue lines has also grown substantially during that same period. The number of Metro trains that typically pass through the Rosslyn – DC tunnel is as high as 26 during peak weekday hours. Currently during the morning peak period, approximately 19 Orange Line and 7 Blue Line trains enter the Rosslyn station. The peak hour throughput at the Rosslyn portal is currently at the system’s maximum design capacity of a train every 135 seconds.

The service on the Orange and Blue lines is roughly the same with trains entering the station alternating between Blue and Orange. Typically, service early and mid-day operates on 12-minute frequencies, with an increase to 6 to 12-minute frequencies in the morning and afternoon peak periods. After 7 pm, service resumes a 12-minute frequency and then moves to a 20-minute frequency between 9pm and closing hour. Saturday service generally operates on a 12-minute frequency throughout the day and Sunday service varies between 15 and 20-minute frequencies.

Pedestrian access into the station is currently via the N. Moore Street west-side sidewalk, a staircase from the Fort Myer Drive east-side sidewalk, two connections into the Rosslyn Center building via a staircase and an escalator, and one elevator from the Rosslyn Metro Park into a mezzanine level of the station. Persons with disabilities are only able to access the station from N. Moore Street. Additional access will be provided beginning in August 2013 as a result of the new Rosslyn Station Access Project on the east side of N. Moore Street.

The Rosslyn Metrorail station is also a transit center for bus travel. Currently seven Metrobus routes and two Arlington Transit (ART) bus routes service the station on a weekday. In addition, the DC Circulator, Georgetown University Transit Service (GUTS) buses and a number of federal and private shuttles have stops along N. Moore Street and provide for convenient transfers to and from the Metrorail service. The Metrobus 3Y route stops in Rosslyn along Lee Highway on its way to the District of Columbia but it is two blocks away from the Rosslyn Metrorail station. The recently extended Metrobus 9E and 10E routes stop on Fort Myer Drive at Wilson Blvd. Rosslyn is also serviced by Prince William County’s OmniRide and Loudoun County Transit’s commuter services as well as by two private bus companies that provide scheduled service to New York City.

A total of 478 Metrobus, DC Circulator and ART bus trips depart from the Rosslyn Metrorail Station on an average weekday. In addition, the Metropolis Route 3Y makes 12 daily trips from Lee Highway in Rosslyn. Transit service on the weekends is limited to a few Metrobus routes (3ABE, 4BH, 5A and 38B and the DC Circulator) with about a 50% reduction in frequency compared to the weekday level of service.

<table>
<thead>
<tr>
<th>Rosslyn Weekday Bus Departures – Daily/Peak Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Metrobus Routes:</strong></td>
</tr>
<tr>
<td>3ABE</td>
</tr>
<tr>
<td>3Y</td>
</tr>
<tr>
<td>4ABEH</td>
</tr>
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<td>5A</td>
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</tr>
<tr>
<td>15KL</td>
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<tr>
<td>38B</td>
</tr>
<tr>
<td><strong>ART Routes:</strong></td>
</tr>
<tr>
<td>45</td>
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<tr>
<td>61</td>
</tr>
<tr>
<td><strong>DC Circulator:</strong></td>
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<tr>
<td>Blue</td>
</tr>
<tr>
<td><strong>Omni Ride:</strong></td>
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<tr>
<td>Rosslyn-Ballston</td>
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<tr>
<td><strong>Loudoun County Transit Trips:</strong></td>
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<td>Purcellville</td>
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<td><strong>Shuttles:</strong></td>
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<tr>
<td>Georgetown (GUTS) Park</td>
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<tr>
<td>Defense Dept. Shuttles</td>
</tr>
<tr>
<td>State Dept. Shuttles</td>
</tr>
</tbody>
</table>
Loudoun and Prince William counties provide weekday limited-stop commuter bus service to the Rosslyn area. The Loudoun County service stops on Lee Highway near Ft. Myer Drive in the morning and N. Lynn Street near 19th street in the afternoons. The OmniRide stop is on Wilson Boulevard near N. Kent Street. The commuter services take advantage of Rosslyn’s proximity to the HOV-facilities on I-66 and on I-395 (via the connecting Route 110) to provide higher operating speeds that can compete with single-occupant travel. Therefore, Rosslyn is the second-greatest Arlington destination for transit originating in the outer Northern Virginia suburbs, only the Pentagon currently is a more frequent destination for bus trips from Prince William and Loudoun counties.

Of all the public transit services, the most frequent bus service is on the 38B route, which runs the length of the Rosslyn-Ballston Corridor before heading into Georgetown and to Farragut Square in the District of Columbia. In addition to the DC Circulator and Metrorbus 38B, the Metrorbus 5A and 3Y and Loudoun County Transit buses pass through Rosslyn into DC. All the other public transit buses stay within Virginia and have the Rosslyn Metrorail station as their eastern terminus.

A number of federal agencies including the Departments of State and Defense have shuttle buses that stop in Rosslyn. Several shuttles currently operate out of a stop on the north block of N. Moore Street. The Georgetown University Transportation Shuttle (GUTS) has a stop on the north block of N. Moore Street with service to Georgetown as frequently as every five minutes during peak hours. Another GUTS shuttle makes stops on Key Blvd and N. Lynn Street as part of a loop of north-eastern Arlington. During peak hours the average frequency of bus arrivals at bus stops on N. Moore Street is one bus every minute.

The Master Transportation Plan’s Transit Element established several guiding objectives for improving the effectiveness of transit service in Arlington. Those with direct relevancy to Rosslyn are:

- Improving the system connectivity between major activity centers,
- Expanding transit service hours and frequency,
- Relieving Metrorail passenger overloading,
- Making transit investments to enable accommodation for demands generated by major development projects,
- Creation of multi-modal transfer centers for convenient transfer between providers and modes.

The key concept of Arlington’s long-range transit plan is the development of a network of high-quality transit routes known as the Primary Transit Network (PTN). The PTN is a network of transit lines that operate every 15 minutes or more frequently for at least 18 hours every day. In addition to Metrorail it is to include Metrobus and ART bus service and new streetcars. PTN type high-quality service is considered key to achieving lower-auto usage lifestyles and higher all-day transit utilization. The Transit Element identified five PTN corridors; two of these, the Wilson Boulevard and Lee Highway corridors converge in Rosslyn. In addition Rosslyn is envisioned to have express or enhanced bus service via Route 110 and Arlington Boulevard.

Transit and shuttle service to Rosslyn is so substantial due to Rosslyn’s high-level of development, its location at the intersection of multiple regional highways and rail lines and its close proximity to Georgetown and the Washington, DC downtown. Rosslyn is significant both as a destination and origin of trips and as a point of transfer between Virginia and DC. Other station areas in the Rosslyn-Ballston corridors do not have the same regional interface and HOV advantages as does Rosslyn and therefore do not offer the same advantages as transit centers.
**Current Enhancement Projects:**

Arlington County is currently constructing the Rosslyn Station Access Improvement Project, which will result in a set of three high-speed, high-capacity elevators that lead to a new mezzanine entrance. The elevators will be located on the east side of N. Moore Street directly across from the primary pedestrian entrance, and will be located within the mid-block plaza to be constructed as part of Rosslyn Central Place. The new elevators will substantially increase the speed and capacity of station entries and exits especially during peak travel hours. The new station entrance and greater capacity will help to accommodate the expected increased use of the station due to approved and planned redevelopment projects in Rosslyn. The new elevators will also significantly upgrade the station’s accessibility for persons with disabilities and others who are not able to comfortably use the existing lengthy escalators while improving the station’s emergency egress. Completion of the $44 million project is expected in late 2013.

In early 2011, construction began on the 1812 Moore Street office building development which is directly adjacent to the Rosslyn Metro station. As part of the site plan approval, the building’s developers have agreed to make a number of improvements to the Metrorail station, including providing an elevator for ADA access to Fort Myer Drive; enhancements to the station lighting and appearance; construction of a new Commuter Store; a doubling of bicycle parking; and significant bus stop and sidewalk upgrades along Moore Street.

**Identified Deficiencies:**

**Rail:**
During peak travel hours, particularly on weekday mornings, trains arriving at the Rosslyn station are frequently full or near capacity. This crowding can result in uncomfortable travel conditions and delays as passengers are denied boarding opportunities. The Rosslyn Metro station also currently lacks ADA-access to Fort Myer Drive and back-up elevator capacity to maintain accessibility during periods of an elevator outage.

Peak standing capacity on both levels of the Rosslyn station platform are also a concern in view of the addition of Silver Line Metrorail connections to Tyson Corner and Reston in 2014.

**Bus:**
All the bus bays along N. Moore Street are currently heavily used during peak periods. The constrained bus bay capacity limits opportunities for significant increases in service frequencies or the addition of new bus routes. Buses are currently not able to use large portions of Fort Myer Drive or N. Lynn Street for passenger pick-up due to the one-way travel direction, space constraints imposed by the Fort Myer Drive tunnel walls and barriers and the lack of an ADA-accessible connection to the Metrorail station. Other nearby streets, including Wilson Boulevard and 19th Street are generally too steep for safe bus boarding and unloading.

The many commuter, tour and inter-city buses that serve Rosslyn also create a high demand for curb-space layover area. Some sections of Arlington Ridge Road and Fort Myer Drive have recently been reserved for bus parking and layover.

**Bus Stop Curb Space Study:**

In 2005, a study was conducted for Arlington County by HOK & Associates that evaluated the potential for locating bus stops along the curb of several blocks near the Rosslyn Metrorail station. The study used several criteria in evaluating the suitability of a location. Potential bus stop locations were evaluated based upon their: proximity to the Metrorail station entrance, ADA-accessibility, and bus parking and operations space. Only the two blocks of N. Moore Street between Wilson Boulevard and Lee Highway, were found to currently be suitable for public bus stops.
The study concluded that only those blocks that are immediately adjacent to the Metrorail station block are close enough to be suitable bus stops as part of the Rosslyn transit center hub. The east-west running frontages (Wilson Boulevard and 19th Street) of those blocks were deemed unsuitable due to the fact that their sidewalks are too steep (exceed the ADA Design guidelines) to serve as transit platforms. Two other block faces; the west side of N. Lynn Street, and the east side of Fort Myer Drive (both between Wilson Boulevard and 19th Street) are operationally infeasible due to their one-way street orientation which does not allow buses to load passengers through the right-side doors. If two-way travel is introduced on N. Lynn Street and Fort Myer Drive and sufficient curb and bus parking/operation space is allocated, then the two block faces may become suitable locations for transit bus operations.

As a follow-up to the HOK study, Arlington County staff has investigated the feasibility of converting the Fort Myer Drive underpass into a new transit center. Such a conversion would face many challenges, including; installation of a pedestrian tunnel under the building foundation; relocation of many primary utilities within Fort Myer Drive; and substantial reconfiguration of the Rosslyn Metro station lobby. In addition, an entirely new subterranean passenger boarding area would have to be constructed under Fort Myer Drive and the Fort Myer Drive tunnel would need to be switched from south-bound traffic to north-bound traffic in order to provide a means to board bus passengers. The costs of such construction would be very substantial and likely would not provide a bus station equal in passenger comfort or bus operating efficiency to more conventional curb-side bus stops.

Proposed Service Improvements:

Rail:
Arlington is working with the Washington Metropolitan Area Transit Authority (WMATA) on measures to enhance the capacity of the Orange Line system, particularly during peak travel periods. The primary measure being employed is the implementation of more eight-car trains. Expanding from six- to eight-car trains can increase the passenger carrying capacity by one-third. To achieve longer trains, WMATA must purchase additional rail cars and place them into service on the Orange Line. WMATA must also upgrade its power supply, operating system and rail yards to accommodate the longer trains. Implementation of the improvements is currently taking place, with additional trains being upgraded to eight-cars as the capital and operating budgets allow. This upgrade will also improve platform circulation at Rosslyn Metro.

WMATA recently adjusted the operation of the Orange, Blue and Yellow lines in Virginia to shift some of the Blue Line trains from their current route to Rosslyn and through the Potomac River tunnel to instead cross into DC via the Yellow Line’s bridge over the Potomac River. The shift reduced Blue Line service to Rosslyn by about one-third, but reallocated the freed capacity in the tunnel to Orange Line and eventually Silver Line trains. With the Silver Line, more frequent train service will be provided through the Rosslyn-Ballston corridor particularly during peak periods.

Bus:
In late 2010, Arlington County adopted a six-year Transit Service Plan to identify specific operation, vehicle and facility changes to be undertaken to enhance transit service in the County. The plan priorities the planned changes and tries to match local service changes with anticipated revenues for transit. Specific recommendations of the plan that are most applicable to Rosslyn include enhancement of the Rosslyn–Ballston corridor bus service to improve system connectivity and relieve Metrorail passenger overcrowding. Specific improvements are expected to take place in different stages between Fiscal years 2013 and 2016, and include:
- Enhancing the frequency of service on the Metrobus 38B route which runs the length of the Rosslyn to Ballston corridor, and also continues through Georgetown into downtown DC,
- Extending the ART Route 77 which currently links Shirlington to Courthouse, to also reach the Rosslyn Metro station. In addition, the service will be increased in frequency from its current 30-minutes to 20-minutes and to include late-night (till 12:30 AM) extended service,
- ART Route 45 service has been rerouted within the study area to add stops on Clarendon Blvd and Wilson Blvd at N. Pierce Street and N. Rhodes Street. However, the major stop in the study area will remain on N. Moore Street with 30-minute service frequencies.
- Metrobus 3Y service was extended in August 2011 further west to Lee Highway and George Mason Drive. This extension led to increased usage of the bus stop on Lee Highway and Fort Myer Drive with a minor increase in frequency of service. In the future the 3Y route is envisioned to extend to the East Falls Church Metro station to serve as an alternative to crowded Orange and Silver Line trains.
- Blue Line service reductions between Rosslyn and the Pentagon/Pentagon City area was compensated for by implementation of new express Metrobus 9E and 10E service that uses Route 110. Due to the capacity constraints at the Rosslyn Metro Station, the new service stops on Fort Myer Drive.
Chapter C. – Walking in Rosslyn

Existing Conditions:

Rosslyn is known for having some of the highest pedestrian volumes in Arlington County, particularly during weekday mornings and afternoons. Recent counts of pedestrians are listed in a table at the end of this chapter; the counts identified peak pedestrian volumes of over 2100 walkers in an hour along sidewalks segments on N. Lynn and Moore Streets.

However, Rosslyn is also known for having some of the least accommodating conditions for walking within Arlington’s commercial corridors. In addition to the steepness of many east-west street, most of the primary streets are quite wide (greater than four lanes in width) and difficult for pedestrians to cross. Additionally, although Rosslyn is situated near numerous high-value attractions, including the Potomac River, Roosevelt Island, Gateway Park and Iwo Jima Memorial, pedestrian connectivity to these places is somewhat limited.

Many streets in Rosslyn have undersized sidewalks, and lack substantial landscaping, street furniture and urban amenities that can enhance walkers comfort and enjoyment. Although conditions are not uniform, many of the more recent redevelopment projects have strived to expand sidewalk clear space and provide greater landscaping and furniture. There has also been an effort to replace driveways and blank walls along the ground floor with shops, lobbies and other activities that make the sidewalks more inviting.

A number of Rosslyn’s street intersections regularly experience conflicts between pedestrians and motorists. These include Wilson Boulevard and N. Lynn Street, Wilson Boulevard and Fort Myer Drive and Fort Myer Drive and Lee Highway. All three experience higher numbers of pedestrian conflicts in part due to the great volumes of pedestrians and motorists that travel through the intersections. However, all of the streets are primary arterial roads that have been designed specifically for enhanced vehicular flow, particularly to get motor vehicles through Rosslyn and to or from the Potomac River bridges.

Rossllyn locations with the most reported pedestrian/motor vehicle collisions from 2007 –2010

- Wilson Blvd. & Fort Myer Dr. = 6
- Lee Hwy. & Fort Myer Dr. = 5
- Wilson Blvd. & N. Lynn St. = 4

Rossllyn’s pedestrian character has also been affected by early development plans which split pedestrian environments so that pedestrian activity is shared between the street level and an elevated walkway system (known as the Skywalk). In recent years, the pedestrian focus has shifted towards the street level and most of the upper-level shops and access points have closed. A number of sections of the Skywalk system have been torn down or are planned for removal. The most significant section that remains open is a route from the Metrorail station west to Key Boulevard. Citing its popularity with neighborhood residents, members of the North Rosslyn Civic Association have expressed a desire to retain this portion of the Skywalk. Skywalk connections into and through Gateway Park also remain open but are less actively used and may be removed in the future. Freedom Park, which occupies sections of elevated roadway originally constructed as part the “Rossllyn Loop Road”, is primarily a linear park facility that provides a pleasant walking route through certain sections of Rosslyn. Consideration should be given to expanding pedestrian access to this facility from adjacent properties.

Recent Improvements:

In recent years, Rosslyn’s walking environment has been improved through a number of incremental physical changes. Many of the improvements have been implemented with redevelopment projects that have shortened crossing distances, improved accessibility for persons with disabilities and encouraged slower motor vehicle operating speeds. In some areas, sidewalks have also been widened, landscaping improved, and new pedestrian amenities provided. These improvements have often been the result of property redevelopment and actions initiated by Arlington County and the Rosslyn Business Improvement District (BID). The most notable recent project has been the reconstruction of the intersection of 19th and N. Kent Streets, an early phase of the Rossllyn Esplanade project.

Proposed Enhancements:

Arlington County is working with the Rosslyn BID, VDOT, the National Park Service and local businesses and residents to develop projects to enhance the safety, accessibility and general comfort of walking through Rossllyn Circle and the N. Lynn Street/Fort Myer Drive/ Meade Street corridor. Two of the more prominent enhancement projects are the Rossllyn Esplanade project and the Meade Street Bridge project. The Rossllyn Esplanade project will rebuild portions of N. Lynn Street and Lee Highway to widen sidewalks, add landscaping, improve curb ramps and crossing points, better manage traffic speeds, and
incorporate the Corridor of Lights public art project. The Esplanade Plan calls for “visual and physical access to the river including providing view corridors and vistas in new developments along the river.” The Esplanade Plan also identifies the Potomac River and Roosevelt Island as important assets for Rosslyn. The possibility of a pedestrian bridge connecting Rosslyn with Roosevelt Island would improve access for pedestrians and bicyclists. The Meade Street Bridge project is currently envisioned to widen sidewalks and add bike lanes to buffer pedestrian travel, while also reconstructing several of the intersections between the Arlington Boulevard off- and on-ramps and Meade Street to better manage traffic speed and improve the safety and accessibility of the pedestrian crossings. Other projects, such as the Corridor of Lights art project, can help to enhance the appearance and delight of walking in Rosslyn.

Earlier in this study a number of recommended changes were proposed for many of Rosslyn’s primary streets (see Chapter A and Appendix I for details). Many of these recommended changes are intended to convert under-utilized street space to other purposes such as widened sidewalks, pedestrian refuge areas and curbspace uses (parking, bike lanes, bus stops, etc.) that help to improve access to transit and to buffer pedestrians from motor vehicle traffic.

The general design guidelines for sidewalks, intersections and pedestrian crossings found in the Arlington County Master Transportation Plan Pedestrian Element (MTP) were consulted when formulating pedestrian improvements for Rosslyn. The Pedestrian Element of the MTP specifies that sidewalk “clear zones” (the portion of the sidewalk dedicated expressly for walking) should be not less than six feet in commercial, mixed-use and other higher-density areas. It also states that the width of a sidewalk should be increased in proportion to the density of the adjacent land uses and the expected activity levels on the streets. Sidewalk widths should reflect the density and character of the local district as well as the development of the adjacent properties.

The map below provides recommended sidewalk clear space widths for the Rosslyn area streets. The recommended widths are sized to accommodate expected peak hour pedestrian volumes identified either from recent counts or from estimates that account for approved but currently unconstructed high-density development. In addition to the stated clear space, the sidewalks should also include a landscape/furniture strip at the back of the curb which generally should be six-feet in width. When determining the exact sidewalk dimensions for a particular block factors as identified in the Sector Plan such as the land use context, curb-space use and street level retail activities should be considered.

Implementation of many of these sidewalk improvements is likely to occur both through property redevelopment and via County-initiated Complete Streets projects. In some places, limited public street right-of-way, steep slopes and other factors may prevent full implementation of the recommended sidewalks. In such cases, improvements may be made in incremental steps, or some recommended dimensions may be reduced to better suit the environment.

Walking/Strolling in Rosslyn:

Although Rosslyn is situated near numerous high-value amenities, including the Potomac River, Roosevelt Island, Gateway Park and Iwo Jima Memorial, connectivity to these amenities is limited. The following recommendations are meant to both improve connectivity to public space surrounding Rosslyn and improve the pedestrian experience in central Rosslyn by creating a Rosslyn walking/strolling district.
Connecting a series of streets with special treatments is one way to identify a clear path for strolling around Rosslyn. Different pedestrian friendly strolling routes (See map below) would provide better connectivity to nearby amenities.

Recommended design features include smart wayfinding, enhanced lighting, new or upgraded pedestrian traffic signal crossing features, vehicular access control devices, green infrastructure and customized streetscape improvements.

The walking/strolling district outlined below is made up of four unique pedestrian experiences including a potential festival street on N. Moore Street, elevated walk utilizing Freedom Park, proposed bicycle/pedestrian bridge to the Potomac River/Roosevelt Island, and an improved connection to the Iwo Jima Memorial.

**N. Moore Street:**
Numerous comments were given from a variety of sources regarding the desire for festival space in central Rosslyn. Although not ideal, both N. Moore Street and N. Kent Street could be modified to take on pedestrian-oriented characteristics and accommodate in-street festivals on a part-time basis. It should be noted, however, that heavily utilized bus stops on N. Moore Street and the location of various parking garage entrances (See Central Place rendering below) would make it impractical to completely close N. Moore Street to vehicular traffic.

Starting at Gateway Park, recommended improvements include a new pedestrian traffic signal crossing from N. Moore Street across Lee Highway to facilitate the safe crossing of pedestrians at this intersection. Currently, there is no legal crossing at this intersection. This improvement would allow for better pedestrian access to Gateway Park. Additional improvements to existing crosswalks leading to Gateway Park are also recommended.

To allow for festival space in Central Rosslyn, the cross section of N. Moore Street between Lee Highway and 19th Street would need to be modified to include wider sidewalks with street trees and narrower travel lanes (See Appendix I for alternative cross-sections). Additionally, travel lanes could potentially include retractable bollards to close this segment of N. Moore Street during festival events.

N. Moore Street between 19th Street and Wilson Boulevard currently serves as a transit street. Peak transit utilization on this segment of street occurs during weekday commuter periods. With the two-way conversion of Fort Myer Drive and N. Lynn Street, weekend bus traffic could potentially be diverted to drop off and pick up passengers at alternative bus stops on Fort Myer Drive or N. Lynn Street (See Appendix I for alternative cross-sections). The central portion of N. Moore Street near the Rosslyn Central Place Plaza could then be utilized as festival space.

During these festivals, however, the southern and northern portions of N. Moore Street between 19th Street and Wilson Boulevard would need to remain open to slow moving vehicular traffic looking to access existing and planned driveways.

Considering the difficulties of using N. Moore Street between 19th Street and Wilson Blvd as a part-time festival street, another option would be to utilize an improved N. Kent Street as a festival street. Although N. Kent Street is not as centrally located as N. Moore Street, plans for a mid-block crossing over N. Lynn Street and a recommended new street section between N. Lynn Street and N. Kent Street would result in improved pedestrian connectivity to festival space on N. Kent Street.

**Freedom Park/Elevated Walk:**
An improved pedestrian connection between N. Moore Street and the Freedom Park (elevated portion of the former Loop Road) at 17th Street and N. Nash Street would entail various changes including the creation of a signalized pedestrian crossing at the intersection of N. Moore Street and Wilson Boulevard, the extension of the median along Wilson Boulevard to restrict vehicle turning movements, and sidewalk improvements along Wilson Boulevard between N. Moore Street and N. Nash Street and N. Nash Street between Wilson Boulevard and 17th Street. Alternatively, special treatment and sidewalk improvements from N. Moore Street to N. Lynn Street, in addition to the conversion of the existing vehicular ramp from 17th Street to N. Lynn Street into a pedestrian ramp, could also increase connectivity to Freedom Park.
The elevated walkway between 17th Street and N. Kent Street offers an opportunity to create a pedestrian area free from motor vehicles. The 17th Street portion of the elevated walk offers spectacular views of the National Cathedral, Roosevelt Bridge, Potomac River and DC skyline. Re-purposing this underutilized resource could add a great asset to the Rosslyn pedestrian network. Upon improvement, Freedom Park could become a third-of-a-mile long tree-lined pedestrian mall with engaging views and a dynamic atmosphere.

With a treatment similar to the one proposed for N. Moore Street, N. Kent Street and 19th Street could connect the strolling loop back to N. Moore Street. Considering the difficulties of using N. Moore Street between 19th Street and Wilson Blvd as a part-time festival street, another option would be to utilize an improved N. Kent Street as a festival street. Measures could be used to temporarily restrict vehicular traffic along N. Kent Street in order to create an enhanced pedestrian space for festivals and other events. Additionally, the Artisphere could be integrated into the identified pedestrian strolling route.

Pedestrian/Bicycle Bridge:
Access to the Potomac River shoreline and Roosevelt Island could be facilitated with the construction of a new pedestrian/bicycle bridge from N. Kent Street/N. Arlington Ridge Road. With miles of internal trails, Roosevelt Island offers a natural setting for strolling. This portion of the Rosslyn walking/strolling district would be perfect for exploring the natural beauty of the area, and would link Rosslyn to the Mount Vernon Trail, the Roosevelt Bridge and the Potomac River shoreline. Due to the nature of the site, a significant amount of coordination with VDOT (and potentially the National Park Service) would need to take place in order to identify both the location and impact of the proposed pedestrian/bicycle bridge. One option would be to work with developers of the Rosslyn Plaza site to properly align and integrate the pedestrian bridge into the site.

Iwo Jima Memorial:
The Iwo Jima Memorial is another highly-visited attraction located on the edge of our study area. Although the Iwo Jima Memorial is currently connected to central Rosslyn by a system of sidewalks down Fort Myer Drive and N. Lynn Street, there is significant room for improvement. Planned improvements to the Meade Street Bridge along with widened and improved sidewalks on Fort Myer Drive and N. Lynn Street (See Appendix I) would result in easier and safer access between the core of Rosslyn, Radnor-Fort Myer Heights residences, Arlington Cemetery, Fort Myer and Iwo Jima Memorial.

Strolling in Rosslyn along N. Lynn Street will be further enhanced by the permanent installation of the Corridor of Lights public art project along N. Lynn Street from the Meade Street Bridge to Gateway Park. The Corridor of Lights art installation was designed to provide iconic markers for identity and wayfinding through the heart of Rosslyn, mediate the scale of buildings, and gently illuminate the street level beyond daylight hours to encourage pedestrian use.

### Rosslyn Peak Hour Pedestrian Counts

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<th>Location</th>
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<tr>
<td>Wilson Blvd (north side) @ Moore Street</td>
<td>914</td>
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<tr>
<td>Wilson Blvd (north side) @ Lynn Street</td>
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<tr>
<td>Wilson Blvd (south side) @ Lynn Street</td>
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<td>Wilson Blvd (north side) @ Pierce Street</td>
<td>420</td>
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<tr>
<td>Wilson Blvd (south side) @ Oak Street</td>
<td>225</td>
</tr>
<tr>
<td>Lynn Street (east side) @ 19th Street</td>
<td>808</td>
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<tr>
<td>Lynn Street (east side) @ Fairfax Drive</td>
<td>104</td>
</tr>
<tr>
<td>Lynn Street (east side) @ Lee Highway</td>
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<td>Lynn Street (east side) @ Wilson Boulevard</td>
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<tr>
<td>Meade Street (east side) @ Arlington Boulevard</td>
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<tr>
<td>Moore Street (west side) @ 19th Street</td>
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<td>19th Street (north side) @ Lynn Street</td>
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<td>Lee Highway (north side) @ Lynn Street</td>
<td>271</td>
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<tr>
<td>Nash Street (west side) @ Key Blvd</td>
<td>673</td>
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<tr>
<td>Skywalk @ Fort Myer Drive</td>
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</table>
Chapter D. – Bicycling in Rosslyn

Existing Conditions:

Two regional bicycle and pedestrian trails, the Custis and the Mount Vernon, wrap around Rosslyn’s northern and eastern edges. The trails provide bicyclists and other users with travel that is largely separated from motor vehicle travel until reaching Rosslyn. The Custis and Mount Vernon Trails also provide easy access to the bicycle and pedestrian paths across the Potomac River on the Key, Roosevelt and Memorial bridges. However, access between the trails and central Rosslyn is limited to on-street routes of which only a few have bicycle accommodations. In addition, the Custis Trail in Rosslyn passes through six street or driveway crossings that create conflicts between cyclists and motor vehicle traffic. The Custis Trail crossings at Fort Myer Drive and N. Lynn Street have been the site of a relatively high number of collisions between motorists and bicyclists.

A limited amount of public bicycle parking is currently available in Rosslyn. The Rosslyn Metrorail station has racks for 16 bicycles situated within the station’s upper level, while Arlington County and the Rosslyn BID have installed street-side bicycle racks at a number of locations. Recent site plan projects have also installed bicycle parking although the majority of the bike parking is internal to the building and reserved for residents and tenants.

In April 2011, the first four Capital Bikeshare bike stations were installed in Rosslyn. In their first full month of operation (May 2011) bicycles from those four stations were used for 1,959 trips. By the end of 2011 a total of 30 bike share stations are planned to be operating in the Rosslyn - Ballston corridor. More than 100 other Capital Bikeshare stations are in operation within the District of Columbia and the Pentagon City/Crystal City areas of Arlington. Capital Bikeshare makes bicycling a more viable transportation option for many more people at any time of the day. It also enhances the effectiveness of transit services by providing a relatively quick and inexpensive means to connect the fixed transit routes with a final destination.

Identified Physical Deficiencies:

The most significant deficiencies in the Rosslyn bicycling network include:

- safety conflicts for the Custis Trail through Rosslyn Circle,
- limited bicycle lanes or other bikeways for north-south travel between the Key and Meade Street bridges,
- connectivity gaps in the bikeway system, particularly between N. Lynn and N. Nash streets,
- insufficient provision of public bicycle parking at the street level and Metrorail station,
- lack of convenient connections between the center of Rosslyn and the Mount Vernon Trail and the Potomac River waterfront.

Current Enhancement Projects:

Arlington County has several projects currently underway that should improve bicycling in the Rosslyn area. The Rosslyn Esplanade project is being developed to enhance pedestrian and bicyclist safety, comfort and access between N. Lynn Street, Rosslyn Circle and the Key Bridge. The Esplanade will include substantially wider sidewalks and improved crossings for bicyclists and pedestrians using the Custis Trail, Fort Myer Drive and N. Lynn Street. The Esplanade project should also help to address the bicyclist (and pedestrian) safety problems at the Lee

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Rosslyn locations with the most reported bicycle/motor vehicle collisions from 2007 –2010

- Lee Hwy. & Fort Myer Dr. = 4
- Lee Hwy. & N. Lynn St. = 4
- N. Lynn St. & 19th Street N. = 2

The Custis Trail is well-used as a year-round commuter route for bicyclists. The automatic trail counter near N. Troy counted an average of 1,604 bicyclists per day during June 2011, with the highest counts occurring on weekdays. Additional counters to be installed on the Mount Vernon Trail, Key Bridge and selected on-street locations within the next year will help to quantify bicyclist volumes on other area bikeways.

A number of other bikeways have been established within Rosslyn, including a bicycle and pedestrian trail along the north side of Arlington Boulevard, bicycle lanes on several arterial streets and designated bicycle routes that connected many of the bikeways. In addition, some trail and designated bicycle routes traverse federally-owned properties to provide linkages of Rosslyn south to the Memorial Circle Area and west through Fort Myer. Bicycle lanes exist for east-west bicycling on Key, Wilson and Clarendon boulevards however, the lanes extend no further east than N. Nash Street. A northbound bicycle lane was added in 2010 to N. Lynn Street south of Lee Hwy. No corresponding southbound bicycle lane currently exists. In 2011, a bicycle lane has been added to N. Quinn Street to link the Wilson and Key Boulevard bike lanes near the western edge of Rosslyn.
Highway intersections with Fort Myer Drive and N. Lynn Street (the two most-frequent locations of bicycle/motor vehicle crashes in Arlington County.)

While the Rosslyn Esplanade project will significantly improve the safety of the sidewalks/trails and at-grade street crossings, a more long-term project to construct an underpass for the Custis Trail beneath N. Lynn Street may be the ultimate safety improvement. The underpass concept has previously been studied but has been held up due to a legal dispute regarding ownership of some property in the area where it is proposed to be constructed. Final resolution of the legal question and permission from the National Park Service would be required to enable its development.

Arlington County is also undertaking a planning study for N. Meade Street to identify and design improvements to N. Meade Street that will enhance pedestrian and bicyclist access between the center of Rosslyn and the Radnor Fort Myer Heights neighborhood, Fort Myer and the Iwo Jima Memorial. The preferred design includes widened sidewalks and new bicycle lanes that can be installed as part of a street and bridge reconfiguration project.

The developers of the 1812 N. Moore Street project have agreed to implement a number of renovations to the Rosslyn Metrorail station, including the installation of new bicycle racks that will double the bicycle parking capacity at the station.

Proposed Bikeway Improvements:

In addition to the projects described above, the connectivity of the bikeway system in the Rosslyn area can be enhanced through the implementation of marked bicycle lanes along a number of the primary streets (see map for details). Several bikeways projects for the Rosslyn area are identified in the Master Transportation Plan’s Bicycle Element. North-south bicycle access would be improved through the addition of a southbound bicycle lane on Fort Myer Drive to complement the northbound bicycle lane on N. Lynn Street and bicycle lanes on N. Nash Street between Wilson and Key Boulevards.

The existing bicycle lanes on Wilson and Clarendon Boulevards that currently end at N. Oak Street should be extended eastward to link with the Fort Myer Drive and N. Lynn Street bicycle lanes. Should street space on Wilson Boulevard be insufficient to add bicycle lanes along the road, shared lane markings (commonly known as “sharrows”) should be installed in the curbside travel lane. East-west travel would also be greatly enhanced via the marking of bicycle lanes along 19th Street, between N. Lynn Street and N. Nash Street and through the marking of sharrows along sections of Fairfax Drive that are too narrow to accommodate an improved Arlington Blvd Trail. The addition of a bicycle lane alongside the south-side curb of eastbound Lee Highway could also enhance bicyclist access and safety for trips to Rosslyn from the Court House area.

A more long-range enhancement is to construct a bicycle and pedestrian trail that bridges over Interstate 66 and links Rosslyn directly to the Mount Vernon Trail and Potomac River waterfront. The new trail connection would provide a more direct linkage of Rosslyn to the Potomac River waterfront as well as improve access to the regional Mount Vernon Trail. A new trail connection might also be tied into a future rebuild of the Theodore Roosevelt Bridge and be incorporated with an enhanced bridge pathway and link to the Foggy Bottom area of Washington D.C.

The existing multi-use trail along the north-side of Arlington Boulevard, west of Fort Myer Drive should be widened and improved wherever there is sufficient right-of-way. The addition of trail lighting should also be considered as part of the upgrade.

In areas where right-of-way is constrained, sharrows markings should be provided on the adjacent Fairfax Drive roadway.

Where they are absent, bicycle parking racks should be installed in the landscape/furniture zone of sidewalks adjacent to commercial and government buildings in Rosslyn.
Chapter E. - Parking and Curb Space Management

Existing Conditions:

Rosslyn is one of the most intensely used districts in Arlington, and has highly urban characteristics. Curb space in Rosslyn is at a premium, and there is strong competition for this valuable resource. As the Rosslyn area continues to redevelop, it will become increasingly important to balance the needs of on-street and off-street parking system operations with the general concept of better curb space management. The need for an improved balance across all aspects of this element of the multimodal transportation system was most recently emphasized in the County’s Master Transportation Plan (September 2007). As stated in that document “…parking management is one of the most important tools for handling congestion, increasing transit ridership, and achieving the wider goals of the Master Transportation Plan.”

Off-street Parking:

The off-street parking supply in the Rosslyn area has evolved over time as the area has been developed and redeveloped. Arlington records of development activity identify more than 22,000 approved off-street parking spaces in the Rosslyn area. This figure includes garage parking constructed since 1960, garages expected to be built as part of recently approved site plans, as well as surface lots at the Marriott Key Bridge and at River Place. The vast majority of off-street parking in Rosslyn is owned and managed privately, although many of the spaces are available for public rental.

The parking spaces associated with primarily commercial (non-residential) Rosslyn developments are mapped and identified in Table 1 in the study’s appendix and summarized in the text box. Table 2 provides hours and fees charged for parking in the Rosslyn garages open to the public. The 22 garages charge hourly fees ranging from $3.50 to $10.00 per hour, with a median hourly rate of $6.00. Daily fees range from $8 to $17 and monthly parking rates are between $110 and $165 per month. A number of garages are currently offering an “Early Bird Special” daily rate of $7 for motorists that park prior to 9:30 AM. Garages offering such price discounts typically have more available spaces than are regularly demanded by their building tenants.

There are more than 17,000 parking spaces in Rosslyn’s commercial and mixed use developments (see text box below). That number equates to about 1 parking space per 2 jobs in Rosslyn. Excluded from the tally are those parking spaces associated with almost 6,500 Rosslyn area dwelling units that are in exclusively residential developments. It is assumed that such spaces are reserved for use by the buildings’ residents and guests and are not available for use by the general public.

Curb Space Utilization and On-street Parking:

Measurements taken in late 2010 and early 2011 show that Rosslyn contains 26,400 linear feet of curb space, and its utilization breaks down as follows:

- Parking: 8,486 linear feet (32%)
- Driveways: 4,201 linear feet (16%)
- Bus Stops: 1,093 linear feet (4%)
- Loading & Drop-Off: 545 linear feet (2%)
- Taxi Stands/Zip Car: 267 linear feet (1%)
- Signed No Parking: 11,808 linear feet (45%)

About one-third of the Rosslyn curb space is currently allotted to about 400 on-street parking spaces. Another seven percent of the curb space is reserved for specific uses such as bus stops, building loading, and taxi stands. The largest share of Rosslyn’s curb space does not permit stopping or parking – it is reserved
either for driveways, street intersections, travel lanes, vehicle turning movements, crosswalks, fire hydrant access or to maintain safe sight lines for motorists. With street redesign it is possible that some of this area could be reallocated to other uses, such as parking.

In spring 2011, on-street parking space utilization in Rosslyn was measured by counting parked vehicles along the 15 blocks that constitute most of the commercial core. The counts were taken at 10 am, 2 pm and 8 pm on a Tuesday and Thursday, and at 10 am on a Saturday. The results, detailed in Table 3 of Appendix A, show an average of 92% occupancy for all blocks on all days. This occupancy rate is quite high, and exceeds Arlington County’s 85% recommended occupancy levels for on-street parking. Yet, when only weekday occupancy is examined (10 am and 2 pm on Tuesday and Thursday), occupancy is even higher, ranging from over 96% to over 105%. Weeknight occupancy (Tuesday and Thursday, 8 pm) is still high, and ranges from 91% to 94%.

On several streets vehicles were frequently found to be parked not in legal spaces. Given the shortage of parking on-street, this is not surprising. In fact, records from the Arlington County Police Department show that parking in a “no parking” zone is the second most common curb space violation in Rosslyn. However, the most common offense in Rosslyn by far, every year, is overstaying time at a parking meter.

Taxicab Stands, Zip Cars, Slugs and Tour Buses:

Curb space is currently allocated to transportation services that provide for public travel in privately-owned vehicles. Zipcar rents cars on an hourly basis for use by its members. Currently there are 13 Zipcars that operate from designated curb spaces in Rosslyn (one Zipcar operates from a public parking garage). Approved transportation demand management plans for the 1812 Moore Street and Rosslyn Central Place projects call for additional car sharing spaces to be located in their building garages. Some of the Zipcars may be shifted from their current on-street locations to the planned garage spaces. Future site plan projects may also be requested to house car sharing vehicles in their building garages.

Seven taxi companies operate 765 taxicabs in Arlington County. Rosslyn currently has two designated taxi stands. One stand is on Wilson Boulevard adjacent to the Hyatt Hotel and has capacity for 7 to 8 taxicabs. The other stand is located on N. Moore Street near the Metrorail station and holds 5 to 6 cabs. The two stations are amongst the busiest in Arlington. County staff is evaluating the installation of another taxi stand on 19th Street, east of N. Lynn Street, to provide better taxi access to the hotel, restaurants, offices and residences near the Waterview complex.

Four on-street spaces along Lee Highway are reserved between 3 and 7pm on weekdays for slug line operations to destinations in Prince William and Stafford counties, but are available for short-term parking at other hours. During a recent count of the PM peak period (3 Hours) approximately 435 slugs and 145 vehicles were found to utilize the space. An additional slug line forms along N. Kent Street for destinations in Fairfax County. A total of about six general parking spaces along Fort Myer Drive and another three along Arlington Ridge Road have been reallocated for on-street tour bus parking. The spaces are reserved exclusively for tour buses.
and are metered at a cost of $3 per hour. Both uses can service a lot of travelers from a limited amount of curb space.

**Vision and Goals for Curb Space and On-Street Parking:**

Curb space is a valuable commodity, particularly in a dense urban area such as Rosslyn, which is a transit hub, employment center, and activity node. Given the physical limitations of the amount of curb space available along a block, it is necessary to define an appropriate balance between all of the various demands for the space and how it can best be utilized for the greater public good. As described in the Master Transportation Plan’s Parking and Curb Space Management Element, there are other demands for the use of curb space along the Arlington County street system besides parking. As the Rosslyn area continues to grow and redevelop over time, the appropriate mix of curb side uses must also evolve and change.

Prioritize and identify the best use of on-street curb space, matching various types of uses to appropriate locations. For Rosslyn and other high density areas in Arlington, the priority uses are safety, high-capacity users, and short-term uses with quick turnover. It is thus important to recognize that parking is often not the highest-priority use for curb space. Arlington’s established curbspace priorities are:

1. Public safety or emergency access,
2. Curb nubs for pedestrian safety,
3. Bus stops,
4. Taxi stands and short-term delivery,
5. Para-transit pick-up,
6. Short-term retail customer parking,
7. Parking for persons with disabilities.

Besides the higher priority uses for curb space listed above, there are other demands for use of the space. These include:

- Layover for tour buses,
- Pick-up and drop-off locations for tour buses and interstate buses,
- Valet parking,
- Parking for car share vehicles,
- Parking for bicycle sharing,
- Private shuttle services,
- Motorcycle and scooter parking, and
- “Slug” lines.

Work with the transportation engineering and operations bureau to identify priorities among these uses, recognizing that priorities may shift block by block, and even space by space. Identify areas of highest demand for the above use types, and identify potential curb space that may be allocated to those uses. Some of these uses, such as slug lines, have very specific time demands and geographical requirements, as the use is predicated upon a proximity to employment sites and freeway access. Some, such as tour bus parking and layover, are associated with specific locations, such as Arlington National Cemetery. Transit related uses would be best served by close proximity to the Metrorail station and nearby bus bays. Other uses are more dispersed through the Rosslyn area, and still others, such as valet parking, are so heavily restricted in Arlington that they are infrequently used. Express bus service to Rosslyn has very specific time of day needs.

b. Implement an application process for use of curb by regional and intercity buses (except Metrobus and ART).

Metrobus and ART currently operate about 350 trips through the Rosslyn area each weekday, with the 1800 block of N Moore St as the principal bus transfer point and hub. As an indicator of Rosslyn’s viability as a transit hub, other bus services, such as the expansion of the DC Circulator into Rosslyn, have extended the transit bays onto the 1900 block of N Moore St. Besides these local transit services, regional carriers, serving commuters in Loudon, and Prince William counties, and intercity buses, transporting customers to New York City, have begun serving Rosslyn in increasing numbers in recent years. These bus services are characterized by less frequent service than local transit, longer vehicles, and a single door for boarding and de-boarding. They may also have luggage storage beneath the vehicle carriage, and may therefore require a staging area on the sidewalk or curb to load and unload bags.

c. Explore opportunities to increase curb space availability thru:
   i. Creation of new streets,
   ii. Re-striping or reallocation of existing rights-of-way,
   iii. Use of multi-space meters.

When multi-space meters are put in place, striping for individual parking spaces is frequently removed. Removal of 22 linear feet per each space may result in an increase of 10% to 15% in the amount of curb space available for parking, and in the number of vehicles able to park curbside along any given block. Over the past few years, many on-street parking meters in Rosslyn have been converted to multi-space meters.

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iv. Require new buildings to have adequate facilities for off-street truck loading and unloading. This would reduce the need to create curb cuts, driveways, and other such access points, which remove curb space from parking and other public uses.

d. Utilize pricing strategies for on-street parking to match availability and demand. Variable pricing, dynamic pricing, or performance parking: these are some of the names of parking programs following an economic model. The ability to change prices by time of day, or adjust pricing based on demand could encourage more efficient use of parking spaces, greater turnover of those spaces, and increased business activity. The County code must be amended in order to increase parking rates in order to implement effective variable pricing strategies.

e. Enforce existing parking and curb space regulations to maximize use of curb space. According to the Arlington County Police Department, overstaying a meter’s allowed time is a frequently cited offense in Rosslyn. Meter feeding reduces the short-term parking supply and can be harmful to local businesses. One of the best ways to encourage long term parkers to use parking garages is to increase enforcement of illegal meter feeding and enforce time restrictions for parking.

f. Increase the provision of alleys. Alleys provide important access for service vehicles. Alleys relieve the street and curbside from the pressure of providing space for loading and other service-related uses for large buildings, thus freeing up the curb for higher priority uses.

Recommended Actions for Off-Street Parking:

a. Encourage use of off-street garages for all long term parking. Improve ease of off-street parking for short term users. Observations of on-street parking found very few available spaces during a typical weekday on almost every street in Rosslyn. The lack of available on-street parking results in a higher incidence of illegal parking and double parking, all of which negatively impact traffic flow and safety. Additionally, in areas where less than 15% of on-street parking is available, the number of drivers cruising nearby streets looking for parking increases, which adds to traffic congestion.

In Rosslyn, off-street garage parking spaces are more abundant than on-street spaces, but may be less attractive to drivers than on-street parking due to garage’s higher price, a common dislike for parking in underground garages, and the general lack of transparency as to the location and availability of the garage parking opportunities.

Engage the Rosslyn BID/Rosslyn Renaissance with parking issues and encourage them to develop a plan for maximizing the use of private parking garages for short-term parking. The owners of the Rosslyn buildings are in the best position to direct their garage operators to increase the amount of short-term parking in their buildings.

The BID and Rosslyn Renaissance should also be encouraged to oversee a study that documents the occupancy of the private garages. This data is necessary to determine how feasible it is for an increase in non-building parkers to use the facilities.

b. Allow developers to build less parking than is required in the site plan process, and divert resources into transit and TDM. Rosslyn is a heavily-trafficked area with dense development and a high degree of pedestrian activity. It also has the best multi-modal transit service and connections in Arlington, rivaling those of the District of Columbia, directly across the Key Bridge. Lowering parking requirements in this area makes a great deal of sense, given its walkability and the abundance of transportation alternatives in the immediate vicinity. Two recent developments are examples of this practice: Central Place and 1812 N Moore Street.

c. Maximize shared parking, within a garage and between private garages. Parking can be shared spatially or temporarily. Spatially, a garage may open some or all of its parking levels for specific uses (e.g., nearby office building employees), or to the general public. Temporally, a garage that is used by daytime office workers may be made available to the general public during weeknights and weekends. Shared parking during the day for short-term parking could help to relieve pressure on Rosslyn’s over-subscribed curbside parking spaces. The location of short-term shared spaces in garages should be those spaces most accessible to pedestrian access points, and nearest to ground floor shopping, dining, and services.

It is also likely that some of Rosslyn’s buildings have more parking spaces than are needed by the current office employees or residential tenants. This provides an opportunity for sharing of these spaces with employees or tenants of other buildings. In particular, as new buildings come online, part or all of the new building’s parking requirements could be satisfied off-site in an existing building. This type of shared parking is encouraged in the Master Transportation Plan’s Parking Element. The occupancy study referred to above is necessary to document the extent of the excessive spaces available for shared parking in Rosslyn.

The best time to encourage shared parking between buildings occurs at the site plan process, where the practice can be negotiated into site plan conditions.

d. Reduce or eliminate parking requirements for specialized projects near transit nodes, and/or when they advance County transportation goals. Such projects would include affordable residential development near transit stations, and the creation of an additional subway entrance as part of a development project. Develop guidelines for adjustment of parking requirements for projects of this type.

e. Improve information, wayfinding and signage to direct short term customers and visitors to public garages with available parking. Update the existing parking brochure, distribute it, and promote it throughout Rosslyn. Work with the Rosslyn BID to add to the wayfinding signage program as new public parking opportunities are made available. Encourage garages with a large number of public parking spaces to provide electronic parking guidance and wayfinding to their facility. Use smart phone applications and

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2 Parking in the Rosslyn-Ballston Corridor, Arlington County, VA. 2009 update.
other electronic media for publicizing the location of available parking spaces.

f. Establish an objective and consistent performance monitoring system for parking requirements in all new developments.

Arlington County has developed the following performance measures for parking in office developments:

i. For buildings with TDM programs, reduce the percentage of employees who receive a full or partial parking subsidy from their employers.

Approach and Methodology: Work with Arlington County Commuter Services (ACCS) to develop a methodology that can be incorporated into their TDM programs and employer outreach. Or, conduct base year study to determine the level of the employer-based parking subsidy. Then, measure effectiveness of ACCS’s current driver reduction programs, and their effect on parking subsidies.

ii. Regularly track the percentage of parking spaces within garages whose parking costs are that are unbundled from the rent of the office space.

Approach: Engage at initiation of the site plan process to ensure that garage parking is unbundled from all new office construction. Work with site plan reviewers in the Department of Environmental Services and the Department of Community Planning, Housing, and Development.

Methodology: Make unbundled parking part of a standard site condition for an office building review; all parking for prospective lessees must be leased separately, and tenants would not be required to lease parking space.

Commercial Parking Ratios:

In November 2009 the Parking Element of the MTP was adopted as one of six elements of the MTP. This was the first time that the County’s Master Transportation Plan included a section on parking and curb space management. A critical policy of the parking element is to “[e]nsure that minimum parking needs are met and excessive parking is not built.” Elsewhere in the MTP, Arlington County set as a performance measure that peak traffic on Arlington’s street network in 2030 will grow by less than 5% over 2005 levels. This performance measure also informs the recommendations for off-street parking.

Offices parking ratio:

Much of the office development in Rosslyn took place beginning in the 1970s, when the parking requirements were as low as 1 parking space for 250 square feet. In the 1980s, site plan office parking requirements were revised to 1:580. However, these ratios are from an era in which travel patterns were different, and the regional transit system was less complete and more fragmented. There were also fewer facilities and services available for alternative transportation, and no comprehensive TDM program in existence.

Recent actions:

In 2007, Arlington County revised its zoning code to include a new zoning classification, C-O Rosslyn. This zoning changes the minimum parking requirement for site plan office buildings in Rosslyn to one space per 1,000 square feet.

Parking in Rosslyn today:

According to a 2010 report, there are 12,157 parking spaces in 41 garages dedicated to office building use in Rosslyn. The same report references 9.1 million square feet of office space in the area, yielding a net parking ratio of 1 space per 746 square feet.

It is estimated that approximately half (49%) of all Rosslyn workers currently drive alone to work.

Future goals:

In order to maintain traffic levels at no more than 5% above 2005 levels, it will be necessary to reduce the number and the percentage of those driving alone to work in Rosslyn. Focusing on the work trip, which is Arlington’s principal concern regarding traffic, it is estimated that SOV mode share must be reduced to 30-35% in order to achieve this objective. Thus, increases in mode share must necessarily occur for all other travel modes in the journey to work. Along with encouraging other modes of travel, the provision of fewer parking spaces per employee in Rosslyn would discourage excess parking.

Recommendations for future:

a. Office parking

For the near term, we recommend a revision to the zoning ordinance for Rosslyn, with the 1 space per 1,000 square foot parking ratio as the maximum permitted, and 1 space per 1,250 square feet as the minimum. For the longer term, we recommend no minimum parking requirements, and ultimately a cap on the number of office parking spaces allowed. With the reduction in required parking, the MTP specifies that developers should provide additional funding towards transit and TDM services.

b. Hotel parking

We recommend a reduction from 0.7 spaces per room to 0.5 spaces (one space per two rooms).

c. Residential parking

We recommend that staff study opportunities to allow lower parking requirements in areas near Metrorail stations or future streetcar stops.
Chapter F. – Transportation Demand Management for Rosslyn

Existing Conditions:

Arlington County has an extensive, unified program of Transportation Demand Management (TDM) services to increase mobility and access for everyone who lives, works and visits here. Some important services that Arlington County Commuter Services (ACCS) provides are:

- Employer, Residential, and Visitor Services are provided by Arlington Transportation Partners (ATP). ATP provides customized information to business clients to help travelers choose the best travel option for each trip. After years of steady growth in clients, ATP now serves 135 employers in Rosslyn, who employee about 10,500 workers. Employers are provided customized Transportation Options Tool Kits for their companies as well as personalized Commute Planners for their employees on request. ATP also works with 44 residential buildings with about 6,425 units to reach citizens, and all the major hotels to reach visitors. A special marketing campaign called Redefine Your Commute was conducted in Rosslyn in 2009 and is estimated to have reached over 2,700 commuters. ATP also reaches travelers through transportation fairs and their quarterly newsletter, Solutions. In addition, ATP helps sit plan properties to comply with TDM requirements based on development approval conditions.

- Direct Commuter Information and Support is provided by the Commuter Information Center (CIC) through the Commuter Store, and through CommuterDirect.com. Direct, assistance, and transit pass sales are provided through The Commuter Store located in the Rosslyn Metro station. Online fare sales for individuals and companies were provided through CommuterDirect.com, and phone support was provided to commuters who called 703-228-RIDE. CIC responded to over 20,000 phone calls and reported more than $27.5 million in fare media sales, which represented a 51% increase over the previous year’s sales. CIC also processed almost 130,000 individual transactions and over 1,000 corporate transactions.

- Travelers are also provided with interactive and real-time information/services though the CommuterPage.com family of internet sites, including BikeArlington.com, WalkArlington.com, and Arlingtontransit.com. ART’s website includes an interactive map with real-time. Transportation information is also disseminated through display units at various locations in the County. Transportation Information Display Units are currently operating at nine site plan and commercial properties, and about 20 small Lucite units have been distributed to Arlington retail partners.

- Marketing for transportation services and products is achieved through The Citizen newsletter, ads in Metro stations, point-of-purchase displays, addition of over 100 private sector partners, e-newsletters, website updates and enhancements, blog, Facebook and Twitter pages, as well as YouTube videos. The street team conducts outreach efforts at County events, farmer’s markets, and shopping centers. Transit marketing efforts include producing new timetables, web and bus stop panels for various routes, a quarterly newsletter (ART Forum), a redesigned ART website with enhanced features including an interactive route map and real-time bus arrivals. Support and marketing for STAR, a paratransit option for Arlington residents, included updating the Riders Guide, reprinting fare coupons, producing two issues of the newsletter (STAR Points), and conducting a user survey.

The Distribution and Logistics Program supplies brochures, maps, schedules and fare media as requested through various information avenues, including the online brochure ordering system, CommuterDirect.com and restocking displays at retail outlets. In 2010, this program distributed 600,000 timetables and brochures to individuals, companies and information displays in the County. The program also installed map and schedule information at 480 bus stops in the County, installed ART RealTime decals on every ART bus stop flag, and repaired or replaced damaged ART bus stops.

Special Initiatives:

- BikeArlington - The program, which provides education and outreach for bicyclists and potential bicyclists, enhanced communications with a website that includes an online discussion forum and Twitter page, as well as the Arlington Bike Map. Over 50,000 maps were distributed in 2010. The program also sponsors adult bike safety efforts, partnered with National Bicycle Friendly Business program to increase the number of awarded businesses in Arlington, conducts Lights for Bikes events to install lights for bike commuters, and manages Arlington’s participation in Bike DC. The program organizes Bike to Work Day events in Arlington (Rosslyn, Crystal City and Ballston) that in 2011 were used by more than 1,400 riders. BikeArlington has worked with DC to launch and expand Capital Bikeshare, currently with 1,110 bicycles at 114 stations regionally including four stations in Rosslyn.

- WALKArlington – The program, which provides education and outreach for walkers and potential walkers, enhanced communications with a new website and “Sharing the Way” safety flyer for cyclists and pedestrians. In 2010, two new WALKAbout routes were created, more than 4,000 people attended Walkabouts and Walk Arlington events, and 5,000 Pacer e-newsletters were distributed. The program coordinates the annual Walk and Bike to School Day.

- Slugging is a colloquial term that has developed to describe the informal dynamic ridesharing activity occurring in the northern Virginia I-95 corridor. A “slug” describes an individual who seeks to ride as a passenger in a private auto traveling in the HOV lanes. Drivers seek these “slugs” in order to legally travel in the HOV lanes, and are referred to as “bodysnatchers”. Arlington helps supports the Rosslyn through various marketing efforts.

A 2006 study by VDOT estimated that AM slugs along the I-95 corridor numbered about 6,450, which was about twice the number estimated in 1999 for this corridor. In recent years,
Each work day, the impact of 40,000 fewer cars on the road results in a savings of about 26,500 gallons of gas, and over 72,000 tons of carbon dioxide, 144,000 pounds of nitrogen oxides (NOx), and 81,000 pounds of volatile organic compounds (VOC) not emitted into the atmosphere. Thus ACCS’s TDM efforts supports Arlington’s green initiatives for energy conservation and air quality improvement in addition to addressing transportation.

Curb space along eastbound Lee Highway near N. Moore Street has been allocated due to new programs, incentives, and legislation being put into place. Awareness of telework and CWS programs, drop-off locations for slugs, and supporting services will be needed to help employers set up telework and CWS programs, acquire equipment, and train employees and managers to telework efficiently.

Ridesharing: While many local jurisdictions have focused on providing ridematching services to help connect drivers and passengers to carpool and vanpool, Arlington’s TDM program has not offered these services to a significant degree. About one-quarter of all trips ending in Rosslyn originate in the Outer Ring where transit service is relatively sparse. For many of those residents ridesharing is the most feasible alternative to SOV commuting, so there is a need to increase the focus on services that support and encourage ridesharing. This program could be targeted by corridor or area of origin, and specific services could be provided for carpool, vanpool, and slugging. New technology based information sharing systems are reinventing the traditional carpool by applying elements of social networking and real time ridematching to maximize convenience and facilitate growth in this more flexible form of ridesharing. Slugging also offers potential for growing the share of ride-sharing, particularly amongst persons that reside near HOV and park-and-ride facilities.

Arlington has allocated curb space along eastbound Lee Highway near N. Moore Street as designated pick-up and drop-off locations for slugs. The ACCS services have been promoting the location of the Rosslyn slug lines, and they are being used by several hundred travelers per day.

- Arlington Carsharing program provides support and marketing in partnership with Zipcar.

Planning and Research includes the articulation of TDM policies and documentation of the benefits of these policies; negotiation and enforcement of TDM conditions for Site Plan developments; and conducting transportation research and surveys, including Arlington’s oversample of Household Travel Diary Survey, Arlington County Resident Transportation Study, Arlington County Green Study, and evaluation of individual TDM services or programs.

Calculation of Impacts and Benefits:

The primary mission of Arlington County Commuter Services (ACCS) is to help make transportation easier. However, ACCS also helps reduce traffic congestion, gas-consumption and pollution. ACCS has tried to conservatively quantify the impact of the program through a model that calculates reductions in vehicle miles traveled (VMT) and pollution based on services provided. The model shows that on an average workday in FY 2010, ACCS helped reduce traffic by about 40,000 vehicle trips. That is roughly the number of cars coming into D.C. on I-66 and I-395 during morning rush hour.

ACCS provides transportation information and services that help people switch from driving alone to using rail, bus, bicycling, walking, carpooling or vanpooling. Some trips are eliminated completely by helping employees telework. Using a more sustainable mode of transportation results in less fuel consumed, which in turn reduces costs of transportation, as well as reduces production of climate-changing greenhouse gases (GHG) and lung-damaging ground-level ozone.

Since development in Rosslyn is anticipated to be of various types, all types of trips are expected to grow. The current TDM program will need to expand all types of services to keep up with the anticipated travel demand. Additionally, new TDM strategies will need to be developed to address the goals for modal share identified in previous sections. These strategies will be targeted to travel in different corridors/origins, and different types if trips. Anticipated new areas of focus for Rosslyn include:

- Telework/CWS: The 2010 MWCOG State of the Commute survey found that a quarter of regional commuters, or over 600,000 workers, teleworked at least occasionally. Half the teleworkers regularly teleworked at least one day a week. Only about half the current teleworkers currently are offered a formal program by their employer. Telework and Compressed Work Schedules (CWS) will eliminate the need for two trips per day per worker, and even a modest increase in the rate of telework/CWS will have a significant impact on the travel demand. Teleworking and CWS are anticipated to increase significantly in the future due to new programs, incentives, and legislation being put into place. Awareness of telework and CWS programs, incentives and requirements will help employers and employees choose the suitable options. Supporting services will be needed to help employers set up telework and CWS policies, acquire equipment, and train employees and managers to telework efficiently.

- Ridesharing: While many local jurisdictions have focused on providing ridematching services to help connect drivers and passengers to carpool and vanpool, Arlington’s TDM program has not offered these services to a significant degree. About one-quarter of all trips ending in Rosslyn originate in the Outer Ring where transit service is relatively sparse. For many of those residents ridesharing is the most feasible alternative to SOV commuting, so there is a need to increase the focus on services that support and encourage ridesharing. This program could be targeted by corridor or area of origin, and specific services could be provided for carpool, vanpool, and slugging. New technology based information sharing systems are reinventing the traditional carpool by applying elements of social networking and real time ridematching to maximize convenience and facilitate growth in this more flexible form of ridesharing. Slugging also offers potential for growing the share of ride-sharing, particularly amongst persons that reside near HOV and park-and-ride facilities.

- New Rosslyn Commuter Store: With the re-construction of 1812 N. Moore Street, the County will be working with the developer to establish a new state of the art CommuterStore in a prominent site next to the entrance of the Rosslyn Metro rail station. This will provide enhanced service and should encourage additional mode shift.

- Capital Bikeshare: This regional bikeshare program was introduced in Rosslyn in April 2011 and has already garnered substantial user demand. The functionality of the system and usage will increase greatly as additional stations are installed in the Rosslyn-Ballston corridor and across Arlington later this year and over the next few
years. The bikes will provide easy and cheap travel for persons that work or live in Rosslyn without access to a car.

• Employer, Resident, and Visitor Service for Site Plan Properties: Rosslyn is anticipated to develop into a bustling downtown with a plethora of transportation services and destinations. Dissemination of information must keep up with the increase in transportation options and levels of service in Rosslyn. Timely, relevant and accurate transportation information will be required to make the destinations accessible and support the economic vitality of Rosslyn and the quality of life of workers, residents and visitors. Since majority of the development will occur through the site plan development process, a customized program will be developed to meet the needs of site plan properties.
Section IV. – Summary of Transportation Recommendations:

Over the next two decades it is projected that the combined residential and employment population of Rosslyn will increase by about a third. It is anticipated that the percentage of travel using the various modes will likely change from what they are today. Rosslyn will likely become even more reliant upon a variety of travel modes. Significant physical changes will need to be made to the Rosslyn transportation system to enable the various modes to operate more effectively. In addition to physical improvements, services aimed at increasing group-riding, teleworking and transportation information distribution should be enhanced. The characteristics of specific travel modes and services are summarized below.

Motor Vehicles and Streets:

Rosslyn has a unique street network that was laid-out with its first redevelopment in the 1960s. It could be characterized as an incomplete street grid of relatively long and thin blocks and wide streets. Almost none of the blocks have conventional internal alleys or service drives while a few have unique counter-flow service drives. Rosslyn’s internal street network is fitted within a ring of regional highways with access between roads limited to a few interchanges. The primary north-south route is a pair of one-way streets (N. Lynn Street and Fort Myer Drive) designed primarily to enable regional traffic to pass through Rosslyn. Fort Myer Drive has a unique underpass that allows two travel lanes to flow beneath Wilson Boulevard without stopping and further degrades the connection between street and adjacent land uses. The existing street grid also makes vehicular circulation within Rosslyn cumbersome and inefficient.

County policy calls for enhancing Rosslyn’s street network to form a more complete grid network. That includes the conversion of several one-way streets: Lynn, Kent and Fort Myer Drive to two-way travel, as well as the eventual construction of new east-west and north-south street sections to break up long blocks and permit more-direct access. The street grid should also be supplemented with the establishment of service alleys that consolidate service and loading points for new development. Streets should be redesigned to fit better with adjacent buildings and create opportunities for place-making.

In addition to improving Rosslyn’s street connectivity and traffic flow patterns, attention is needed to address the safety and accommodation of all the street users. The study evaluated the allocation of street space along more than 25 blocks within Rosslyn and developed recommended new street cross-sections that aim to achieve more-complete streets that safely accommodate both motorized and non-motorized users.

Recommended street improvements include:

- Create a network of complete streets that better relate street to adjacent land uses and provide accommodations for all intended transportation users.
- Utilize the proposed street cross-sections as guidance to determine how to reallocate street space to achieve County goals such as widened sidewalks, enhanced safety and place-making.
- Improve internal Rosslyn circulation by converting N. Lynn Street and Fort Myer Drive to two-way streets between Lee Highway and Fairfax Drive.
- Through redevelopment, widen and convert the southern end of N. Kent Street to two-way traffic.
- Conduct a cost and construction analysis for removal of the Fort Myer Drive underpass of Wilson Boulevard.
- With redevelopment create new street segments for:
  - N. Pierce Street between Wilson Boulevard and 18th Street,
  - 18th Street between N. Arlington Ridge Road and N. Kent Street,
  - 18th Street between N. Kent and N. Lynn streets,
  - 18th Street between N. Oak and N. Nash streets.
- Implement modifications to the Meade Street Bridge and the Meade Street/Arlington Boulevard on- and off-ramps as identifies by the Meade Street Study.
- Remove slip lanes located at the corner of eastbound Lee Highway and Fort Myer Drive and the corner of southbound N. Nash Street and Wilson Blvd.
- Implement the modifications to the Rosslyn Circle area as specified by the Roslyn Esplanade project.
- Reduce speed limits to 25 miles per hour on Wilson Boulevard, Fort Myer Drive and N. Lynn Street.
- Include internal service alleys as part of large property redevelopments. Discontinue the counter-flow service lanes around the 1900 blocks of N. Lynn Street and Fort Myer Drive.
- Incorporate permeable pavements, energy-efficient lighting and stormwater bio-retention/filtration measures in street redesigns.
- Investigate the feasibility of creating a pedestrian-priority street within Rosslyn.
- Discontinue regular vehicular use of the elevated section of 17th Street between Fort Myer Drive and N. Lynn Street and allow its conversion to public plaza as an addition to Freedom Park. Pursue an at-grade replacement for 17th Street east of Fort Myer Drive.
• Add a mid-block pedestrian-activated traffic signal (approved as part of the Central Place development) on N. Lynn Street between Wilson Blvd and 19th Street. Investigate the installation of a mid-block traffic signal on Fort Myer Drive if the underpass is removed. Consider traffic signals for the Moore Street intersections with Lee Highway and Wilson Boulevard.
• Explore opportunities to reroute non-locally bound traffic off of local streets such as N. Lynn Street and Fort Myer Drive through the construction of new ramps and highway connections.

Public Transit:

Rosslyn is a superb hub for public transit from across the Washington, D.C. region. Each weekday, more than 35,000 people enter or exit the Rosslyn station to travel on the Metro Blue or Orange lines. Also, on an average weekday more than 900 buses stop in Rosslyn – providing service to areas both locally such as nearby Arlington and Georgetown and regionally including Fairfax, Prince William and Loudoun counties. Almost all of the bus routes have stops located on Moore Street within a few hundred feet of the Metrorail station which permits quick and convenient inter-service transfers.

The wealth of transit service in Rosslyn has permitted the area to sustain some of the highest-density development in the region while maintaining excellent access and relatively-low levels of traffic congestion. The MTP Transit Element calls for Rosslyn to be a center in the Primary Transit Network of high-frequency and high-quality transit services. However, congestion within the transit network is becoming more of an issue as peak-period crowding on the Metrorail becomes more severe. Several initiatives are either underway or proposed that will enhance the frequency of transit services as well as the condition of the existing Metrorail station.

Recommended transit improvements include:
• As part of the 1812 N. Moore Street project, implement enhancements to the Rosslyn Metrorail station that will provide new ADA access to Ft. Myer Drive, improve station lighting, construct more comfortable bus waiting areas, integrate a Commuter Store with the station and enhance adjacent sidewalks.
• Substantially improve the Rosslyn Metro station entrance and exit capacity through completion of a project to build three new, high-speed elevators, a new platform mezzanine, and a new emergency exit staircase.
• Expand Metrorail train capacity through the use of more 8-car trains during peak hours and at other times when service demands are greatest.
• Increase the frequency of Orange Line (and later Silver Line) trains through the tunnel as a measure to reduce over-crowding at stations between Rosslyn and Ballston.
• Implement planned service additions for ART bus route 77 and increase service frequency for Metro bus route 38B.
• Establish additional bus stop locations near the Rosslyn Metro station including potential stops along Fort Myer Drive and N. Lynn Street.
• Evaluate changes to Metro bus service to enhance surface transit connections to Washington DC.
• Employ technologic enhancements to provide more real-time information about bus departures and travel options.

Recommended pedestrian improvements include:
• Upgrade pedestrian crossings through enhanced pavement markings, reduced crossing distances, inclusion of refuge islands and where warranted the installation of ADA-accessible pedestrian-activated mid-block traffic signals.
• Increase enforcement of traffic laws that affect pedestrian safety including speed limits, yielding to pedestrians andjaywalking.
• Widen sidewalks through reallocation of street space as part of street redesign and land redevelopment projects. Utilize the cross-sections in Appendix I for guidance on desired widths.

Walking:

Rosslyn has pedestrian travel volumes and patterns typical of an urban, downtown location. The physical environment for pedestrians in Rosslyn is very inconsistent with a few blocks having wide and comfortable sidewalks and many others being somewhat narrow and lacking of amenities and a good interface between sidewalk and building. Pedestrian crossings can be difficult due to wide street travelways and relatively-high traffic volumes. The elevated Rosslyn Skywalk system has been partially-dismantled in recent years due to low-usage, declining community interest, and County interest in refocusing pedestrian activity at street level.

Pedestrian-related street enhancements should a primary focus of future investment in Rosslyn, be it via property redevelopment, or County-initiated complete street improvement projects. Emphasis should be placed on widening and enhancing the many sidewalks that are inadequate for their high-density, urban setting. In particular the north-south corridor between Key Bridge and the Iwo Jima Monument/ Fort Myer, connections of Rosslyn west to Courthouse and linkages to the Potomac River waterfront are in need of substantial improvement. Pedestrian safety should also be enhanced through better control of traffic speed, curb extensions that reduce pedestrian crossing distances, more intensive traffic law enforcement efforts and other measures.
• Enhance Rosslyn’s northern and southern gateways through implementation of the design concepts in the Rosslyn Esplanade and Meade Street Bridge studies. Also consider possible gateway improvements to Rosslyn’s eastern gateway at Wilson Blvd and Route 110.
• With redevelopment projects achieve new pedestrian connections through the many long blocks in Rosslyn.
• Upgrade pedestrian-oriented wayfinding signage across Rosslyn.
• Achieve ADA-accessibility on all Rosslyn streets through street modifications to upgrade curb ramps, widen sidewalks and remove obstructions from pedestrian walkways. Improve pedestrian crossing signals to provide directional audible instructions for blind pedestrians.
• Retain the two sections of the Skywalk which lead from Key Blvd to the Rosslyn Metro Station and ensure that any retained sections of the Skywalk are properly maintained.
• Retain the elevated portions of the former Loop Road for long-term use as Freedom Park plaza and walking paths.
• Conduct a feasibility study for the construction of a bridge for pedestrians and bicyclists that would link Rosslyn with the Potomac River shoreline via a span over I-66.

Bicycling:

Bicycle and pedestrian trails (Custis, Mt. Vernon, Route 110 and Arlington Blvd.) ring the north, south and east edges of Rosslyn. With those facilities Rosslyn is within a half hour bicycle ride of most of Washington DC, Arlington and much of Alexandria. However it can be difficult to reach the center of Rosslyn from those trails on a bicycle. Both the primary east-west and north-south streets in Rosslyn have limited accommodations for bicyclists. Wilson Boulevard has no bicycle accommodations through most of Rosslyn. The availability of bicycle parking along many streets in Rosslyn is spotty, although both the Rosslyn BID and County have installed additional bike racks recently. Several physical improvements are proposed to improve bicycle access in Rosslyn.

Recommended bicycle transportation improvements:
• Implement the Rosslyn Circle area bicycle access and safety improvements proposed in the Rosslyn Esplanade and Meade Street Bridge studies.
• Upgrade the Arlington Boulevard Trail west of Fort Myer Drive. Where right-of-way exists, widen the trail surface to 10 feet and create landscaped buffer strips. Where right-of-way is limited, enhance adjacent Fairfax Drive with bike lanes or shared lane (“sharrow”) markings.
• Implement bike lane or sharrow markings on the following streets:
  o Wilson Boulevard, between N. Oak and N. Kent streets.
  o Fort Myer Drive, between Lee Highway and Fairfax Drive.
  o 19th Street, between N. Nash and N. Lynn streets.
  o N. Nash Street, between Key and Wilson boulevards.
  o Meade Street, between Fairfax and Marshall drives.
  o Lee Highway (eastbound), to N. Lynn Street.
• Add bicycle parking on-street for shoppers and visitors, in secured sections of garages for building residents and employees, and at the Metrorail station for transit users.
• Continue to expand the Capital Bikeshare program within Rosslyn and in other parts of Arlington over the next few years.
• Increase enforcement of traffic laws that affect bicyclist safety including speeding, red light running and failure to yield the right-of-way.

Parking and Curb Space Management:

There are more than 22,000 parking spaces in garages and lots in Rosslyn. More than 20 of the parking garages are open for public use during the weekday at fees of $10/day or less. Most Rosslyn parking lots are closed late at night or on weekends, which limits parking availability for late-night dining and entertainment purposes.

Parking is one of many competing uses for curb space on Rosslyn streets and occupies about a third of the curb area. A recent study found that about 95% of the metered parking spaces in the commercial center of Rosslyn are occupied at any time. The on-street parking rate ranges from $0.50 to $1.25 per hour, which is considerably less than the price charged for parking in a garage. The high-utilization rate for on-street parking can be a problem as parking on some streets was observed to overspill the legal spaces and potentially cause safety concerns. The Arlington MTP sets policy that seeks to maximize the efficiency of parking and curb space utilization and is the basis for the recommendations included in this study.

Recommended parking and curb space management improvements:
• Reevaluate “No Parking” areas to see if space can be repurposed for other uses such as on-street parking.
• Utilize the established County priority hierarchy.
• Employ time-of-day strategies that allocate curb space to the highest-priority use at different times across the 24-hour day.
• Utilize pricing strategies for achieving better matching of parking demand and availability. Measures could include varying pricing during the day and evening to achieve optimal on-street utilization.
• Complete installation of multi-space meters to enable more cars to park within a given parking area.
• Require the provision of alleys and off-street loading areas as part of property redevelopment.
• Seek to maximize the provision of parking spaces as part of new streets and street space reallocation efforts.
• Encourage the use of parking garages through additional, dynamic garage availability.
• Revise parking requirements for commercial developments (office and hotel) in Rosslyn to reduce the amount of off-street parking built with new development. Seek to reduce the per capita off-street parking supply through maximization of shared spaces between land use types and with adjacent buildings and reduce parking reservations for individual users.
• Incorporate shared parking provisions as part of all new and amended site plans.
• Improve parking user information, including wayfinding signage and electronic displays of space availability.
• Reduce the provision of subsidized parking to employees.
• Encourage the use of high-capacity vehicle storage technologies.

**Travel Demand Management (TDM):**

Arlington County has an extensive, unified program of Transportation Demand Management (TDM) services to increase mobility and access for everyone who lives, works and visits here. The Arlington County Commuter Services (ACCS) office provides a variety of services to employers and individuals that help make travel by all modes easier. TDM measures are anticipated to become even more significant as Arlington continues to grow. County policy that seeks to limit the growth in peak hour traffic to no more than 5% above the year 2005 levels will necessitate utilization of more aggressive TDM efforts.

**Recommended additional TDM measures include:**

• Support teleworking and compressed work scheduling (CWS) by providing services needed to help employers and employees develop suitable options. Support services may include establishment of telework/CWS policies, acquisition of telework equipment and company training.
• Increase attention to ride-sharing and matching, particularly for residents of Outer Ring jurisdictions where transit options are limited. Employee new technology that allows for dynamic matching of riders to van and car-pools.
• Implement physical improvements and awareness promotions to encourage greater numbers of “slugging” carpools.
• Consider the formation of a Rosslyn Transportation Demand Management District with enhanced abilities to raise funds and implement measures that encourage more transit, ride-sharing, bicycling and walking.
• Open a new Commuter Store located near the entrance to the Rosslyn Metrorail station.
List of Related Studies and Plans:

- Arlington Master Transportation Plan (MTP)
  - Goals and Policies Summary, adopted 2007
  - MTP Map, adopted 2007
  - Bicycle Element, adopted 2008
  - Pedestrian Element, adopted 2008
  - Transit Element, adopted 2009
  - Transportation Demand and System Management Element, adopted 2009
  - Parking and Curbspace Management Element, adopted 2010
  - Streets Element, adopted 2011

- Rosslyn Transportation Plan, 2008, PBS&J Consultants

- Central Rosslyn Curb-Space Management Study, 2005, HOK and Associates consultants

- Household Travel Diaries, 2008-09, Metropolitan Washington Council of Governments (COG)

- Parking in the Rosslyn Ballston Corridor (brochure), 2009, Arlington County Department of Environmental Services

- Lynn Street Esplanade Conceptual Design Report, November 2006, Toole Design Group

- Arlington County Study of Office Building Parking Garages in Seven Metro Station Areas, February, 2010, PBS&J consultants