CITY COUNCIL WORK SESSION WITH THE TRANSPORTATION TASK FORCE

TUESDAY, MARCH 13, 2007

5:30 P.M.

CITY COUNCIL WORK ROOM

AGENDA

I. Welcome and Introductions

Mayor William D. Euille Larry Robinson, Chair, Transportation Task Force

II. Transportation Plan Overview and Status

Larry Robinson

III. Draft Plan Elements

Transportation Task Force

Members

a. Transitb. Pedestri

Pedestrian

c. Bicycle

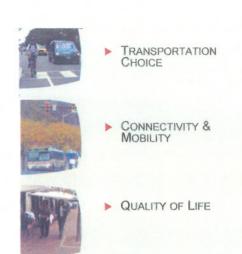
George Foote Joe Bennett Maria Wasowski

IV. Plan Status and Next Steps

Larry Robinson

V. Council Comments and Discussion

Individuals with disabilities who require assistance or special arrangements to participate in the City Council Work Session may call the City Clerk and Clerk of Council's Office at 703-838-4500 (TTY/TDD 703-838-5056). We request that you provide a 48-hour notice so that the proper arrangements may be made.



City of Alexandria
Comprehensive Transportation Master Plan

Overview

THERE IS AN INTEGRATED, MULTIMODAL TRANSPORTATION SYSTEM THAT EFFICIENTLY AND EFFECTIVELY GETS PEOPLE FROM POINT "A" TO POINT "B". -City Strategic Plan 2004-2015.

Vision

Envision walking out of your front door and down a streetscaped sidewalk, safely crossing the street at a well marked, signalized intersection that made you feel like you, the pedestrian, had priority. Then, after safely crossing the street, you arrive at the transit stop, but this is no ordinary transit stop. This is a Smart Stop that provides attractive shelter from the morning sun. You check the information kiosk for the arrival time of your transit vehicle. Realizing that you have two minutes until the vehicle arrives, you decide to arrange for dinner reservations via a web enabled service offered at this stop. Then, you check to see what transit vehicle you should plan on boarding for the trip to Old Town later that evening for dinner. When you are done making plans for the evening, your vehicle arrives, right on time.

You board the transit vehicle, settle into a comfortable window seat, and check on your estimated arrival time on the variable message board at the front of the vehicle. The vehicle departs and quickly leaves the congested automobile traffic behind as it travels along its own dedicated lane. You watch the bicyclists commuting safely along the bicycle lanes dedicated along this corridor and pedestrians sipping their morning coffee on the landscaped walkway, and before you know it, you are at your destination—sooner than if you would have decided to drive yourself.

This is the City of Alexandria's transportation future. With the update of the City's Transportation Master Plan the City seeks to initiate an unprecedented paradigm shift, putting Alexandrians first, and providing them with innovative options for transportation. The successful implementation of this Plan will allow all Alexandrian's the opportunity to choose, on a daily basis, if they want to walk, bike or take transit to their destination. This Plan successfully integrates and links these three transportation modes together, providing connectivity and accessibility to all of Alexandria's recreational, cultural, and economic assets, as well as the assets of the greater Northern Virginia region.

Transportation Vision

The City of Alexandria envisions a transportation system that encourages the use of alternative modes of transportation, reducing dependence on the private automobile. This system will lead to the establishment of transit-oriented, pedestrian friendly village centers, focused on neighborhood preservation and increased community cohesion, forming a more urban, vibrant and sustainable Alexandria. The City will promote a balance between travel efficiency and quality of life, providing Alexandrians with transportation choice, continued economic growth and a healthy environment.

Guiding Principles

In response to citizen input, the City has established the guiding transportation principles which, collectively, form a new template for transportation decision making within the City of Alexandria, and aim to establish the City of Alexandria as a regional leader in the development of innovative transportation solutions

The five guiding principles provide the framework for this transportation plan, and seek to encourage a paradigm shift in the way Alexandrian's think and act when it comes to traveling. This Plan focuses on addressing both short and long term transportation needs with bold steps, innovative approaches and outside-the-box thinking in the spirit and tradition of the City's history, continuing to lead the way in providing the highest quality of life for all Alexandrians.



This shift in thinking aims to overcome the traditional approach that the City has taken in the past, assuming the primary use of the automobile in the design and operation of its infrastructure. In the 21st Century, Alexandria must demonstrate all methods of overcoming automobile dependency. Statistics show that population and job growth will continue to increase at an extraordinary rate within the City and region, placing further pressure on transportation infrastructure that is currently over stressed. The essential character of Alexandria's land use, the future quality of life for City residents, and the accessibility of all City assets is dependent upon how the City manages its transportation system. This Plan establishes the goals, strategies, actions and policies that will guide these critical management decisions.

The adoption of this Transportation Plan is a very exciting time in the City of Alexandria. Feedback received from citizens and stakeholders throughout the Plan development process indicates that Alexandrians are not willing to accept the status quo. Citizens are seeking a wholesale change in the way the City addresses transportation issues in the form of sustainable alternatives that promote transportation choice; enhance connectivity and mobility; and maintain the City's high quality of life.

The new paradigm rejects the notion that traffic congestion be considered a necessary evil that goes along with living in close proximity to the Nation's Capital. The problem of congestion not only impacts the required time for daily commutes, it has a negative impact on the quality of life of all Alexandrians—resulting in increased travel times for necessary trips to the grocery store, library, restaurant and post office. Congestion limits the activities of individuals with mobility impediments and those without access to automobiles; it discourages walking and physical activity; it contributes to poor air quality; and it also impacts the City's economic base, deterring tourists from visiting the City during certain times of the day and year. Whether your preferred mode of travel is automobile, bus, bicycle or by foot, congestion impacts your quality of life, at work and at play. With the adoption of this plan, the City of Alexandria recognizes the concerns of its citizens and the inconveniences that congestion has caused, and the City puts its best foot forward in furthering actions, strategies and policies that will return City streets to the citizens of Alexandria.

Guiding Transportation Principles

- 1. Alexandria will lead the region in the development of innovative local and regional transit options.
- 2. Alexandria will lead the region in providing quality pedestrian and bicycle accommodations.
- 3. Alexandria will lead the region in providing its citizens with accessibility and mobility.
- 4. Alexandria will lead the region in the use of communications technology in transportation systems.
- 5. Alexandria will lead the region in transportation policies that support livable, urban land use.

What Does This Plan Contain?

This Plan was developed by the members of the Ad Hoc Transportation Task Force and the City of Alexandria to ensure the wise, effective, and sustainable planning of the City's transportation future. The Transportation Master Plan includes five primary sections and an extensive appendix.



Section One

The *Transit* section establishes the Transit Concept Plan for the City of Alexandria. This plan is an innovative vision for the development of clean, efficient, enjoyable transit services that travel in dedicated lanes, enhancing mobility throughout the City and region for commuters, citizens and tourists alike.



Section Two

The **Bicycle** section of the Transportation Plan seeks to help Alexandria become a genuine bicycle-friendly community by expanding the city's on- and off-street bikeway network by outlining supportive policies and targeted infrastructure investments.



Section Three

The **Pedestrian** section of the Transportation Plan calls for a city where public spaces, including streets and off-street paths offer a level of convenience, safety and attractiveness that encourages and rewards the choice to walk. This section outlines supportive policies and targeted infrastructure investments that will place the City as a leader in the region of creating pedestrian friendly streets.



Section Four

The **Streets** section establishes the required classification system for City streets and outlines innovative approaches and techniques that will ensure that streets are designed to safely accommodate all modes of travel, while preserving community character.



Section Five

The **Funding & Implementation** section of the Transportation Plan provides a listing of federal state and local funding resources that the City may utilize to fund the identified actions, strategies and plan concepts. The process and policies for identifying project funding priority and implementation are also identified in this section.





City of Alexandria
Comprehensive Transportation Master Plan

Transit

THE CITY WILL EXPAND LOCAL AND REGIONAL TRANSPORTATION OPTIONS TO REDUCE TRAFFIC CONGESTION AND DECREASE PUBLIC DEPENDENCE ON THE AUTOMOBILE.

Introduction

This Transit Element outlines a progressive vision for the future of travel throughout the City of Alexandria with the development of the City of Alexandria Transit Concept Plan. Studies show that a reduction in the intensity of the peak hour traffic congestion within the City is not a realistic long-term aspiration. As congestion increases, alternative transit services that provide seamless travel, time savings for commuters, real-time travel information, desirable passenger amenities, and an enjoyable travel experience will become more desirable.

In response to this reality, the City envisions a system of innovative transit vehicles operating along three primary transit corridors within secure rights-of-way dedicated exclusively to transit use. These corridors will provide access to the City's major population and activity centers, and connectivity to local and regional destinations. The state-of-the-art vehicles will provide for a clean, quiet, enjoyable commuting experience, resulting in minimal impact on existing neighborhoods, traffic routes and the environment. The City's new transit system will be linked through circulator shuttles as well as intermediate transit services offered via DASH that complete the transit network, providing access to all residents that are not located in direct proximity of the newly designated transit corridors.

The entire transit network will be linked by way of Smart Stops, Shelters and Stations located along all transit routes. These smart facilities will provide varying levels of passenger amenities such as wireless access, coffee, ticket machines and information kiosks. All of these facilities will provide real-time transit information, bicycle parking, shelter and seating for transit users. The Smart Stops, Shelters and Stations will provide a natural transition from the pedestrian environment to the transit environment and will offer commuters an attractive, enjoyable and practical alternative to the private automobile.

City of Alexandria

Transit

Concept Plan

Goal: Ensure that people can travel into, within and out of the City of Alexandria by providing a mass transit system that combines different modes of travel into a seamless, comprehensive and coordinated effort.

Objective: A reliable and convenient mass transit system integrated with surrounding land uses and existing transportation connections that offers travel time savings and an enjoyable transit experience for its riders, featuring advanced technology and passenger amenities.



Issue: Transit is not viewed as a comparable alternative to the private automobile.

Metrobus, Metrorail and DASH lack the flexibility, efficiency and convenience of the automobile. Transit usage is often a result of necessity versus choice and is generally perceived unfavorably, particularly concerning reliability and safety. Insufficient service hours, geographic coverage, capacity and frequency of service have all been identified as problems. Lack of real-time information, long headways, difficulty of transfers and lack of connections to preferred destinations discourage existing and potential riders.

Solution: Secure dedicated, congestion-free, transit rights-of-way for future transit services using advanced technologies.

The main emphasis of the Transit Concept Plan is to secure dedicated, congestion-free, transit rights-of-way for future transit services.

The expansion of transit and dedicated transit ways will provide the residents of Alexandria an alternative mode of travel that is fast, efficient and reliable. Existing local bus service in general, is characterized by frequent stops routed along, or traveling on congested roads, thus offering limited incentives to riders in terms of travel time and convenience. This Plan's success will hinge upon the ability to provide superior transit service levels that:

are competitive with the private automobile;

coordinate feeder services and enhancements to the existing local transit services offered by DASH; and

connect with existing local and regional services including WMATA Metrorail, commuter rail, other rail-based transit services, major highway portals.

This transit concept must be fully integrated with existing regional services and coordinated with proposed future services in order to truly serve Alexandrians. The City will work diligently to foster regional cooperation and coordination with the future transit plans of Arlington, Fairfax and other regional entities to ensure that new services are coordinated, and provide the most efficient means of operation.

What's Different about this Plan for Transit?

- Focus on securing dedicated, congestion-free, transit right-of-way
- Use of state-of-the-art clean, environmentally friendly, comfortable, accessible, fast vehicles (Light Rail, Street Car, Bus Rapid Transit) that provide amenities to make the daily commute an enjoyable experience
- Use of smart technology to provide transit users and commuters with up to the minute information
- Shorter headways, ensuring commuters that they can catch a ride when and where they need to
- Focus on enhanced connectivity between various modes of transit, bicycle and pedestrian facilities

Transit Concept Plan

The Ad Hoc Transportation Task Force, in collaboration with City officials, worked on the analysis of City trends in transit ridership, socioeconomic conditions, travel demand forecasts for automobile and transit travel, and regional plans. The result of this in-depth analysis is the designation of three primary transit corridors:Route 1, Van Dorn/Shirlington, and Duke Street.

In addition to the above mentioned analysis, the designation of the proposed transit corridors was developed with consideration to the following important goal and objective and input from Alexandrians during the transit use community meetings held July 9 and 10, 2003.

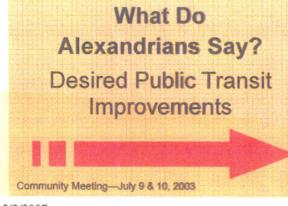


Overarching Goal: Ensure that people can travel into, within and out of the City of Alexandria by providing a mass transit system that combines different modes of travel into a seamless, comprehensive and coordinated effort.

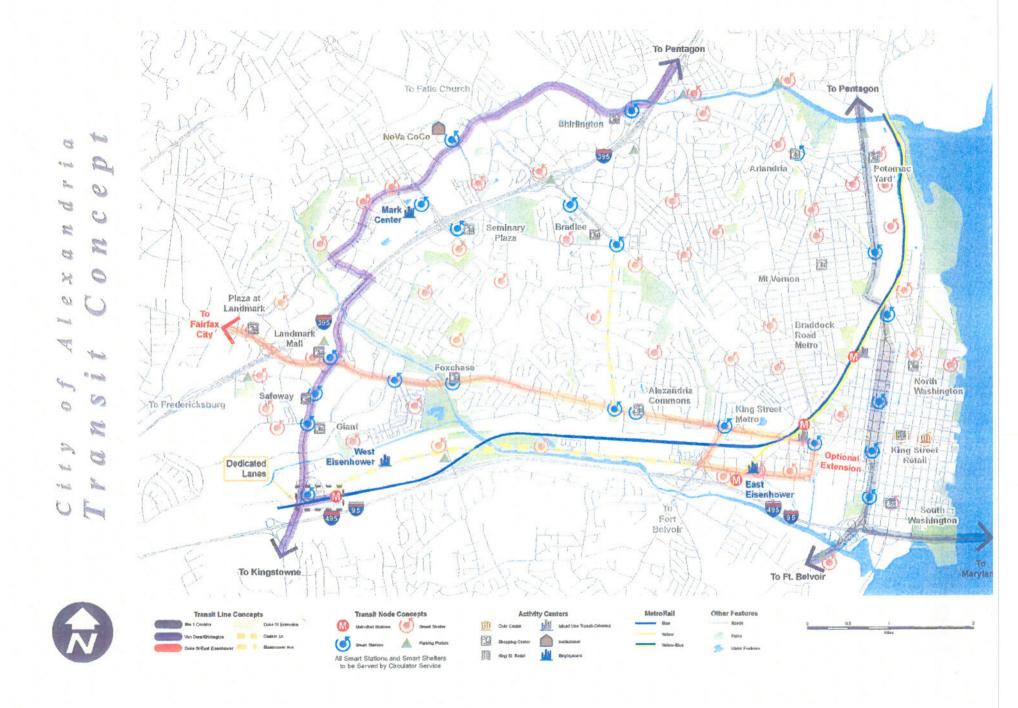
Objective: A reliable and convenient mass transit system integrated with surrounding land uses and existing transportation connections that offers travel time savings and an enjoyable transit experience for its riders, featuring advanced technology and passenger amenities.

In addition to the Route 1, Van Dom/Shirlington, and Duke Street corridors being proposed for future transit investments, various alternative alignments are also proposed on the Transit Plan Concept Map. Specific alternatives depicted include potential service along Eisenhower Avenue and Quaker Lane. In many cases, these and other potential alignments represent options for future extension of an existing system. These additional alternatives will only be pursued at such time that travel demand and future corridor development dictate.

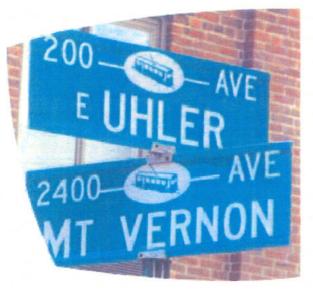
The corridor outlines presented in the following map have been developed only at a conceptual level, with the purpose of identifying initial issues and concerns. Upon public review and stakeholder input, one or more corridors may be identified as a priority to move forward in the project development process. At that time, the specific corridor concept would be subject to a formal feasibility study which would encompass more focused alignment, conceptual design of guideway / station improvements, and initial service planning scenarios. Order of magnitude capital costs would accompany the various components identified in any subsequent feasibility study.



- More peak hour buses and bus only lanes
- Smaller buses
- Increase shelter lighting and safety
- Improve pedestrian walkways and access to public facilities
- Provide automated schedule
- Better maintenance, recognizable, visible transit signage
- More and clearer bus schedules
- Integrate transit with city planning/development



Transit Concept Characteristics



- Provides for a Seamless Transit Feeder Network
 This Transit Concept will guide the development of major transit improvements along routes that parallel existing roads and areas of high travel demand. Current DASH service will be integrated with new transit elements to provide high frequency feeder and circulator service. The feeder bus network will circulate in lower density communities, connect to developments beyond walking distance of the corridor transit system, and provide timed transfers at smart stations along the main route.
- ► Focuses Investments on Mobility Needs

 Three corridors have been proposed as identified in the following pages, each of which can be developed independently as funds/development dictate, as part of a larger, more flexible system.

Within corridors, this Transit Concept will guide future efforts to specifically address the following:

- Location and type of dedicated right-of-way and transit priority features
- · Local transit access to and internal circulation at Metrorail Stations
- Traffic flow in congested areas
- Coordinated parking, pedestrian and bicycle improvements

▶ Integrates Key Elements with Transit Plans in Surrounding Jurisdictions

This Transit Concept proposes essential regional connections with destinations beyond the City of Alexandria for each corridor including connections to Fort Belvoir, Fairfax City, the Pentagon, and potentially to Maryland via the Woodrow Wilson Bridge.

Key external planning efforts that will be incorporated into the detailed design of service in these corridors include:

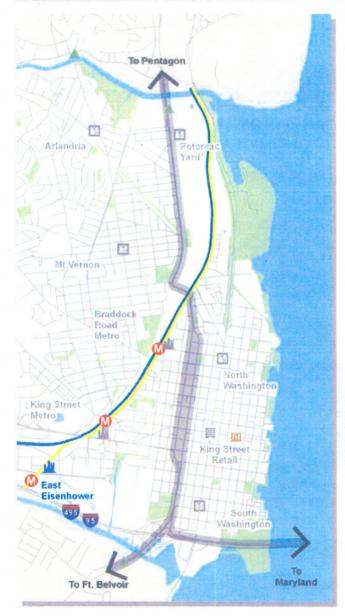
- Capital Beltway Corridor Study¹
- Transaction 2030²
- Crystal City/Potomac Yard Transit Alternatives Analysis³

► Advocates Policy to Encourage Future Transit Supportive Land-Use

This Transit Concept proposes coordination with City planning efforts to adequately review and comment on all new land use/development adjacent to the designated corridors. Review will consist of:

- · Identification of rights-of-way to be dedicated as part of future development planning or approvals
- Encouragement and coordination of an appropriate mixture and density of activity around transit stations
- Addition of design requirements to create a comfortable walking environment for pedestrians and good connections for bicyclists.

Route 1 Corridor



The Route 1 corridor is a primary link between the Pentagon to the north and Ft. Belvoir to the south. The focus of the Route 1 corridor is on accommodating through providing connectivity between City neighborhoods (Potomac Yard, Old Town, Del, Ray, etc.). The Route 1 corridor also provides a critical route for Alexandrians who commute to DC on a daily basis. The Route 1 corridor will enter the northern City limit through Arlington - coordinating and integrating service with the City of Arlington to provide a seamless connection to the Pentagon and the North. Traveling south on the Route 1 corridor will provide access to the Potomac Yard Development, Mount Vernon Avenue retail area, Old Town and the South Washington area of the City. To the south. the Route 1 corridor will coordinate and integrate with service provided by Fairfax County to Fort Belvoir. In addition, a transit connection to Maryland, via the Woodrow Wilson Bridge, is possible.

Providing reliable transit service on dedicated transitways where possible through the Route 1 corridor will provide a much needed resource for through commuters who currently choose automobile travel over transit due to the lack of incentive and benefit to use transit. This corridor will also provide an alternative to Metro for tourists to access the Old Town area.



Length: 4 Miles

Demographics 2000 / 2030

(1/4 mi buffer):

Employment:

Population: 15,850 /21,157 Pop. Density (sq. mi.): 7,304 /9,705

Emp. Density (sq mi):

18,405 / 30,479 8,443 / 13,980 **Major Activity Centers**

Potomac Yard King Street Corridor

Strength

High through trip demand with no transit alternatives.

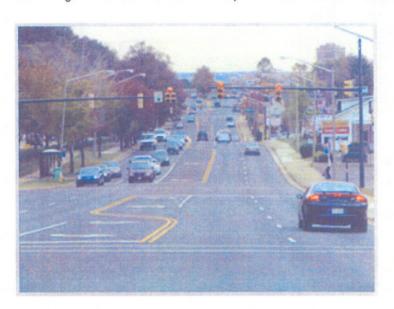
Opportunities

Coordination with services provided by adjacent jurisdictions including connections to Crystal City, Fairfax, Fort Belvoir and the Pentagon.

Duke Street Corridor



The Duke Street corridor provides connectivity within the city along a major travel arterial with a mix of density and land-uses. This corridor also provides a critical link between Alexandria and Fairfax County to the west. The Duke Street transit alignment would also feature a loop to better enhance connectivity to Eisenhower East area.



The Duke Street corridor will cross the western City limit from Fairfax County, coordinating and integrating service with the County to provide a seamless connection to the Fairfax City to the West. Traveling east, the corridor will provide access to the Landmark Mall area, Foxchase, Alexandria Commons and the King Street Metrorail station. At its eastern terminus, the Duke Street corridor will follow a loop around the East Eisenhower area comprised of Holland Lane, Eisenhower Avenue and Telegraph Road

In addition, this corridor will provide for the option of an extension of the Duke Street Corridor between Holland Avenue and Route 1, providing a direct connection to transit services along the Route 1 corridor.

Length: 6.25 miles

Demographics (1/4 mi buffer): 2000 / 2030

Population: 26,722 /35,587

Pop. Density (sq. mi.): 8,430 / 11,226

Employment: 24,843 / 50,209

Emp. Density (sq mi): 7,837 / 15,839

Major Activity Centers

King Street & Eisenhower Metrorail Station East Eisenhower Development Landmark Mall

Strength

Important corridor with proven existing transit ridership base.

Opportunities

Redevelopment and infill of the Landmark Mall area provides opportunities for a range of transit amenities and could serve as a hub for regional and local transit services.

Van Dorn / Shirlington Corridor

This corridor provides a key link between Kingstowne and points south with the Pentagon. The corridor would serve both to capture through traffic as well as provide vital connectivity to key destinations.

The Van Dorn/Shirlington corridor will begin at the northern City limit with Arlington along Beauregard Street, coordinating and integrating service with the City of Arlington to provide a seamless connection to the Pentagon to the North. Traveling South the corridor will provide access to the Mark Center, Landmark Mall area, and West Eisenhower area of the City. At its southern terminus the Van Dorn/ Shirlington corridor will coordinate and integrate with service provided by Fairfax County to Kingstowne and points south. In addition, this corridor will provide for a direct connection to the Van Dorn Street Metrorail station via dedicated lanes.



Length: 6.25 miles

Demographics (1/4 mi buffer):

36,261 /40,438 Population: Pop. Density (sq. mi.): 11,332 / 12,637

2000 / 2030

Employment:

18,842 / 27,216 Emp. Density (sq mi): 5,888 / 8,505

Major Activity Centers

Van Dorn Street Metrorail Station Landmark Mall Mark Center

Strength

Serves area of high employment growth

Opportunities

Improved connection with Van Dorn Metrorail Station from points north.

Passenger Amenities



A variety of amenities can be provided at transit Smart Stops, Shelters and Station locations to enhance the attractiveness of public transportation. The treatment of transit stations and stops is a key component of this Transit Concept as a means to promote the visibility of a new, high-tech transit system.

Smart Shelters, Stations and Stops can be used to brand the new transit system and to provide passenger information and amenities. The potential design features of these facilities that set them apart from traditional bus shelters would be:

- Extensive use of wireless technology for personal passenger information
- Ticket machines / information kiosks
- Real-time travel information (at stop & available on-line)
- Cell phone text messaging for next bus departure
- The use of environmental design and operation (solar power)
- Efficient layout of weather protected interior spaces, with inclusion of off-vehicle fare collection technology.
- Designs that permit efficient, orderly and rapid flow of alighting and boarding passengers from the stop to the vehicle
- Bicycle and pedestrian amenities including bicycle racks, lockers and benches.
- Vendors for coffee, newspaper, magazines, etc.



Smart Stations & Shelters

Smart Stations, Shelters and Stops will transform the way Alexandrians perceive and utilize transit by providing users with weather protected access to traveler information systems and electronic payment systems, resulting in enhanced safety, scheduling and improved quality of service. These facilities will be fully accessible by pedestrians and bicyclists, provide adequate lighting for safety and varying levels of amenities depending on demand and location. Services and amenities provided at these facilities may include bicycle racks, lockers, coffee service, newspaper stands and internet access.

Traveler Information Systems

Include wireless communication and technologies to provide information to travelers at home, at work, on the roadside, at transit stations, or on transit vehicles. Travelers can access real-time schedules and traffic information via cell phone, television, computer, PDA, variable message signs, or information kiosks. Electronic notification of transit information, routes and schedules can also be provided at stations and on vehicles.

Electronic Payment Systems

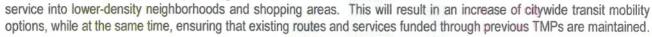
These systems may utilize magnetic swipe cards or smart cards to provide convenient fare payment for travelers and reduce costs for revenue collection by transit providers.

Smart cards can be standardized to provide a single form of fare access to multiple transit providers.

Neighborhood Circulators

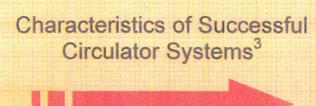
In high traffic volume areas of Alexandria, numerous private operators provide shuttle service from major developments to nearby destinations and Metrorail Stations. These are often initiated as the result of Transportation Management Plan (TMP) funds, which are established to finance the transportation strategies to induce people to use public transportation. Often these services travel only from point-to-point and are not coordinated.

The Transit Concept proposes a consolidation of these services into circulator routes with integrated stops and schedules providing connectivity between neighborhoods and the dedicated transit corridor services. This consolidation would focus on providing reliable



Circulator routes are designed to collect, distribute, and feed riders into the larger transit network, offering services that penetrate into neighborhoods, provide localized trips and operate on secondary roadways. Circulator routes are generally confined to a single community, with intercommunity trips offered via transfers to other bus or rail services. The routes are generally short, and smaller vehicles reflect more frequent and smaller passenger loads as well as the need to operate on smaller streets, or more confined spaces.

Circulators may focus around a certain development or Metrorail Station and can be implemented in stages along the corridor. In fact, a circulator network could begin to be implemented prior to initiation of the transit improvements within the corridor, provided they are coordinated with the schedules and routes of other transit providers. Operation of these circulators could be provided via contract or operated by DASH. In general, the characteristics identified below define successful circulator systems and are recommended to be considered during the public input and planning stages that will refine this concept and its circulator routes.



- Coordinated Intermodal Connections
- Population & Population Density
- Established Ridership Demand
- Mixed-Use Setting or Special Conditions
- Appropriate Headway & Travel Times
- Low Operating Cost
- Attractive Pricing

Actions & Strategies

In order to implement the proposed transit concept and to enhance the transportation network for the City of Alexandria the City has identified the following actions and strategies. All action items have been developed to be measureable in order for the City and the public to track progress toward achieving the overall goal for the Transit Concept Plan.

- T1. The City will conduct extensive public outreach to educate citizens and stakeholders on the proposed concept, the process and to determine where the greatest support lies for implementation of a major transit investment.
 - T1.A. The City will hold X public meetings on transit plans and investments by XXXX
 - T1.B. The City will develop a website dedicated to the Transit Concept Plan by XXXX.
 - T1.C. The City will develop informational brochures that explain the Transit Concept by XXXX.
- T2. The City will coordinate closely with adjacent jurisdictions, specifically the City of Arlington, Prince George's County in Maryland, and Fairfax County to ensure that the City Transit Concept is integrated into existing services where feasible and to explore opportunities for future connections that would provide for enhanced regional connectivity.
 - T2.A. The City will designate a regional liaison by XXX to continually coordinate and keep up to date with the plans and actions of neighboring jurisdictions.
 - T2.B. The Regional Liaison will conduct initial meetings with representatives of adjacent jurisdictions by XXXX.
 - T2.C. The Regional Liaison will establish a schedule of quarterly meetings with regional representatives to maintain an active dialogue.
- T3. The City will prioritize transit corridors for investment.
 - T3.A. The City will establish a prioritized list of transit corridors by XXXX.
 - T3.B. The City will initiate one or more feasibility studies to conduct a more detailed analysis for the highest priority corridor(s) in order to determine:Conceptual Alignment and Engineering; Proposed Station Locations; Transit Vehicle Technology and Suitability; Initial Scan of Environmental Issues; Fatal Flaw Analysis. The City will develop and issue an RFP for a feasibility study of the highest priority corridor by XXXX.
- T4. The City will develop corridor-specific plans for dedicated transit lanes and ensure that any approved zoning plans and approvals do not preclude their implementation.
 - T4.A. The Department of Transportation and Environmental Services (T&ES) will coordinate with Planning and Zoning (P&Z) to establish a framework for identifying high priority rights-of-way by XXXXXXX.
 - T4.B. T&ES will coordinate with P&Z to establish corridor specific plans and/or overlays for the highest priority corridor (As established under T3.A.) by XXXX.
- T5. The City will identify locations for smart stations that will serve both the new system and existing transportation modes.
 - T5.A. The City will establish a list of prioritized locations for smart stations and stops by XXXXX.
 - T5.B. The City will coordinate with Dash and other existing services to identify priority areas for transit stop retrofits by XXXX, to transform existing stops to meet the Transit Concept vision for Smart Stations and Stops.

Actions & Strategies

- T6. The City will further identify specific transit mode technology and newest techniques best suited in the identified transit corridors and for the system as a whole.
 - T6.A. The City will implement a technology pilot program to test the success of various transit mode technologies throughout the City by XXXX.
 - T6.B. The City will dedicate \$XXX toward the implementation of technology into existing and future transit services.
- T7. The City will integrate existing DASH bus service with new transit system elements for DASH to serve as a high frequency feeder system.
 - T7.A. The City will coordinate with Dash to determine proposed routes for a feeder system by XXXX.
 - T7.B. The City will work with Dash to develop an operations plan for feeder systems by XXXX.
- T8. The City will incorporate traffic signal priority, traffic circulation changes, pedestrian and other on-street enhancements into the new system for the benefit of transit vehicles and riders.
 - T8.A. The City will develop a prioritized list of locations for transit system spot improvements by XXXX.
 - T8.B. The City will earmark \$XXX toward the completion of priority spot improvements by XXXX.
- T9. The City will create Transportation Management Plans, Transit Overlay Zoning Districts, Parking Management Zones, etc. to coordinate efforts to support the system.
 - T9.A. T&ES will work in coordination with P&Z to develop revised Transportation Management Plan requirements by XXXX, with the goal of creating a more consistent, into grated approach to Citywide transit issues within individual plans.
 - T9.B. T&ES will work in coordination with P&Z to develop a citywide comprehensive parking management plan by XXXX.
- T10. The City will investigate potential Federal, State, Local, and Private funding available through existing, new, and innovative revenue sources.
 - T10.A. The City will develop a funding priority plan by XXXX that identifies potential funding opportunities, applicability, deadlines, and requirements for requesting funds.
 - T10.B. The City will identify a revenue source by XXX to be dedicated toward actual investment in and/or matching funds for transit improvements.
- T11. The City will develop an extensive public outreach and marketing campaign to energize the citizenry around Alexandria's transportation future
 - T11.A. The City will create a website, email list, posters and other marketing materials to educate citizens on the vision for the future, benefits, and how they can make a difference in the City.
 - T11.B. The City will develop a logo for the overarching transportation plan initiatives.



BIKEWAYS NETWORK



POLICIES & SUPPORTING INFRASTRUCTURE



SAFETY

Bicycle

THE CITY WILL BECOME BICYCLE-FRIENDLY BY MAKING ROUTINE ACCOMODATIONS FOR BICYCLISTS ON 'COMPLETE' STREETS AND PATHWAYS THAT ENABLE SAFE TRAVEL FOR ALL USERS

Introduction

A community that is bicycle-friendly is one that pays extra attention to its quality of life. While many cities extol the virtues of walkability, a select few aim to combine walking, bicycling and access to transit into complete transportation networks that make these places more livable and desirable for economic development. Alexandria aims to be one of these communities. With its Spin City 2009 initiative, the city believes it can become a community where people feel safe and comfortable riding their bicycles for fun, fitness and transportation. City Council and residents have been working together to encourage more bicycling which we believe will reduce congestion, improve air quality and encourage better public health.

Bicycling has long been an essential transportation and recreation option in Alexandria. The city's off-road shared-use path network includes some of the most popular trails on the East Coast and is one of Alexandria's greatest amenities. An on-street bicycle network was established in 1969 and includes the interconnected grid of streets in historic Old Town that makes Alexandria such a pleasant destination for over 1.5 million visitors annually.



What's Different about this Plan for Bicyclists?

- Spells out a holistic approach to becoming bicycle friendly with measurable goals in encouragement and education as well as engineering and enforcement.
- Focuses on making routine on-street bicycle accommodations that will improve safety for all bicyclists.
- Encourages better compatibility between bicycles and transit by focusing on end-of-trip facilities



Issue: Bicycling for transportation is perceived as either unsafe or inconvenient

Alexandria is a dense urban environment with some steep hills, a high demand for on-street parking, heavy traffic and complex intersections. Rising levels of air pollution and inactive lifestyles also create public health challenges that deter many potential bicyclists.

Solution:

Implement a citywide bikeway network to serve all users and trip types, provide end-of-trip facilities, improve bicycle / transit integration, implement encouragement programs and improve safety

This bicycle transportation plan seeks to help Alexandria become a genuine bicycle-friendly community by expanding the city's on- and off-street bikeway network with targeted infrastructure investment and supportive policies. It is a blueprint for creating a safe and convenient bicycle network that will increase the number of Alexandrians who bicycle for all trips shorter than five miles. With "complete streets" designed to enable safe travel by all users and routine accommodations for bicyclists, the City can make bicycling a viable transportation option in Alexandria.

Alexandria residents first began paying attention to bicycle transportation in 1969 when the City Council appointed a Task Force that created the backbone of the bikeway system as it is known today. In 1998 an inspired citizen-led effort resulted in the creation of Alexandria's "Bicycle Transportation and Multi-use Trail Master Plan," which called for an 85 mile network – 69 miles of on-street routes and 16 miles of off-street bikeways. Yet bicycle planning has only recently been integrated into mainstream traffic and transportation planning. Currently bicycle transportation accounts for a very small portion of trips in Alexandria - only about 0.6 percent according to the Metropolitan Washington Council of Governments. The City is now actively working to increase the number of bicycle trips by supporting and encouraging bicycle transportation.

The purpose of this bicycle transportation chapter is to provide a policy framework for accommodating bicycle travel throughout the city and update both the Transportation Master Plan of 1992 and the 1998 "Bicycle Transportation and Multiuse Trail Master Plan." This plan provides an overview with major goals and objectives. Many additional multi-modal opportunities will be identified in a more in-depth study—the City of Alexandria 2007 Pedestrian and Bicycle Mobility Plan. That study will support the Transportation Master Plan and provide a blueprint for 10 years of improvements to enhance the bikeways network.

What Do Alexandrians Say? Key Bicycle Workshop Findings

Community Meeting-July 3 & 4, 2003

- Better connectivity through major developments
- Improve safety of existing trails
- Bike facilities on Duke, Seminary, Janneys and Quaker
- Create link from West End to Old Town
- Adequate trail width, center lines on bikeways
- Bike racks throughout the city
- Enhance customer service through Internet
- Focus more on Metro station bike / ped environment

Bicycle Concept Plan

"Alexandria should be a walking and biking city. This is not a silver bullet for our changing region, but it is a critical component of how we improve our quality of life. People should not always have to get in the car for a carton of milk or to meet friends for coffee." - Alexandria Community Pathways memo from City Council, May 17, 2005



Overall Goal:

Make bicycling an integral part of the transportation system in Alexandria.

The Bicycle chapter of the Transportation Master Plan seeks to establish and maintain a bikeways system that serves all bicyclists' needs, particularly those with a transportation function. Key projects outlined in the plan include 24 miles of new onstreet safety enhancements to existing bicycle routes, the addition of 16 miles of new on-street bikeways, and over 90 intersections in need of safety enhancements that will encourage both pedestrian and bicycle travel. The associated city map

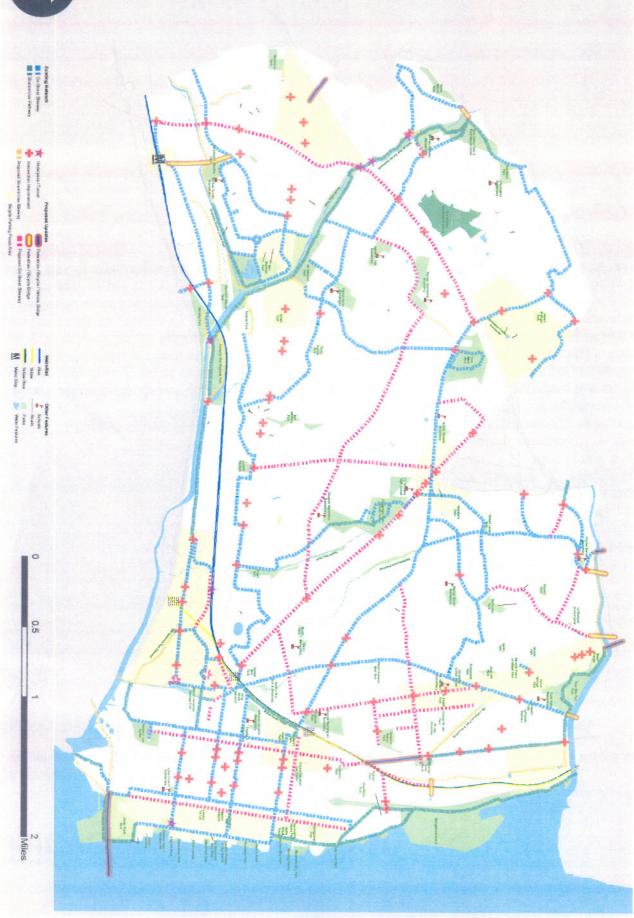
includes regions designated as "bicycle parking focus areas" where a nexus of employment centers, high residential densities and access to transit calls for increased focus on bicycle parking. Off-street enhancement projects include nearly nine miles of new shared use paths, four new bridges for pedestrians and bicyclists, three bridges that are primarily for vehicles but will feature major enhancements for pedestrians/bicyclists and five underpass or tunnel improvement projects. Additionally, projects shown in the Pedestrian Chapter that include crosswalk enhancements and sidewalks will accommodate bicyclists in all cases where practical. The City will also commit resources to maintenance of the network as well as continued education, encouragement and enforcement. A more detailed map will be available in the City of Alexandria Pedestrian and Mobility Plan, which will provide a blueprint for 10 years of improvements to the bicycle network.

Bicycle Concept Goals

- 1. Engineering: The City will complete a connected system of primary and secondary bikeways with ample bicycle parking to serve all bicyclists' needs.
- 2. Encouragement: The City will seek to increase bicycle usage and bicycle-transit connections through targeted outreach and encouragement.
- 3. Education: The City will develop and implement targeted Safe Routes to School Programs as well as additional programs for adult cyclists, and motorists.
- 4. Enforcement and Safety: The City will create a safe bicycling environment through effective law enforcement and implementation of bicycle safety enhancements.



City of Alexandria Proposed Bicycle Facilities Updates



Benchmarks & Evaluation

Quantitative benchmarks make it possible to carry out a continuous assessment and annual evaluation. These benchmarks will be listed as Performance Measures in the bicycle chapter of the Transportation Master Plan and will be submitted in an annual smooth to City Council.

be submitted in an annual report to City Council.





- The proportion of people bicycling to work in Alexandria shall increase from 0.5 percent to 3 percent by 2011 (see Endnotes for an explanation of these numbers).
- Alexandria City Public Schools will begin counting the number of children bicycling to school and this number shall increase 5% annually through 2011.
- The number of bicycle-motor vehicle crashes (13 in 2004, 17 in 2005 and 12 through Oct. 1, 2006) will hold constant or decrease through 2011.
- The proposed bikeway network will be 50 percent complete by 2011.
- The City will begin a log of maintenance requests related to its bikeways network, post the log online for public viewing and seek to reduce its maintenance backlog by a number to be determined.
- The City will add at least 500 new bicycle parking racks by 2009. In all new development bicycle parking will be introduced at a rate of 1:10 (at least one bicycle parking space will exist for every 10 vehicular spaces).
- Bi-annual special events in spring and fall will encourage bicycle use.
- All city-sponsored special events and public recreational facilities will supply plentiful bicycle parking.
- More than 50 percent of elementary aged school children will receive bicycle safety education by 2010.

What Do
Alexandrians Say?
Key Bicycle Workshop
Findings

Community Meeting-July 3 & 4, 2003

At the bicycle & pedestrian community meeting, citizens "voted" for where they thought City money would be best spent.

Infrastructure: 61.7%

• Safety: 28.8%

• Promotion: 9.5%

Goal 1. Engineering

The City will complete a connected system of primary and secondary bikeways with ample bicycle parking to serve all bicyclists' needs.

This plan uses the term "bikeways" to refer to streets and shared-use paths either designed specifically for bicycle travel or with key design elements that support safe bicycle travel. A bikeway may be a street with a bicycle lane, a street with shared use lane markings or a shared-use (off-street) path. It is important to note that streets referred to as "part of the city's bikeway network" are different from other streets because they include some element that helps bicyclists feel safer while riding. Bicyclists are allowed on all streets in Alexandria, but not all streets may include design elements to improve real (or perceived) safety.

The vision of this plan is a 125-mile bikeway network throughout Alexandria that actively supports those who choose to use the bicycle for transportation. The City's long-term vision for its bicycle network is for it to be the equal of the best cities in the United States - an attractive,

well-maintained and convenient network on which users will notice high quality design, construction and maintenance features. Bicyclists in Alexandria should feel safe and rewarded for their choice of using a bicycle. Bikeway facilities provided will be appropriate to the street classification, traffic volume and speed of vehicular traffic.

Additionally, providing convenient, secure places to park is an inexpensive and effective way to encourage bicycling. Working citywide, we aim to increase short-term parking (i.e. less than two hours) and long-term spaces (i.e. indoor and/or covered parking or locker/shower facilities) near key transit hubs, office buildings and in retail centers.

- 1. Add new bicycle lanes, signed bicycle routes and shared lane markings to expand the on-street bikeway network. Establish new (off-road) shared-use paths, improve existing paths and improve access to paths.
- 2. Use innovative designs and bicycle-specific treatments at intersections to improve safety.
- 3. Prioritize ongoing maintenance and repair of the bikeway network.
- 4. Expand the City of Alexandria bicycle parking program and ensure that appropriate bicycle parking and showers are included in all new development and construction.
- Increase the number of bicycle-transit trips through new and supportive infrastructure and outreach programs.
 This includes implementing a system for accommodating bicycles and bicycle racks on all DASH and Metro buses in the City.

February 2, 2007 Draft

CITY OF ALEXANDRIA TRANSPORTATION MASTER PLAN BICYCLING - LEVELS OF QUALITY

EXEMPLARY

EXCELLENT

GOOD

FAIR

POOR

On-Street Bicycle Lanes

Bicycle lanes provide a dedicated space on the roadway for one-way bicycle travel and encourage predictable movement. Widths of 5 to 6 feet are most comfortable. Narrow bike lanes next to parking are not preferred. Bicycle lanes are best on streets with heavy traffic, arterials and boulevards. Some cities are experimenting with dedicated bicycle-bus lanes where on-street travel lanes may be shared by transit vehicles and bicycles.











Crossings and Intersections

Bicycle markings are generally not carried through intersections or across pedestrian crosswalks. However, "bicycle boxes" help protect bicycles at intersections by cueing them to the front of traffic. These boxes also provide added buffer for pedestrians. Short traffic signal cycles benefit both bicyclists and pedestrians. Bicycle lanes may be colorized for safety in conflict areas around intersections. Where key bicycle connections exist in parking lots, lanes may be designated but must be maintained often.











Shared Lane Markings, Signage and Bicycle Routes

Shared lane markings ("sharrows") are placed in a travel lane to encourage bicycles to ride outside the door zone of parked cars. Bicycle routes are designated on streets to narrow for bicycle lanes but good for bicycling. New bicycle route signs show directions and distance. They are placed only at decision points. Bicycling should be discouraged on sidewalks in business districts and only allowed if adequate width. Bicycle routes should not lead bicyclists onto sidewalks, particularly against the flow of traffic.











Shared Use Paths

Shared use paths often parallel high speed roads in access controlled environments. Paths can provide scenic and direct routes of travel. Widths can vary but must accommodate many users and modes. Where paths intersect with roadways, ramps and signage should be provided. Grade separated crossings are often huge obstacles – bridges may be too narrow and tunnels can be intimidating if poorly designed and/or maintained improperly.











Parking

Bicycle racks should support a bicycle in at least two places, allowing the frame and wheels to be locked using a U-lock or cable lock. An "inverted U" is the preferred rack. Racks should prevent the wheel of a bicycle from tipping and be durable and securely anchored. Racks should be placed in visible locations (covered if possible) and should not impeded pedestrian traffic. Racks should be located 36" away from either parallel or perpendicular walls.











Goal 2. Encouragement

The City will seek to increase bicycle usage and bicycle-transit connections through targeted outreach and encouragement.



A successful commitment to improving bicycle transportation will require a holistic approach that includes encouragement programs and outreach in addition to infrastructure and safety improvements. Bicycling is a healthy, inexpensive, convenient and practical way to travel, particularly for short trips. That said. few people currently travel by bicycle and many people are not receptive to the idea of traveling by bicycle. Many cities have learned that focused outreach and social marketing programs will influence peoples' behaviors and attitudes, particularly when promoting the health benefits of bicycling. Outreach programs are also a relatively inexpensive means of encouraging a seamless integration of bicycling with other travel modes and choices.

This plan seeks to increase bicycle usage and bicycle-transit connections through targeted outreach and encouragement programs. Initially, the City will need to assess its existing ordinances, policies and regulations to identify those that support bicycle transportation and change ones that do not. However, these polices can be addressed more quickly when applied to new developments in the City's current site plan review. Equally important to the encouragement objective will be the City's capacity to promote bicycling as an activity that can improve health and provide recreation. There is good reason to continue current campaigns such as Bike to Work Day and develop new ones because these are cost-effective programs that continue to appeal to increasing numbers of people.

- Update City of Alexandria ordinances, policies and regulations to encourage bicycle transportation and the seamless integration of bicycling with transit.
- 2. Review all projects in the development and planning process to ensure they provide bicycle accommodations and access to facilities including showers, lockers and bicycle parking.
- 3. Continue programs such as Bike to Work Day and develop new, targeted promotion campaigns that can market bicycling as an alternative to the automobile.
- 4. Promote the health benefits of bicycling.
- 5. Partner with local business and tourism promotion organizations to promote Alexandria as a destination for bicycle tourism.

Goal 3. Education

The City will develop and implement targeted Safe Routes to School Programs as well as additional programs for adult cyclists, and motorists.

Education is a key component in achieving the City's goal of improving bicycle transportation and becoming a bicycle friendly community. This plan has already touched on the value of encouraging a share the road ethic to motorists and how bicyclists must follow the rules of the road. It has also outlined how social marketing campaigns can be used to encourage more usage. Yet without a detailed framework for incorporating education, we cannot be sure that young bicyclists will understand the value of wearing a helmet or that all bicyclists will follow the rules of the road. When educating bicyclists, it is best to start young. This is why the City of Alexandria and many partners have collaborated on a Safe Routes to School program that emphasizes bicycle and pedestrian safety. However, continuing education programs can also

st and as to strian a lso hicycle commuters

reinforce bicycle education to adults and prospective bicycle commuters.

Partnering with other agencies and organizations will help deliver bicycle education programs more efficiently and in a cost-effective manner. The Safe Routes to School program is now supported with federal funds and is a proven method for training bicyclists at a young age. In the near future, it will be possible to reach thousands of Alexandria youth with messages that encourage frequent and safe bicycle travel. Finally, providing and distributing bicycle education material will provide Alexandria bicyclists with the information necessary to bicycle safely and securely. A key objective will be to improve the City's website to provide comprehensive information and support printing of a bicycle map that will be distributed to thousands of residents and visitors.

- 1. Establish a Safe Routes to School program in public and private schools that includes Bicycle and Pedestrian Safety Education.
- Deliver targeted bicycle education programs in a cost-effective manner by partnering with like-minded agencies and organizations.
- 3. Produce and distribute bicycle education material that includes an Alexandria Bikeways Map (to be updated bi-annually), annual newsletter/bicycle program update and an expanded bicycle program web site hosted by the City.
- 4. Reduce the incidence of bicycle theft through supportive city bicycle registration programs, educational out reach and enforcement strategies.

Goal 4. Enforcement & Safety

The City will create a safe bicycling environment through effective law enforcement, detailed crash analysis and implementation of bicycle safety countermeasures.

Since 2004, nearly 20 bicycle accidents have been reported to the

Alexandria Police Department each year, with many more unreported. This is due in part to lack of education by motorists and bicyclists, who must be encouraged to follow the rules of the road. The City of Alexandria believes it can reduce the frequency and severity of these crashes with a two-pronged effort. First, by working with the Alexandria Police Department to train officers on bicycling issues, we can ensure that enforcement strategies protect bicyclists and encourage bicyclists to use the rules of the road. Secondly, improving the reporting and analysis of bicycle crashes will suggest engineering, encouragement and education countermeasures to help prevent future crashes from occurring.

With targeted enforcement and safety improvements, we can change the perception of bicycle transportation in Alexandria to

a mode of travel that is safe, secure and convenient. The overarching goal is for the City of Alexandria to make a systematic effort to improve bicyclist safety, sense of security and ease of passage at signalized intersections by using withdrawn STOP bars, white and blue marked crossings and bicycle traffic signals. Supporting encouragement strategies and outreach campaigns may improve the impact of the proposed objectives.

- 1. Encourage a share the road ethic among motorists and provide information about safe operating behavior around bicyclists.
- 2. Provide bicyclists with information and educational programs about safe bicycling and rules of the road.
- Enforce traffic laws related to bicycling to reduce STOP sign running, wrong-way riding and riding on congested sidewalks.
- 4. Improve the reporting and analysis of bicycle crashes to suggest appropriate engineering, encouragement and enforcement countermeasures.
- 5. Target key intersections and primary conflict points between bicycles and vehicles for improvements.

Actions & Strategies

At its June 27, 2006 Legislative Session, the Alexandria City Council adopted a formal resolution to earn "bicycle-friendly community" status from the League of American Bicyclists by 2009. This resolution included an Action Plan for the "Spin City 2009" initiative, which is City's name for our comprehensive effort to make bicycling an integral part of daily life in Alexandria.

"Bicycle-Friendly communities are recognized as places with a high quality of life," said Alexandria Mayor William D. Euille. "The Spin City initiative will help us build complete streets and make Alexandria safe and convenient for bicyclists of all abilities."



Through 2009 and beyond, Alexandria City Council will exhibit political commitment, supportive policies, focused infrastructure investment, and broad community involvement. The Action Items below provide a framework for the "Spin City 2009" initiative, which will earn Alexandria Bicycle Friendly Community status and support the implementation of the Transportation Master Plan.

B1. Enforcement & Safety Action Items

- B1.A. Alexandria Police Department will address traffic enforcement in targeted areas to encourage bicyclists to ride using the Rules of the Road
- B1.B. Implement commuter safety programs, improve bicycle registration in 2007
- B1.C. Each year through 2009, establish bicycle safety treatments at 3-5 key intersections with high volumes of cyclists. Treatments may include "bicycle boxes" (withdrawn STOP bars with painted bicycle 'safety' areas), colored bicycle lanes in high-conflict zones and signage advising appropriate location of bicyclists

B2. Engineering Action Items

- B2.A. Each year through 2009, add 2 miles of bikeways and pilot new/innovative bicycle projects on an annual basis
 - B2.A.i. 2007: Shared bicycle/transit lane
 - B2.A.ii. 2008: Bicycle boulevard
 - B2.A.iii. 2009: Raised bicycle lane
- B2.B. Coordinate maintenance with Recreation, Parks and Cultural Activities and provide an on-line forum for notification of maintenance and safety hazards
- B2.C. Add 500 bicycle racks (including ample covered parking sites) and create a revolving fund to accommodate partial contributions to bicycle parking at focus bicycle parking areas as identified on the Bicycle Facilities Update map.

B3. Encouragement Action Items

- B3.A. Similar to its transit subsidy, the City will provide stipends for employees who bicycle or walk to work at least four times per week
- B3.B. Bikes racks will be added to all transit vehicles that operate in the City specifically all DASH buses -- by 2009
- B3.C. City will organize and sponsor a month long promotional effort and ride series to encourage bicycling
- B3.D. A checklist-style system for AASHTO bicycle standards and City Policies will be available for use in all development site review plans

Actions & Strategies

B4. Education Action Items

- B4.A. Integrate Safe Routes to School improvements with the City's existing Traffic Calming program
- B4.B. Update the City Bicycle Trail and Recreation Facility Map in 2007 (and every other year afterward)
- B4.C. Reformat the alternative transportation website (<u>www.AlexRide.org</u>) to emphasize bicycling and include regular updates and feedback options for citizens

B5. Evaluation Action Items

B5.A. An annual Benchmark report will be presented to City Council with input from web-based surveys on the City's progress in: Security, Amount and Location of Parking, Bicycle Facility Location, Maintenance

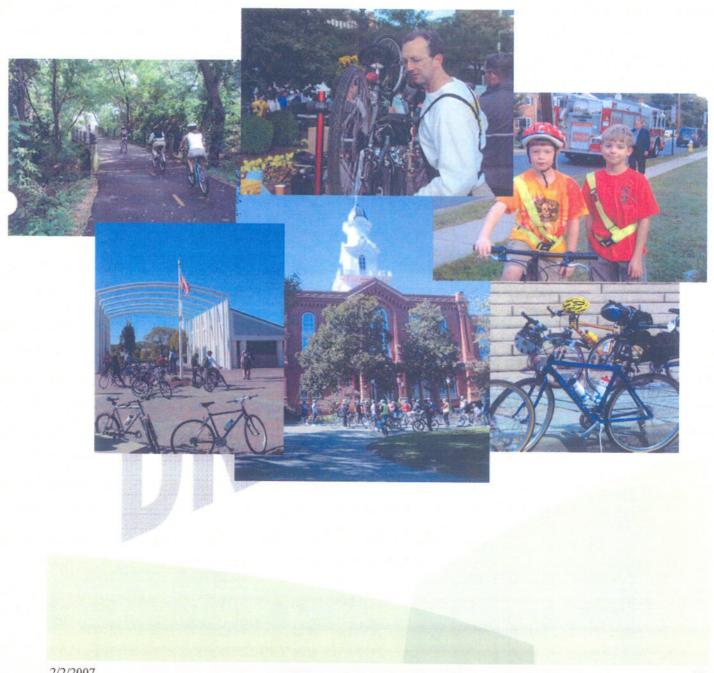


Christmas decorations on Hume street in the Del Ray section of Alexandria



Endnotes

1. Note: The proportion of people bicycling to work in Alexandria is included in the Metropolitan Washington Council of Governments' "Bicycle and Pedestrian Plan for the National Capital Region" p. 2-3 and reflects data accumulated in the 2000 US Census "Commute Mode Share". In the Washington, DC area, Alexandria has the third highest level of bicycle commuters following the District of Columbia (1.2%) and Arlington (0.69%). The bicycle mode share in other U.S. cities includes: Boulder (6.89%), Cambridge, MA (3.9%), Madison, WI (3.19%) and Portland (1.76%).



2/2/2007



NETWORK

City of Alexandria
Comprehensive Transportation Master Plan



► POLICIES & SUPPORTING INFRASTRUCTURE



SAFETY

Pedestrian

THE CITY WILL MAKE WALKING A PART OF
PEOPLE'S EVERYDAY LIVES BY PROVIDING PLEASANT, SAFE AND
ACCESSIBLE CONNECTIONS THAT ENCOURAGE AND REWARD THE
CHOICE TO WALK

Introduction

"Pedestrians are the lost measure of a community; they set the scale for both center and edge of our neighborhoods."

This oft-used quote by architect Pete Calthorpe is particularly appropriate in Alexandria, where we have a history of creating both walkable places and auto-dependent development. Walking was a central consideration in the street layout of Old Town where a natural inclination toward small blocks, street trees and a blend of building types helped this seaport grow into a thriving city and, today, a popular tourist destination. Nearby neighborhoods including Rosemont and Del Ray also have narrow, tree-lined streets with sidewalks that help encourage community engagement and diversity. But this pattern was not replicated everywhere in Alexandria and, today, we sometimes bemoan this missing ingredient without truly understanding the importance of walkability.

The most important elements of walkability are easily defined but often elusive. We obviously need places to walk within walking distance. Also vital are well-connected streets with pleasant sidewalks or paths, attractive landscaping and easy-to-cross intersections. The character of traffic is arguably most important: If our streets are too wide or is traffic is too heavy or fast, people will not walk. Walkability is an intuitive trait, one we often recognize when we experience it.

What's Different about this Plan for Pedestrians?

- Focus on a holistic approach to improving walkability across Alexandria with measurable goals in engineering, enforcement, encouragement, education and safety
- It concentrates on improving walkability in the 1/4-mile zone around key transit stops
- Improved coordination between transportation and land use planning to encourage and reward walking in areas of residential density and mixed uses
- Encourages people to integrate walking into their daily routines by providing safe routes to school and transit access



Issue:

Alexandria has qualities of both an auto-oriented suburb and an urban historic seaport. As it continues to grow, we must seek new ways to improve pedestrian mobility that build community and encourage safety

Solution:

Safe and pleasant accommodation of pedestrian travel on every road, across every intersection and to every destination in Alexandria.

By making Alexandria more pedestrian friendly, we will take a huge step toward making our neighborhoods more livable and improving our overall quality of life. In many ways, walking is the most critical element of this Transportation Master Plan because it touches upon so many aspects of community development: economic growth, urban design, engineering and civic engagement. It is both intensely personal – involving questions of personal safety or aesthetics – and critical to the public realm.

This transportation oriented chapter takes a policy approach to improving walkability in Alexandria. It builds on the City's existing small area plans, urban design plans and landscape guidelines. Where those documents provide specific, context-sensitive standards related to walking, a similar approach here would be too prescriptive. A future Pedestrian Design Guide will augment this master plan and accomplish many of those goals.

Most importantly, the document recognizes that walking is a key mode of transportation. In Alexandria, pedestrians have long been valued for their contribution to urban vitality but walking has not, until recently, been considered a serious component of the modern transportation system. This document articulates a bold new vision for our city in which walking should be simply the safest, most convenient and enjoyable way to get around.

This plan outlines a systematic strategy for designing, building, maintaining and improving the pedestrian network citywide. The City Council's 2004 Strategic Plan includes laudable principles of walkability and many of Alexandria's small area plans incorporate initiatives that support and actively encourage walking. This transportation-oriented chapter will augment our existing plans by linking transportation and land-use concerns, providing context and setting a new vision for pedestrian travel where we also persuade an increased percentage of residents to use transit.

One final note: The term 'pedestrian' is used throughout this plan to include people who walk, sit or stand in public spaces or use a wheelchair or other mobility assistance device. Pedestrians may be people with disabilities, children, shoppers, dog walkers or businesspeople. The principles of universal access work to the benefit of everyone.

What Do Alexandrians Say? Key Pedestrian Workshop Findings

Community Meeting-July 3 & 4, 2003

- Consistent sidewalk structure and placement, better crosswalk signage, fix crossing lights
- Countdown to all signals (give pedestrians more time)
- Clear, wide sidewalks, attractive medians
- More sidewalks on the West End
- Create pedestrian-friendly King Street Metro area
- More pedestrian connectivity through dead-end streets
- Consider pedestrian access in future developments
- Introduce ground floor retail, streetscape, public art and sidewalks around Metro stations

Pedestrian Concept Plan

"Streets and their sidewalks... the main public places of a city are its most vital organs."

- Jane Jacobs, "The Death and Life of Great American Cities"



Overarching Goal:

Walking will be the safest, most convenient and enjoyable way to get around in Alexandria.

The purpose of the Pedestrian chapter in the Transportation Master Plan is to establish the framework for new policies and improvements that will make Alexandria more pedestrian friendly and increase the likelihood that our residents will choose walking as a mode of transportation.

The plan includes a series of policy level goals related to Engineering, Encouragement,

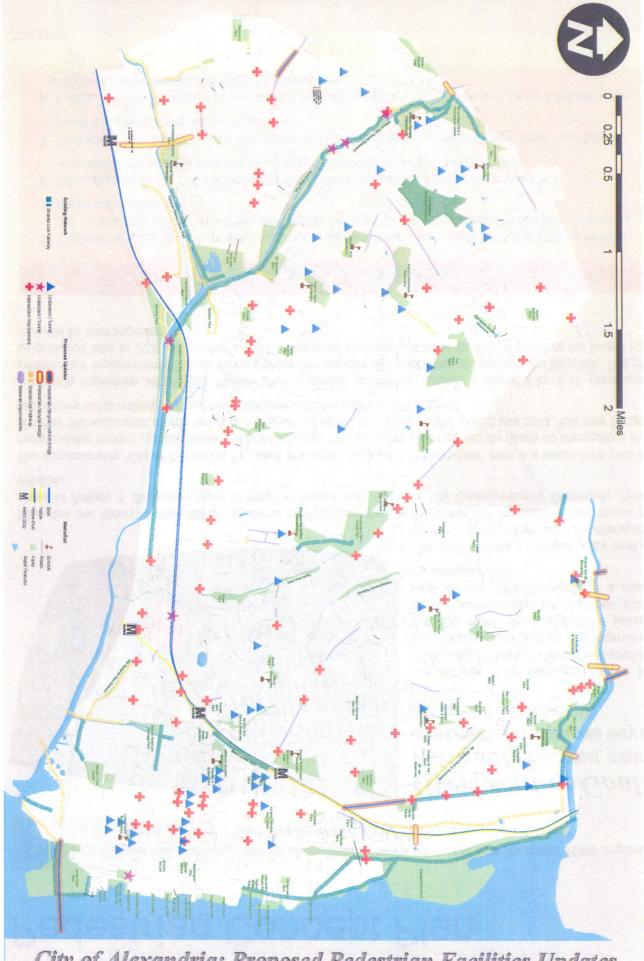
Education and Safety. It also outlines a process for evaluating the City's progress with measurable benchmarks and a series of Actions & Strategies. Many of these strategies build upon the City Council-adopted Community Pathways initiative.

The accompanying "City of Alexandria Proposed Pedestrian Network & Infrastructure" map is a macro-level view at the many updates needed to make Alexandria more walkable. Key projects on this map include nearly 80 intersections in need of safety enhancements, nearly two dozen sidewalk projects, nine miles of new shared use trails, four new bridges for pedestrians and bicyclists only, and five underpass or tunnel improvement projects.

A citywide Pedestrian and Bicycle Mobility Plan underway in 2007 will provide a blueprint for 5-10 years worth of infrastructure improvements that will improve access for persons with disabilities, pedestrians and bicyclists. This plan to be published later in 2007 will provide a more fine-grained roadmap and allow the City to prioritize the limited funding available for such improvements.

Pedestrian Concept Goals

- Engineering: The City will provide a continuous, connected and accessible network that enables pedestrians – particularly children and those with mobility impairments – to move safely and comfortably between places and destinations.
- 2. Encouragement: The City will encourage mobility for all pedestrians by removing barriers to accessibility and promoting walking as a means of improving health and active lifestyles.
- 3. Education: The City will develop Safe Routes to School Programs and awareness initiatives that address pedestrian safety, rights and responsibilities.
- 4. Safety: The City will create a safe pedestrian environment through effective law enforcement detailed crash analysis and implementation of safety countermeasures.

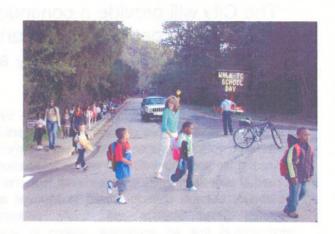


City of Alexandria: Proposed Pedestrian Facilities Updates

Benchmarks & Evaluation

Quantitative benchmarks make it possible to carry out a continuous assessment and annual evaluation. These benchmarks will be listed as Performance Measures in the Pedestrian Element of the Transportation Master Plan and will be submitted in an annual report to City Council.

- The proportion of people walking to work in Alexandria shall increase from 3% to 5% by 2011.
- Working with the Alexandria City Public Schools, the City will establish a system for counting the number of children who walk to school and the number shall increase 5% every year by 2011.
- The number and percentage of people who walk to access Alexandria's four Metrorail stops will increase (At Eisenhower Ave 1,370 people or 75% walked to the station). Other modes of access include bus and connecting rail, drop-offs or drove and parked. King Street (5,260 people; 62%), Braddock Road (2,700 people; 61%), Van Dorn (580 people, 15%)³ to a level that is consistent with adjacent development and new transit options
- ◆ The number of pedestrian-motor vehicle crashes (66 in 2004, 87 in 2005 and 36 through Oct. 1, 2006) will hold constant or decrease through 2011
- The proposed sidewalk and shared-use path network will be 50% complete by 2011
- Improved maintenance will result in a decrease in requests by 50% in 2011
- Bi-annual special events in spring and fall will encourage active living and promotion walking as a means of transportation and recreation.
- More than 50 percent of elementary aged school children will receive pedestrian safety education by 2010





What Do
Alexandrians Say?
Key Pedestrian & Bicycle
Workshop Findings



At the bicycle & pedestrian community meeting, citizens "voted" for where they thought City money would be best spent.

Infrastructure: 61.7%

Safety: 28.8%

• Promotion: 9.5%

Goal 1. Engineering

The City will provide a continuous, connected and accessible network that enables pedestrians – particularly children and those with mobility impairments – to move safely and comfortably between places and destinations

The city will seek to establish and maintain a system of Community

Pathways to serve all types of pedestrian trips, particularly those with a transportation function. Key projects outlined in the pedestrian element include intersections in need of pedestrian safety enhancements, high-priority crosswalks, sidewalk projects related to Metrorail and proposed Smart Shelters and, finally, pedestrian improvements that will encourage walking to school. Pedestrian initiatives also include new multiuse trails, pedestrian bridges and underpass/tunnel improvement projects.

Engineering improvements must also incorporate proposed passenger amenities proposed in the transit chapter of the Transportation Master Plan. In addition to improving safety, pedestrian amenities such as benches, information kiosks and traveler

information systems will enhance the pedestrian experience and reward the choice to travel using the City's pedestrian and transit systems.

The objectives below outline general policy recommendations for improvements that will make Alexandria more pedestrian friendly. The accompanying "Levels of Service" graphic and table on the following page outline in graphic format the key issues related to walkability.

Objectives

- 1. Create and maintain a pedestrian network that is continuous, connected and accessible. This network should include sidewalks, shared use trails, safe crossings at intersections and bridges, tunnels and overpasses
- 2. Identify and prioritize retrofits to locations where core pedestrian design issues are compromised. This should include:
 - a. Providing ADA compliant curb ramps at all intersections and designated midblock crossings
 - b. Adequate sidewalks
 - c. Crosswalks and street crossings, including safety improvements such as countdown timers where possible
 - d. Pedestrian access to transit
 - e. Pedestrian scale lighting
 - f. Bridges, overpasses, underpasses, tunnels and associated access and exit areas
 - g. Public space and street furniture in utility zones
- 3. Remove and/or re-configure streetscape elements that pose obstacles to safe, direct pedestrian travel.
- 4. Design all streetscapes to be compatible with the Americans with Disabilities Act.
- 5. Working across city departments, develop a Pedestrian Design Guide to be issued by City Engineer in 2007.

FOR WALK

SIGNAL

Sidewalks

Walkability increases with added width (five feet is a minimum). Greater width is needed when street furniture, utilities, dining areas or signs intrude on the "clear" space. Sidewalks should have clean edges and buffers to the street – either vegetation or parked cars. They should not pass long, blank walls without breaks or details. Sidewalk material should be firm, stable and slip resistant with no interruptions in grade. Conditions improve as the number of driveways is reduced. Curbs should be non-mountable.











Crossings

Crossings should occur at well-marked crosswalks, with pedestrian signals if appropriate. Short signal cycles provide clear pedestrian priority. ADA accessible curb ramps are essential — preferably two per corner and oriented at perpendicular crosswalks. Tight curb radii (15 to 20') forces traffic to slow. Curb extensions may be appropriate, particularly mid-block. Stop bars can be set back and enhanced signing or lighting can be used selectively for added attention. On multi-lane roads, refuge islands are essential.











Main Streets

Walkways along "main" streets should be wide and clear, particularly in shopping areas. Front doors should open to the street, not parking lots. Blocks should be short — a typically 300 feet with a 1,200 foot perimeter — so that people may cross frequently. Most people will walk 150 feet to get to locations rewarding their travel. Context-sensitive lighting and street furniture are essential. Street trees provide shade and street character.











Local Streets

Local streets should be narrow and well-landscaped with on-street parking to act as additional sidewalk buffer. Driving speeds of 15-20 mph are best and 20-25 mph is acceptable. Homes should be near the street. Lanes should be narrow and new local streets should be designed to encourage slow vehicular movement. Traffic calming may slow traffic and encourage pedestrian activity.











Avenue/Boulevard

Sidewalks along arterials should be wide and well buffered since these streets provide key transit access. Planter strips and bicycle lanes create essential separation from vehicles. Street trees, other landscaping and medians help slow motorists. Longer pedestrian crossings should be broken into separate threats. Median crossings or refuges (4' minimum, 8-10' preferred) can be angled forcing people to look at motorists before stepping into their path.











Goals

Goal 2. Encouragement

The City will encourage mobility for all pedestrians by promoting walking as a means of improving health and increasing transit usage.

Increasing transit usage and enabling transit to compete effectively with automobiles is one of the overall goals of the Transportation Master Plan. To do this, creating a pedestrian friendly environment going to and from transit stops is an essential goal of the entire pedestrian element.

Current estimates suggest that by the year 2030 there will be more than 36,000 daily transit trips from Alexandria to Washington, DC and some 17,647 within the city limits of Alexandria.⁴ Increasingly, Alexandrians are turning to mass transit to provide a dependable and convenient way to work. A recent market study for the City of Alexandria revealed that 62 percent of survey respondents who used mass transit walked less than five minutes to a DASH stop and many said

that better pedestrian connections would encourage them to use transit more often.⁵
Similarly, a recent Health Survey emphasized the need for Alexandria to be a healthier city and specifically focused on the problems of childhood obesity.⁶ City sponsored outreach and events that educate the public regarding the health benefits of walking are a crucial component of any transportation master plan.

Objectives

- 1. Coordinate across city departments and with non-profit partners to educate the public regarding the health benefits of walking so that people can better integrate walking into their daily lives.
- 2. Support events and activities that promote walking and multi-modal transportation initiatives.
- 3. Provide formal and informal activity-oriented programs such as community workshops and educational programs, specifically those that encourage the relationship between walking and public health or walking and transit usage.
- 4. Work with the Alexandria Health Department to monitor current health trends and identify sources of private funding that may be directed to local initiatives.
- 5. Work with DASH and WMATA to continually encourage walking as a safe and convenient means of accessing transit stops.

Goals

Goal 3. Education

The City will develop Safe Routes to School Programs and awareness initiatives that address pedestrian safety, rights and responsibilities.

The City of Alexandria should seek to educate school-aged youth, community organizations, business groups, civic associations and others on the safety, health and civic benefits of walkable communities. The city's pedestrian initiatives such as the Community Pathways effort and a new Safe Routes to School program seek to promote safe and courteous walking and driving through targeted outreach programs. To date, examples of successful programs include the Street Smart initiative and Walk to School Day.

Driver education tends not to stress pedestrian prerogatives and the City has only recently begun to provide pedestrian education. Conveying the message to non-English speaking residents is also proving increasingly important. Because Hispanics are three times as likely as Whites to be hospitalized for a pedestrian injury, the City must effectively target its education programs to reach this group. Our most dangerous areas for walking tend to have similar characteristics: high-speed roads, heavy traffic, poor pedestrian facilities, and dense populations of people who lack automobiles.



Objectives

- Provide resources to support creation of programs that encourage walking and promote pedestrian safety such
 as walking commute campaigns.
- 2. Use the Safe Routes to School program to educate school children about safe walking practices.
- 3. Broaden the scope and reach of the Metropolitan Washington Council of Governments "Street Smart" pedestrian education program, especially with respect to provision of outreach to non-English speaking audiences.
- 4. Publicize the pedestrian network (particularly trails, shared-use paths and amenities such as the Alexandria Heritage Trail) via the internet and using maps, brochures and booklets.
- 5. Work with residents, community groups, businesses, civic associations and all property owners to expand the network of walkways on existing public rights-of-way and in new acquisitions of open space.
- Work with the Alexandria Commission of Persons with Disabilities to provide wayfinding orientation for persons with visual impairments and improve education about the City's audible pedestrian signal network.
- 7. Solicit public input on pedestrian problems via annual reports to City Council, through the city's website, public access television and commercial media. Additionally, the City should regularly publicize listings that enable and encourage citizens to contact the City with pedestrian problems.

Goals

Goal 4. Safety

The City will create a safe pedestrian environment through effective law enforcement and implementation of pedestrian safety countermeasures.

The overall intent of the policies related to Safety is to create a street environment that ensures pedestrian safety. The Alexandria Police Department (APD) has reported approximately 75 pedestrian accidents each year since 2004,7 with many near-misses and minor incidents unreported. By reviewing accident data for the last three years, the City is beginning to isolate where accidents are taking place and which demographic groups are at greatest risk.

According to the Metropolitan Washington Council of Governments, regional data indicates several themes⁸:

- Drivers were cited for a violation in about half of crashes.
- Pedestrian crashes are most likely to occur at the evening rush (5 to 7 pm) with morning (6 to 9 am) the second most likely. (Preliminary data in Alexandria correlates with this statistic where 18 of 47 pedestrian crashes in 2006 occurred in periods of low light or darkness.)
- Other things equal, the pedestrian crash rate tends to fall as the number of pedestrians at a location increases. There is safety in numbers. Doubling the number of pedestrians at an intersection already crowded with pedestrians will usually result in little, if any increase in pedestrian crashes
- Experience shows that it is possible to reduce pedestrian fatalities while increasing walking.

Our most dangerous areas for walking have high-speed roads and poor pedestrian facilities, together with people who lack automobiles. In the near future, the City will outline a process for the designation of "Priority Pedestrian Districts" – typically compact areas of intense pedestrian use where walking is intended to be the primary mode of travel. These areas are typically near key transit stops, schools or institutional buildings and may be given priority for public investment in pedestrian infrastructure.

Objectives

- 1. Use the "Priority Pedestrian District" concept to identify priority areas for enforcement and public investment, and ensure focus on areas where safety is an issue.
- 2. Traffic signals and their associated features should be used to improve pedestrian safety at intersections, especially those with a record of collisions.
- 3. Maintain the pedestrian network by removing obstacles including vegetation, keeping walks smooth and level, repairing curb ramps and maintaining safety at transit hubs.
- 4. Partner with the APD to monitor areas of pedestrian concern and ensure that officers understand pedestrian issues as well as pedestrian rights and responsibilities.
- 5. Focus efforts on safety violations by pedestrians, including jaywalking and proceeding against DON'T WALK signals
- 6. Seek to continually reduce conflict among pedestrians and bicyclists by designating separated bicycle lanes where appropriate.

Actions & Strategies

In recent years, the Alexandria City Council has made it a point to improve the pedestrian experience citywide. After several years of work, the Council on February 9, 2006 adopted a resolution in support of a Community Pathways initiative. At its most basic level, the Community Pathways program is an effort to help Alexandria become a more healthy community that provides safe and convenient choices for people to walk, bicycle and be physically active on a daily basis. "Our efforts to address these issues and transform Alexandria into a nationally recognized pedestrian- and bicycle-friendly City require a comprehensive plan and framework," the memo said. "Instead of a focus on cars, this program will focus on people, neighborhoods, parks, schools, recreation areas and trails."

The Community Pathways program and subsequent work sessions by the council-appointed Ad Hoc Transportation Task Force helped solidify a set of clear goals, timelines and a consolidated plan. The Pedestrian and Bicycle Mobility Plan currently underway will provide a blueprint for 5-10 years worth of infrastructure improvements and drastically improve access for persons with disabilities, pedestrians and bicyclists. This plan to be published later in 2007 will provide a fine-grained roadmap to accompany these Actions & Strategies. More importantly, it will allow the City to prioritize the limited funding available for such improvements

P1. Enforcement and Safety Action Items

- P1.A. Beginning in 2007, schedule quarterly pedestrian enforcement campaigns in areas where safety is of greatest concern, such as Duke Street and in Arlandria
- P1.B. Continue working with schools, Metro and DASH to identify high-priority crosswalk and intersection improvement projects

P2. Engineering Action Items

- P2.A. Working across city departments, develop a *Pedestrian Design Guide* to be issued by the City Engineer in 2008
- P2.B. Using data gathered in a citywide study of the pedestrian and bicycle network implemented plan:
 - P2.B.i. Infrastructure accessibility improvements for those with mobility impairments
 - P2.B.ii. Improvements to the pedestrian network that promote access to transit
- P2.C. Implement planned Safe Routes to School improvements that will have the strongest likelihood of reducing morning traffic and improving pedestrian safety

P3. Encouragement Action Items

- P3.A. In FY 2007-2008, the City will introduce a stipend similar to its transit subsidy for employees who bicycle or walk to work at least four times per week
- P3.B. A checklist-style system that encourages connectivity and universal access in all new developments will be available for use in all development site review plans



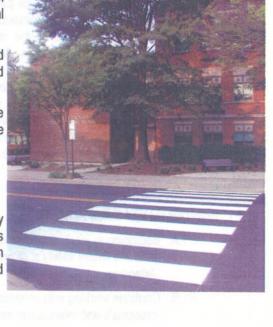
Actions & Strategies

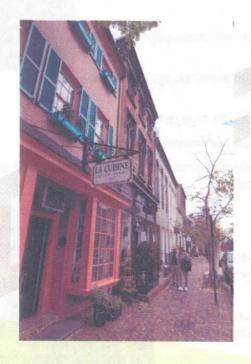
P4. Education Action Items

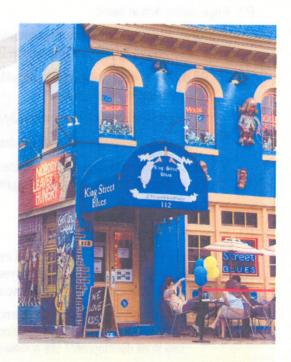
- P4.A. Ensure that the planned Safe Routes to School program takes a holistic approach by including an educational component
- P4.B. Planned 2007 updates to the City Bicycle Trail and Recreation Facility Map will also focus on walking and public transportation routes
- P4.C. Reformat the alternative transportation website (www.AlexRide.org) to emphasize walking and include regular updates and feedback options for citizens



- P5.A. An annual Benchmark report will be presented to City Council with metrics provided by staff that outline the City's progress in: Reducing Maintenance Requests, Pedestrian Safety, Infrastructure Improvements, Education and Encouragement
- P5.B. The City will seek input from citizens via web-based surveys and e-mail reports regarding its progress and areas of potential improvement







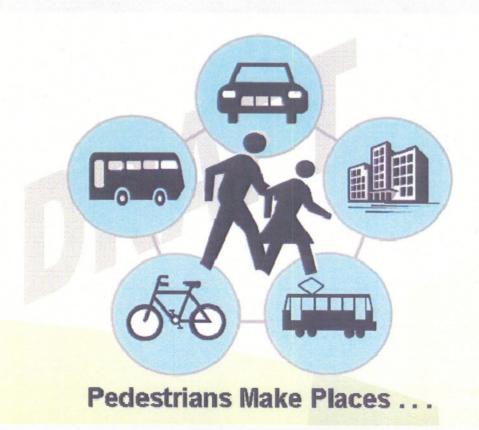


Endnotes

- 1. Portland Pedestrian Master Plan, p. 1.
- 2. City of San Diego, "Pedestrian Design," p. 63.
- 3. WMATA faregate data collected in April 2005, "Guidelines for Station Site and Access Planning," p. C-1.
- 4. Data from Baker Inc. map, "City of Alexandria: Year 2030 Daily Transit Trips" and based on Metropolitan Washington Council of Governments Round 6.4 Demographic Projections.
- 5. Survey Progress Report, City of Alexandria, June 19, 2006, Plus 2
- 6. "Alexandria Community Pathways" Memorandum, March 17, 2005.
- 7. City of Alexandria PRISM accident data, 2004-06
- Metropolitan Washington Council of Governments, "Bicycle and Pedestrian Plan for the National Capital Region," Section 3-5, July 2006.

"More than transportation channels, streets are places suited for pedestrian interaction, where people choose to pause and socialize."

- Michael Southworth and Eran Ben-Joseph



City of Alexandria

City Council Ad Hoc Transportation Task Force

> Work Session March 13, 2007

Overview

THERE IS AN INTEGRATED,
MULTIMODAL
TRANSPORTATION SYSTEM
THAT EFFICIENTLY AND
EFFECTIVELY GETS PEOPLE
FROM POINT "A" TO POINT "B".

-City Strategic Plan 2004-2015









Overview

Transportation Vision

The City of Alexandria envisions a transportation system that encourages the use of alternative modes of transportation, reducing dependence on the private automobile. This system will lead to the establishment of transit-oriented, pedestrian friendly village centers, focused on neighborhood preservation and increased community cohesion, forming a more urban, vibrant and sustainable Alexandria. The City will promote a balance between travel efficiency and quality of life, providing Alexandrians with transportation choice, continued economic growth and a healthy environment.

Overview

Guiding Transportation Principles

- 1. Alexandria will develop innovative local and regional transit options.
- 2. Alexandria will provide quality pedestrian and bicycle accommodations.
- **3.** Alexandria will provide its citizens with accessibility and mobility.
- **4.** Alexandria will use communications technology in transportation systems.
- 5. Alexandria will promote transportation policies that support livable, urban land use.
- **6.** Alexandria will promote environmentally friendly transportation policies.

Overview



Transit



Pedestrian



Bicycle



Streets and Parking

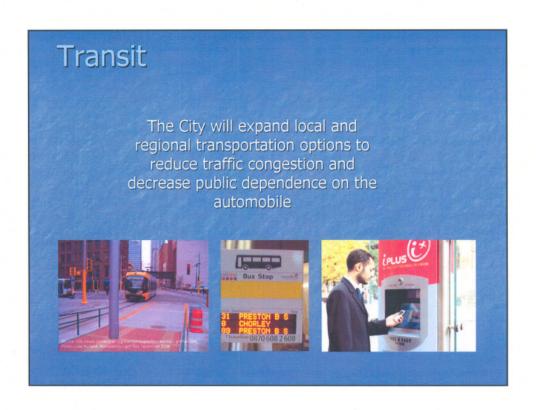


Funding & Implementation

Transit

Goal: Ensure that people can travel into, within and out of the City of Alexandria by providing a mass transit system that combines different modes of travel into a seamless, comprehensive and coordinated effort.

Objective: A reliable and convenient mass transit system integrated with surrounding land uses and existing transportation connections that offers travel time savings and an enjoyable transit experience for its riders, featuring advanced technology and passenger amenities.





Transit

Why is this Plan Different?

- Focus on securing dedicated, congestion-free, transit right-of-way
- Use of state-of-the-art clean, comfortable, fast vehicles (Light Rail, Street Car, Bus Rapid Transit) that provide amenities to make the daily commute an enjoyable experience
- Use of smart technology to provide transit users and commuters with up to the minute information
- Shorter headways, ensuring commuters that they can catch a ride when and where they need to
- Focus on enhanced connectivity between various modes of transit, bicycle and pedestrian facilities

Pedestrian

Making Alexandria more walkable



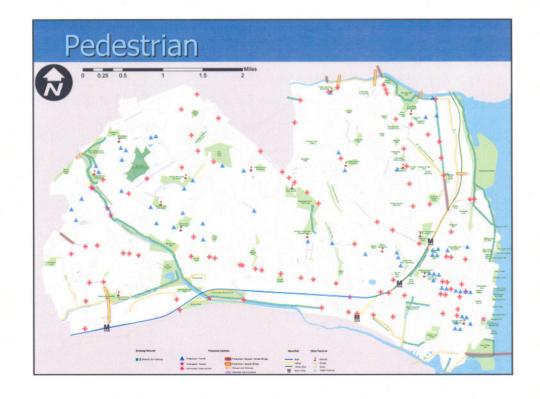
- What is "walkability"?
 - Sense of community
 - Sense of security & safety while walking
 - Active living
 - Big streets and commercial areas can be walkable, too

Pedestrian

Why this is different...

- Pedestrians now a serious component of modern transportation system
- Holistic approach
- Focus on walkabilty around transit
- Improved coordination between transportation & planning to reward walking in areas of residential density & mixed use
- Encourages people to integrate walking into daily routines – "active living"





Pedestrian

Context & Benchmarks

- Policy Levels Goals
 - Building on previous efforts (i.e. Community Pathways)
 - Avoids being too prescriptive
 - Current Pedestrian & Bicycle Mobility Study provides fine-grained support
- Benchmarks



Becoming bicycle-friendly

- What does it mean?
 - Complete transportation network
 - Reduction in congestion
 - Improve air quality
 - Encourage active living
 - Reducing conflict between pedestrians and bicycles





Bicycle

Why this is different...

- Routine accommodations for bicyclists
- Better compatibility between bicycle and transit
- Safety & Education programs
- Encourages people to consider bicycling for short trips and commuting
- Reducing conflict between pedestrians and bicycles



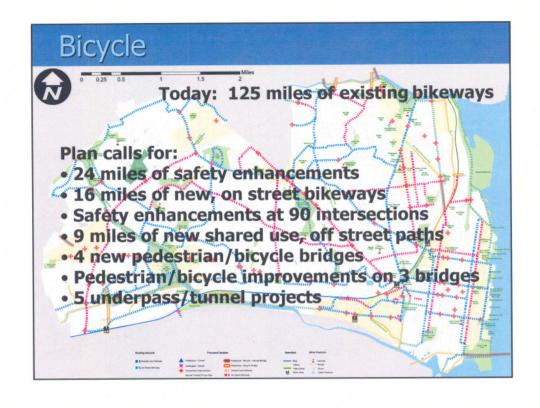
Bicycle

Bicycle Concept Goals

- Engineering
- Encouragement
- Safety
- Education









Status & Next Steps

Plan Elements

Overview

Transit, Pedestrian and Bicycle

Streets and Parking

Funding and Implementation

Target Submission Dates

Planning Commission

City Council

Draft complete by April 24

Completed

Draft under review

Draft complete by April 24

May 1, 2007

May 22, 2007

Comments & Discussion