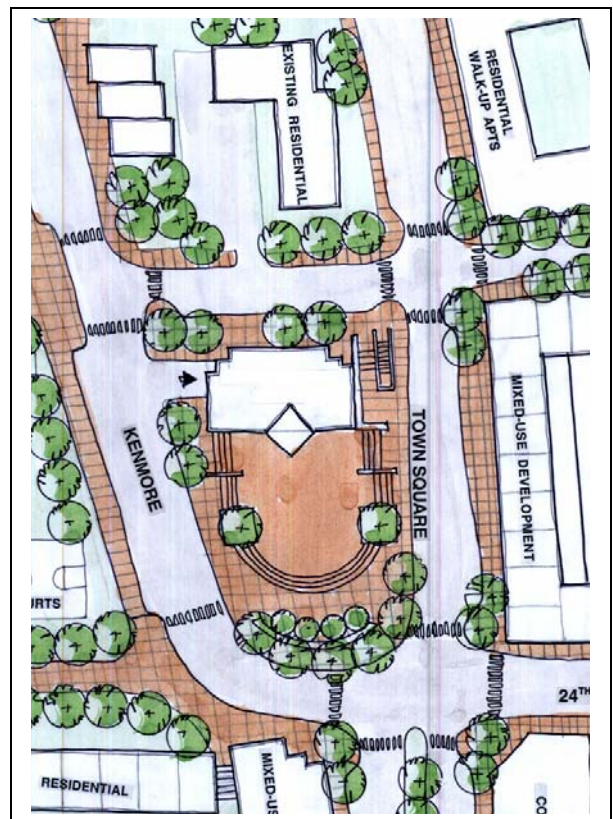
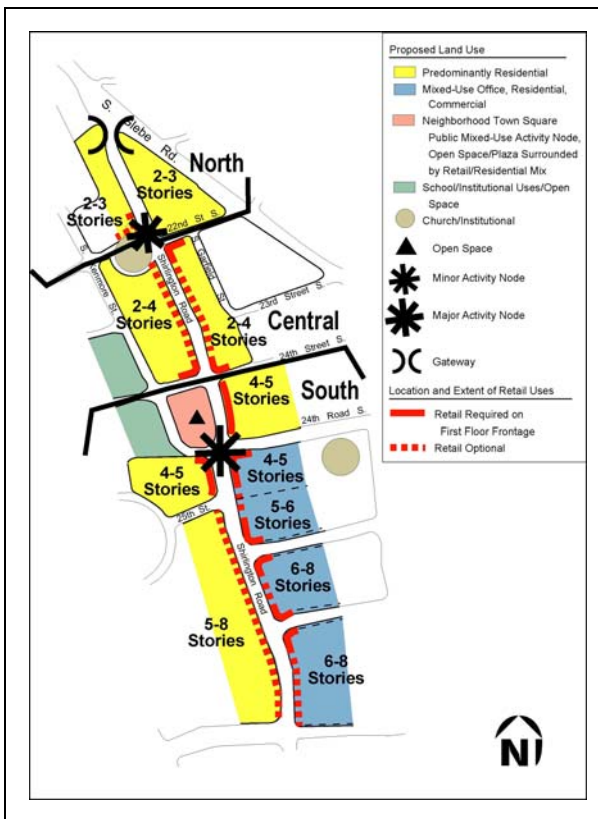


NAUCK VILLAGE CENTER ACTION PLAN

Adopted by the Arlington County Board
July 10, 2004





DEPARTMENT OF COMMUNITY PLANNING, HOUSING AND DEVELOPMENT
Planning Division

#1 Courthouse Plaza 2100 Clarendon Boulevard, Suite 700 Arlington, VA 22201
TEL 703.228.3525 FAX 703.228.3543 www.arlingtonva.us

To: The Citizens of Arlington County

Subject: The Nauck Village Center Action Plan

Attached is a copy of the Nauck Village Center Action Plan which was adopted by the Arlington County Board on July 10, 2004. The purpose of this plan is to provide an urban design framework to guide public and private investment in the revitalization of Shirlington Road and the traditional core area of the Nauck neighborhood. The plan is divided into seven sections: Executive Summary; Analysis; Vision, Goals & Concept Plan; Urban Design Guidelines; Implementation; and Appendices. The Executive Summary outlines key components of the study and provides a number of implementation measures addressing: Land Use and Zoning, Transportation, Implementation Management, Pre-Development Assistance, Special Projects, and Affordable Housing.

We would like to take this opportunity to thank all those who contributed to the development of this plan. Special thanks are extended to the Shirlington Road Revitalization Advisory Board and the Nauck Civic Association for their active participation in this planning process.

Please contact the Planning Division at 703-228-3525 for further information.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert E. Brosnan".

Robert E. Brosnan
Planning Division Chief

July 10, 2004

Barbara Favola, Chairperson
Jay Fiset, Vice Chairperson
Paul Ferguson, Member
J. Walter Tejada, Member
Christopher Zimmerman, Member

The Arlington County Board
2100 Clarendon Boulevard
Arlington, Virginia 22201

Dear Board Members:

Nauck came into being just after the Civil War. It was settled by freed slaves, so-called “contrabands” and black Civil War soldiers who for the first time were free to pursue the American Dream of owning a home in a pleasant community with a strong sense of neighborhood. Through all the eras of history that followed, Nauck remained a community where all are welcome – regardless of the color of one’s skin or the size of one’s bank account. It is already evident that Nauck of the 21st century will be very different from the Nauck of previous centuries. As is the tradition of Nauck, we welcome the new households that have made Nauck their home over the past decade as well as those who will be settling here in the future. Yet we as a community are committed to assuring that the kinds of households that have been the backbone of Nauck for almost a century and a half do not themselves become history. The Nauck Village Center Action Plan is based on that vision. It is a tool for encouraging and facilitating attractive development along Shirlington Road that accommodates new as well as existing residents and businesses. A new Shirlington Road will breathe new life into Nauck.

The proposed Village Center will create a new image for Nauck’s Main Street. The creative strategies and proactive incentives proffered in the Village Center Action Plan have the potential to transform a visually and economically blighted commercial strip into a cohesive business district with excitement and vitality. While offering interesting possibilities to private interests from outside the community, the plan also provides for support and assistance to existing businesses. By the same token, it provides for the creation of affordable housing and the establishment of additional retail spaces. A preponderance of townhouses would place most of the housing along the new Shirlington Road well outside the means of the average Nauck resident.

The best laid plans are only as effective as the vehicle for implementing them. There is a wealth of research that documents that the revitalization initiatives most likely to succeed are those that are community-based and community driven. The Nauck Village Center Plan provides for the formation of a 501(c)3 organization with a County Implementation Team as well as a full-time coordinator to guide the implementation of the plan. These we strongly feel are essential elements along with provisions for financial resources as the keys to success of the plan. The support of and guidance that the County staff has provided to-date is commendable. The additional support outlined in the plan is critical to moving this initiative to the next horizon.

We are very pleased that this first planning phase is completed. We look forward to completing the next steps and working on the next phase. For all of the above, the Nauck community strongly urges the approval of this plan as revised.

Thanking you in advance for your positive consideration of this much needed plan for the growth of the Nauck community.
Sincerely yours,

Dr. Alfred O. Taylor, Jr. President
The Nauck Civic Association

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Executive Summary

The *Nauck Village Center Action Plan* is the first phase of a two-part study process for the larger Nauck, Shirlington, Four Mile Run area and covers the commercial core of Nauck. Phase two, *Four Mile Run-Shirlington: Vision 2030*, will generally address the industrial areas along I-395 and along the Four Mile Run stream. In the end, both plans will be encapsulated in a more comprehensive document called the *Nauck, Shirlington, Four Mile Run Plan*. Due to the timely nature of issues arising in the Nauck Village Center and due to an ongoing community planning process, it was determined that the Nauck area should be addressed first and that the longer term issues of the other areas would follow.

The intent of the *Nauck Village Center Action Plan* is to provide a planning and policy framework for development decisions within the Nauck Village Center. This framework is in the form of a development vision and an associated concept plan. The future envisioned for the Nauck Village Center is for a mixed-use, pedestrian friendly environment centered around a “Town Square” at the intersection of Shirlington Road and 24th Road South. The areas bordering the town square would be characterized by 4-5 story buildings with retail on the ground floor and housing above. To the north of the town square, the scale of development decreases with residential uses beginning to predominate. South of the town square, the scale of development would increase with a greater emphasis on commercial development on the east side of Shirlington Road. The area would be characterized by improved streetscape and roadway elements that adequately address the needs of pedestrian, bicycle and automobile traffic. Finally, development within the area will be shaped by urban design guidelines that further the goal of an attractive and vibrant mixed use environment.

Beyond its role as a planning and policy framework, the *Nauck Village Center Action Plan* provides a number of implementation measures aimed at ensuring that the vision is achieved. The plan includes recommendations addressing the following areas:

- **Land Use and Zoning** – These recommendations assure that the regulatory setting in the area is consistent with the redevelopment vision.
- **Transportation** – These recommendations aim to contribute to a safe and attractive pedestrian-oriented environment that also effectively accommodates bicycle, transit and automobile users.
- **Implementation Management** - In order to ensure that these recommendations are acted upon in a timely and responsive manner, it is recommended that effective implementation management teams be established within the community and staff.
- **Pre-Development Assistance** – In order to encourage and increase the accessibility of redevelopment, it is recommended that funds be made available to assist certain potential projects that comply with the community vision in the early stages of development.
- **Development Incentives** – In order to overcome potential market barriers and increase the attractiveness of the area for investment, a tax exemption program and an infrastructure funding assistance program are recommended. The Commercial

Executive Summary

Revitalization Fund is identified as the primary source for infrastructure finding assistance.

- **Special Projects** – Vital public spaces are key to the creation of an appealing mixed use environment. Therefore, it is recommended that the creation and implementation of a plan for the development of the “town square” site be aggressively pursued as a means of supporting and spurring private investment in the area.
- **Affordable Housing** – Affordable housing is a key issue in Arlington County and it receives special focus within the *Nauck Village Center Action Plan*. These recommendations are intended to ensure that redevelopment provides housing opportunities for diverse income levels.

Through a combination of a sound policy framework and effective implementation measures, the *Nauck Village Center Action Plan* represents an achievable blue-print for a revitalized commercial core within the Nauck community. The adoption of this plan is a vital step forward in the revitalization of the commercial core of the Nauck neighborhood.

Introduction

The *Nauck Village Center Action Plan* is the first phase of a two-part study process for the larger Nauck, Shirlington, Four Mile Run area and covers the commercial core of Nauck, generally bounded by Glebe Road to the north, the Shirlington Road bend to the south, and approximately one block east and west of Shirlington Road (see Figure 1: Nauck Study Area). Phase two, *Four Mile Run-Shirlington: Vision 2030*, will generally address the industrial areas along I-395 and the property along the Four Mile Run stream. In the end, both plans will be encapsulated in a more comprehensive document called the *Nauck, Shirlington, Four Mile Run Plan*. Due to the timely nature of issues arising in the Nauck Village Center and due to an ongoing community planning process, it was determined that the Nauck area should be addressed first and that the longer term issues of the other areas would follow. For the benefit of the reader, Appendix A in this report provides definitions of planning terminology specific to Arlington County.

Background

In February 1998, the County Board approved the Nauck Comprehensive Action Plan. It recommended that County staff work with the community to conduct further study of the Nauck commercial area to develop a future vision and implementation plan for revitalization. In 2002, staff, in conjunction with the Nauck community, held visioning sessions and charrettes to clarify goals and objectives for the revitalization of the neighborhood commercial corridor along Shirlington Road. This process led to the creation of the Shirlington Road Revitalization Study (prepared by Matta Architects/ The Lukmire Partnership, Inc. in March, 2003). The study's Vision and Goal Statements were formally adopted by the Nauck Civic Association in April 2003 and form the basis for the Nauck Village Center Action Plan.

Also in 2002, the County hired transportation consultants to conduct a study on the potential transportation related impact of future development on the surrounding area and possible improvements which might mitigate these impacts. This study was used to inform the overall planning process.

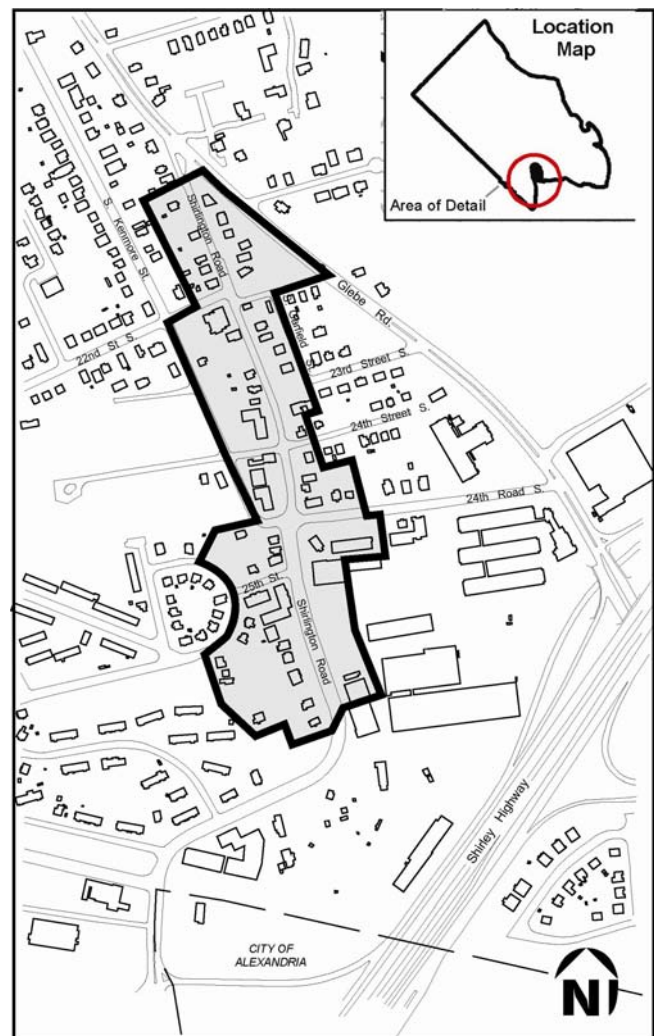


Figure 1: Nauck Study Area

Introduction

Following adoption of the Shirlington Road Revitalization Vision and Goals in April 2003, County staff, in conjunction with the Shirlington Road Revitalization Advisory Board, a group comprised of area property owners, residents and stakeholders, worked to develop implementation strategies related to land use, zoning, urban design, transportation, and economic development. These strategies, incorporated into this plan, were presented to the Nauck Civic Association and broader community throughout the winter and spring of 2004.

Purpose

The Nauck Village Center Action Plan aims to provide the community and its decision makers a sound development framework with guidelines and incentives for the revitalization of the neighborhood commercial area of Nauck. Furthermore, it sets forth a vision, in considerable detail, as a reference point for the future.

Neighborhood History

The Nauck community has a long and diverse history. The area that now comprises the Nauck neighborhood was originally granted to John Todd and Evan Thomas in 1719. The land was later acquired by Robert Alexander and sold to John Parke Custis in 1778, becoming part of the Abingdon Estate. Until the Civil War era, the area remained farmland with few structures. Free blacks, such as Levi and Sarah Ann Jones, who built a house in 1844, owned land prior to the Civil War in what is now Nauck.



Lomax AME Zion Church

After the war, the area attracted several families from Freedmen's Village (located near what is now Foxcroft Heights) and other locations. In 1874, John D. Nauck, Jr., a resident of Washington, DC bought 46 acres of land in south Arlington and began subdividing it; and the neighborhood of Nauck as it is known today began to form.

In that same year, land was purchased for the relocation of the Little Zion Church (now Lomax AME Zion Church), a congregation that was first organized in the Freedmen's Village in 1865-66. The church building at the new site, which also served as a public school, first opened in 1875 (later known as the Kemper School). The School Board built a one-room school in 1885. In 1893, a new two-story brick school was constructed at South Lincoln Street and was later replaced by a larger building, now known as Drew Elementary.

It was the electric railway, which came to Nauck in 1898 that spurred the development of the neighborhood. The Nauck line of the Washington, Arlington, and Fairfax electric

Introduction

railway ran parallel to what is now South Kenmore Street and there was a station located south of what is now the intersection of 19th Street South and South Kenmore Street.

The 1902 Virginia Constitution that restricted the rights of black citizens halted the expansion of the neighborhood. The Nauck neighborhood continued to subdivide the land already owned by blacks so that more people could be accommodated, but the neighborhood boundaries remained relatively unchanged.

World War II brought about significant changes to Nauck. Dunbar Homes, located at Kemper Road and Shirlington Road, was built during the war on a tract of land that was once owned by Levi Jones and his family. The construction of the Pentagon and its surrounding roads resulted in the destruction of several predominantly black neighborhoods in Arlington thereby displacing many people. Some of these people relocated to Nauck as did the Lomax AME Church now on 24th Road South between Glebe Road and Shirlington Road.

Maps from 1952 reveal that a few blocks were still vacant and others were nearly built to capacity and appear much as they do today. The neighborhood of Nauck continues to develop along the lines established many years ago and is a community rich in history.

Introduction



Figure 2: Aerial Photo with Study Area Boundary

Analysis

Land Use

The General Land Use Plan (GLUP) indicates the adopted policy for future development by setting the general character, extent, and location of land use types throughout the County. While the GLUP indicates the County's goals for future development, the Zoning Ordinance regulates the current uses, density, height and placement allowable on a given parcel. The study finds the following:

- The existing GLUP designations and zoning classifications within the study area include the following (see Figure 3: Existing GLUP Designations and Figure 4: Existing Zoning Classifications):
 - “Service Commercial” areas, providing for personal and business services, generally one to four stories and maximum 1.5 floor area ratio (F.A.R.) are generally zoned “C-2” Service Commercial-Business Districts and located along both sides of Shirlington Road north of 25th Street South and the west side of Shirlington Road south of 25th Street South. A recent Zoning Ordinance amendment provides a new Special Exception Use Permit option for mixed-use projects (which may contain residential uses) within the “C-2” district. The regulations within this option (Unified Commercial/Mixed Use Development) are conducive to achieving a pedestrian oriented, mixed use environment.
 - “Service Industrial” areas, providing for wholesale, storage, and light manufacturing uses, including those related to building construction activity are zoned “M-1” Light Industrial Districts and are located along the east side of Shirlington Road south of 25th Street South.
 - Other areas adjacent to or part of the study area include a mix of “Low” Residential (11-15 units/acre), “Low-Medium” Residential (16-36 u/a), and “Public” and are zoned a variety of zoning districts generally consistent with their respective GLUP designations.
- There are a few sites in the study area where there are inconsistencies between the GLUP and zoning.
- The current GLUP designations and zoning classifications of some areas within the study area may be inconsistent with the goals and vision established through the Shirlington Road Revitalization Study. Changes to the GLUP will need to be evaluated for these areas vision is to be achieved.
- The study area is showing signs of uneven development and disinvestment.
- The Lomax AME Zion Church within the study area is designated as a Local Historic District. As well, the nearby Dunbar Homes at Four Mile Run Drive and Shirlington Road (just outside of the study area) may have some architectural, historical and cultural value. Any future planning should be sensitive to these developments.
- Commercial/Industrial Development:
 - North of 24th Road South, the existing development pattern contains a collection of various business types occupying residential structures along with occupied

Analysis

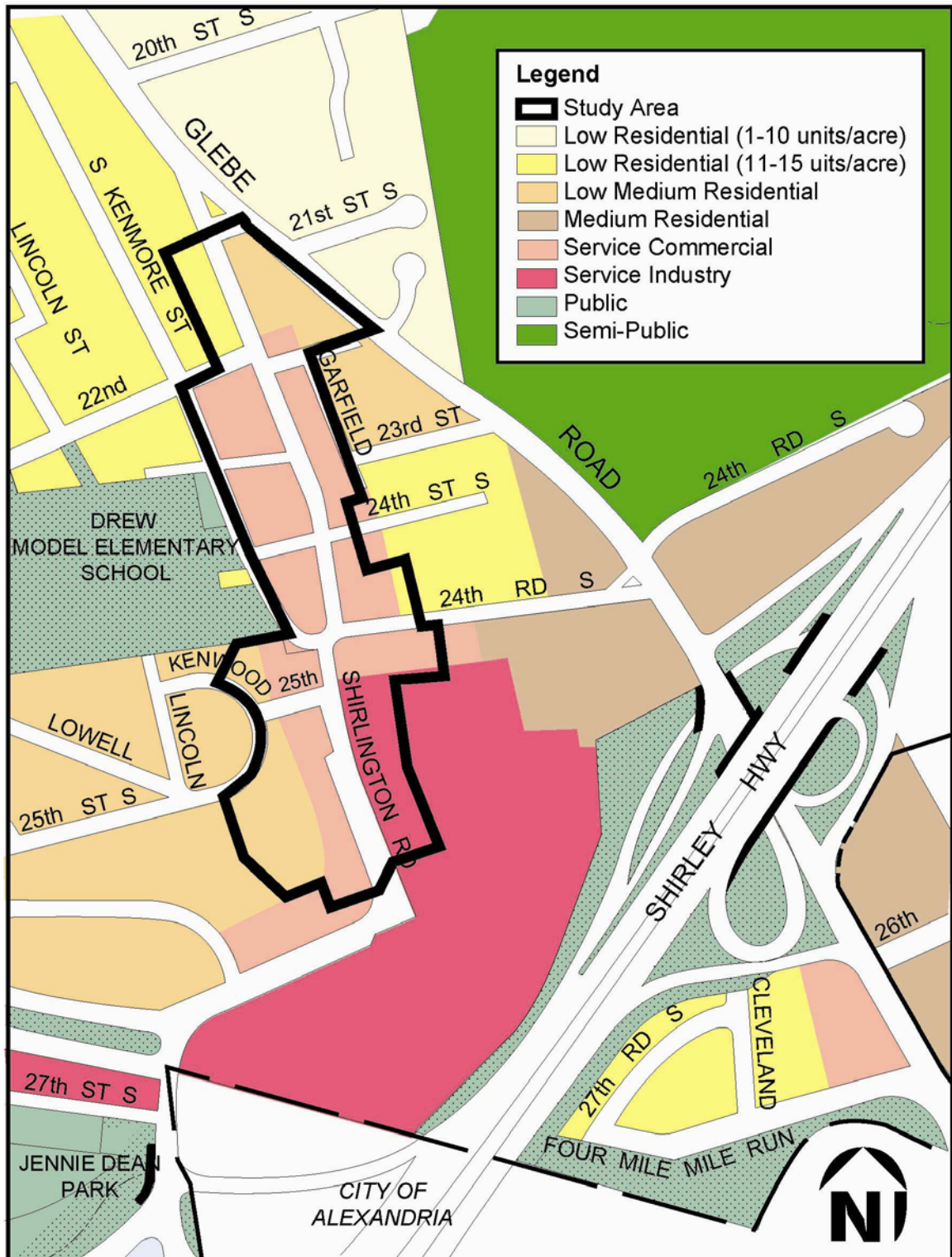


Figure 3: Existing GLUP Designations

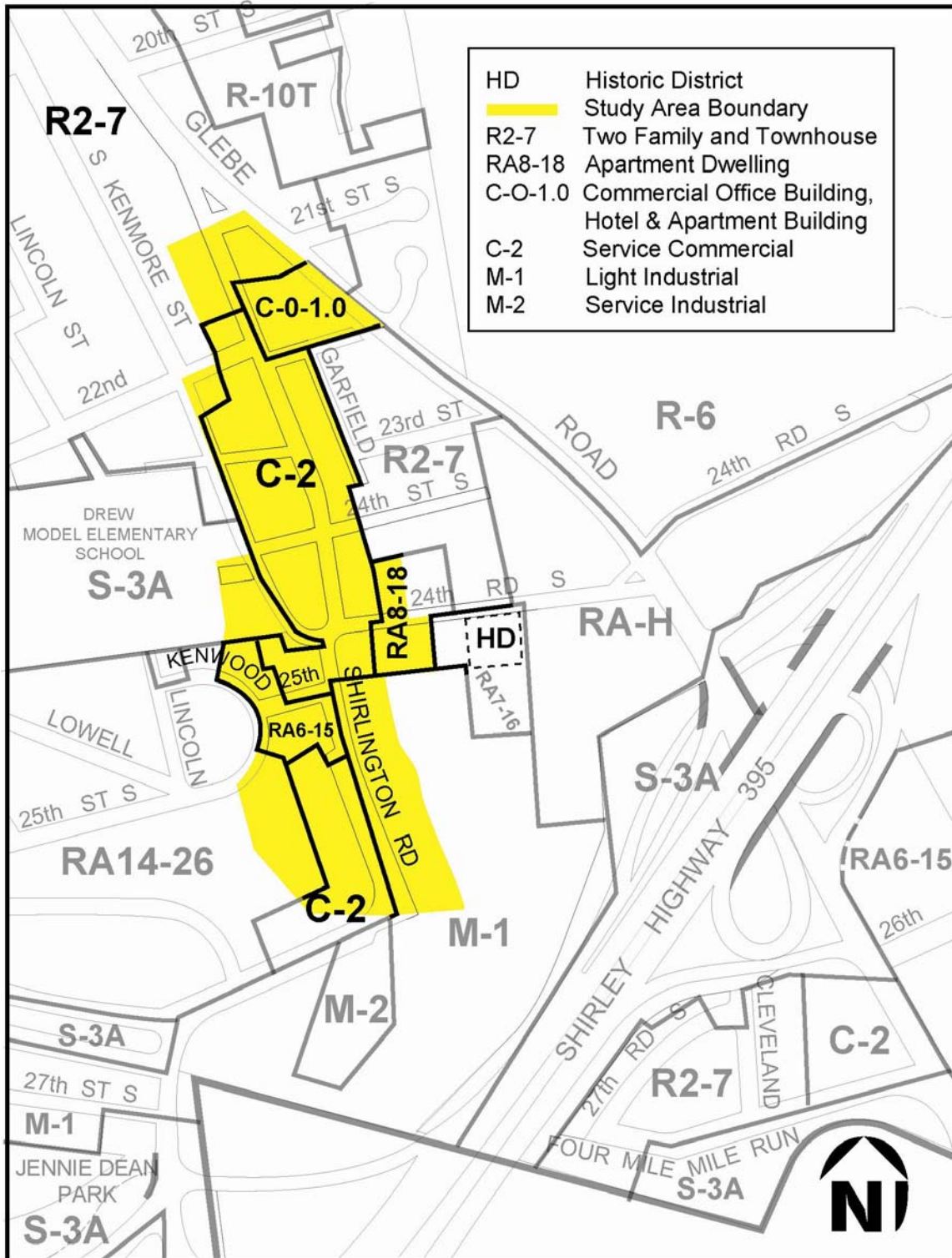


Figure 4: Existing Zoning Classifications

Analysis

and vacant residential units. South of 24th Road South, slightly larger commercial structures house a variety of commercial and light industrial uses.

- The areas zoned “C-2” and “M-1” contain 12 acres and can be developed up to a 1.5 F.A.R. which could produce close to 800,000 square feet of development of commercial and industrial uses. It is important to note that residential development is not permitted in the areas zoned “M-1” and is only permitted by Special Exception Use Permit in areas zoned “C-2.”
- The study area and immediate vicinity contain approximately 33 businesses included in the “M-1” area. Businesses include automobile related uses, convenience shopping, services, light industrial operations and other business types.
- In a survey of businesses conducted by George Mason University (GMU), the survey found:
 - Nearly half of the 20 respondents indicated that they currently owned the property which they occupied.
 - Forty percent occupied their current location between 5 and 10 years, 30% between 10 and 20 years and 30% for more than 20 years.
 - Eighty-five percent expressed a desire to keep their business in Nauck.



Commercial Businesses in Res. Structures



Green Valley Pharmacy

- Residential Development:
 - North of 22nd Street South, the predominant use is residential development which is characterized by a mix of townhouses and single-family houses.
 - The larger Nauck neighborhood surrounding the study area is a predominantly single family detached housing district. The influx of townhouse development within single family residential areas has raised some concerns with residents in the past.
 - The community has stated a preference to limit higher density development to areas along Shirlington Road south of 23rd Street south.
- Public Uses:
 - The Drew Model School and Community Center was recently opened and further improvements to adjacent parks and recreation areas are being planned. The

-
- community has expressed a need for larger community center space and additional public spaces.
- Opportunities for a large active open space in the Nauck Village Center are limited. However, opportunities for public areas should be considered within the Nauck Village Center and in adjacent areas.
 - Environmental Considerations:
 - The Chesapeake Bay Preservation Ordinance will likely influence development proposed along the south part of Shirlington Road [see Figure 5: Resource Protection Areas (RPA)].
 - As indicated on Figure 5, areas adjacent to the Nauck Village Center have been designated as an RPA. Development within RPAs is subject to certain review and approval procedures to preserve or enhance water quality as well as the functions of the riparian buffer. Development within an RPA is allowed by-right if there is no increase in impervious cover or encroachment within the RPA. Otherwise, proposed development within an RPA is subject to the exceptions process, where the existing condition of the RPA and the impacts of the proposed development on the RPA are reviewed and mitigation measures are required to protect water quality. The required Water Quality Impact Assessment (WQIA) is the tool used to evaluate the exception request.
 - The Ordinance contains a provision for designation of areas as Intensely Developed Areas (IDAs). IDA designation allows for development within an RPA without an exception, regardless of any increase in impervious cover or encroachment. IDA designation for portions of the Shirlington and Nauck areas may be desirable to facilitate redevelopment along these corridors. However, the WQIA is still the required tool to evaluate the impacts of the proposed project on the RPA and water quality. In situations where the RPA and water quality are already substantially degraded, IDA designation is unlikely to alter the mitigation measures required. The process for reviewing proposed development within IDAs is a bit more streamlined, though, because an exception is not required.
 - Overall, given the generally degraded condition of the RPAs within the Shirlington and Nauck corridors, redevelopment within these corridors should provide opportunities to enhance riparian function and water quality.

Analysis

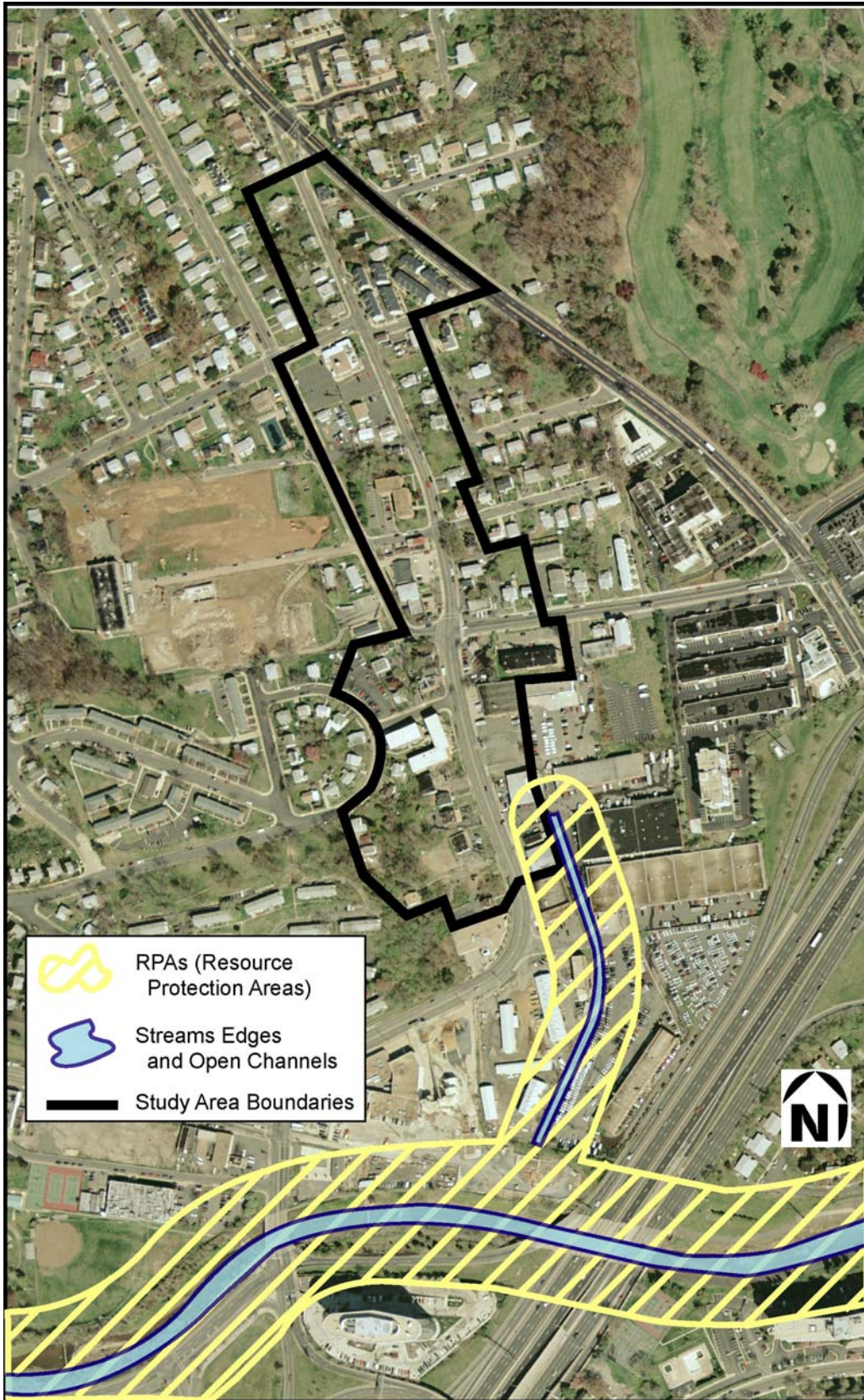


Figure 5: Resource Protection Areas (RPA)

Urban Design

A street's visual and physical environment is created by the relationships among buildings, land uses, roadways, streetscape, open space, physical conditions and the people who use it. How well these individual elements function together determines the image that a street conveys to those who walk, shop, work, live or drive along it. Whether a street acts as a unifying element or as a barrier to the surrounding neighborhoods largely depends on whether the environment attracts people or drives them away. The study finds the following (see Figure 6: Urban Design Analysis):

- The intersection of Shirlington Road and Glebe Road does not provide any sense of entry into the neighborhood.
- Newer townhouse residential development reflects a change in potential development patterns.
- Community resources like the Martin Luther King Center, and YMCA could benefit from visual reinforcement and improvement as components of the neighborhood.
- Current development in the study area includes several kinds of uses, including churches and small businesses (i.e., barber shop, auto sales establishments and service and repair shops). These types of development reflect a haphazard mix of business types and uses and do not relate to each other along the street.
- The pharmacy structure at the main intersection is of cultural historical significance to the neighborhood.
- The architectural style of existing commercial and industrial buildings in the study area is non-descriptive, and many of the buildings are obsolete, deteriorated, poorly built and unattractive.
- Industrial uses to the south negatively impact the residential area.
- Facades of retail and industrial buildings are generally in poor condition and few have undergone renovation.
- The study area contains a few buildings and community facilities that could serve as landmarks, such as Macedonia Baptist and Lomax AME Zion Churches, and the Drew School is located adjacent to the study area.
- The infrastructure shows signs of neglect. Sidewalks along major streets are either missing or are very narrow with numerous curb cuts and no street trees. Street furniture within the commercial/industrial area is non-existent.
- Commercial uses directly abut residential development potentially creating transition problems between these uses.
- The Charles Drew Elementary Model School frontage along Kenmore Street is an opportunity for open space and recreation.
- The circulation at the key intersection of Shirlington Road and 24th Road South is confusing and could be improved.
- Steep topography on the west side of Shirlington Road south of 24th Road South may impact development.

Analysis

- The Dunbar Homes development to the south of the study area is under consideration for redevelopment and should be studied in the next phase.
- The parking lot and food distribution center, associated with the Martin Luther King Center, located at the intersection of Kenmore Street and 24th Road South, could be better designed for this kind of use.

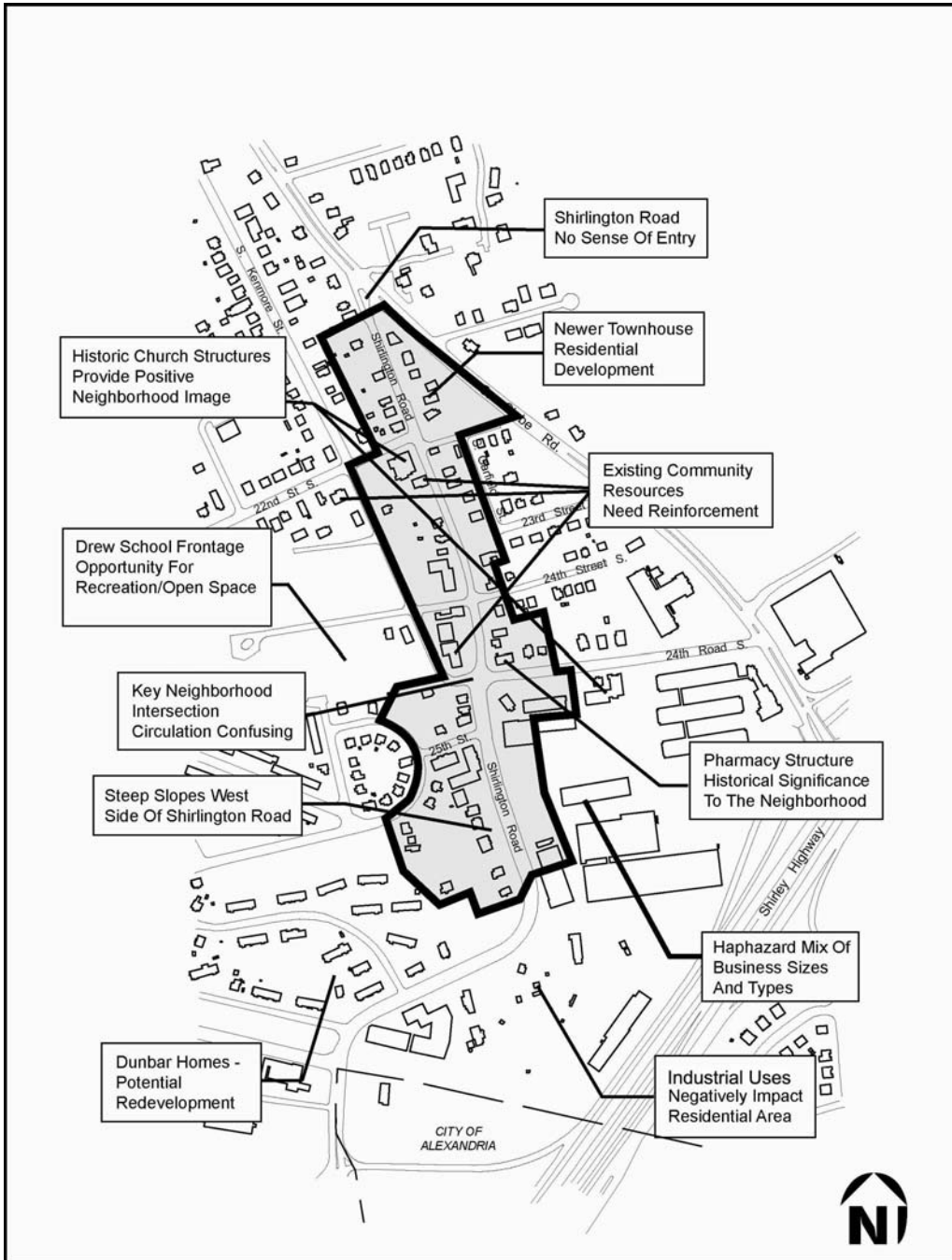


Figure 6: Urban Design Analysis

Transportation

A transportation study was conducted with the County by PBS&J in the fall of 2002 to gain an understanding of existing traffic conditions and to develop strategies for the Nauck, Shirlington, Four Mile Run area. The intent was to understand how anticipated growth in surrounding areas and different development options within the study area might impact local traffic conditions. The area covered by the transportation study extended considerably beyond the Nauck Village Center boundaries and included Four Mile Run Drive, Shirlington Road, Arlington Mill Drive and key locations along Columbia Pike and Glebe Road (see Figure 7: Study Intersections). For a more detailed description of findings and recommendations, see Appendix B. Steps in the PBS&J study included the following:

- Identification and evaluation of existing traffic conditions and sources of traffic generation.
- Model development and evaluation of traffic conditions for the year 2025 for development build-out under the existing “by-right” zoning and under a range of five preliminary alternative land use scenarios.
- Development of consultant recommendations including transportation system improvements for short, intermediate, and long term implementation. These recommendations included consideration and specification of moderately aggressive travel demand management measures and incentives; shared/reduced parking approaches; and increased investments in transit, bikeways, pedestrian walks and pedestrian-friendly environments.

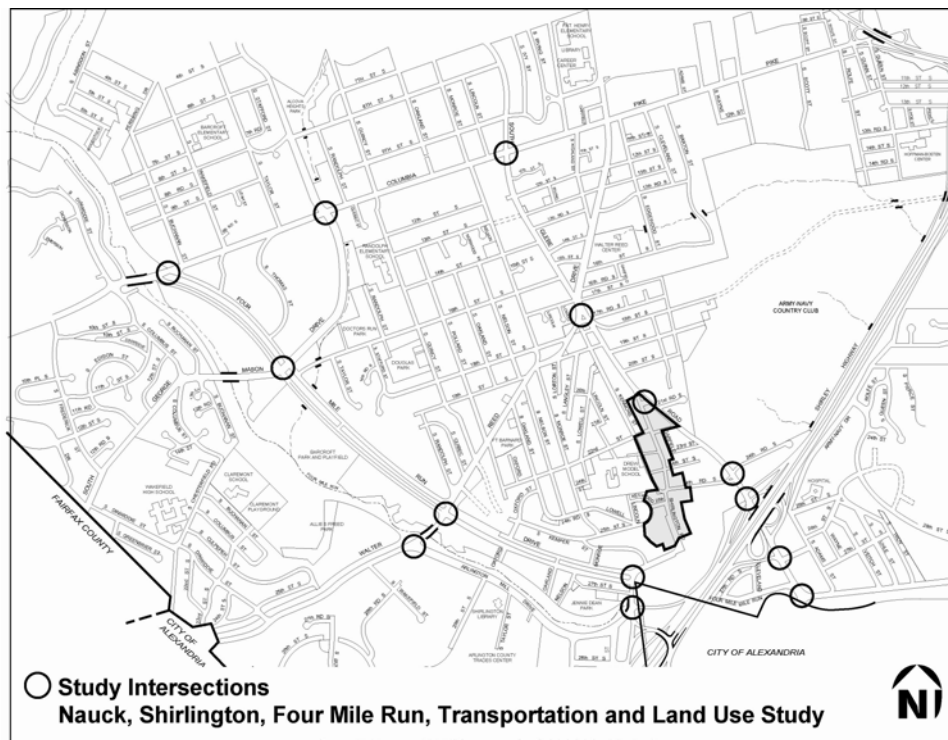


Figure 7: Study Intersections

Analysis

Major findings from the PBS&J study included the following:

- The amount of traffic generated outside of the study area by the year 2025 will continue to contribute the greatest impact on traffic conditions within the study area. The impact of externally generated traffic will be so significant that variations in the amount and location of new development within the study area will only slightly impact the total volumes being experienced at key intersections.
- Three possible roadway improvements considered did not alleviate traffic congestion issues but simply shifted the delay from one place to another within the study area. Therefore, these potential improvements were not recommended. The items considered were:
 - Reconnecting Four Mile Run Drive east and west of I-395
 - Relocating the Southbound off ramps from I-395 at Arlington Mill Road
 - Redesigning certain aspects of Shirlington Circle which includes the on and off ramps to I-395 and Quaker Lane.
- Beyond a certain point, improved traffic conditions can only be obtained by placing added emphasis on transit, travel demand measures, and other measures beyond mere roadway improvements.

Major recommendations from the PBS&J study included the following:

- A number of short-, intermediate-, and long-term transportation system improvements and travel demand management approaches are recommended to alleviate existing and future traffic issues. The study emphasizes developing a balanced, holistic transportation system improvement approach (roadways, transit, pedestrians, bicyclists) and estimates the costs of the various components.
- Creation of a new street network in the area east of Shirlington Road and South of 24th Road South. This “urban grid” would alleviate through traffic impacts in the ‘Nauck Village Center’ corridor along Shirlington Road. Furthermore this grid would reinforce creation of a pedestrian friendly environment for the potential development in the area east of Shirlington Road.

The PBS&J study also identified several planned or existing transportation projects in and/or around the study area. Two of the major projects are just outside of the study area and described below (all transportation-related projects are shown on Figure 8: Planned or Existing Transportation Improvements):

- The portion of Four Mile Run Drive from Columbia Pike to Shirlington Road has been specified as one of three pilot street segments in the county’s Arterial Traffic Management (ATM) Study. Arlington County has contracted with Kimley-Horn and Associates to examine future travel levels, develop a new street functional classification system, and to develop strategies and measures for managing transportation along arterial roads. The measures and strategies for selected streets will be developed through a community participation process. The planning process would embrace traffic safety, pedestrian and transit access and bicycle issues in the County. The process would seek to provide citizens and the County with a framework for arterial roads that are multi-modal

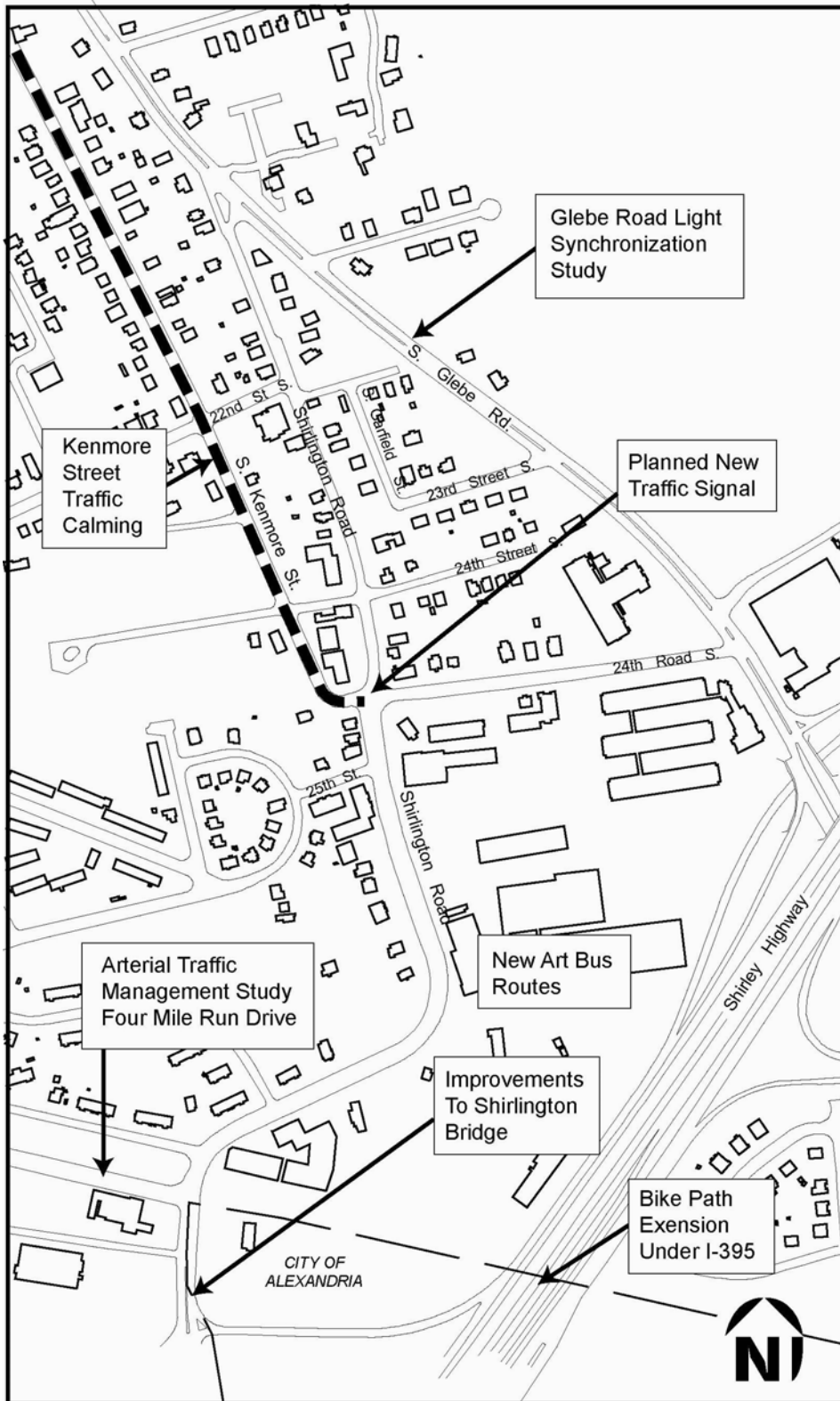


Figure 8: Planned or Existing Transportation Improvements

Analysis

and fit better in the communities they serve. The study began in October 2003 and will be completed in Late 2004. The end product as it affects the Nauck community will be a confirmation and/or further refinement of the design of the Four Mile Run arterial roadway section, building upon the work in the earlier referenced PBS&J study.

- A new Bus Transfer Station is being designed to be located in the Village at Shirlington. It will be the first of its kind in Arlington and only the second in Northern Virginia. In addition to providing a safer, weather-protected waiting area, it is designed to improve Shirlington's pedestrian environment and encourage bus ridership in an area not served by Metrorail. The transfer center will include passenger information systems to make it easier for patrons to use the bus and may provide for a future transit store. The site, now a parking lot, is across from the office building near the intersection of 31st Street South and S. Randolph Streets. Pursuant to actions currently underway, bus service from this location will be expanded to encompass over 400 scheduled weekday trips within the Shirlington Highway corridor, Arlington and Eastern Alexandria. The PBS&J study called out the need for improved pedestrian access, via a new sidewalk on the eastern side of Shirlington Road over the Four Mile Run stream and to the new Bus Transfer Station.

Economics

Arlington County has a vibrant growing economy, capitalizing on a central location, strong neighborhoods and superior transportation connections to the Nation's Capital and Northern Virginia's technology-driven economy. Depending on the business of a site seeker, the Shirlington Road area in Arlington has much to offer.

- Vacancy rates remain low in the study area.
- Housing prices and rents continue to climb.
- Market pressures (low vacancy rates/increasing rents) have displaced the majority of industrial uses in favor of service commercial uses which pay higher rents (current zoning accommodates these use conversions).
- The old age and/or poor condition of existing structures as well as their substantially below maximum allowable lot coverage ratios could encourage redevelopment/conversion of existing land uses "by right" and in patterns not consistent with the community's vision or goals.
- Redevelopment could become more sporadic and haphazard under current conditions, limiting the likelihood of optimal redevelopment (see Figure 9: Potential Redevelopment Sites).

Demographic Trends Affecting Economic Development (see Appendix C for a more detailed discussion on demographics and a map of the area):

- A potential demand for owner-occupied housing units is indicated by the stability of the existing residential neighborhoods in the areas immediately surrounding Nauck Village Center. (Surrounding area is defined by Census Tract 1031):
 - There is a higher proportion of families in Census Tract 1031 compared with the County as a whole, and households and families tend to be larger.
 - The percentage of residents in Census Tract 1031 who have lived in the County for five years or more is significantly greater than the percentage for the County as a whole.
 - The housing vacancy rate in Census Tract 1031 is lower than the overall County housing vacancy rate.
- The median household income in Census Tract 1031 is only 70% of the County median household income, indicating potential demand for more moderately priced residential products.

Preliminary Market Analysis (see Appendix D for a Market Study conducted by Faithworks, Inc. for the Shirlington Road Advisory Board):

- The market could accommodate immediate and substantial residential development.
- Residential demand is for a broad range of products and densities including townhouses, garden apartments and mid-rise units both for rent and sale and at a range of prices with a particular need for affordable dwelling units.

Analysis

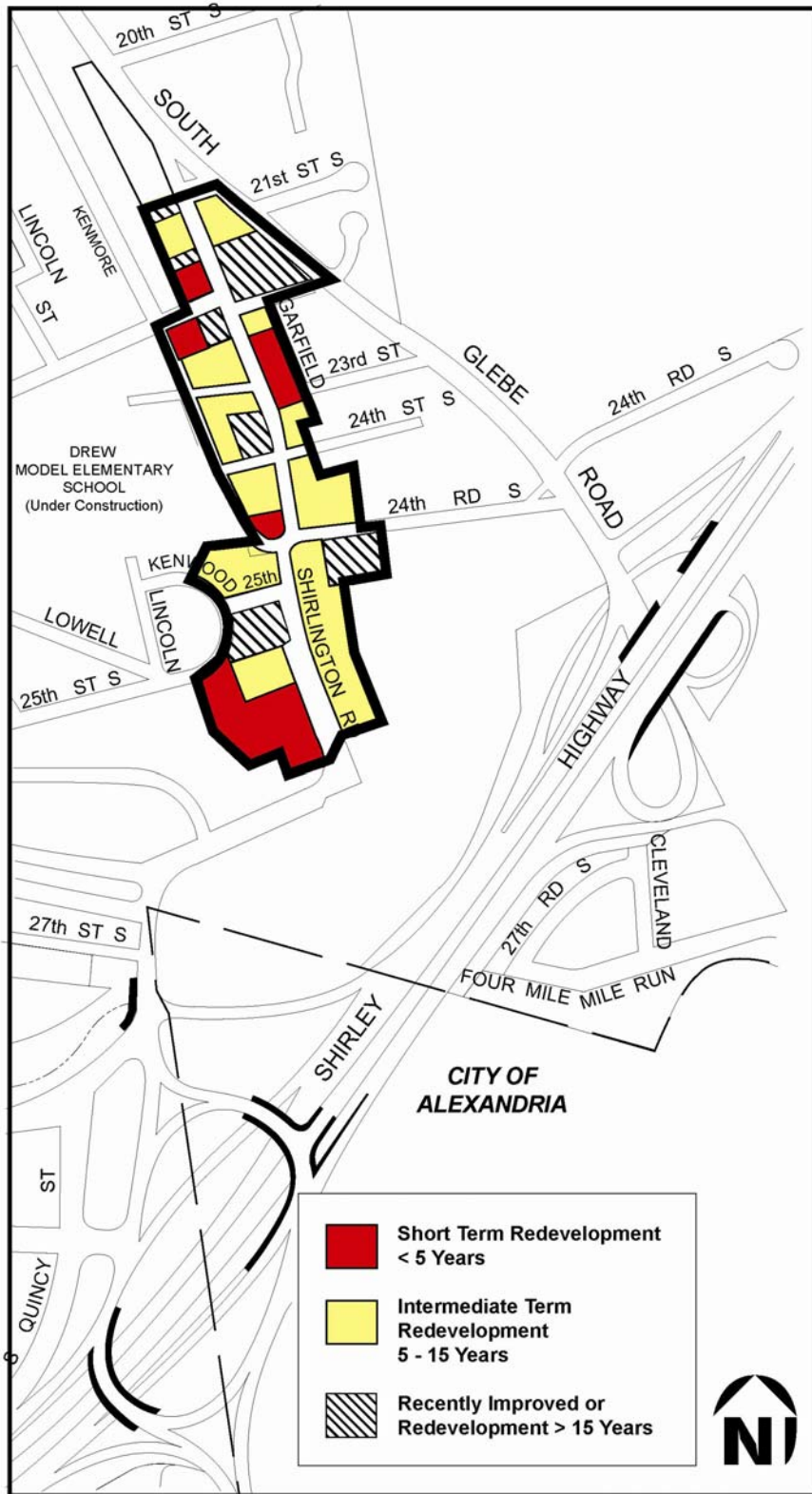


Figure 9: Potential Redevelopment Sites (Forecast of Probable timing based on Current Information and Site Conditions)

- The expansion and planned expansion of public and semi-public uses such as schools and churches should enhance the areas image and appeal.

According to the Industrial Land Use and Zoning Study, accepted by the County Board in August, 2000, the market for industrial uses in the County is diminishing. In general, industrial districts are occupied by service commercial uses which take advantage of the lower performance standards and expectations associated with industrial areas.

- Industrial zoning at the south end negatively affects the larger study area's image and attracts uses to the study area that limit the opportunities and market for neighborhood and pedestrian friendly retail and housing.
- An increase in local population, achieved through an increase in dwelling units, will likely be needed to support the long term stability of any new local retail.
- Market indications point to potential longer-term demand for a mid- to large-sized grocery store within the vicinity of Shirlington Road and Four Mile Run Drive, or alternatively Glebe Road and 24th Road South.

Barriers to Redevelopment:

- Environmental issues and uncertainty of impacts may limit development potential.
- Infrastructure and transportation resources need upgrading.
- Current zoning allows some redevelopment, but not at densities which provide sufficient profit incentive.
- Uncertainty regarding future zoning has many property owners in a holding pattern.
- Land control issues limit the potential for timely and coordinated redevelopment.

Analysis

Vision, Goals & Concept Plan

Vision & Goals

Nauck Village Center will be a distinct yet closely interrelated part of several special places, including adjacent areas along I-395 and the Four Mile Run stream, and the expanding Village of Shirlington. Together they will comprise a major mixed-use activity center with new enhanced standards for amenities, appearance, range of residential choices and diverse localized environments. These areas will all be interconnected internally and regionally by excellent pedestrian, bicycle, transit and vehicular access. They will collectively provide a very balanced range of housing, recreation, employment, community services, retail and entertainment opportunities to the southern portion of Arlington County and adjacent areas. They will provide important benefits to the Arlington economy and community through strengthening the fiscal, economic and residential base by optimizing the re-use of obsolete and underutilized areas.

Within this larger framework, the Nauck Village Center will cater primarily to the present and future Nauck neighborhood residents and businesses, while also serving, on a more limited basis, a larger regional audience. Through a series of workshops and planning charrettes, residents of the Nauck community developed and approved ten Vision and Goal statements described in the Shirlington Road Revitalization Study (prepared by Matta Architects/The Lukmire Partnership, Inc. in March, 2003). These statements provide the overall framework and guidance for future development in the Nauck Village Center area and are illustrated on Figure 10: Shirlington Road Revitalization Study Vision and Goals).

1. Create an entryway/gateway site at the Glebe Road/Shirlington Road intersection.
2. Install traffic calming devices if they qualify under NTC guidelines at northern entry gateway and on Shirlington Road just north of 24th Road South.
3. Create a neighborhood business center at the four corners location (Shirlington Road and 24th Road South) to include retail and service oriented commercial uses.
4. Ensure adequate parking.
5. Develop Shirlington Road south from the Town Square east side street frontage of Shirlington Road as higher density housing, mixed-use, retail, commercial and housing (4-5 stories north of 25th Street South and 5-8 stories at the south end with setbacks above 6 or 7 floors to match heights on west side of street) and increasing density and heights eastwards towards I-395.
6. Create pedestrian-friendly, tree-lined streets throughout the study area with a boulevard and wide sidewalks south of Town Square. Block faces around Town Square to include wide sidewalks, trees, and appropriate street furniture.
7. Develop Shirlington Road south from the Town Square west side of Shirlington Road as higher density housing with some ground level retail. Building heights 4-5 stories in block of 25th Street South to 5-8 stories at south end (setbacks above 6th floor).

Vision, Goals & Concept Plan

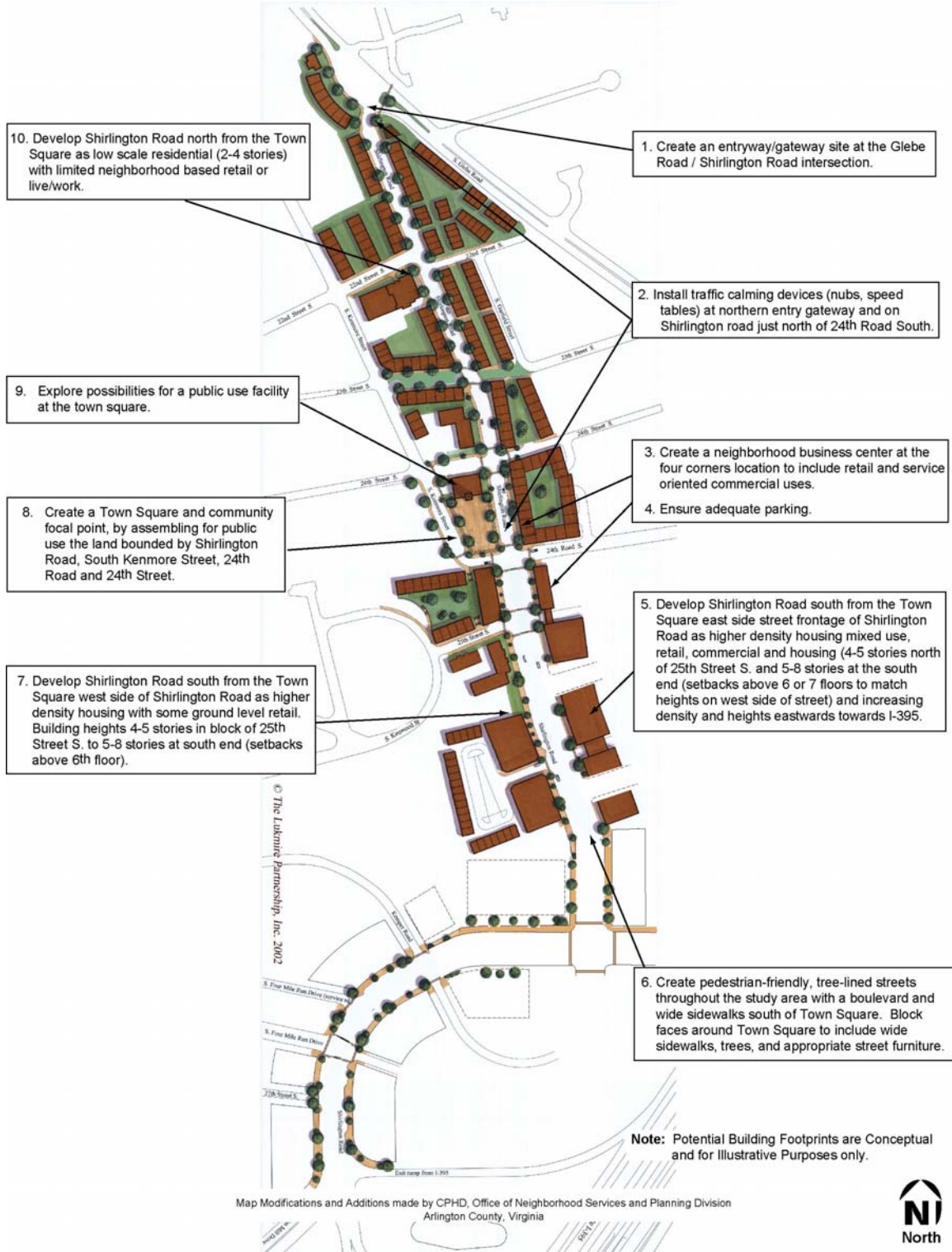


Figure 10: Shirlington Road Revitalization Study Vision and Goals

8. Create a Town Square and community focal point, by assembling for public use the land bounded by Shirlington Road, South Kenmore Street, 24th Road South and 24th Street South.
9. Explore possibilities for a public use facility at the Town Square.
10. Develop Shirlington Road north from the Town Square as low scale residential (2-4 stories) with limited neighborhood based retail or live/work.

Concept Plan

The Nauck Village Center will be a mixed use pedestrian friendly “Main Street” extending north/south along an improved Shirlington Rd. from a “Town Square” focal area centered just northwest of Shirlington Road and 24th Road South. This centrally located “Town Square” will be predominantly anchored by public uses, including a community facility, public parking, playgrounds, meeting areas and community rooms. This site could also include private residential and commercial development. The “Town Square” will be bordered by 15,000 – 25,000 square feet of “village” oriented ground floor shops, with one to 3 floors of housing or office above. This Nauck Village Center concept incorporates and extends the work of the Nauck community visioning process documented in the Shirlington Road Revitalization Study, prepared by Matta Architects/The Lukmire Partnership, Inc. in March, 2003 (see Figure 11: Concept Plan and Figure 12: Illustrative Plan).

Concept Plan Elements

Land Use and Height

- “North” - Shirlington Road north of 22rd Street South, 2-3 story building heights (inclusive of eaves). The residential character would be maintained with townhouses.
- “Central” - Shirlington Road between 22nd Street South and 24th Road South, up to 4 stories building heights (inclusive of eaves). The properties facing the Town Square generally should maintain an uninterrupted first floor retail street front, with residential and/or office above.
- “South” - Shirlington Road south of 24th Street South, building heights of 4-5 stories increasing to 6-8 stories going south from 24th Road South, convenience retail and services encouraged on first floor with residential above. Some office use encouraged on east side of Shirlington Road, integrated with the residential, as a transition to the area closer to I-395.

Housing

- Predominant housing types are anticipated to be townhouse style and multistory wood framed multifamily buildings (potentially including condominiums or apartments) increasing in density towards south end of Shirlington Road.
- There should be a wide variety of ownership and rental types as well as price levels. Affordable units for sale or lease; style and price ranges are anticipated due to incentive programs.

Retail

- “Town Square Center” – the community’s principal shopping, entertainment and social core will be concentrated around the Town Square Center by requiring continuous ground level retail frontage on both sides of Shirlington Road from 25th Street

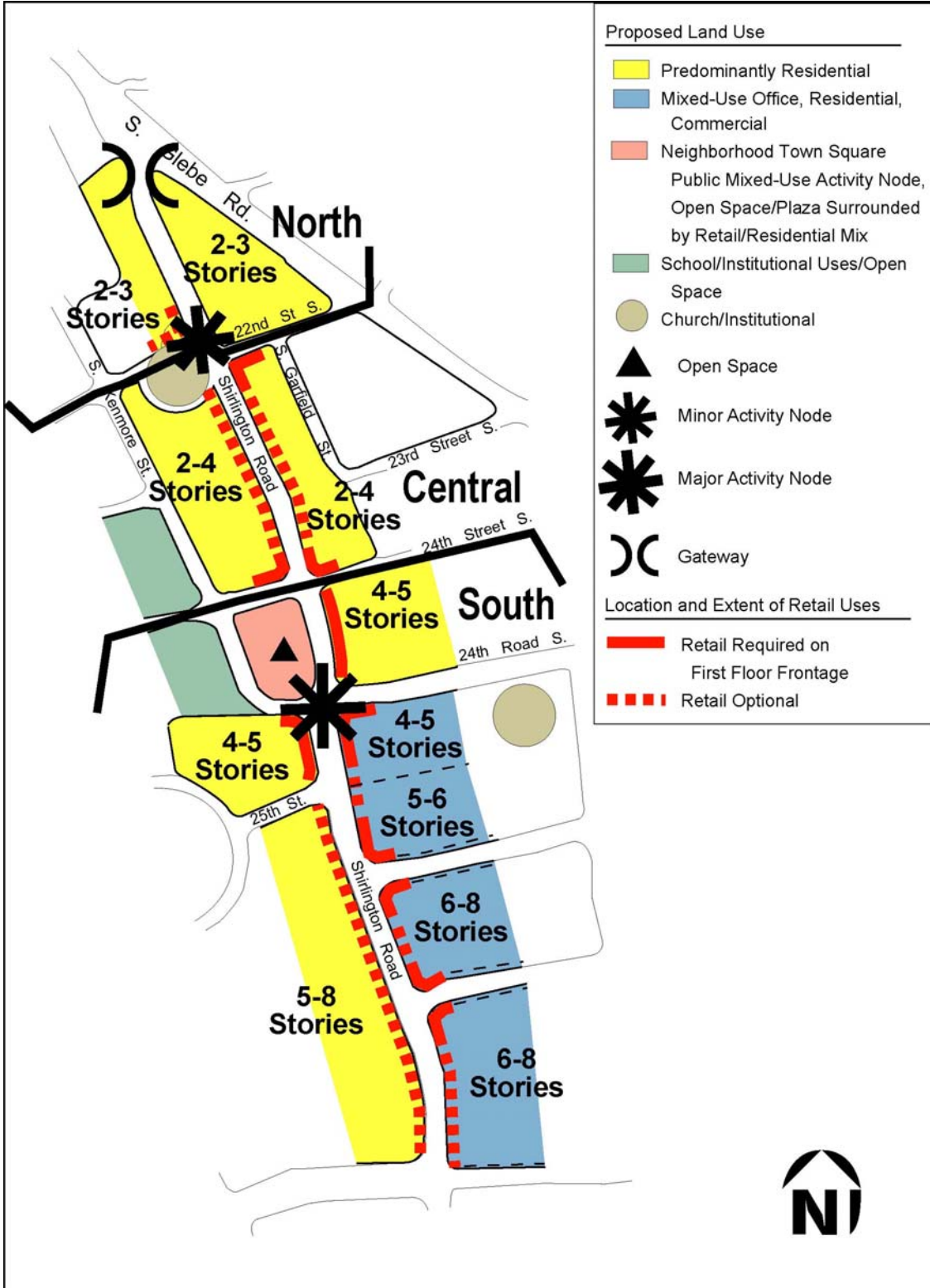


Figure 11: Concept Plan



Note: Potential Building Footprints are Conceptual and for Illustrative Purposes only.



Figure 12: Illustrative Plan

Vision, Goals & Concept Plan

South to just north of 24th Street South. The retail frontage on the west side of Shirlington between 24th Street South and 24th Road South (the Town Plaza) may be broken in this block by the presence of public open space/plaza and/or community facilities, but retail may also be present elsewhere on this block depending upon the final design configuration. The required retail at the corner locations of Shirlington Road and 24th Street South, 24th Road South, and 25th Street South should also be required to wrap around the corners onto the cross streets a distance of at least 25 feet from the Shirlington Road frontage.

- “Macedonia Baptist Church” node - an additional smaller retail/community node centered at Shirlington Road and 22nd Street South should be encouraged.
- “Street Corner Retail” - would also be required in the bases of buildings on the east side of Shirlington Road south of 24th Road South to serve the higher densities anticipated there and further to the east, and help animate pedestrian activity along Shirlington Road in this section.
- “Retail Optional” - additional small scale retail and community uses (such as individual small shops in the 1,000-3,000 sq. feet size range; live-work units; larger non-profit community oriented organization uses) are encouraged, but not required, along the full frontage of Shirlington Road south of 22nd Street South in the sections shown on Concept Plan as “Retail Optional.”



Possible example of the area between 22nd Street South & 24th Street South



Possible example of the Eastern Edge of Shirlington Road South of 24th Street South



Vison, Goals & Concept Plan



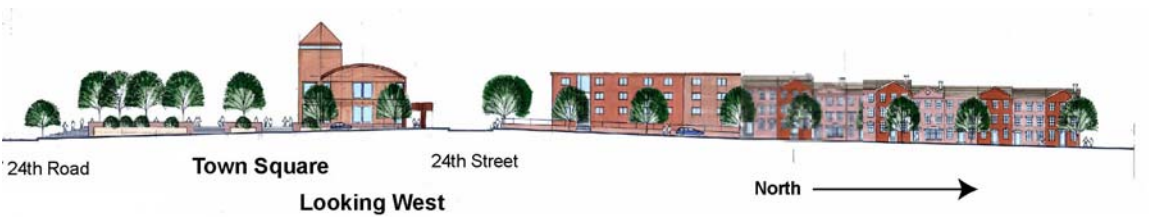
Possible Town Square Example of Residential over Retail



Possible Town Square Example of Residential over Retail



Town Square Concept



Streetspaces and the Pedestrian Environment

The streetspace is an important part of a vibrant pedestrian environment. To this end the general guidelines are proposed for streetspace cross-sections along Shirlington Road. Elements of the cross-sections may be placed on private property. In these cases, easements or other permanent arrangements will be necessary. If necessary to accommodate small development parcels, adjustment of sidewalk width may be considered. These exceptions can be evaluated through the review process.

- The future Shirlington Road will have a distinct character that changes to address the type of development located along its frontage. The northern end, at the intersection with Glebe Road, is intended as a gateway to the Nauck neighborhood. This area is planned for two and three story residential buildings. A smaller sidewalk of six feet with a five foot planting strip is in keeping with the residential character of this northern portion of Shirlington Road, south to 22nd Street South. South of this location, the sidewalk width would be ten feet with a five foot planting strip. A curb to curb section of 30' would include two travel lanes and parallel parking on the east side of the street (see Figure 13: Streetspace Cross Section A).
- The next section of Shirlington Road fronts on the proposed 'Town Square' on the west and on development with retail on the first floor and 3-4 floors of residential above on the east. This section calls for a wider sidewalk with a build to line for the retail on the east. A planting strip or tree pits would allow for street trees. The western frontage will require further study in conjunction with the detail design of the town square. At a minimum it will have a 10' sidewalk with a 5' planting strip for street trees. The curb to curb section will include two travel lanes and parallel parking on both sides of the street (see Figure 13: Streetspace Cross Section B).
- The area below 24th Road South is expected to have the most change. With a potential of buildings 6-8 stories in height, a new street section will need to provide the pedestrian and driver relief from the potential enclosure of building walls. The sidewalks here would be anticipated to be 10' wide with a 5' planting strip or tree pits for street trees. The curb to curb section will include two travel lanes with a median/turn lane in the center, a 5' bike lane in both directions, and parallel parking on both sides (see Figure 13: Streetspace Cross Section C).
- The Nauck Village Center Action Plan proposes to establish Shirlington Road as a vital mixed-use pedestrian environment. In addition to the streetspace recommendations described above for Shirlington Road, it is important to ensure that existing residential neighborhoods have strong pedestrian connections to the activity centers along Shirlington Road. The evaluation of project proposals (particularly through the Special Exception process) should place emphasis on the need for improved pedestrian connections. In the area south of 24th Road South, it is particularly important to address the potential for pedestrian linkages between the residential areas west of Shirlington Road and new development along and to the east of Shirlington Road.

Vison, Goals & Concept Plan

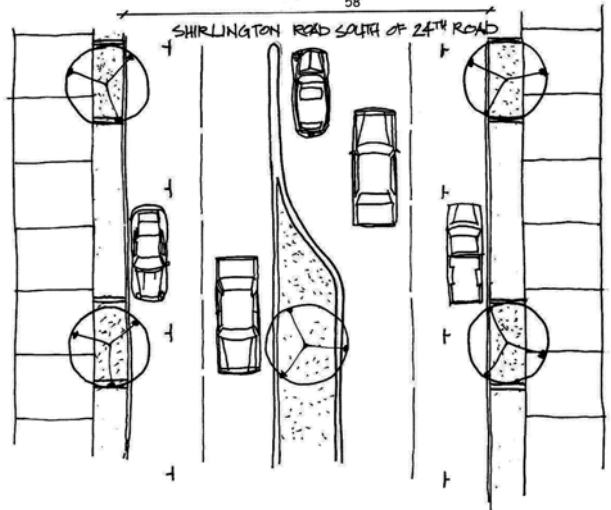
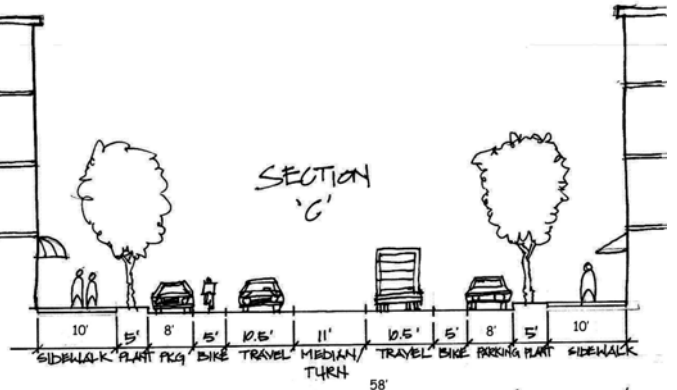
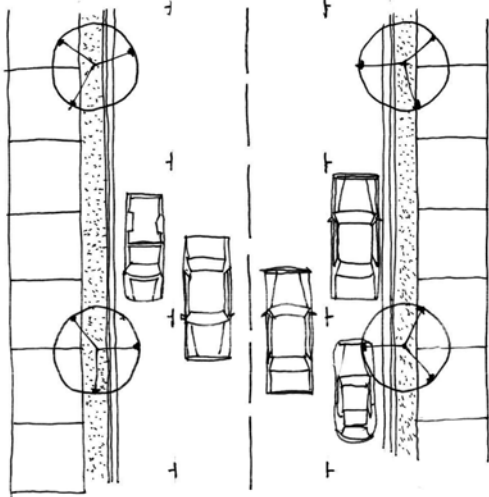
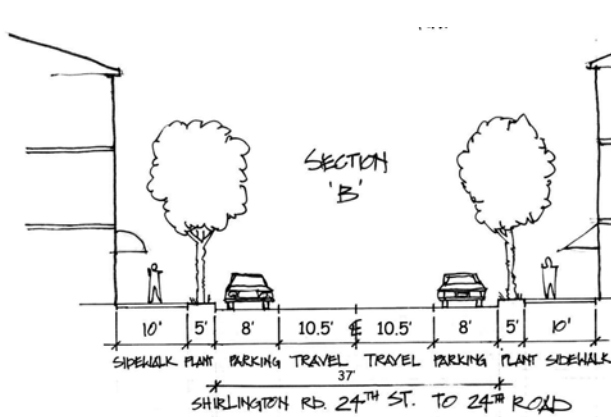
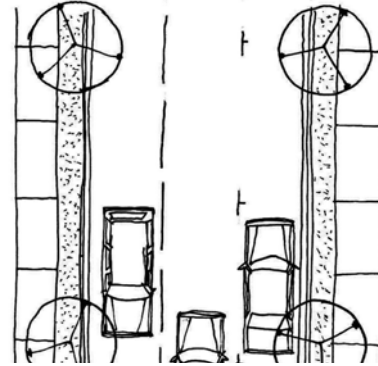
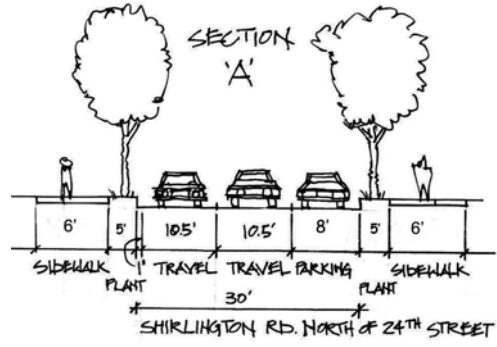
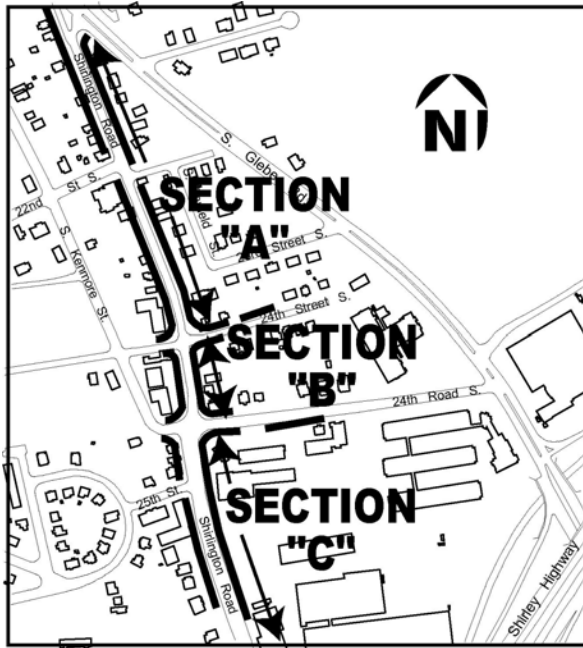


Figure 13: Streetspace Cross Sections

Urban Design Guidelines

The design of Shirlington Road's visual and physical character should be organized and coordinated to encourage revitalization and the development of active, lively, public space while also maintaining appropriate space for vehicle deliveries, parking, local access and through movement. The design goal is to create a strong identity and positive image for Shirlington Road's commercial and residential neighborhood by effectively integrating the physical and visual aspects of new development with existing buildings and uses to create public and private spaces that will be aesthetically pleasing, functional, comfortable and inviting. To achieve this goal and to ensure consistency and coordination of street treatment throughout the revitalization process, the following guidelines are recommended for the design and the physical features and systems along Shirlington Road.

Architecture

Architectural elements include new structures, storefront renovations, and also items that dominate the urban scene, such as awnings and walls. The following guidelines aim toward ensuring a coordinated and unified urban environment.

Height

Height shall be in accordance with the Nauck Village Center Concept Plan (consistent with the Shirlington Road Revitalization Study – Proposed Vision and Goals).

Massing

- Extremely long buildings should be avoided. Vertical separation of design treatment should be used where a building is longer than 100 feet.
- Building bulk should be compatible to existing and proposed adjacent buildings.

Materials

- Masonry or wood should be the predominant external material for buildings.
- Other popular materials could also be introduced and appropriately used on buildings, such as glass, metal frame, synthesized wood materials, etc. These materials should typically play a minor role in exterior design, generally not exceed 30% of visible area from adjacent streets.

Placement and Setback

- South of 22nd Street: buildings should be placed at the back of the sidewalk along the streets and may physically attach or connect neighboring buildings on both sides.
- North of 22nd Street: buildings may have a 10' front yard setback from the back of the sidewalk.
- Building design should respect topography and street elevations. Where slopes are significant, the building storefront should be designed in sections with vertical treat-

Urban Design Guidelines

ment to reflect the elevation change to maintain the storefronts along the street, while the parking and main uses located behind may remain in larger floor plans.

Roof Treatment

Roof treatment should not compete with adjacent rooflines.

Color

Accent colors could be used to enhance the variety among buildings.

Style

Design of new development should respect neighborhood styles.

Building Stepback

Stepback above 6th floor south of 24th Road South shall be a minimum of 15 feet.

Storefront

- Storefronts should consist of entrance doors, glass windows, display windows and other eye catching design elements.
- Storefront should contain see-through materials for no less than 50% of the total 1st floor front wall area.
- Blank wall designs for storefront should be avoided.
- Buildings fronting on the Town Square may have a gallery, arcade or loggia (colonnade) enhancing the retail frontage depending on their design and creativity.

Awnings/Canopy/Window Shading

- The use of awnings is encouraged for first floor uses.
- Design and color of canopies may vary by building ownership, and are encouraged to vary within single building ownership.
- Awnings should be designed to be in proportion with the building, appropriately applied to the building, and compatible with the character of the building.
- Aluminum and metal type awnings are prohibited.

Open Space System

The following guidelines are to ensure the development of attractive and functional open space facilities that provide visual interest and serve the recreational and leisure needs of workers, shoppers and residents. Public spaces should also be designed in such a way that they provide a safe and secure environment for pedestrians. They apply to both pedestrian walkways and gateways as well as any other public or private open space within the Nauck Village Center.

Location

The Town Square is strategically located to create a sense of place and to form an activity center for the Nauck neighborhood.

Function

The Town Square will function as an urban version of open space that will accommodate a focal element for the surrounding commercial and retail uses.

Physical Form

- Plaza should be framed by buildings to serve as the foreground and active space.
- Plaza may contain partial roof structures or pavilions.

Design Elements

Plaza could consist of pavement and lawn areas, pavilion, fountains, public art, seating areas, trash receptacles, lighting, plantings, and flags and banners. Public safety considerations should be a key component in the design of all public spaces.

Parking

The guidelines below address the standard treatment of parking throughout the study area.

On-Street

- On-street parking should be provided on all streets within the Nauck Village Center Special Revitalization District.
- Each parking space shall be standard parallel size.
- Street parking spaces should be shaded by street trees and/or landscaping at intervals of every 2-3 parking spaces along the streets.
- Loading spaces should be minimized in number and dimension along streets.

Off-Street

- Surface parking should be hidden from view from the street.
- Any parking decks/garages fronting Shirlington Road should have façade treatments (landscaping, walls, windows, screening devices) that hide open car areas and lead the structure to blend in with surrounding residential/retail building facades. Blank wall treatments shall be avoided. Parking areas should be well lit and managed in such a way as to ensure public safety.
- Access to parking lots, garages or structures from Shirlington Road shall be limited. Access should be limited to these facilities from side or parallel streets.

Streetscape

The streetscape guidelines are designed to foster the creation of a “neighborhood village” within the Nauck Area with pedestrian-scale streetscape improvements throughout. These guidelines will help establish a pleasant, attractive environment which is compatible and visually integrated with the surrounding neighborhoods.

Sidewalk

- Sidewalks should be designed to complement and encourage pedestrian activity.
- South of 24th Road South sidewalks should be 15’ wide with street trees in 5’ x 12’ tree pits. Tree grates could be utilized in high traffic areas. Tree grates should be placed six inches from the back of the curb with the five (5) foot dimension parallel to the curb. Grates should comply with A.D.A. standards. Due to limited parcel depth, a reduced sidewalk width should be considered in the block between 25th Street South and 24th Road South in order to accommodate redevelopment.
- Tree pits should be supplied with an appropriate drainage system.
- Between Glebe Road and 22nd Road South sidewalks should be 6’ wide with an additional 4’ Planting Strip at the curb for Street Trees and ground cover *Liriope muscari* (Lillyturf).
- Between 22nd Road South and 24th Road South sidewalks should be 15’ wide with street trees in 5’ x 12’ tree pits. Tree grates could be utilized in high traffic areas. Tree grates should be placed six inches from the back of the curb with the six (6) foot dimension parallel to the curb. The grates should comply with A.D.A. standards.
- Concrete pavers shall be used from the street curb to include the public walkway. The standard paver is Holland Stone, the color shall be “burnie blend” in the herringbone pattern.

Street Trees

- Street trees should be planted in the 4’-5’ planting strip in between the curb and sidewalk.
- The recommended street tree is October Glory Red Maple, *Acer Rubrum*.
- Street trees shall be spaced at a minimum of 30’ on center.

Streetscape Elements

Streetscape elements include furniture, benches, trash receptacles, bollards, signs and lighting fixtures. The furnishings recommended were selected based on durability, ease of maintenance, design quality and compatibility with the Neighborhood Village Concept.

Street Furniture

- Street furniture should be coordinated throughout an individual project and throughout the Nauck Village Center. All metal on pedestrian lights, bollards, trash receptacles, etc. should be black baked on enamel.
- Benches should be placed in both shaded and sunny areas. Seating should generally be oriented towards pedestrian facilities, open spaces or other areas of interest. Grouping of benches is encouraged. The recommended bench is the Victor Stanley, Inc. Bethesda Series, Model S-7, S-13 or equivalent.
- Trash receptacles should be placed in high volume pedestrian areas and should not intrude into the pedestrian pathway. The Victor Stanley, Inc. Model S-42 with spun steel dome, or similar, is recommended.

Public Art

- Public art such as sculptures, monuments, fountains and gateway elements should be placed at key locations of the public-private realms such as the Town Square to mark special places and enhance pedestrian activities and experiences and should coordinate with the Shirlington Road Revitalization Study.
- Art work should be compatible and complementary to the surrounding building environment.

Lighting

- Lighting should be achieved by the use of pedestrian scale lights mounted approximately fourteen (14) feet above the sidewalk, spaced at a distance on-center which, in the opinion of the Department of Environmental Services achieves an appropriate level of lighting. The recommended street lamp is the Carlyle.
- Adequate lighting should be provided at night to provide a sense of safety and security, and enhance the pedestrian experience throughout the area.

Utilities

- All utilities should be placed underground along the streets, placement of utility vaults, boxes and vents should be coordinated.
- Where possible, utility vaults, vents and boxes should be screened with carefully designed landscape or walls. Avoid placing them on sidewalks.
- Where landscape or walls are not feasible, utility equipment should be covered with a fabricated screen that is well designed and visually pleasant.

Signs

- All signs should be well designed and visually attractive.
- Commercial signs should be designed as part of the building they serve. No free-standing commercial signs should be allowed along Shirlington Road. Commercial signs may project from the building they serve into street space along all other short

Urban Design Guidelines

streets to provide those businesses with enhanced visibility. Coordinated sign boards or posts with well designed way-finding signs are highly recommended.

- Directional signs should be integrated and systematically placed at key locations to provide directions to services and facilities of the area.
- Informational signs and temporary information boards should be coordinated and placed at key locations to provide information about the on-going activities in the area.

Implementation

The following actions are recommended to implement the Nauck Village Center Action Plan (also see Appendix E: Implementation Matrix/Impacts):

1. Adopt the Nauck Village Center Action Plan

The purpose of this plan is to establish the overall vision for the Nauck commercial corridor and to provide a framework to guide public and private investment for the physical revitalization of the area. The plan also contains recommendations to help implement this vision, focusing on land use and zoning, urban design, economic development and commercial revitalization, housing, transportation, public infrastructure, and open space. The plan also contains urban design guidelines to help guide design of the physical features and systems within this corridor.

Land Use and Zoning

General Land Use Plan Changes

2. Designate the “Nauck Village Center Special Revitalization District”

A Note should be added to the General Land Use Plan (GLUP) designating the “Nauck Village Center Special Revitalization District” to include the area generally bordered by Glebe Road to the north, the Shirlington Road bend to the south and approximately one block east and west of Shirlington Road (see note a. on Figure 14). A Note on the GLUP should read as follows: “This area was designated the Nauck Village Center Special Revitalization District on July 10, 2004.” All properties within the boundary of this district would be eligible for the special regulations and incentives recommended in this plan and subject to special urban design guidelines. In addition, a paragraph should be added under Special Planning Areas on the GLUP describing the vision and goals for the proposed district. The paragraph should read as follows:

“Nauck Village Center Special Revitalization District

On July 10, 2004, the County Board established the “Nauck Village Center Special Revitalization District” for the Nauck commercial area along Shirlington Road. The overall goal is to revitalize the commercial area and to encourage a balanced range of housing, recreation, employment, community services, retail and entertainment opportunities to present and future Nauck neighborhood residents and businesses while also serving, on a more limited basis, a larger regional audience. The Nauck Village Center Action Plan, adopted July 10, 2004 by the County Board, shall be used as a guide for any future development in this area. Through a series of workshops and planning charrettes, residents of the Nauck community developed and approved the following ten Vision and Goal statements:

Implementation

1. Create an entryway/gateway site at the Glebe Road/Shirlington Road intersection.
2. Install traffic calming devices at northern entry gateway and on Shirlington Road just north of 24th Road South.
3. Create a neighborhood business center at the four corners location to include retail and service oriented commercial uses.
4. Ensure adequate parking.
5. Develop Shirlington Road south from the Town Square east side frontage of Shirlington Road as higher density housing, mixed-use, retail, commercial and housing (4-5 stories north of 25th Street South and 5-8 stories at the south end with setbacks above 6 or 7 floors to match heights on west side of street) and increasing density and heights eastwards towards I-395.
6. Create pedestrian-friendly, tree-lined streets throughout the study area with a boulevard and wide sidewalks south of Town Square. Block faces around Town Square to include wide sidewalks, trees, and appropriate street furniture.
7. Develop Shirlington Road south from the Town Square west side of Shirlington Road as higher density housing with some ground level retail; building heights 4-5 stories in block of 25th Street South to 5-8 stories at south end (setbacks above 6th floor).
8. Create a Town Square and community focal point, by assembling for public use the land bounded by Shirlington Road, South Kenmore Street, 24th Road and 24th Street.
9. Explore possibilities for a public use facility at the Town Square.
10. Develop Shirlington Road north from the Town Square as low scale residential (2-4 stories) with limited neighborhood based retail or live/work.”

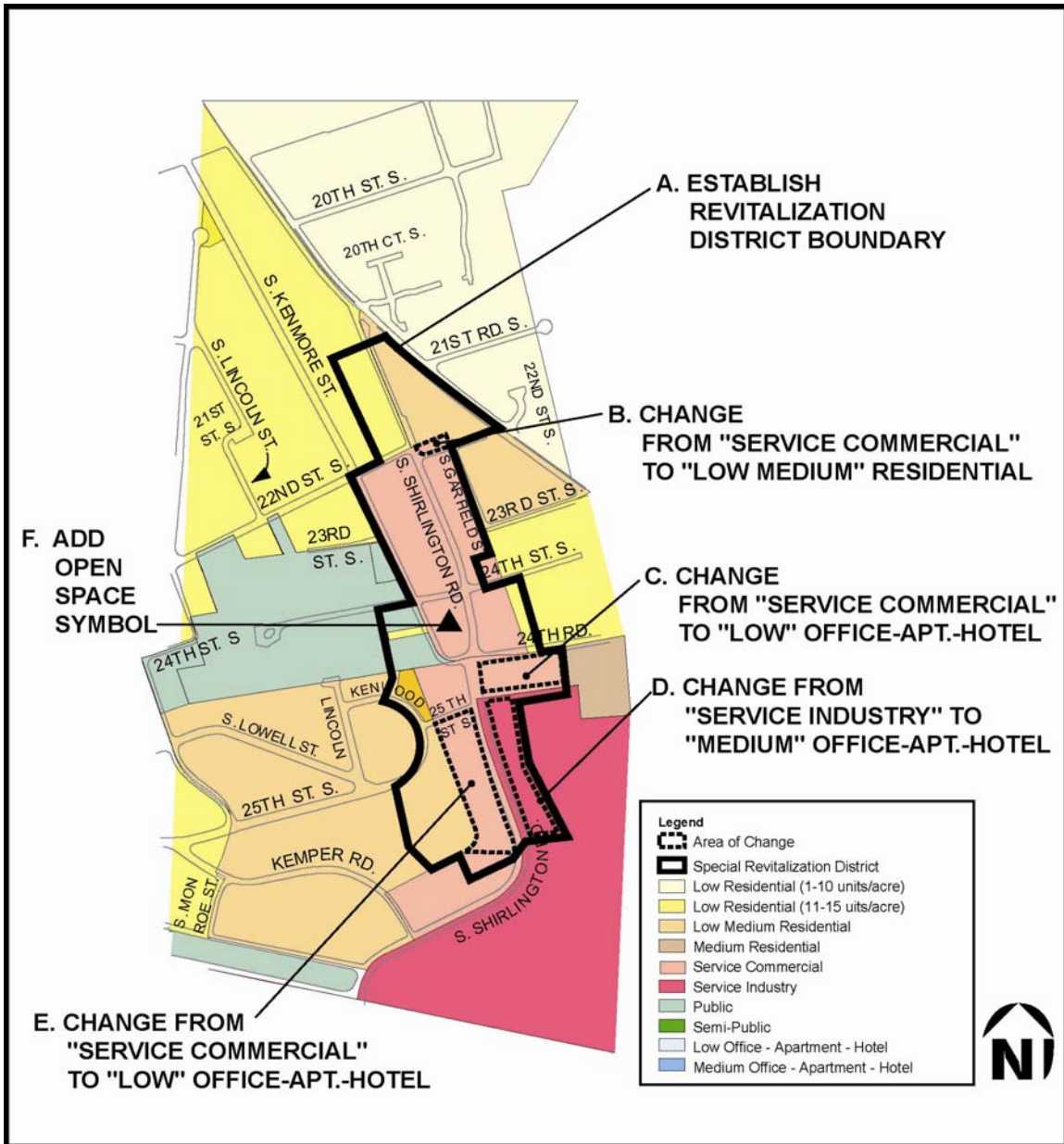


Figure 14: Proposed GLUP Changes

3. Change land use designations on the GLUP.

In order to help implement the new Nauck vision, existing land use patterns on the GLUP should be changed. Changes to the GLUP should include the following:

- Change from “Service Commercial” to “Low-Medium” Residential for the north east corner of Shirlington Road and 22nd Street South to reflect the existing newer residential townhouse development for this location (see note b. on Figure 14).

Implementation

- Change from “Service Commercial” to “Low” Office-Apartment-Hotel” for the south-east corner of Shirlington Road and 24th Road South to encourage greater flexibility of achieving mixed-use projects for this location (see note c. on Figure 14).
- Change from “Service Industry” to “Medium” Office-Apartment-Hotel along the eastern edge of Shirlington Road south of 25th Street South to encourage larger-scale mixed-use developments (including residential), up to six to eight stories for this location (see note d. on Figure 14).
- Change from “Service Commercial” to “Low” Office-Apartment-Hotel along the western edge of Shirlington Road south of 25th Street South to encourage greater flexibility of achieving mixed-use projects for this location (see note e. on Figure 14).
- Add an Open Space symbol (triangle) to the block bounded by Shirlington Road, Kenmore Street and 24th Street South (Town Square site) to encourage affirm potential open space feature for this location (see note f. on Figure 14).

Zoning Ordinance Changes

4. Amend Section 31.A.17 of the Zoning Ordinance to include new provisions under Unified Commercial/Mixed Use Development specific to properties located in the “Nauck Village Center Special Revitalization District.”

While the recently adopted Unified Commercial/Mixed Use Development option conforms to the vision for the Nauck Village Center, it was originally crafted as a “one size fits all” tool for “C-2” areas throughout the County (absent Cherrydale and Columbia Pike Special Revitalization Districts). In order to maximize its effectiveness and benefits within the Nauck Village Center Special Revitalization District, as well as to ensure the most thorough compatibility with the vision possible, amendments to Unified Commercial/Mixed Use Development should include the following:

- On block faces designated as “Retail Optional” or as “Retail Required” (in the Nauck Village Center Concept Plan), maximum total density for mixed-use projects would remain 2.0 FAR. However, the existing restriction for residential uses (maximum 1.1 FAR) would be removed. Therefore, for mixed-use projects a total of 1.6 FAR residential uses would be allowed.
- Additionally, on only those block faces designated as “Retail Optional,” projects that otherwise conform to the intent of Unified Commercial/Mixed Use Developments in regards to form and site design may be constructed as residential only uses at up to 1.5 FAR. In these residential only projects, an additional .5 FAR of residential density would be allowed if the project contained a total of 10 percent of its units as affordable dwelling units (ADUs) as defined by the County.
- On block faces which are not designated for commercial/retail development, projects proceeding under the Unified Commercial/Mixed Use Development option would not be allowed to contain commercial/retail development. Development on these sites could be wholly residential at a maximum density of 1.5 FAR. If such a project agrees to provide at least 10 percent of its units as ADUs (as defined by the County),

then the maximum density would increase to 2.0 FAR. Such developments must comply with the regulations prescribed for Unified Commercial/Mixed Use Development, except those regulations which pertain to the design and location of retail/commercial uses.

- All Unified Commercial/Mixed Use Developments within “Nauck Village Center Special Revitalization District” shall comply with the Urban Design Guidelines contained in the Nauck Village Center Action Plan except as otherwise permitted by the County Board.

The following parking modifications would apply:

- First 1,000 square feet of retail space is exempted from any parking requirement; incremental retail square footage over 1,000 square feet may be parked at 1 space per 500 square feet of retail. However, projects with more than 8,000 of retail space shall meet the normal “C-2” parking requirements for retail.
- Residential parking shall be provided at a minimum ratio of 1-1/8 space per residential unit.
- In addition, by Special Exception Use Permit (Unified Commercial/Mixed Use Development) some or all of the parking may be provided in an adjacent or nearby structure, committed at time of approval; or via an in-lieu cash contribution to a “Public Parking” fund; or adjacent on-street spaces.
- The parking requirements above may be modified through the Special Exception Use Permit Process to reflect shared parking arrangements and/or to address site-related hardships.

Transportation

Transportation Improvements

5. Install traffic light at the intersection of 24th Road South and Shirlington Road.

This improvement is already in process and installation is anticipated during Fall 2004. Located adjacent to the proposed Town Square, a signal at this location should ensure the safe and orderly movement of pedestrians and vehicles.

6. Design and develop improvements to the intersection of Shirlington Road and 24th Road South.

Improvements should address pedestrian safety and ensure efficient circulation in the vicinity of the proposed Town Square. Improvements may include sidewalk nubs, turn lanes, special crosswalks and other items.

7. Add bike route signage on South Kenmore Street north of 24th Road South and add dedicated bike lanes on Shirlington Road south of 24th Road South.

Implementation

The use of alternative modes of transportation should be encouraged. A dedicated bike route will contribute to bicyclist safety. The on-street lane south of 24th Road South is appropriate given the designation of this stretch of road as an arterial.

8. Design and develop gateway features at the intersection of Glebe Road and Shirlington Road as well as at the intersection of 24th Road South and Glebe Road.

“Arrival” gateways would identify and provide an “entrance” to the core of the Nauck Village Center area. The design of the gateways should not be confined to aesthetic elements. In some cases, a re-working of the subject intersection may be required to achieve a safer pedestrian environment and to ensure a safe and efficient flow of vehicular traffic. These gateways would be designed to slow down through-traffic on Shirlington Road and are consistent with the vision for the area. Planning and design work for these gateway features are proposed to begin immediately following adoption of the Plan and the community’s concurrent request for \$1.5 million from the Commercial Revitalization Fund (see Economic Development in Implementation). Project funding and construction could be recommended for initiation upon achievement of certain threshold development levels for sites along the affected section of Shirlington Road.

9. Review the current routing and location of stops and shelters for local bus service in and through the Nauck community.

The County’s Department of Environmental Services, Transportation Division, should be requested to commence a community process to review current routing and location of stops and shelters for local bus service in and through the Nauck Community.

10. Prepare an analysis as to possible need and locations for public parking facilities along Shirlington Road.

An analysis should consider temporary lots, shared facilities, and public underground garages as well as identify best practices associated with organizational, management, and operational structure for parking facilities including funding and financing options. Opportunities for on-street and other high-turnover parking supplies should be maximized prior to the consideration of any publicly controlled facilities. The Special Exception process should be used to maximize shared parking opportunities to achieve the most efficient use of parking spaces. The analysis should be conducted by the Department of Environmental Services, Transportation Division along with Arlington Economic Development and the Department of Community Planning, Housing and Development with input and guidance from the Nauck Revitalization Organization.

11. Develop “Crescent Area” street grid.

Planning and design work on all of the above projects and review of any specific site plan proposals south of 24th Road South should take into consideration the eventual development of a “street grid” in the area south of 24th Road South and east of Shirlington Road. Access points to this grid are shown conceptually on the Concept Plan. The exact location of this grid or its entry points to Shirlington Road is unknown and can be

significantly adjusted north or southwards from their current “conceptual” center lines. Design proposals in the Nauck Village Center area must enable the grid to remain feasible by not locating buildings or structures such that the geometrics of the grid and its traffic functioning would be compromised. The specific location of the grid will be more closely defined in the second phase of planning for the industrial areas along I-395 and the Four Mile Run stream, scheduled to begin fall, 2004.

Economic Development

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12. Designate a Nauck Revitalization Organization.

A body representing local community stakeholders should be formally designated to continue shepherding the realization of the Nauck vision. It is proposed that this body be named the “Nauck Revitalization Organization” (“NRO”) and be officially designated by the County Board. The Leadership of the NRO will consist of co-chairs, one being appointed by the Nauck Civic Association and the other selected by the NRO membership.

The membership of the NRO is initially proposed to be comprised of the current membership of the Shirlington Road Revitalization Advisory Board (SRRAB). Currently, the SRRAB is comprised of representatives from the Nauck Civic Association, local churches, a local Community Development Corporation (CDC) and other local non-profits, business and property owners and residents of Nauck. Many of the members of the SRRAB have been involved in the three year visioning and planning process which has led to this plan. Due to their broad representation and knowledge of and commitment to the redevelopment vision, the SRRAB would serve well as the foundation of the NRO.

Initially, the NRO should be charged with:

- Oversight review and comment on the Nauck Village Center Action Plan and various successor implementation actions and proposals.
- Various review and comment responsibilities with regard to private project submittals within the NVCSR for compliance with the Nauck vision; and other conditions needed to qualify for the various economic incentives.
- Act as liaison with County staff and officials on issues of concern with regard to the revitalization of the Nauck Village Center, including such items as support or opposition to particular private development proposals, prioritization of public infrastructure improvements and requests for Capital Improvement Program (CIP) and other revitalization funds.

Upon its foundation, the NRO will work with the Nauck Civic Association to expand through the addition of new members. The NRO and the Nauck Civic Association will work together to clearly define the roles each would play in project review process. In the future, the NRO may continue to expand its role in the development of the Nauck Village Center and may seek designation as a 501(c)(3) entity in order to increase its ability to access funds and be a catalyst for revitalization.

Implementation

13. Designate a Nauck Village Center Implementation Team in the County Government.

The County Manager should designate an Interdepartmental Team, with a project manager, to oversee County coordination of implementation actions in the Nauck Village Center Special Revitalization District. This team would have the responsibility of interacting with the NRO on resolving all policy and administrative matters affecting County actions on implementing the Nauck Village Center Action Plan, subject to returning to the County Board, County Manager and other official bodies (e.g. Transportation and Planning Commissions) as necessary. Representatives from Department of Community Planning, Housing and Development; Department of Environmental Services; Department of Parks, Recreation and Community Resources; and Arlington Economic Development should play key roles on the interdepartmental team. The primary responsibility for implementation will be assigned to a project manager within the Department of Community Planning, Housing and Development (or other County department as designated by the County Manager). This project manager will work closely with the Planning Division, other departments, the NRO and the Nauck Civic Association as well as Nauck residents, businesses and property owners to ensure that revitalization follows the guidelines set forth within this plan.

Pre-Development Assistance

14. Offer Technical/Professional Services Grants/Loans.

Some up front financial assistance is recommended for property owners specifically interested in developing in support of the Nauck vision. This assistance should be offered during the critical, formative stages of project conceptualization and approval, which are often the riskiest and most difficult phase of project development for small property owners to undertake.

These grants/loans should be intended to provide seed money to assist property owners/developers/businesses to design and prepare redevelopment projects conforming to the Nauck Village Center Action Plan. They also could be used towards architectural, engineering, legal, survey and filing fees. Administration of the grant/loan program would be directed via a cooperative effort involving the Implementation Team, the NRO and local CDC(s). Criteria for eligibility for such grants/loans would be set by the NRO and the Implementation Team with preference given for existing business and property owners along Shirlington Road. Applications for these funds would be evaluated according to these criteria by the NRO and staff team. It is recommended that initial funding total at least \$50,000. Initial funding will be sought from sources such as the Community Development Block Grant Program, the County's General Fund and other sources. Additional and future funding would be identified and obtained by the NRO and possibly local CDC(s), or other appropriate organizations. In order to maximize the benefit of funding for this program, funds should be loaned to developers/property owners and then reimbursed back to the program upon successful project completion. In the event that a project is not able to move forward, the loan could be forgiven.

Incentives

15. Adopt Partial Property Tax Exemptions.

These incentives would be offered only to owners of property within the Nauck Village Center Special Revitalization District. Owners who redevelop/rehabilitate their property would be eligible for a freeze on their property taxes regardless of the extent to which they redevelop and increase its value; provided they meet certain conditions (see the “Basic Exemption” below). For those owners who get projects underway in the near future, this freeze in taxes might last for up to 6 years and could thus equal up to 6% of the initial capital cost of any improvements to the property. Projects would face a declining incentive by delaying their start date.

A longer freeze (for 15 years) would apply for those owners who specifically provide for a certain percentage of their new housing units to be Affordable Housing within certain County defined guidelines (“Affordable Housing Exemption”). These projects would not face a declining incentive by delaying their start date.

“Basic” Exemption

Any and all properties rehabilitated and/or redeveloped within the Nauck Village Center Special Revitalization District would be eligible for an exemption (expiring 8 years from adoption of the NVCAP) from the increased property taxes resulting from the increase in assessed value caused by redevelopment. For example, a property that through redevelopment saw its assessed value increase from \$1 million to \$10 million, and began development immediately following approval of the NVCAP might receive about 6 years’ worth of exemption from property taxes on the \$9 million increase in assessed value. At present tax rates, that would amount to a savings of about \$90,000/yr for six years, (\$540,000 total) or about 6% of cost. This program is designed to give a maximum amount of exemption to the earliest starting projects. For example, in contrast to the above case, if a project didn’t start for five years and took a year to build, it would receive only 2 years worth of exemption.

To earn this exemption, the property would have to be within the boundaries of the Nauck Village Center Special Revitalization District, in accordance with the Nauck Village Center Action Plan, and develop under the Unified Commercial/Mixed-Use Special Exception Use Permit option, as opposed to a “by right” filing. Property owners would also need certification by the NRO as being in conformance with the Nauck vision.

The tax exemption is proposed for application to retail, residential and mixed-use properties, rental and ownership (condominium included), subject to verification as consistent with State enabling legislation.

“Affordable Housing” Exemption

Projects that provide a minimum of 20% of their total housing units as ADUs (as such are defined pursuant to County’s standard definitions) would be allowed to extend the “Basic Exemption” for a total of up to 15 years from the time project opens, provided it is developed in accordance with the Nauck Village Center Action Plan and the ADUs re-

Implementation

main as ADUs for the life of the exemption. There would be no cutoff date on when a project must be started to obtain this exemption. Over the 15 years of exemption, the project would thus save, in property taxes, an amount equal to about 15% of the original cost of the project improvements. Both of these exemptions would be processed using application and processing procedures consistent with those in place for the Columbia Pike Special Revitalization District.

The County Board should adopt via ordinance the necessary changes to Chapter 20 (Real Estate Assessment) of the Code of Arlington County to legally initiate the above described program of exemptions. This is the same procedure that was used to set up analogous exemptions for the Columbia Pike Special Revitalization District.

16. Establish an Infrastructure Funding Assistance Program.

It is recommended that County dollars be used to fund certain “public infrastructure” items within the Nauck Village Center Special Revitalization District. In some cases, these dollars could fund portions of various “public infrastructure” items associated with a particular private project (such as adjoining sidewalk/streetscape, landscaping, utility under grounding and some portions of parking facility costs). Such funding assistance would be limited to those circumstances where such “gap financing” assistance enabled the project to achieve the desired community benefits targets while relieving it of inequitable cost burdens brought on by the facility requirements and specifications.

In other cases, such assistance might be extended to fund proximate and supporting public improvements that might benefit a wider variety of projects and the area’s overall amenities (e.g. the Town Square Plaza, a public parking garage).

Funding for such improvements could be delivered through various mechanisms and come from a variety of sources. The following items are recommended for consideration to initiate such a program:

Nauck Infrastructure Project Guidelines

Establish the following criteria as to the definition of “public infrastructure” eligible for potential funding under the program:

- Portions of streetscaping, utility under grounding, lighting and landscaping adjacent to or on private property under an approved Special Exception Use Permit or Site Plan development.
- Acquisition and/or landscaping of the Town Square Plaza, and/or construction of associated public buildings (e.g. community center).
- Public parking, whether as free standing or shared facilities.
- Transit and bikeway improvements.
- Roadway improvements including gateways, traffic signals.
- Planning, design, engineering and associated fee related costs of any of the above.

Recommendations as to the priorities of the program and allocations to specific projects could be made by the Nauck Village Center Implementation Team, including the NRO working in conjunction with the Nauck Civic Association.

Individual privately developed projects (provided they are consistent with the Nauck Village Center Action Plan) would be eligible to seek grants from the program for an amount up to the extent by which the costs of their “public infrastructure” components (as defined above in the Guidelines) exceed a formula driven “base community benefits” contribution expected from the subject property at time of plan approval. For example, if the shape of a property, its dimensions, topography or other unique circumstances resulted in unusual costs for the particular public improvements mandated on it and cost, say, \$300,000 and the “normal” contribution by that size property owner to the “community benefits” component were \$100,000; then the property owner could apply to the program for up to \$200,000 in assistance. The owner would still have to demonstrate that the funding assistance was needed to help earn a reasonable return on the project development that is needed to keep him “revenue neutral” as a result of added or unusual costs over normal expected community benefits provisions.

17. Request funds from the “Commercial Revitalization Fund” and/or other CIP sources.

Concurrent with the submission of the Nauck Village Center Action Plan for approval by the County Board, an application has already been made for public infrastructure improvement funding under the County’s Commercial Revitalization Fund. Through this application, a reservation of \$1.5 million from the “Commercial Revitalization Fund” (and/or other County CIP appropriations) is proposed over the July 1, 2004 – June 30, 2006 (FY 2005-2006) period. This initial request would be for funds to be reserved and made available towards initiation of the various planning and design studies referenced above; acquisition of properties and development of the Town Square (see Special Projects below); and other public infrastructure costs unrelated to a specific private development proposal. Additionally, a portion of the request would be for dollars towards public infrastructure/improvements associated with private development as provided for in 16, above. Commitments to spend monies towards individual capital projects costing more than \$100,000 could be made contingent on certain threshold criteria being met within the Nauck Village Center Special Revitalization District; e.g., private projects totaling 25,000 square feet of GFA, had been approved and had applied for building permits.

Additional funds from other CIP sources would be sought for current and future fiscal years to further support and encourage private investment within the Revitalization District. Furthermore, requests for additional funds from the Commercial Revitalization Fund are anticipated for years beyond FY 2006.

Special Projects

18. Develop and implement the Town Square Project Plan.

Authorize the County Manager (or designee i.e. the Implementation Team) to complete a Detail Design, Project Plan and Project Budget for the “Town Square” area. The intent

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of this effort is to provide design and programming details for the area identified in this plan as the “Town Square”. At a minimum, this effort should address all the land bounded by 24th Street South, Shirlington Road and South Kenmore Street, and at a maximum encompass all of the adjoining block-faces (up to a depth of one half block) where there are cooperating or interested property owners. This will add detail to the concept plan adopted as part of the vision. Such plan should identify proposed public facilities and improvements, including any possible park, plaza and community buildings uses, and streetscape and landscaping, “gateway treatment” at 24th Road South and Shirlington Road (including speed bumps and roadway choke-down, possible traffic signal); public parking; and the specifics of any adjoining cooperating mixed-use projects.

The planning process should involve direct contact and interaction with the relevant property owners to determine their degree of interest in participation; and a community process to follow up on defining the specific uses to be programmed for the Town Square facilities (e.g. community hall/meeting rooms, playgrounds, plazas, café, etc).

Affordable Housing

Affordable housing is a key policy concern throughout Arlington County. Within the Nauck Village Center, there is a particular need for new affordable housing options. Existing and new programs should be utilized to ensure that the creation of affordable housing is part of the revitalization of the Nauck Village Center. To the extent possible, affordable units that are constructed as a part of site plan projects should be primarily marketed to members of the Nauck community. Site plan conditions should reflect this marketing commitment.

19. Consider the use of bonus density.

For those areas in the Nauck Village Center Special Revitalization District, south of 24th Road South, and designated as ‘Low’ Office-Apartment-Hotel or “Medium” Office-Apartment-Hotel on the GLUP, the use of the County’s affordable housing bonus density provisions should be allowed in order to achieve affordable housing goals. The guidelines for bonus density should be those contained within the Zoning Ordinance as well as those contained within the County’s current stated housing policy. Additionally, bonus density should be encouraged when it will lead to the provision of affordable units beyond the base site plan affordable housing guidelines. In these cases, bonus density could be used to increase the percentage of affordable units within a project or to increase the level of subsidy for base units. In no case should the density bonus result in exceeding height or bulk standards established by the Nauck Village Center Action Plan.

20. Allow grants of surplus public property to achieve additional affordable housing.

Surplus public property adjoining relevant project sites, existing mostly in the form of excess right-of-way, could be provided to the adjacent property development at below market rates (essentially down to \$1) provided the reduced value is directly reflected in an increase in the number of affordable units or their depth of subsidy.

21. Encourage access to County housing funds.

Projects which demonstrate financial difficulty in achieving required affordable housing goals should be encouraged to work with County staff to apply for available County and other sourced funds in order to increase the amount and/or subsidy of affordable housing within the Nauck Village Center Special Revitalization District.

Appendix A: Terms and Definitions

The definitions given below are written in the context of land development and planning as it is described and regulated within Arlington County, Virginia.

Affordable Housing/Affordable Dwelling Units (ADU): A unit that complies with County guidelines relative to rental rates or sales price. Generally, ADUs are those residential units that have rents or sales prices that are affordable to households earning 60% or less of the area median income (AMI).

Block face/frontage: The portion of a block that is adjacent and face the street; the street edge of a block.

By-right: Uses that are permitted within a zoning district without the need for special review are said to be “by-right.” By-right uses can be built with minimal requirements save the standard regulations for parking, setback, coverage etc. For contrast see “Special Exception.”

Chesapeake Preservation Ordinance/Chesapeake Bay Critical Areas Legislation: Legislation enacted at the Federal level and supported by State and local legislation that regulates development along the waterways of the Chesapeake Bay watershed. The intent of these guidelines is to improve and protect water quality throughout the watershed.

Density: Density describes the amount of development on a piece of land. Density is generally described by Units per Acre or Floor Area Ratio. (see below)

Floor Area Ratio (F.A.R.): The density term for all commercial projects and some residential projects is F.A.R. The floor area ratio of a development is the ratio of building floor area to the overall area of the site on which it is located. $FAR = \frac{\text{Building Floor Area}}{\text{Site Area}}$; for example a 10,000 square feet building constructed upon a 5,000 square feet site would have a density of 2.0 FAR.

General Land Use Plan (GLUP): The General Land Use Plan is the primary policy guide for future land development within the County. The General Land Use Plan establishes the location, character and extent of various land uses within the County. Furthermore, it serves as means of communicating the County’s policies to citizens, the business community, developers and others. Finally the General Land Use Plan serves as a guide to the County Board in its decisions concerning future development.

Intensely Developed Area (IDA): A designation of land under the Chesapeake Bay Preservation Ordinance that recognizes a history of development on a site that is characterized by extensive impervious areas (paved or built upon land) and other factors that may contribute to water run-off and waterway impacts. IDAs are subject to different guidelines (potentially less restrictive) than other areas within RPAs. (see *Resource Protection Area* below)

Live/work: A primarily residential unit that provides opportunity for commercial office or retail space in addition to living space. Generally, the commercial space is located on

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the first floor and the residential space is located above. The space is generally configured to allow access between the residential and commercial areas. In most cases the living area and the business area is occupied by the same person(s).

Lot coverage: Lot coverage generally describes the amount of a lot that is covered by building(s) and pavement. It is generally stated as a percentage of the total lot area. The formula is: $((\text{Building Area} + \text{Pavement Area})/\text{Lot Area}) * 100\%$. (Note: In this context, building area refers only to the area of the first floor).

Mixed-use: Mixed-use refers to developments that contain more than one use category. A development containing residential and retail uses, such as a multi-story apartment building with shopping on the ground floor, would be an example of a mixed-use development.

Property Tax Exemption: A policy whereby a portion of a property's value is not subject to taxation.

Resource Protection Area (RPA): A buffer area no less than 100 feet adjacent to designated streams and open channels. Development within RPAs is governed by various provisions of the Chesapeake Bay Preservation Ordinance and, at a minimum, is subject to County review and approval of a Water Quality Impact Assessment. Development that increases impervious area or encroachment within the RPA is subject to the exceptions process of the ordinance.

Setback: The distance that a building is placed from a measured line. Setbacks are generally measured from the street centerline or from the property line.

Site Plan: A limited number of zoning categories permit development by site plan, a form of special exception under the Zoning Ordinance. The site plan review process provides for public review of such projects and permits the County Board to vary the uses, heights, setbacks, densities and regulations of a zoning district for a specific project to meet adopted goals. The majority of site plan review proposals are for hotel, residential, office, and mixed-use development in certain high-density zoning districts. The review process is coordinated through the Site Plan Review Committee (SPRC), a committee of the Planning Commission.

Special Exception: A class of uses within the zoning ordinance that require additional measures in order to be permitted. Special Exception uses are in contrast to "By-right" uses.

Special Revitalization District: A designation on the General Land Use Plan that identifies a geographic area where special planning and development policies and regulations apply.

Street Furniture: Benches, trash receptacles and other items located within the public sidewalk.

Streetscape: The elements that occupy the area behind the curb and immediately adjacent to the roadway comprise the streetscape. Streetscape elements may include sidewalks, planting strips and street furniture.

Streetspace: The public area located between private property on opposing sides of a street. Rights-of-way or easements for roadways, sidewalks and planting areas may occupy the streetspace.

Tree Pit/Planting Strip: The area of the public sidewalk where vegetation is planted. Trees, shrubs and other plants may be placed within these areas.

Units per acre: This term is used to characterize density for residential development. A unit could be a single-family home, one-half of a duplex, an individual townhouse or an individual apartment unit. The term is also referred to as Dwelling Units per Acre (DUA). The formula for DUA (where 43,560 SF equals one acre) is: $DUA = \text{Units}/(\text{Site Area}/43,560)$

Use Permit: A type of Special Exception. Land and building uses allowed by Use Permit are those that require additional safeguards (beyond what is required of by right uses) in order to insure that they do not have undesirable impacts. These safeguards are achieved through special conditions that are particular to each use. Use Permits are used to regulate site design, hours of operation, building appearance, and other design and operational matters.

Appendix B: Executive Summary of the NSFMR Transportation and Land Use Study

I. Executive Summary

This study was undertaken in spring and summer of 2002 to better understand existing transportation issues in the Nauck, Shirlington, Four Mile Run area (NSFMR) and to plan for the future. Specifically, it was desired to understand what options might exist to alleviate existing and foreseeable traffic issues in the area, and how different options regarding future redevelopment of land uses in parts of the area might impact traffic.

The following steps were taken to accomplish this goal:

- Existing traffic conditions and deficiencies in the transportation system were identified and evaluated.
- A lengthy list of short term, intermediate term and long term improvements to the transportation system was developed.
- Traffic conditions in 2025 were modeled and evaluated under a development scenario assuming only “By-Right” development under the existing zoning (the “Base Case”), both without and with the possible improvements to the system.
- The four other alternative 2025 land use scenarios earlier prepared by the Arlington County Planning Department were then evaluated to determine variations in potential traffic impacts relative to the “Base Case” scenario.
- Based on the outcomes at this stage, the team then decided to select two of the scenarios, modify them and then use these as the “final scenarios” on which the more detailed 2025 traffic analysis would then be done.
- The final stages, following the detailed 2025 traffic analysis on the two “final scenarios”, included refinement and modifications to the list of recommended

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improvements, estimates of timing and preliminary order-of-magnitude cost estimates, and next steps with regard to transportation planning.

- Recommendations as to travel demand measures, transit and parking considerations, and other traffic considerations for the possible area plans and zoning were also developed.

In general the report’s findings can be summarized as follows:

- A number of road system improvements, traffic calming measures, pedestrian and parking related changes and improvements can be made both in the short term and over time that can help alleviate existing and expected future traffic issues in the area.
- These changes can only go so far in improving traffic conditions at a number of critical intersections that will experience significantly deteriorated levels of service by 2025 under any development scenario (including the Base Case). The different development scenarios lead to traffic volume variations of about 30 percent in the core area and 3.5 percent in the overall study area. This is due to the preponderance of traffic at the critical intersections being through traffic with destinations and origins outside of the core study area. Therefore, the various development scenarios should not have a significant impact on traffic throughout the area as long as the proposed development is carefully designed and sited with regard to principal access and egress points.
- Each of the two finalist “Preferred Land Use Scenarios” (Scenario 6) produce significantly less traffic in the core area than would “Ultimate Buildout” under the Base Case scenario (36,800 to 41,600 Average Daily Trips for Scenario 6 vs. 46,600 for the Ultimate Buildout).
- More physically significant but still remotely plausible efforts to alleviate future traffic conditions within the Study Area at critical intersections were all considered including:
 - Reconnecting the two halves of Four Mile Run Drive east and west of I-395
 - Reconfiguring and relocating the Southbound off ramps from I-395 at Arlington Mill Road
 - Redesigning certain aspects of Shirlington Circle.
- None of the studied options demonstrated any significant overall improvements in 2025 traffic volumes or levels of service at critical intersections in the system. Instead, it was generally found that while the “delay problem” at one intersection might be marginally improved, the traffic typically tends to “shift” the delays to other nearby intersections making them worse. This is even before considering the high costs, in terms of money, environmental and

traffic operation disruptions that the more feasible physical engineering solutions would involve.

- The idea of connecting Four Mile Run Drive with South Glebe Road either over or under I-395 was rejected based on potential costs, right of way and environmental impacts as well as projected traffic impacts. This new connection would create a short cut between Arlington and Alexandria and divert some traffic that now uses I-395 onto the local roadway network. Traffic volumes on most of the local roadway network in the study area would increase except on some segments of S. Glebe Road. Intersection delays would increase at most study intersections due to the increased volumes.
- More extensive traffic system improvements at critical intersections, such as grade separations or substantial road widening, were not studied due to the monetary, physical, environmental and social costs foreseeable in any possible engineering solution.
- A specific list of improvements with their estimated costs and completion horizons (short, intermediate or long term) is included in the report and is significantly independent of the final land uses adopted (although the timing may be facilitated by right-of-way adjustments staged with particular redevelopment submittals). The proposed improvements are summarized in **Tables ES-1, 2 and 3 and in Exhibits ES-1, 2 and 3.**
- Over the intermediate to longer term, larger improvements in traffic conditions will require greater systematic reliance on, and improvement in sub-area, County and regional transit and other non-automotive systems. In addition, augmentation of travel demand management approaches, including wide ranging pricing and policy considerations, will be a key item.
- One of the most significant recommendations for the ultimate land use plan is an intermediate to long-term plan to extensively reconfigure the street network in the Shirlington Crescent area as it is redeveloped (See Exhibit ES-4). This is essential to support the higher density, mixed use, walkable urban village character, and trip reduction objectives posited by the emerging overall Nauck, Shirlington, Four Mile Run Land Use Plan. Almost the entire proposed street network can be built incrementally as individual parcels are developed via site plan approvals and set-aside of future ROW alignments, since virtually all parcels will have some means of existing connection to the main circulation system during interim years. However, for reasons of inter-parcel equity (in terms of street improvement cost and right-of-way impacts) and acceleration of the development of the area, it may be desirable for the County to assist the property owners in forming some type of service or improvement district. This would enable substantial portions of the infrastructure to be built

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in two or three major phases, once the adjoining property owners are ready to commit to redevelopment.

- The report makes a number of specific recommendations with regard to auto trip reduction and travel demand management efforts in the “Shirlington Crescent” redevelopment sub-area. The report also includes recommendations regarding provision of parking, pedestrian improvements and transit improvements that help create the “urban village” pedestrian character sought for the area. The auto reduction and parking strategies can significantly reduce anticipated traffic volumes. The parking strategies are also designed to help provide options to reduce overall development costs, and to facilitate greater use of commuting alternatives to the single occupant automobile. Pedestrian improvements (enhanced sidewalks, landscaping, trail connections and new pedestrian connections) and transit improvements (more frequent service, new routes) are key to allowing the auto trip reduction and travel demand management efforts to be effective. The detailed travel demand management and parking strategies are discussed in Appendix A.

Table ES-1 Funded Improvements

These improvements are either funded or programmed for funding.

	Improvement
A-1	Reconstruct and add Sidewalk on the south side of Four Mile Run Drive from George Mason Drive to Shirlington Road.
A-2	Shirlington Bus Station
A-3	Four Mile Run Trail crossing of I-395 (along North side of Four Mile Run – under the existing I-395 bridge) - Pedestrian, Bicycle
A-4	Developments under the 2000 PDSP at the Village at Shirlington will include the following improvements as they are built out: (a) improvements in the vicinity of 28th St, Quincy St, Randolph St and Arlington Mill Drive. Improvement include western extension of 28th Street and connection with Arlington Mill Drive, all way stop control at 28th / Randolph and 31st / Randolph. (b) Installation of a traffic signal, with pedestrian light and crosswalk, on Four Mile Run Drive at the DMV. (This signal has already been installed). (c) Increased service at the Shirlington Metrobus stop on Quincy St to offer over 400 scheduled weekday trips. These trips will serve the Shirlington Highway Corridor, Arlington and Eastern Alexandria.
A-5	Columbia Pike / S. Glebe Road - Provide Left Turn Lanes for All Directions
A-6	Expansions to the ART Bus system presently in the works.
A-7	Synchronization of signals on Glebe Road (Scoot system). Other signal improvements in the study area may proceed in the future.

A-# Locations are shown in Exhibit ES-1

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Table ES-2 2025 Base Case Improvements

These proposed improvements were developed for the 2025 Base Case. These are in addition to ES-1 improvements.				
	Timeframe	Improvement	Comment	Cost
B-1	Intermediate	Add strong N/S Bicycle/Pedestrian Access From Nauck Ctr. To Shirlington Village	Includes traffic calming along Shirlington Road, Sidewalk Widening, and 1/3 of the cost of a bridge along Shirlington Road at Four Mile Run	\$1,200,000
B-2	Short Term	A bus stop is located on Shirlington Road just south of Four Mile Run Drive with no sidewalk or paved area. This should be upgraded.	Short term would include sidewalk on east side from Four Mile Run Drive to the Bus Stop. Intermediate Term includes new sidewalk on the east side from Four Mile Run Drive to Arlington Mill Dr. Includes 1/3 of New Bridge Deck along Shirlington Road at Four Mile Run	\$35,000
	Intermediate			\$530,000
B-3	Short Term	Modifications to the Four Mile Run Drive Service Road Operations	1. Cul-de-sac at Shirlington 2. Re-alignment at Columbia Pike 3. Restrict left turns to and from the Service Road at George Mason Drive	\$625,000
B-4	Short Term	Add raised median along Four Mile Run Drive between Walter Reed Drive and the DMV.	Include Median Breaks where required.	\$810,000
B-5	Short Term	Replace Pavement – Walter Reed Drive / Four Mile Run Drive		\$65,000
B-6	Intermediate	Add divided (planted) median on Walter Reed Drive between Four Mile Run Drive and Arlington Mill Drive		\$125,000
B-7	Short Term	Replace stop sign for the bike path at Four Mile Run Drive and Columbia Pike		\$1,000
B-8	Short Term	Gateway treatments for Shirlington Road at the north limits of the Nauck neighborhood.	Base case will include only the North Gateway at the Glebe Road Intersection	\$95,000
B-9	Intermediate	Intermediate location for Pedestrian crossing across Four Mile Run Dr. @ Taylor St.	Pedestrian bridge, trail and crosswalk	\$310,000
B-10	Short Term	Pedestrian connection along Glebe Rd. to the new pedestrian/bicycle connection under I-395.	Intersection improvements to allow easier access from new trail to Avalon to the existing Four Mile Run trail across W. Glebe Road	\$190,000
B-11	Short Term	Add Crosswalk on Arlington Mill Dr. At the existing Pedestrian Bridge	Raised Crosswalk	\$20,000

Table ES-2 (Cont.)				
2025 Base Case Improvements				
	Timeframe	Improvement	Comment	Cost
B-12	Intermediate	Improve S. Glebe Rd between I-395 and W. Glebe Rd to 6 lanes. Add auxiliary turn lanes.	This will include intersection improvements at the ramps, W. Glebe Rd. intersections	\$5,000,000
B-13	Long Term	Improve S. Glebe Rd between I-395 and 24th Street South. Add auxiliary turn lanes.	This includes areas north of the I-395 ramp and will be primarily on the east side of Glebe Road.	\$750,000
B-14	--	Accident records indicate intersection improvements including pedestrian improvements may be required at several locations along Four Mile Run Drive.	Addressed with Item B-3	-----
B-15		Parking concerns - Four Mile Run Dr., Shirlington Rd., 24th St. S., & S. Glebe Rd.	No additional on-street parking is proposed. There may be a need for off street parking to be added to this area.	

Intersection Improvements

B-16	Intermediate	S. Glebe Rd / 24 St. S. Add a NB left turn lane on S. Glebe Rd at 24th St. S.	This can be done separately from the Glebe Road Improvements. Includes Signal Modification	\$190,000
B-17	Intermediate	Columbia Pike / Four Mile Run Drive. Add Left Turn Lane on WB Columbia Pike at Four Mile Run Drive.	Includes Signal Modifications	\$155,000
B-18	Long Term	Shirlington Road / Arlington Mill Rd. Add Right Turn Lane to Shirlington Road at Arlington Mill Road	1/3 of the Cost of Bridge Deck Replacement	\$750,000
B-19	Intermediate	S. Glebe Road / Walter Reed Dr. Add Double Lefts on NB and SB Walter Reed Drive.		\$185,000
B-20	Intermediate	Landscaping / Driveway improvements to Four Mile Run Drive.		\$625,000
Total				\$11,661,000

Notes:

- Intermediate Term = 5 to 10 Years
- Long Term = 10 + Years
- Costs are based on concept drawings. Preliminary design has not been completed. Costs should not be used for construction or budgeting purposes. These costs offer order of magnitude comparisons. **Costs do not include right of way.**
- Only Glebe Road Projects (B-12, 13 and 16) are anticipated to require any ROW acquisition. Project B-12 may need approximately 14,000 square feet (SF) of ROW at \$50 per SF or \$700,000 total. Project B-16 may need approximately 3,200 SF of ROW at \$50 per SF or \$160,000 total. Project B-13's ROW needs might amount to 4,000 SF (in addition to B-16) and are not anticipated to occur independent of redevelopment of adjacent sites.

B-# Locations are shown in Exhibit ES 1 and 2

Appendix B

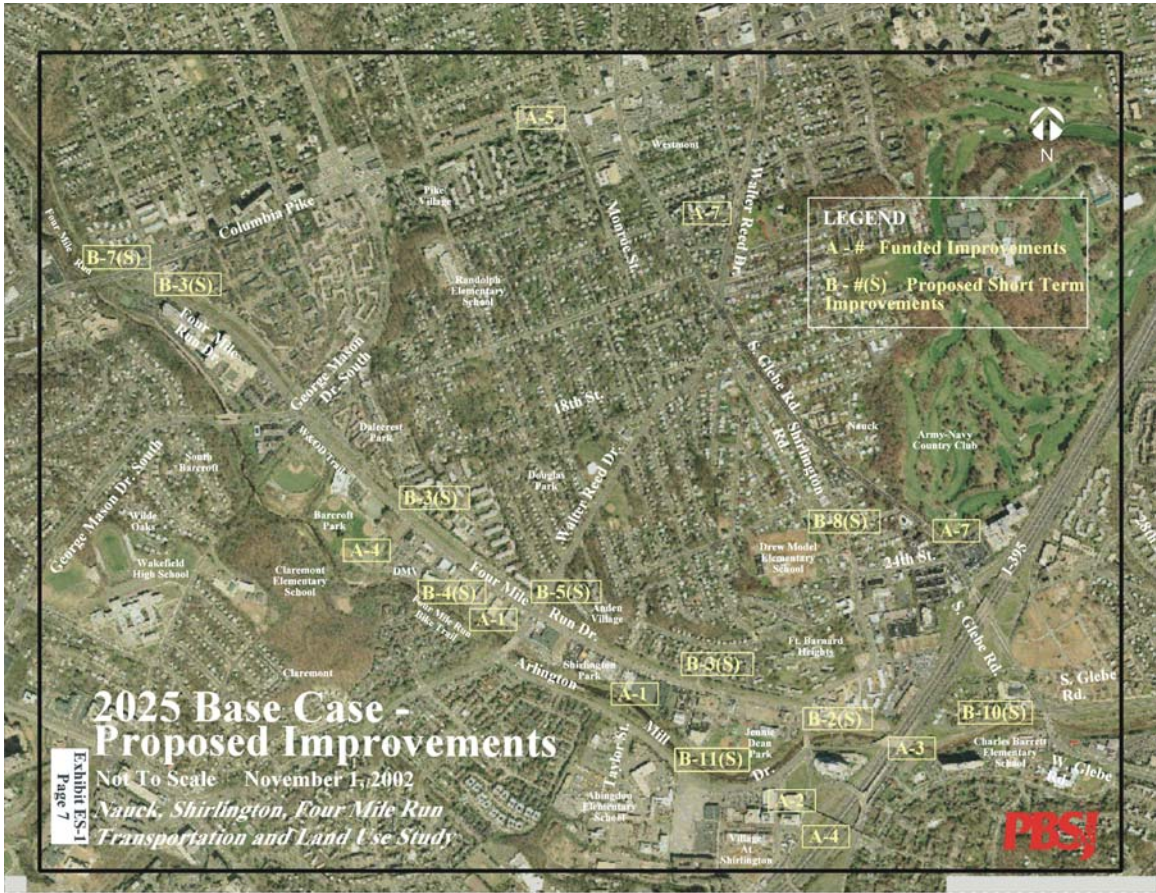


Exhibit ES-1

Table ES-3**2025 Alternate Land Use Scenarios - Proposed Improvements**

These proposed improvements were developed for the 2025 Alternate Land Use Scenarios. These are in addition to ES-1 and ES-2 improvements.				
	Timeframe	Improvement	Comment	Cost
C-1	Intermediate	Reconstruct Four Mile Run Drive from Shirlington Rd to the DMV. New Typical Sections, Driveway Consolidation, Raised Median, Streetscaping etc.	Sample Typical Sections are included in the report	\$6,250,000
C-2	Intermediate to Long Term	Construct Urban Grid as part of the redevelopment plan.	Roadway Plan is included in the report. Sample Typical Sections are also included in the report.	\$6,875,000
C-3	Long Term	Add connector from Arlington Mill Drive to Four Mile Run Drive at Oxford Street. This will include a pedestrian connection. (Some right-of-way presently exists).	Plan is included in the report.	\$1,625,000
C-4	Intermediate to Long Term	Improved Transit proposed Shirlington Crescent Development Area and Proposed Walter Reed Drive / Four Mile Run Drive Development Area to Metro Station.	This will provide commuter service to the development areas. Routes are undefined. Assume 2 new buses to implement this service. Operating Costs are not included.	\$315,000
C-5	Intermediate to Long Term	Improved Transit between Shirlington Road Development Area, Walter Reed Drive / Four Mile Run Drive Development Area and Existing Shirlington Village.	Shuttle Service. This will help to connect these three multi-use areas. Assume 2 new buses to implement this service. Operating Costs are not included.	\$315,000
C-6	Intermediate	Pedestrian Connection directly to the proposed Four Mile Run Trail crossing of I-395.	Pedestrian connection from the Shirlington Road development area to the Trail Crossing.	\$65,000
C-7	Intermediate	Traffic Calming Along Shirlington Road from 24th Street North to Glebe Road	Speed Tables, Raised Crosswalks and pavement narrowing on this segment of Shirlington Road. There is room for a Gateway Treatment at the north end of Shirlington Road at Glebe Road.	\$315,000
C-8	Intermediate	Increase left turn storage length for 24th Street at Glebe Road.	Increasing this turn lane length will displace some parking on 24th Street. Roadway curbs will not be moved. No Changes to signal.	\$12,000
C-9	Long Term	Proposed New Access from Glebe Road into the Development Area across from the I-395 exit ramp. One-way roadway.	One-way entrance road for SB Glebe traffic or vehicles exiting the SB I-395 ramp.	\$440,000

Table ES-3 (Cont.)

2025 Alternate Land Use Scenarios - Proposed Improvements

	Timeframe	Improvement	Comment	Cost
C-10	Long Term	Improve N/S Bicycle / Pedestrian access from the end of the proposed Shirlington Road reconstruction to Shirlington Village	Bicycle / Pedestrian improvements will be included on the Reconstructed Shirlington Road. This proposal will carry the improvement to existing Shirlington Village. Additional cost (beyond C-2) is shown.	\$690,000
C-11	Long Term	Eliminate Access to the Hotel Parcel from 24th Street. Access points will be on 25th Street and Mt. Zion Road.	Existing Access is adjacent to Glebe Road intersection. This will simplify the intersection movements.	-----
Total				\$16,902,000

Notes:

- Intermediate Term - 5 to 10 Years
- Long Term - 10 + Years
- Costs are based on concept drawings. Preliminary design has not been completed. Costs should not be used for construction or budgeting purposes. These costs offer comparison for order of magnitude costs. **Costs do not include right of way.**
- Right of way acquisition is anticipated to occur in conjunction with agreements governing the redevelopment of adjacent property.

C-# Locations are shown in Exhibit ES-3



Exhibit ES-4

Next Steps. There are two series of recommended “Next Steps”.

- **Findings Review and Plan Adoption**

This step relates to community and governmental bodies’ review, discussion and ultimate approval of a set of transportation concepts and project proposals deriving from this Study. It should be appreciated that this Transportation Study has been part of, and conducted in tandem with, the land use planning activities of the County for the Nauck, Shirlington and Four Mile Run areas. In specific, two studies have been ongoing besides the Transportation Study: the Nauck Visioning program (conducted by Arlington Economic Development and the Department of Community Planning, Housing and Development (DCPHD)); and the Four Mile Run Drive and Shirlington Road Study by DCPHD. The results of this study and the two other studies, will be merged into a larger “Nauck, Shirlington, Four Mile Run Plan” being prepared by the County, based on all these collective materials.

This larger effort, which includes the substantive background and detailing of the “Final” Land Use Alternative (currently Scenario 6), along with Redevelopment/Land Use and Implementation Strategies, is currently being compiled by County staff into a report for presentation to the community and the various advisory and approval bodies.

It is understood that the larger Plan report will be presented and reviewed by a variety of community groups, and advisory bodies (including Planning, Transportation, and Economic Development Commissions; and Neighborhood Conservation Advisory Committee) before the Plan is finalized for Formal Adoption by the Board.

- **Activities Related to Specific Projects Implementation**

This Transportation Study earlier identified a series of 7 improvements (Table ES-1 “A-# series”) that are either funded or programmed to be funded in the immediate future. The consultants have reviewed the in-progress work thus far completed with DPW and DCHPD and consulted with staff. As a result, the Study Team finds these projects, as now being planned, consistent with the recommendations of this Study and the larger planning efforts and believes they should proceed on their current schedule (or even an accelerated basis if possible) independent of the larger Plan adoption process and timetable.

During this winter and spring’s anticipated hearings and possible actions on the overall Nauck, Shirlington, Four Mile Run Plan, the Board could begin to give County staff some direction on prioritizing amongst and budgeting for the various “Short Term and Intermediate Term” improvements proposed in Table ES-2 (“B-# series”). Within this directional context, County staff could

then begin to develop a work program, scheduling sequences (Critical Path analysis) and prioritized capital improvements.

Some of the Intermediate to Longer Term proposed improvements (eg. “urban street grid” for Shirlington Crescent; ultimate section for Four Mile Run Drive; parking provision in Shirlington Crescent; etc.) will require a number of actions. These include analysis and adoption of implementation strategies and tools with respect to right-of-way, land acquisition and likely changes to General Land Use and zoning. Strategies will have to be developed to determine how and when infrastructure improvements will be constructed and paid for.

Some of these implementation tools and strategies (such as those discussed in this report relating to parking provision in the Shirlington Crescent Area – Appendix A) would best be directly incorporated into the zoning and site plan approval regulations to be proposed as part of the Plan; others may also require decisions as to policies regarding how capital improvements in the Study Area will be funded (eg. via General Fund, special District(s), and/or private sector, and what mechanisms will be used to determine and trigger the contributions).

Prior to redevelopment, an area-wide parking strategy should be decided by the County. If the strategy includes additional money and/or construction by the County, provisions should be made in the appropriate budget processes.

Detailed study along with approval of a final Plan and any associated Land Use and zoning changes should begin as soon as possible before decisions regarding individual parcels proceed. In addition, the adoption process of implementation policies and mechanisms should also proceed.

Appendix C: Demographics

Arlington County and the surrounding area have a diverse, well-educated, and wealthy population base. Data from the 2000 Census reveals that the Nauck area is a relatively stable area, with a greater proportion of families and children than Arlington County, but with a unique housing stock and lower educational attainment and income levels among its residents. Census Tract 1031 defines the immediate Nauck study area (see Map 1.) In 2000, there were 4,150 people in this area, comprising approximately two percent of the total County population. Key demographics for the Nauck area include the following:

- Based on population characteristics and vacancy rates from the 2000 Census, much of **the Nauck area is comprised of settled and stable neighborhoods**. Nearly 60 percent of the households in the area are family households (i.e., two or more people related by birth, marriage, or adoption) and over 70 percent of residents have lived in the County for five years or more. Almost half of the households in the study area are renters. The housing vacancy rate in 2000 was only 3.5 percent, lower than the overall rate for the County.
- **One-quarter of the housing stock in the Nauck area is comprised by town-house or duplex units**, a much higher proportion than for the County as a whole. One-third of the housing units are single-family detached houses and 52 percent are in multi-family buildings.
- **Residents in the Nauck area have lower educational attainment and income levels**. About 69 percent of adults in the Nauck area have graduated from high school and less than one-quarter have a college degree. In comparison, 88 percent of all Arlington adults are high school graduates and over 60 percent are college graduates. In 1999, the median income for households in the Nauck area was \$43,851 and the per capita income was \$20,567. In comparison, the median household income in Arlington was \$63,001 and the per capita income was \$37,706.
- Although many neighborhoods in the Nauck area are well-established, **some neighborhoods adjacent to the area have seen significant change with the construction of new residential units**. For example, in 1999-2000, almost 600 low- and moderate-income apartment units were demolished in the Arna Valley neighborhood. The Avalon at Arlington Square and Arna Valley View projects were constructed in their place, with 842 market-rate rental apartment and townhouse units and a 101-unit low- and moderate-income apartment building.

Appendix C

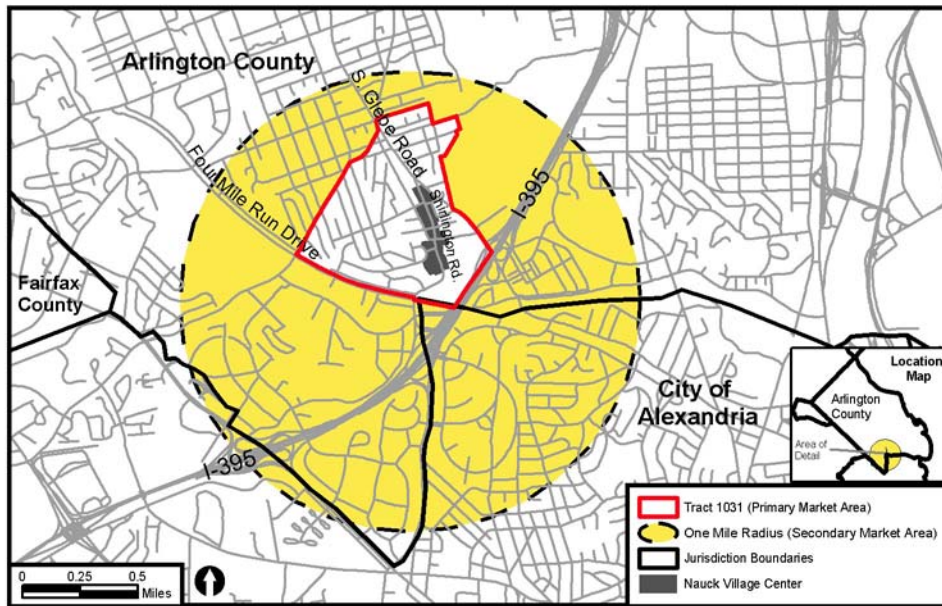
Table 1: Demographics

	Census Tract 1031		One-Mile Radius*		Arlington County	
	Number	%	Number	%	Number	%
Population	4,150	100.0	52,127	100.0	189,4534	100.0
Under 18	962	23.2	9,323	17.9	31,239	16.5
65 and Older	490	11.8	5,156	6.6	17,762	9.4
Population Age 5 and Older	3,940	100.0	48,593	100.0	179,064	100.0
Lived in the County 5+ years	2,787	70.7	27,126	55.8	101,247	56.5
Population Age 25 and Older	2,794	100.0	37,645	100.0	138,844	100.0
With high school diploma	1,938	69.4	31,543	83.8	121,919	87.8
With college degree (BA/BS)	632	22.6	20,080	53.3	83,613	60.2
Population in the Labor Force	2,292	100.0	34,013	100.0	120,803	100.0
Employed	2,175	94.9	32,783	96.4	117,515	97.3
Unemployed	117	5.1	1,230	3.6	3,288	2.7
Households	1,559	100.0	24,160	100.0	86,352	100.0
Family households	931	59.7	10,721	44.4	39,322	45.5
Non-family households	628	40.3	13,439	55.6	47,030	54.5
Owners	833	53.4	9,889	40.9	37,370	43.3
Renters	726	46.6	14,271	59.1	48,982	56.7
Average household size	2.66	-	2.15	-	2.15	-
Housing Units**	1,631	100.0	24,888	100.0	90,426	100.0
Occupied units	1,559	96.5	24,160	97.1	86,352	95.5
Vacant units	72	3.5	728	2.9	4,074	4.5
Single-family detached units	553	33.9	3,873	15.6	27,668	30.6
Townhouse or duplex units	746	24.8	6,208	25.0	10,284	11.4
Multi-family units	332	52.3	14,722	59.3	52,373	57.9
Income						
Median household income (1999)	\$43,851	-	\$65,642	-	\$63,001	-
Median family income (1999)	\$41,983	-	\$73,232	-	\$78,877	-
Per capita income (1999)	\$20,569	-	\$35,244	-	\$37,706	-

Source: U.S. Census Bureau, 2000 Census of Population and Housing, Summary Files 1 and 3.

* 2000 Census data for the one-mile radius are for all Census blocks within a one-mile radius of the intersection of Shirlington Road and Four Mile Run Drive.

** Data on occupied versus vacant units are from the 2000 Census, Summary File 1. Data on housing type are from the 2000 Census, Summary File 3, which is based on sample data. Therefore, the housing unit totals reported will differ slightly due to weighting procedures.



Map 1: Study Areas

Many people living just outside the Nauck study area are drawn to Nauck to shop, visit with family and friends, and attend community meetings. Therefore, it is important to have an understanding of the demographics of people who live just outside the Nauck study area boundaries. The area within a one-mile radius of the Nauck study area includes parts of Arlington County and the City of Alexandria. There are over 52,000 people living in this one-mile radius study area. Residents in this larger area tend to be more geographically mobile, more highly educated, and have higher incomes than Nauck residents. There is also a higher proportion of renters and a lower proportion of children and families in this larger area.

Forecasts

Forecasts of population, households and employment are based on assumptions about future development in Nauck and the surrounding area. The most recent set of forecasts were generated in January 2004 and generally assume redevelopment of the Service Commercial parcels in Nauck with a mix of residential, office and retail development over the next 30 years. The final recommendations of the Nauck Village Center Study may lead to changes in these development assumptions and, thus, changes to the population, household and employment forecasts.

Under the current forecasts, the population of the Nauck area is projected to grow faster than the County as a whole over the next 20 years, increasing by 31 percent between

Appendix C

2000 and 2020. The number of households is projected to increase slightly faster, at 37 percent, reflecting a decline in average household sizes from 2.66 to 2.54. In contrast, the population in the one-mile radius study area is projected to grow by just 12 percent and the number of households will increase by 13 percent.

Current projections show that the number of new jobs in the area will grow much faster than the population, though the total number of jobs in the Nauck area will remain a very small fraction of the County total. By 2020, it is projected there will be 1,776 jobs in the Nauck study area, an increase of 150 percent over the 2000 figure. In contrast, employment in the one-mile radius study area is projected to grow by only 26 percent.

Table 2: Forecasts of Population, Households and Employment

	Tract 1031/TAZ 1277*			One-Mile Radius (TAZs)**			Arlington County		
	2000	2010	2020	2000	2010	2020	2000 [†]	2010	2020
Population	4,150	4,554	5,434	65,147	70,251	72,886	190,313	212,229	233,092
Households	1,559	1,715	2,137	29,633	32,457	33,556	86,901	99,573	111,451
Employment	711	758	1,776	18,013	20,185	22,691	188,376	217,834	254,416

Source: Metropolitan Washington Council of Governments (COG) Round 6.4 Cooperative Forecasts, January 2004.

* Employment forecasts are not available at the Census Tract level but rather are based on boundaries of the COG Transportation Analysis Zones (TAZ). TAZ 1277 is the TAZ that most closely approximates Census Tract 1031.

** Forecasts for the one-mile study area include forecasts for all TAZs partially or wholly contained within a one-mile radius of the intersection of Shirlington Road and Four Mile Run Drive. Therefore, 2000 population and household totals in this table will differ from the 2000 Census figures, which are based on Census geography.

[†] Figures for 2000 differ from the 2000 Census because they have been corrected for undercounts by the Arlington County Planning Division.

Appendix D: Market Study Report

Report for

**Nauck Village Center Retail
Market Study**

Submitted to

**The Shirlington Road Revi-
talization Advisory Board**

By

Faithworks, Inc.

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General Limiting Conditions

Every reasonable effort has been made to ensure that the data contained in this study reflects the most accurate and timely information possible, and is believed to be reliable. This study is based on estimates, assumptions and other information developed by Faithworks, Inc. from its independent research effort, general knowledge of the industry, and consultations with the client, the community and their representatives and other data sources, as noted, used to prepare this study.

No warranty or representation is made by Faithworks, Inc. that any of the projected results contained in this study will actually be achieved.

Possession of this study does not carry with it the right of publication thereof or to use the name of "Faithworks, Inc." in any manner. This study is not to be used with any public or private offering of securities or other similar purpose other than that for which it is prepared. Exceptions to these restrictions may be permitted after obtaining prior written consent from Faithworks, Inc.

This study is qualified in its entirety by, and should be considered in light of, these limitations, conditions and considerations.

Executive Summary

Faithworks Inc. was requested to conduct a retail market study for the proposed Nauck Village Center and to estimate the square footage of retail space the Center can support. The following report summarizes and documents the results of this effort based on Faithworks' research and experience with comparable projects.

Faithworks is pleased to assist the Shirlington Road Revitalization Advisory Board and Arlington County staff with its planning efforts for the Nauck Village Center. We have thoroughly enjoyed working with the Advisory Board and County staff on this challenging and exciting project.

The Nauck Village Center is designed to be a traditional neighborhood-based retail center that would provide necessities of daily life such as retail goods and services, entertainment, community services, employment, and civic activities all within walking distance or a short drive from Nauck residents' homes. The total resident market that the Nauck Village Center is expected to serve includes 65,147 residents and 29,633 households within a one-mile radius. This market is projected to grow to 72,866 residents and 33,556 households by 2020.

Nauck appears to be a positive environment for the development of a neighborhood retail center. According to the *Nauck Village Center Action Plan* families stay longer in Nauck than they do in the County as a whole, indicating that Nauck is a more stable community. And while income levels are lower in the resident market area than in the County, this market area is expected to generate approximately \$1.34 billion dollars in consumer expenditures growing to a projected \$1.52 billion (in current dollars) by 2020. Faithworks estimates that the Nauck Village Center has the potential to capture about \$24.2 million in consumer spending, increasing to \$42.7 million by 2020.

While there is competition in this market area, Faithworks believes that the unique shopping experience that the Nauck Village Center is designed to offer will favorably withstand the competition. Factoring in the local competition and potential retail sales captured, Faithworks believes that there is opportunity for the Nauck Village Center to support between 93,500 to 190,500 in square feet of retail space between now and the year 2020.

Introduction

Background and Objectives

The Bonder and Amanda Johnson CDC and Arlington County retained Faithworks to assist the Shirlington Road Revitalization Advisory Board (SRRAB) in examining the retail market potential for the proposed Nauck Village Center.

The SRRAB is comprised of key community participants representing such groups as the Nauck Civic Association, Bonder and Amanda Johnson CDC, area churches, residents, and local property and business owners. The SRRAB was formed in order to develop and implement a revitalization plan for Nauck. The SRRAB focused on three main objectives for revitalizing the Nauck retail market:

- 1.) To enhance the quality of life for Nauck residents, by meeting the retail needs of the community;
- 2.) To compliment and preserve the existing businesses in the community; and
- 3.) To provide employment opportunities to local residents through the creation of a neighborhood retail center.

Such objectives can be achieved with careful research and planning.

Market Study Analysis

The market study analysis therefore seeks to assess the near-term market demand (consumer needs) for different types of retail stores. It also seeks to propose an appropriate strategy that will help define a market identity and strengthen the Shirlington Road retail environment. This analysis is also meant to provide input for a more comprehensive urban design plan, called *the Nauck, Shirlington, Four Mile Run Plan*.

Our analysis included the following steps outlined below:

- 1.) We determined the target market.
- 2.) We created an instrument to survey the residents and daytime workers about their retail needs and current shopping patterns.
- 3.) We gathered information about the competition.
- 4.) We gathered information about household income levels and characteristics in order to estimate consumer expenditures.
- 5.) We calculated the potential square footage of retail space the target market can sustain.

Appendix D

Proposed Retail Development Concept and Location

Based on the visioning sessions and charrettes that were conducted in 2002 by the Arlington County staff, the community envisions revitalizing Nauck as a traditional neighborhood-based retail center, which would be called the Nauck Village Center. The Nauck Village Center will be a unique neighborhood center that would provide necessities of daily life such as retail goods and services, entertainment, community services, employment, and civic activities all within walking or a short driving distance of Nauck residents' homes.

This center will provide also an excellent central location for transit stops, making it more convenient for people to get to and from the Nauck neighborhood for work activities, retail services, community events, and leisure activities. The central focus of Nauck Village Center would be a town square that may include a community facility, public parking, and open space for playgrounds and green space.

The boundaries for the proposed Nauck Village Center are set at the intersection of Glebe Road and Shirlington Road to the north, at the beginning of the Shirlington Crescent area on Shirlington Road to the south and extend one block east and west of Shirlington Road.

Market Area

Much of the potential success of any retail center is a function of the markets available to be served, as well as the relative drawing power and level of investment in the proposed development. As part of identifying potential retail opportunities, Faithworks conducted an analysis of the available market, studying population and household income.

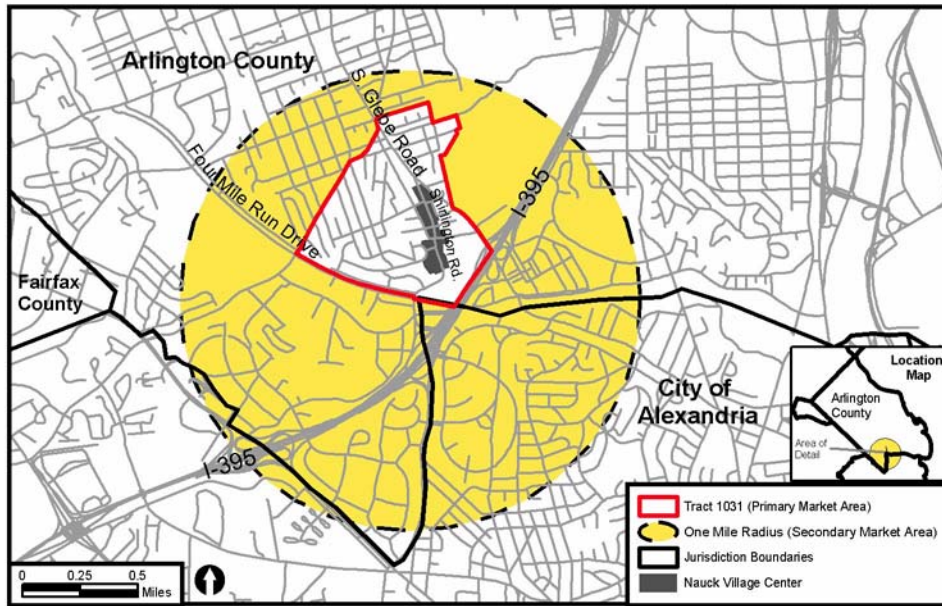
Determination of Market Area

Based on our experience of the Nauck community, as compared to national retail center trends, Faithworks believes that the majority of residents or daytime workers patronizing the neighborhood retail establishments would be drawn from a one-mile radius market area that is subdivided into two parts: the primary and secondary markets.

The primary market area is determined to be the Nauck census tract 1031, because of its natural boundaries, which include three major thoroughfares, a military facility and a major highway. This primary market includes the area bounded by Walter Reed Drive to the west, Four-mile Run Drive and I-395 to the south, the Army Navy Country Club to the east and 17th Street where it crosses Glebe Road and Walter Reed Drive to the north. This area extends about ¼ mile east and about ½ mile west of Shirlington Road at the heart of the proposed neighborhood retail center. The secondary market area includes people residing within a one-mile radius. Of note, the secondary market area encompasses the primary market area. So, to avoid double counting of the total market area, the primary market area population is subtracted from the secondary market area population.

Depending on the types of retail, residents may be drawn from longer distances, however, the major reasons for defining the market areas are as follows. First, the Nauck Village Center has been designed and approved by the Shirlington Road Revitalization Advisory Board and Arlington County staff to be a neighborhood-based retail center. A neighborhood retail center design is limited in size so that a majority of the population is within walking distance (approximately a 1 to 2-block radius) or a short driving distance (1-3 mile radius) of its center. Second, major competition from existing regional, super-regional, community and other neighborhood retail centers draw shoppers out and away from the Nauck commercial area. The further away people reside from the retail center the less power the neighborhood retail center has to draw people to it. As a result, Faithworks has defined the total market area to encompass people residing within a 1-mile radius of the proposed Nauck Village Center.

Of note, Faithworks used 2000 Census data and 2020 projections provided to us by Arlington County staff for the following market analysis. The following map presents the market areas.



Market Area Demographics

Resident Market

As of the 2000 Census, the total resident market has 65,147 residents residing within a one-mile radius of the Nauck Village Center. This population is expected to grow to 72,866 by the year 2020, an increase of approximately 12 percent. This resident market area has a total of 29,633 households, with 1,559 households coming from the primary market area and the remaining 28,074 households coming from the secondary market area. This number is expected to increase at a modest annual growth rate of 0.4 percent until the year 2020. The total household population in the resident market area is forecast to grow by 13.2 percent, adding 3,923 households to the one-mile radius, reaching 33,556 by 2020. The following chart details these resident market demographic trends.

Table 1. Resident Market Demographic Trends

	Primary		Secondary		TOTAL				Arlington County			
	2000	2020	2000	2020	2000	2020	% Growth 00-20	*CAGR 00-20	2000	2020	% Growth 00-20	*CAGR 00-20
Population	4,150	5,434	60,997	67,452	65,147	72,886	11.9%	0.3%	190,313	233,092	22.5%	0.7%
Households	1,559	2,137	28,074	31,419	29,633	33,556	13.2%	0.4%	86,901	111,451	28.3%	0.9%

*CAGR - Compound annual growth rate

**Population forecasts developed by Arlington County are based on 2000 Census data and the percentage change in forecasts for the COG Transportation Analysis Zones (TAZs) 1274, 1275, 1276, and 1277. One-mile study area forecasts are based on geography defined by Census block groups and the percentage change in COG forecasts for comparable TAZs that were generated for the Round 6.3 Forecasts (Round 6.2 for TAZs in Alexandria and Fairfax.)

Source: Faithworks, Inc. and Arlington County Planning Research and Analysis Team.

Household Income

The total resident market area median income is approximately 15 percent below the County's as a whole. Although, income levels are lower in the resident market area than the County, according to the *Nauck Village Center Action Plan* families stay longer in Nauck than they do in the County as a whole, indicating that Nauck is a more stable community.

The total resident market area as a whole has larger households than the County, with the primary market area averaging 2.7 persons per household and the secondary market averaging about 2.2 persons per household. The following table summarizes these findings.

Table 2. Resident Market Household Characteristics for 2000

	Primary	Secondary	TOTAL	Arlington County
Total Households	1,559	28,074	29,633	86,352
Persons per Household	2.7	2.2	2.2	2.2
Median Household Income	\$43,851	\$66,852	\$65,642	\$63,001

Note: Faithworks calculated per person household & median household income for the total market area on a weighted basis.

Source: Arlington County Planning Research and Analysis Team, U.S. Census Bureau, 2000 Census of Population and Housing.

A concentrated consumer base of shoppers with high incomes is cited as the primary competitive advantage to sustaining retail. As a result, retail sales are a function of the number of households and household income in a market area. With a median household income of \$65,642 for the total market area and 29,633 households, the total resident market area has about \$1.95 billion dollars in aggregated annual household income. The potential for capturing these retail sales in Nauck will be discussed further in the following sections.

Daytime Worker Market

Another very important market for potential shoppers is the daytime employee that works in the resident market area. For example, restaurants often serve clientele from local businesses for breakfast and lunch. Retail establishments can generate a significant amount of business during the daytime hours from these daytime workers. It is very difficult to quantify the potential impact of this particular population on retail establishments, because the resident and daytime worker populations often overlap. Some residents may live close to where they work and for this reason, when calculating the impact of both populations, there may be double counting. Therefore, Faithworks has not included the impact of the daytime worker population. However, good outreach and marketing by the business community can make a retail establishment successful with this daytime worker population.

Appendix D

Survey

Methodology

Faithworks conducted a survey of 48 people, over the age of 18 years that work and/or live in Nauck or come to the community regularly. The survey was designed to determine the retail needs and shopping patterns of local shoppers. The survey information attempts to identify existing businesses that do not meet customer needs and determine what businesses local shoppers feel the area lacks.

When deciding where to administer the survey we sought input from The Shirlington Road Revitalization Advisory Board comprised of representatives from the Nauck Civic Association, Bonder and Amanda Johnson CDC, area churches, residents, and local property and business owners. Interviews were conducted, on the weekend of Saturday, May 8th, at the Nauck Community Day event, which took place on the grounds of the Drew Elementary School.

Each survey took an average of about 5 to 10 minutes to complete, and was conducted in a face-to-face interview format. The survey's 13 questions focused on the respondent's preferences for new retail and service businesses in Nauck, current shopping habits, and demographic information.

Respondents were first asked whether they live or work in Nauck. The respondents were then asked to identify the shopping centers where they most often shop for daily goods and services, the types of goods and services they purchase at these locations and what percentage of their total retail purchases is spent at these centers.

The next series of questions addressed preferred characteristics of a place to shop such as convenience and value/pricing, followed by the types of businesses respondents would like to see located along Shirlington Road. After ranking all these preferences, respondents were asked to identify their top three choices.

Finally, respondents were asked to state the types of affordable housing they would most like to see incorporated into the planned improvements for Shirlington Road and a number of demographic questions including whether they are the principle shopper in their household and the range of household income.

Characteristics of the Survey Sample

The 48 individuals surveyed were largely representative of the Nauck population, 21 live in Nauck, 12 work in Nauck, 6 both live and work in Nauck and 9 come to the community for other reasons. The other reasons for coming to the community include, primarily, because their children attend Drew, to visit relatives, or to participate in clubs that regularly meet in the community. Of all respondents, 80 percent indicated they are the

primary shoppers in their household. The respondents were 62 percent female. Most respondents were 35-44 years of age, followed by 25-34. The average household had two adults and one child though some families have several children. Just over six percent of respondents were seniors.

Based on surveyors' observations, the Hispanic population of Nauck is underrepresented in the survey sample. Although the underrepresentation of the Hispanic population may affect the results of the survey, African-Americans make up the majority of residents living in the primary and secondary market areas.

The household income levels of all respondents were fairly evenly distributed across the spectrum from under \$15,000 to over \$100,000. The distribution remained fairly even in all of the categories surveyed (lived, worked, lived and worked in the community, or come for other reasons.)

Table 3. Demographic Characteristics of the Survey Sample

Gender	Percent	Household Income	Percent
Male	38%	\$15,000 and Under	15%
Female	62%	\$15,000 - \$29,999	17%
		\$30,000 - \$44,999	15%
		\$45,000 - \$59,999	11%
		\$60,000 - \$74,999	13%
		\$75,000 - \$100,000	17%
		\$100,000 and above	9%
		No response	4%
Household Configuration	Percent	Age	Percent
Adults (18 and Over)	65%	Under 17 years old	0%
Older children (13 to 17 years)	13%	18-24 years old	10%
Children (6 to 12 years)	12%	25-34 years old	19%
Younger children (under 5 years)	10%	35-44 years old	44%
		45-54 years old	10%
		55-64 years old	6%
		65 years and above	6%
		No response	4%

Source: Faithworks, Inc.

Survey Findings

General Shopping Patterns and Characteristics

The shopping areas most often visited when purchasing daily goods and services are, first, Bailey's Crossroads Area; second, Adams Square (Giant and Safeway); and, third, Potomac Yards Mall. Ranking significantly behind these are Shirley Park Shopping Center (Giant); and Columbia Pike Plaza Center (CVS).

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The types of stores and services shoppers use in these locations are first, grocery; second, drugstore/pharmacy; third, general merchandise; fourth, apparel (clothing/shoes); and fifth, film developing.

When asked what percentage of their monthly retail purchases are spent at these centers most responded in the 11-25 percent range; with almost as many saying in the 26-50 percent range and almost the same number saying in the 50-75 percent range. A very small number estimated less than 10 percent though several did indicate greater than 75 percent of their retail dollars were spent at these centers.

When asked to rank the importance of factors when considering a place to shop the first choice was “value/pricing”, followed closely by “convenience”. After these factors, “safety” and “variety of retail services” tied, with “cleanliness” close behind. When asked what factors were somewhat important, “parking” and “appearance” were identified in that order. The least important factor was “friendly to pedestrians”.

Retail Needs

When asked to select types of businesses they would like to see along Shirlington Road the highest number wanted professional services, namely medical and child care in that order. Next came a family-style restaurant, followed by a tie for convenience store/deli and a bookstore. Just behind these, however, was a full size grocery store. A variety of other businesses and services were mentioned including legal services, music store, laundromat, hair salon/barber, bakery/coffee shop, clothing store, restaurant (fast food/carry-out), and drug store/pharmacy in that order. Also mentioned were video store, banking, larger discount stores and small specialty shops.

When asked to identify their top three choices, the results varied only slightly from the overall ranking above. Choices were, first, childcare; second, medical services; and third, a bookstore. After the top three, this question resulted in a tie between convenience store/deli and fast food/carry out restaurant followed by family style restaurant.

Housing Needs

Respondents were also asked their preference for types of housing they would like to see incorporated into the Shirlington Road plan. The highest response requested single-family homes. Townhouses and senior apartments tied in second place with assisted living coming next. Many respondents made a point of stating how important it is that these housing choices are affordable.

Limits of the Survey Results

By inquiring about shopping patterns and listing certain types of retail shops, the questions may have steered respondents away from indicating that they wanted to see additional types of retail businesses in the community. In spite of this, we feel that the questions did provide valid answers about the retail needs of the community.

Market Competition

Faithworks surveyed the competitive environment in which the proposed Nauck Village Center would be located. Within the one-mile radius of the market area, there are 2 shopping centers. A description of these centers is provided below.

Village at Shirlington: This retail center was renovated in 1987 as a mixed-use development, which includes about 202,000 square feet of retail space. The center is a block-long piazza that provides specialty retail, food and entertainment establishments. It is structured more as a destination place for business luncheons or for people seeking a nice evening out for the theater and dinner. Generally, it is not a location where area residents can purchase daily goods and services.

More than half of the original buildings were maintained and renovated. A low-rise office building, parking garage and retail buildings were constructed to add density and vitality to the center. Brick paving, fountains and landscaping have contributed to a high-quality pedestrian environment. Public events have been programmed at the center to bring residents to the well-designed public space.

The owners of Village at Shirlington plan another phase of development, which will consist of almost 42,000 square feet of retail space, about 645 residential units, mostly condominiums, a public plaza, library, transit public center and a live theater.

Shirley Park Shopping Center: This 130,000 square foot retail center is the closest competition for daily goods and services for residents. The neighborhood retail center fronts on South Glebe Road and is located between South Langley Street on the east and South Meade Street on the west. While Shirley Park is currently a direct competition to Nauck, the planned design of the Nauck Village Center creates a unique niche market.

Faithworks believes that the unique shopping experience that the Nauck Village Center is designed to offer will favorably withstand the competition.

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Potential Retail Demand

The demand for retail space is based ultimately on the demand for retail goods. The demand for retail goods is driven by a complex interaction of economic forces, consumer confidence and household income levels. As retail sales increase, stores expand, and new stores open. This demand can be measured by tracking how much money consumers are spending on retail.

As part of identifying the demand for retail in the one-mile market area, Faithworks, first, gathered information about household income levels and characteristics in order to estimate consumer expenditures, which was summarized in the market area demographics section. Second, we determined the most desired categories of retail for the proposed neighborhood-based retail center and estimated consumer expenditures in those categories. Third, we applied “captures rates” to the applicable consumer expenditures in order to estimate the total number of potential dollars that could be spent by people at the proposed Nauck Village Center. Lastly, based on the potential dollars captured, Faithworks estimated the amount of gross supportable retail space.

Resident Market Consumer Spending

The U.S. Bureau of Labor Statistics estimates retail sales from their origin through the Consumer Expenditures Surveys. These surveys have two aspects: The Diary Survey and the Interview Survey. In the Diary, respondents keep track of all their expenditures in two consecutive one-week diaries. This approach is designed to pick up “small ticket,” frequently purchased items such as groceries and housekeeping supplies.

The Interview Survey utilizes a rotating panel survey in which interviewers sit down with respondents each quarter for five consecutive quarters and ask how they spent all of their money during the prior three months. This approach is designed to pick up large or regularly occurring expenses such as vehicle and property purchases, major appliances, rent, or insurance payments.

The Bureau of Labor Statistics then compiles these two aspects into combined results, applying appropriate weight to each to generate the general spending habits by location, income, age, ethnicity and other factors. The Bureau of Labor Statistics compiles this information on a Metropolitan Statistical Area (MSA) level; thus Faithworks applied MSA spending habits to the demographic characteristics of the market area to calculate area consumer expenditures.

According to the most recent figures, households in the Washington DC MSA spend roughly 69 percent of their before tax-income. As a result, the 29,633 households in the total market area, which have about \$1.95 billion dollars in aggregated annual household income, generating about \$1.34 billion dollars in consumer expenditures. In 2020, the household population will increase to 33,556 increasing the aggregated annual household

income to almost \$2.19 billion (in current dollars), generating about \$1.52 billion dollars (in current dollars) in consumer expenditures.

Determining Applicable Categories of Retail

Because all categories of consumer expenditures do not fit into the neighborhood retail center design, Faithworks focused on eight major types of retail goods. These categories include Food (Food at home and Food away from home), Alcoholic Beverages, Home (Housekeeping Supplies and Household Furnishing/Equipment), Apparel and Related Services, Health Care, Entertainment, Personal Care Products and Supplies, and Reading.

Food At Home commonly applies to food stores, ranging from major supermarkets to “mom and pop” bakeries. Food Away From Home typically includes restaurant meals, carry-outs, and catered affairs. The Alcoholic Beverages category includes beer, wine, hard liquor and any other alcoholic beverages. Housekeeping Supplies and Household Furnishing/Equipment would include a full range of home supplies, furniture and appliance dealers. Apparel and Related Services include shoe stores, general merchandise such as department and discount retailers and specialty stores. The Health Care category generally includes out-of-pocket health care expenses, such as drugs, (prescription and nonprescription) and medical care supplies. These healthcare supplies could be found at such stores as CVS, Rite Aid, etc. The Entertainment category includes various items, such as fees and admissions, television, radio, and sound equipment, pets, toys, hobbies, and playground equipment and other entertainment equipment and services. Personal Care Products and Supplies include items pertaining to personal care items for males and females. Reading includes the purchase of newspapers, magazines, books, etc.

According to the most recent consumer spending data gathered from the U.S. Bureau of Labor Statistics, consumers spend about 35 percent in these applicable categories. The largest amount of consumer’s household income is spent on food. About 6.3 percent is spent on food at home and 5.6 percent is spent on eating out. The following table details the percentages of consumer spending within these applicable retail categories.

Table 4. Percentage of Consumer Spending on Applicable Retail Categories

Types of Retail Goods	Percent
Food	
Food at home	6.3%
Food away from home	5.6%
Alcoholic beverages	1.0%
Home	
Housekeeping Supplies	1.1%
Household Furnishings/Equipment	4.5%
Apparel and Related Services	4.3%
Health care	4.6%
Entertainment	5.3%
Personal care products and supplies	1.4%
Reading	0.5%
Total Percentage of Applicable Consumer Spending	35%

Source: U.S. Bureau of Labor Statistics and Faithworks

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The MSA spending percentages were applied to the one-mile market area aggregated annual consumer expenditures to determine total one-mile market area spending within these applicable retail categories. Faithworks calculations found that the total market area retail spending in 2000 for applicable categories is estimated to be \$464.6 million (in current dollars) and, by 2020, the total retail spending in these categories is expected to increase to \$524 million (in current dollars). The following table details these results.

Table 5. 2000 to 2020 Estimated Market Area Annual Consumer Spending (000s)

Types of Retail Goods	2000			2020		
	Primary	Secondary	TOTAL	Primary	Secondary	TOTAL
Food						
Food at home	\$2,971	\$81,562	\$84,533	\$4,072	\$91,281	\$95,353
Food away from home	\$2,654	\$72,873	\$75,527	\$3,639	\$81,556	\$85,194
Alcoholic beverages	\$463	\$12,723	\$13,186	\$635	\$14,239	\$14,874
Home						
Housekeeping Supplies	\$509	\$13,968	\$14,477	\$697	\$15,633	\$16,330
Household Furnishings/Equipment	\$2,127	\$58,390	\$60,517	\$2,915	\$65,348	\$68,263
Apparel and Related Services	\$2,030	\$55,738	\$57,768	\$2,783	\$62,379	\$65,162
Health care	\$2,172	\$59,639	\$61,811	\$2,978	\$66,745	\$69,723
Entertainment	\$2,503	\$68,714	\$71,217	\$3,431	\$76,902	\$80,333
Personal care products and supplies	\$661	\$18,151	\$18,812	\$906	\$20,314	\$21,220
Reading	\$236	\$6,482	\$6,719	\$324	\$7,255	\$7,579
TOTAL	\$16,327	\$448,241	\$464,569	\$22,381	\$501,649	\$524,030

Source: Faithworks, Inc.

Capturing Potential Dollars

Based on the results of the survey, it was concluded that the majority of residents drive outside of the Nauck community to shop for basic daily goods and services. However, most residents do not drive very far, so there is a great potential for the Nauck Village Center to capture these consumer expenditures and keep them in the community. Our survey showed that most residents spend between 11 and 75 percent of their monthly retail dollars at shopping centers very close to their home. As a result, Faithworks estimated maximum capture rates based on 2000 consumer spending between 2 and 30 percent and increasing the capture rates based on projected 2020 consumer spending to between 3 and 50 percent depending on the product or service. Convenience items such as food at home (groceries) and personal care products are typically purchased at stores close to an individual's place of residence. Despite the convenience stores and pharmacy in Nauck, the results of the survey suggest that the major grocery and drug stores outside of Nauck attract a sizable percentage of resident's expenditures. Individuals are typically willing to travel to buy goods, such as apparel items.

The potential growth in rates of capture could result in significant amounts of expenditures being returned to the Nauck community. We multiplied the estimated capture rates by the estimated total consumer expenditures in the primary and secondary market. The capture rates decrease from the primary to the secondary market, because the further

away people reside from the retail center the less power the retail center has to capture those consumer expenditures. Estimated capture rates are expected to be modest in the early stages of development but by 2020, as the Nauck Village Center is close to completion, capture rates increase. We estimated that over \$24.2 million in expenditures by residents in the total market area could have been captured by businesses located at the Nauck Village Center in 2000, and expect this level of expenditures to increase to \$42.7 million by 2020. The following charts detail these estimations.

Table 6. 2000 Estimated Retail Potential for Nauck Village Center (000s)

Types of Retail Goods	Primary			Secondary			TOTAL
	Annual Expenditures	Capture Rates	Retail Market Potential	Annual Expenditures	Capture Rates	Retail Market Potential	Retail Market Potential
Food							
Food at home	\$2,971	25%	\$743	\$81,562	10%	\$8,156	\$8,899
Food away from home	\$2,654	10%	\$265	\$72,873	5%	\$3,644	\$3,909
Alcoholic beverages	\$463	15%	\$70	\$12,723	7%	\$891	\$960
Home							
Housekeeping Supplies	\$509	10%	\$51	\$13,968	5%	\$698	\$749
Household Furnishings/Equipment	\$2,127	5%	\$106	\$58,390	2%	\$1,168	\$1,274
Apparel and Related Services	\$2,030	5%	\$102	\$55,738	2%	\$1,115	\$1,216
Health care	\$2,172	10%	\$217	\$59,639	5%	\$2,982	\$3,199
Entertainment	\$2,503	5%	\$125	\$68,714	3%	\$2,061	\$2,187
Personal care products and supplies	\$661	30%	\$198	\$18,151	7%	\$1,271	\$1,469
Reading	\$236	10%	\$24	\$6,482	5%	\$324	\$348
Total Potential Retail Sales	\$16,327		\$1,901	\$448,241		\$22,310	\$24,210

Source: Faithworks, Inc.

Table 7. 2020 Estimated Market Potential for Nauck Village Center (000s)

Types of Retail Goods	Primary			Secondary			TOTAL
	Annual Expenditures	Capture Rates	Retail Market Potential	Annual Expenditures	Capture Rates	Retail Market Potential	Retail Market Potential
Food							
Food at home	\$4,072	50%	\$2,036	\$91,281	15%	\$13,692	\$15,728
Food away from home	\$3,639	20%	\$728	\$81,556	8%	\$6,117	\$6,844
Alcoholic beverages	\$635	30%	\$191	\$14,239	11%	\$1,495	\$1,686
Home							
Housekeeping Supplies	\$697	20%	\$139	\$15,633	8%	\$1,172	\$1,312
Household Furnishings/Equipment	\$2,915	10%	\$292	\$65,348	3%	\$1,960	\$2,252
Apparel and Related Services	\$2,783	10%	\$278	\$62,379	3%	\$1,871	\$2,150
Health care	\$2,978	20%	\$596	\$66,745	8%	\$5,006	\$5,601
Entertainment	\$3,431	10%	\$343	\$76,902	5%	\$3,461	\$3,804
Personal care products and supplies	\$906	60%	\$544	\$20,314	11%	\$2,133	\$2,677
Reading	\$324	20%	\$65	\$7,255	8%	\$544	\$609
Total Potential Retail Sales	\$22,381		\$5,211	\$501,649		\$37,452	\$42,663

Source: Faithworks, Inc.

Projected Gross Supportable Retail Space

According to the 2002, Urban Land Institute’s annual benchmark study of retail sales per square foot at shopping centers in the U.S., the median retail sales per square foot for community and neighborhood sized centers range from \$224 to \$259. Based on this data, Faithworks divided the range of median retail sales per square foot by the total potential dollars captured within the retail categories to determine the amount of gross supportable retail space at the proposed Nauck Village Center. Based on this retail market analysis, there is demand for retail space between 93,500 and 108,200 square feet, increasing to between 164,700 and 190,500 square feet by year 2020. Supportable retail space by type of retail goods and services is summarized below.

Table 8. Gross Square Footage of Retail Supportable by Proposed Nauck Village Center

Types of Retail Goods	2000	2020
Food		
Food at home	34,400 - 39,700	60,700 - 70,200
Food away from home	15,100 - 17,500	26,400 - 30,600
Alcoholic beverages	3,700 - 4,300	6,500 - 7,500
Home		
Housekeeping Supplies	2,900 - 3,300	5,100 - 5,900
Household Furnishings/Equipment	4,900 - 5,700	8,700 - 10,100
Apparel and Related Services	4,700 - 5,400	8,300 - 9,600
Health care	12,400 - 14,300	21,600 - 25,000
Entertainment	8,400 - 9,800	14,700 - 17,000
Personal care products and supplies	5,700 - 6,600	10,300 - 11,900
Reading	1,300 - 1,600	2,400 - 2,700
TOTAL	93,500 - 108,200	164,700 - 190,500

Source: Faithworks, Inc.

Retail Mix Strategy

Faithworks believes that the best strategy for implementing an appropriate retail mix should focus on strengthening existing retail stores and services and attracting new ones. Based on supportable retail space findings, Faithworks recommends that the retail mix for the Nauck Village Center should include the following basic components:

Specialty Food Market. While there are a number of supermarkets within driving distance, there is potential demand for specialty groceries and food stores that could be met with the addition of a specialty food market. Such a market can take different forms, including an “international market” with small vendors providing a variety of foods, a more typical community “public market,” or a specialty grocery stores that can build on a niche (organic). Examples of these niche grocery stores include Trader Joe’s and Whole Foods. The market analysis suggests that there is demand for serving these niches, but further analysis would be required to test the feasibility of a specific type of specialty food niche.

Restaurants & Eateries. According to responses from the retail survey that was conducted and findings from the market analysis, there is unmet demand for restaurants and other types of eating establishments. The market analysis forecasted demand through 2020 with an assumption that a pro-active marketing strategy would be implemented to help capture a share of the resident market, as well as the daytime worker population. The market analysis forecasted demand for up to 30,600 square feet for food away from home, which could include sit-down family-style, fast-food or carryout restaurants. As well, this category could be combined into various product concepts. For example, there are coffee shops and bookstores that also serve food as part of a café/store concept.

Home Supplies & Furnishings. In many communities, antique, vintage, or reproduction furniture stores have replaced the large furniture stores, such as IKEA and Marlo's Furniture, and home furnishing stores, such as Pier I, World Market, Crate & Barrel are popular. E-Bay and other on-line sites have generated even more competition for these retailers. With such great competition for this market, Nauck may lack the ability to draw significant dollars in this retail category. However, Nauck may have the ability to draw customers for fine crafts, antiques or specialty home furnishings that may be difficult to find in other stores. Because of Nauck's rich African American history, specialty stores that carry Afrocentric fine crafts, antiques or specialty home furnishings may add a strong historic community connection linking the old with the new.

Apparel & Accessories. Existing community and regional centers close to Nauck, such as Bailey's Crossroads, Potomac Yards, Pentagon Row and Pentagon Center create an extremely competitive retail environment for apparel and services. Capturing a larger portion of the regional discount market is constrained due to competition from these regional and community retail centers that have such retailers as Old Navy, Marshall's, Wal-Mart, Target and other discount chains. According to survey respondents, they will drive miles to these centers to make apparel purchases. The market analysis suggests that there is some demand for apparel and accessories, however, further analysis would be required to test the feasibility of a specific type of specialty apparel so that a potential Nauck retailer is not competing head-on for the same, or slightly different, market. There may be opportunities to cater to a specialty market, such as men's apparel or outdoor and recreational wear.

Drug Store/Pharmacy. Survey respondents indicated that the 2nd most frequent reason for driving out of the community is to make purchases at local drugstores and pharmacies for daily goods and services. Although there are several drugstores and pharmacies in the area, there is the potential to provide these goods and services at the Nauck Village Center and retain some of these retail dollars in the community. This category could also compliment and enhance other services in the community. For example, survey respondents indicated that medical services and child care are desired, so clustering these professional services close to a drugstore or pharmacy may enhance both businesses.

Misc. Convenience. In general, Nauck is under-served for convenience uses. According to survey respondents, there are opportunities to attract music stores, video stores, flo-

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rists, laundromats, bakery/coffee shop, local banks, hair salons and barber shops. While this neighborhood retail center is expected to have a unique visual and physical presence, the majority of its retail should be focused on catering to the basic daily needs of the residents and daytime workers.

Key Issues

As part of determining retail demand, Faithworks has identified some key issues and opportunities that will impact the Nauck Village Center, particularly in the short-term, affecting people's willingness to come to the Nauck community to fulfill their retail needs.

Vacancy

Many indicators suggest that community revitalization efforts are underway, but they have not made a significant impact on the physical appearance of the main commercial street. Shirlington Road remains a hodgepodge of vacant lots, a mix of vacant and occupied homes, mixed in with various vacant and occupied storefront businesses. According to the August 2003 report titled *A Current Assessment of Arlington's Community Retail Base* prepared by the Arlington Economic Development (AED), Nauck has the 4th highest vacancy rate of the 57 commercial areas and districts in Arlington County. While the current vacancy decreases the appeal of the street to businesses and shoppers, as the Nauck Plan is implemented and project development is underway, more businesses and shoppers will be attracted to this neighborhood.

Security

Safety concerns affect new retail development in many neighborhood commercial areas and this is true for the area where the Nauck Village Center will be located. A group of individuals loitering in front of retail establishments is a visible indicator that security can be a concern. This issue is intensified because many people living outside the community, such as daytime workers, have little knowledge regarding various neighborhoods and may perceive greater risk than exists. Addressing safety concerns and perceptions are a critical factor in developing a successful retail center.

Location and Drawing Ability (Lack of a strong major anchor)

Currently, Shirlington Road does not have an anchor tenant. Anchors that can attract a number of customers on a regular basis to a certain location, such as supermarkets and drug stores, are important to the success of a neighborhood-based retail center.

Historical Identity

Understanding and meeting demand are very important components to retail development. Another equally important component is developing a niche. One of Nauck's strongest assets is its historic environment and the Shirlington Road corridor's long and rich history as a focal point for the Nauck community. Because of this rich history, Faithworks recommends that a focused effort be made to integrate the historic "hometown" feel of Nauck into the development of the Nauck Village Center. Faithworks believes that smaller, independent retailers and restaurants that enhance the uniqueness of the Nauck community (coupled with the drawing ability of some appropriate anchor stores) should define an attractive niche concept, which is consistent with the Nauck Plan.

Conclusion

Much demand is left unmet by neighborhood retailers in the Nauck community. Although it is almost impossible for a neighborhood to be completely self-sustaining, the majority of residents leave the Nauck neighborhood to purchase basic daily goods and services. There are no large or medium grocery stores, sit-down restaurants, shoe or clothing stores, sporting goods stores, appliance stores, hardware stores, coffee shops, bookstores, or department stores. Faithworks concluded that retail space in the range of 93,500 to 190,500 square feet could be established and supported along Shirlington Road between now and the year 2020.

Appendix E: Implementation Matrix/Impacts

#	Recommendation	Timing	Departments	Funding Source	Impact
1	Adopt the Nauck Village Center Action Plan	July 2004 CB Mtg.	CPHD	NA	The plan will provide a policy framework that will guide future County Board action relative to development within the area.
Land Use and Zoning					
2	Designate the "Nauck Village Center Special Revitalization District".	July 2004 CB Mtg.	CPHD	NA	All Properties within the boundaries of this district will be eligible for special regulations and incentives recommended in this plan
3	Change land use designations on the GLUP.	July 2004 CB Mtg.	CPHD	NA	These changes will insure that the County's General Land Use Plan is consistent with the vision and concept presented in the <i>Nauck Village Center Action Plan</i>
4	Amend Section 31.A.17 of the Zoning Ordinance to include new provisions under Unified Commercial/Mixed Use Development specific to properties located in the "Nauck Village Center Special Revitalization District."	July 2004 CB Mtg.	CPHD	NA	This amendment will modify the requirements for Unified Commercial/Mixed Use Developments within the "C-2" Service Commercial Districts so that such developments within the Nauck Special Revitalization District are encouraged to occur in such a manner that they reinforce3 the vision and concept.
Transportation					
5	Install a traffic light at the intersection of 24 th Road South and Shirlington Road.	ST	DES	Already Funded	This Signal will increase safety at this key intersection near the town square.
6	Design and develop improvements to the intersection of Shirlington Road and 24 th Road South.	MT	DES	Dev./Comm. Revit. Program TBD	Improvements should ensure a safe pedestrian environment and provide efficient circulation at this key location.
7	Add bike route signage on South Kenmore Street north of 24 th Road South and add a dedicated bike lane on Shirlington Road south of 24 th Road South.	MT	DES	TBD	These improvements will provide a safe and efficient route for bicyclists to access and travel through the area.
8	Design and develop gateway features at the intersection of Glebe Road and Shirlington Road as well as at the intersection of 24 th Road South and Glebe Road.	ST	DES	Comm. Revit. Program/ TBD	These features will enhance the appearance of the area and provide an inviting image that will help support the establishment of businesses in the area.
9	Review the current routing and location of stops and shelters for local bus service in and through the Nauck community.	ST	DES	TBD	This process will help ensure that transit service adequately addresses the needs of residents and businesses.

"ST" denotes short-term recommendations expected to be underway by Fall 2004.

"MT" denotes medium-term recommendations expected to begin within 1-3 years.

Nauck Village Center Action Plan

Appendix E

#	Recommendation	Timing	Departments	Funding Source	Impact
10	Prepare an analysis as to possible locations for public parking facilities along Shirlington Road.	MT	DES, AED, CPHD, ONS	TBD	Publicly funded parking facilities can serve as a development subsidy, lowering the cost of new development through the provision of shared parking. Well located facilities will support successful business development.
11	Develop "Crescent Area" street grid	ST	DES, CPHD	TBD	A street grid in this area will provide travel routes within and through the area, relieving potential congestion along Shirlington Road. This will allow Shirlington Road to become more pedestrian focused. Additionally, a street grid will allow future planning areas to develop in a similarly pedestrian friendly area
Economic Development					
12	County Board Designation of a Nauck Revitalization Organization with co-chairs one from the Nauck Civic Association and another from the membership.	ST/ ongoing	CPHD, CMO	NA	This team will insure that community concerns and plan goals are addressed early in the development process.
13	Designate a Nauck Village Center Implementation Team in the County Government with a full-time Nauck Coordinator.	ST/ ongoing	CPHD, ONS, AED, DES, CMO	NA	This team will support the efforts of the community team in implementing the plan and responding to development proposals.
14	Offer Technical/Professional Services Grants/Loans	ST/ ongoing	CPHD, AED, DMF	CDBG/ TBD	This program will increase opportunities for redevelopment by lowering the initial cost of a project.
15	Adopt Partial Property Tax Exemptions.	ST/ ongoing (adv. In June for Sept.)	CPHD, DES	NA	The general exemption will lower the cost of development within the Nauck SRD by exempting the value of future improvements (for certain projects) from taxation. This program increases the length of exemption possible for certain projects that provide affordable housing at certain levels.
16	Establish an Infrastructure Funding Assistance Program.	ST/ ongoing – (Comm. Revit. App. Due June 18)	CPHD, DES	Comm. Revit. Prog./ other County funds	The provision of funds for infrastructure improvements (potentially including sidewalk, curb/gutter, parking and public spaces) will lower costs for the developer allowing projects to go forward in support of the plan.
17	Request funds from the "Commercial Revitalization Fund" and/or other CIP sources.	ST	CPHD, DES	Comm. Revit. Prog./ other	These funds would be used primarily for recommendations 16 and 18.

"ST" denotes short-term recommendations expected to be underway by Fall 2004.

"MT" denotes medium-term recommendations expected to begin within 1-3 years.

#	Recommendation	Timing	Departments	Funding Source	Impact
18	Develop and implement the Town Square Project Plan.	ST	CPHD, DES, PRCR	Comm. Revit. Prog./ other County funds	The Town Square will be an important focal point of a revitalized Nauck Village Center. Early planning and implementation of this component of the vision will support present and future private investment.
19	Consider the use of bonus density.	ST/ on-going	CPHD	NA	Used within the guidelines presented by the vision and the concept plan, bonus density can provide a significant incentive for the creation of additional affordable housing units.
20	Allow grants of surplus public property to achieve additional affordable housing.	ST/ on-going	CPHD, DES, DMF	NA	Grants of surplus public property will serve as a direct subsidy for projects that supply the requested amount of affordable housing.
21	Encourage access to County housing funds.	ST/ on-going	CPHD, DMF	AHIF, HRF, Etc.	Projects within the Nauck Village Center Special Revitalization District should be encouraged to access County housing funds in order to increase the number of affordable housing units or to increase the level of housing subsidy.

"ST" denotes short-term recommendations expected to be underway by Fall 2004.

"MT" denotes medium-term recommendations expected to begin within 1-3 years.

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Nauck Civic Association

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