EISENHOWER WEST
SMALL AREA PLAN

Adopted December 12, 2015 - Ordinance No. 4980; Amended 4/13/19, Ord. 5219

SMITHGROUP JJR

AMENDMENTS TO EISENHOWER WEST SMALL AREA PLAN - as of 4/18/19

Master Plan Amendment #	Ordinance #	Passage Date	Description/Address	Small Area Plan	Land Use Change
MPA2018-0006	5219	4/13/2019	880 and 890 S Pickett St, and 620 Burnside Pl	Eisenhower West	Amend Land Use map to allow self-storage on applicable parcel; Amend Neighborhood 1 Land Use diagram to allow self-storage on the applicable parcel; Revise definition of PWR uses on page 32 to exclude storage/warehouse uses

EISENHOWER WEST
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Adopted November 14, 2015

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PLAN OVERVIEW

On May 29, 2013 the Alexandria City Council identified Eisenhower West as the area of a major planning effort to begin in 2014. The City's Department of Planning and Zoning (P&Z) began the small area planning process in early 2014.

The purpose of the Eisenhower West Small Area Plan is to provide a framework to guide the development of the 620-acre plan area over the next 25 years. The Plan was developed through a community and stakeholder engagement process supported by analysis of major elements including urban design, land use, transportation, parks and open space, energy, environment, and market economics.

Key Elements of the Plan

- Establishes a new grid of streets and connections for pedestrians, bikes and cars;
- Incorporates a straightening of Eisenhower Avenue on the western end of the plan area to create a more urban pedestrian-oriented environment adjacent to the Van Dorn Metrorail station, while also increasing the flexibility in redevelopment of adjacent parcels;
- Introduces five potential alignments for a north-south multimodal bridge that will connect pedestrians, bikes, transit, and cars from South Pickett Street to the Van Dorn Metrorail Station, highlighted in the Landmark/Van Dorn Corridor Plan;
- Introduces Production, Wholesale, and Repair (PWR) uses including "maker" and flex space to keep some of the types of existing uses within the plan area while also providing new opportunities for business and employment growth;
- Provides a mix of office/institutional, retail, residential, and PWR uses;
- Concentrates height and density at the Van Dorn Metrorail Station;
- Encourages height transitions adjacent to existing communities such as Cameron Station and Summers Grove;
- Consistent with the Housing Master Plan, encourages co-location of civic and municipal uses with affordable housing, including, potentially, a mixed-income assisted living facility, inclusion of affordable housing in each neighborhood, where feasible, and bonus densities of 20% or more, particularly where taller heights are allowed, to increase the production of affordable residential units;
- Creates an open space network by enhancing existing parks and creating new parks, open spaces, and green connections including a revitalized Backlick Run greenway, a plaza near the Van Dorn Metrorail Station, and a new Bush Hill park;
- Identifies nodes of mixed-use activity near the Van Dorn Metrorail Station, Clermont Avenue, South Pickett Street, and west of Van Dorn Street;
- Establishes six distinct neighborhoods within the plan area; and
- Establishes a threshold of development allowed and concurrent with necessary public infrastructure improvements.

1 INTRODUCTION AND BACKGROUND

1. INTRODUCTION AND BACKGROUND

1.1 SITE AND CONTEXT

The Eisenhower West Small Area Plan area consists of approximately 620 acres of land located in the southwestern corner of the City of Alexandria, Virginia, bordering Fairfax County (See Fig. 1.1). The plan area contains commercial, industrial and residential uses (Fig. 1.2) and is bounded by the Blue Line Metrorail and Amtrak rail tracks to the south (including the Van Dorn Metrorail Station); the Alexandria/ Fairfax County border to the west, S. Pickett Street and Duke Street to the north, and Holmes Run and Cameron Run to the east. The plan area is bisected by Backlick Run, the Norfolk-Southern railway lines, and contains several large parks and four residential developments (See Fig. 1.3). See Appendix for more information.

1.2 PURPOSE OF THE PLAN

The purpose of the Eisenhower West Small Area Plan is to provide a framework to guide the development of the plan area over the next 25 years. The Plan was developed through a community and stakeholder engagement process supported by analysis of major elements including urban design, land use, transportation, parks and open space, energy, environment, and market economics.

With the exception of Cameron Station, local parks, and Backlick Run, the Eisenhower West plan area lacks a strong character, sense of place, or cohesive identity. The area consists mostly of an eclectic mix of large footprint, low-rise, light-industrial or warehouse buildings; islands of residential development; some heavy industrial uses, and surface parking (See Fig. 1.4). The culturally, economically, and generationally diverse community in and around the area came together to help define a future character for the area through the Small Area Plan.

1.3 ECONOMIC DEVELOPMENT

Market Analysis Summary

The market analysis of the Eisenhower West plan area provides a baseline assessment of current and projected market conditions in order to inform the development of the Small Area Plan, and considers:

- What land uses are market supportable in the short and long terms?
- What is an appropriate balance of land uses in the area?
- How can the City encourage population growth while also encouraging job growth?
- How can the City facilitate transit-oriented development in Eisenhower West?

Demographic and Economic Trends

- Eisenhower West was primarily a commercial and industrial area until the introduction of residential development in the late 1990s. As a result, the residential population grew by almost 300% to nearly 5,000 people between 2000 and 2014.
- New households in Eisenhower West tend to have higher household incomes, be younger, and have fewer children than in the City overall.
- Eisenhower West is not a particularly employment dense area. The 8,418 existing jobs represent 8.1% of the City's total jobs and are largely in wholesale trade and administrative and support services (back office). Employment in these sectors represents 32% of wholesale trade jobs and 25% of back office.
- Businesses in Eisenhower West benefit from its location inside the Beltway and proximity to Washington, DC business and consumer markets.

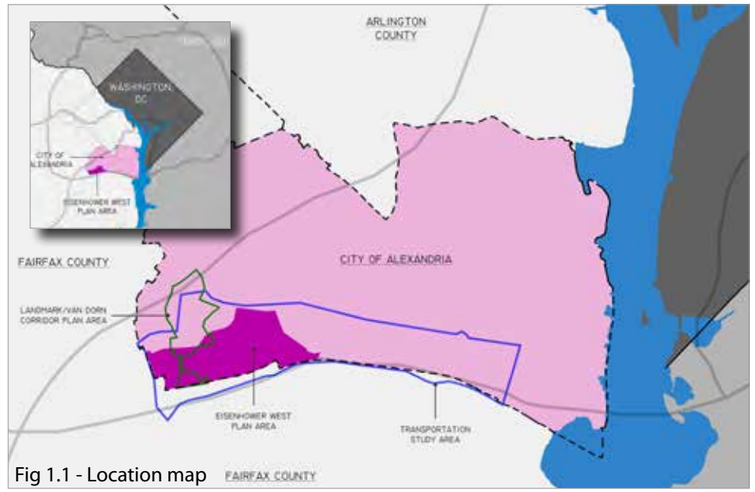


Fig 1.1 - Location map

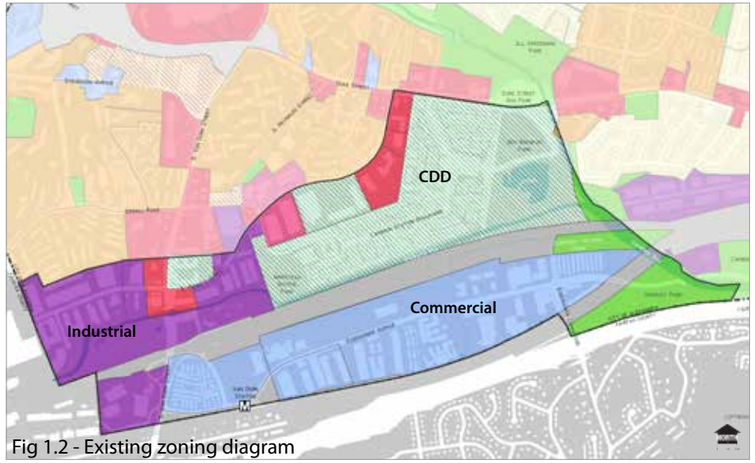


Fig 1.2 - Existing zoning diagram

Fig. 1.3 - Eisenhower West Existing Site Plan

Eisenhower West Demographics

- Population - 4,907 residents
- 297% overall growth in residents between 2000 and 2014
- 8,418 existing jobs
- Contains 32% of all wholesale trade jobs within City of Alexandria
- 69% of households have annual incomes greater than $100,000
- 27% of households are between the ages of 25-34
- 40% are single-person households

Source: City of Alexandria, ESRI Business Analyst, 2014

Fig. 1.4 - Eisenhower West Plan Area

EXISTING MARKET ANALYSIS SUMMARY

RESIDENTIAL

- 3,058 townhouse and multifamily units currently in Eisenhower West, all developed since 1999
- Equal numbers of owned and rented units
- Low vacancy and rising rents signal a robust rental market in the City, but are also causing a decline in market-affordable units across western Alexandria
- Aging multifamily housing creates challenges across western Alexandria
- Growing demand for new multifamily rental options are driven, in part, by Metro-accessible location inside the Beltway , and potentially by the Transportation Security Administration
- Strong for-sale housing market—reflected in increasing inventory and declining number of days units are on market before being sold—offers limited affordable ownership options

RETAIL

- Retail primarily characterized by dated shopping malls and car dealerships
- Little new retail built in the past 20 years
- Area residents are primary drivers of retail sales
- New residential will continue to drive up demand
- Unmet demand for new grocery stores, general merchandise stores, and restaurants
- Landmark Mall and potential redevelopment within the Van Dorn corridor may absorb some demand
- Gaps appear substantial enough to support new neighborhood-oriented retail development in Eisenhower West

OFFICE

- Only 4 office buildings in Eisenhower West
- Not a major office market in the City of Alexandria
- Location of the Transportation Security Administration headquarters to Victory Center will stimulate interest in Eisenhower West for office space
- Demand for office space in all markets is stagnant or declining; sites adjacent to Metrorail should be reserved for office
- Regional office rents remain flat
- Citywide office rents have declined since the recession
- Vacancy rates in the City have surpassed those in the region
- Majority of regional office construction is either build-to-suit or significantly pre-leased
- New office development in Eisenhower West is likely challenging with exception of small-scale, locally serving office uses
- Area benefits from its proximity to Metrorail and the Capital Beltway

HOTEL

- Regional hotel market is highly competitive
- Occupancy has remained stable
- Hotel revenue has declined significantly
- Relative stability in occupancy has been achieved at the expense of hotel revenues, which will impact the potential for new development in both the short- and medium-term
- Hotels in secondary submarkets with brands comparable to what could be supported in EW are generally older, particularly in submarkets in western portions of the City and adjacent to the Beltway
- Potential opportunity for development of a new, mid-priced hotel to compete with the older products in other highway adjacent locations

INDUSTRIAL

- Industrial stock is old and out of date
- With the exception of Restaurant Depot and CubeSmart, no new industrial property has been developed since 1985
- Vacancy has increased for both warehouse and flex buildings
- Tenants either moving to more modern buildings elsewhere, or going out of business
- Decline in employment in key sectors, including wholesale trade and transportation and warehousing
- Industrial rents consistently higher than the Metropolitan Statistical Area
- Premium is due to its location inside the Beltway, despite the older industrial stock
- New industrial development in this area is challenging given the comparatively high cost of land

ECONOMIC DEVELOPMENT OPPORTUNITIES AND CHALLENGES FOR EISENHOWER WEST

SHORT TERM (0-7 YEARS)

- The supply of new residential development is anticipated to meet housing demand generated by the plan area's middle and upper income households. The area has already seen some infill residential development and this pattern could continue on key sites.
- New residents will add to demand for retail and other amenities, and support new retail development in Eisenhower West even with significant renovations at the Landmark Mall and in the Van Dorn area.
- Industrial uses in existing buildings will remain viable, as there is still demand from tenants seeking locations inside the Beltway close to consumer and business markets.
- Regionally, near term demand for office development is low. The recent announcement of the location of the Transportation Security Administration Headquarters to the Victory Center will stimulate interest in the area as an office and residential location.

MEDIUM TERM (7-15 YEARS)

- Eisenhower West will be in the midst of a transforming area with implementation of the Landmark/Van Dorn Corridor Plan and West End Transitway.
- Industrial uses, particularly in rented facilities, may face redevelopment pressure .
- Office users will prefer walkable, transit-accessible, mixed-use communities, which could be accommodated in Eisenhower West. Assuming a recovered regional market, absorption in transit-accessible areas closer to the region's core, and interested tenants, Eisenhower West would become a more desirable office location.
- The area could also potentially support the development of mid-scale hotels, by providing new hotels competing with older products nearby or if regional occupancy rates remain stable and revenue trends improve.
- Strategic redevelopment and potential colocation of public uses can create opportunities to provide housing options affordable to a range of incomes and welcoming to different household types—including young professionals, families, seniors, and workers critical to the economic competitiveness and sustainability of the area. The plan area hosts (and will continue to attract) a wide variety of employers. The success of these businesses will, in part, rely on the availability of a diverse workforce. Providing affordable and life stage-appropriate housing in close proximity to jobs and transit will help improve workers' and residents' quality of life, reduce congestion, lessen economic leakage, and strengthen the City's tax base.

LONG TERM (15-30 YEARS)

- Eisenhower West is well situated to support a balance of residential and commercial development. The Van Dorn Metrorail Station and proximity to the Beltway will continue to be assets.
- The Small Area Plan should be flexible to be responsive to changing economic conditions. Industrial uses will relocate for cheaper space outside the Beltway.
- Unless owners are incentivized to invest in new industrial facilities or industrial users own their sites, these uses are likely to convert to residential or other commercial uses.
- Opportunities for new office development are created as vacant space around stations closer to the region's core is absorbed.
- Increased local demand for hotel development will attract visitors who are conducting business in Eisenhower West and seeking more affordable accommodations with good highway access.
- As hotels and multifamily buildings have similar building envelopes, long-term planning should allow for strategic multifamily sites to accommodate potential future hotel development.

2 VISION AND GOALS

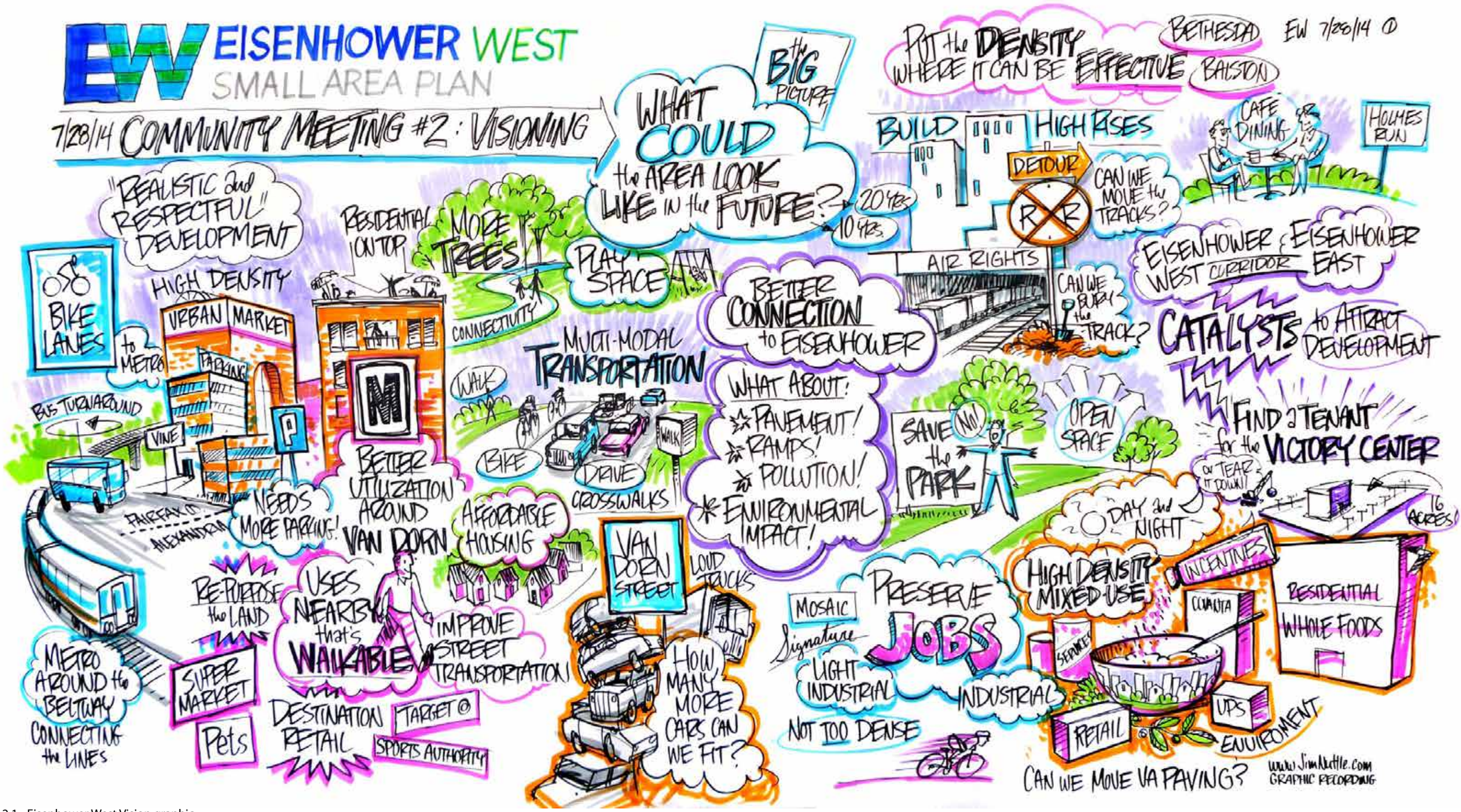


Fig. 2.1 - Eisenhower West Vision graphic

2 VISION AND GOALS

EISENHOWER WEST GOALS

The goals for Eisenhower West focus on creating a vibrant, sustainable, connected, transit-oriented community that contributes to the City's economic development goals while providing opportunities for living, working, learning, and recreating.

1. Eisenhower West will be an integral part of the City's Eisenhower Valley economic engine in which economic development and employment opportunities are maintained and promoted by capitalizing on the Van Dorn Metrorail Station, proximity to the Capital Beltway, and the opportunity provided by the presence of large land holdings.

2. Eisenhower West will have a vibrant mix of uses achieved through phased implementation, including a mix of residential and employment opportunities, and the new mix of uses are able to co-exist with industrial uses remaining in the area long term.

3. Eisenhower West will be a transit-oriented community, with density focused around transit nodes and corridors.

4. Eisenhower West will have safe, efficient, and linked pedestrian, bicycle, transit, and vehicular mobility thereby providing better access locally and citywide to the future amenities of the area.

5. Eisenhower West will be pedestrian-friendly by humanizing Van Dorn Street, S. Pickett Street, and Eisenhower Avenue so that they become safer for pedestrians and more attractive to residents and shoppers.

6. Eisenhower West will have a connected, accessible, and identifiable park and open space system that serves local and citywide recreational needs.

3 URBAN DESIGN FRAMEWORK

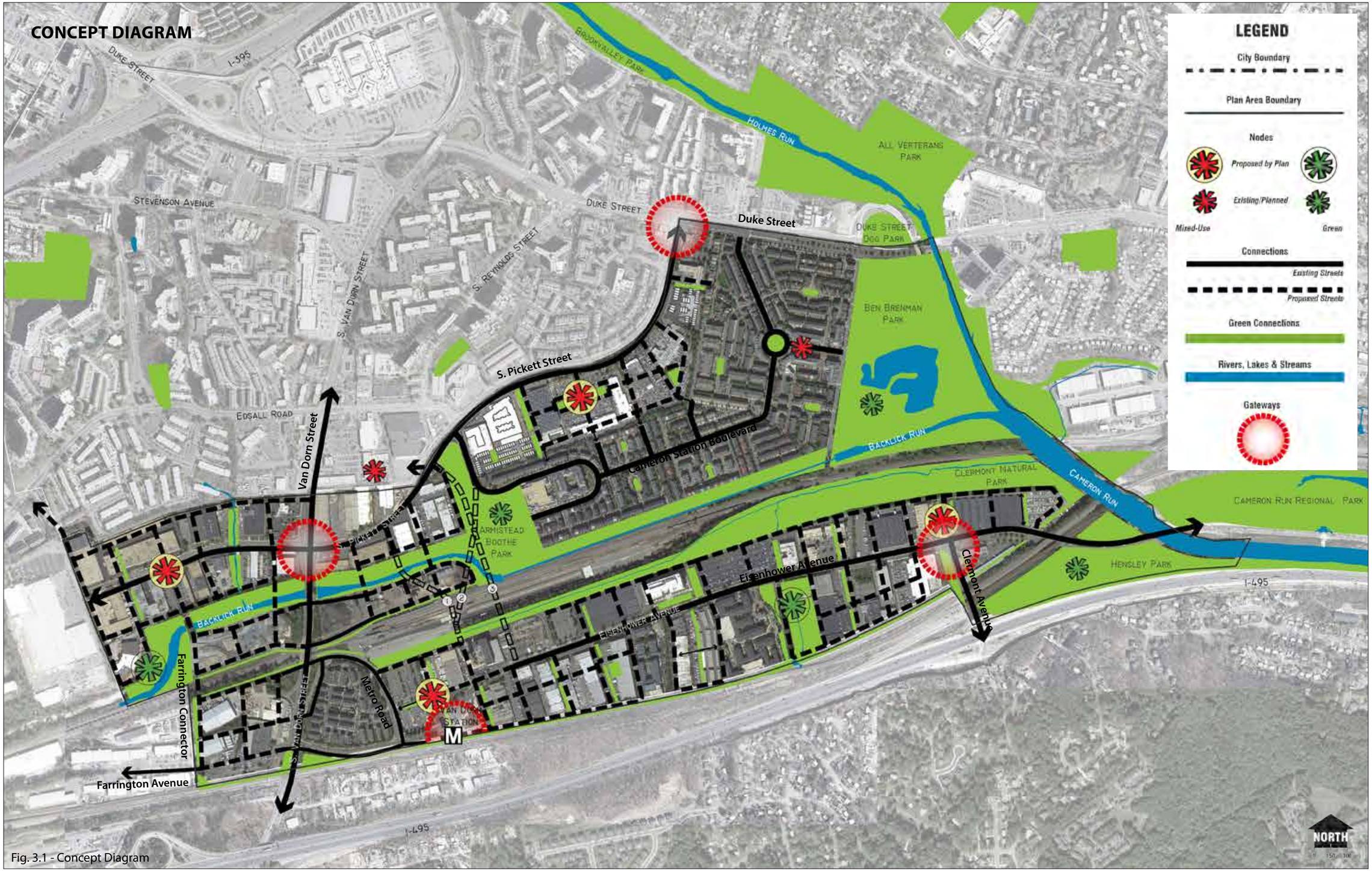


Fig. 3.1 - Concept Diagram

3 URBAN DESIGN FRAMEWORK

3.1 SMALL AREA PLAN CONCEPT

The Eisenhower West Small Area Plan is a development framework to guide the long term redevelopment of the plan area. This Plan was developed through a community-based process which began with the identification of nodes, connections and green connections.

- NODES are places of activity such as neighborhood centers or transit stations around which a mix of uses and public spaces can develop. Nodes also include parks and important green spaces which provide opportunities for social gathering, sports, recreation, exercise, and connection to nature.
- CONNECTIONS are the network of streets that get people where they need to go via car, bicycle, transit, or on foot.
- GREEN CONNECTIONS include the parks, trails, and green spaces that link people to nature and to different parts of their neighborhoods.

The Plan is intended to transform what is now mostly large, disconnected parcels with low density single-use predominantly light industrial, office and warehouse buildings into a mixed-use, higher density, green, sustainable, connected place. People will be able to walk, bike, take transit or drive to homes, workplaces, shops, restaurants, parks and recreational opportunities. (See Fig. 3.1.)

3.2 FRAMEWORK PLAN

The Plan recommends incorporation of the following as part of redevelopment:

- Create gateways to introduce and distinguish the plan area;
- Establish nodes where mixed-use activity will be concentrated;
- Require a new street grid to improve connectivity for all modes of travel forming new urban scale developable blocks conducive to creating a walkable place;
- Establish a mix of land uses that will spur economic development, provide vitality to the area, and can be implemented over time;
- Enhance existing parks and add new parks, open spaces, and green connections; and
- Create six distinct, connected neighborhoods that form a cohesive plan area.

NODES

Nodes are public spaces which encourage activity. Nodes can be public plazas around which mixed uses are located. They offer opportunities to hold activities such as festivals, farmers markets, as well as seating for restaurants and cafés. Other nodes include important parks and green spaces which bring people together for passive recreation and activities.

Several nodes of activity currently exist within the plan area. These include the existing parks, Armistead Boothe, Ben Brenman, and Hensley, and the mixed use neighborhood retail/ residential along Brenman Park Drive in Cameron Station. A future node of activity is anticipated north of the plan area, as part of the Landmark Van Dorn Corridor Plan. Future nodes in the plan area identified through the planning process will serve different parts of the neighborhood. These include:

- **A major node at the Van Dorn Metrorail Station to serve the west end of the plan area and to capture and leverage activity at this important Metrorail station.**
- **A small neighborhood node along South Pickett Street at the current Trade Center to serve the northern part of the plan area.**
- **A small neighborhood node at the intersection of Eisenhower and Clermont Avenues to serve the eastern part of the plan area and to leverage proximity to Eisenhower East and the Beltway.**
- **A neighborhood node west of Van Dorn Street.**
- **New neighborhood parks and open spaces.**

Mixed-use node, Reston, VA

Green node, Hensley Park, Alexandria, VA

Green node, Portland, OR

Mixed-use node and farmers market, Alexandria, VA

CONNECTIONS

The Small Area Plan establishes a new connected, walkable, pedestrian-scale network of streets and blocks that supports driving, transit, bicycling, and walking within the Plan area, to adjacent neighborhoods, and to the Van Dorn Metrorail Station. The new street grid builds on existing primary streets and creates better connectivity and more choices for local mobility. The urban street grid will be created over time as properties are redeveloped.

Pedestrian-friendly street, Alexandria, VA

Pedestrian and bicycle facilities, Portland, OR

Pedestrian-friendly street, Portland, OR

Transit, Alexandria, VA

GREEN CONNECTIONS

In addition to connections, the Plan integrates green connections, knitting the existing parks with new parks and open spaces. This will be accomplished through the revitalization of Backlick Run, the introduction of new park spaces in each neighborhood, new trails, green streets, and green connections that serve to increase tree cover and vegetation throughout the plan area while contributing to stormwater management through green and low-impact strategies.

Pedestrian/bike trail, Alexandria, VA

Neighborhood Park, Portland, OR

Green connection, O Street Market, Washington DC

Tree lined street, Portland, OR

Small Area Plan - Illustrative Plan

Redevelopment is expected to take place over a timeframe of 25-30 years, depending on market conditions and funding for infrastructure improvements. The illustrative plan shows one potential way in which the plan area could redevelop. The Plan does not require building locations, footprints, parks and open spaces to be designed or developed as shown, so long as the vision for redevelopment expressed by the community, the principles contained in this document, and the City of Alexandria's standards for redevelopment are met.

Artist's rendering of the Backlick Run greenway

Artist's rendering looking west along Eisenhower Avenue

Artist's rendering of Eisenhower West future redevelopment

Fig. 3.2 - Illustrative Plan

EISENHOWER WEST
SMALL AREA PLAN

4 PLAN-WIDE ELEMENTS

4.1 LAND USE

4.2 TRANSPORTATION AND CONNECTIVITY

4.3 PARKS AND OPEN SPACE

4.4 URBAN FORM AND BUILDING CHARACTER

4.5 ENVIRONMENTAL SUSTAINABILITY

Artitst's rendering of Eisenhower West, looking east

4.1 LAND USE

The Eisenhower West Small Area Plan envisions a series of distinctive neighborhoods with a rich mix of uses that allow residents, employees, and visitors to live, work, shop, play, learn, and recreate in a cohesive and sustainable environment. While the predominant land use is residential, a high-density mix of predominantly office and retail is envisioned for the area around and near the Van Dorn Metrorail Station. Lower density mixed use is envisioned for other neighborhoods in the plan area.

PRINCIPLES

1. Create distinct neighborhoods with land uses that enhance the City of Alexandria.
2. Establish a mix of uses that promote a lively daytime and nighttime environment, and a safe public realm.
3. Establish the Eisenhower Valley as an economic engine by providing employment opportunities along Eisenhower Avenue, and appropriate land uses and heights near the Van Dorn Metrorail Station.
4. Integrate a transit corridor into the planned development.
5. Balance the current demand for housing with the need to also create future employment opportunities in the plan area.
6. Provide opportunities for retail including potential large format retail and neighborhood serving uses.
7. In certain locations within the plan area, encourage ground floor maker space.
8. Improve access to a variety of amenities and services for current and future residents and workers.
9. Recognize the need for a new urban school and recreation center within Eisenhower West.
10. Properties included in the plan area maintain their rights under existing zoning.

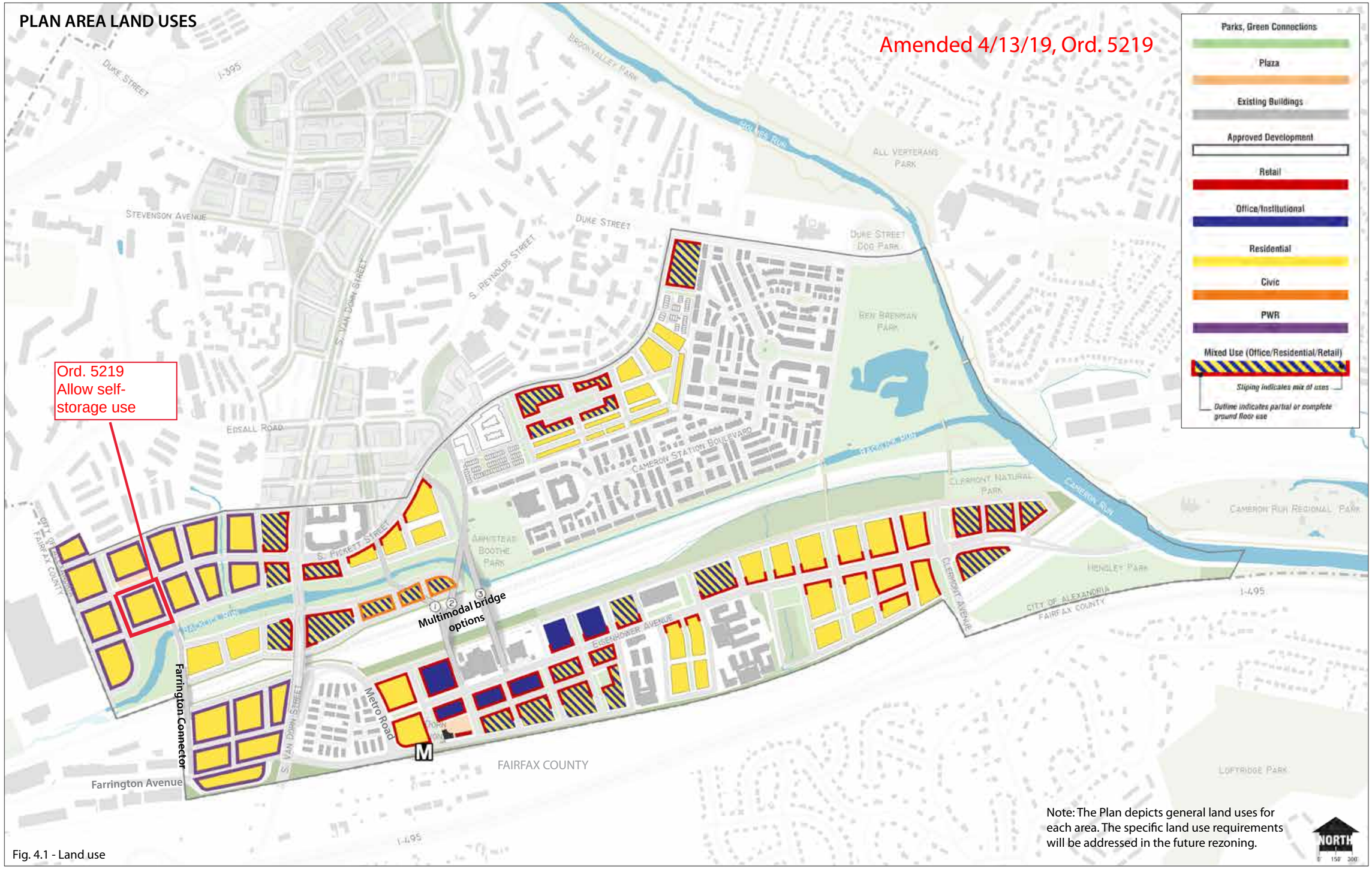


Fig. 4.1 - Land use

COMMERCIAL OFFICE/INSTITUTIONAL

Commercial includes office, hotel, and institutional uses. Institutional uses include medical, educational, and arts facilities.

1. Commercial office/institutional uses will allow for ground floor retail wherever retail is required and recommended (See Fig. 4.2.)
2. Commercial office/institutional uses are required in Neighborhood 2 - Backlick Run, and Neighborhood 4 - Van Dorn Metro Center, and encouraged in Neighborhood 1 - Van Dorn Innovation District, Neighborhood 5 - Bush Hill, and Neighborhood 6 - Clermont Exchange.
3. Focus commercial office, hotel, and institutional uses at transit hubs (the Van Dorn Metrorail station and West End Transitway stops) and along primary framework streets (particularly Van Dorn Street and Eisenhower Avenue).

Medium rise office building, Alexandria, VA

Urban hotel proposal, Washington DC

High-rise office building, Arlington, VA

Low-rise office/institutional building, Alexandria, VA

RETAIL

Retail uses include neighborhood shops, large format (or "big box") stores, grocery stores, restaurants and cafés.

1. Retail will be located at the base of buildings along primary streets including Eisenhower Avenue, South Pickett and Van Dorn Streets to the extent possible. See Fig. 4.2 for required retail frontage locations.
2. Ground floors will be designed at 15-18 feet in height and at least 35′ in depth (50′ preferred) in order to accommodate retail and Production, Wholesale and Repair uses, and maker space.
3. Neighborhood-serving retail that can attract shoppers walking to and from identified nodes and transit stations/stops will be provided.
4. Large-format or "big box" retail that is primarily auto-served will be designed in an urban format, multi-story to the extent possible. It is encouraged in areas beyond a 1/2 mile of the Van Dorn Metrorail station, particularly in Neighborhood 6. Large format retail may be appropriate within a ½-mile of the Metrorail station in locations facing Van Dorn Street.
5. Retention of the types of existing local retail establishments is encouraged, especially local ethnic grocers and restaurants.
6. Topography may impact the feasibility of retail in some locations.

Neighborhood retail, King Street, Alexandria, VA

Multi-story urban big box retail, Mosaic District, Fairfax, VA

Mixed use with retail at the ground level, Reston, VA

Note: Retail frontages shown as required, in this diagram, will be required as part of redevelopment. Retail frontages shown as recommended, in this diagram, are strongly encouraged. The specific uses and requirements will be established as part of the future rezoning.

Fig. 4.2 - Required and recommended retail frontages

RESIDENTIAL

Residential uses include townhome, mutifamily residential buildings, and senior living facilities.

1. Vertically integrate new residential development with other uses.
2. Require a variety of heights for new multifamily and townhouse development while ensuring adequate height and scale transitions to neighboring developments.
3. Extend the grid, character and scale of Cameron Station with new development along South Pickett Street.
4. Focus high-density, transit-oriented mixed-use development, including residential development, in the Van Dorn Metro Center Neighborhood.
5. Create a cohesive and architecturally distinctive residential neighborhood with small-scale retail along Eisenhower Avenue in the Bush Hill Neighborhood.

AFFORDABLE HOUSING

The growing unmet demand for affordable housing - caused by stagnant wages, rising rents (resulting in the loss of market-affordable units), and the decline in federal and state housing funding - poses potential critical challenges to the city's livability, economic competitiveness, social service network, and transportation system. Less than one fifth of the Landmark/Van Dorn area's rental housing stock is currently affordable to residents earning up to 60% of the Area Median Income determined by the federal Department of Housing and Urban Development to be $45,900 for a one-person and $65,520 for a four-person household in 2015.

Consistent with the City's Housing Master Plan (2013) recommendation to focus affordable housing efforts in areas with the greatest potential for increased density and mixed-use development - in particular the Eisenhower Valley and Landmark/Van Dorn areas - this plan area will include a range of high-quality housing options that are affordable and accessible to households of different income levels, ages, abilities, and sizes and offer convenient access to transportation and services.

1. Housing opportunities and/or voluntary contributions to the Affordable Housing Trust Fund with each development/redevelopment in the plan area.
2. Pursuant to Section 7-700 of the zoning code, bonus densities in excess of 20% are allowed in order to encourage the production of affordable units.
3. Encourage co-location of affordable housing, including senior or assisted living, with future civic or municipal uses where possible.
4. Build partnerships between property owners interested in redevelopment and non-profit affordable housing developers.
5. Allow for potential ARHA replacement units in the plan area.
6. Encourage microunits, where appropriate, to enhance housing affordability options
7. Permit a continuum of senior living options in units ranging from independent living to assisted living, nursing homes, and memory care. Locate senior independent living projects close to community amenities and transit.
8. Encourage universal design to enable residents to age-in-place and improve the safety and utility of housing for people with disabilities; visitability features should be incorporated to ensure new homes are accessible to people regardless of their physical abilities.

Area	Market Affordable Units as a percent of total assisted units and rental units in buildings with 10 or more units	Assisted Affordable Units as a percent of total assisted units and rental units in buildings with 10 or more units	Number of affordable ownership units with current resale restrictions
Landmark/Van Dorn Area	7%	13% (including ARHA properties)	61
Eisenhower West Small Area Plan	0%	0%	7 (The Residences at Cameron Station)

Source: Office of Housing, 2015

The affordable housing inventory in Eisenhower West is extremely limited. The area has no assisted or market affordable rental units—units that are affordable due to their age, location, and amenities—and only seven affordable ownership units.

In 2007, seven affordable set-aside condominium units were delivered at the Residences at Cameron Station. The one and two-bedroom units—pledged by the developer through the City's voluntary contribution policy for affordable housing—are indistinguishable from their market-rate neighbors within the building. The units have long-term affordability restrictions that ensure they can only be resold to other low- or moderate-income homebuyers at discounted prices for a period of 30 years.

Photo by Eric Taylor

The Station at Potomac Yard—a mixed-use project combining a state-of-the-art fire station, ground-floor retail, and 64 affordable and workforce rental units—is the product of an innovative collaboration between the City, the Alexandria Housing Development Corporation, and national home builder, Pulte Homes. This creative public-private-nonprofit partnership succeeded in constructing the first new city fire station in more than 30 years and generating affordable housing while leveraging more than $11 for every $1 of city funding.

Photo by APAH

Completed by the Arlington Partnership for Affordable Housing (APAH) in 2014, Arlington Mill Residences is the first new affordable housing development of the Columbia Pike corridor revitalization effort and has dramatically increased housing for low-income households in the County; the 122-unit complex includes 98 two- and three-bedroom units to support larger families and 13 units designated for formerly homeless individuals and families. By co-locating the Residences with the Arlington Mill Community and Senior Center on public land with a shared underground garage and shared infrastructure costs, the project creatively leveraged public funding and saved nearly $9 million.

COMMUNITY FACILITIES

Community facilities include a school and recreation center that is an identified need, and is compatible with adjacent plan area goals, including the Landmark/ Van Dorn Corridor Plan. The City of Alexandria *Recreation, Parks & Cultural Activities Strategic Master Plan* prioritizes recreation programming space that supports a multi-generational indoor recreation center and specifically proposes one additional neighborhood center in the western portion of the City, where density levels are high. The Landmark/Van Dorn Corridor Plan called for one in that area. The *Citywide Parks Improvement Plan* identifies Ben Brenman Park as a location for a multigenerational center. A neighborhood recreation center could be co-located with a school or even be located in an office building, particularly in one of the areas designated for institutional use. More work will be needed to identify the location for this recreation center somewhere in the West End.

1. Encourage co-location of community facilities with each other and with other desired uses such as affordable housing.
2. Where opportunities exist, consider placing recreational facilities on top of buildings. Ensure that these facilities are clearly visible, inviting to the public, and easily accessible.

Samuel Tucker School, Alexandria, VA

Arlington Mill community center and housing, Arlington, VA

Jefferson Houston School, Alexandria, VA

Considerations for a School in the Eisenhower West Plan Area

The 2015 Long Range Educational Facilities Plan (LREFP), developed in a joint effort between Alexandria City Public Schools and the City of Alexandria, offers a range of options for providing educational facilities in Alexandria that meet the needs of increasing enrollment and that accommodate 21st century learning environments. In the Eisenhower West planning area, the LREFP recommends reserving a new elementary school site and considering a second in or near the plan area if growth continues to increase. Enrollment projections in the LREFP coupled with student generation projections for the Eisenhower West plan area support this recommendation. The LREFP also suggests considering co-locating new schools in a mixed-use building or retrofitting an existing commercial building.

Program

- Consider an urban school model with a minimum of 3 stories
- Accommodate up to 850 students in new schools (acknowledging School Board flexibility to increase)
- Implement a joint City/Schools Transportation Demand Management Program to encourage use of alternative modes of transportation

Size and Outdoor Space

- Access to outdoor open space required
  - A 2 acre site if located within 1/4 – mile of usable park within safe walking distance
  - A 4 acre site if not located within 1/4 – mile of a usable park within safe walking distance
- Maximize outdoor space by building a multi-story building
- Explore creative options for urban recreational space, such as rooftop courts or partnerships with private gyms

Location and Circulation

- Locate an elementary school in an area that encourages walkability and Safe Routes to School principles
- Organize site circulation for safety and efficiency through careful separation of vehicular and pedestrian traffic
- Consider needs in Landmark/Van Dorn Corridor Plan as well as in the Eisenhower West plan area in determining location

PRODUCTION, WHOLESALE, REPAIR

Ord. 5219
Revise PWR definition to exclude storage/warehouse uses

Production, Wholesale, Repair (PWR) is a term that covers a wide variety of businesses that are traditionally located in light-industrial or warehouse-type spaces because of the low cost of leasing compared with prominent retail locations. These businesses are an important source of employment and include light industrial uses, spaces for start-up companies, technology companies, innovation and "maker" businesses. Examples also include pet services, catering/food services, sports facilities, and contractor offices. These businesses sometimes have a showroom or retail component.

1. **PWR uses will be located in Neighborhood 1 to promote this area as the Van Dorn Innovation District.**
2. **Buildings with PWR businesses will include active uses along street frontages, including entrances, reception areas or waiting rooms, and spaces such as showrooms or cafés.**
3. **Neighborhood serving retail- including restaurant use- will be permitted within PWR space.**
4. **PWR uses will be integrated vertically (for example, the ground floor of a residential building) or horizontally (for example, a flex building adjacent to a residential building).**
5. **Retention of existing types of local PWR establishments is encouraged.**
6. **Ground floors will be designed at 15-18 feet in height and at least 35' in depth in order to accommodate retail and PWR uses and maker space. PWR uses may be allowed on the second floor where appropriate.**

Flex space with "maker" or start-up business, San Francisco, CA

Mixed-use with PWR at ground level and residential above, San Francisco, CA

Heavy Industrial Uses in Eisenhower West

The Eisenhower West Small Area Plan contains four heavy industrial uses, some of which have potential conflicts with nearby residential and school uses. The 2009 City of Alexandria Industrial Use Study explored the costs and benefits of redevelopment for those uses (Vulcan Materials, Virginia Paving, Covanta Energy from Waste, and Norfolk Southern Railroad and Transloading Facility). The study sites, primarily located around the intersection of South Van Dorn Street and Eisenhower Avenue, are part of a larger industrial corridor along Eisenhower Avenue to the east and Farrington Avenue to the west. Other industrial uses along the corridor are generally lighter industrial, such as warehouse and flex space, with considerably less potential impact on the redevelopment of nearby parcels.

- **Vulcan Materials**
  Vulcan Materials, an aggregate material producer, has been operating under an amended 1996 Special Use Permit (SUP). In 2013, the owners of Vulcan Materials were signatories on a letter to the City urging action on the Eisenhower West SAP, and the company has since decreased its active operations. The Vulcan property should be redeveloped as a residential and mixed use area under the SAP recommendations.
- **Virginia Paving**
  The asphalt plant at 5601 Courtney Ave has been in operation since April 1960. Virginia Paving took over the plant in 2001, and applied for a new SUP (#2005-0042) in 2005, which was subsequently amended in 2010. According to the SUP condition #75, if City Council determines that Virginia Paving's operations are inconsistent with the Eisenhower West SAP, the company must cease operations no sooner than seven years after SAP adoption and no longer than the applicable amortization period (Zoning Ordinance Section 12-214). While currently an important source of asphalt for the City of Alexandria, a site so close to a Metrorail station should be redeveloped in the future into a more compatible use.
- **Covanta Energy from Waste**
  The Covanta facility has been operating since 1988, under a 1998 Special Use Permit, and with $45 million in air pollution controls in 2001. Redevelopment of the Covanta site is not foreseen for this Plan because of existing contractual commitments to Covanta, joint decision making with Arlington County, significant public investment in the operation, the lack of attractive alternatives to the City's waste disposal needs, and the facility's compatibility with the City's sustainability objectives. The current City agreement with Covanta will keep the facility in place until 2038. Activities associated with operating the plant, including truck traffic, need to be taken into account when planning for the future.
- **Norfolk Southern Railroad Ethanol Transloading Facility**
  The Van Dorn Railyard has been in operation for over 100 years. However, the Norfolk Southern Transloading Facility began operation in April 2008. It does not require a special use permit, and its facility and truck operations are exempt from City regulations. The City is holding ongoing meetings with Norfolk Southern regarding proposed capacity expansion and enhancements for the site, as well as the proposed multimodal bridge over their property.

Redevelopment could bring long term financial benefits to the City with more mixed-use, pedestrian and transit-oriented development of the sites and better utilization of the Van Dorn Metrorail station. New development must be sensitive to required remediation and environmental analyses, floodplain restrictions, and the existing topography to help situate service areas. More guidance can be provided at a later time through the Development Special Use Permit (DSUP) and SUP permitting processes as sites are ready to redevelop.

Issues and Opportunities:

1. The current location of the industrial area provides advantages, including its proximity to both rail and the I-495 (the Capital Beltway) which allows these businesses to efficiently receive input materials and minimize product delivery times to consumers. The freight rail line and established rail spurs are a significant asset to those uses, part of the well-established industrial infrastructure of the area that has been in use for decades.
2. The industrial corridor lies partially within the 100 year flood plain as well as the Resource Protected Area (RPA) 100' buffer due to its proximity to Backlick Run and associated streams.
3. The Covanta facility represents a municipal service resource in which the City and Arlington County have placed significant investment. This existing infrastructure is expected to have a useful life for many years to come. It is expected to function past its 2038 lease end, and the freight rail line will continue to be in demand as long as it remains an effective means of delivering goods.

Fig. 4.3 - Key plan of existing heavy industrial uses in Eisenhower West

Artist's rendering looking west along Eisenhower Avenue

4.2 TRANSPORTATION AND CONNECTIVITY

The Plan implements improved multimodal connectivity throughout the Eisenhower West plan area and adjoining neighborhoods. The City conducted a transportation study for an area encompassing, but larger than, the Eisenhower West plan area. The Transportation Study assessed the transportation implications of future development in the area and the potential location, alignment, and impact of a new multimodal bridge between Eisenhower Avenue and South Pickett Street. The bridge would provide additional multimodal connectivity between Eisenhower Avenue and the Van Dorn Metrorail station to the south and roadways and neighborhoods to the north. Outreach was conducted with all of the affected property owners, including the Norfolk Southern Railroad. During this outreach process, the City learned that the bridge alignment options could affect the railroad's long term plan for expanding its Thoroughbred Bulk Transfer Facility. The City will continue to work with Norfolk Southern, and will conduct additional engineering analyses to help determine a preferred bridge alignment.

The new grid of complete streets and blocks accommodates multiple modes of transportation, building on existing primary streets and providing improved mobility. Eisenhower Avenue is an important existing primary street, traversing much of the City of Alexandria east to west. The Plan envisions Eisenhower Avenue as a "Great Street" - an inviting multimodal complete street that accommodates pedestrians, cars, a raised cycletrack for bicycles, and transit. It will have activating land uses and streetscape that create a desirable street with an attractive and comfortable pedestrian environment. The curve at the western end of Eisenhower Avenue is proposed to be straightened to create a new mixed-use destination around a redeveloped Van Dorn Metrorail Station. The new multimodal bridge will connect the Landmark-Van Dorn area north of the Norfolk Southern tracks to the Van Dorn Metrorail Station. In addition, a new street connection between Farrington Avenue and Edsall Road will provide additional north-south connectivity. Other existing streets will be enhanced to create a more inviting pedestrian environment.

PRINCIPLES

1. Increase mobility for all by providing a variety of modes of transportation including walking, bicycling, transit and driving.
2. Reduce, mitigate or remove physical barriers to connectivity in and around Eisenhower West and to new and existing neighborhoods.
3. Establish a grid of streets and blocks that connects to transit stops, improves vehicular circulation and promotes a pedestrian scale of development.
4. Create a high-quality and comfortable pedestrian realm to encourage pedestrian activity within Eisenhower West and to neighboring areas.
5. Make bicycling a desirable and safe mode of travel around Eisenhower West and to neighboring areas.
6. Provide safe and accessible pedestrian routes and crossings to schools and transit stations, transit stops, parks and other amenities.

4.2.1 STREETS AND BLOCKS

The future street grid in Eisenhower West will consist of existing and new streets, implemented as development occurs. This section identifies streets that are existing, required, and recommended. It describes the street hierarchy, improvements to existing streets, and expectations for new streets.

Required and Recommended Streets

The network of streets and blocks in Eisenhower West will be created over time as new development and redevelopment takes place. The grid will connect to and build on existing streets.

1. Required streets must be implemented as part of the redevelopment in order to create additional access and connectivity and break down the scale of development in the plan area. The required streets shown in Fig. 4.4. are required to be constructed as part of the redevelopment.
2. Recommended Streets allow flexibility for landowners and developers to work with varying site conditions (See Fig. 4.4). The final location of these streets will be determined based on the maximum block sizes, as part of the development review process.
3. The blocks formed by existing, required and recommended streets must adhere to the requirements for block sizes.

Street Hierarchy

Eisenhower West will have streets of varying importance. Fig. 4.5 shows the hierarchy of the future street grid for Eisenhower West. The City has a strong preference for all new streets to be public streets. The City will consider private streets if the property owner demonstrates a need for parking under sidewalks or streets based on site constraints, topography, or block size, during the development review process.

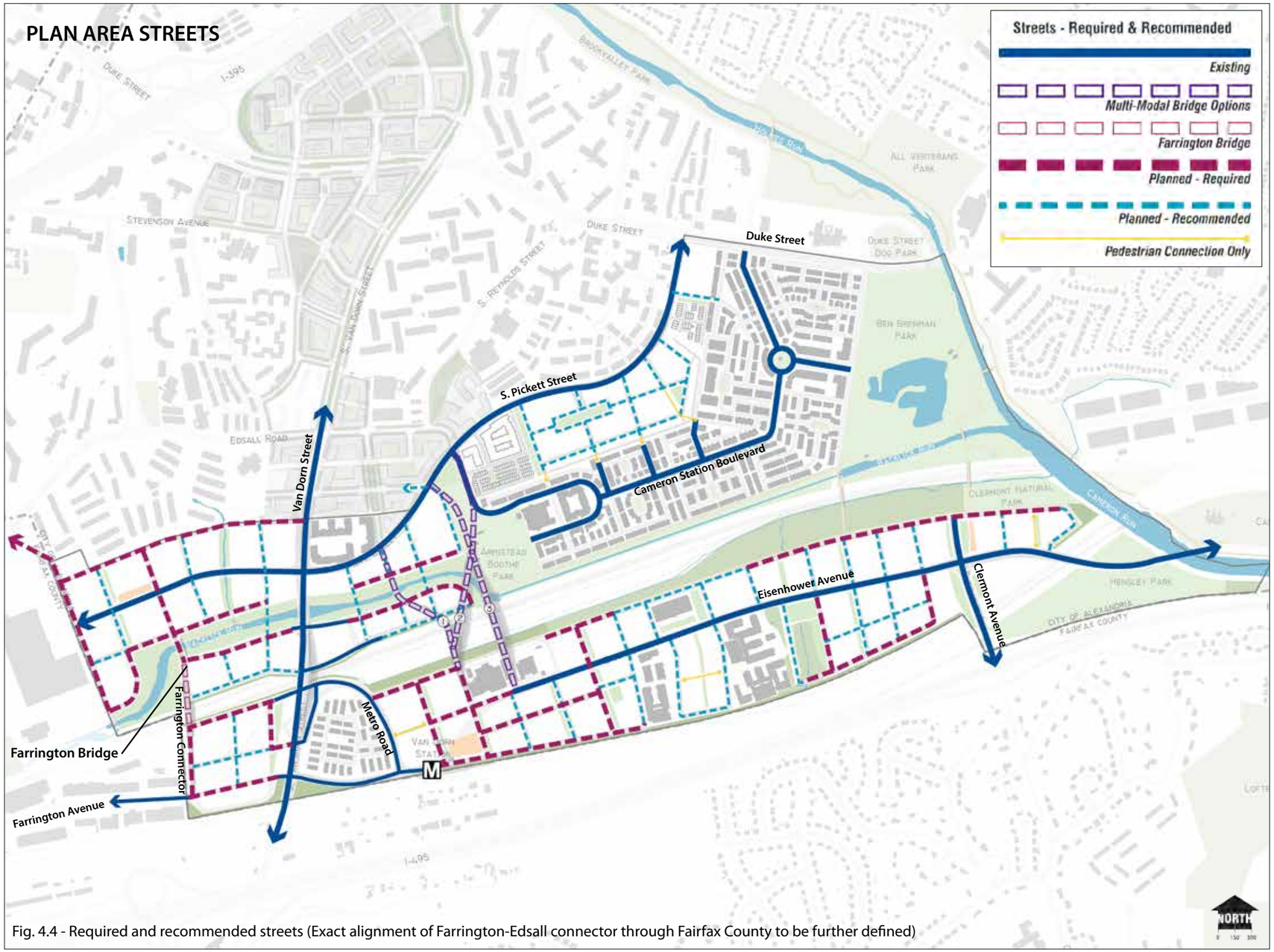


Fig. 4.4 - Required and recommended streets (Exact alignment of Farrington-Edsall connector through Fairfax County to be further defined)

Primary or "A" Streets

"A" streets are the existing primary streets that traverse the plan area and provide major vehicular, transit, pedestrian, and bicycle access and mobility. They include Eisenhower Avenue, Van Dorn Street, and South Pickett Street. These existing streets will be improved to enhance mobility options and to become important addresses for future development.

1. Buildings will front the street.
2. Building entries will be located along the street frontage.
3. Active uses will be located on all street frontages.
4. If above-grade parking is permitted, it will be screened with active uses to at least 30 feet in depth for each street and park open space frontage.
5. The highest quality of architectural façade treatment will be used.
6. No driveways, curb cuts, or service alleys will be in view.

See Figures 4.6, 4.7 and 4.8 for cross sections showing improvements to Eisenhower Avenue, Van Dorn Street and South Pickett Street.

Improvements to "A" Streets

Eisenhower Avenue

Eisenhower Avenue becomes a "Great Street" that includes new mixed use development, and accommodates pedestrian activity, bicycling, transit, and driving. See Fig. 4.6 for the Eisenhower Avenue cross section within the plan area.

Straightening of Eisenhower Avenue

A portion of Eisenhower Avenue between the Covanta facility and Metro Road is proposed to be straightened. This new alignment will create an important terminus at a new mixed-use node centered on the Van Dorn Metrorail Station. It would

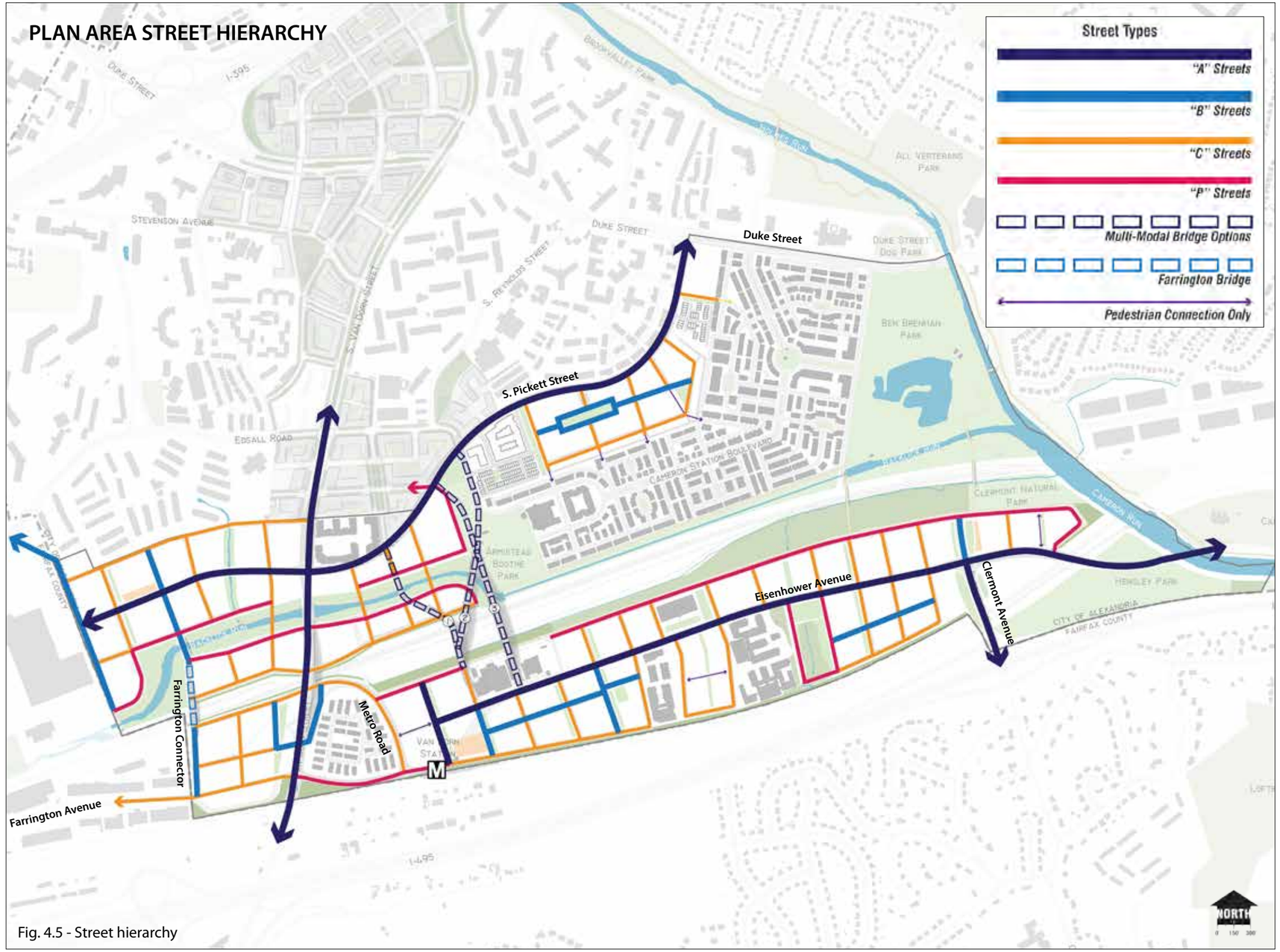


Fig. 4.5 - Street hierarchy

be constructed in conjunction with redevelopment of the WMATA property and adjacent sites. It offers the opportunity to consolidate Metro's facilities which are currently bisected by Eisenhower Avenue, while clarifying wayfinding and access to the station. (See Figures 4.15 and 4.16.)

Van Dorn Street

The Eisenhower West Small Area Plan builds on the Landmark Van Dorn Corridor Plan's vision for a redesigned Van Dorn Street, reconstructed as an attractive green boulevard with dedicated transit lanes for the West End Transitway and new pedestrian and bicycle facilities. The Plan recommends improvements to Van Dorn Street along its southernmost stretch. See Fig. 4.7 for the Van Dorn Street cross section.

Van Dorn Street is critical to providing access to the West End Transitway, and Van Dorn Metrorail Station. Currently, the pedestrian realm along Van Dorn Street is very uninviting, especially as it bridges across Backlick Run and the railroad right-of-way. In that location, sidewalks are in disrepair or missing entirely, discouraging people from walking to the Metrorail Station. WMATA conducted a Pedestrian and Bicycle Station Access Study for this station. Recommendations from that study to improve connectivity and access to the station should be implemented in the interim before redevelopment of the station.

South Pickett Street

South Pickett Street is an important existing connector from Duke Street through Eisenhower West to Fairfax County. The Plan requires enhancements to South Pickett Street to become a complete street that accommodates pedestrians, bicycles, and cars. See Fig. 4.8 for the South Pickett Street Cross Section.

Secondary or "B" Streets

"B" Streets will be new secondary streets in Eisenhower West. Where these streets serve nodes of mixed use development, they are active, vibrant streets with shops, restaurants and cafés with outdoor seating at the ground level, as well as public spaces and plazas. These streets will include tree-lined sidewalks, high-quality streetscape, paving, furnishings, lighting, and landscape. See Figure 4.9 and 4.10 for the typical cross section.

1. Buildings will front the street.
2. Primary or secondary building entries will be located on these streets.
3. If above-grade parking is permitted, it will be screened with active uses to at least 30 feet in depth for each street and park open space frontage.
4. A high quality of architectural façade treatment will be used.
5. No driveways, curb cuts, or service alleys will be in view.

Tertiary or "C" Streets

These streets are located in mixed-use and residential areas within Eisenhower West. They will be pleasant places to walk and will include tree-lined sidewalks, high-quality streetscape, paving, furnishings, lighting, and landscape. See Figures 4.11 and 4.12 for the typical cross section.

1. Buildings will front the street.
2. Primary or secondary building entries may be located on these streets if no A or B Street bounds the block.
3. A high quality of architectural façade treatment will be used.
4. Streets abutting railways will have flexibility in street and sidewalk width and parallel parking where appropriate.
5. Curb cuts for providing access to parking and loading areas may be located on these streets, provided they are combined with adjacent development to the extent possible.
6. If above-grade parking is permitted, it will be screened with active uses to at least 30 feet in depth for each street and park open space frontage. If fronting on to an existing rail line, architectural screening may be permitted as part of the development review process, in lieu of active uses.

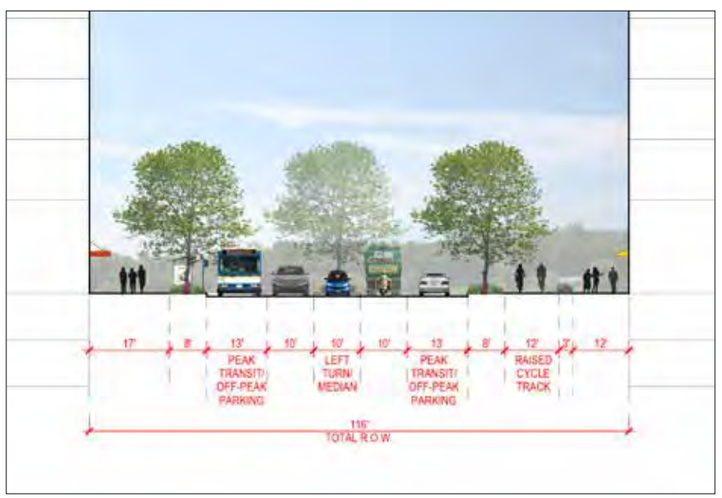


Fig. 4.6 - Cross section showing improvements to Eisenhower Avenue - "A" street

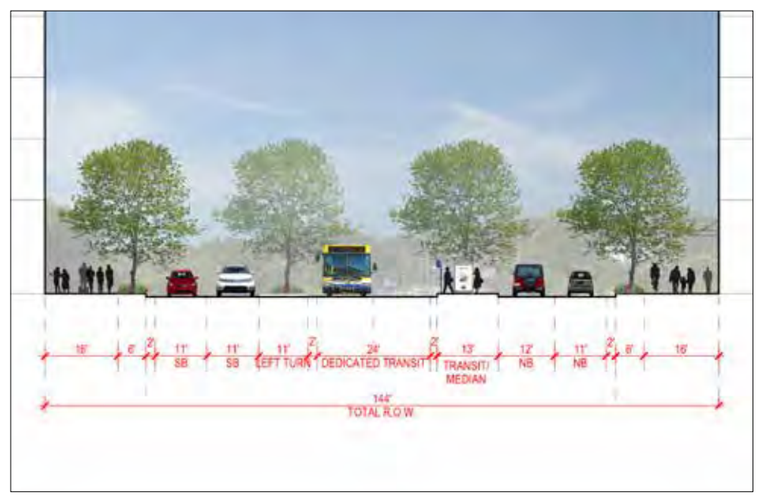


Fig. 4.7 - Cross section showing improvements to Van Dorn Street - "A" street

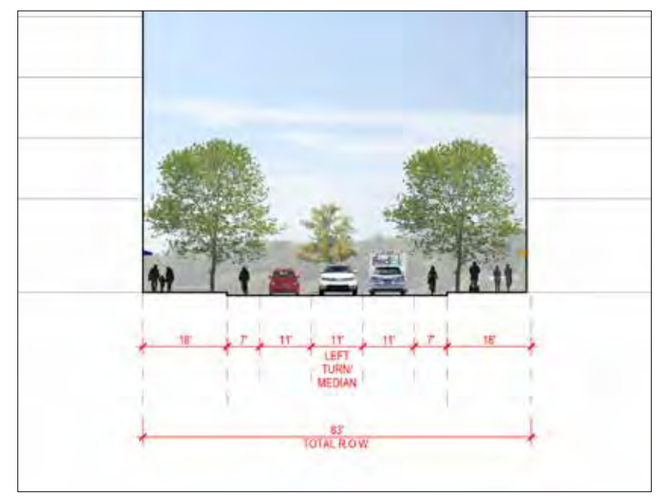


Fig. 4.8 - Cross section showing improvements to South Pickett Street - "A" street

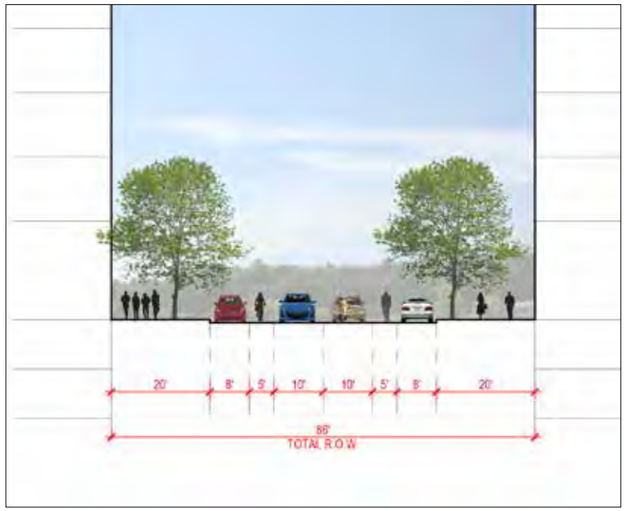


Fig. 4.9 - Cross section through typical "B" street with bike lanes

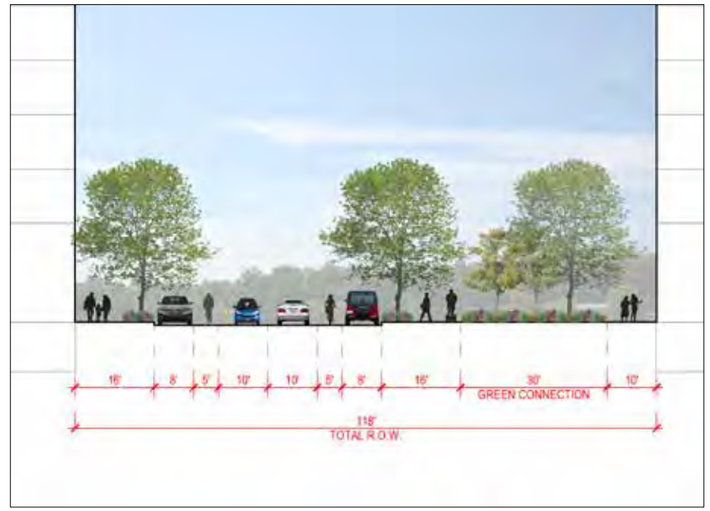


Fig. 4.11 - Cross section through typical "C" street with bike lanes and green connections

Fig. 4.13 - Cross section through typical "P" street with park frontage

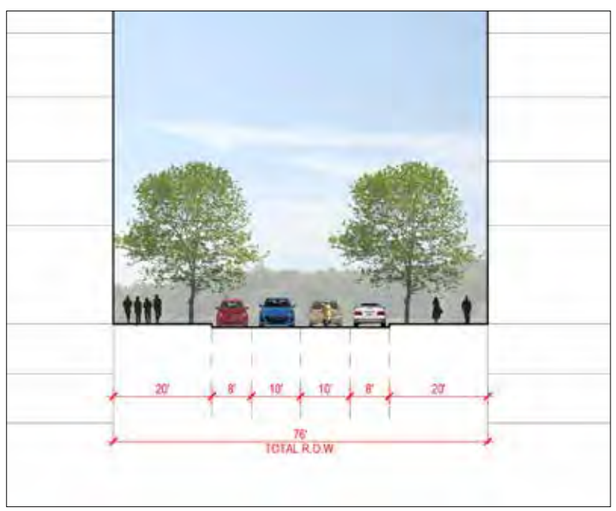


Fig. 4.10 - Cross section through typical "B" street without bike lanes

Fig. 4.12 - Cross section through typical "C" street without bike lanes or green connections

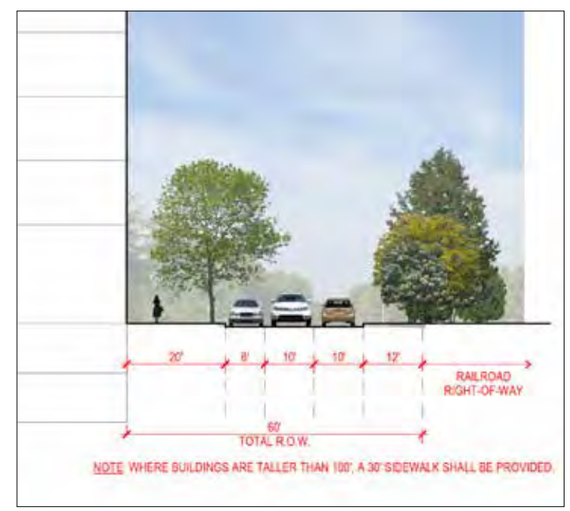


Fig. 4.14 - Cross section through typical "P" street with railway frontage

"P" Streets

"P" streets, are typically one-sided streets, with buildings on one side, and either a park or vegetated buffer to a railway on the other side. P streets that front parks or significant green spaces include those along Backlick Run, the Clermont Natural Park and the forested areas to its west. These streets may include a cycle track. See Figure 4.13 for the typical street cross section. P streets that front railways include those along the Norfolk-Southern, WMATA, and CSX rights-of-way. (See Figure 4.14.)

1. On P streets fronting parks, on-street parallel parking is permitted on the building side, but not on the park side, in order to allow for unobstructed views toward the park or green buffer areas.
2. On P streets fronting parks, no driveways, curb cuts, or service areas will be accessed from a P street.
3. On P streets fronting railways, curb cuts for providing access to parking and loading areas may be located on these streets, provided they are combined to the extent possible.
4. If above-grade parking is permitted, it will be screened with active uses to at least 30 feet in depth for each street and park open space frontage.

Other Street Improvements

Straightening of Farrington Avenue

Straighten Farrington Avenue between Van Dorn Street and the City of Alexandria/Fairfax County line to provide additional connections within and adjacent to the plan area. Planning and analysis to determine the feasibility and preferred alignment will require further collaboration with Fairfax County and the Virginia Department of Transportation.

Farrington-Edsall Connector

In order to provide additional north-south connectivity and mobility on the west side of the plan area, a new street connecting Farrington Avenue with Edsall Road is recommended. The street would bridge the Norfolk-Southern railroad right-of-way and Backlick Run, providing new access to areas along the City of Alexandria/ Fairfax County border, and discouraging cut through traffic through local neighborhoods. This street will be developed in two phases. 1) Farrington Avenue to South Pickett Street, and 2) South Pickett Street to Edsall Road. To avoid existing uses that are not proposed for redevelopment, the street would need to be built as two different components along the city's western boundary with Fairfax County.

The street will include adequate facilities for pedestrians and bicyclists. The Plan depicts one potential location. The ultimate design, alignment, and location of the Connector will be determined in future design and planning efforts, as well as in coordination with Fairfax County and Norfolk Southern.

Blocks

Eisenhower West's network of streets and blocks will enable the development of compact, walkable neighborhoods. Block size and design are primary components that will enable a successful walkable community. Long blocks with uninteresting or non-existent streetscape discourage walking while small blocks with a variety of buildings, vegetation, high quality streetscape and interesting things to look at encourage walking. Fig. 4.17 illustrates a general pattern of blocks for the Eisenhower West that works in conjunction with the street hierarchy described above.

1. Blocks in Eisenhower West will vary from 300-400 feet in length for each block frontage.
2. Where it is difficult to accommodate smaller blocks due to parcel size, topography or other factors, blocks may be up to a maximum of 500 feet, so long as the buildings along them have massing variations and building breaks that create significant modulations, entrances, and storefronts. Blocks of this length should be limited in the Plan area.
3. Midblock connections are encouraged to allow for pedestrian and alley access. Connections will be determined at the time of development in concert with development and design guidelines.
4. For the purpose of determining block size, the block perimeter may be established by mid-block connections and streets.

4.2.3 TRANSIT IMPROVEMENTS

As redevelopment matures, transit will be enhanced throughout the plan area. New transit stops will be provided along all primary streets and at appropriate locations as needed along secondary streets. Enhanced transit, particularly as recommended along Eisenhower Avenue, could also include greater passenger capacity, including larger buses and more frequent service and greater reliability in service, including improved shelters, real-time information, and on-time service through signal priority and off-board fare collection. Refer to the *Eisenhower West Transportation Study* for details. (See Fig. 4.19.)

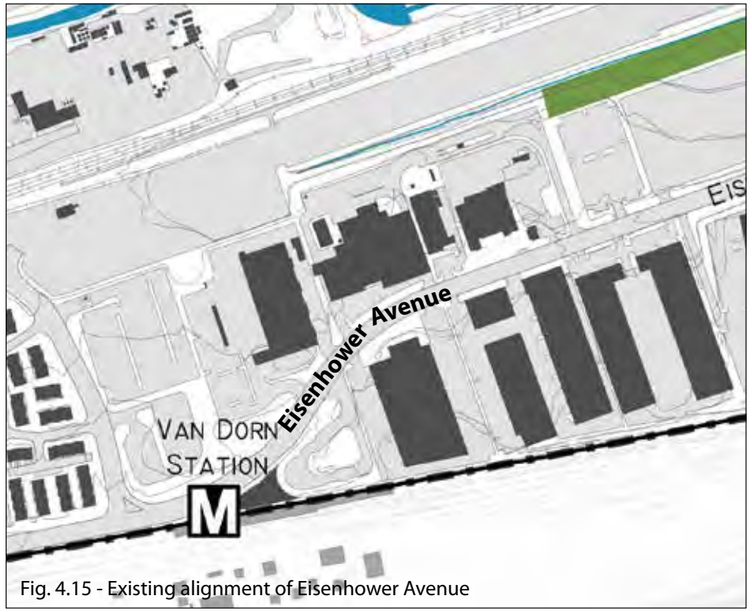


Fig. 4.15 - Existing alignment of Eisenhower Avenue

Fig. 4.16 - Future alignment of Eisenhower Avenue

Multimodal Bridge

The plan envisions a multimodal bridge to connect the Van Dorn Metrorail Station to South Pickett Street, as initially recommended in the Landmark Van Dorn Corridor Plan (2009). The bridge will serve as a future alignment for the West End Transitway, providing dedicated transit lanes between the station and South Pickett Street, and connecting buses to South Van Dorn Street. In addition, the bridge will include ample width for pedestrians and bicycles, improving multimodal connectivity between the station and existing and future development areas to the north. The construction of the bridge is necessary to support the full build out of land use as proposed in this plan.

The bridge should accommodate two general purpose lanes (one lane each direction), two transit lanes (one lane each direction), a separated cycle track, and sidewalks on both sides. During the small area planning process, a number of alignment options for the bridge were studied (See Figure 4.18):

- **Option 1 –** From Van Dorn Metrorail Station to South Pickett Street where a future north-south road was identified in the Landmark Van Dorn Corridor Plan.
- **Option 2a –** From Van Dorn Metrorail Station to the western edge of the Armistead Boothe park (using an existing right-of-way set aside as part of the Cameron Station Coordinated Development District (1996)) and ending at the north side of South Pickett Street just west of Cameron Station Boulevard (where a future east-west road was identified in the Landmark Van Dorn Corridor Plan).
- **Option 2b** – Similar to Option 2a, but terminates further east, at the Cameron Station Boulevard / Edsall Road intersection.

Fig. 4.17 - Blocks

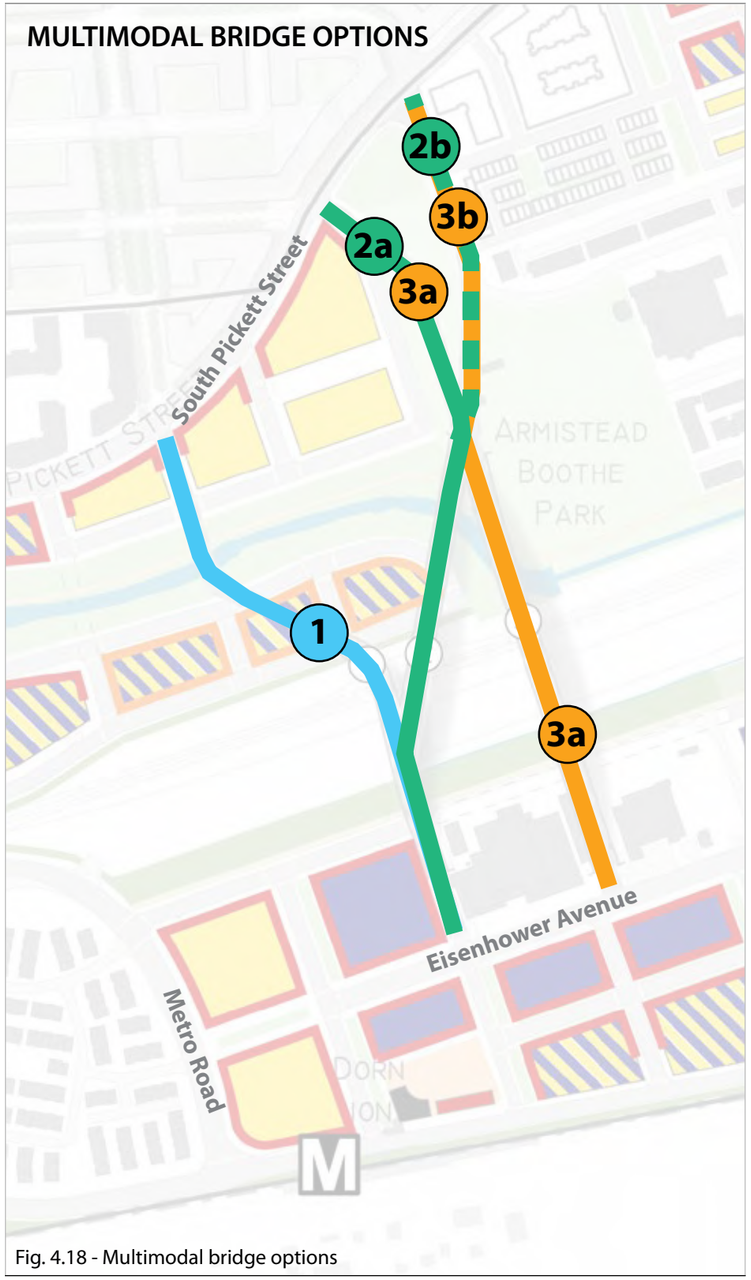


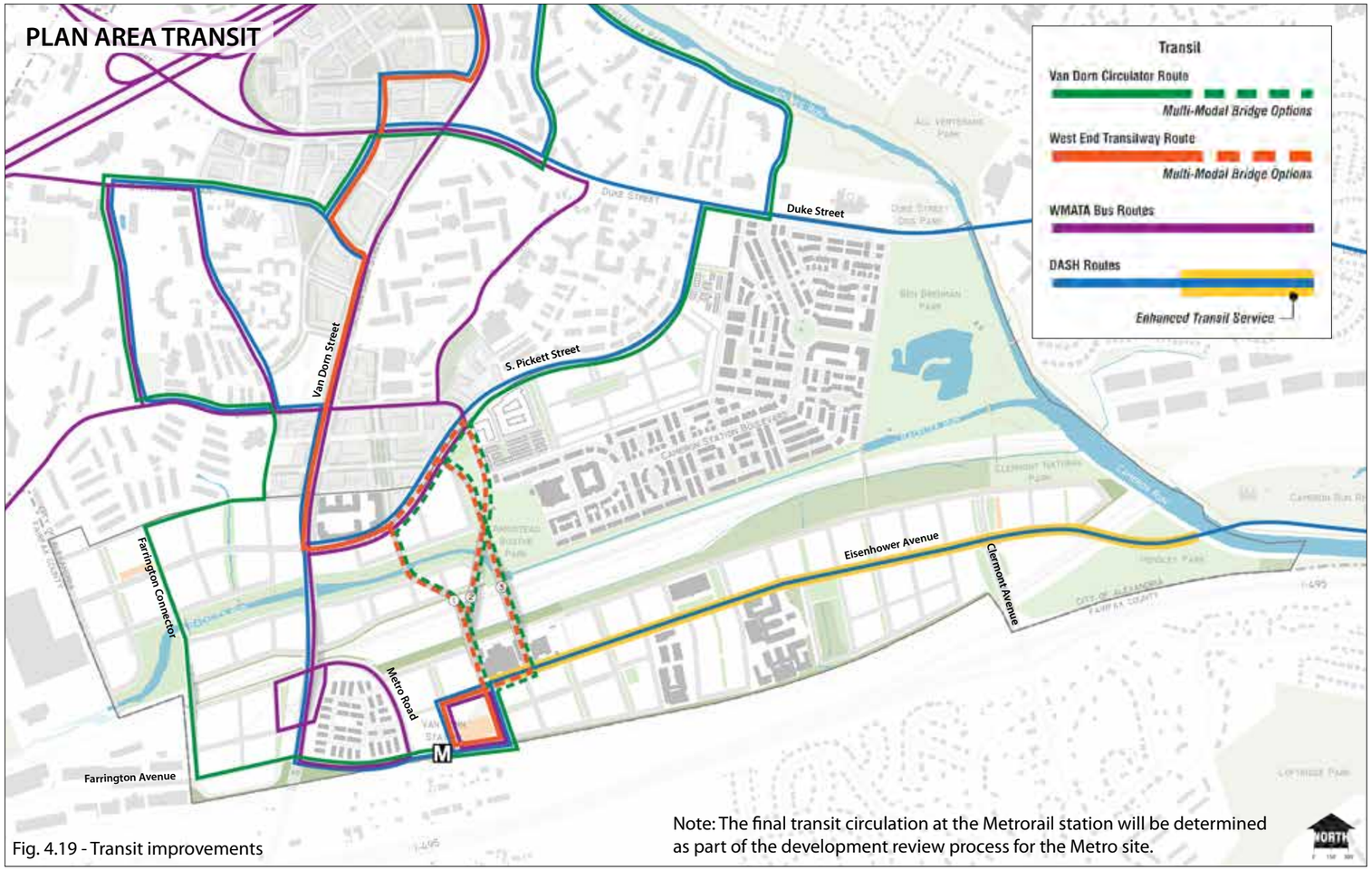
Fig. 4.18 - Multimodal bridge options

- **Option 3a** – From Eisenhower Avenue east of the Covanta Energy facility to the western edge of the Armistead Boothe park using the existing right-of-way set aside, and ending on the north side at South Pickett Street just west of Cameron Station Boulevard.

  Should this option be selected, the Alexandria Police Firing Range at 5261 Eisenhower Avenue will need to be relocated. Site acquisition and construction of a similar facility is estimated to be $15.2 million in 2015 dollars (excluding operating costs and demo/remediation of the existing site).

- **Option 3b** – Similar to Option 3a but ends further east, at the Cameron Station Boulevard / Edsall Road intersection (similar to Option 2b).

During the planning process, the alignment options went through an evaluation process to help inform the decision on the preferred alignment for the multimodal bridge. All of the bridge options will have some impact to various properties. Outreach was conducted with all of the affected property owners, including the Norfolk Southern railroad. During this outreach process, the City learned that the bridge alignment options could affect the railroad's long term plan for expanding its Thoroughbred Bulk Transfer facility. The City will continue to work with Norfolk Southern and impacted property owners, and will conduct additional detailed engineering to help determine a preferred bridge alignment. The Eisenhower West Small Area Plan does not identify a specific preferred alignment, and all alignment options, as well as other potential solutions will be analyzed as part of the implementation of the plan in coordination with Norfolk Southern and impacted property owners. If the multimodal bridge cannot be constructed due to impacts to Norfolk Southern, Van Dorn Street between Eisenhower Avenue and South Pickett Street would need to be widened in order to accommodate the West End Transitway, wider sidewalks, and bicycle facilities.



Note: The final transit circulation at the Metrorail station will be determined as part of the development review process for the Metro site.

Fig. 4.19 - Transit improvements

4.2.4 BICYCLING ENHANCEMENTS

As development occurs, Eisenhower West will benefit from increased bicycling opportunities. Enhanced bicycle corridors, trails, and Capital Bikeshare stations will be implemented over time. See Figure 4.20 for locations of bicycling facilities.

1. Provide enhanced bicycle corridors throughout Eisenhower West, especially on major streets including Eisenhower Avenue, Van Dorn Street and South Pickett Street, the Multimodal Bridge, and Farrington Connector. Enhanced bicycle corridors include a separate on-street facility for bicyclists, which may include a bike lane, separated or buffered bike lane, climbing lane or sidepath.
2. Extend the Backlick Run trail west to Fairfax County.
3. Provide off street bike trails through parks and green areas. Trails are hard surfaces, and a minimum of 10' wide, but preferably 12' wide, and are shared between bicyclists and pedestrians.
4. Provide bicycle parking facilities inside garages at all new developments.
5. Provide bicycle racks at key locations, particularly at mixed-use nodes.
6. Provide BikeShare stations at key destinations around Eisenhower West.
7. Provide shared roadways for bicycles and vehicles. Shared roadways will be marked ("sharrows") and/or signage will be used to designate the road as a shared facility. A shared roadway can be accommodated by a neighborhood bikeway designed to slow vehicles and give priority to bicyclists.

4.2.5 PEDESTRIAN ENVIRONMENT

The gradual redevelopment of Eisenhower West will include enhanced facilities to encourage pedestrian activity. Figure 4.21 shows the future pedestrian network. Components include:

Primary Sidewalks - These sidewalks are located in high-pedestrian activity areas including mixed-use nodes and developments.

Secondary Sidewalks - These sidewalks are located in low-pedestrian activity areas including residential portions of the Eisenhower West.

Multi-use Off-Street Trails - Also referred to as shared-use paths, these trails are usually paved and should be a minimum of 10-feet wide. Path widths of 12, 14, and even 16 feet are appropriate in high-use urban situations and areas with a significant mix of pedestrian and bicycle traffic.

Unpaved Off-street Trails - These paths provide places for walkers, hikers, runners and bicyclists to mix and explore. Sufficient width and surface quality must be maintained on these pathways.

Guidelines for Pedestrian Environment include:

1. Create a network of connected sidewalks, trails and paths for pedestrians.
2. Provide sidewalks separate from bicycle facilities, or separate pedestrians and cyclists.
3. Provide sidewalks along all street frontages except parks where trails are present.
4. Create safe, accessible, and well-marked pedestrian crosswalks at all street intersections.
5. Create a non-motorized trail and bridge connection across the railroad tracks from Clermont Avenue to Ben Brenman Park.
6. Create a non-motorized trail and bridge connection across the railroad tracks from Eisenhower Avenue to Cameron Station.
7. Create a non-motorized trail and bridge connection across the railroad tracks from Eisenhower Avenue to Armistead Boothe Park either as a stand-alone bridge, or as part of the Multimodal Bridge design.
8. Provide an off-street pedestrian path along the Clermont Natural Area south of the Norfolk Southern Railroad. If possible, continue the path on the north side of the proposed TSA facility on the Victory Center site and consider allowing bicycle use on this portion of the path.

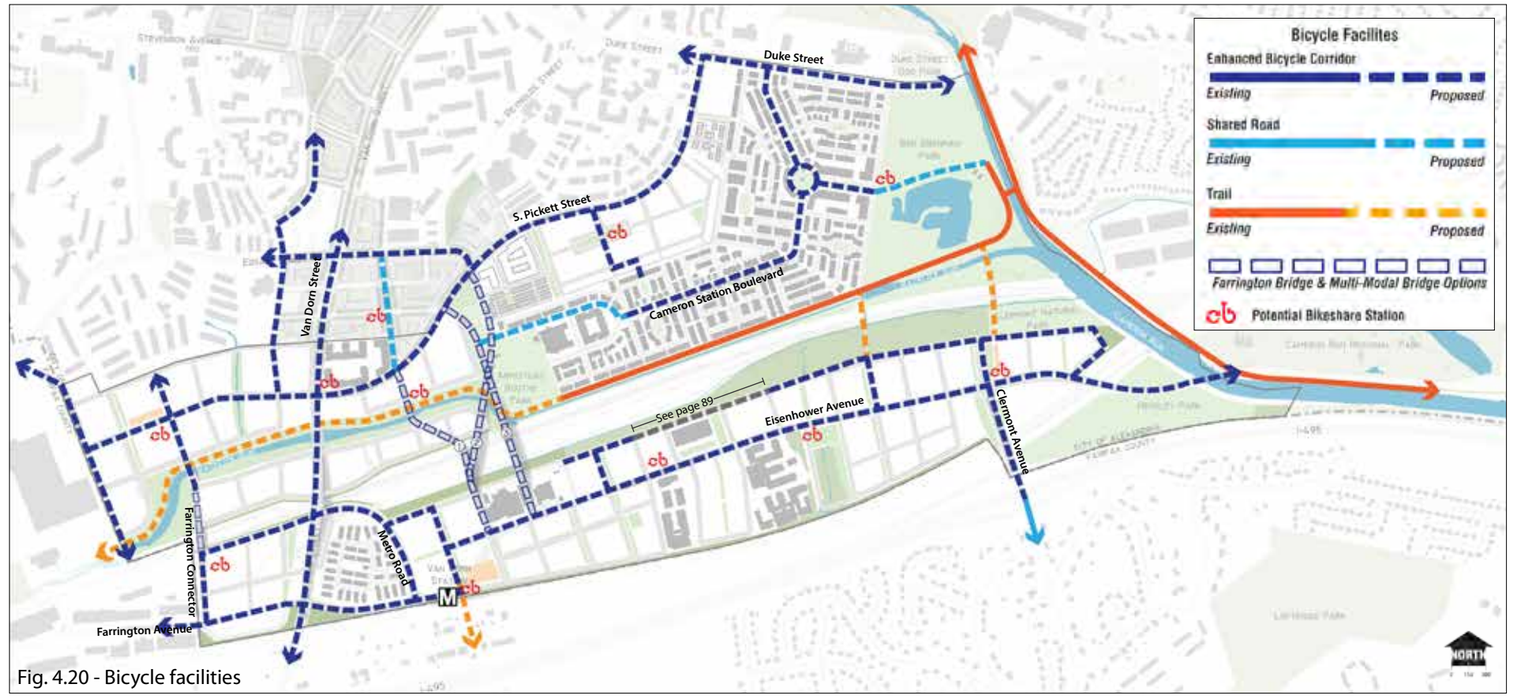


Fig. 4.20 - Bicycle facilities

Fig. 4.21 - Pedestrian network

9. Provide seating/places for pedestrians to rest along paths/ sidewalks.
10. Encourage and allow outdoor seating on wide sidewalks.
11. Create a trail and bridge connection to connect neighborhoods bisected by the railroad right-of-way as part of the Farrington-Edsall Connector.

4.2.6 TRANSPORTATION ANALYSIS

A comprehensive transportation study was undertaken in the development of the Eisenhower West Small Area Plan to examine the transportation impacts within the defined plan area, as well as the surrounding area. The transportation study extended well beyond the Plan boundaries and included approximately 86 intersections (in the Build Scenarios) that were studied during both the AM and PM peak hours.

The transportation analysis performed for the Plan is a planning level study that evaluates the impacts associated with the Plan. The study assumed a 25 year buildout period (year 2040) and assumes changes in regional traffic patterns over that period. All future redevelopment applications associated with the Plan will require additional traffic studies to analyze specific plans for each site and will include additional transportation data available at that time and more refined development information. The studies will also update the traffic impacts associated with the specific development and refine the recommended improvements to transportation.

The proposed redevelopment within the plan area assumed a horizon year of 2040 for purposes of the transportation analysis. Three general scenarios were analyzed:

2014 Existing Conditions

- Assumes existing development and transportation network

2040 Baseline Scenario

- Assumes regional growth through 2040
- Approved and unbuilt development in Alexandria
- Future transitway corridors identified in the City's Transportation Master Plan (2008), including:
  - West End Transitway
  - Duke Street Transitway
- Transit improvements identified in the DASH Comprehensive Operations Analysis (2014):
  - Van Dorn Circulator
  - Improved transit headways on local transit routes
- Improvements recommended in the Landmark/Van Dorn Corridor Plan (2009):
  - Multimodal bridge between Eisenhower Avenue and South Pickett Street
  - Future High Street between Landmark Mall and Pickett Street
  - Pickett Place roadway grid
- Farrington Avenue connection between Farrington Avenue and Edsall Road
- Other roadway or intersection improvements required as part of developer mitigation

2040 Build Scenario

- Assumptions from Baseline Scenario
- Analyze the potential of the first two stages of buildout of 9.3 million square feet, over existing development to remain, in the Plan area
- Straightened Eisenhower Avenue between Covanta plant and Metro Road
- Removal of the southbound loop ramp at Van Dorn Street to Metro Road, and establishment of a grid system to replace the loop ramp
- Realignment of the northbound ramp at Van Dorn Street to Metro Road to "T" into Metro Road at a signalized intersection
- Additional roadway improvements to support the 2040 development including new street grid and required roadways
- Realignment of the proposed Van Dorn Circulator to better serve the future development west of Van Dorn Street

In addition, a 2040 Build scenario without the Multimodal bridge was also analyzed. This analysis was conducted due to the uncertainty of the bridge location at the time of analysis. This scenario assumes that Van Dorn Street (between Eisenhower Avenue and S. Pickett Street) would need to be widened to accommodate the West End Transitway, which otherwise uses the Multimodal bridge.

The analysis assumes increases in traffic attributed to regional growth, including approved development in the Plan area and planned development in neighboring jurisdictions for future 2040 scenarios. The Plan provides new roadway and pedestrian / bicycle connectivity and enhanced transit facilities in and through the Plan area which provides travel choices in terms of route and mode. The 2040 Build scenario included a net increase of 9.3 million square feet within the Plan area. The analysis of the 2040 Build scenarios (with and without the bridge) identified a number of additional intersection and transit improvements to be considered as mitigation, and compared to the 2040 Baseline scenario. These improvements included:

- Enhanced transit service along Eisenhower Avenue between the Van Dorn Metrorail station and Eisenhower Avenue Metrorail station, including improved headways, transit signal priority, improved shelters and greater span of service
- Intersection improvements along Van Dorn Street at a number of intersections including at Edsall Road, S. Pickett Street, and Eisenhower Avenue
- Additional intersection improvements at both ends of the multimodal bridge

If the multimodal bridge were not constructed under the 2040 Build scenario, it would require significant widening of Van Dorn Street to accommodate the intersection improvements identified above, in addition to dedicated transit lanes and an improved pedestrian and bicycle connection between South Pickett Street and Eisenhower Avenue. The resultant significant width of Van Dorn Street would be contrary to the urban and pedestrianized character that is envisioned within the plan area. In addition, a widening of Van Dorn Street still does not achieve improved multimodal connectivity to the extent that the multimodal bridge does and may not support the full 9.3 million square feet of proposed new development.

The traffic analysis showed that under the 2040 Build scenario (with the Multimodal bridge), there is an increase in the number of intersections that fail, as compared with the 2040 Baseline scenario, due to the significant increase in associated traffic. However, if the proposed mitigation is implemented, including intersection and transit improvements identified above, the number of failing intersections is significantly reduced, both within the Small Area Plan boundary and overall transportation study boundary. The analysis also showed that without the Multimodal Bridge, there are a greater number of failing intersections than with the bridge, due to the increased level of connectivity and alternative routes to using Van Dorn Street. The 2040 Build scenario without the Multimodal bridge was also analyzed with the proposed added mitigation (previously discussed). The mitigation also helped to significantly reduce the number of failing intersections under this scenario.

Artist's rendering looking west along the Backlick Run greenway toward Neighborhood 1 - Van Dorn Innovation District

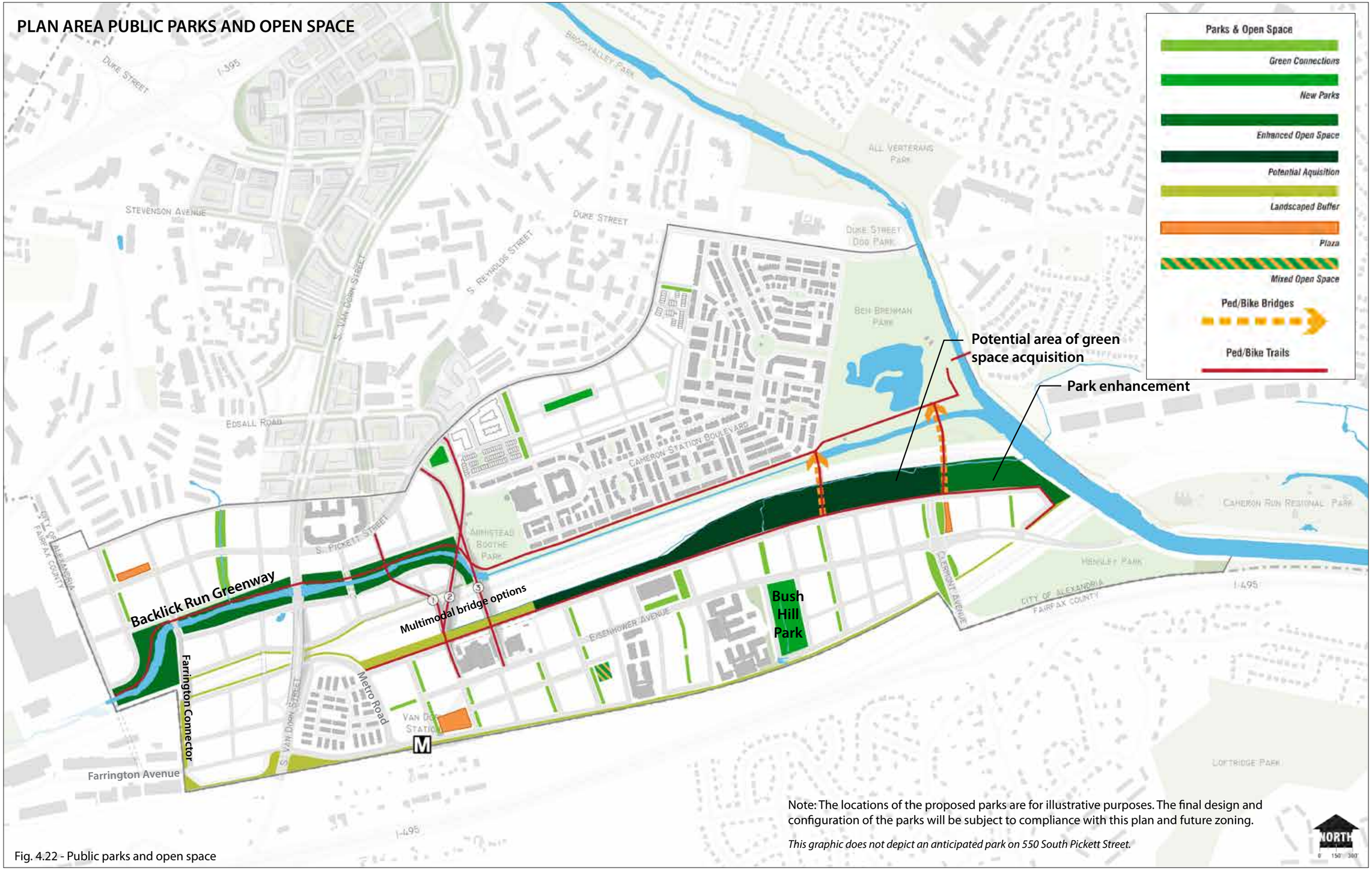
4.3 PARKS AND OPEN SPACE

Parks and open space are a vital component of sustainable and healthy communities. Parks offer opportunities for improving health through exercise and recreation, and are places for respite and reconnection to nature. In addition, they contribute to naturally managing stormwater while enhancing value by making a community visually pleasing.

Eisenhower West is home to a number of high quality parks and green spaces including Armistead Boothe Park, Ben Brenman Park, and Hensley Park which serve citywide recreational needs. Future redevelopment of properties in Eisenhower West will bring new residents and workers to this area, requiring the addition of new parks and open spaces. All portions of the Eisenhower West area will be within a five to ten minute walk of accessible open space. Accessible open space will include neighborhood parks which are multi-use spaces oriented to the surrounding neighborhood.

PRINCIPLES

1. Create an open space network in new development areas.
2. Protect, expand, and connect stream valleys and other environmentally sensitive areas.
3. Link and expand the pedestrian, bicycle and trail system in Eisenhower West.
4. Protect and enrich existing parks.
5. Provide residents with access to appropriate recreational opportunities.
6. Create and enhance public gathering spaces including plazas, streetscapes and nodes.
7. Increase tree cover throughout Eisenhower West.
8. Integrate public art with public spaces created near the Van Dorn Metrorail station.
9. Protect and interpret area historic resources.



Note: The locations of the proposed parks are for illustrative purposes. The final design and configuration of the parks will be subject to compliance with this plan and future zoning.

This graphic does not depict an anticipated park on 550 South Pickett Street.

Fig. 4.22 - Public parks and open space

EXISTING PARKS

The Eisenhower West Area includes several significant City parks including Ben Brenman Park, Armistead Boothe Park, Hensley Park and the Clermont Natural Area. However, the projected increase in population in the area will place far greater demands on these parks. This plan therefore advocates enhancing existing parks. Enhancements could include features such as lighting, drainage, irrigation, fencing, turf fields and picnic shelters, per approved City plans.

Enhancing existing parks also includes providing greater access to the parks, particularly access over the rail lines. Two bike/pedestrian bridges are shown on the Concept Land Use Plan connecting Ben Brenman Park to Neighborhoods 5 and 6, Bush Hill and Clermont Exchange, south of the rail line. Given the cost of bridge construction, only one bridge is likely, and more work will be needed to determine its optimal location.

The property west of the Clermont Natural Area, owned by Norfolk-Southern, is a priority open space site identified in the Alexandria Open Space Master Plan. If acquired or placed in a conservation easement, it would provide additional passive open space in the plan area and could potentially include stormwater management features.

Armistead Boothe Park

Hensley Park

Ben Brenman Park

NEW PARKS AND GREEN SPACES

The Plan envisions the creation of new parks in each of the six neighborhoods in the plan area. While the parks will vary in each neighborhood, they should be designed to be visible, inviting, accessible, and to accommodate all ages and abilities. A variety of active and passive spaces is encouraged in each park, as are high-quality trees, vegetation and plantings.

Areas for play with amenities such as fountains attract activity, Jamison Park, Portland, OR

Well designed and maintained trees and vegetation create a high-quality park environment, Yards Park, Washington DC

Passive spaces and grassy areas encourage picnics and relaxation, Crispus Attucks Park, Washington, DC

Shady places with seating invite gathering and interaction, Jamison Park, Portland, OR

BACKLICK RUN GREENWAY

As part of the Plan, the inaccessible and degraded stretch of Backlick Run located between the City of Alexandria/Fairfax County line and Cameron Station will be revitalized into an active greenway, a key open space feature of the plan.

Revitalization of this greenway will include stream restoration, the removal of structures from the Resource Protection Areas (RPAs) the removal of invasive species and replacement with native vegetation. Existing buildings and other non-pervious surfaces will be removed from the RPA concurrent with development of the sites on which they are located. This natural area will include a multi-use trail and passive open space. Some benches and picnic areas will also be provided. The open space may include stormwater management features.

See Section 5.5.2 for stream revitalization strategies.

Backlick Run existing condition

Accessible stream edge, Alanson, MI

Revitalized and stabilized stream. Sylvania, OH

GREEN CONNECTIONS

Connecting to the Backlick Run greenway will be a number of safe green connections which include stream valleys and other environmentally sensitive areas. One example is the small stream that connects to Backlick Run in the vicinity of 731 S. Pickett Street. Additional green connections linking to Backlick Run will be identified and planned through the development process and provided as development occurs.

Through-block pocket park forming a green connection linking two parallel streets, Portland, OR

Green conection within an urban mixed-use development, O Street Market, Washington DC

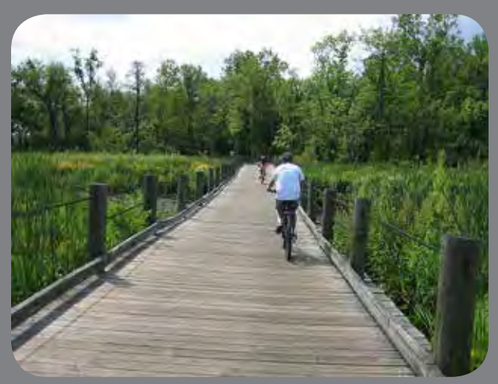
Green connection linking two streets, National Mall, Washington DC

Green connection created via vegetated streetscape elements along a park path, Portland, OR

PEDESTRIAN, BICYCLE AND TRAIL SYSTEM

The Eisenhower West area will contain a linked pedestrian, bicycle and trail system within the parks and open spaces. In addition, many of the streets in Eisenhower West will be complete streets that accommodate different modes of transit. Sidewalks will be provided on each street and many will include bicycle accommodations. (See Figures 4.20 and 4.21.)

Pedestrian/ bike trail, Alexandria, VA



Mt. Vernon Trail, Alexandria, VA

PLACEMAKING

STREETSCAPE - The City has an active program to plant street trees. This plan seeks to maximize opportunities to enhance tree coverage with easy to maintain street trees. This will help to meet the overall City goal to achieve 40% tree canopy coverage by 2020. Two locations have been identified for streetscape enhancement as part of the City goal to create welcoming gateways to the area including the City-owned property in the area of the Eisenhower Avenue collector (Clermont interchange) and the City-owned property at the intersection of Eisenhower Avenue and S. Van Dorn Street. The proposed enhancements could include special planting, lighting, paving. The City will work with WMATA to jointly enhance WMATA's property on South Van Dorn Street. The City's adopted Wayfinding Program has identified the need for gateway signs at the two gateway locations and also identified the need for vehicular directional signs on Eisenhower Avenue and Van Dorn Street.

BUFFERS - Vegetated buffers or screening will be located adjacent to the rail lines to mitigate visual and noise impacts from these uses. This vegetative screen would be planned and planted as part of the development of adjacent properties.

GATEWAYS - Gateways are elements in a plan that introduce a neighborhood and provide identity to a community. These locations contain architectural, public art and placemaking elements that describe and highlight the Eisenhower West plan area and its neighborhoods, and serve as visual markers of major entries and exits, crossing points, and neighborhood transitions.

PUBLIC ART - Special places can be celebrated and marked through creative and innovative public art. Public art will be integrated into public spaces at nodes and gateways such as the Van Dorn Metrorail station, and along public paths and trails.

HISTORIC CHARACTER - Knowledge of the history of the planning area can create special places through enabling connections to the past. The history of the planning area provides opportunities to elucidate and interpret the early landscape of the area and its probable use by Native Americans, late 18th and early 19th-century settlement by Europeans and the activities at several plantations and estates, railroad history, and the military activities that took place during World War II. Historical markers as well as other design elements in open space will be used to accomplish these goals.

Streetscape, Portland, OR

Public art, Seattle, WA

Example of a vegetated buffer, Portland, OR

Gateway building, Arlington, VA

EXISTING PARKS

1. Enhance Ben Brenman Park, Armistead Boothe Park, and Hensley Park with features such as lighting, drainage, irrigation, fencing, turf fields and picnic shelters per approved City plan.
2. Enhance access to Ben Brenman Park from south of the rail lines by implementing at least one of the two bike/pedestrian bridges as shown on Fig 4.22.
3. Increase the size of the Clermont Natural Area by acquiring the property owned by Norfolk Southern west of the natural area, or by placing it in a conservation easement, to provide additional passive open space in the plan area and to potentially include stormwater management features.

NEW PARKS AND GREEN SPACES

1. At least one neighborhood park will be created in each Eisenhower West neighborhood.
2. Neighborhood parks will be a minimum of one-half acre in size.
3. Parks could include picnic grounds and shelters, playgrounds, dog areas, small natural areas, garden plots, passive and active recreation areas.
4. Accessible open space may also include smaller open spaces, or pocket parks, intended to meet the needs of residents within a one or two block area. These may include seating areas, landscaping and small scale play equipment.
5. The plan calls for 25% - 30% of each residential block to be used for open space, which varies by neighborhood. The Plan goal is to have one third of the required open space to be located on site. The balance may be a combination of above-grade amenity space and contributions toward required parks.
6. Throughout implementation of the Eisenhower West plan, the City will look for opportunities for temporary parks and public spaces.
7. At-grade open space is strongly preferred, whether on-site or combined within neighborhoods.

BACKLICK RUN GREENWAY

1. Revitalize Backlick Run to be the key open space feature of the Plan. Revitalization will include stream restoration/stabilization, the removal of structures from the Resource Protection Area (RPA) and the removal of invasive species and replacement with native vegetation.
2. Existing buildings and other impervious surfaces should be removed from the RPA concurrent with redevelopment of the sites on which they are located.
3. Natural areas along Backlick Run should integrate passive open space and multi-use trails as shown in Fig. 4.22. Benches and other amenities should also be provided.
4. The design of the Backlick Run greenway should reflect the environmental role of the greenway through the design, landscaping, and interpretive areas and may include stormwater management features.

GREEN CONNECTIONS

1. Implement green connections to the Backlick Run greenway and other parts of the plan area including stream valleys and other environmentally sensitive areas. One example is the small stream that connects to Backlick Run in the vicinity of 731 S. Pickett Street.
2. Additional green connections to Backlick Run will be identified and planned through the development process and provided as development occurs.
3. Integrate linear green spaces or green connections along streets in locations approximate to those shown on Fig. 4.22.

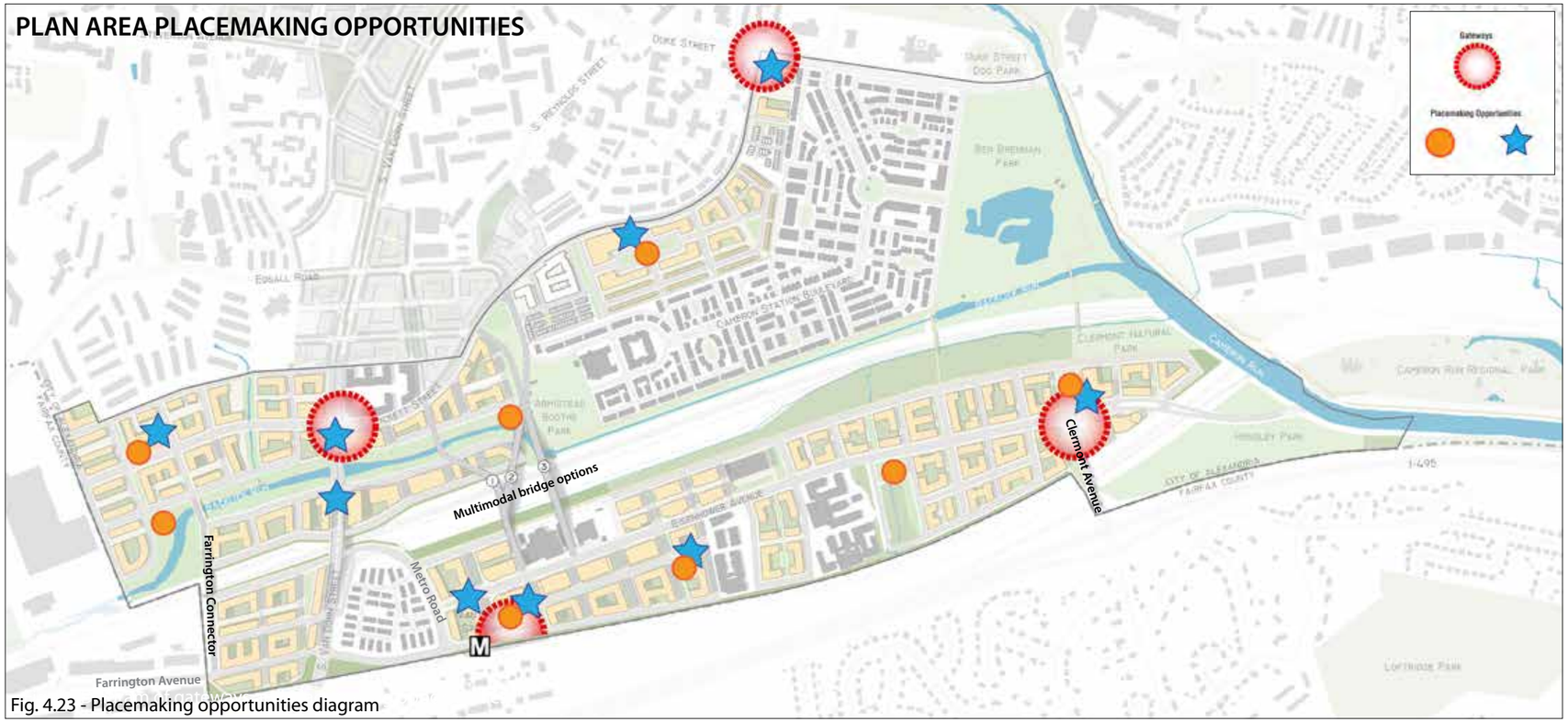


Fig. 4.23 - Placemaking opportunities diagram

PLACEMAKING/OPEN SPACE

PUBLIC SPACES AND PLAZAS

1. At least one neighborhood public space or plaza will be created in each Eisenhower West neighborhood.
2. Public spaces will be high-quality and memorable in design in order to encourage sociability, gathering, and interaction among community members, particularly at the Van Dorn Metrorail Station.
3. Low Impact Development (LID) strategies and elements will be integrated in open spaces, streetscape and public space design.
4. Incorporate historical markers and elements of the historical character into the design of open space to enhance the experience of users of the parks within the plan area.

STREETSCAPES

1. Integrate easy to maintain street trees maximizing opportunities to enhance tree coverage and help meet the overall City goal to achieve 40% tree canopy coverage by 2020.
2. Maintain existing trees where feasible, and plant trees along all existing and new streets in the plan area at appropriate intervals, in accordance with City policies.
3. Provide vegetated screening adjacent to the rail lines to mitigate visual and noise impacts from these uses. This vegetative screen will be planned and planted as part of the development of adjacent properties.
4. Refer to the City of Alexandria's *Green Sidewalks BMP Design Guidelines* for sidewalk design standards and requirements.

GATEWAYS

1. Create gateways to Eisenhower West through the use of distinctive architecture, high-quality public space design, special landscaping, wayfinding signage, streetscape furnishings, lighting, and public art. Potential gateway locations include:
   - Van Dorn Metrorail Station
   - Intersection of Eisenhower Avenue and Van Dorn Street
   - Intersection of South Pickett and Van Dorn Streets
   - General area where Eisenhower Avenue crosses Holmes Run
   - Intersection of South Pickett and Duke Streets

See Fig. 4.23 for locations.

PUBLIC ART

1. Provide public art that is exciting, bold and innovative.
2. Public art will reflect its site and help contribute to the character of each neighborhood by creating a sense of place unique to that neighborhood.
3. Public art elements may be integrated into the design of buildings, streetscapes and public space components such as lighting, seating, paving, vegetation, fountains, etc.
4. Both temporary and permanent public art may be used to activate space.
5. Public art in the plan area will be consistent with city-wide public art policies and plans, as amended.
6. Key locations for public art should include prominent places such as gateways, plazas, parks, trails, green connections, and nodes of activity identified in the Plan including:
   - New park and the new public plaza associated with the mixed-use transit-oriented redevelopment of the Van Dorn Metrorail station. Work with MetroArts, WMATA's Art in Transit Program which installs artwork throughout the Metrorail system to enhance travel via Metro.
   - Backlick Run greenway
   - Future redevelopment of the Trade Center site
   - Future park Bush Hill Park. Integrate interpretive exhibits or public art expressing the historic resources and archeology of the Bush Hill neighborhood.
   - Node at the intersection of Clermont and Eisenhower Avenues.
   - Node in the Van Dorn Innovation District
7. Celebrate the ecology of nearby Holmes Run and Cameron Run through educational or interpretive art or exhibits.

(See Fig. 4.23.)

OWNERSHIP AND MAINTENANCE

As new development is proposed and open space is planned, the City will work with developers to determine the optimal form of ownership and maintenance of the new publicly accessible open spaces. Open spaces that only benefit immediate residents should be owned, operated and maintained by private entities, such as a homeowners association. Public access easements may be required as part of the development review process for open spaces to be accessible to the public and privately maintained. Open spaces that serve a wider community are likely best owned by the City, although funding for maintenance may be sought from those future residents or businesses that will benefit the most. This will be determined as part of the development review process.

Artist's rendering of buildings in Eisenhower West, looking east

4.4 URBAN FORM AND BUILDING CHARACTER

The character, image, and marketability of Eisenhower West will be shaped in large part by the quality of buildings and public spaces. Building designs should promote the character of each neighborhood and further the overall placemaking goals of the Plan. While no specific architectural style is mandated, buildings and structures in Eisenhower West will be contemporary, innovative, and high quality in design and materials.

PRINCIPLES

1. Create new neighborhoods with distinctive architectural character, identity, and public spaces.
2. Create a major node, destination and public spaces at and near the Van Dorn Metrorail Station.
3. Create nodes/neighborhood destinations at the intersection of Eisenhower Avenue and Clermont, and the current Trade Center.
4. Provide appropriate scale transitions to existing development.
5. Design building architecture, streetscape and public spaces to be of the highest quality and provide variety in height and design.
6. Design sustainable streetscape and public spaces to contribute to the City's sustainability goals.
7. Prior to the approval of new zoning for each neighborhood, building design guidelines will need to be approved by the City.
8. For taller buildings, the building tops will be required to provide a unique and distinctive skyline.

BUILDING FORM AND CHARACTER

As part of future zoning and/or CDD approvals, more detailed design standards and guidelines will be approved to supplement the requirements of the plan.

Depending on the structural system, a typical floor plate (floor to floor) for residential is 10-12', office is 13-15', and commercial is 15-18'.

Frontages

1. Buildings will have their primary frontages, entrances and lobbies on primary and secondary streets, or facing parks or green spaces to create a lively public realm, encourage safety and help provide "eyes on the street" and "eyes on the park".
2. Building façades fronting streets, or parks and green spaces will be lined with active uses at all levels.

Massing

1. Buildings will vary in scale, and massing to create architectural interest and avoid long expanses of walls.
2. Building massing will respect adjacent existing residential development by stepping down to create "shoulder zones" that are compatible in height and setback with adjacent buildings.
3. Building façades will have massing variations creating significant modulations in the depths of façades. For longer façades, a building break may be required as part of the development review process.

Building Height

1. Buildings in Eisenhower West will vary in height to provide interest in each neighborhood.
2. Building heights relate to their proximity to the Van Dorn Metrorail Station. Taller buildings will be closer to the station. (See Fig. 4.26.)
3. Buildings within a 1/4 mile of the Van Dorn Metrorail Station will be a 10 - 20 stories.
4. Blocks that straddle distance ranges from the Van Dorn Metrorail Station (i.e. 1/4 to 1/2 mile) will be given consideration for the taller building height.
5. Buildings over 100 feet in height will create massing and height design guidelines that ensure the creation of a pedestrian-scaled environment with exposure to sun and shade.

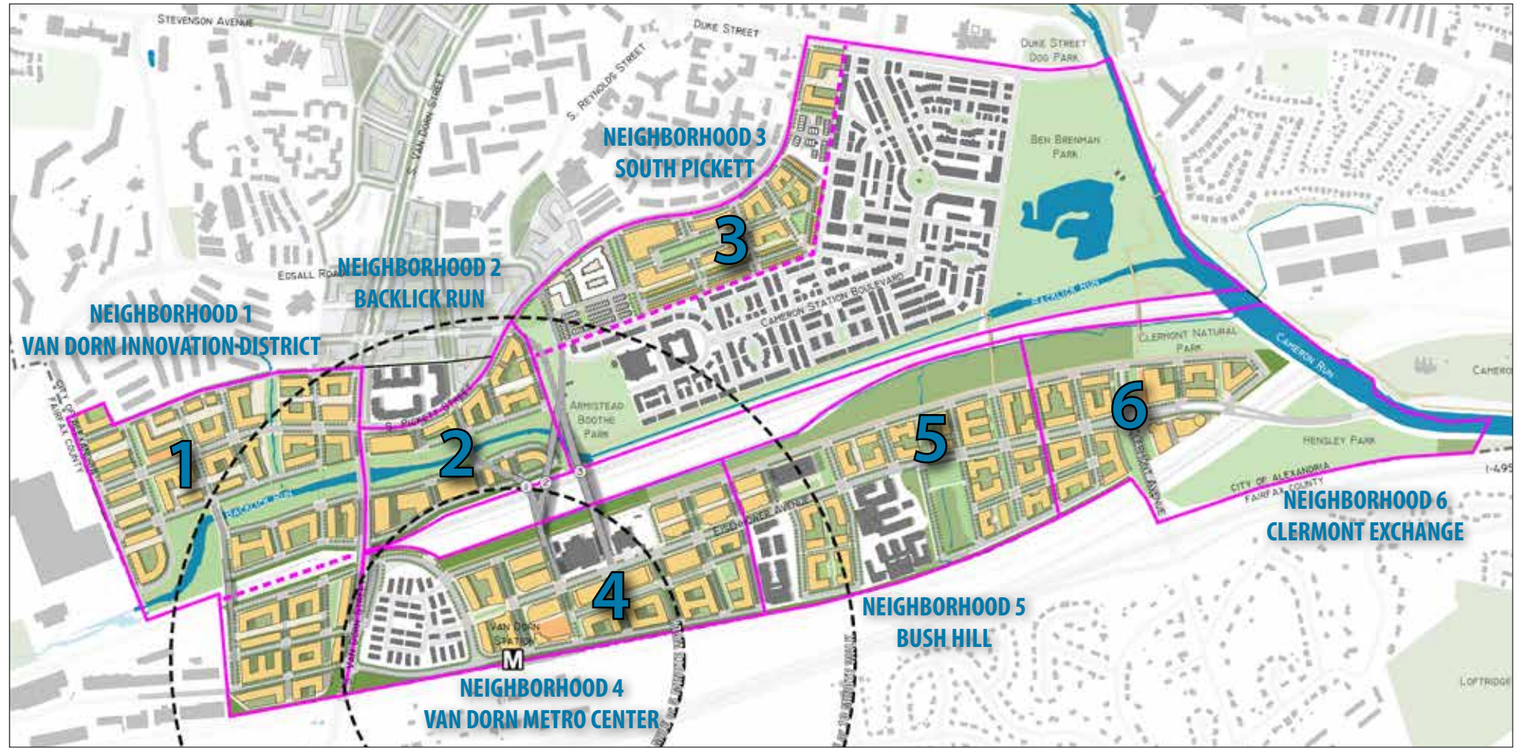


Fig.4.24- Neighborhoods key plan

STAGES 1 AND 2 POTENTIAL DEVELOPMENT SUMMARY				
Neighborhood	**Site Area**	**Building Heights**	**Land Uses**	**Total**
1 - Van Dorn Innovation District	79.6 acres	5-15 floors		
2 - Backlick Run	26.5 acres	5-15 floors		
3 - South Pickett	29 acres	3-7 floors		
4 - Van Dorn Metro Center	34.2 acres	10 - 20 floors		
5 - Bush Hill	48.3 acres	5-15 floors		
6 - Clermont Exchange	25.9 acres	5-8 floors		
TOTAL	**244 acres**			**9.3 M GFA**

Fig.4.25- Stages 1 and 2 potential development summary

Development density does not include existing buildings, nor planned approved projects with the exception of the existing Victory Center building

Note:
1. The total Gross Floor Area for Stages 1 & 2 is approximate. The specific allocation of development will occur with the future rezoning of the plan area and city approvals.
2. The land area is based on GIS data.
3. These goals are for Stages 1 and 2; Stage 3 has not been tested.

6. Outside the ¼-mile, lower heights will be considered with the overall goal of achieving a variety of heights that step down from the Van Dorn Metrorail Station.
7. Minimum heights do not apply to townhouses.
8. Density provisions of Section 7-700 of the Zoning Ordinance apply.

Distinctive Architecture and Placemaking

1. Reinforce Eisenhower Avenue as a "Great Street" by using distinctive architecture, landscaping and streetscape design.
2. Buildings taller than 100 feet will create distinctive architecture and roof top design that are dramatic, deliberate, and add visual interest to the skyline by offering 360 degree sculpted forms with architectural and design flourishes.
3. Highlight special buildings by using contemporary and innovative design, high-quality materials, and special building elements. Potential locations include buildings:
   - Around the Van Dorn Metrorail Station,
   - Fronting public spaces in the future mixed transit-oriented development near the Van Dorn Metrorail Station,
   - At the future terminus of Eisenhower Avenue,
   - At the intersection of Clermont and Eisenhower Avenues,
   - Along Van Dorn Street,
   - At the corner of South Pickett and Duke Streets,
   - At the future mixed-use node at the Trade Center site,
   - At gateways, and
   - Fronting parks and public spaces.

See Fig. 4.23 for all potential locations

Building Sustainability

1. Provide sustainably designed buildings consistent with the City of Alexandria's green buildings policies and development standards.
2. Roofs will contribute to sustainability by creating opportunities for renewable energy, open space, and/or stormwater management.
3. Buildings will include and celebrate sustainable design features.
4. Where possible, orient buildings to maximize energy efficiency and provide access to daylight.

PARKING

1. Provide a range of parking options. For larger projects, a shared parking strategy is strongly encouraged.
2. Where there is sufficient change in topography, parking may be tucked into the grade. (See Figure 4.27.)
3. When parking is located above grade, the frontage of each level facing an "A", "B", or "P" street and park/open space is required to be lined with active uses (residential, office, hotel, and/or retail use) for a minimum depth of 35 feet (50' preferred).
4. Surface parking areas are prohibited except for interim uses.
5. Provide on-street parking along neighborhood streets. Evaluate on-street parking along Eisenhower Avenue where feasible. On-street parking may not be appropriate for Van Dorn Street.
6. Integrate green building practices in parking design.
7. In the case that underground parking is not permitted due to floodplain restrictions, above ground parking will be permitted subject to architectural screening compatible with design and materials of the building architecture.

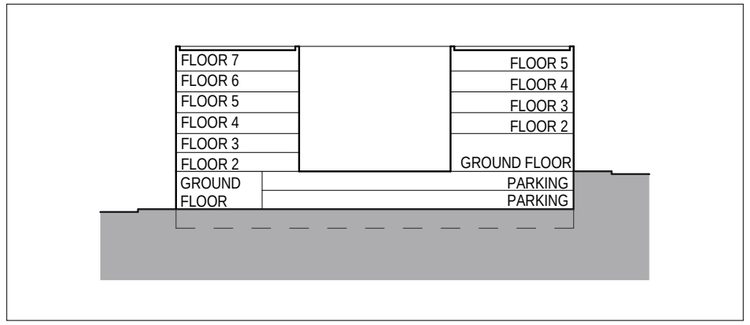
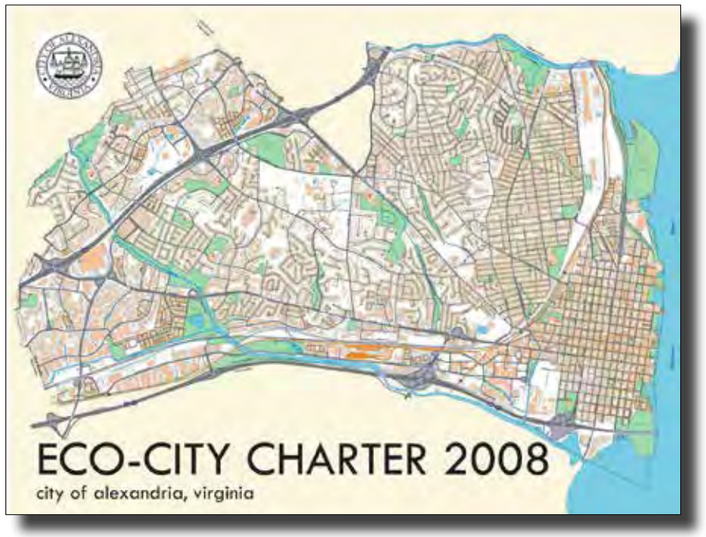
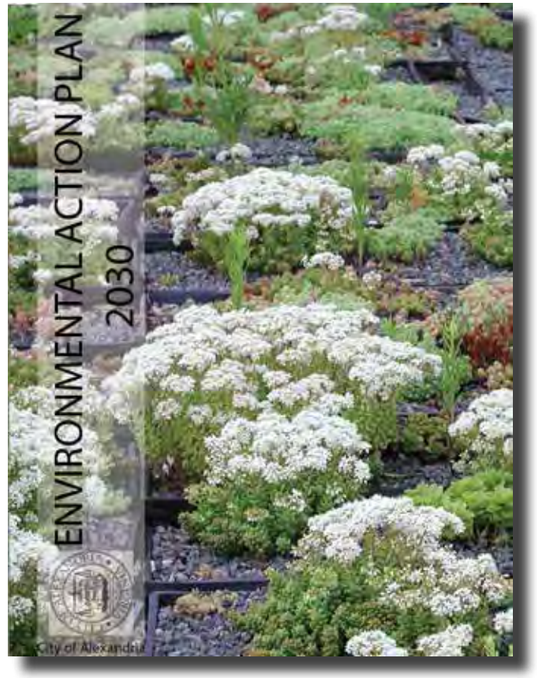


Fig. 4.27 - Parking tucked into grade

Fig. 4.26 - Building heights diagram





4.5 ENVIRONMENTAL SUSTAINABILITY

Sustainability means meeting our community's present needs while ensuring the ability of future generations to meet their own. It involves balancing and integrating environmental, economic, health and social issues so as to maximize the quality of life for all Alexandria residents. It also requires us to consider the impacts of our decisions and actions beyond the City of Alexandria and seek the continuous evolution of policies and programs.

In an effort to achieve the overall goals of the 2008 City of Alexandria Eco-City Charter, the plan recommends a series of sustainability measures as it relates to the overall energy systems and environmental requirements within the development area. The foundational goals of the Eco-City Charter are to envision Alexandria as a city that:

- Builds Wisely
- Embraces Natural Beauty
- Improves Water Quality
- Clears the Air
- Conserves Energy & Resources
- Minimizes Waste
- Supports Healthy Living
- Leads Intelligently & Holistically
- Shares Responsibility

The City of Alexandria's Environmental Action Plan 2030 (EAP), which was adopted in 2009, serves as the broad road map for city leaders, staff, and citizens to implement the sustainability visions set forth in Alexandria's Eco-City Charter. It sets out principles, goals, targets and actions that explain how Alexandria can lead the new Green economy, address the challenges of climate change, and continue its high quality of life while decreasing the city's carbon and ecological footprints.

The City's draft Energy & Climate Action Plan 2012-2020 builds on the work done in developing the EAP by providing information on policies and measures that the City is already undertaking, as well as possible new measures under consideration, to achieve the City's climate change goals.

PRINCIPLES

1. Create high-efficiency buildings and environmentally responsive neighborhoods through energy use, waste water, and water supply that achieve the goals of the Eco City Charter.
2. Explore taking advantage of local infrastructure resources including the Covanta waste-to-energy plant and the local AlexRenew systems to create economic and environmental benefits for the City through district heating and cooling and water reclamation and environmental opportunities.
3. Explore infrastructure on a neighborhood and district level by identifying regional and local opportunities.
4. Create sustainable infrastructure that builds on and enhances the local environmental character of Eisenhower West.
5. Minimize the construction and maintenance burden of infrastructure on the City while maximizing quality and value of new facilities.
6. Limit to the extent feasible neighborhood flooding and improve stormwater management.
7. Reduce stormwater pollution, decrease flooding and enhance recreational use of water resources through protection of riparian areas, stabilizing Backlick Run and its tributaries, and tributaries to Cameron Run.
8. Ensure that air quality meets National Ambient Air Quality Standards (NAAQS) for all criteria pollutants and achieves indoor noise levels that meet the City's standard.

4.5.1 ENERGY AND CLIMATE CHANGE

The City of Alexandria signed an agreement to meet or exceed the Kyoto Protocol greenhouse gas reduction targets through the use of local land planning, urban reforestation, public outreach, and other greenhouse gas (GHG) reduction strategies. The draft Energy and Climate Change Action Plan 2012 – 2020 provides information on policies and energy measures that the City is already undertaking, as well as possible new short-term and medium-term measures to achieve the EAPs greenhouse gas emission reduction targets, which include:

- 20% GHG reduction below 2005 levels by 2020
- 25% of City's energy from clean renewable sources by 2020
- All new buildings will be carbon neutral by 2030
- 80% GHG reduction below 2005 levels by 2050

Two primary outside energy companies serve the Eisenhower West area - Dominion Virginia Power Company (DVP) and the Washington Gas Light Company (Washington Gas). The plan area also has a significant on-site energy asset, the Covanta Resource Recovery Facility (Covanta), a waste-to-energy plant providing electricity.

Dominion Virginia Power Company is a regulated electric utility that transmits, and distributes electricity from its power plants in Virginia, North Carolina, Connecticut, and West Virginia to customers in Virginia and specifically to Eisenhower West. Dominion Virginia Power encourages the growth of renewable energy in the Commonwealth, and is committed to providing customers with program options to support customer interest and needs in renewable technologies.

Headquartered in Washington, DC, **Washington Gas** delivers natural gas to more than one million residential, commercial and industrial customers throughout Washington, DC, and the surrounding region. Washington Gas is a regulated subsidiary of WGL Holdings, Inc., a public utility holding company. The unregulated affiliates of WGL Holdings are in energy-related businesses, selling natural gas and electricity in competitive markets, and providing heating, ventilating and air-conditioning products and services.

The **Covanta Resource Recovery Facility** began commercial operation in February 1988 and serves about 300,000 residents of the County of Arlington and the City of Alexandria, which jointly own the site. The facility's three, 325 ton-per-day furnaces process 975 tons of solid waste, generating up to 23 megawatts of renewable energy that is sold to Dominion Virginia Power Company. Covanta has developed a facility-wide Environmental Management System based on applicable federal regulations and good management practices to ensure:

- Compliance with applicable regulations and permits
- Prevention of releases to the environment
- Conservation of natural resources by waste minimization
- Continued improvement of environmental performance

Figure 4.28 indicates the location within Eisenhower West of the Covanta Resource Recovery Facility along with the primary energy infrastructure for both electric power and natural gas.

FUTURE DEVELOPMENT

The current energy resources, electric power from Dominion Virginia Power (DVP) and natural gas from Washington Gas Company, can adequately supply energy to Eisenhower West for the near term; however, infrastructure upgrades will be required to distribution networks for both systems in order to support the full development buildout in the long term.

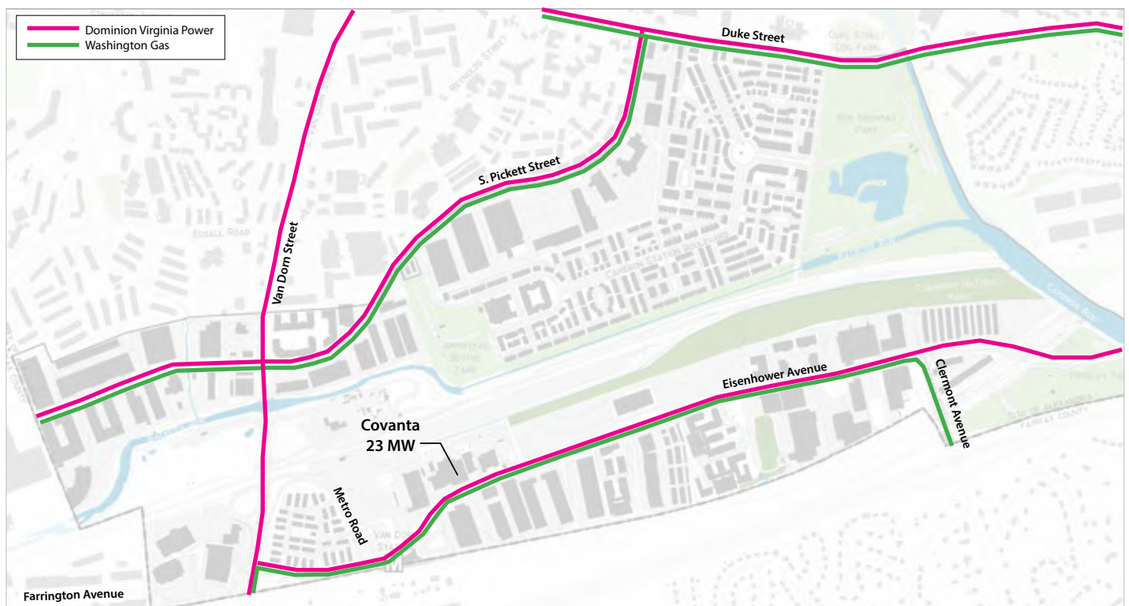


Fig. 4.28 - Existing Energy Infrastructure

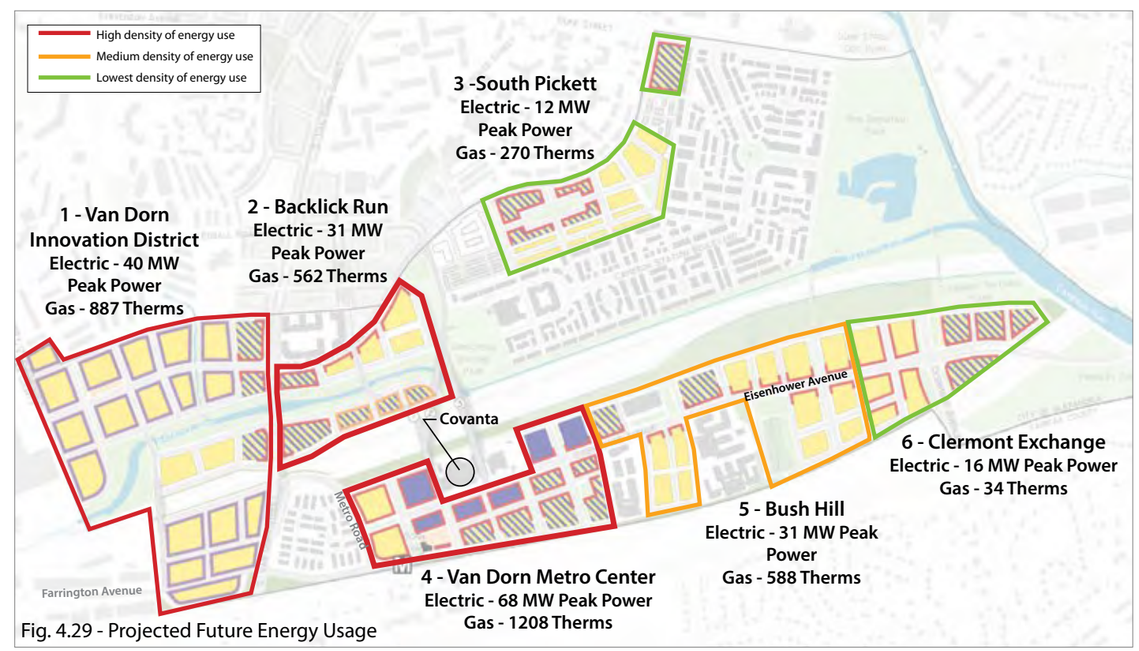


Fig. 4.29 - Projected Future Energy Usage

The Eisenhower West area is served by DVP from two separate high voltage power substations utilizing a combination of overhead and underground distribution systems. Per DVP, these two substations are sized to accommodate approximately 25-30% of the projected future growth prior to requiring significant upgrades.

Separate power circuits have been provided along Eisenhower Avenue in the area around the Van Dorn Metrorail station to serve the power requirements for Metrorail equipment. Because of the high density of power circuits around the Metrorail station, any developments in and around the station, or any large single load addition, will require careful coordination with DVP and adequate planning time to accommodate possible infrastructure upgrades.

DVP has indicated that district energy systems, combined heat/power systems and net-metered photovoltaic systems are all possible and can be connected to the DVP distribution system; however, analysis must be done and coordinated with DVP on how to connect this new generation to DVPs infrastructure.

Washington Gas' natural gas piping infrastructure in Eisenhower West is at or near capacity and any large single load additions to their system may require an upgrade to the primary infrastructure. The natural gas main piping running through the Eisenhower West area ranges in size from 2" to 16" in size and is designed to optimally operate below 20 pounds per square inch gauge gas pressure.

Covanta, one of the most sustainable energy assets within Eisenhower West, currently generates a maximum 23 megawatts of renewable energy that is sold to DVP to supply users within Alexandria. This accounts for less than 20% of the total peak electric power utilized within the Eisenhower West plan area. As the future development progresses to full buildout this will reduce to less than 15%. Therefore, in order to meet the City's goal for clean renewable sources, additional renewable energy sources will be required to be deployed along with future development.

Figure 4.29 indicates the projected future full-development energy usage, calculated utilizing benchmarked square footage energy criteria. The areas outlined in red indicate the future development areas with the largest density of future energy usage and areas highlighted in yellow represent the lowest density of future energy usage.

ENERGY STRATEGIES

In order to extend the usage of the existing energy resources currently serving Eisenhower West and meet the energy reduction goals set out by the City of Alexandria, strategies are recommended to be incorporated and/or studied in all future developments. On the individual building scale energy conservation strategies can be implemented to reduce the overall project greenhouse gas emissions. Where a large scale development is planned, the opportunities should be studied, coordinating with the City and applicable local utilities for environmental and regulatory requirements, in order to incorporate community scale energy solutions that can take advantage of larger and more diversified energy loads. (See p. 57.)

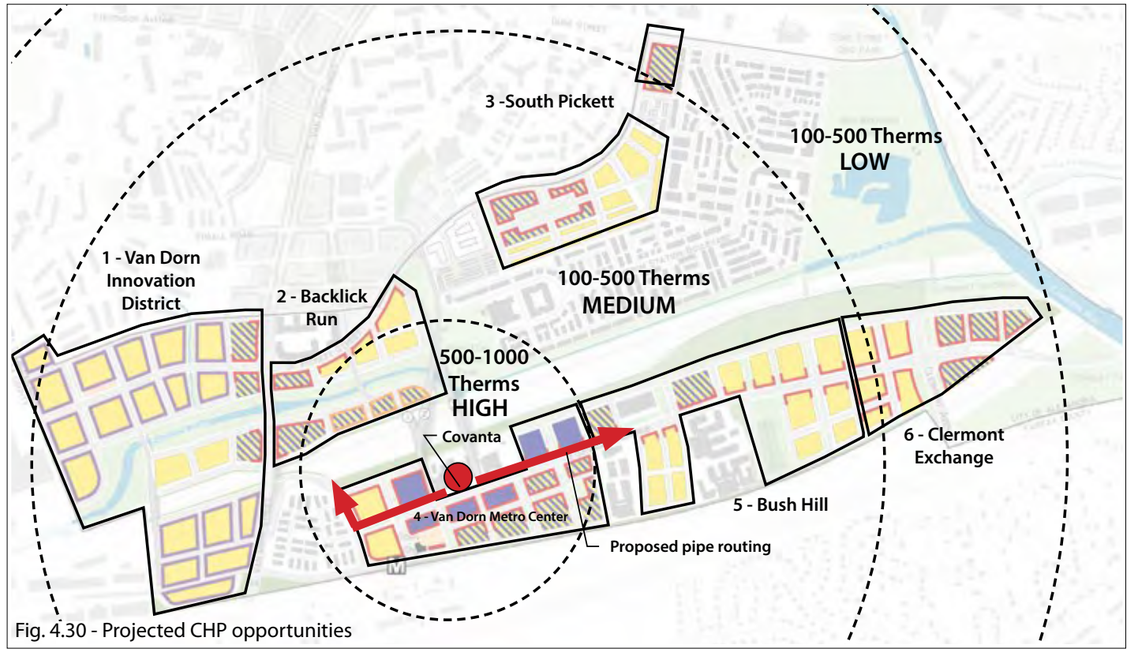


Fig. 4.30 - Projected CHP opportunities

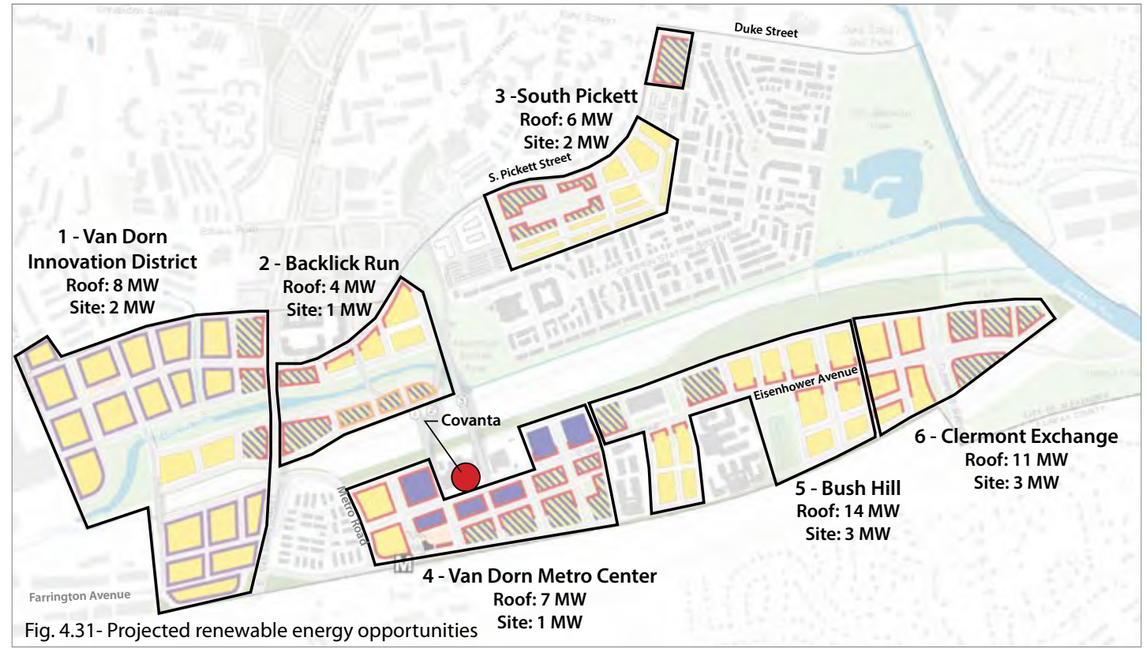


Fig. 4.31- Projected renewable energy opportunities

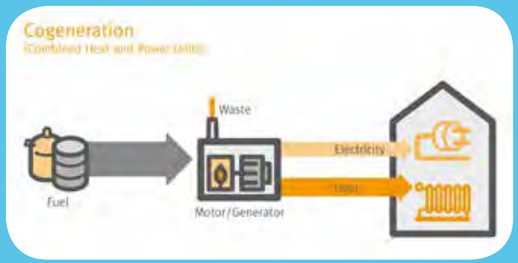
POSSIBLE LARGE SCALE ENERGY STRATEGIES

District Energy Systems (DES)
District energy systems deliver hot water, steam or chilled water from a central plant(s) to multiple buildings via a network of pipes to meet thermal end uses. These systems can use a wide variety of energy sources including CHP, and may incorporate microgrids.

Combined Heat and Power (CHP)
CHP systems use the same energy source to simultaneously produce useful thermal energy and electricity. A CHP opportunity that currently exists within Eisenhower West is the Covanta Resource Recovery Facility. Although the facility is currently only setup to deliver electricity, Covanta has studied and is prepared to modify its facility to add heat exchangers to provide a CHP that can deliver thermal energy to local developments adjacent to the plant. Figure 4.30 indicates the estimated future heating loads in the development neighborhoods with projected high, medium and low opportunity zones indicated for extending heating piping from Covanta to these heating loads.

Microgrids
Microgrids are small-scale electricity distribution systems that link and coordinate multiple distributed energy resources into a network serving some or all of the energy needs of one or more users located in close proximity. It can operate connected to the traditional centralized electric grid or autonomously from it, in an intentional island mode.

Integrated Community Waste Energy Solutions
Sources of surplus heat from municipal and commercial processes at Eisenhower West that can be tapped include building sewage that can be sufficient for heating buildings. A highly efficient hot water district heating system was installed for heating the Olympic Village for the 2010 Winter Olympics in Vancouver, Canada, extracting heat from sewage. This system is now being expanded to complete a district scale waste energy plant for Vancouver. Locally, DC Water is currently planning to install sewage waste heat recovery systems throughout Washington DC that can be utilized for both heat extraction and heat rejection.



Combined Heat and Power (CHP)

Solar shading

POSSIBLE BUILDING SCALE ENERGY STRATEGIES

Daylighting
Natural daylight is the most efficient lighting strategy. New buildings should be constructed to maximize daylight exposure in both private and common areas. Lighting control should respond to human occupancy to ensure that artificial lighting is used only when needed.

Exterior Lighting
Exterior lighting is the most overlooked energy savings opportunity. Exterior lighting uses high efficiency fixtures such as light emitting diodes (LED) and should implement energy-efficient control technologies. It should also incorporate the "Dark Skies" principles for fixture selection.

Energy Efficient Envelopes
Reduce energy usage as much as practical and economical through energy-efficient envelope design for all new buildings.

Electrical Vehicle Infrastructure
Provide infrastructure on-site for accommodating electrical vehicles, which are anticipated to increase over time.

Renewable Energy
Apply renewable energy technologies on-site including solar electric photovoltaics (PV) and active solar heating for energy systems, utilizing available incentives from DVP and Washington Gas. Alternatively, participate in the Dominion Green Power® program, which is certified by Green-e® Energy, for 100% of electric power usage. Utilizing planned future roof areas for roof-mounted PV and planned parking areas for overhead mounted PV on-site, Diagram X indicates the projected peak solar electric peak power generation possible for each neighborhood area. (See Figure 4.31.)

Ground Source Heat Pump
Where site area is available for a ground source well field, energy efficient ground source heat pump systems can be installed to tap the relatively consistent temperature of the ground for heating and cooling. For commercial and large residential projects that would typically utilize a cooling tower, this has the additional benefit of significantly reducing overall water consumption for mechanical system makeup.

Electric vehicle infrastructure, Portland

Renewable energy

4.5.2 ENVIRONMENT

STREAM REVITALIZATION AND STABILIZATION

Holmes Run and Cameron Run are considered impaired by the Virginia Department of Environmental Quality for exceeding the bacteria water quality standard. These streams and tributaries are surrounded by 100-foot Resource Protection Area (RPA) buffers which were adopted by the City of Alexandria in 1992 in response to the Chesapeake Bay Preservation Act of 1988. (Intermittent streams area protected by 50-foot buffers.) The creation of these protected areas ensures that sensitive environmental corridors are preserved in a natural condition. Backlick Run, Holmes Run, Cameron Run, their tributaries and their designated RPAs must remain through and following this project with measures to be implemented to further their protection. The open space along the Backlick Run stream corridor is intended to be functional by addressing stormwater, stream improvements and restoration/ stabilization of the RPA.

The Plan recommends stream revitalization strategies be implemented to restore the health of existing streams and contribute to the creation of the Backlick Run greenway. The stream system will be the focal environmental element within the plan area. As such, the Plan recommends a Backlick Run Restoration Master Plan be pursued as a next step.

Redevelopment that capitalizes on Resource Protection Areas (RPAs) buffer restoration/ stabilization with possible natural stream improvements of Backlick Run and small tributaries, and the environmental features existing in Clermont Cove, will enable enjoyment for the community, more diverse animal habitat, and greater functionality to the stream system. Consideration for siting green infrastructure stormwater Best Management Practices (BMPs) in the RPA will be given to redevelopment projects adjacent to Backlick Run and other tributaries that remove existing encroachments. Following removal of the existing encroachment, the BMP can be placed in the footprint of the previous encroachment. This will benefit the stream and increase the buildable area outside of the RPA. Replanting of the stream buffer will provide open space, treat stormwater and create natural habitat.

Fig. 4.32 - Existing conditions - surface environment

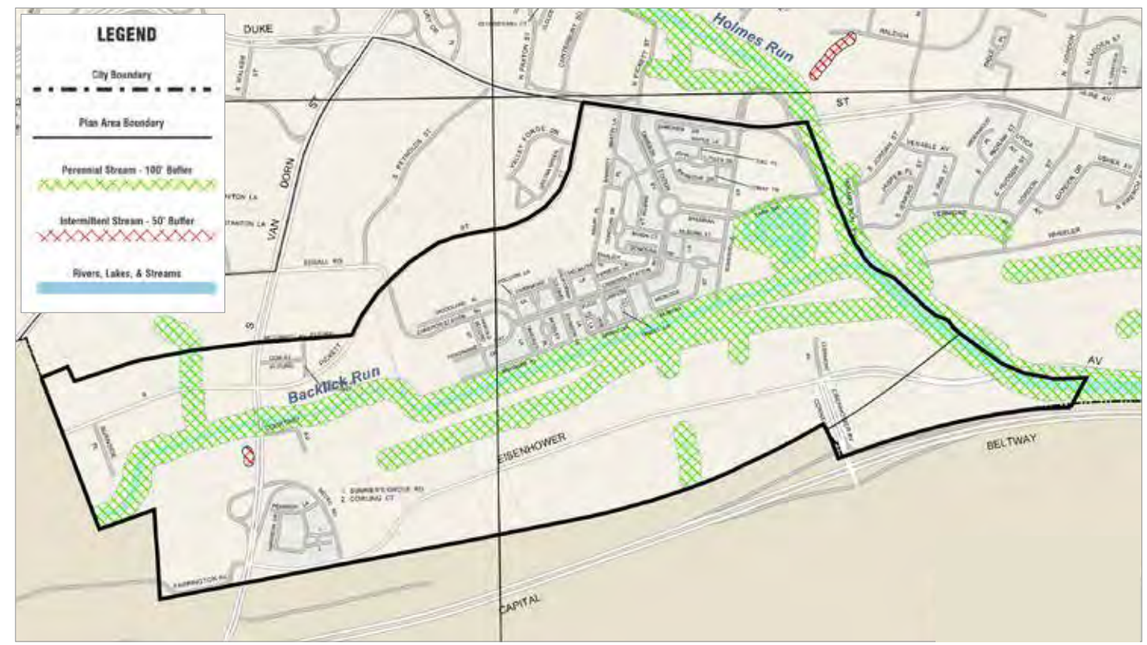


Fig. 4.33 - Existing Resource Protection Areas

Photos of Backlick Run today

POSSIBLE STREAM REVITALIZATION STRATEGIES

Resource Protection Areas (RPA)
Maintain the 100-foot RPA buffer area along streams in the plan area. Current encroachments within the first 50 feet of the buffer may be supplanted with green infrastructure practices that provide water quality benefits for the fronting parcels to maximize buildable area outside of the RPA.

Stream Restoration/Stabilization
This practice varies but can include: grading of stream bank, realignment, native plant installation, rock structures, naturalization, bank reconstruction and stabilization, matting, utility relocations, and outfall repairs, among others.

Stream Daylighting
Stream daylighting includes the removal of natural streams from artificial pipes and culverts to restore a natural stream. Stream daylighting restores habitat, promotes infiltration, helps reduce pollutant loads and can provide better runoff attenuation because it increases the storage size of the natural system. A few small tributaries could benefit from this practice.

Trails and Pathways
Trails and pathways are described throughout the Plan as a way to connect amenities and resources.

Plantings
Planting new native trees, shrubs and groundcover within the RPA buffer of a stream is considered as a desired method of restoring natural landscape for riparian areas. Plantings must follow manuals and guidelines from the Virginia Department of Environmental Quality.

Constructed Wetlands
Stormwater runoff flows through the wetland, allowing for pollutant removal through the settling and biological uptake within the practice. Wetlands are among the most effective stormwater practices in terms of pollutant removal, and they also offer aesthetic and habitat value.

STORMWATER MANAGEMENT AND GREEN INFRASTRUCTURE

The plan covers a drainage area of over 600 acres, with most properties within the plan area having low-scale buildings and/or surface parking constructed before stormwater quality and quantity requirements were in place. This, along with topography, and a large upstream drainage, contributes to the periodic flooding and untreated stormwater runoff that are a problem in the plan area.

Low impact development (LID) or Green Infrastructure (GI) stormwater management strategies are recommended to be implemented with redevelopment in the plan area to minimize stormwater runoff and reduce water pollution, while creating a greener and healthier environment, and providing ancillary benefits such as habitat areas for wildlife, reducing the heat island effect and providing opportunities for connection to nature.

The gradual redevelopment of the plan area over time offers the opportunity to significantly improve stormwater management and reduce polutant runoff throughout the plan area while enhancing the health of existing streams and tributaries.

The plan encourages the installation of permeable pavers in sidewalks and parallel parking areas. In addition, tree wells – or urban bioretention – will be designed to treat stormwater runoff for new or redeveloped roadways per the Complete Streets Guidelines.

Consideration for siting green infrastructure stormwater BMPs in the RPA will be given to redevelopment projects adjacent to Backlick Run and other tributaries that remove existing encroachments. Following removal of the existing encroachment, the BMP can be placed in the footprint of the previous encroachment. This will benefit the stream and increase the buildable area outside of the RPA. Replanting of the stream buffer will provide open space, treat stormwater and create natural habitat.

EFFECTIVE USE OF WATER RESOURCES

The Plan recommends a Stormwater Master Plan to decrease stormwater runoff, and improve water quality. The Plan also recommends the installation of low flow or ultra low flow water features such as toilets, lavatory sinks, and showers in new units, encouraging retrofits in the existing older units and buildings as buildings are renovated. Rainwater capture and reuse and grey water reuse can provide stormwater benefits and reduce use of potable water for non-potable uses.

POSSIBLE STORMWATER MANAGEMENT STRATEGIES - GREEN INFRASTRUCTURE

Bioretention, 19th ST NW, Washington DC

Permeable pavers, Loyola University, Chicago, IL

Tree trench, Yards Park, Washington, DC

Bioretention Areas
Landscaping features adapted to provide on-site treatment of stormwater runoff, bioretention areas are generally applied to smaller sites in urbanized settings. Surface runoff is directed into shallow, landscaped depressions that incorporate pollutant removal mechanisms such as runoff filters through a mulch layer and soil mix is taken up by plantings.

Permeable Pavers
These manufactured concrete units are designed with small openings between permeable joints filled with highly permeable, small-sized aggregates allowing stormwater to enter a crushed stone aggregate bedding layer and base that supports the pavers. They can replace traditional impervious pavement for most pedestrian and vehicular applications except high-volume/high-speed roadways.

Pervious Concrete
Pervious concrete is made with reduced sand or fines that allows water to drain through the surface to the aggregate storage layer below. It can replace traditional impervious pavement for most pedestrian and vehicular applications except high-volume/high-speed roadways.

Cisterns
Cisterns are designed to intercept and store runoff from rooftops to allow for its reuse, reducing volume and overall water quality impairment.

Tree Well BMPs/Urban Bioretention
Tree well BMPs, per the Green Sidewalks Guidelines, perform the same functions that other infiltration practices perform but in addition provide an increased tree canopy.

Planter Box
These containers, located either above or below ground, are planted with vegetation that captures stormwater within the structure itself rather than allowing it to drain directly into nearby storm drains. Planter boxes must be located reasonably close to downspouts or structures generating runoff.

Bioswale
As stormwater runoff flows along these planted open channels, it is treated through vegetation slowing the water to allow sedimentation, filtering through a subsoil matrix, and/or infiltrating into the underlying soils.

Green Roofs
Green roofs absorb, store, and evapotranspire initial precipitation and reduce the discharge of pollutants such as nitrogen and phosphorus to a storm sewer system as a result of soil microbial processes and plant uptake.

Infiltration Trench
These rock-filled trenches allow stormwater runoff to pass through a combination of pretreatment measures, such as a swale and detention basin, and into the trench. There, runoff is stored in the void space between the stones and infiltrates through the bottom into the soil.

Green roof, Loyola University, Chicago, IL

Bioswale

Cistern

4.5.3 SANITARY SEWER AND WATER

The Plan area falls within the Holmes Run Sanitary Sewershed and the Alexandria Renew Enterprises (AlexRenew) service area. Currently, 80,000 feet of sanitary sewers exist in the plan area, mostly small collector sewers (10-12") owned and maintained by the City. (See Fig. 4.34.) Small collector sewers discharge to three trunk sewers owned by Fairfax County, which are then conveyed to the AlexRenew Holmes Run Trunk Sewer and conveyed to their treatment facility.

With new development and redevelopment envisioned over the next 20-25 years, portions of the existing sewer system will need to be upgraded as development happens:

- Potentially, the additional sewage generated by the Eisenhower West SAP could result in areas without sufficient sewer capacity.
- Sanitary sewers operating over capacity could result in sewer back-ups into homes and businesses and sanitary sewer overflows into the environment.
- It is anticipated that some of the City-owned collector sewers will require upsizing (replacing existing sewer pipe with a larger pipe).
- Coordination between AlexRenew, Fairfax County and the City is currently ongoing to determine infrastructure upgrades required on the trunk and interceptor sewers.

A variety of strategies to conserve water and reduce flow into the sanitary sewer system - such as low-flow toilets, rainwater harvesting, etc. listed on the following page - will reduce the need for upgrades, and are recommended to be implemented as new development occurs throughout the plan area.

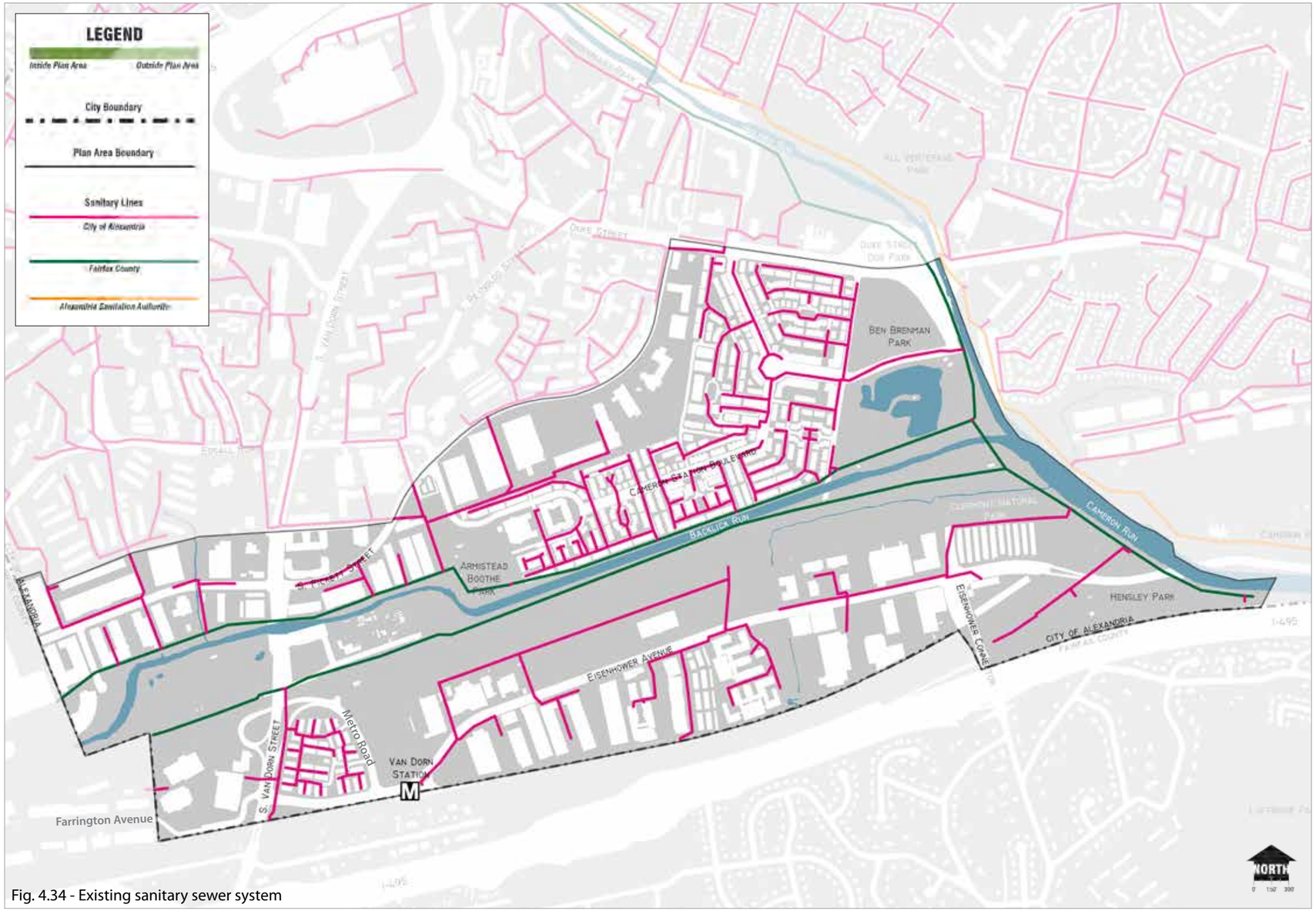


Fig. 4.34 - Existing sanitary sewer system

Reclaimed Water

Reduction of overall domestic water usage across the City of Alexandria is a major goal in moving towards Alexandria's environmental priority of increasing water conservation. One of the ways this can happen is to use reclaimed water across the city as much as possible in order to reduce overall dependency of clean domestic water.

This reclaimed water system is more widely known as a "Purple Pipe" water system as it is typically colored purple to clearly indicate to building occupants or building maintenance that it is a non-potable water system and different from the domestic systems in the building. Reclaimed water is water that has received a level of treatment appropriate for non-potable uses. It is produced by using physical, biological, and chemical processes to remove harmful material from wastewater that flows into our plant. Treating wastewater so that it can be classified as "reclaimed" includes two stages of ultraviolet disinfection prior to distribution.

The City wastewater reclamation facility located in Old Town Alexandria is operated by AlexRenew. The AlexRenew facility serves about 320,000 people in the City of Alexandria and parts of Fairfax County, processing an average of 13 billion gallons of wastewater every year. While most of AlexRenew's cleaned water is returned back to the environment, AlexRenew has recently embarked upon installation of a reclaimed water system (Purple Pipe System) to make use of the high quality water for non-potable uses. AlexRenew is currently planning to utilize the purple pipe reclaimed water in the new AlexRenew Headquarters and in other buildings in the Carlyle development. They have expectations for expansion of this buried Purple Pipe system up Eisenhower Avenue.

Reclaimed water has been gaining acceptance nationwide, and is used in almost all 50 states. In the National Capital Region, Loudoun Water and Fairfax Water have reclaimed water systems. Since 2000, AlexRenew has used about 1.5 billion gallons of reclaimed water annually for on-site heating, cooling, and equipment cleaning. Beginning in 2016, they will make reclaimed water available to customers.

POSSIBLE SANITARY SEWER AND WATER REDUCTION STRATEGIES

Reclaimed Water

Reclaimed water is water which has received a level of treatment appropriate for non-potable uses. It can be used for :

- Commercial toilet flushing
- Construction dust control and soil compaction
- Landscape irrigation
- Boiler and cooling tower make-up
- Street sweeping
- Power washing
- Concrete mixing
- Commercial car washes

Rainwater Harvesting

Rainwater should be captured on-site from roof surfaces and reused for irrigation, and indoor plumbing needs. This reduces the demand for potable water and has associated energy and cost savings.

Low-Flush Toilets

More than 4.8 billion gallons of water is flushed down toilets each day in the United States as conventional toilets use 3.5 to 5 gallons of water per flush. Low-flush toilets use only 1.6 gallons of water or less.

Low-Flow Showerheads

Showers account for about 20 percent of total indoor water use. By replacing standard 4.5-gallon-per-minute showerheads with 2.5 gallon-per-minute heads, a family of four can save approximately 20,000 gallons of water per year.

Faucet Aerators

Faucet aerators break the flowing water into fine droplets and entrain air while maintaining wetting effectiveness. They can reduce water use at faucets by as much as 60 percent while still maintaining a strong flow.

Pressure Reduction

The maximum water flow from a fixture can be reduced if the water pressure is reduced. For example, a reduction in pressure from 100 psi to 50 psi at an outlet can result in a water flow reduction of about one-third.

Reclaimed water

Reclaimed water

Rainwater harvesting

SUMMARY OF PLAN-WIDE ELEMENTS

4.1 LAND USE

COMMERCIAL OFFICE/INSTITUTIONAL

1. Commercial office/institutional uses will allow for ground floor retail wherever retail is required and recommended.
2. Commercial office/institutional uses are required in Neighborhood 2 - Backlick Run, and Neighborhood 4 - Van Dorn Metro Center, and encouraged in Neighborhood 1 - Van Dorn Innovation District, Neighborhood 5 - Bush Hill, and Neighborhood 6 - Clermont Exchange.
3. Focus commercial office, hotel, and institutional uses at transit hubs (the Van Dorn Metrorail station and West End Transitway stops) and along primary framework streets (particularly Van Dorn Street and Eisenhower Avenue).

RETAIL

4. Retail will be located at the base of buildings along primary streets including Eisenhower Avenue, South Pickett and Van Dorn Streets to the extent possible.
5. Ground floors will be designed at 15-18 feet in height and at least 35' in depth (50' preferred) in order to accommodate retail and Production, Wholesale and Repair uses, and maker space.
6. Neighborhood-serving retail that can attract shoppers walking to and from identified nodes and transit stations/ stops will be provided.
7. Large-format or "big box" retail that is primarily auto-served will be designed in an urban format, multi-story to the extent possible. It is encouraged in areas beyond a 1/2 mile of the Van Dorn Metrorail station, particularly in Neighborhood 6. Large format retail may be appropriate within a ½-mile of the Metrorail station in locations facing Van Dorn Street.
8. Retention of the types of existing local retail establishments is encouraged, especially local ethnic grocers and restaurants.
9. Topography may impact the feasibility of retail in some locations.

RESIDENTIAL

1. Vertically integrate new residential development with other uses.
2. Require a variety of heights for new multifamily and townhouse development while ensuring adequate height and scale transitions to neighboring developments.
3. Extend the grid, character and scale of Cameron Station with new development along South Pickett Street.
4. Focus high-density, transit-oriented mixed-use development, including residential development, in the Van Dorn Metro Center Neighborhood.
5. Create a cohesive and architecturally distinctive residential neighborhood with small-scale retail along Eisenhower Avenue in the Bush Hill Neighborhood.

AFFORDABLE HOUSING

1. Housing opportunities and/or voluntary contributions to the Affordable Housing Trust Fund with each development/ redevelopment in the plan area.
2. Pursuant to Section 7-700 of the zoning code, bonus densities in excess of 20% are allowed in order to encourage the production of affordable units.
3. Encourage co-location of affordable housing, including senior or assisted living, with future civic or municipal uses where possible.
4. Build partnerships between property owners interested in redevelopment and non-profit affordable housing developers.
5. Allow for potential ARHA replacement units in the plan area.
6. Encourage microunits, where appropriate, to enhance housing affordability options
7. Permit a continuum of senior living options in units ranging from independent living to assisted living, nursing homes, and memory care. Locate senior independent living projects close to community amenities and transit.
8. Encourage universal design to enable residents to age-in-place and improve the safety and utility of housing for people with disabilities; visitability features should be incorporated to ensure new homes are accessible to people regardless of their physical abilities.

COMMUNITY FACILITIES

1. Encourage co-location of community facilities with each other and with other desired uses such as affordable housing.
2. Where opportunities exist, consider placing recreational facilities on top of buildings. Ensure that these facilities are clearly visible, inviting to the public, and easily accessible.

PRODUCTION, WHOLESALE, REPAIR

1. PWR uses will be located in Neighborhood 1 to promote this area as the Van Dorn Innovation District.
2. Buildings with PWR businesses will include active uses along street frontages, including entrances, reception areas or waiting rooms, and spaces such as showrooms or cafés.
3. Neighborhood serving retail- including restaurant use- will be permitted within PWR space.
4. PWR uses will be integrated vertically (for example, the ground floor of a residential building) or horizontally (for example, a flex building adjacent to a residential building).
5. Retention of existing types of local PWR establishments is encouraged.
6. Ground floors will be designed at 15-18 feet in height and at least 35' in depth in order to accommodate retail and PWR uses and maker space. PWR uses may be allowed on the second floor where appropriate.

SUMMARY OF PLAN-WIDE ELEMENTS

4.2 TRANSPORTATION AND CONNECTIVITY

STREETS AND BLOCKS

Required and Recommended Streets

1. Required streets must be implemented as part of the redevelopment in order to create additional access and connectivity and break down the scale of development in the plan area. The required streets shown in Fig. 4.4. are required to be constructed as part of the redevelopment.
2. Recommended Streets allow flexibility for landowners and developers to work with varying site conditions. The final location of these streets will be determined based on the maximum block sizes, as part of the development review process.
3. The blocks formed by existing, required and recommended streets must adhere to the requirements for block sizes.

STREET HIERARCHY

PRIMARY OR "A" STREETS

1. Buildings will front the street.
2. Building entries will be located along the street frontage.
3. Active uses will be located on all street frontages.
4. If above-grade parking is permitted, it will be screened with active uses to at least 30 feet in depth for each street and park open space frontage.
5. The highest quality of architectural façade treatment will be used.
6. No driveways, curb cuts, or service alleys will be in view.

SECONDARY OR "B" STREETS

1. Buildings will front the street.
2. Primary or secondary building entries will be located on these streets.
3. If above-grade parking is permitted, it will be screened with active uses to at least 30 feet in depth for each street and park open space frontage.
4. A high quality of architectural façade treatment will be used.
5. No driveways, curb cuts, or service alleys will be in view.

TERTIARY OR "C" STREETS

1. Buildings will front the street.
2. Primary or secondary building entries may be located on these streets if no A or B Street bounds the block.
3. A high quality of architectural façade treatment will be used.
4. Streets abutting railways will have flexibility in street and sidewalk width and parallel parking where appropriate.
5. Curb cuts for providing access to parking and loading areas may be located on these streets, provided they are combined with adjacent development to the extent possible.
6. If above-grade parking is permitted, it will be screened with active uses to at least 30 feet in depth for each street and park open space frontage. If fronting on to an existing rail line, architectural screening may be permitted as part of the development review process, in lieu of active uses.

"P" STREETS

1. On P streets fronting parks, on-street parallel parking is permitted on the building side, but not on the park side, in order to allow for unobstructed views toward the park or green buffer areas.
2. On P streets fronting parks, no driveways, curb cuts, or service areas will be accessed from a P street.
3. On P streets fronting railways, curb cuts for providing access to parking and loading areas may be located on these streets, provided they are combined to the extent possible.
4. If above-grade parking is permitted, it will be screened with active uses to at least 30 feet in depth for each street and park open space frontage.

BLOCKS

1. Blocks in Eisenhower West will vary from 300-400 feet in length for each block frontage.
2. Where it is difficult to accommodate smaller blocks due to parcel size, topography or other factors, blocks may be up to a maximum of 500 feet, so long as the buildings along them have massing variations and building breaks that create significant modulations, entrances, and storefronts. Blocks of this length should be limited in the Plan area.
3. Midblock connections are encouraged to allow for pedestrian and alley access. Connections will be determined at the time of development in concert with development and design guidelines.
4. For the purpose of determining block size, the block perimeter may be established by mid-block connections and streets.

BICYCLING ENHANCEMENTS

1. Provide enhanced bicycle corridors throughout Eisenhower West, especially on major streets including Eisenhower Avenue, Van Dorn Street and South Pickett Street, the Multimodal Bridge, and Farrington Connector. Enhanced bicycle corridors include a separate on-street facility for bicyclists, which may include a bike lane, separated or buffered bike lane, climbing lane or sidepath.
2. Extend the Backlick Run trail west to Fairfax County.
3. Provide off street bike trails through parks and green areas. Trails are hard surfaces, and a minimum of 10' wide, but preferably 12' wide, and are shared between bicyclists and pedestrians.
4. Provide bicycle parking facilities inside garages at all new developments.
5. Provide bicycle racks at key locations, particularly at mixed-use nodes.
6. Provide BikeShare stations at key destinations around Eisenhower West.
7. Provide shared roadways for bicycles and vehicles. Shared roadways will be marked ("sharrows") and/or signage will be used to designate the road as a shared facility. A shared roadway can be accommodated by a neighborhood bikeway designed to slow vehicles and give priority to bicyclists.

SUMMARY OF PLAN-WIDE ELEMENTS

PEDESTRIAN ENVIRONMENT

1. Create a network of connected sidewalks, trails and paths for pedestrians.
2. Provide sidewalks separate from bicycle facilities, or separate pedestrians and cyclists.
3. Provide sidewalks along all street frontages except parks where trails are present.
4. Create safe, accessible, and well-marked pedestrian crosswalks at all street intersections.
5. Create a non-motorized trail and bridge connection across the railroad tracks from Clermont Avenue to Ben Brenman Park.
6. Create a non-motorized trail and bridge connection across the railroad tracks from Eisenhower Avenue to Cameron Station.
7. Create a non-motorized trail and bridge connection across the railroad tracks from Eisenhower Avenue to Armistead Boothe Park either as a stand-alone bridge, or as part of the Multimodal Bridge design.
8. Provide an off-street pedestrian path along the Clermont Natural Area south of the Norfolk Southern Railroad. If possible, continue the path on the north side of the proposed TSA facility on the Victory Center site and consider allowing bicycle use on this portion of the path.
9. Provide seating/places for pedestrians to rest along paths/ sidewalks.
10. Encourage and allow outdoor seating on wide sidewalks.
11. Create a trail and bridge connection to connect neighborhoods bisected by the railroad right-of-way as part of the Farrington-Edsall Connector.

4.3 PARKS AND OPEN SPACE

EXISTING PARKS

1. Enhance Ben Brenman Park, Armistead Boothe Park, and Hensley Park with features such as lighting, drainage, irrigation, fencing, turf fields and picnic shelters per approved City plan.
2. Enhance access to Ben Brenman Park from south of the rail lines by implementing at least one of the two bike/ pedestrian bridges as shown on Fig 4.22.
3. Increase the size of the Clermont Natural Area by acquiring the property owned by Norfolk Southern west of the natural area, or by placing it in a conservation easement, to provide additional passive open space in the plan area and to potentially include stormwater management features.

NEW PARKS AND GREEN SPACES

1. At least one neighborhood park will be created in each Eisenhower West neighborhood.
2. Neighborhood parks will be a minimum of one-half acre in size.
3. Parks could include picnic grounds and shelters, playgrounds, dog areas, small natural areas, garden plots, passive and active recreation areas.
4. Accessible open space may also include smaller open spaces, or pocket parks, intended to meet the needs of residents within a one or two block area. These may include seating areas, landscaping and small scale play equipment.
5. The plan calls for 25% - 30% of each residential block to be used for open space, which varies by neighborhood. The Plan goal is to have one third of the required open space to be located on site. The balance may be a combination of above-grade amenity space and contributions toward required parks.
6. Throughout implementation of the Eisenhower West plan, the City will look for opportunities for temporary parks and public spaces.
7. At-grade open space is strongly preferred, whether on-site or combined within neighborhoods.

BACKLICK RUN GREENWAY

1. Revitalize Backlick Run to be the key open space feature of the Plan. Revitalization will include stream restoration/ stabilization, the removal of structures from the Resource Protection Area (RPA) and the removal of invasive species and replacement with native vegetation.
2. Existing buildings and other impervious surfaces should be removed from the RPA concurrent with redevelopment of the sites on which they are located.
3. Natural areas along Backlick Run should integrate passive open space and multi-use trails as shown in Fig. 4.22. Benches and other amenities should also be provided.
4. The design of the Backlick Run greenway should reflect the environmental role of the greenway through the design, landscaping, and interpretive areas and may include stormwater management features.

GREEN CONNECTIONS

1. Implement green connections to the Backlick Run greenway and other parts of the plan area including stream valleys and other environmentally sensitive areas. One example is the small stream that connects to Backlick Run in the vicinity of 731 S. Pickett Street.
2. Additional green connections to Backlick Run will be identified and planned through the development process and provided as development occurs.
3. Integrate linear green spaces or green connections along streets in locations approximate to those shown on Fig. 4.22.

PUBLIC SPACES AND PLAZAS

1. At least one neighborhood public space or plaza will be created in each Eisenhower West neighborhood.
2. Public spaces will be high-quality and memorable in design in order to encourage sociability, gathering, and interaction among community members, particularly at the Van Dorn Metrorail Station.
3. Low Impact Development (LID) strategies and elements will be integrated in open spaces, streetscape and public space design.
4. Incorporate historical markers and elements of the historical character into the design of open space to enhance the experience of users of the parks within the plan area.

SUMMARY OF PLAN-WIDE ELEMENTS

STREETSCAPES

1. Integrate easy to maintain street trees maximizing opportunities to enhance tree coverage and help meet the overall City goal to achieve 40% tree canopy coverage by 2020.
2. Maintain existing trees where feasible, and plant trees along all existing and new streets in the plan area at appropriate intervals, in accordance with City policies.
3. Provide vegetated screening adjacent to the rail lines to mitigate visual and noise impacts from these uses. This vegetative screen will be planned and planted as part of the development of adjacent properties.
4. Refer to the City of Alexandria's *Green Sidewalks BMP Design Guidelines* for sidewalk design standards and requirements.

GATEWAYS

1. Create gateways to Eisenhower West through the use of distinctive architecture, high-quality public space design, special landscaping, wayfinding signage, streetscape furnishings, lighting, and public art. Potential gateway locations include:
   - Van Dorn Metrorail Station
   - Intersection of Eisenhower Avenue and Van Dorn Street
   - Intersection of South Pickett and Van Dorn Streets
   - General area where Eisenhower Avenue crosses Holmes Run
   - Intersection of South Pickett and Duke Streets

PUBLIC ART

1. Provide public art that is exciting, bold and innovative.
2. Public art will reflect its site and help contribute to the character of each neighborhood by creating a sense of place unique to that neighborhood.
3. Public art elements may be integrated into the design of buildings, streetscapes and public space components such as lighting, seating, paving, vegetation, fountains, etc.
4. Both temporary and permanent public art may be used to activate space.
5. Public art in the plan area will be consistent with city-wide public art policies and plans, as amended.
6. Key locations for public art should include prominent places such as gateways, plazas, parks, trails, green connections, and nodes of activity identified in the Plan including:
   - New park and the new public plaza associated with the mixed-use transit-oriented redevelopment of the Van Dorn Metrorail station. Work with MetroArts, WMATA's Art in Transit Program which installs artwork throughout the Metrorail system to enhance travel via Metro.
   - Backlick Run greenway
   - Future redevelopment of the Trade Center site
   - Future park Bush Hill Park. Integrate interpretive exhibits or public art expressing the historic resources and archeology of the Bush Hill neighborhood.
   - Node at the intersection of Clermont and Eisenhower Avenues.
   - Node in the Van Dorn Innovation District
7. Celebrate the ecology of nearby Holmes Run and Cameron Run through educational or interpretive art or exhibits.

4.4 URBAN FORM AND BUILDING CHARACTER

FRONTAGES

1. Buildings will have their primary frontages, entrances and lobbies on primary and secondary streets, or facing parks or green spaces to create a lively public realm, encourage safety and help provide "eyes on the street" and "eyes on the park".
2. Building façades fronting streets, or parks and green spaces will be lined with active uses at all levels.

MASSING

1. Buildings will vary in scale, and massing to create architectural interest and avoid long expanses of walls.
2. Building massing will respect adjacent existing residential development by stepping down to create "shoulder zones" that are compatible in height and setback with adjacent buildings.
3. Building façades will have massing variations creating significant modulations in the depths of façades. For longer façades, a building break may be required as part of the development review process.

BUILDING HEIGHT

1. Buildings in Eisenhower West will vary in height to provide interest in each neighborhood.
2. Building heights relate to their proximity to the Van Dorn Metrorail Station. Taller buildings will be closer to the station.
3. Buildings within a 1/4 mile of the Van Dorn Metrorail Station will be a 15 - 20 stories.
4. Blocks that straddle distance ranges from the Van Dorn Metrorail Station (i.e. 1/4 to 1/2 mile) will be given consideration for the taller building height.
5. Buildings over 100 feet in height will create massing and height design guidelines that ensure the creation of a pedestrian-scaled environment with exposure to sun and shade.
6. Outside the ¼-mile, lower heights will be considered with the overall goal of achieving a variety of heights that step down from the Van Dorn Metrorail Station.
7. Minimum heights do not apply to townhouses.
8. Density provisions of Section 7-700 of the Zoning Ordinance apply.

SUMMARY OF PLAN-WIDE ELEMENTS

DISTINCTIVE ARCHITECTURE AND PLACEMAKING

1. Reinforce Eisenhower Avenue as a "Great Street" by using distinctive architecture, landscaping and streetscape design.
2. Buildings taller than 100 feet will create distinctive architecture and roof top design that are dramatic, deliberate, and add visual interest to the skyline by offering 360 degree sculpted forms with architectural and design flourishes.
3. Highlight special buildings by using contemporary and innovative design, high-quality materials, and special building elements. Potential locations include buildings:
   - Around the Van Dorn Metrorail Station,
   - Fronting public spaces in the future mixed transit-oriented development near the Van Dorn Metrorail Station,
   - At the future terminus of Eisenhower Avenue,
   - At the intersection of Clermont and Eisenhower Avenues,
   - Along Van Dorn Street,
   - At the corner of South Pickett and Duke Streets,
   - At the future mixed-use node at the Trade Center site,
   - At gateways, and
   - Fronting parks and public spaces.

BUILDING SUSTAINABILITY

1. Provide sustainably designed buildings consistent with the City of Alexandria's green buildings policies and development standards.
2. Roofs will contribute to sustainability by creating opportunities for renewable energy, open space, and/or stormwater management.
3. Buildings will include and celebrate sustainable design features.
4. Where possible, orient buildings to maximize energy efficiency and provide access to daylight.

PARKING

1. Provide a range of parking options. For larger projects, a shared parking strategy is strongly encouraged.
2. Where there is sufficient change in topography, parking may be tucked into the grade.
3. When parking is located above grade, the frontage of each level facing an "A", "B", or "P" street and park/open space is required to be lined with active uses (residential, office, hotel, and/or retail use) for a minimum depth of 30 feet (50' preferred).
4. Surface parking areas are prohibited except for interim uses.
5. Provide on-street parking along neighborhood streets. Evaluate on-street parking along Eisenhower Avenue where feasible. On-street parking may not be appropriate for Van Dorn Street.
6. Integrate green building practices in parking design.
7. In the case that underground parking is not permitted due to floodplain restrictions, above ground parking will be permitted subject to architectural screening compatible with design and materials of the building architecture.

EISENHOWER WEST
SMALL AREA PLAN

5 NEIGHBORHOOD ELEMENTS

5.1 NEIGHBORHOOD 1 - VAN DORN INNOVATION DISTRICT
5.2 NEIGHBORHOOD 2 - BACKLICK RUN
5.3 NEIGHBORHOOD 3 - SOUTH PICKETT
5.4 NEIGHBORHOOD 4 - VAN DORN METRO CENTER
5.5 NEIGHBORHOOD 5 - BUSH HILL
5.6 NEIGHBORHOOD 6 - CLERMONT EXCHANGE

5 NEIGHBORHOOD ELEMENTS

This chapter describes elements of the six neighborhoods within the Eisenhower West Small Area Plan.

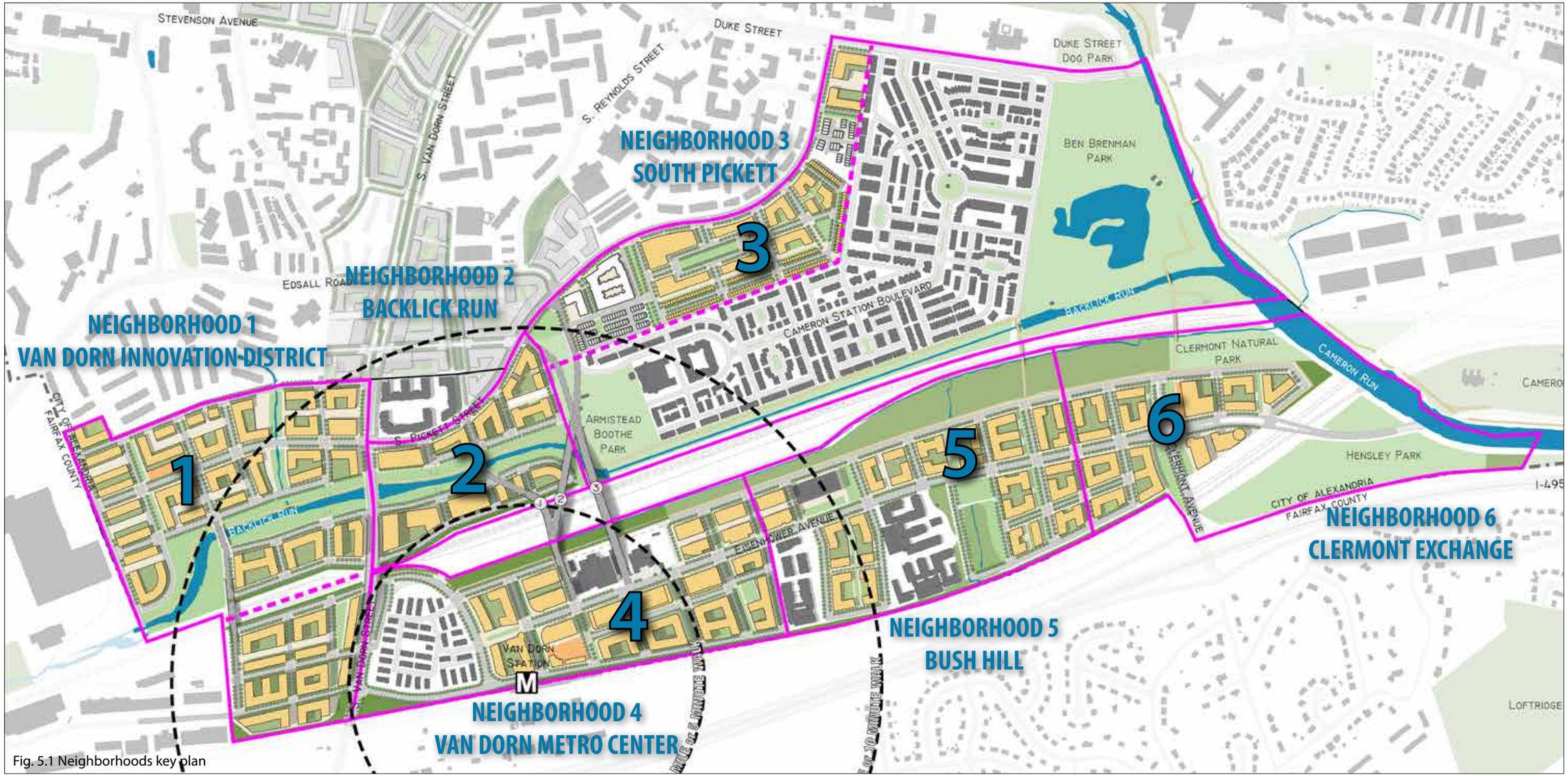


Fig. 5.1 Neighborhoods key plan

Fig. 5.2 - Neighborhood 1 key plan

NEIGHBORHOOD 1 PRINCIPLES

1. **Support the transformation of this area into an Innovation District that builds on and strengthens the existing businesses west of Van Dorn Street.**
2. **Create a distinct identity for this neighborhood and provide new employment opportunities in Eisenhower West through the integration of Production, Warehouse and Repair (PWR) uses such as maker space in the Innovation District. Architecture and urban design should reinforce this identity and mitigate compatibility issues.**
3. **Improve and protect Backlick Run, associated streams and Resource Protection Areas.**
4. **Create a high-quality and inviting public realm to encourage pedestrian and bicycling activity and connect the Innovation District to the Van Dorn Metro Station.**

Site Area	Building Heights	Land Uses
79.6 acres	5-15 floors	

Fig.5.3 - Neighborhood 1- Land uses

5.1 NEIGHBORHOOD 1 - VAN DORN INNOVATION DISTRICT

Neighborhood 1 is envisioned as Eisenhower West's Innovation District. Over time, the area will redevelop from existing low density warehouse spaces to a vertical and horizontal mix of residential and commercial development fronting on to a new Backlick Run greenway. The permitted mix of commercial uses is intentionally broad and diverse, and can include retail, office, and Production, Wholesale and Repair (PWR). Specific uses could include creative services, maker space, start-ups, craft manufacturing, sporting/exercise businesses, and catering companies, among many others.

This diversity strengthens the area's employment base by encouraging innovation, maintaining and integrating existing light industrial, and promoting neighborhood-serving uses. It will also create a distinct character to the residential development, a fresh take on urban industrial that has evolved into residential mixed use neighborhoods. Residents' quality of life will be enhanced by proximity to high quality natural amenities, retail services, and transit.

CHARACTER DEFINING ELEMENTS

- The integration of PWR or Production, Wholesale, and Repair with residential development will define the character of this neighborhood. Future development should look to capitalize on this opportunity to create an industrial-flavored identity that is distinct from, yet compatible with, typical residential/mixed use areas.
- A major element of the neighborhood is Backlick Run. New development has the opportunity to enhance, protect, and connect to this natural amenity and open space. New streets and buildings fronting Backlick Run will create an identity and address for this neighborhood by making this restored natural area and waterway feature the front door to their design.
- A number of small service businesses currently exist in this neighborhood, forming a vital employment source for the residents of the region. To the extent possible, future development should retain these types of businesses.

ISSUES AND OPPORTUNITIES

- Redevelopment offers an important opportunity to enhance Backlick Run, including environmental restoration and open space improvements. It is also an opportunity to provide a walkable pedestrian realm to connect people to the Van Dorn Metrorail Station, connect properties to one another, and integrate a mix of uses while creating opportunities for people to live more affordably near where they work.
- Much of this neighborhood is located within the 100-year or 1%-chance-per-year floodplain and subject to flooding. New development will need to account for this as well as City regulations on developing within the floodplain.

LAND USE

1. New development in this neighborhood will include a mix of uses including multifamily and townhouse residential, and commercial/office/institutional buildings with ground level retail and production, wholesale and repair (PWR) uses such as maker space. (See Fig. 5.4.)
2. Uses will be integrated vertically within one building, or horizontally, in adjacent buildings.
3. Locations along Van Dorn Street are particularly suited for mixed use development with commercial uses above retail or PWR space. However, these uses may also be located elsewhere in this neighborhood.
4. A limited number of townhouses will be permitted in this neighborhood.
5. More than half of ground floor spaces within the neighborhood will incorporate PWR and retail uses. Where retail and/or PWR uses are not present, a minimum floor-to-ceiling height of 15-18 feet will be provided and a minimum depth of 35 feet (50' preferred) will be provided to not preclude these uses in the future.
6. The Long Range Educational Facilities Plan (LREFP) identifies an existing need for an elementary school site in Eisenhower West, as well as to the possibility of adding a second elementary school in the west end if growth continues. Student enrollment projections in the LREFP coupled with the potential addition of approximately 250 students generated from the Eisenhower West plan suggest a need for this elementary school with a preference for this neighborhood. However, other locations should also be considered. If the school is located in this area, it could be co-located with a recreational facility and must be in close walkable proximity to a neighborhood park, which contains a children's play space and school fields as specified in the LREFP. (See Chapter 4.1.)

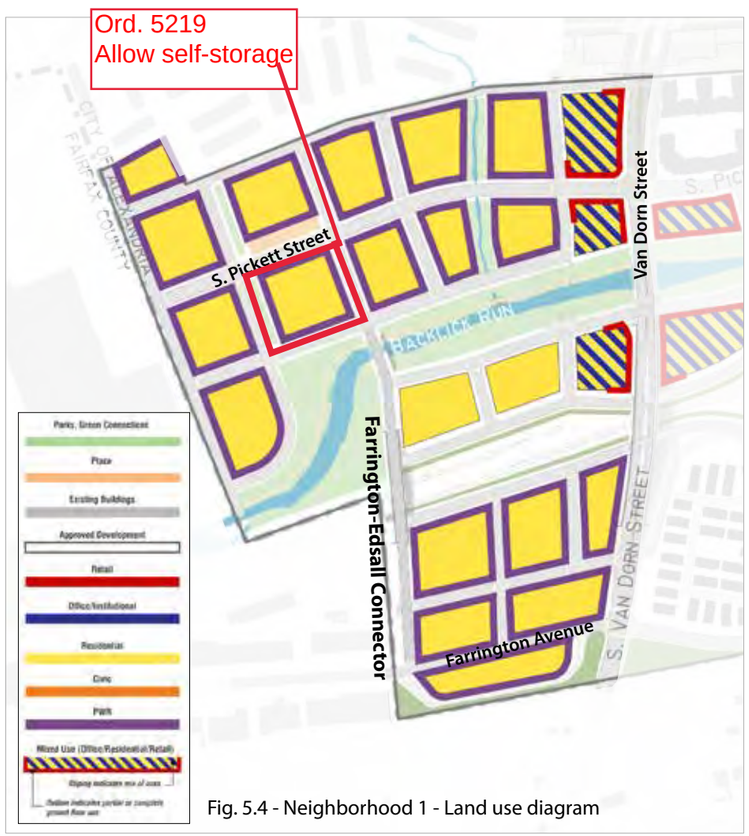


Fig. 5.4 - Neighborhood 1 - Land use diagram

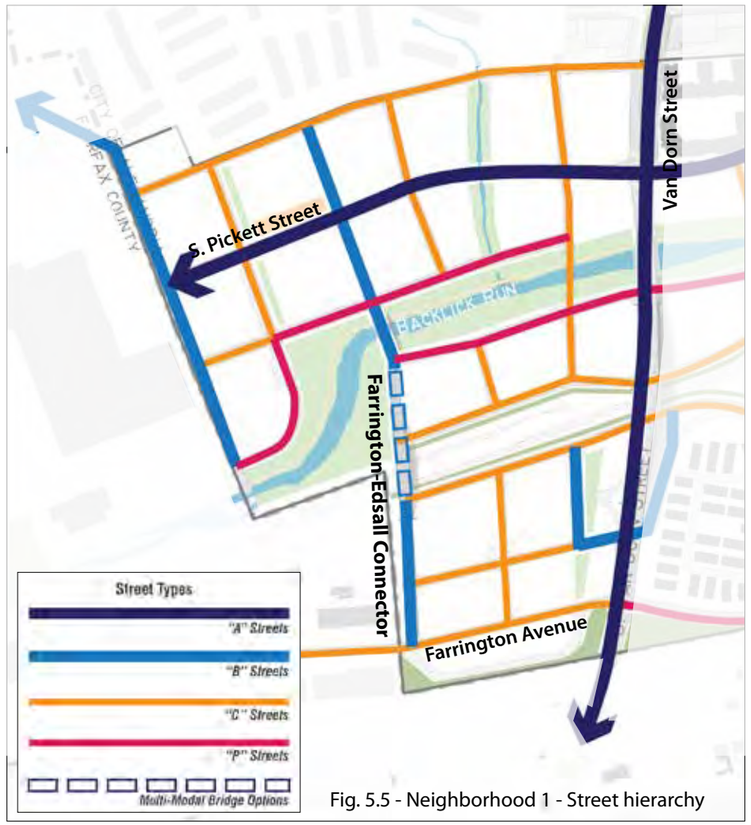


Fig. 5.5 - Neighborhood 1 - Street hierarchy

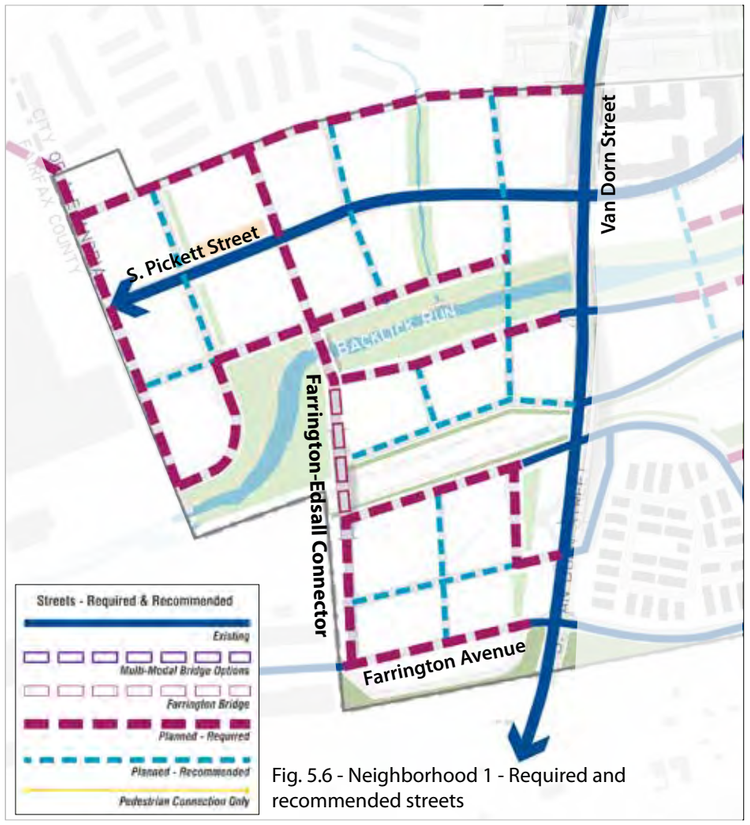


Fig. 5.6 - Neighborhood 1 - Required and recommended streets

Artist's rendering looking west along the Backlick Run greenway toward Neighborhood 1 - the Van Dorn Innovation District

Fig. 5.7 - Neighborhood 1 - Parks and open space

TRANSPORTATION AND CONNECTIVITY

1. Establish a grid of streets and blocks connecting to South Pickett Street and Farrington Avenue.
2. Designate South Van Dorn Street and South Pickett Street as "A" streets and a new connector between Farrington Avenue connector and Edsall Road as a "B" street. (See Fig. 5.5.)
3. Streets located parallel to South Pickett Street and Farrington Avenue, and streets next to Backlick Run are required streets. (See Fig. 5.6.)
4. The location of generally north-south streets connecting South Pickett Street or Farrington Avenue to the streets parallel to them may vary depending on the future configuration of blocks of development. Maximum size and other requirements for blocks described in Chapter 4 must be met.
5. Create a new connector road inclusive of bike lanes between Farrington Avenue and Edsall Road, including a bridge crossing the railroad right-of-way and Backlick Run. Coordinate efforts with Fairfax County.
6. Remove the existing southbound ramp on the west side of South Van Dorn Street connecting to Metro Road. Integrate in its place the proposed street grid in that area south of the railroad right-of-way. (See Fig. 5.8.)

BUILDING FORM AND CHARACTER

1. As new development is phased in over time, ensure that it co-exists with existing industrial development and businesses.
2. Buildings will have their primary frontages, entrances and lobbies on "A" or "B" streets, and facing parks or major green spaces. This creates a lively public realm, encourages safety and helps provide "eyes on the street" and "eyes on the park."
3. Ground levels of buildings will be designed with taller first floor heights (15 to 18 feet) and depths (35 feet minimum with 50 feet preferred) to accommodate active uses including retail, restaurants, Production, Wholesale and Repair uses, maker space, and shared spaces such as building entrances and lobbies.
4. Future buildings on the current Vulcan site will have their primary frontage and building entrances/lobbies facing the Backlick Run greenway and Van Dorn Street.
5. Use distinctive architecture, high-quality materials, excellent public space design, special landscaping, wayfinding signage, streetscape furnishings, lighting, and public art to highlight buildings at gateways, nodes, parks, and public spaces. Specific gateway locations in Neighborhood 1 include buildings along Van Dorn Street, buildings fronting Backlick Run and public spaces within the neighborhood.
6. New buildings will be configured to be parallel to the adjoining street and define the adjoining street and open spaces by establishing an urban street wall.

BUILDING HEIGHT

1. A variety of heights between 5 and 15 stories will be provided for new development in Neighborhood 1. Refer to plan-wide height guidelines in Chapter 4.
2. Buildings in this neighborhood located between 1/4 and 1/2 a mile of the Van Dorn Metrorail Station will be a minimum of 7 stories and a maximum of 15 stories. The tallest buildings within this range should front Van Dorn Street.
3. Buildings located over a 1/2 mile from the Van Dorn Metrorail station in this neighborhood will be a maximum of 5-7 stories in height.
4. Building heights should maximize sun and shade for pedestrians.
5. Townhouses should be 3-4 stories in height.

PARKING

1. Parking will be located below grade for buildings in Neighborhood 1. If parking is tucked into the existing grade, and not visible from a public street or open space, it will be counted as below grade.
2. Parking for townhouses will be accessed from a rear alley. Front loaded townhouses are prohibited.

PARKS AND OPEN SPACE

1. A new greenway along Backlick Run will be created by restoring the stream and revitalizing and enhancing stream edges, including removing invasive species and replacing with native vegetation.
2. The Backlick Run greenway will be accessible to all users. It should provide new recreational experiences, and contribute to stormwater management efforts.
3. Accessible parks/open spaces will be provided both north and south of the Norfolk Southern rail line. The neighborhood park for this area should be linked to the enhanced Backlick Run.

4. Protect and enhance the Resource Protection Area (RPA) along the Backlick Run stream corridor and its associated stream tributaries by maintaining the minimum 100' buffer from the stream that is required by law, with the first 50' being the most critical. Removing development from at least the first 50' of the buffer is a priority with removal of all encroachments and full RPA restoration being the overall goal. In no case will new development extend into the RPA beyond existing developed areas.
5. Predominantly residential developments will provide 30% open space. 15% of the open space on site will be publicly accessible at-grade open space. The remaining 15% may be provided off-site or by contribution in lieu to new neighborhood parks or the creation of the Backlick Run greenway.
6. Predominantly commercial development projects will provide 10% publicly accessible at-grade open space.
7. A new off-street pedestrian and bike trail will be created along Backlick Run.
8. Green connections along streets will be implemented in the general locations approximate to those shown in Figs. 5.7 and 5.8.
9. Open space at the intersection of the tributary stream with Backlick Run provides an opportunity to interpret Native American activity that could have occurred thousands of years ago on the terraces overlooking the creek. Similarly, green space along the railroad line could include interpretation of the Orange & Alexandria, the earliest railroad in the city.

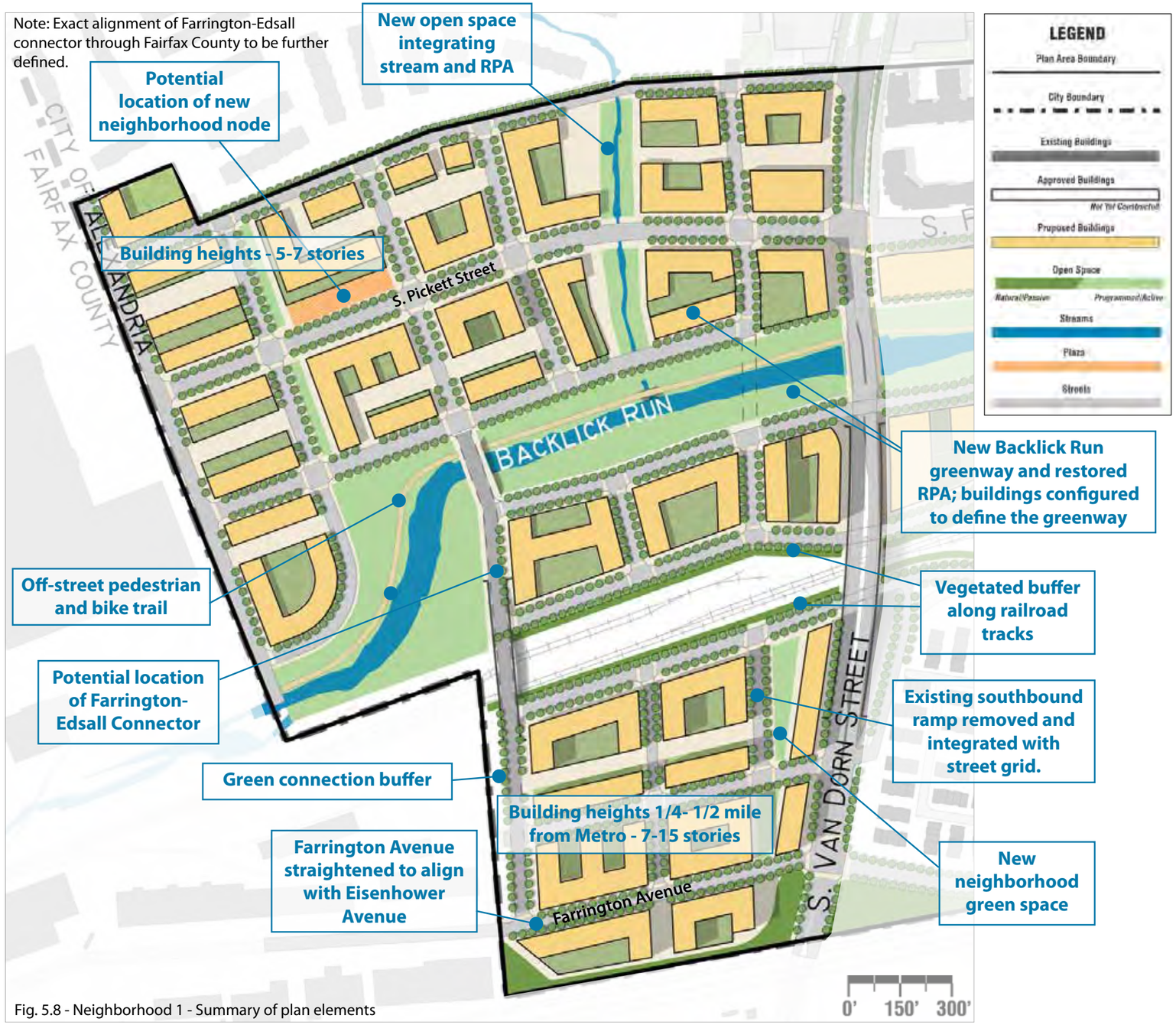


Fig. 5.8 - Neighborhood 1 - Summary of plan elements

Redevelopment is expected to take place over a timeframe of 25-30 years, depending on market conditions and funding for infrastructure improvements. The illustrative plan shows one potential way in which the plan area could redevelop. The plan does not require building locations, footprints, parks and open spaces to be designed or developed as shown, so long as the vision for redevelopment expressed by the community, the principles contained in this document, and the City of Alexandria's standards for redevelopment are met.

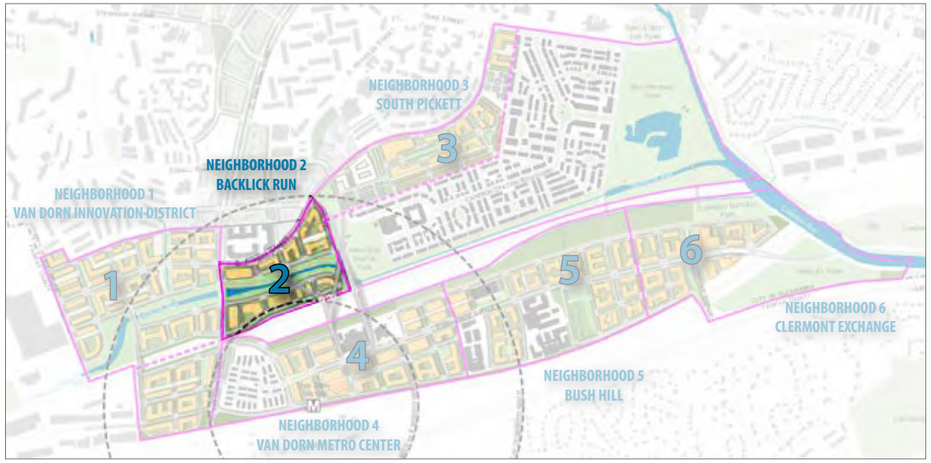


Fig.5.9 - Neighborhood 2 - Key plan

NEIGHBORHOOD 2 PRINCIPLES

1. **Support the redevelopment of a neighborhood that builds on and strengthens the existing businesses east of Van Dorn Street while adding new residential uses.**
2. **Provide new employment opportunities in Eisenhower West through the integration of the types of retail business space in the plan area.**
3. **Improve and protect Backlick Run, associated streams and Resource Protection Areas.**
4. **Create a high-quality and inviting public realm to encourage pedestrian and bicycling activity and connect the Backlick Run neighborhood to the Van Dorn Metrorail Station.**

Site Area	Building Heights	Land Uses
26.5 acres	5-15 floors	

Fig.5.10 - Neighborhood 2 - Land uses

5.2 NEIGHBORHOOD 2 - BACKLICK RUN

Neighborhood 2, Backlick Run, is envisioned as primarily residential with some mixed use along Van Dorn Street and Backlick Run, and, in the future, along the Virginia Paving site, that includes retail and services with commercial and/or residential above. Neighborhood retail would be located at the ground levels of buildings along South Pickett Street and Van Dorn Street. This neighborhood will also revitalize and connect to a new greenway along Backlick Run. New residents and workers will be able to connect to and enjoy Backlick Run as a new environmental area and linear park.

CHARACTER DEFINING ELEMENTS

- A major element of the neighborhood is Backlick Run. New development has the opportunity to enhance, protect, and connect to this natural amenity and open space. New streets and buildings fronting Backlick Run will create an identity and address for this neighborhood by making this restored natural area and waterway feature the front door to their design. Redevelopment in this neighborhood along Pickett Street should be consistent with the existing and approved redevelopment nearby.
- The two existing strip shopping centers in this neighborhood contain several ethnic grocers, small ethnic restaurants/cafés, and small businesses reflecting the diversity of residents in the area. These businesses also serve as a complement to larger, national chains in the plan area. To the extent possible, future development should preserve these types of diverse businesses.

ISSUES AND OPPORTUNITIES

- Like Neighborhood 1, Neighborhood 2 is also bisected by the degraded Backlick Run. South of Backlick Run lies the Virginia Paving site. The plan recommends uses compatible with the adjoining Landmark/Van Dorn Corridor Plan.
- The future multimodal bridge will connect users more directly to the Van Dorn Metrorail station.
- Much of this neighborhood is located within the 100-year or 1%-chance-per-year floodplain and subject to flooding. New development will need to account for this as well as City regulations on developing within the floodplain.
- Over time, redevelopment of this neighborhood will create the opportunity to integrate a new mix of uses, to revitalize Backlick Run with environmental restoration and open space improvements, to provide a walkable pedestrian realm, to better connect people to the Van Dorn Metrorail Station, and to connect properties to one another by establishing a new street grid.

LAND USE

1. New development in this neighborhood will include a mix of uses including multifamily residential or commercial/office/institutional with ground level retail space. (See Fig. 5.11.)
2. Mixed use development with commercial uses above retail will be located mainly along Van Dorn Street and South Pickett Street
3. Redevelop the Virginia Paving with an appropriate mix of land uses including residential, office, and recreational uses.
4. While residential uses are expected to predominate, the goal is to achieve about 1/3 non-residential, with higher percentages of non-residential permitted.
5. Consider integrating civic or recreation uses in this neighborhood to complement the new greenway along a revitalized Backlick Run. Explore opportunities to co-locate affordable housing, including senior or assisted living with future civic or municipal uses.
6. If it is determined that parcels shown as the Multimodal Bridge/street right-of-way are not needed for that purpose, redevelopment consistent with neighboring redevelopment parcels is supported by this Plan.

TRANSPORTATION AND CONNECTIVITY

1. Establish a grid of streets and blocks connecting to South Pickett Street and across Backlick Run.
2. Implement the multimodal bridge project to better connect the Backlick Run neighborhood to the Van Dorn Metrorail Station.
3. In addition to the multimodal bridge, encourage at least one new vehicular street bridging Backlick Run to connect properties to the north and south in this neighborhood.
4. Designate South Pickett Street and Van Dorn Street as "A" streets.
5. Provide street types as shown in Fig. 5.12. Refer to Chapter 4.2 for additional details on streets types and cross sections.
6. Streets located south of, and parallel to, South Pickett Street and adjacent to Backlick Run are required streets. Final location of streets may vary depending on site constraints. (See Figure 5.13.)
7. The location of north-south streets connecting South Pickett Street to the streets parallel to it may vary depending on the future configuration of blocks of development. Maximum size and other requirements for blocks described in Chapter 4 must be met.

BUILDING FORM AND CHARACTER

1. Buildings will have their primary frontages on "A" or "B" streets, and facing parks or major green spaces. This creates a lively public realm, encourages safety and helps provide "eyes on the street" and "eyes on the park."
2. Ground levels of buildings will be designed with taller first floor heights (15 to 18 feet) and depths (35 feet minimum with 50 feet preferred) to accommodate active uses including retail, restaurants, Production, Wholesale and Repair uses, maker space, and shared spaces such as building entrances and lobbies.
3. Future buildings on the current Virginia Paving site will have their primary frontage and building entrances/lobbies facing Backlick Run and "A" streets.
4. The identity of this neighborhood, and its relationship to Backlick Run, will be reinforced through the use of distinctive architecture, high quality public space design, special landscaping, wayfinding signage, streetscape furnishings, lighting, and public art.

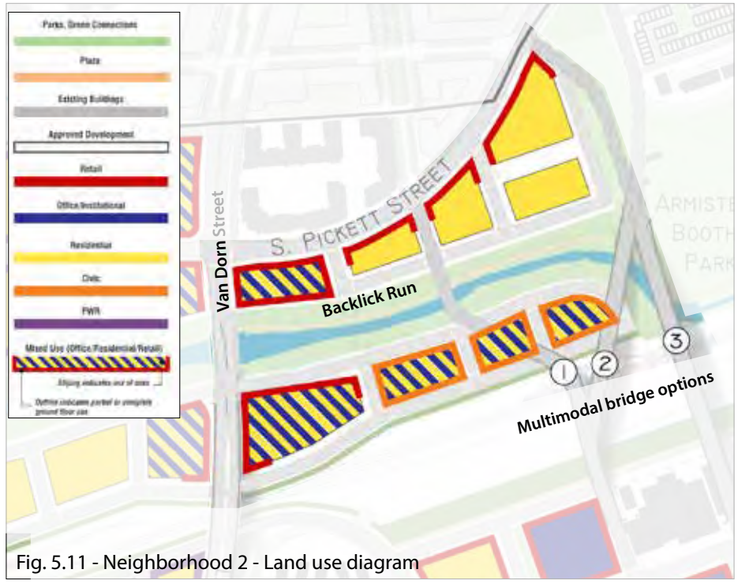


Fig. 5.11 - Neighborhood 2 - Land use diagram

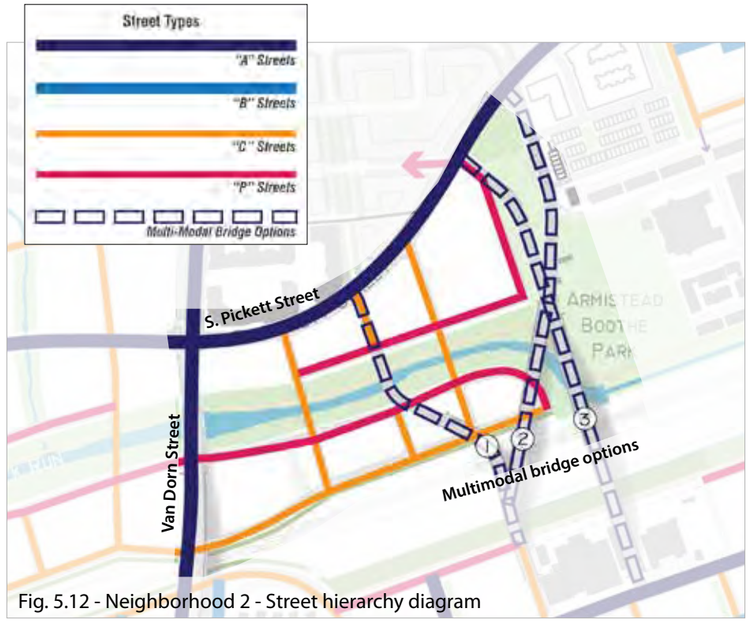


Fig. 5.12 - Neighborhood 2 - Street hierarchy diagram

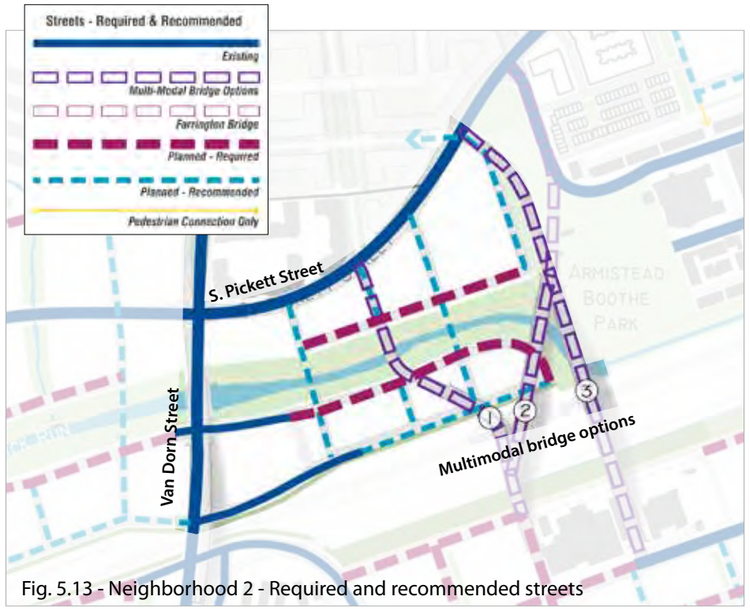


Fig. 5.13 - Neighborhood 2 - Required and recommended streets

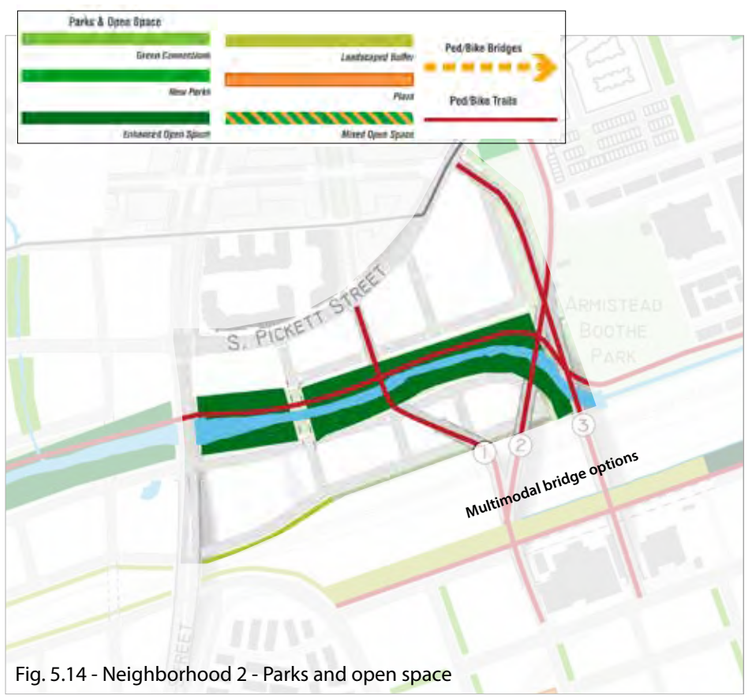


Fig. 5.14 - Neighborhood 2 - Parks and open space

5. Use distinctive architecture, high-quality materials, excellent public space design, special landscaping, wayfinding signage, streetscape furnishings, lighting, and public art to highlight buildings at gateways, nodes, parks, and public spaces. Specific locations in Neighborhood 2 include buildings along Van Dorn Street, and buildings fronting parks and public spaces within the neighborhood.
6. New buildings will be configured to be parallel to the adjoining street and define the adjoining street and open spaces by establishing an urban street wall.

BUILDING HEIGHT

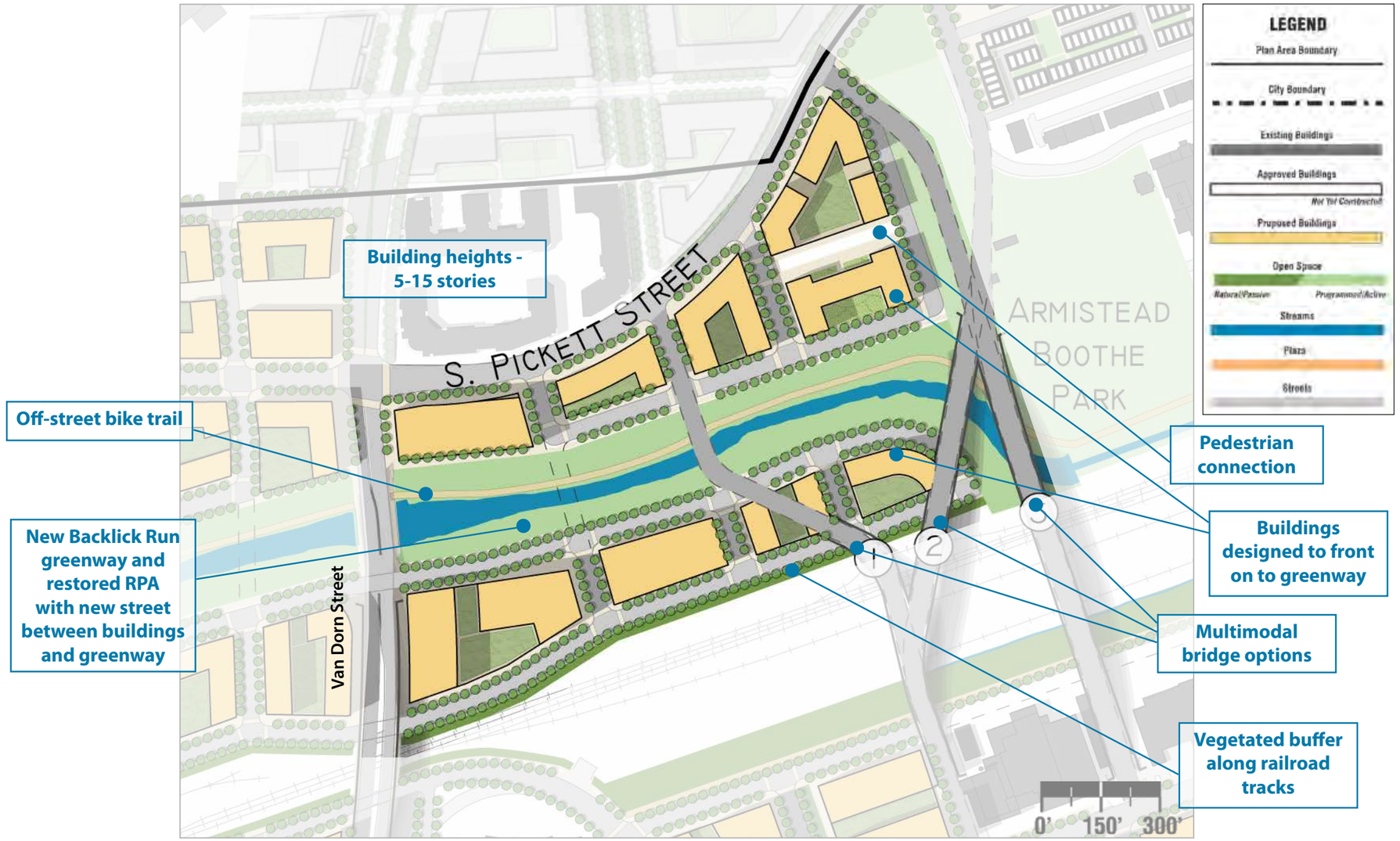
1. A variety of heights between 5 and 15 stories will be provided for new development in Neighborhood 2. Refer to plan-wide height guidelines in Chapter 4.
2. Future buildings in this neighborhood are located between 1/4 and 1/2 a mile of the Van Dorn Metrorail Station. Buildings located south of Backlick Run will be a minimum of 10 stories (excluding parking) with a variety of heights and a maximum of 15 stories (excluding parking) due to their proximity to the Van Dorn Metrorail Station. 7 stories is acceptable for one building if the remainder of the buildings in this area are within the 10-15 story range.
3. Building heights will respect adjacent land uses. Buildings will incorporate shoulders, or step down in height, to be compatible in height and setback with adjacent buildings.
4. Building heights should maximize sun and shade for pedestrians.
5. A significant variety of heights shall be provided for each building and block.
6. Because of the height and scale of buidlings in this neighborhood, design standards shall be prepared for buildings taller than 100 feet to address proposed scale and height of the buidlings for elements such as tower spacing, tower coverage, building envelopes and so as to create a unique and dynamic skyline.

PARKING

1. Parking will be located below grade for buildings in Neighborhood 2. If parking is tucked into the existing grade, and not visible from a public street or open space, it will be counted as below grade.

PARKS AND OPEN SPACE

1. Create a new greenway along Backlick Run by removing existing encroachments to restore the Resource Protection Area (RPA) and enhancing and revitalizing the stream channel and edges, including removing invasive species and replacing with native vegetation.
2. The Backlick Run greenway should be accessible to all users, should provide new recreational experiences, and should contribute to stormwater management efforts.
3. Protect and enhance the RPA along the Backlick Run stream corridor and its associated stream tributaries by maintaining the minimum 100' buffer from the stream that is required by law, with the first 50' being the most critical. Removing development from at least the first 50' of the buffer is a priority with removal of all encroachments and full RPA restoration being the overall goal. New development will not extend into the RPA beyond existing developed areas.
4. A neighborhood park/open space should be provided in this neighborhood and linked to Backlick Run.
5. Predominantly residential developments will provide 30% open space. 15% of the open space on site will be publicly accessible at-grade open space. The remaining 15% may be provided off-site or by contribution in lieu to new neighborhood parks or the creation of the Backlick Run greenway.
6. Predominantly commercial development projects will provide 10% publicly accessible at-grade open space.
7. Create a new off-street pedestrian and bike trail along Backlick Run as shown in Fig. 5.14 and 5.15.
8. Create at least one bike/pedestrian bridge across Backlick Run to connect properties to the north and south.



Redevelopment is expected to take place over a timeframe of 25-30 years, depending on market conditions and funding for infrastructure improvements. The illustrative plan shows one potential way in which the plan area could redevelop. The plan does not require building locations, footprints, parks and open spaces to be designed or developed as shown, so long as the vision for redevelopment expressed by the community, the principles contained in this document, and the City of Alexandria's standards for redevelopment are met.

Street grid and building locations may change depending on final selection of multimodal bridge alignment.

Fig. 5.15 - Neighborhood 1 - Illustrative plan

Fig. 5.16 - Neighborhood 3 key plan

NEIGHBORHOOD 3 PRINCIPLES

1. **Support the redevelopment of a neighborhood that builds on and expands on the character of Cameron Station while adding new residential, neighborhood-serving retail, and small commercial uses.**
2. **Create a high-quality and inviting public realm to encourage pedestrian and bicycling activity and connect the South Pickett neighborhood to Cameron Station and neighboring developments.**

Site Area	Building Heights	Land Uses
29 acres	3-7 floors	

Fig.5.17- Neighborhood 3 - Land uses

5.3 NEIGHBORHOOD 3 - SOUTH PICKETT

Neighborhood 3, South Pickett, is envisioned as primarily residential with some mixed use areas that include maintaining existing neighborhood-serving retail with small office and/or residential above. Neighborhood retail would be located at the ground level of buildings along South Pickett Street and in the mixed-use neighborhood node to be created with future redevelopment of the Trade Center site.

CHARACTER DEFINING ELEMENTS

The major character-defining element of the neighborhood is Cameron Station. New development along South Pickett Street has the opportunity to extend the grid, character and scale of Cameron Station.

The existing Trade Center strip shopping center in Neighborhood 3 contains neighborhood small businesses reflecting the diversity of residents in the area. To the extent possible, future development should preserve these businesses and business types by integrating them in new space on the ground levels of new buildings.

LAND USE

1. New development in this neighborhood will include a mix of uses including multifamily residential and townhouses. (See Fig. 5.18.) Commercial uses are required for certain ground floor locations.
2. Mixed use development with commercial uses above retail will be located mainly along South Pickett Street and Duke Street.
3. Half of new development will consist of non-residential uses, including retail.
4. Rear loaded townhouses are permitted as part of redevelopment of properties adjacent to Cameron Station.
5. If it is determined that parcels shown as the Multimodal Bridge/street right-of-way are not needed for that purpose, redevelopment consistent with neighboring redevelopment parcels is supported by this Plan.

TRANSPORTATION AND CONNECTIVITY

1. Establish a grid of streets and blocks connecting to South Pickett Street, and creating pedestrian-only connections to Cameron Station.
2. South Pickett Street will be designated as an "A" street. (See Fig. 5.19.)
3. The location of streets connecting South Pickett Street to parallel streets may vary depending on the future configuration of blocks of development. Maximum size and other requirements for blocks described in Chapter 4 must be met.
4. Implement the Multimodal Bridge project in consultation with impacted property owners to better connect the South Pickett Neighborhood to the Van Dorn Metrorail Station.
5. Provide street types as shown in Fig. 5.19. Refer to Chapter 4.2 for additional details on streets types and cross sections.
6. Create pedestrian connections between new development along South Pickett Street and Cameron Station at Bessley Place and English Terrace. These connections would not permit vehicular access. (See Figure 5.20.)

BUILDING FORM AND CHARACTER

1. New development will be compatible in character and scale with existing development in Cameron Station and convey a consistent character along South Pickett Street.
2. Buildings will have their primary frontages, and entrances/lobbies on "A" or "B" streets, and facing parks or major green spaces. This encourages safety and helps provide "eyes on the street" and "eyes on the park."

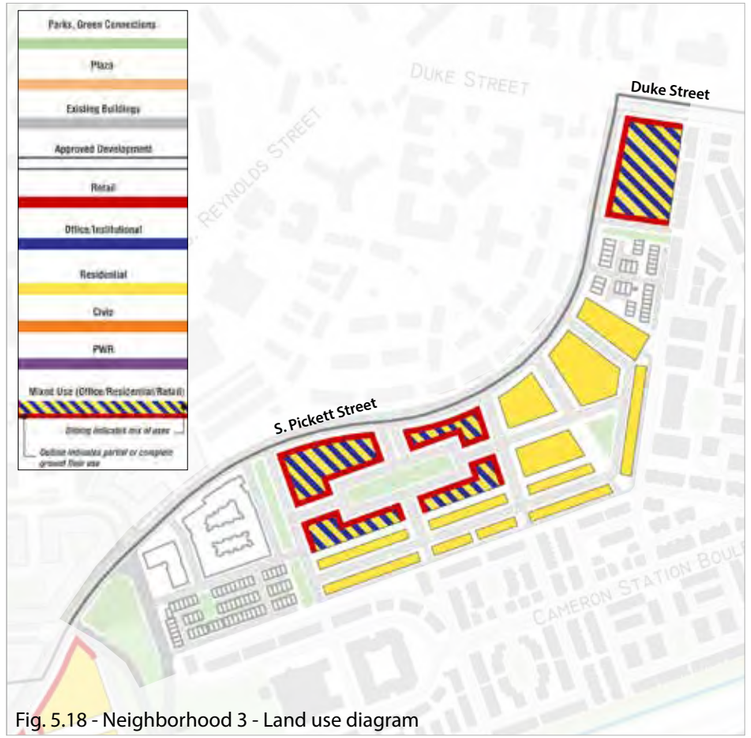


Fig. 5.18 - Neighborhood 3 - Land use diagram

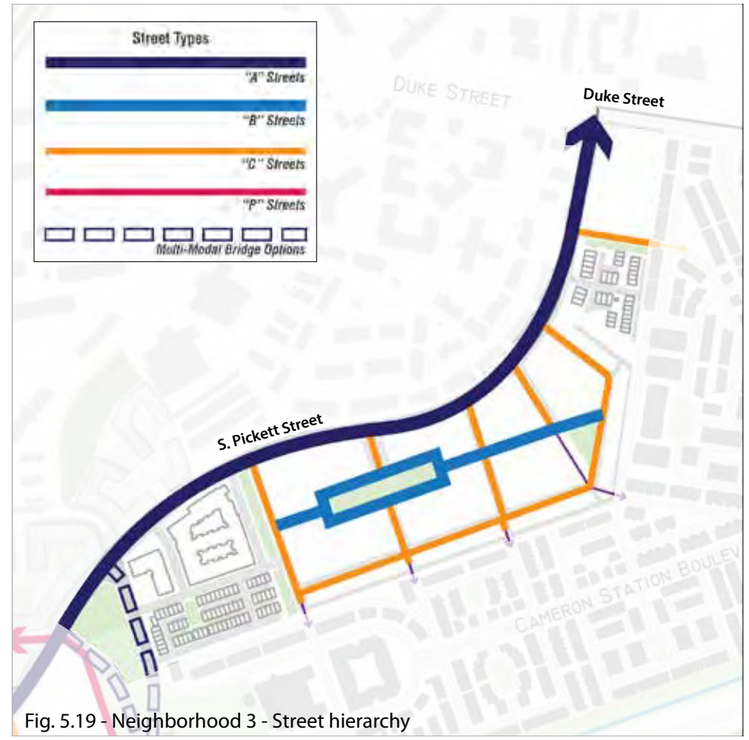


Fig. 5.19 - Neighborhood 3 - Street hierarchy

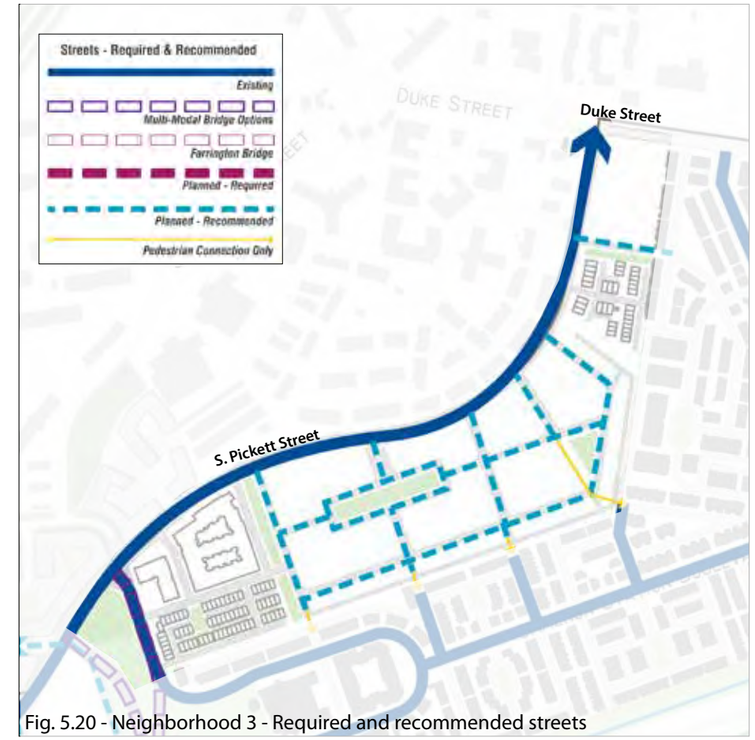


Fig. 5.20 - Neighborhood 3 - Required and recommended streets

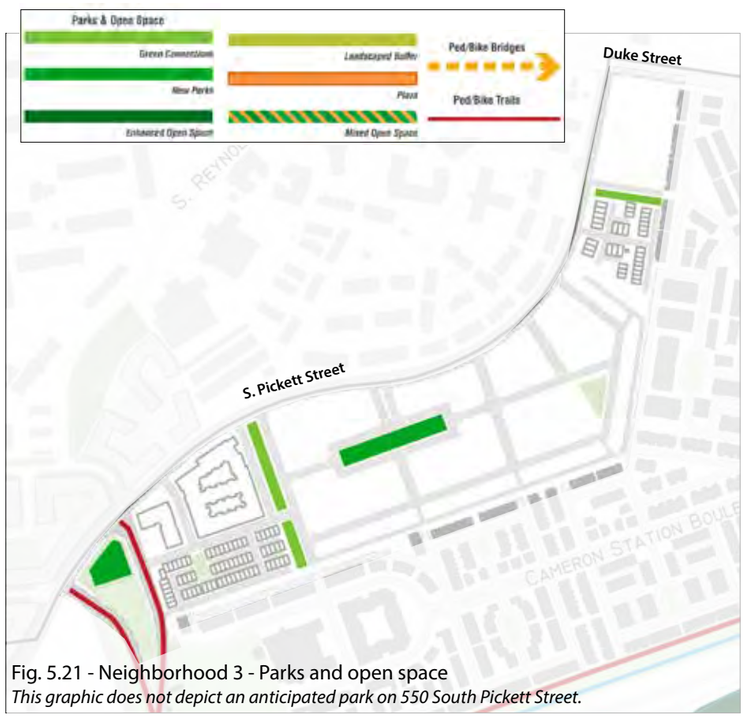


Fig. 5.21 - Neighborhood 3 - Parks and open space
This graphic does not depict an anticipated park on 550 South Pickett Street.

3. Use distinctive architecture, high-quality materials, excellent public space design, special landscaping, wayfinding signage, streetscape furnishings, lighting, and public art to highlight buildings at gateways, nodes, parks, and public spaces. Specific gateway locations in Neighborhood 3 include buildings at the corner of South Pickett and Duke Streets, and buildings fronting the parks and public space created at the mixed-use node that would be created in the future with redevelopment of the Trade Center site.
4. Ground levels of buildings will be designed with taller first floor heights (15 to 18 feet) and depths (35 feet minimum, 50 feet preferred) to accommodate active uses including retail, restaurants, and shared spaces such as building entrances and lobbies.
5. New buildings will be configured to be parallel to the adjoining street and define the adjoining street and open spaces by establishing an urban street wall.

BUILDING HEIGHT

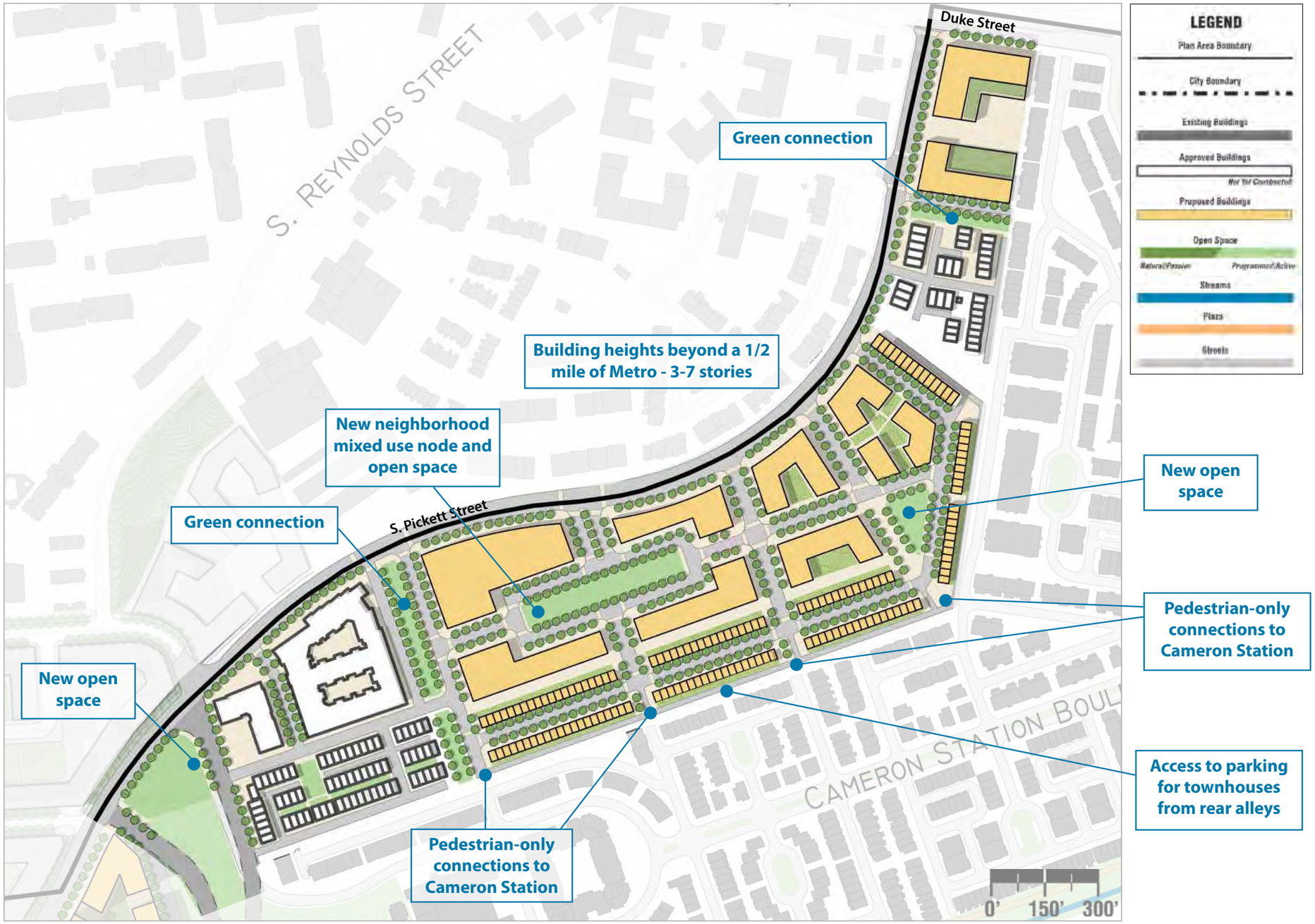
1. A variety of heights between 3 and 7 stories will be provided for new development in Neighborhood 3 which is located beyond a ½-mile of the Van Dorn Metrorail Station. Refer to plan-wide height guidelines in Chapter 4.
2. Future buildings immediately north, adjacent to Cameron Station should respect the scale of development there, and be a maximum of 3- 4 stories in height. Remaining buildings should be a maximum of 5-7 stories in height.
3. A variety of heights will be provided for each building and each block.

PARKING

1. Parking will be located below grade for buildings in Neighborhood 3. If parking is tucked into the existing grade, and not visible from a public street or open space, it will be counted as below grade.
2. Parking for townhouses will be accessed from a rear alley. Front loaded townhouses are prohibited.

PARKS AND OPEN SPACE

1. Create a centrally located new park or plaza as part of the future redevelopment of the Trade Center site.
2. Predominantly residential developments will provide 30% open space. 15% of the open space on site will be publicly accessible at-grade open space. The remaining 15% may be provided off-site or by contribution in lieu to new neighborhood parks.
3. Predominantly commercial development projects are encouraged to provide 10% publicly accessible at-grade open space.
4. An opportunity exists for the interpretation of the area's history in Ben Brenman Park, exploring themes of early milling activities related to Tridelphia/Cloud's Mill and military support provided during World War II.



Redevelopment is expected to take place over a timeframe of 25-30 years, depending on market conditions and funding for infrastructure improvements. The illustrative plan shows one potential way in which the plan area could redevelop. The plan does not require building locations, footprints, parks and open spaces to be designed or developed as shown, so long as the vision for redevelopment expressed by the community, the principles contained in this document, and the City of Alexandria's standards for redevelopment are met.

Fig. 5.22 - Neighborhood 3 - Illustrative plan

Fig. 5.23 - Neighborhood 2 key plan

NEIGHBORHOOD 4 PRINCIPLES

1. **Support the mixed use transit-oriented redevelopment of the Van Dorn Metrorail Station and adjacent properties to catalyze redevelopment and leverage the presence of transit.**
2. **Support the enhancement of Eisenhower Avenue as a Great Street.**
3. **Create a strong link from this neighborhood to the developing Eisenhower East area and the forthcoming National Science Foundation to increase economic activity and support Eisenhower Avenue as an economic engine of the City.**
4. **Provide new employment opportunities in Eisenhower West through the integration high-density commercial office/institutional, hotel, retail and restaurant uses.**
5. **Support existing permit approvals to attract a primary office tenant for the vacant office building at Victory Center.**
6. **Protect streams and enhance Resource Protection Areas (RPA).**
7. **Create a high-quality and inviting public realm to encourage pedestrian and bicycling activity to and from Neighborhood 4 and the Van Dorn Metrorail Station.**

5.4 NEIGHBORHOOD 4 - VAN DORN METRO CENTER

Neighborhood 4, Van Dorn Metro Center, is envisioned as an active and vibrant high density, transit-oriented mixed use neighborhood. It will include retail at the ground level and commercial and/or residential uses above. Destination retail would be located at the ground levels of buildings along primary and secondary streets. This neighborhood is where the largest concentration of office space would be located in Eisenhower West, leveraging proximity to the Van Dorn Metrorail Station. A new urban plaza provides an animated place for gathering and interaction. A new park will provide recreational opportunities and reconnection to nature.

CHARACTER DEFINING ELEMENTS

The main character-defining elements of Neighborhood 4 are the Van Dorn Metrorail Station and the Covanta Waste-to-Energy Plant. Currently, Eisenhower Avenue curves between the WMATA and UPS properties and Metro Road as one travels past Summers Grove. This curve splits the Metrorail Station in two sections, with the park-and-ride lot to the north of Eisenhower Avenue and the bus and shuttle zone on the south side.

ISSUES AND OPPORTUNITIES

- The major issue in Neighborhood 4 is the poor quality of the pedestrian realm and the lack of a good pedestrian and bicycle connection to the Van Dorn Metrorail Station. The opportunity exists to leverage the Metrorail Station to create a dense mix of new transit-oriented development.
- In addition, the current City agreement with Covanta will keep the facility in place until 2038. Activities associated with operating the plant, including truck traffic, need to be taken into account when planning for the future.
- There is an opportunity to enhance and restore the Resource Protection Area associated with an unnamed tributary to Cameron Run located south of the Norfolk-Southern railroad tracks.

Site Area	Building Heights	Land Uses
34.2 acres	10 - 20 floors	

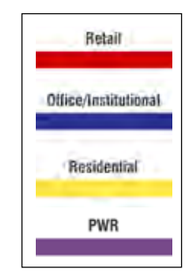


Fig. 5.24- Neighborhood 4 - Land uses

LAND USE

1. New development in this neighborhood will include a dense and varied mix of uses that maximizes the presence of the Van Dorn Metrorail Station including commercial/office/institutional, and multifamily residential and ground level retail and including hotel, restaurant and café space. (See Fig. 5.25.)
2. The development of hotel uses is encouraged in this neighborhood.
3. Focus commercial office/institutional uses primarily along Eisenhower Avenue, as well as near the Covanta plant and fire station.
4. Place new predominantly residential development along edges where new development meets existing residential development, such as Summers Grove and The Reserve.
5. Ground level retail uses such as restaurants/cafés are strongly encouraged along Eisenhower Avenue.

TRANSPORTATION AND CONNECTIVITY

1. Establish a grid of streets and blocks connecting to Eisenhower Avenue.
2. Eisenhower Avenue, the future multimodal bridge roadway, a portion of Metro Road, and a new north-south road one block east of Metro Road will be designated as "A" and "B" streets.
3. Provide street types as shown in Fig. 5.26. Refer to Chapter 4.2 for additional details on streets types and cross sections.
4. Streets located north and south of, and parallel to, Eisenhower Avenue, are required streets. (See Fig. 5.27.)
5. The location of generally north-south streets connecting Eisenhower Avenue to the streets parallel to it may vary depending on the future configuration of blocks of development. Maximum size and other requirements for blocks described in Chapter 4 must be met.
6. Straighten Eisenhower Avenue and redevelop the Van Dorn Metrorail Station site in order to create a mixed-use transit-oriented development destination and elegant terminus to Eisenhower Avenue. Straighten Eisenhower Avenue to terminate one block east of Metro Road. This will help to create a new mixed-use destination around a redeveloped Van Dorn Metrorail Station. For additional details, see Chapter 4.2.
7. Provide enhanced transit service on Eisenhower Avenue.

BUILDING FORM AND CHARACTER

1. Buildings will have their primary frontages and entrances/lobbies on "A" and "B" streets, or facing parks or major green spaces. This encourages safety and helps provide "eyes on the street" and "eyes on the park".
2. The ground levels of buildings along Eisenhower Avenue will accommodate retail or restaurant/café space should there be a market for them in the future, even if there is not a market for them at the time of construction. This includes creating places for pedestrian activity, café seating, and window shopping.
3. Ground levels of buildings will be designed with taller first floor heights (15 to 18 feet) and depths (35 feet minimum, 50 feet preferred) to accommodate active uses including retail, restaurants, and shared spaces such as building entrances and lobbies.
4. Investigate re-skinning the Covanta waste-to-energy plant. Consider creating a new façade that celebrates the plant's contributions to making Alexandria more sustainable, and educates the public about its functions though creative façade design, placemaking and public art.
5. Because of the proposed height and scale of buildings in this neighborhood, design standards will be prepared for buildings taller than 100 feet to address the proposed scale and height of the buildings for elements such as tower spacing, tower coverage, building envelopes, and so as to create a unique and dynamic skyline.

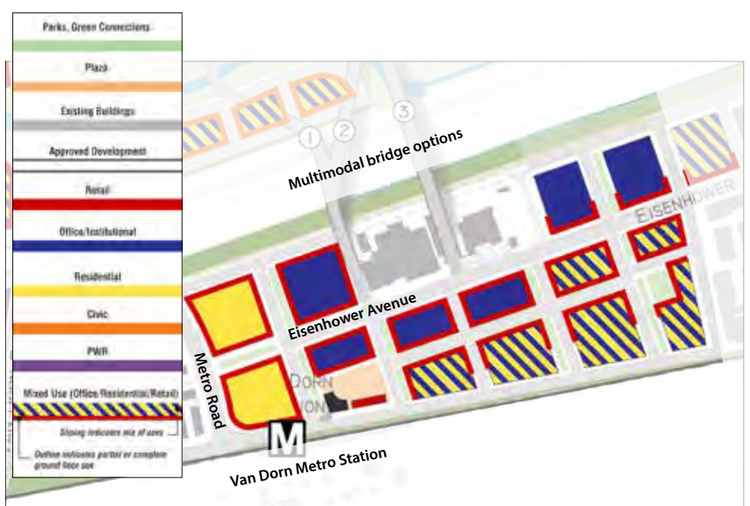


Fig. 5.25 - Neighborhood 4 - Land use diagram

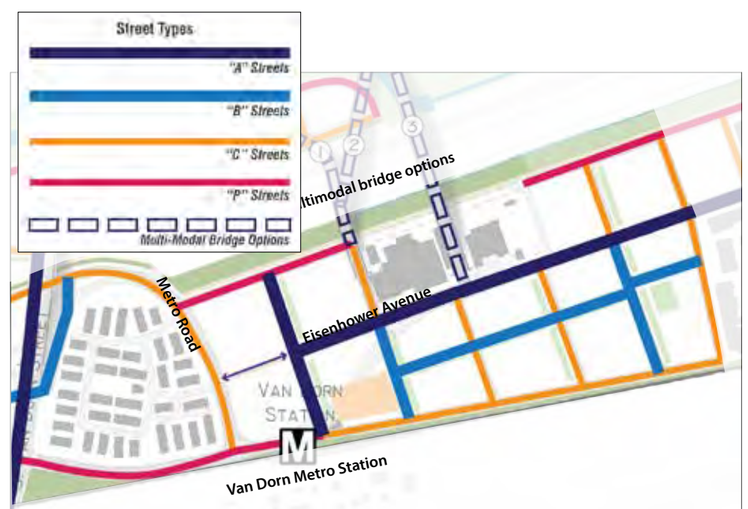


Fig. 5.26 - Neighborhood 4 - Street hierarchy diagram

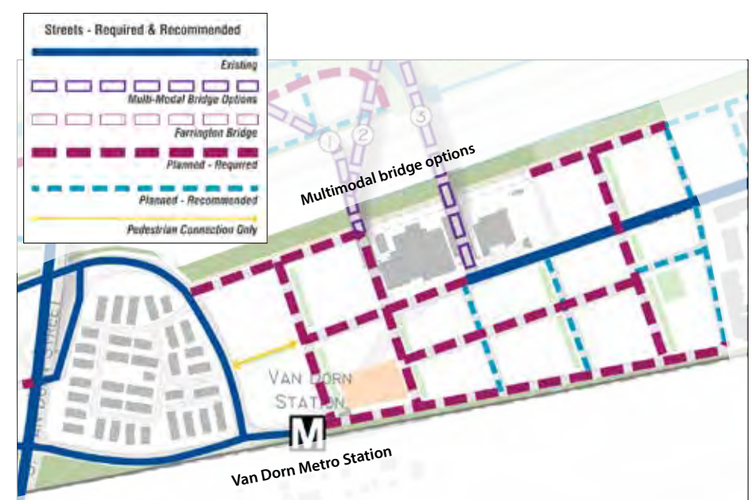


Fig. 5.27 - Neighborhood 4 - Required and recommended streets

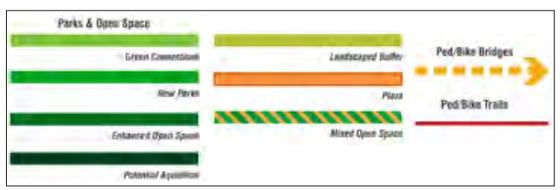


Fig. 5.28 - Neighborhood 4 - Parks and open space

6. Use distinctive architecture, high-quality materials, excellent public space design, special landscaping, wayfinding signage, streetscape furnishings, lighting, and public art to highlight buildings at gateways, nodes, parks, and public spaces. Specific locations in Neighborhood 4 include buildings at the Van Dorn Metrorail Station, buildings at the terminus of Eisenhower Avenue, and buildings fronting public spaces in the mixed transit-oriented development around the Van Dorn Metrorail Station.
7. Distinctive architecture, landscaping and streetscape design will be used to reinforce Eisenhower Avenue as a "Great Street".
8. New buildings will be configured to be parallel to the adjoining street and define the adjoining street and open spaces by establishing an urban street wall.

BUILDING HEIGHT

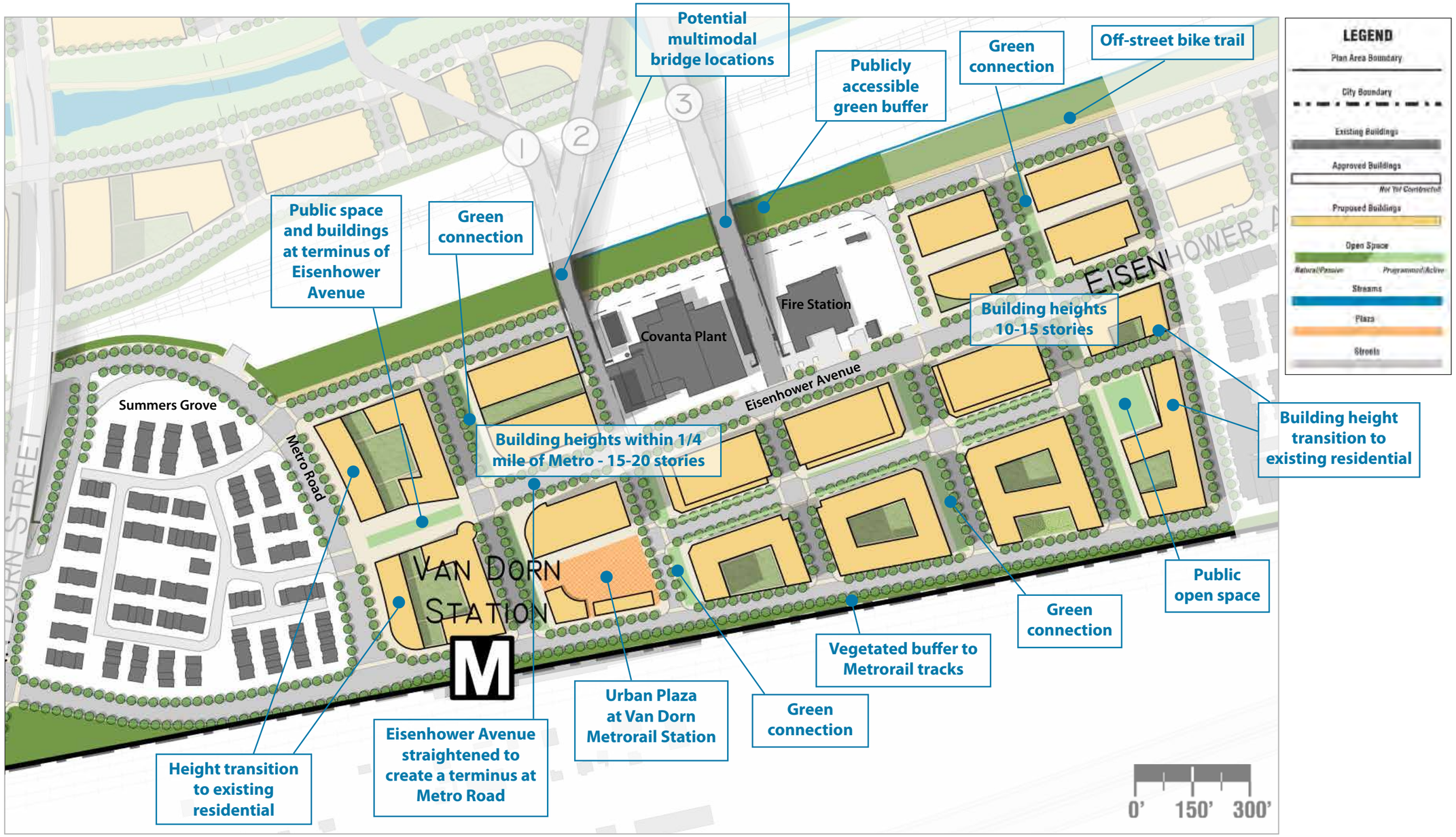
1. A variety of heights between 10 and 20 stories will be provided for new development in Neighborhood 4 to create a unique and distinctive skyline. Refer to plan-wide height guidelines in Chapter 4.
2. Buildings located in this neighborhood are within a 1/4 mile of the Van Dorn Metrorail Station and will be a minimum of 10 stories and a maximum of 20 stories.
3. Buildings located between 1/4 and 1/2 a mile of the Van Dorn Metrorail Station will be a maximum of 15 stories, with a limited number of 20-story buildings to achieve variety in height.
4. Building heights will respect adjacent land uses. Buildings will incorporate shoulders, or step down in height, to be compatible in height and setback with the adjacent buildings such as Summers Grove and The Reserve.
5. Building heights should maximize sun and shade for pedestrians.
6. Based on preliminary air quality modeling results provided by Covanta, City staff has identified concerns with the possibility of permitting future construction of tall buildings near the Covanta facility. More specific height guidance for buildings around Covanta will be provided later, including potential mitigation strategies to reduce impacts or constraints.
7. At least 10 stories is encouraged with density higher at the Metro station and lower densities further away from the Metro station.

PARKING

1. For Neighborhood 4, parking will be located entirely below grade. One above-grade retail collector parking structure may be permitted for this neighborhood if entirely screened with active uses for each street and park frontage.

PARKS AND OPEN SPACE

1. A new approximately 1-acre urban plaza will be created in a central location within this neighborhood and in proximity to the Van Dorn Metrorail Station (as called for in the City's *Open Space Master Plan*). The plaza will be lined with retail, restaurants, and other active uses. The plaza will be designed to accommodate civic gatherings, civic events and other formal and informal outdoor uses, such as markets and live music events, and to reinforce its prominent location.
2. A new public open space at the eastern end of the neighborhood and south of Eisenhower Avenue will be created as part of the future redevelopment of sites within the ½-mile of the Van Dorn Metrorail Station. The open space may take many forms and is not constrained to the open space depicted in Figure 5.29. The form, shape, and location of the open space will be determined at the time of development in concert with development feasibility and design guidelines. The open space must cater to residents, office workers, and hotel visitors, and can be programmed during work and non-work hours to provide relief from the density of the neighborhood. This park may be combined with the urban plaza.
3. Residential developments on the Victory Center site are encouraged to provide a unified publicly accessible open space along with a green connection behind the development.
4. New development may meet its 25% residential open space requirement by maintaining one-third on site. The balance may be a combination of above-grade amenity space and contributions toward required parks.
5. A publicly accessible green buffer north of Eisenhower Avenue will be created between the WMATA/UPS properties and the Norfolk Southern railroad right-of-way, as a western extension of the wooded area and trail north of the Covanta plant and the Fire Station.
6. An off-street pedestrian and bike trail will be integrated in the wooded area (and its western extension) north of Neighborhood 4 with exceptions where federal security standards apply. A multiuse trail north of the TSA facility to connect west toward the multimodal bridge and other streets is important and should be strived for.
7. The existing streams and Resource Protection Areas in the wooded areas north of Neighborhood 4 will be enhanced.
8. An opportunity exists to interpret the history of rural life in the vicinity of Summer's Grove where archaeological excavations prior to construction discovered the remnants of an early 19th-century estate.



Redevelopment is expected to take place over a timeframe of 25-30 years, depending on market conditions and funding for infrastructure improvements. The illustrative plan shows one potential way in which the plan area could redevelop. The plan does not require building locations, footprints, parks and open spaces to be designed or developed as shown, so long as the vision for redevelopment expressed by the community, the principles contained in this document, and the City of Alexandria's standards for redevelopment are met.

Fig. 5.29 - Neighborhood 4 - Illustrative plan

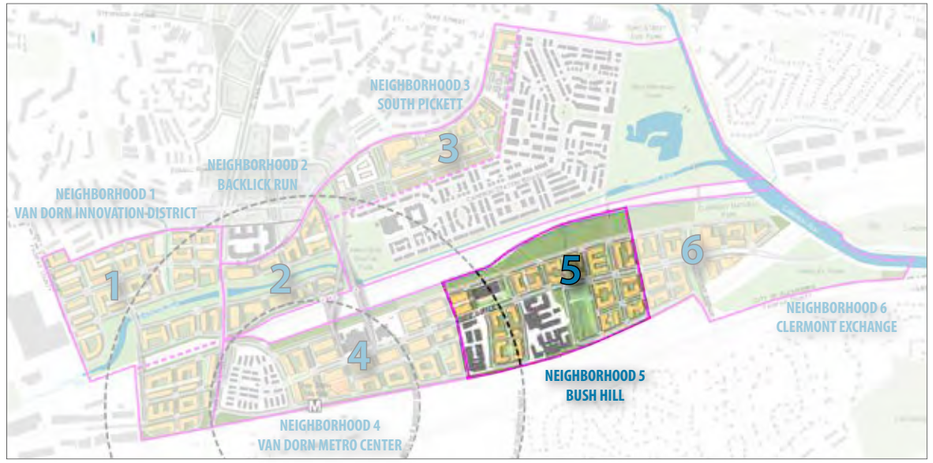


Fig. 5.30- Neighborhood 5 - Potential development density

NEIGHBORHOOD 5 PRINCIPLES

1. **Create a cohesive and architecturally distinctive residential neighborhood with small-scale retail along Eisenhower Avenue.**
2. **Support the enhancement of Eisenhower Avenue as a Great Street.**
3. **Build on and express the history and archaeology of the area.**
4. **Protect streams and enhance Resource Protection Areas.**
5. **Create a high-quality and inviting public realm to encourage pedestrian and bicycling activity and increase Neighborhood 5 connectivity to Cameron Station, Ben Brenman Park, and the Van Dorn Metrorail Station.**

Site Area	Building Heights	Land Uses
48.3 acres	5-15 floors	

Fig. 5.31- Neighborhood 5 - Land uses

5.5 NEIGHBORHOOD 5 - BUSH HILL

Neighborhood 5, Bush Hill, takes its name from the Bush Hill Plantation, a house and 354-acre estate dating back to the 1790s whose foundation remains within a hidden wooded area at what is now 4720 Eisenhower Avenue. The eastern half of this neighborhood will be predominantly residential with more commercial uses on its west end closer to the Van Dorn Metrorail Station. As redevelopment matures, retail could be incorporated at the ground level of buildings along Eisenhower Avenue to provide services to residents and to strengthen the idea of Eisenhower Avenue as a Great Street.

CHARACTER DEFINING ELEMENTS

The main character-defining element of Neighborhood 5 is the wooded area at 4720 Eisenhower Avenue, a parcel of land shared with the FedEx facility and located east of the Exchange residential development. This stand of trees west of the FedEx building is hidden from view by the property at 4750 Eisenhower Avenue. It contains a stream with a Resource Protection Area, and, as mentioned above, the remains of the foundation of the Bush Hill Plantation.

ISSUES AND OPPORTUNITIES

- There is an opportunity to connect future residents of the Bush Hill neighborhood to the amenities of Cameron Station and Ben Brenman Park by creating a pedestrian/bike path and bridge connection across the railroad tracks from Eisenhower Avenue.
- There is also an opportunity to create a new park by extending green space between the wooded area at 4720 Eisenhower Avenue and Eisenhower Avenue itself and by restoring and enhancing the Resource Protection Area associated with an unnamed tributary to Cameron Run located south of the railroad tracks. This neighborhood park would be visible from Eisenhower Avenue and would serve new residents in the area. The existing stream within the wooded area at 4720 Eisenhower Avenue could be reconnected to the portion that continues north in the wooded area owned by Norfolk Southern and on along the railway right-of-way toward Clermont Natural Park. This could be accomplished by daylighting the part of the stream that is presumably piped under 4750 and 4875 Eisenhower Avenue through the new green space south of Eisenhower Avenue, and through a green connection on the north side of Eisenhower Avenue.
- There is also the opportunity to build on the story of this neighborhood through educational or interpretive initiatives related to the history and archaeology of the area.

LAND USE

1. New development in this neighborhood is anticipated to be predominantly multifamily residential buildings. (See Fig. 5.32.)
2. Commercial uses are permitted in the western half of this neighborhood closer to the Van Dorn Metrorail Station.
3. Redevelopment of existing residential uses, should they choose to redevelop, should be in keeping and complementary with adjacent planned land uses.
4. Leverage the recent selection of the Victory Center office building as the future headquarters of the Transportation Security Administration (TSA) by encouraging location of complementary land uses including commerical/office/institutional and retail nearby.
5. Ground level retail such as restaurants/cafés are strongly encouraged along Eisenhower Avenue.

TRANSPORTATION AND CONNECTIVITY

1. Establish a grid of streets and blocks connecting to Eisenhower Avenue.
2. Eisenhower Avenue will be designated as an "A" street. Provide street types as shown in Fig. 5.33. Refer to Chapter 4.2 for additional details on streets types and cross sections.
3. Streets located north and south of, and parallel to, Eisenhower Avenue, are a combination of required and recommended streets. (See Fig. 5.34.)
4. The location of north-south streets connecting Eisenhower Avenue to the streets parallel to it may vary depending on the future configuration of blocks of development. Maximum size and other requirements for blocks described in Chapter 4 must be met.
5. Streets located north and south of, and parallel to, Eisenhower Avenue are required streets with the exception of where streets will be recommended in order to comply with Federal security standards that will apply to the forthcoming TSA headquarters. If a Federal tenant does not occupy the site, it is expected that bike and pedestrian access will be implemented and maintained.
6. Provide enhanced transit along Eisenhower Avenue.
7. Pedestrian connections behind the TSA Headquarters at Victory Center are encouraged, if possible and in coordination with TSA and Federal security requirements.

BUILDING FORM AND CHARACTER

1. Buildings will have their primary frontages, and entrances/lobbies on "A" and "B" streets, and facing parks or major green spaces. This creates a lively public realm, encourages safety and helps provide "eyes on the street" and "eyes on the park."
2. Ground levels of buildings will be designed with taller first floor heights (15 to 18 feet) and depths (50 feet minimum) to accommodate active uses including retail, restaurants, and shared spaces such as building entrances and lobbies.
3. Use distinctive architecture, high-quality materials, excellent public space design, special landscaping, wayfinding signage, streetscape furnishings, lighting, and public art to highlight buildings at gateways, nodes, parks, and public spaces.
4. Use distinctive architecture, landscaping and streetscape design to reinforce Eisenhower Avenue as a Great Street.

BUILDING HEIGHT

1. A variety of heights between 5 and 15 stories will be provided for new development in Neighborhood 5. Refer to plan-wide height guidelines in Chapter 4.

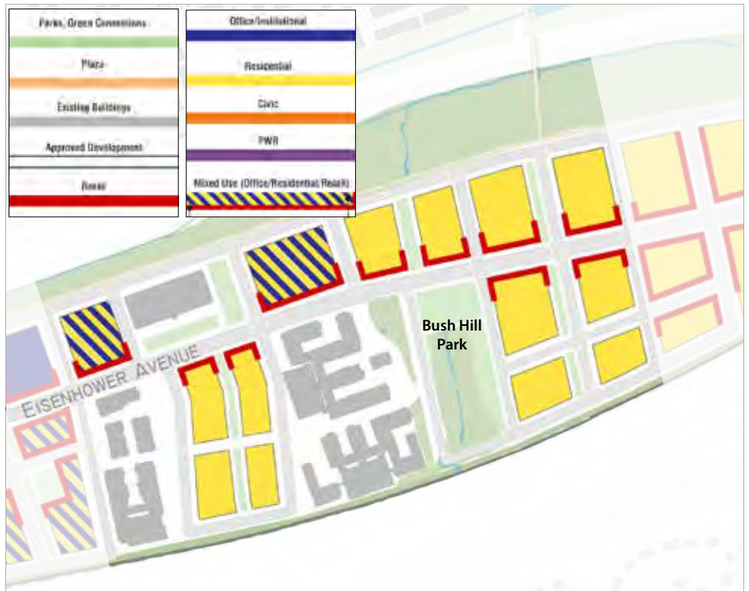


Fig. 5.32 - Neighborhood 5 - Street grid diagram

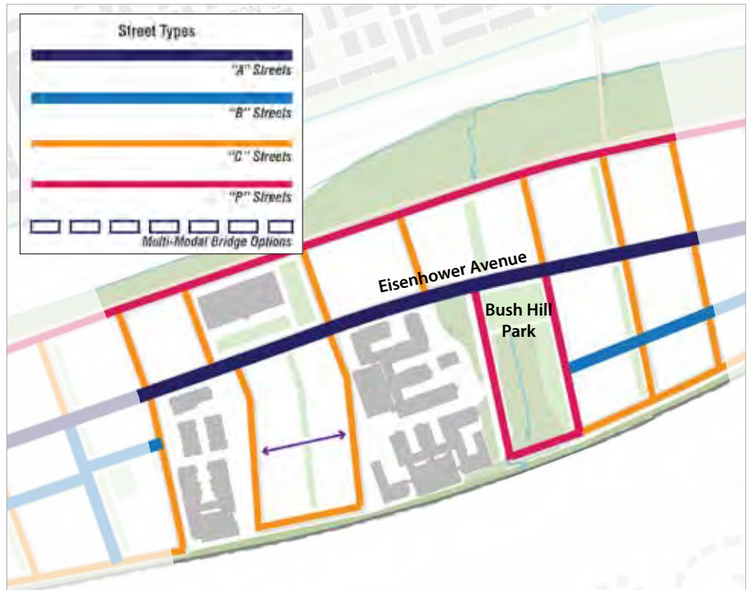


Fig. 5.33 - Neighborhood 5 - Street grid diagram

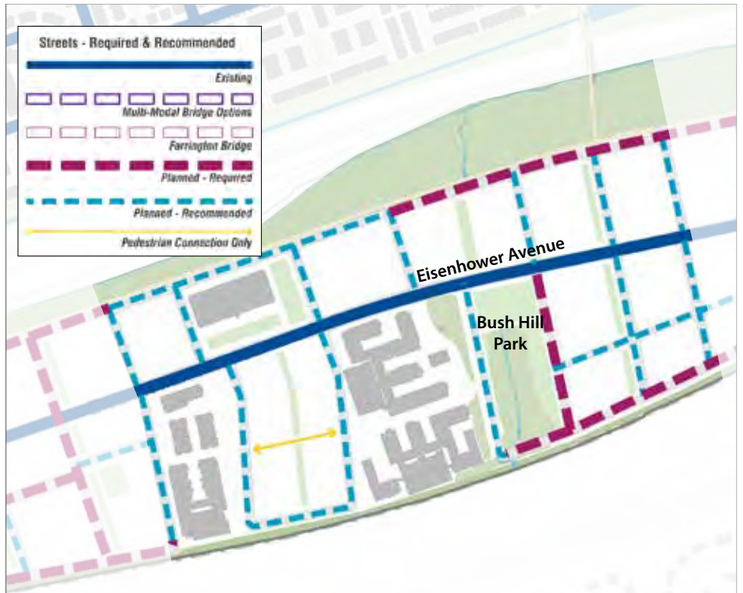


Fig. 5.34 - Neighborhood 5 - Required and recommended streets

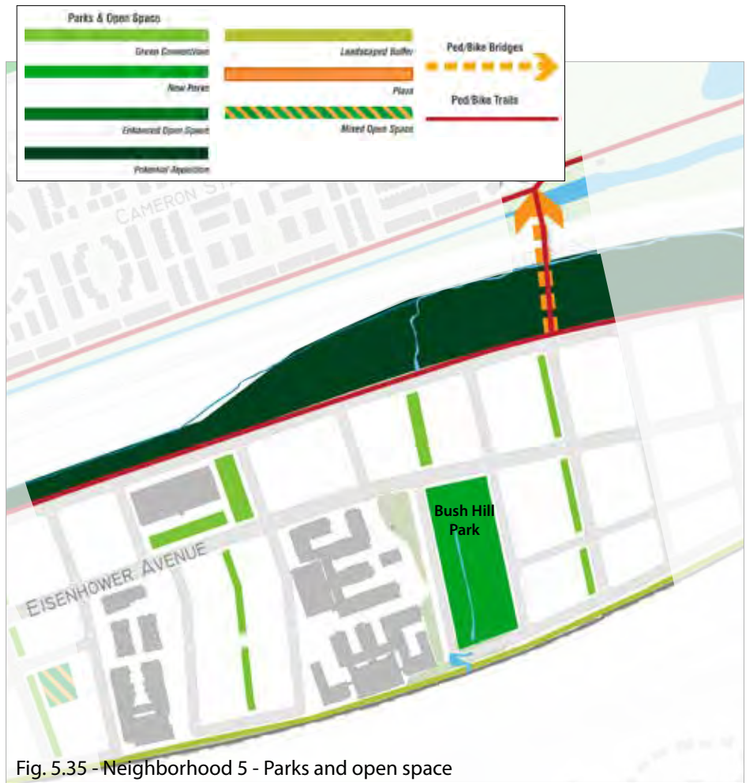


Fig. 5.35 - Neighborhood 5 - Parks and open space

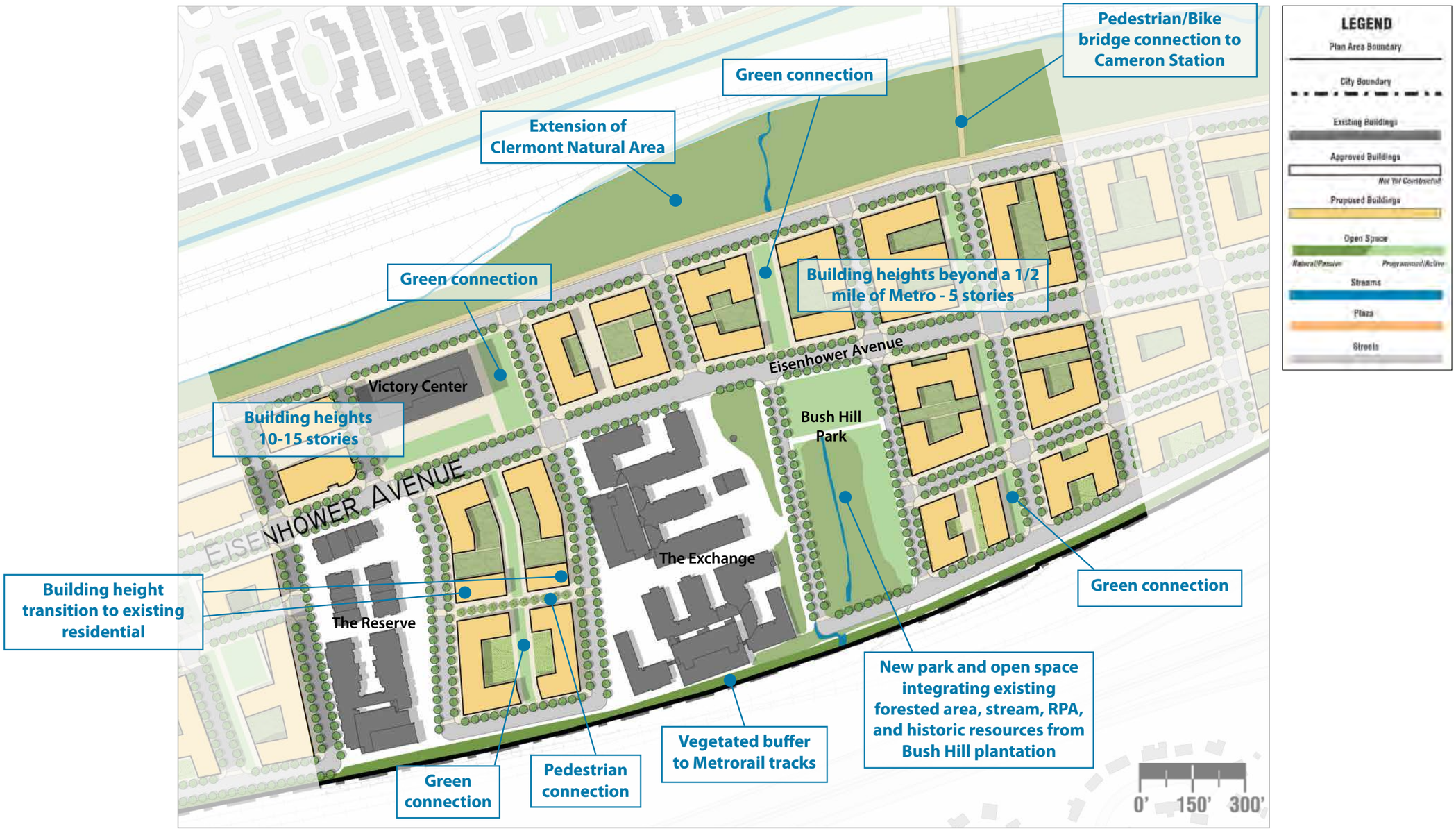
2. Buildings located beyond a 1/2 mile of the Van Dorn Metrorail Station in this neighborhood will be 5 stories with some buildings up to 10 stories to provide variety in height along Eisenhower Avenue.
3. Buildings located between 1/4 and 1/2 a mile of the Van Dorn Metrorail Station in this neighborhood will be a minimum of 10 stories and a maximum of 15 stories.
4. Building heights will respect adjacent land uses. Buildings will incorporate shoulders, or step down in height, to be compatible in height and setback with the adjacent developments such as Summers Grove and The Reserve.
5. Building heights should maximize sun and shade for pedestrians.
6. New buildings will be configured to be parallel to the adjoining street and define the adjoining street and open spaces by establishing an urban street wall.

PARKING

1. Parking will be located below grade for buildings in Neighborhood 5. If parking is tucked into the existing grade, and not visible from a public street or open space, it will be counted as below grade.

PARKS AND OPEN SPACE

1. This plan encourages a new passive park in the vicinity of the Bush Hill Estate ruins, where the opportunity exists for interpretation of a late 18th-century plantation as well as Native American settlement in Alexandria. This area is also heavily wooded, includes a stream, and is a Resource Protection Area (RPA). This potential new Bush Hill Park, could be created as part of the future redevelopment of this neighborhood. This new park would be a combination of a new publicly accessible green space on 4720 Eisenhower Avenue and the existing wooded area, stream and RPA at 4750 Eisenhower Avenue.
2. Protect and enhance the RPA along the stream tributaries to Cameron Run by maintaining the minimum 100' buffer from the stream that is required by law, with the first 50' being the most critical. Removing development from at least the first 50' of the buffer is a priority with removal of all encroachments and full RPA restoration being the overall goal. In no case will new development extend into the RPA beyond existing developed areas.
3. Predominantly residential developments will provide 30% open space. 15% of the open space on site will be publicly accessible at-grade open space. The remaining 15% may be provided off-site or by contribution in lieu to new neighborhood parks.
4. Predominantly commercial development projects are encouraged to provide 10% publicly accessible at-grade open space.
5. Create at least one children's play space in either Neighborhood 5 or 6 or both.
6. Residential developments on the Victory Center site are encouraged to provide a unified publicly accessible open space along with a green connection behind the development.
7. Integrate an off-street pedestrian and bike trail in the wooded area north of Neighborhood 5.



Redevelopment is expected to take place over a timeframe of 25-30 years, depending on market conditions and funding for infrastructure improvements. The illustrative plan shows one potential way in which the plan area could redevelop. The plan does not require building locations, footprints, parks and open spaces to be designed or developed as shown, so long as the vision for redevelopment expressed by the community, the principles contained in this document, and the City of Alexandria's standards for redevelopment are met.

Fig. 5.36 - Neighborhood 5 - Illustrative plan

Fig. 5.37 - Neighborhood 6 key plan

NEIGHBORHOOD 6 PRINCIPLES

1. **Create a cohesive and architecturally distinctive mixed use neighborhood.**
2. **Support the enhancement of Eisenhower Avenue as a Great Street.**
3. **Protect and enhance existing streams and Resource Protection Areas within Clermont Natural Park, the wooded areas north of Neighborhood 6, Holmes Run, and Cameron Run.**
4. **Enhance Hensley Park and the Clermont Natural Park.**
5. **Create a high-quality and inviting public realm to encourage pedestrian and bicycling activity, and connectivity to Ben Brenman Park, Eisenhower West neighborhoods to the west, and Eisenhower East.**
6. **The neighborhood provides a good location for uses generally accessed by a car, such as large format retail as an interim use.**

Site Area	Building Heights	Land Uses
25.9 acres	5-8 floors	

Fig. 5.38- Neighborhood 6 - Land uses

5.6 NEIGHBORHOOD 6 - CLERMONT EXCHANGE

Neighborhood 6, Clermont Exchange is the easternmost neighborhood of Eisenhower West. Located along Eisenhower Avenue, this neighborhood is also accessed from Clermont Avenue, and therefore has good vehicular connectivity to the Beltway and to Eisenhower East. As future redevelopment occurs over time, this neighborhood will consist primarily of mixed use with residential areas that include neighborhood-serving retail/services with office and/or residential above. Ground level retail and other active or destination uses will be important to strengthen the idea of Eisenhower Avenue as a Great Street. This neighborhood also has the potential to absorb additional car-oriented uses, such as large format retail, on an interim basis until the market for mixed use development is mature. Future redevelopment of this neighborhood will also mean that more people will need access to the parks and recreational amenities surrounding it. Enhancements to Hensley Park and Holmes Run/Cameron Run could be phased in with future redevelopment.

CHARACTER DEFINING ELEMENTS

Neighborhood 6 is not only characterized by its proximity to the Beltway and Eisenhower East, but also by its proximity to natural and recreational amenities including Hensley Park and Holmes Run/ Cameron Run. Although it is also very close to Ben Brenman Park, it is physically cut off from that park by the railroad right-of-way.

ISSUES AND OPPORTUNITIES

- The lack of connectivity of this area to areas to the north including Ben Brenman Park, which is close by but inaccessible is due to the railroad right-of-way. There is an opportunity to connect future residents of the Clermont Exchange neighborhood to the amenities of Cameron Station and Ben Brenman Park by creating a pedestrian/bike path and bridge connection across the railroad tracks from Clermont Avenue. There is also an opportunity to revitalize and enhance the Clermont Natural Park, and potentially extend it to the west by acquiring additional park space from Norfolk Southern.
- As in Neighborhoods 4 and 5, there is an opportunity to create open space and greenway connections by restoring and enhancing the Resource Protection Area associated with unnamed tributaries to Cameron Run located south of the railroad tracks.
- This neighborhood's proximity to the Beltway and Eisenhower East suggest the opportunity for more uses generally accessed by car, potentially in an interim condition. Medium-density mixed-use development is the goal for this area for the future. In the interim there may be the opportunity for large-format retail.
- In addition, the proximity to the Beltway and Eisenhower East also support greater economic development potential in this neighborhood.

LAND USE

1. New development in this neighborhood will include a mix of uses that leverage the area's connectivity to I-495 and Eisenhower East, including commercial/office/institutional, multifamily residential with ground level retail, including hotel and restaurant/café space. (See Fig. 5.39.)
2. Large format retail is permitted as an interim use in this neighborhood. See the Implementation Chapter.
3. Ground level active uses are required in this area, such as retail which includes restaurants and cafés.
4. Outdoor storage of vehicles and equipment is actively discouraged. This goal will be implemented through the rezoning process.

TRANSPORTATION AND CONNECTIVITY

1. Establish a grid of streets and blocks connecting to Eisenhower and Clermont Avenues.
2. Eisenhower Avenue and Clermont Avenue should be designated as "A" streets. Provide street types as shown in Fig. 5.40. Refer to Chapter 4.2 for additional details on streets types and cross sections.
3. Streets located north and south of, and parallel to, Eisenhower Avenue, are required streets. (See Fig. 5.41.)
4. The location of north-south streets connecting Eisenhower Avenue to the streets parallel to it may vary depending on the future configuration of blocks of development. Maximum size and other requirements for blocks described in Chapter 4 must be met.
5. Provide enhanced transit along Eisenhower Avenue.

BUILDING FORM AND CHARACTER

1. As new development is phased-in over time, ensure that it respects and co-exists with existing development and businesses.
2. Buildings should have their primary frontages, and entrances/lobbies on "A" and "B" streets, or facing parks or major green spaces. This encourages safety and helps provide "eyes on the street" and "eyes on the park."
3. Buildings should be designed to accommodate retail or restaurant/café space at the ground levels of buildings along Eisenhower and Clermont Avenues.
4. Compact multi-story buildings are highly encouraged for large format retail if located in this neighborhood as an interim use.
5. Use distinctive architecture, high-quality materials, excellent public space design, special landscaping, wayfinding signage, streetscape furnishings, lighting, and public art to highlight buildings at gateways, nodes, parks, and public spaces. Specific locations in Neighborhood 6 include buildings at the intersection of Clermont and Eisenhower Avenues, and buildings fronting parks and public spaces within the neighborhood.
6. Use distinctive architecture, landscaping and streetscape design to reinforce Eisenhower Avenue as a Great Street.
7. New buildings will be configured to be parallel to the adjoining street and define the adjoining street and open spaces by establishing an urban street wall.

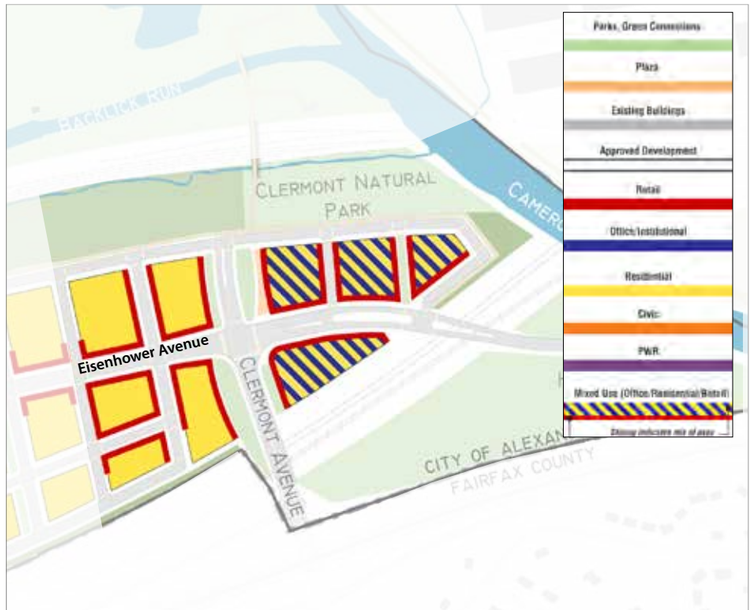


Fig. 5.39 - Neighborhood 6 - Land use diagram

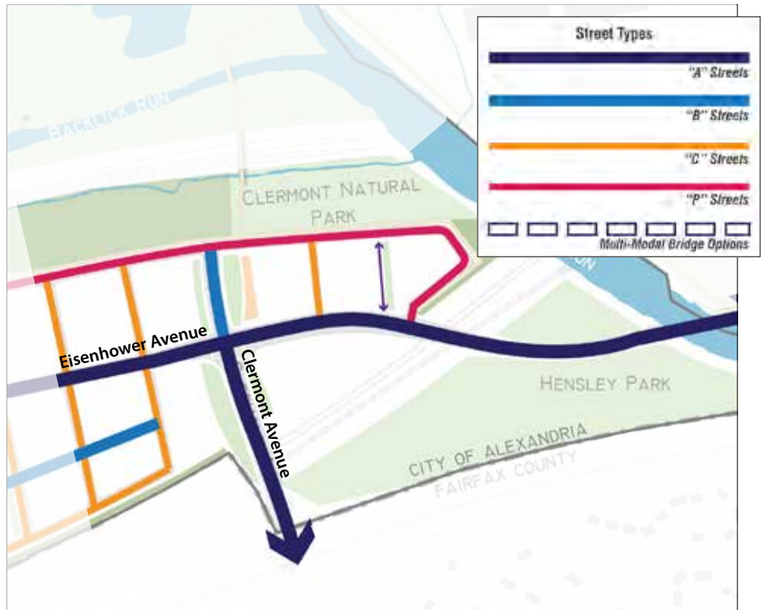


Fig. 5.40 - Neighborhood 6 - Street hierarchy diagram

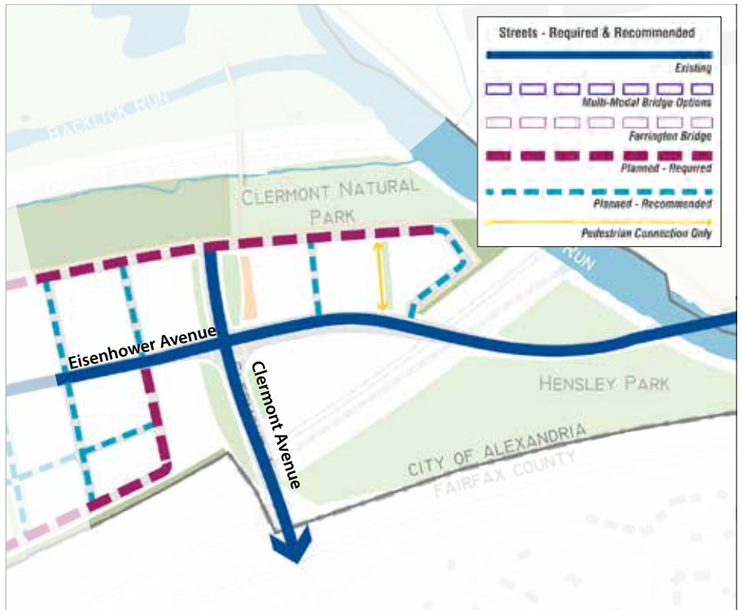


Fig. 5.41 - Neighborhood 6 - Required and recommended streets

Fig. 4.42 - Neighborhood 6 - Parks and open space

BUILDING HEIGHT

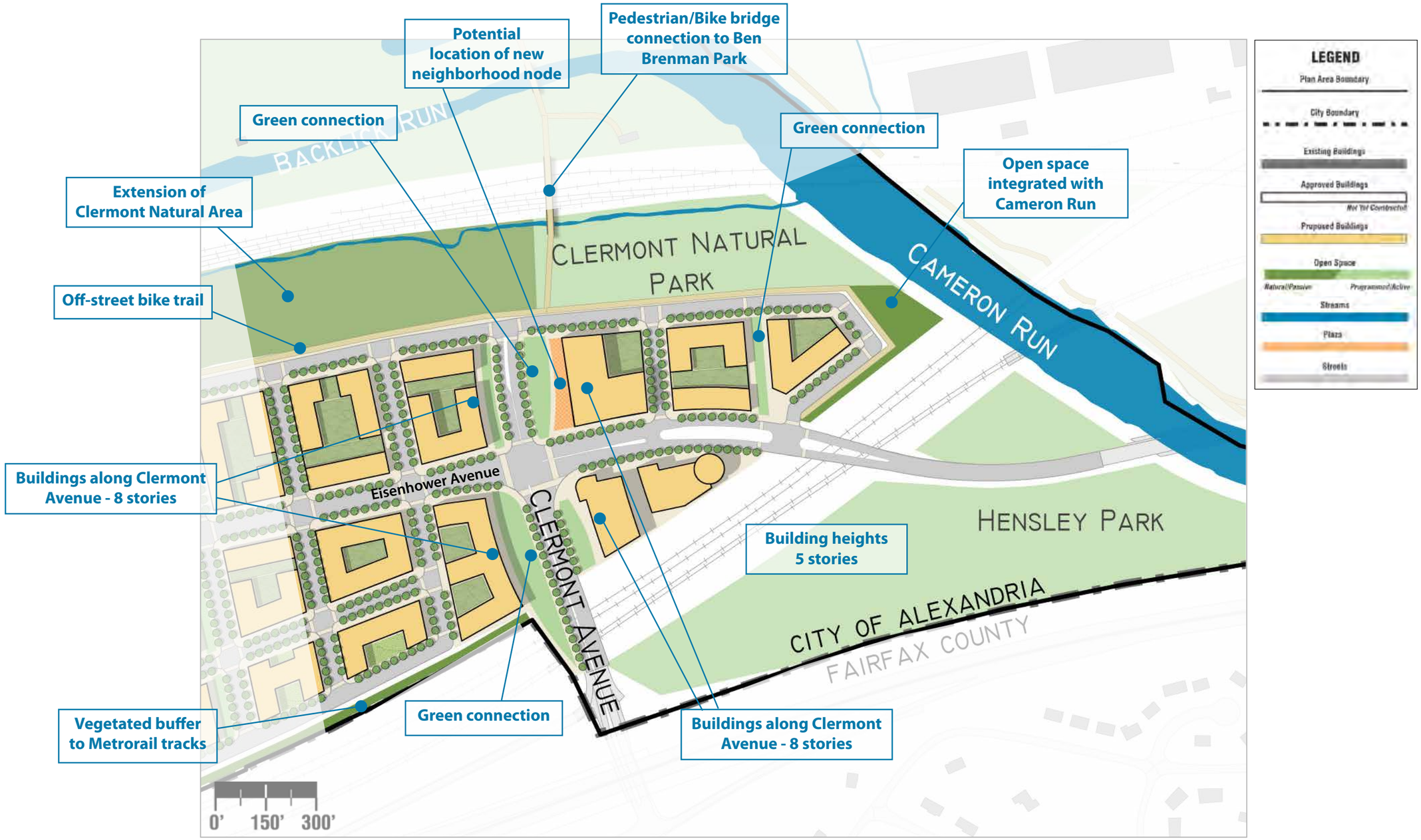
1. A variety of heights between 5 and 8 stories will be provided for new development in Neighborhood 6, which is located beyond a ½-mile of the Van Dorn Metrorail Station. Refer to plan-wide height guidelines in Chapter 4.
2. Most buildings located in this neighborhood will be a maximum of 5-7 stories in height. However, buildings at the intersection of Clermont and Eisenhower Avenues may be a maximum of 8 stories This will emphasize the node in this neighborhood and accommodate a mix of uses including commercial and retail.
3. Building heights should maximize sun and shade for pedestrians.
4. A variety of heights will be provided for each building and block.

PARKING

1. Parking will be located below grade for buildings in Neighborhood 6. If parking is tucked into the existing grade, and not visible from a public street or open space, it will be counted as below grade.

PARKS AND OPEN SPACE

1. Enhance the Clermont Natural Area to become a passive and well-utilized park for neighborhood residents.
2. Protect and enhance the Resource Protection Area (RPA) along the Backlick Run stream corridor and its associated stream tributaries by maintaining the minimum 100' buffer from the stream that is required by law, with the first 50' being the most critical. Removing development from at least the first 50' of the buffer is a priority with removal of all encroachments and full RPA restoration being the overall goal. In no case will new development extend into the RPA beyond existing developed areas.
3. Acquire, or protect in perpetuity, property owned by Norfolk Southern west of the Clermont Natural Area to provide additional passive open space in this neighborhood.
4. Create a new neighborhood park and or plaza within the mixed-use development in Neighborhood 6, north of Eisenhower Avenue.
5. Create at least one children's play space in either Neighborhood 5 or 6 or both.
6. Predominantly residential developments will provide 30% open space. 15% of the open space will be publicly accessible at-grade open space. The remaining 15% may be provided off-site or by contribution in lieu to new neighborhood parks.
7. Predominantly commercial development projects are encouraged to provide 10% publicly accessible at-grade open space.
8. Integrate an off-street pedestrian and bike trail in the wooded area north of Neighborhood 6 and in the Clermont Natural Park.
9. Improve Hensley Park to enhance active recreational opportunities pending fulfillment of open space requirements in the plan area.
10. Opportunities exist to interpret a former embankment that appears on a Civil War map in addition to Alexandria's early railroad history.



Redevelopment is expected to take place over a timeframe of 25-30 years, depending on market conditions and funding for infrastructure improvements. The illustrative plan shows one potential way in which the plan area could redevelop. The plan does not require building locations, footprints, parks and open spaces to be designed or developed as shown, so long as the vision for redevelopment expressed by the community, the principles contained in this document, and the City of Alexandria's standards for redevelopment are met.

Fig. 5.43 - Neighborhood 6 - Illustrative plan

6 IMPLEMENTATION

6 IMPLEMENTATION AND NEXT STEPS

An overarching goal of this Plan is to provide flexible recommendations in order to catalyze and support redevelopment. The purpose of this chapter is to describe a set of implementation strategies for the long term land use, infrastructure, public space, and placemaking goals envisioned in the Eisenhower West Small Area Plan. The implementation considerations incorporate current and expected future market demand, including the recent announcement of the Transportation Safety Administration (TSA) relocation to Victory Center, for the intended real estate product types, planning level cost estimates for infrastructure improvements, and the potential for developer contributions.

6.1 IMPLEMENTATION STRATEGIES

Realizing the vision of a vibrant mix of uses across the planning area will depend on the capacity for current and future market conditions to support a range of residential and commercial uses. The Plan recommends a series of potential strategies to advance the implementation of the plan. The following implementation strategies are both practical with respect to current market forces, and targeted approaches that will establish the foundation for the realization of the plan.

Strategy 1: Use near term residential development to build on the current levels of demand, begin establishing the character of the Plan, and to begin providing amenities. The residential uses, amenities and population will help attract future retail and commercial uses.

In the near term, the Eisenhower West submarket presents stronger opportunities for residential development than commercial, and the market analysis reveals several strengths in the residential market, particularly:

- Eisenhower West has a new and evolving identity as a residential area;
- Sites in Eisenhower West are well-situated for transit-oriented multifamily developments to capture demand due to their location near the Metro and Beltway; and
- Eisenhower West could support additional, highly amenitized multifamily rental product which appeals to a younger demographic seeking locations inside the Beltway, priced competitively with newer projects elsewhere.

Residential market fundamentals in the area are exhibiting low vacancy and growing rents, driving a reaction from developers and a pipeline of over 500 units of rental and condo product. This activity is currently centered on the intersection of South Van Dorn Street and South Pickett Street, adjacent to the Van Dorn Innovation District and Backlick Run neighborhoods. In addition to projects in the development pipeline, JBG Cos. acquired the three buildings comprising the Pickett Industrial Park (841-881, 883-885, 901-929 South Pickett Street), sited on 10.8 acres of land in June 2015. Property owners who are actively looking to redevelop in the near term will likely be primarily interested in residential projects.

Mid-rise residential developments, of which Modera Tempo is an example, present near term market feasible opportunities that are aligned with the plan recommendations for parcels located more than one half mile from the Van Dorn Metro Station. Projects like these contribute to the critical mass of activity in the planning area, support current and planned retail, and will potentially support developer contributions to fund infrastructure and public amenities.

High-rise residential development in the Van Dorn Innovation District and Van Dorn Metro Center areas is consistent with the neighborhood principles, and there is a current market for residential development. However, average market rents do not currently support the higher construction cost of high-rise development so it may be some time before high-rise residential development is constructed. For example, the current market will support a five-story wood-frame development in the Bush Hill neighborhood, but a 15 story steel or concrete frame project in the Van Dorn Innovation District will requires higher rents, which will likely come as the area matures as a residential location.

Strategy 2: Continue to strengthen the area's appeal to commercial development, leveraging the TSA headquarters announcement as well as the fact that residential development will help support amenities that establish the area as an attractive place to live and work.

A guiding principle of the Plan is to create an area that balances residential and commercial development, supporting employment and forming a mixed-use district. Under current market conditions, office development presents a challenge. The recent announcement of the location of the Transportation Security Administration headquarters in the Victory Center will stimulate interest in Eisenhower West for office and it is important for this Plan to facilitate any office development that might occur as a result. Recognizing that general market conditions are such that many areas are competing for commercial development (especially office), activities that continually improve the appeal of Eisenhower West for commercial uses should be pursued. In locations other than those designated for commercial development, residential development will improve the appeal of the area and support the retail, open space, and other amenities sought by office tenants. Sites within the planning area that present the greatest opportunity for office development include:

- Sites that are substantially underbuilt with respect to the proposed zoning presenting a lower land basis;
- Properties with assessed values that are substantially below the estimated value of proposed development potential in the Plan;
- Properties with tenants under longer term leases, with expiration dates potentially aligned with the timing of redevelopment opportunities;
- Properties, such as the Victory Center site, with existing approvals for commercial development; and
- Sites in close proximity to the Van Dorn Metrorail Station.

Strategy 3: Encouraging mixed-use light industrial and innovation uses will create a diverse economic and employment foundation.

Eisenhower West is historically an industrial district, supporting a local manufacturing employment base. Residential and office development has started to transform the area into a mixed-use neighborhood. This plan encourages the retention of a broad mix of uses, including flex/PWR (defined in Section 4.1), because these uses support an innovation economy and provide services needed by residents and businesses alike. To maintain a portion of the historic job market as warehouse and manufacturing sites are converted to other uses, Neighborhood 1, the Van Dorn Innovation District, is planned to leverage its existing physical and economic assets such as transportation access, a burgeoning mix of commercial and residential uses, and diverse job employment base to transform the predominantly warehouse and industrial land uses into a mixed-use district combining

residential, PWR (Production, Wholesale, Repair), craft manufacturing, and retail uses. This approach is intended to retain an employment base in related industries, but occupy new higher density construction, as the existing building stock offers limited reuse opportunities.

Potential creative uses could include:

- A brewery and tasting room and restaurant;
- A commercial teaching kitchen and adjoining restaurant;
- Furniture and furnishing workshop with a showroom;
- Commercial bakery serving regional businesses, with restaurant/café; or
- Active lifestyle businesses such as the existing dance, martial arts, and climbing centers adjacent to the Van Dorn Metro.

Partnerships between the City and non-profits, businesses, and other organizations to create incubator programs will encourage the arrival of innovation uses. This may include rent subsidy for leasing ground floor spaces at rates comparable to existing industrial rents. Temporary rent subsidies will reduce the startup cost for innovative businesses, to establish self-sufficient operations, to later convert to long term market rate leases.

Strategy 4: Structure a coordinated open space planning strategy to accelerate the development.

Placemaking will be accelerated through a comprehensive open space strategy across the planning area. Development projects will occur along different timelines, which will require an open space strategy that must be defined in advance and flexible enough to be implemented in a phased approach. To support this effort, the Plan encourages 20% of residential land be combined within neighborhoods in a manner that enhances real estate value, and provides a larger public amenity, in addition to private community green spaces. The locations of desired public open spaces are clearly defined in the Plan and include Bush Hill Park and Backlick Run.

In developing a comprehensive open space strategy the City should:

- Identify the set of parcels that are priorities for open space; and
- Identify parcels near planned open spaces that have significant future development potential, yielding the greatest benefits from proximity to the open space. As adjacent parcels may yield the economic benefits from proximity to open space, they should be targeted for higher developer contributions to fund improvements, in contrast to other parcels located further from these amenities.
- Establish a dedicated Eisenhower West Open Space Fund Account and formula for contributions to ensure that necessary funding is available for open space acquisition and improvements recommended in the Eisenhower West Small Area Plan. This allows funds that are collected within the plan area to stay within the plan area.

Through redevelopment of blocks within these neighborhoods, the 20% ground level open space contribution may be pooled and applied to these identified parcels in order to achieve these preferred neighborhood parks. This allows properties sited at a distance from intended open spaces to contribute to a larger public amenity. For land on which the preferred open space is located, property owners will provide the land, and will be compensated, through the remaining neighborhood open space contributions, for dedicated open space beyond the required amount. The Plan recommends that when developers are not providing a total of 30% ground level open space on site within the Eisenhower West area (either individually or as part of an open space pool), they will contribute a fee in lieu of this.

See open space principles and guidelines in Chapter 4 of this report.

Strategy 5: Attract interim uses to have a catalytic impact on the area by generating activity and drawing new visitors to the Eisenhower West.

To support and initiate redevelopment activity across the planning area, interim projects could help to create a node that would attract a critical mass of activity, and spur complementary development in adjacent areas. Interim uses can range from "pop up" container stores on vacant parcels to big box retail uses. Food trucks can immediately increase the range of dining options for office workers, especially in the Eisenhower West corridor, and should be encouraged.

Long-term interim retail uses will require an owner/developer with a commitment to the future vision. Interim projects, in use for a 10-15 year time frame, can be strategic anchors within the plan to generate activity and new visitors to the area. The time frame that interim uses are permitted must be defined as part of city approval.

As part of interim use approval, the city should consider elements such as future phasing and leasing. In addition, new buildings should be designed and constructed to the extent possible to not preclude implementation of the required streets and open space. New interim buildings will be required to be located adjacent to the street with the parking behind the building.

Potential interim catalyst uses include:

- **Big Box Retail -** A big box retail development can be a potential interim use, drawing on the existing residential base such as the households at Cameron Station, and neighborhoods north and east of Eisenhower West. The Eisenhower West market analysis has identified unmet demand for general merchandise in the planning area;
- **Office Worker Serving** - Food trucks and pop-up retail in close proximity to Victory Center will be supported by demand from a concentration of office workers; and
- **Entertainment** - Indoor and outdoor entertainment uses create a destination draw to further generate activity. For example: outdoor food and beverage establishments, courts or fields for programmed sports activities, art installations, and theatre performances.

In efforts to encourage the development of catalyst uses, the City may:

- Identify locations where the value generated through interim uses exceeds the value of the current use;
- Gauge developer interest to measure the feasibility of the approach;
- Identify any publicly-owned sites that may be the strongest candidates for interim uses;
- Encourage interim uses by providing:
  - A streamlined permitting process based on meeting particular requirements;
  - An overlay zone that could span multiple neighborhoods and include design guidelines that help achieve the vision for Eisenhower West; and
  - Grants and loans for local business.

Strategy 6: Following adoption of this Plan, begin work on a detailed Infrastructure and Funding Plan to refine the Plan's preliminary phasing of development and infrastructure, complete preliminary engineering on planned infrastructure, and refine the funding strategy based on the principles in the Plan.

Preparation of the Eisenhower West Small Area Plan involved planning-level analysis of the need and options for transportation infrastructure and other

public facilities necessary to support the future development. This level of analysis is sufficient to justify the general vision and framework of this plan; however, more detailed engineering, phasing and funding will be required to ensure that the pace of development and the provision of infrastructure are timed so that (a) new and existing residents and workers are well-served and (b) the cost of the infrastructure can be supported by anticipated revenue sources. The analysis demonstrated that the construction of the multimodal bridge significantly mitigates traffic congestion, and that all development in the greater plan area will benefit from this key piece of infrastructure and will be expected to contribute to its funding. Depending on the timing and location of development, different contribution amounts may be appropriate. If the construction of the multimodal bridge is not feasible, an alternative option of widening the Van Dorn Street bridge will need to be explored, including revised development thresholds.

The Infrastructure and Funding Plan will address not only the Eisenhower West Small Area Plan but also the Landmark/Van Dorn Corridor Plan, for which a detailed implementation plan has not yet been completed. These two plan areas overlap and share dependency on planned infrastructure, such as the multimodal bridge and the elementary school. Looking at the phasing and funding of both plans in concert will provide the coordination needed between these two plans.

The Infrastructure and Funding Plan will be guided by the concept of three phases of growth: catalyst, choice location/limited connectivity, and implementing the long term vision. These are consistent with the phases of growth in the Landmark/Van Dorn Corridor Plan.

Phase: Catalyst
Catalyst projects are early projects, and/or projects that are ready to begin the permitting process upon adoption of this Plan, that help create a critical mass of redevelopment activity. Catalyst projects may include "interim redevelopment" or development that is wholly consistent with the long-term vision of this Plan. The catalyst phase is characterized by limited expectations for developer contributions to mitigate off-site impacts of their development on infrastructure and public amenities such as a lower developer contribution in addition to standard contributions. A suggested developer contribution for this phase should take into account market conditions, project economics, and financial feasibility. It may also be characterized by a streamlined regulatory process, primarily by substituting a limited set of design and use guidelines in place of the Special Use Permit (SUP) process.

The amount of development that is included in the "catalyst" category will be limited by three criteria:

1. The amount of development currently permitted by existing zoning in each neighborhood.
2. The amount of development that once approved and/or under way, will send a strong signal that Eisenhower West is on a sustained growth path.
3. The need, ultimately, to exit the "catalyst phase" so that planned development contributes to the infrastructure required to support growth in the corridor, particularly transportation and connectivity investments, open space, and schools.

During the catalyst phase, approved Development Special Use Permits (DSUPs) will likely favor land uses that reflect current market conditions. This is acceptable as long as the Plan's ultimate required land use mix is still achievable, both neighborhood-wide and site-by-site. If a DSUP reaches the end of its approval time limit (36 months) without beginning substantial construction and another landowner in the neighborhood would like to move to approval, the Planning Commission and City Council may take that into account when considering whether to approve an extension of the original DSUP. It will be in the interest of all landowners that development capacity (density) be allocated to projects that are ready to move to construction.

The Infrastructure and Funding Plan may or may not set a dollar-per-square-foot rate for development to contribute to infrastructure that will mitigate their off-site impacts. Development proposed in the catalyst phase and prior to the completion of the Infrastructure and Funding Plan will be evaluated for the potential to contribute to mitigating their off-site impacts balancing the need for that infrastructure with economic development and other plan goals.

Phase: Choice Location/Limited Connectivity
This phase is entered when a critical mass of catalyst development is approved and/or under way, indicating that Eisenhower West has become a choice location for new development in the region. It consists of redevelopment consistent with the long term vision of the Plan and will likely be characterized by a greater proportion of non-residential development and denser office, commercial, and residential development at the Metro node. Increased requirements for developer contributions toward off-site impacts on infrastructure and transportation (connectivity, open space, schools, etc.) will be considered.

This phase limits the total amount of redevelopment to that which can be supported by a limited set of transportation improvements shown in Figure 6.1. This phase will have an implementation plan calculating infrastructure funding needs and assigning shares to the public and private sources of funds. The difference between Choice Location/Limited Connectivity and Implementing the Long Term Vision is based on what the transportation network can support. This phase is complete when approximately 7.1 million square feet of net new development is achieved.

Phase: Implementing the Long Term Vision
This phase is characterized by completion of the planned connectivity network and the other public facilities needed to support build out of planned development in Eisenhower West. The Plan will set the amount of additional square footage that will be available for development approvals during this phase, which will reflect the amount of development supportable by planned transportation improvements, including transit infrastructure and service improvements, and pedestrian and bicycle facilities. This phase will also be characterized by completion of all non-transportation public facilities, including public space, education, and other facilities, recommended by the Plan that were not completed during earlier phases. This phase will have an implementation plan calculating infrastructure funding needs and assigning shares to the public and private sources of funds, which may be independent of, or a continuation of, the previous phase in the implementation plan.

Transfer of Development Rights
The Infrastructure and Funding Plan will confirm development ceilings for each phase of development (Catalyst, Choice Location/Limited Connectivity, and Implementing the Long Term Vision) consistent with the table below. The amount of development permitted in each phase will be limited by the capacity of the transportation network at that time.

The Infrastructure and Funding Plan may also preliminarily allocate portions of the overall development potential of the Plan to each neighborhood. It is anticipated that through the zoning and DSUP process, individual landowners will draw from the development ceiling for their neighborhood. This may occur through a CDD for each neighborhood or other zoning

tool. Landowners will lay claim to this shared development capacity through the DSUP process and will be allocated on a first-come, first-served basis.

In the event that the supply of development capacity in any neighborhood is exhausted by DSUP approvals and other landowners are seeking development approval prior to moving to the next phase, reallocation of development capacity (transfer of development rights) may be accomplished in the following way:

- Within neighborhoods, landowners may reach voluntary agreements with each other so that, for example, a landowner with an approved DSUP may voluntarily transfer some or all of the density to another landowner. This would be accomplished during the DSUP process, but the City approval of the density transfer would not be needed.
- The City should encourage a mechanism to allow landowners who dedicate land for public purposes above and beyond standard requirements for open space, roadways, etc., to transfer unused density to other landowners through voluntary agreements.
- There will need to be a means of recording density transfers so that it is clear at all times how much development capacity is allocated to each landowner.
- Density transfers between neighborhoods may be considered as long as transportation analyses show the impact on the transportation network is equivalent.
- Density transfers cannot be used to get around the land use mix minimums/maximums set by the Plan for each neighborhood.

Strategy 7: Explore a range of potential zoning options, from existing zoning categories to new zones, for parcels in Eisenhower West that will occur at the time of redevelopment.

A key tool for implementing the Plan's vision will be zoning that expresses the desired mix of land uses in the Plan. Properties would apply for a rezoning at the time of redevelopment, taking into account that in zoning for some properties already allows densities consistent with the Plan's objectives. Future rezonings will balance the desire for incentivizing redevelopment with paying for the cost of infrastructure to support that development. Rezonings could include the following:

- **CDD Zoning:** One CDD zone could be established for each of the 6 neighborhoods. Each CDD zone would consist of specific guidelines on architecture and street framework.
- **Modification of existing zones** (i.e., I, OCM-100 zones) or creation of new Euclidean zones.
- **Interim development overlay zone:** This zone would allow interim development to occur quickly in order to stimulate activity in the plan area. The zone could include streamlined permitting, design guidelines, and land use guidance that complements the Plan's vision.
- **Industrial/Residential Mixed Use Zone:** A unique element of the Plan is the Van Dorn Innovation District located in Neighborhood 1. The neighborhood features a unique mix of PWR (Production, Wholesale, Repair) uses such as maker space and flex space that will coexist with residential uses. These uses could be located on multiple floors within a building that also contains residential units. It is important that this neighborhood is not dominated by any one use type, such as, uses that do not align with PWR uses will be limited. Design and operational guidelines will accompany this zone to ensure neighborhood compatibility.

Staging	Projected Development	Needed Improvements	Cost (2015)

Stage 1	Total: 7.1M SF (includes TSA site)
	
	Allocation of this amount of development to the "Catalyst" phase and the "Choice Location/Limited Connectivity" phase will occur in the Implementation Phasing and Funding Plan to follow.
		Initial Spot Improvements
		(For Planned / Approved)
		• Van Dorn/Eisenhower
		• Van Dorn/Main
		• Van Dorn/Edsall
		• Van Dorn/Pickett
		• Pickett/Edsall
		
		Major Improvements
		• Enhanced transit service
		• Farrington Ave. Connector Bridges (Alexandria)
		• Multimodal Bridge or Widening Van Dorn St.
		• Van Dorn / Courtney
		• Pedestrian Bridge (Clermont to Ben Brenman Park)
		• Community Facility
		• Housing*
		• Open Space Acquisition
		• Clermont Cove Acquisition
		• Mitigation of Impacts to the Waste-to-Energy Facility
		• School
		  • Construction
		  • Land Acquisition
		
		**Estimated potential City investments to acheive affordable housing or mixed-income assisted living co-located with community facility*
			$1 Million
			
			$450,000
			$630,000
			Minimal
			Minimal
			Minimal
			
			$400,000 +
			$44 Million
			$51 Million
			Minimal
			$14,300,000
			$19,000,000
			$5,250,000
			$8,200,000
			TBD
			TBD
			
			$45,000,000
			TBD
			
			$188 Million +

Stage 2	2.2 Million SF *Following Phase: Implementing the Long Term Vision*	• Rebuild Metro Rd. NB ramp; Remove SB loop ramp • Farrington Ave. Connector (Fairfax responsibility)	$2.8 Million $15M plus ROW **2.8 Million +**
Stage 3	*To be determined*	Additional infrastructure could provide additional development capacity to be determined by future studies.	To be determined

Figure 6.1 Infrastructure Costs

Additional Implementation Strategies

The City will explore additional implementation mechanisms that include:

- **Tax Increment Financing (TIF):** In most recent small area plans, the City has allocated a percentage of the net increase in taxes from new development to support provision of the infrastructure and public facilities needed to support that development. The Implementation Phasing and Funding Plan will determine how TIF will be used in Eisenhower West.
- **WMATA Joint Development Program:** Development around the Van Dorn Metro Station can be potentially accelerated through a partnership between WMATA and private developers.
- **Joint Public Facilities:** Public facilities can be co-located for efficient use of City resources.

6.2 INFRASTRUCTURE INVESTMENTS

To assess the potential for developer contributions toward funding infrastructure improvements in the planning area, the total infrastructure cost is considered with respect to potential new development in the planning area. The total infrastructure cost is estimated at $191 million based on data provided by the City, with individual costs described in Figure 6.1. The Plan recognizes that the City may need to make early investments to create infrastructure improvements prior to additional demand. Particularly, the City should consider near-term, interim improvements to accommodate TSA. North-south connections should be prioritized in future analysis.

6.3 INFRASTRUCTURE FUNDING

Developer Contributions

The total new development is approximately 9.3 million square feet. However, development should not exceed 7.1 million square feet until Stage 1 transportation improvements have been completed. Allocation of the 7.1 million square feet of development to the "Catalyst" phase and the "Choice Location/Limited Connectivity" phase will occur in the Implementation Phasing and Funding Plan to follow, which will also provide greater detail regarding the pacing of development and infrastructure within Stage 1.

Developers are required to build on-site and adjacent improvements such as new streets, adjacent infrastructure (including sewers), and some key open space features such as the proposed Backlick greenway and stream restoration and the plaza near Metro. In addition, the City requires a developer contribution to support larger off-site infrastructure improvements that will be necessary with increased development.

The Plan envisions that there will be developer contributions to accommodate future infrastructure needs that are comparable to other recent small area plans. The City's initial analysis assumes that at least fifty percent of the cost of planned infrastructure would be provided through developer contributions. The actual developer contribution rates will be determined during a subsequent and more detailed study. That study will recognize that this plan's goal is to calibrate developer contributions so as to build and sustain redevelopment momentum created by the TSA Headquarters announcement and this plan as well as to fund infrastructure. The Infrastructure and Funding Plan will determine how contributions should be phased in over time and will look at varying contributions by neighborhood and land use such as to encourage office.

During the period that the Infrastructure and Funding Plan is under development, contributions will be evaluated on a case-by-case basis taking into account the financial feasibility of each project and its status as a catalyst project. The Infrastructure and Funding Plan will also confirm the list and timing of infrastructure improvements and public facilities called for by the small area plans and determine funding sources for each. Funding sources will likely vary by category of infrastructure or facility. Contributions to affordable housing will follow the City's guidelines at all phases of implementation.

Revenue Estimates

Annual net tax revenue from full development of the plan area is expected to yield $21.3 million per year of which a portion will be used to fund improvements in the plan area. Along with this revenue, resources from the general fund and other grants can be used to build the improvements listed in the table above.

6.4 INCENTIVES AND SUPPORT

The City may wish to provide incentives or encouragement for desired development. Incentives should be focused on these areas:

- Van Dorn Metro Node
- Clermont Node
- South Pickett Node
- Innovation District

Regulatory, financial or programmatic incentives or support the City could explore:

- Incentives for certain cultural uses or uses within a cultural district,
- Incentives for maintaining the presence of, attracting, or otherwise supporting local entrepreneurs or businesses – whether innovators, "Mom-and-Pop" stores and restaurants, or other desirable businesses that might not otherwise be able to locate in the area,
- City may partner with non-profits, businesses, and other organizations to create incubator programs for green tech/complimentary businesses to the National Science Foundation (NSF),
- Reduce/eliminate SUP requirements and/or provide other streamlined permitting for specific uses (Discussed categories include big box retail in Clermont and uses in mixed use buildings that would ordinarily require a separate SUP. Uses would have to meet certain standards regarding noise, odors, garbage and debris, and other impacts normally covered by SUPs to ensure that neighborhood impacts are minimized. For development projects, the guidelines would cover design, landscaping, size/SF range, parking, etc. Among the goals, uses reviewed during the DSUP process would not need to come back through the SUP process.)

6.5 NEXT STEPS AND ACTION ITEMS

In order to achieve the vision for Eisenhower West, a number of action items have been identified to begin implementation:

- Detailed Air Modeling Analysis Near Van Dorn Metrorail Station
- Infrastructure and Funding Plan (Including the Landmark/Van Dorn Corridor Plan Area)
  - Curb/ROW to 20-30% design
  - Multimodal bridge alignment in consultation with impacted property owners
  - Farrington Connector alignment
  - Geometric review of other planned streets
  - Widening of Van Dorn Street bridge analysis
  - Sewer upgrades
  - Design guidelines
  - Developer Contribution Study and detailed phasing analysis
  - Interim Plan
  - Establish a task force to guide completion of the Infrastructure and Funding Plan and to oversee creation of an implementation plan and provide guidance on implementation of these plans.
- Analysis with Norfolk Southern on crossings
- Backlick Run Restoration Master Plan
- Combined Heat Study
- Reclaimed Water Study
- Recreation Center/School Site Analysis
  - Options for potential co-location of affordable housing or a mixed-income assisted living facility
- Eisenhower West Open Space Fund and related contribution formulas

EISENHOWER WEST
SMALL AREA PLAN

Adopted November 14, 2015

APPENDIX

A EXISTING CONDITIONS
B SUMMARY OF ISSUES AND OPPORTUNITIES
C MARKET ANALYSIS
D COMMUNITY ENGAGEMENT
E CASE STUDIES

APPENDIX A - EXISTING CONDITIONS

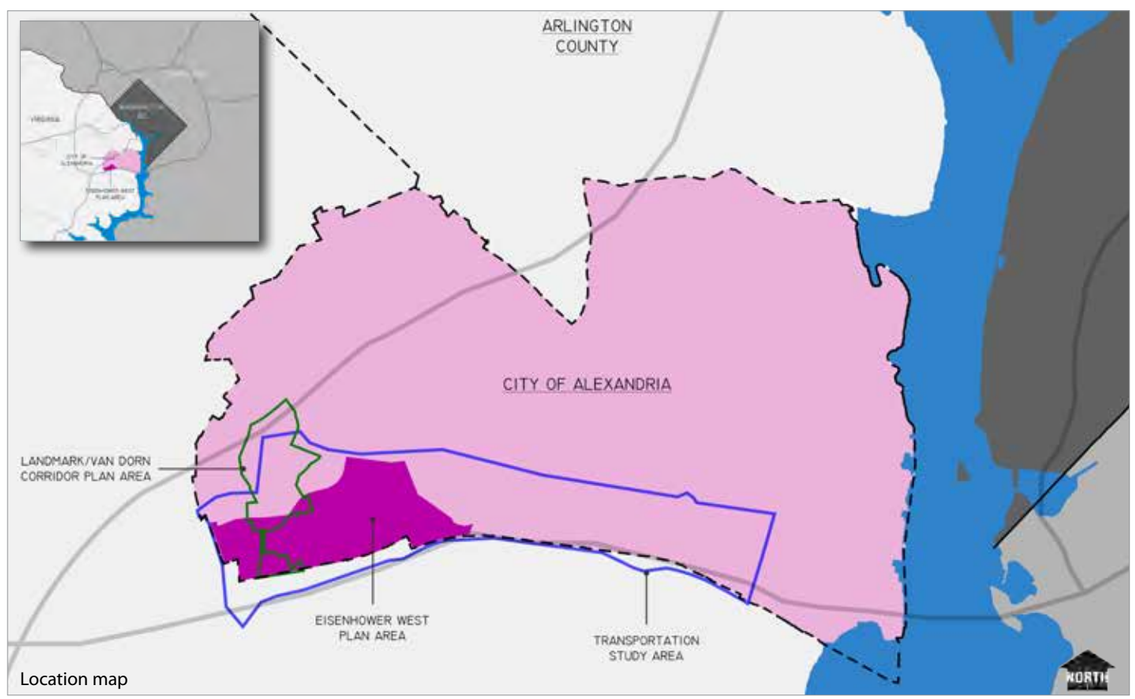
Overview

This report provides an analysis of existing physical conditions in the Eisenhower West Small Area Plan area. This analysis defines the physical situation "on the ground" in the study area, and identifies issues to be addressed, and opportunities to be explored. This understanding forms the basis upon which conceptual options will be developed in later phases of the process. This analysis will also become part of the Final Report which will be completed at the end of the planning process.

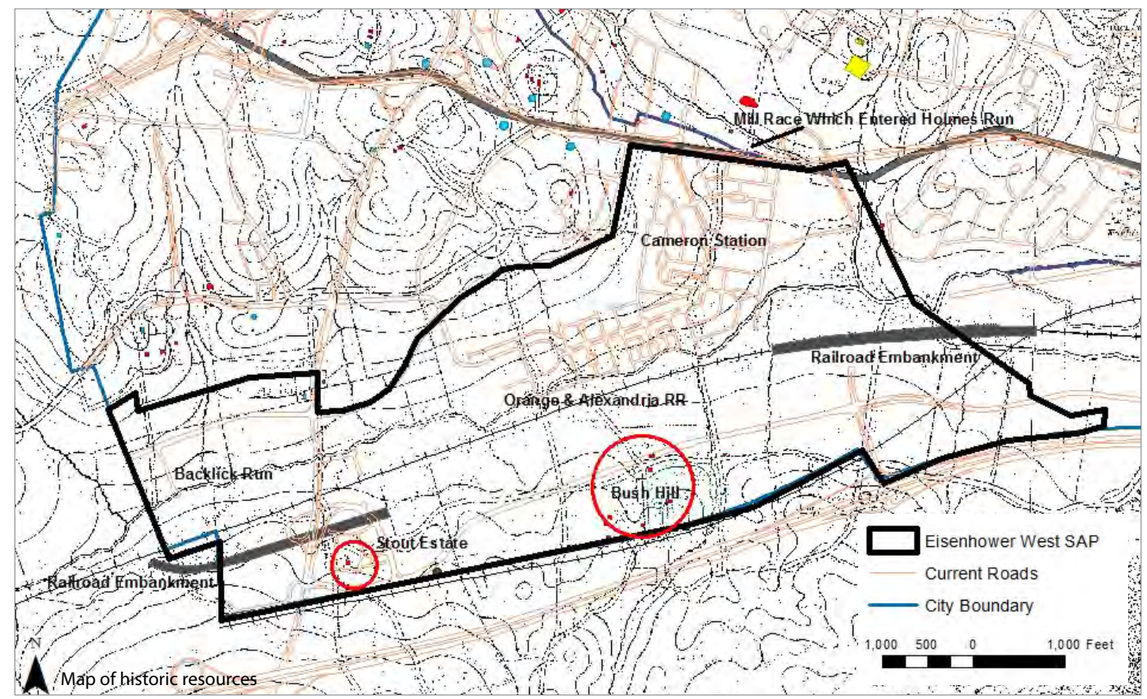
Site History and Archeology

The early history of Eisenhower West planning area goes back approximately 8,500 years. The two existing streams - Holmes Run and Backlick Run - were natural resources likely to have been used by early hunter-gathers and Native Americans living and roaming throughout the area. Use of the streams could have included the plants and animals, but also the collection of cobbles, primarily quartz and quartzite, which would have been used to manufacture stone tools. In 1649, the land was granted to supporters of King Charles II, and, by the end of the 17th century, came under the control of Lord Fairfax who issued grants for large tracts of land. During the 17th and 18th centuries, the area was divided up by the landowners, and plantations were established, on which African Americans worked as slaves. The foundations of the house at Bush Hill, a 354 acre estate, still exist at approximately 5000 Eisenhower Avenue. Several grist mills operated in the area. Portions of Cloud's Millrace are preserved in place along Holmes Run.

In the early 19th century, Little River Turnpike (Duke Street) was established as a toll road. The Orange and Alexandria Railroad was established in the 1850s, parallel to Duke Street. During the Civil War, a Union camp was set up near the planning area and observation balloons were launched to observe the movements of confederate troops. The area was annexed to Alexandria in 1952. In recent years, the Eisenhower West planning area developed rapidly primarily with light industrial and warehouse uses, taking advantage of proximity to the railroad, but also with office buildings, and some residences. The Van Dorn Metrorail Station opened in 1991, on the Blue Line. In 1992, the Cameron Station neighborhood was developed, replacing the Cameron Station military installation.



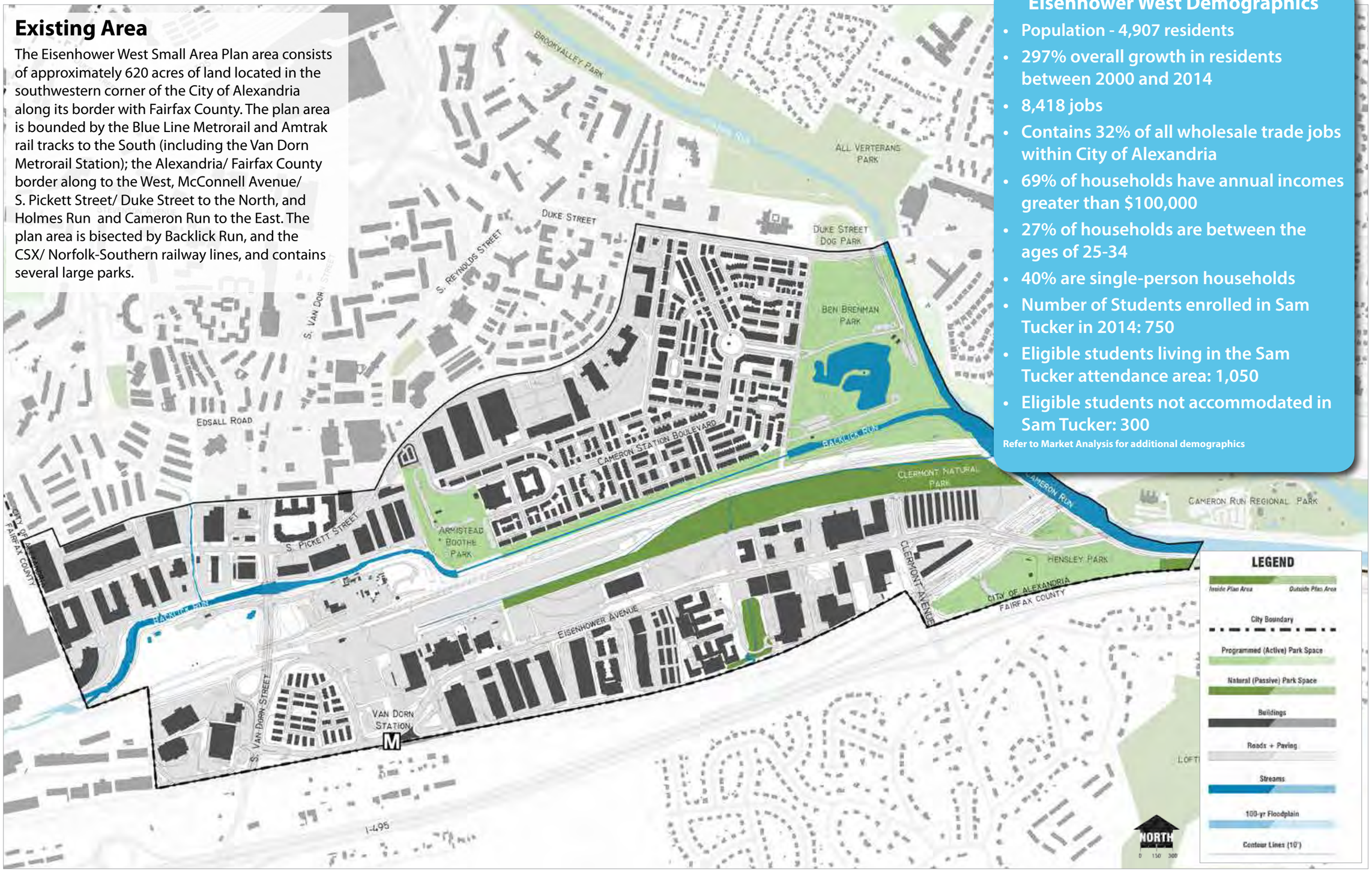
Location map



Map of historic resources

Existing Area

The Eisenhower West Small Area Plan area consists of approximately 620 acres of land located in the southwestern corner of the City of Alexandria along its border with Fairfax County. The plan area is bounded by the Blue Line Metrorail and Amtrak rail tracks to the South (including the Van Dorn Metrorail Station); the Alexandria/ Fairfax County border along to the West, McConnell Avenue/ S. Pickett Street/ Duke Street to the North, and Holmes Run and Cameron Run to the East. The plan area is bisected by Backlick Run, and the CSX/ Norfolk-Southern railway lines, and contains several large parks.



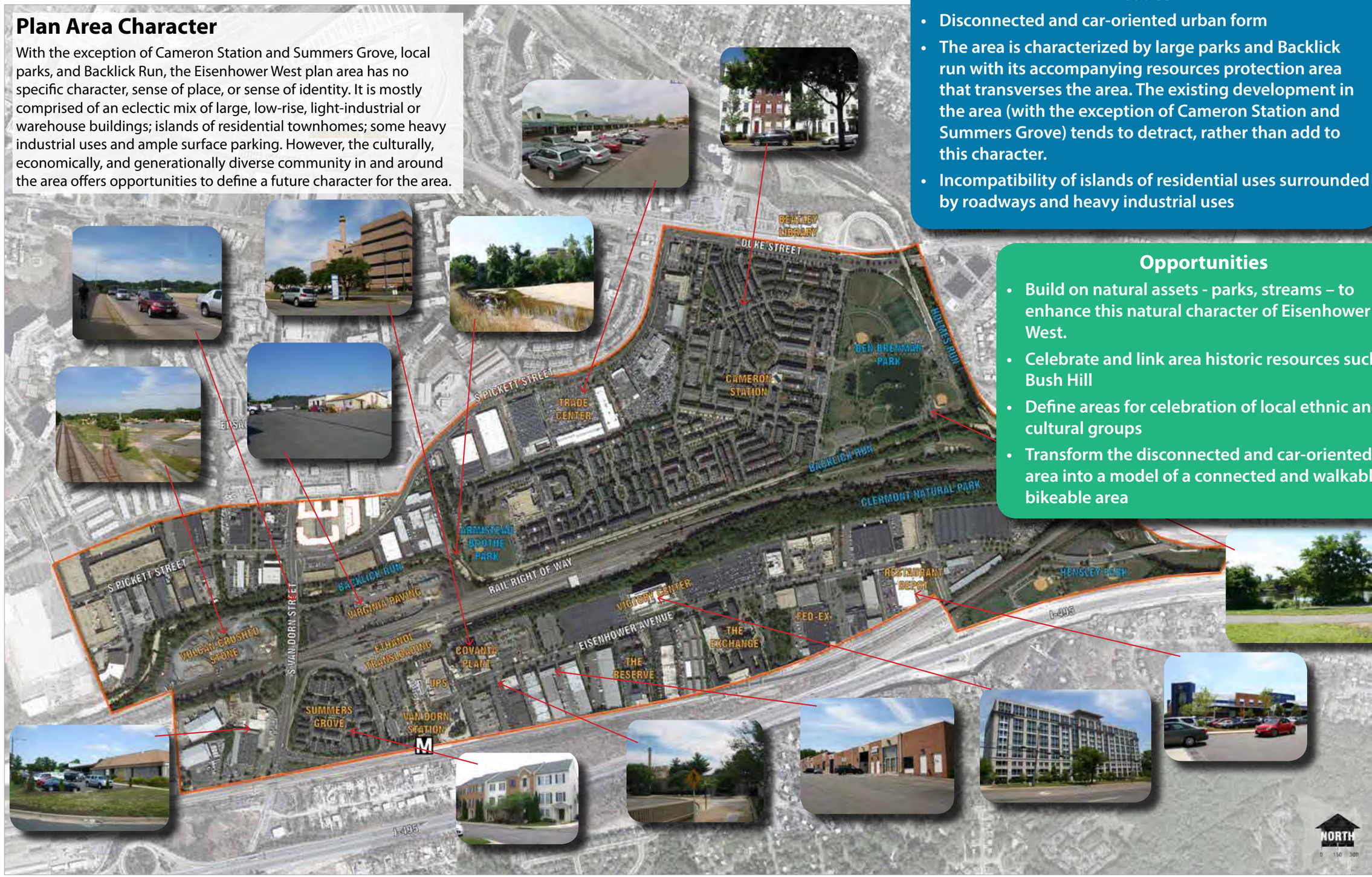
Eisenhower West Demographics

- Population - 4,907 residents
- 297% overall growth in residents between 2000 and 2014
- 8,418 jobs
- Contains 32% of all wholesale trade jobs within City of Alexandria
- 69% of households have annual incomes greater than $100,000
- 27% of households are between the ages of 25-34
- 40% are single-person households
- Number of Students enrolled in Sam Tucker in 2014: 750
- Eligible students living in the Sam Tucker attendance area: 1,050
- Eligible students not accommodated in Sam Tucker: 300

Refer to Market Analysis for additional demographics

Plan Area Character

With the exception of Cameron Station and Summers Grove, local parks, and Backlick Run, the Eisenhower West plan area has no specific character, sense of place, or sense of identity. It is mostly comprised of an eclectic mix of large, low-rise, light-industrial or warehouse buildings; islands of residential townhomes; some heavy industrial uses and ample surface parking. However, the culturally, economically, and generationally diverse community in and around the area offers opportunities to define a future character for the area.



Issues

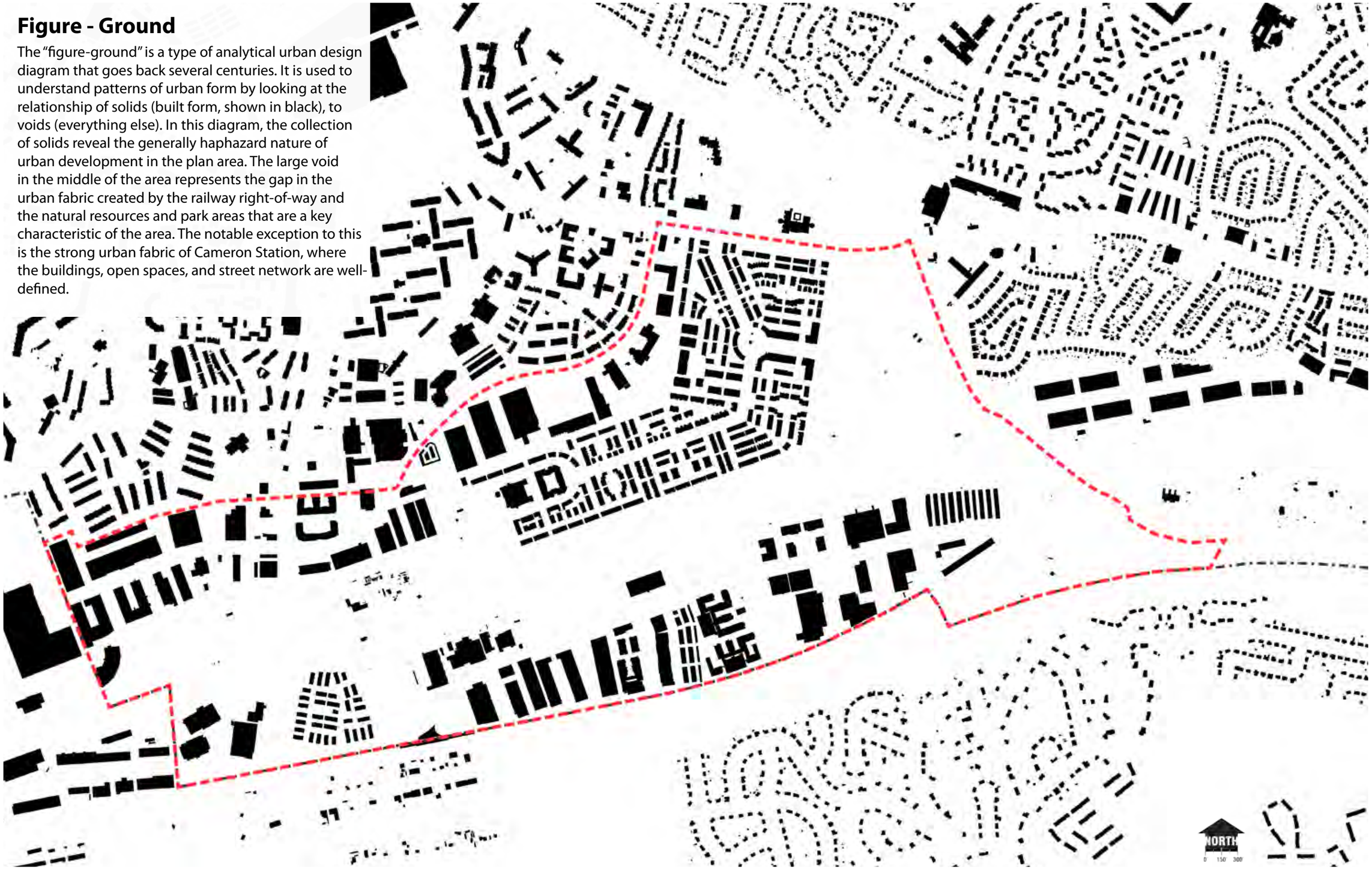
- Disconnected and car-oriented urban form
- The area is characterized by large parks and Backlick run with its accompanying resources protection area that transverses the area. The existing development in the area (with the exception of Cameron Station and Summers Grove) tends to detract, rather than add to this character.
- Incompatibility of islands of residential uses surrounded by roadways and heavy industrial uses

Opportunities

- Build on natural assets - parks, streams – to enhance this natural character of Eisenhower West.
- Celebrate and link area historic resources such as Bush Hill
- Define areas for celebration of local ethnic and cultural groups
- Transform the disconnected and car-oriented area into a model of a connected and walkable-bikeable area

Figure - Ground

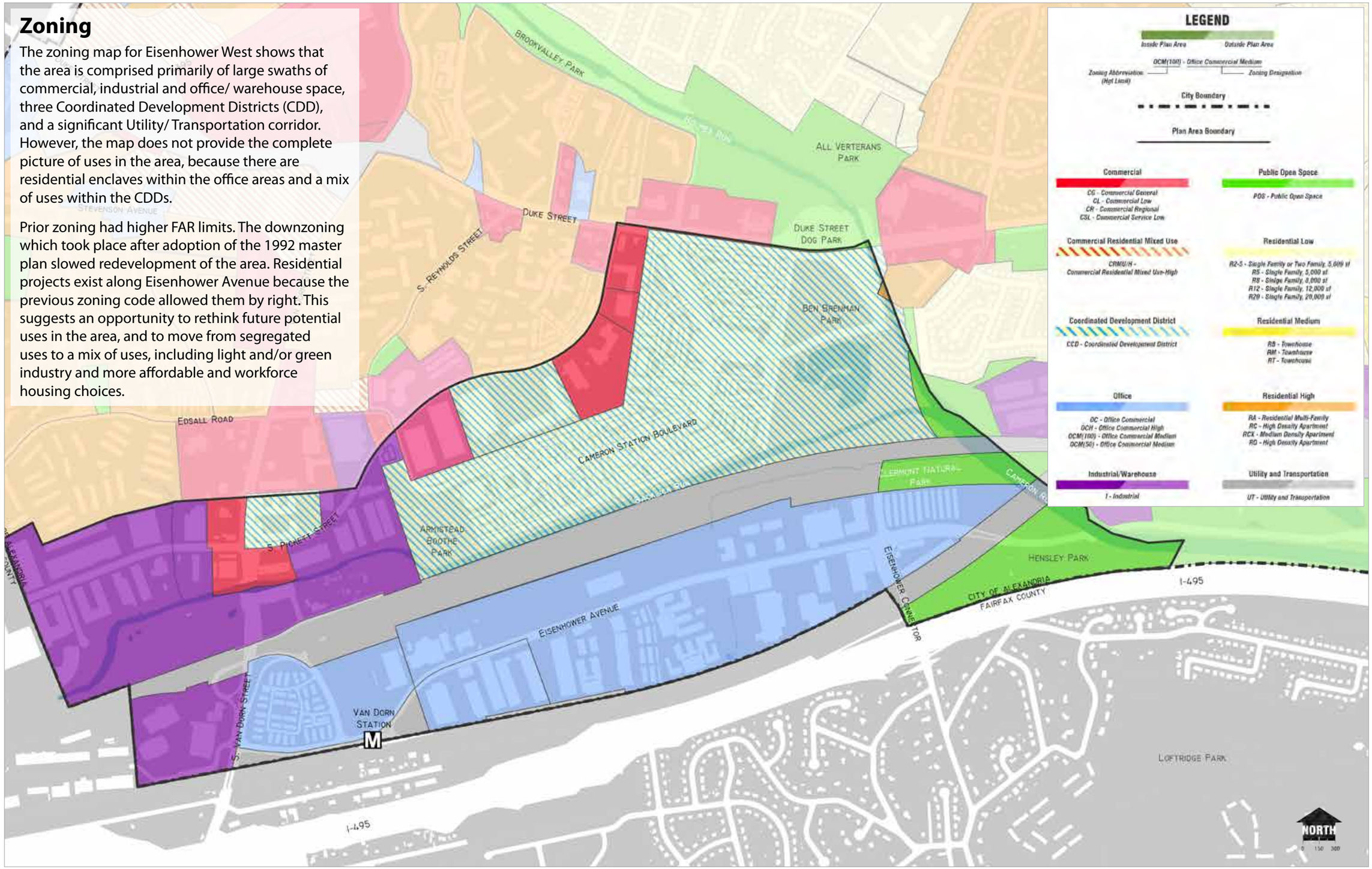
The "figure-ground" is a type of analytical urban design diagram that goes back several centuries. It is used to understand patterns of urban form by looking at the relationship of solids (built form, shown in black), to voids (everything else). In this diagram, the collection of solids reveal the generally haphazard nature of urban development in the plan area. The large void in the middle of the area represents the gap in the urban fabric created by the railway right-of-way and the natural resources and park areas that are a key characteristic of the area. The notable exception to this is the strong urban fabric of Cameron Station, where the buildings, open spaces, and street network are well-defined.



Zoning

The zoning map for Eisenhower West shows that the area is comprised primarily of large swaths of commercial, industrial and office/ warehouse space, three Coordinated Development Districts (CDD), and a significant Utility/ Transportation corridor. However, the map does not provide the complete picture of uses in the area, because there are residential enclaves within the office areas and a mix of uses within the CDDs.

Prior zoning had higher FAR limits. The downzoning which took place after adoption of the 1992 master plan slowed redevelopment of the area. Residential projects exist along Eisenhower Avenue because the previous zoning code allowed them by right. This suggests an opportunity to rethink future potential uses in the area, and to move from segregated uses to a mix of uses, including light and/or green industry and more affordable and workforce housing choices.



Building Use

This diagram shows the actual uses building-by-building, and the layouts/ arrangements of the buildings relative to one another. Most commercial and industrial/ warehouse buildings are surrounded, or fronted, by surface parking, thereby not fully leveraging the land they are on. Residential along Eisenhower Avenue is squeezed tightly into islands and fenced off or otherwise separated from surrounding uses.

Issues

- Islands of residential along Eisenhower Avenue
- Segregated uses, very little is mixed-use
- Disconnected and inwardly-focused industrial/ warehouse uses
- Warehouse uses are on long narrow parcels make individual redevelopment difficult

Opportunities

- Create one or more multi-use communities that include employment opportunities, residential capacity and destinations that take advantage of the proximity to the Metro Station and support a 24/7 environment
- Increase diversity by adding new residential, including affordable housing
- Create better connections between residential areas to each other and to surroundings
- Better connect industrial uses so they are not barriers

Building Age

Most of the industrial/ warehouse buildings on the western portion of the plan area were built in the 1960s, while commercial and industrial/ warehouse buildings along Eisenhower date from the 1970s and 1980s. With a few exceptions, including the Trade Center along South Pickett Street, the majority of recent buildings in Eisenhower West- constructed in the 1990s and 2000s - are residential, signaling the strong market for residential development.

1950s and 60s warehouses along S. Pickett St.

Trade Center 1990s

Cameron Station residential 1990s and 2000s

Issues

- Aging existing building stock in the plan area
- Newer uses are predominantly residential and continued residential construction threatens to reduce the diversity of uses in the plan area

Opportunities

- Replace aging buildings with new, sustainably designed, higher density uses to leverage the location, amenities, infrastructure in the plan area
- Build diverse new uses including commercial and retail to support existing residential and the potential future residential market.
- Support future commercial uses including Victory Center

Summer's Grove 1990s

1970s and 1980s warehouses along Eisenhower Ave.

Land Ownership

Most of the land in Eisenhower West is privately owned with the exception of WMATA-owned land around the Van Dorn Metro Station, City parks and some municipal properties along Eisenhower Avenue. Aside from the tight-knit residential developments in the plan area, land is very underutilized due to large-footprint, low-rise buildings and surface parking. Opportunities exist to densify and leverage land resources and create a more lively urban realm with new plazas, parks and public spaces.

Issues

- Underutilized parcels of land
- Lack of small locally-serving public spaces and parks
- Barriers to cohesive redevelopment including numerous property owners in the plan area

Opportunities

- Leverage land resources with higher density development where appropriate
- Assemble properties to create large. well-designed mixed use development parcels
- Integrate new public spaces such as parks and plazas with new trails and development
- Create a new environment that is supportive of business needs, the residential environment, and citywide needs for green and recreational space

Connectivity

The presence of numerous east to west oriented barriers and the resulting lack of good north-south connectivity is a major defining characteristic of the Eisenhower West study area. Van Dorn Street is high-speed, high-traffic, and not designed with the pedestrian in mind, particularly in the area bridging the train tracks. Eisenhower Avenue has the potential to be a more pedestrian-friendly and pedestrian-scaled roadway. The train tracks north and south of Eisenhower Avenue remain the major barrier to creating a connected and cohesive urban realm.

Issues

- CSX/ NS tracks are a major barrier to connectivity between northern and southern parts of the plan area
- WMATA tracks and 495 are a major barrier to connectivity with Fairfax County
- Few cross streets along Eisenhower Avenue create long blocks not scaled to pedestrians
- Minimal use of bicycles along Eisenhower despite its being an official bike route

Opportunities

- Create better connections between areas to one other, to other properties along the Eisenhower Avenue corridor, and to the rest of the City
- Create improved north-south vehicular, transit, pedestrian, and bicycle connections, including the future multimodal bridge, across tracks where possible
- Create a pedestrian-scaled street grid along Eisenhower Avenue
- Rethink Eisenhower Avenue, Pickett Street, and Van Dorn Street to better accommodate bicyclists and pedestrians

Transit

Eisenhower West is generally well-served by transit including the Van Dorn Metrorail Station and bus lines along Eisenhower Avenue, Van Dorn Street and South Pickett Street. This diagram shows that half of the Eisenhower West area- and part of Fairfax County to the south- is within a 1/2 mile (10 minute walk) radius, of the Van Dorn Station, yet the station continues to be one of the most underutilized stations on the Blue Line in terms of ridership. The true 10-minute walking shed from the metro highlights how insufficient connectivity and physical barriers, such as train tracks, limit the pedestrian, in contrast to the overlaid 1/2 mile radius.

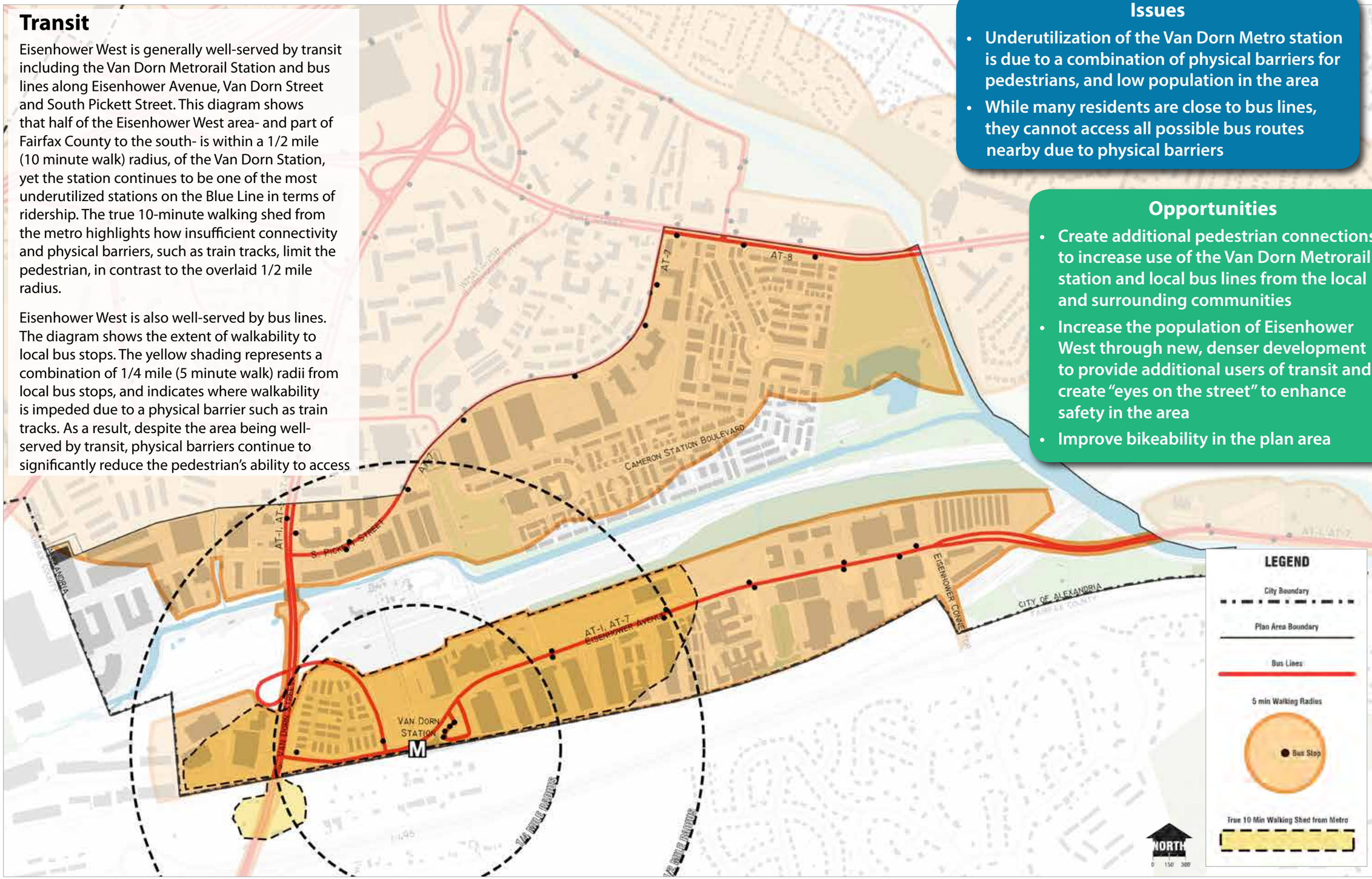
Eisenhower West is also well-served by bus lines. The diagram shows the extent of walkability to local bus stops. The yellow shading represents a combination of 1/4 mile (5 minute walk) radii from local bus stops, and indicates where walkability is impeded due to a physical barrier such as train tracks. As a result, despite the area being well-served by transit, physical barriers continue to significantly reduce the pedestrian's ability to access

Issues

- Underutilization of the Van Dorn Metro station is due to a combination of physical barriers for pedestrians, and low population in the area
- While many residents are close to bus lines, they cannot access all possible bus routes nearby due to physical barriers

Opportunities

- Create additional pedestrian connections to increase use of the Van Dorn Metrorail station and local bus lines from the local and surrounding communities
- Increase the population of Eisenhower West through new, denser development to provide additional users of transit and create "eyes on the street" to enhance safety in the area
- Improve bikeability in the plan area



Parks and Open Space

The Eisenhower West area is home to several parks which together provide approximately 105 acres of green space in the plan area:

- **Ben Brenman Park** has a stormwater management pond, green spaces , a dog park, and playing fields used by the local and regional community. A Community Center, which could include a Senior Center, is planned for the future.
- **Armistead Boothe Park** provides green space, a picnic area, sports courts, and a playground.
- **Hensley Park** has athletic fields and a picnic area.
- **Clermont Natural Park** is primarily a wooded area.
- **Cameron Station Linear Park** provides a trail wedged between the Cameron Station development and Backlick Run.

Ben Brenman Park, Hensley Park, and Boothe Park all have approved plans in the Citywide Park Plan.

Issues

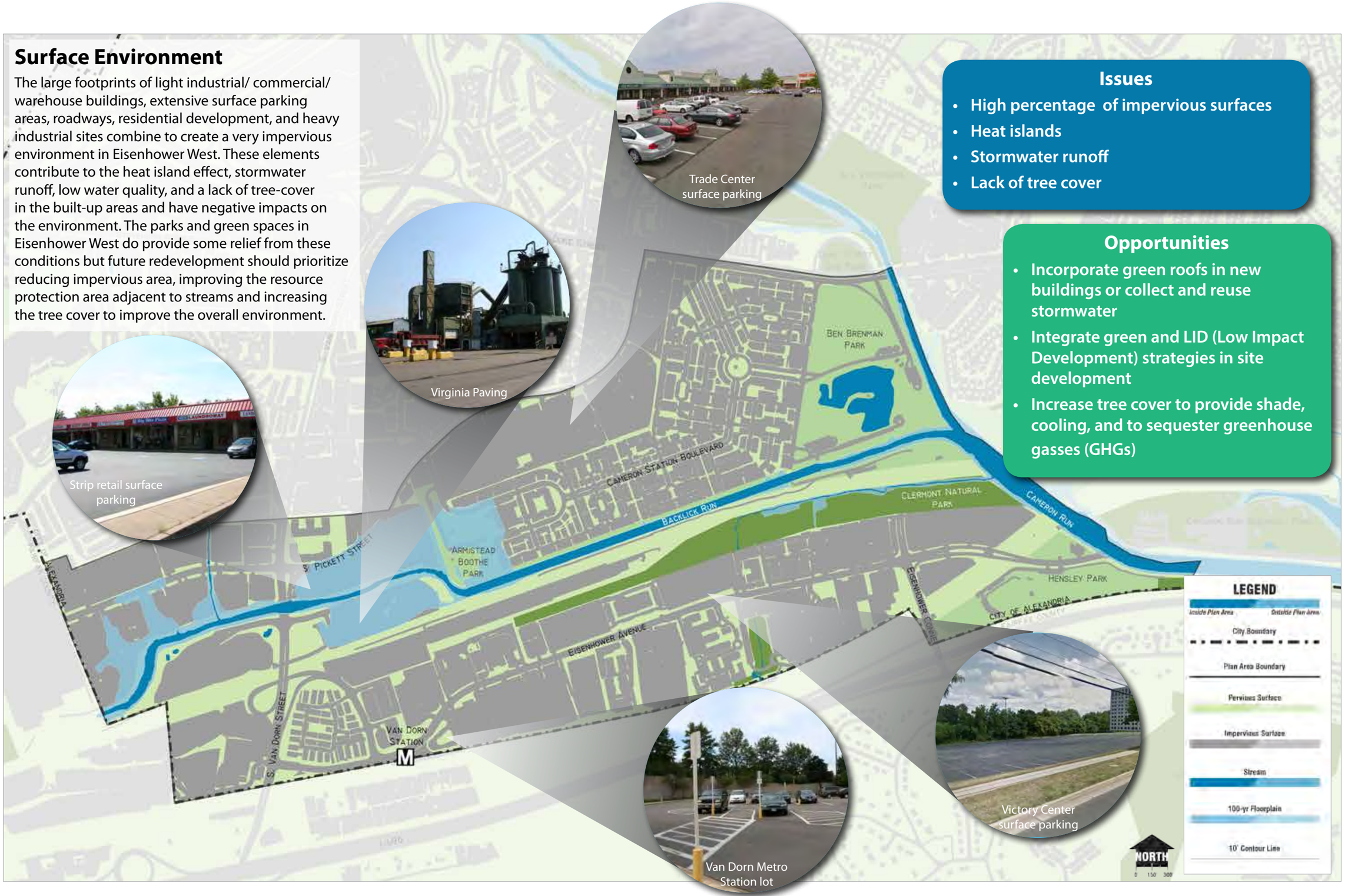
- Lack of significant, accessible green space south of the tracks
- Lack of accessibility to parts of Backlick Run on the west end of the study area

Opportunities

- Improve and repair existing parks
- Create north-south connections between parks on either side of tracks
- Increase access to quality park space
- Increase variety of types of parks and public spaces
- Celebrate and increase access to Backlick Run
- Expand Clermont Natural Park - a priority in the Open Space Master Plan

Surface Environment

The large footprints of light industrial/ commercial/ warehouse buildings, extensive surface parking areas, roadways, residential development, and heavy industrial sites combine to create a very impervious environment in Eisenhower West. These elements contribute to the heat island effect, stormwater runoff, low water quality, and a lack of tree-cover in the built-up areas and have negative impacts on the environment. The parks and green spaces in Eisenhower West do provide some relief from these conditions but future redevelopment should prioritize reducing impervious area, improving the resource protection area adjacent to streams and increasing the tree cover to improve the overall environment.



Issues

- High percentage of impervious surfaces
- Heat islands
- Stormwater runoff
- Lack of tree cover

Opportunities

- Incorporate green roofs in new buildings or collect and reuse stormwater
- Integrate green and LID (Low Impact Development) strategies in site development
- Increase tree cover to provide shade, cooling, and to sequester greenhouse gasses (GHGs)

Topography

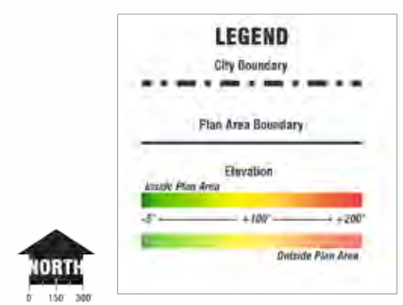
The topography of the west end of Alexandria varies considerably with elevations from approximately 30 feet up to 250 feet. Eisenhower West is in a low point in the topography of the area, the lowest points generally being along Backlick, Holmes and Cameron Runs. It will be important to understand the area's drainage patterns in order to determine a strategy for future development that reduces flooding and associated stream and property impacts and also evaluates potential locations for local and/or regional stormwater management facilities.

Issues

- Low-lying area in the region causes flooding and drainage issues
- Large scale and lack of detailed survey information of the study area requires coordination in creating an integrated stormwater management strategy

Opportunities

- Analyze drainage areas to determine potential locations for stream improvements and stormwater management facilities
- Understand existing stream drainage patterns to determine a future integrated stormwater management plan
- Incorporate analysis of existing drainage patterns and infrastructure to inform future development

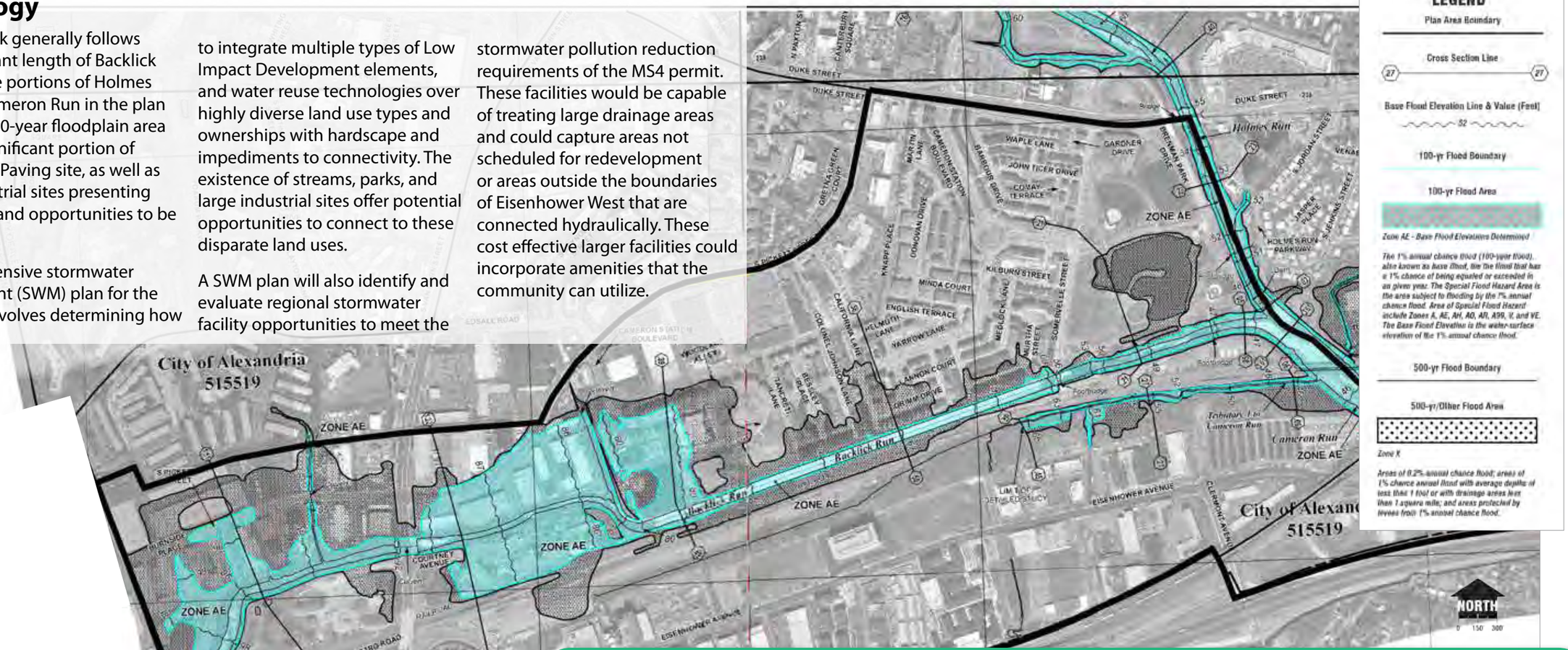


Hydrology

Flooding risk generally follows the significant length of Backlick Run and the portions of Holmes Run and Cameron Run in the plan area. The 100-year floodplain area covers a significant portion of the Virginia Paving site, as well as other industrial sites presenting challenges and opportunities to be considered.

A comprehensive stormwater management (SWM) plan for the plan area involves determining how to integrate multiple types of Low Impact Development elements, and water reuse technologies over highly diverse land use types and ownerships with hardscape and impediments to connectivity. The existence of streams, parks, and large industrial sites offer potential opportunities to connect to these disparate land uses.

A SWM plan will also identify and evaluate regional stormwater facility opportunities to meet the stormwater pollution reduction requirements of the MS4 permit. These facilities would be capable of treating large drainage areas and could capture areas not scheduled for redevelopment or areas outside the boundaries of Eisenhower West that are connected hydraulically. These cost effective larger facilities could incorporate amenities that the community can utilize.



Issues

- Large percentage of impervious area
- Periodic flooding
- Lack of sufficient existing stormwater management facilities
- Property ownership complicates access to and location of stormwater management technologies
- Creating rights-of -way within private properties
- Coordinating intra-agency involvement
- Maintenance responsibilities

Opportunities

- Develop a stormwater management (SWM) plan to reduce flooding and improve water quality, which could include restoring sections of the streams to enhance public access, providing educational opportunities, integrating green infrastructure such as water reuse and providing new passive recreational amenities
- Integrate periodic flooding into water reuse strategy
- Integrate green infrastructure strategies and technologies into industrial sites
- Integrate green infrastructure strategies at Backlick Run and Holmes Run connection points
- Integrate flood mitigation strategies in future redevelopment plans
- Coordinate overall SWM strategies with Alexandria's MS4 permit requirements
- Plan and share local and regional SWM facilities among new developments
- Restore Resource Protection Area (RPA)
- Create more open space, parks, and trails that can be used within the floodplain

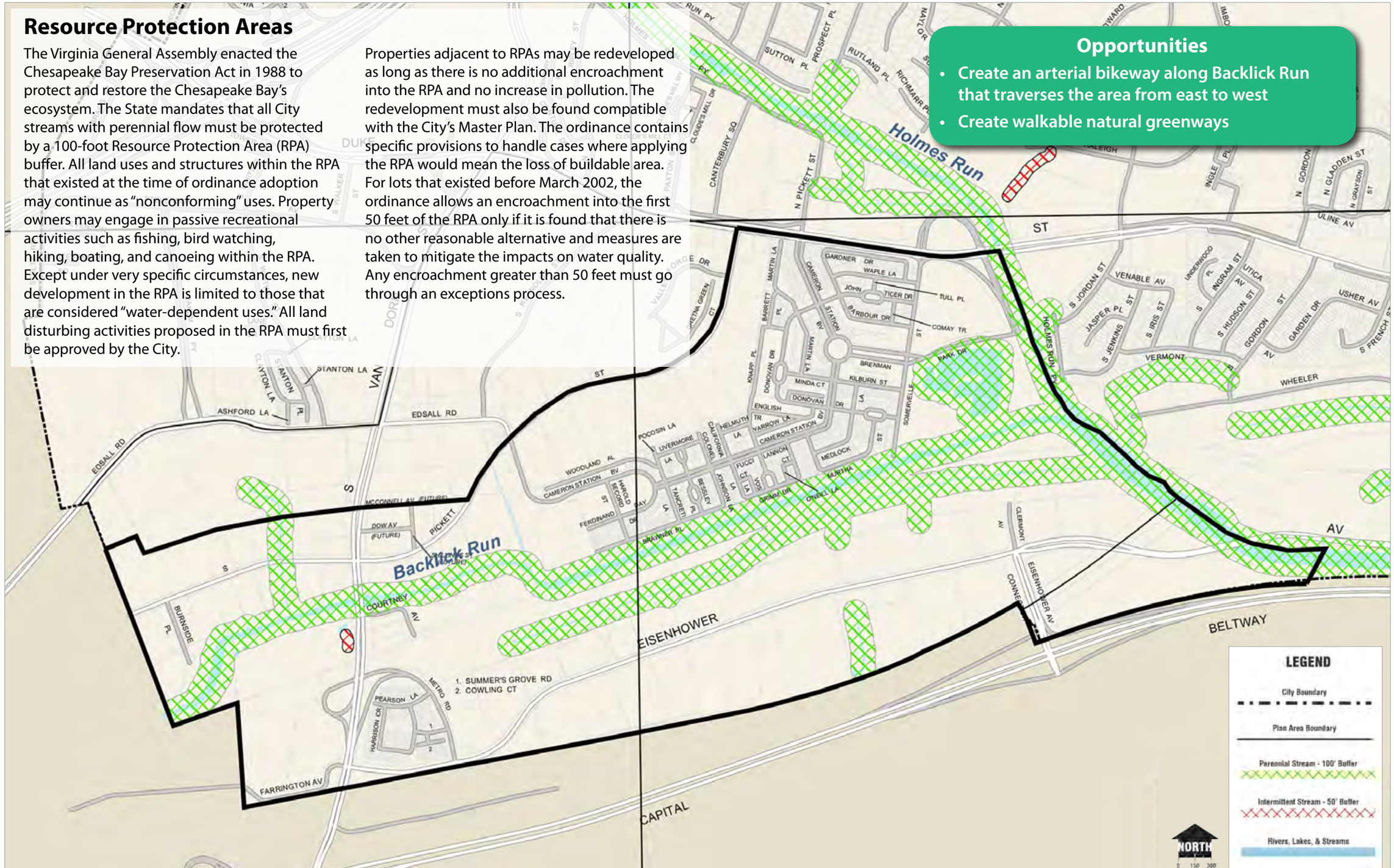
Resource Protection Areas

The Virginia General Assembly enacted the Chesapeake Bay Preservation Act in 1988 to protect and restore the Chesapeake Bay's ecosystem. The State mandates that all City streams with perennial flow must be protected by a 100-foot Resource Protection Area (RPA) buffer. All land uses and structures within the RPA that existed at the time of ordinance adoption may continue as "nonconforming" uses. Property owners may engage in passive recreational activities such as fishing, bird watching, hiking, boating, and canoeing within the RPA. Except under very specific circumstances, new development in the RPA is limited to those that are considered "water-dependent uses." All land disturbing activities proposed in the RPA must first be approved by the City.

Properties adjacent to RPAs may be redeveloped as long as there is no additional encroachment into the RPA and no increase in pollution. The redevelopment must also be found compatible with the City's Master Plan. The ordinance contains specific provisions to handle cases where applying the RPA would mean the loss of buildable area. For lots that existed before March 2002, the ordinance allows an encroachment into the first 50 feet of the RPA only if it is found that there is no other reasonable alternative and measures are taken to mitigate the impacts on water quality. Any encroachment greater than 50 feet must go through an exceptions process.

Opportunities

- Create an arterial bikeway along Backlick Run that traverses the area from east to west
- Create walkable natural greenways



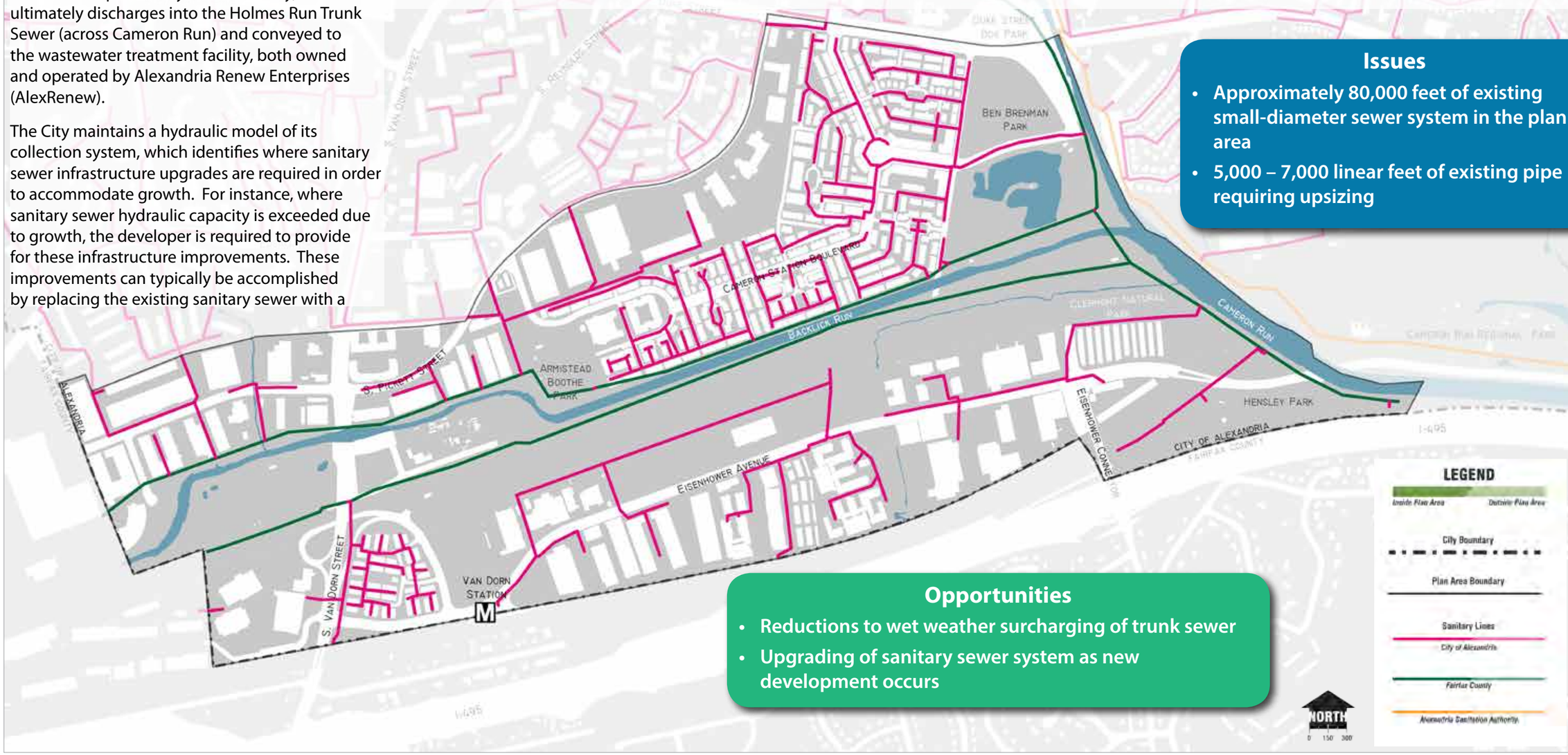
Sanitary Sewer

The Eisenhower West Small Area Plan (SAP) will likely result in significantly more wastewater than what is currently generated. There are a total of approximately 80,000 feet of sanitary sewer within the plan area. The majority of these sewers are small diameter (10-12 inches) collector sewers, which are owned by the City of Alexandria (City). The small diameter collector sewers convey the wastewater to larger interceptor sanitary sewers owned and operated by Fairfax County, which ultimately discharges into the Holmes Run Trunk Sewer (across Cameron Run) and conveyed to the wastewater treatment facility, both owned and operated by Alexandria Renew Enterprises (AlexRenew).

The City maintains a hydraulic model of its collection system, which identifies where sanitary sewer infrastructure upgrades are required in order to accommodate growth. For instance, where sanitary sewer hydraulic capacity is exceeded due to growth, the developer is required to provide for these infrastructure improvements. These improvements can typically be accomplished by replacing the existing sanitary sewer with a larger pipe. For the Eisenhower West SAP, several infrastructure upgrades to the existing City-owned collector sewers are anticipated to serve proposed development/redevelopment. Based on previous planning forecasts and current modeled results, a total of 5,000-7,000 feet of sanitary sewer pipe will need to be upsized in the future.

Fairfax County maintains a hydraulic model of its own collection system. When development/redevelopment occurs in portions of the City impacting the sewer system, it is required of the developer to contact Fairfax County early in the development process to ensure sufficient sanitary sewer capacity is available.

The Holmes Run Trunk Sewer, owned by AlexRenew, serves both the City and Fairfax County. Currently, all three parties are involved in a joint study to develop and implement a plan to provide for additional capacity in order to reduce wet weather surcharging in the sewer due to flows from both the City and County. As development occurs in areas served by the Holmes Run Trunk Sewer, developers are required to acknowledge that future investments to reduce wet weather surcharging of this trunk sewer may be required. These investments will be based on equal and proportionate participation and, if required, must be made prior to the release of the Final Site Plan.



Issues

- Approximately 80,000 feet of existing small-diameter sewer system in the plan area
- 5,000 – 7,000 linear feet of existing pipe requiring upsizing

Opportunities

- Reductions to wet weather surcharging of trunk sewer
- Upgrading of sanitary sewer system as new development occurs

Covanta Waste-to-Energy Plant

The Alexandria/Arlington Resource Recovery Facility operated by Covanta began commercial operation in 1988 and serves residents of Arlington County and the City of Alexandria, which jointly own the site. The facility has 45 full time employees. Three, 325 ton-per-day furnaces process nearly 1000 tons of solid waste per day, generating up to 23 megawatts of renewable energy that is sold to Dominion Virginia Power Company. It receives and processes 350,000 tons of Municipal Solid Waste annually. This powers up to 20,000 homes continuously. The plant runs on approximately 50,000 to 70,000 tons of waste annually, 30% of that contributed from Alexandria. The facility is currently being operated under a User's Agreement between Covanta and the City of Alexandria through 2038.

- **Site:** 4 acres
- **Energy-from-Waste System:** Three 325, ton-per-day waterwall furnaces with Martin® reverse-reciprocating grates and ash handling system
- **Boiler Design:** 600 pounds per square inch gauge/700°F superheater outlet conditions
- **Air Pollution Control Equipment:** Semi-dry flue gas scrubbers injecting lime, fabric filter baghouses, nitrogen oxide control system, mercury control system, and continuous emissions monitoring (CEM) system
- **Rated Refuse Capacity:** 975 tons per day
- **Energy Generation @ Rated Capacity:** up to 23 megawatts from two condensing steam turbine generators

- **Traffic Impact:** The facility currently sees approximately 200 trucks per day delivering waste to the facility and operates with hours for Alexandria residents. There is also outgoing traffic for trucks delivering the ash from the process to Fairfax for disposal and delivering ferrous and scrap material that cannot be burned to recyclers.

Sustainability Opportunities for Consideration:

1. **Convert Facility to Combined Heat & Power (CHP) plant.** This would require having Covanta design and install additional heat exchangers that would convert the waste heat currently being discharged to the facilities cooling towers to heating hot water or steam. This waste heat could then be utilized by industrial or commercial users in the Eisenhower West Development. This will require an assessment during the planning process of potential users in the future development for this waste heat, and a strategy for how to get the piping to the future uses.

2. **Extend Non-Potable Water from Alexandria Renew for Cooling Tower Make-Up.** Under a potential agreement between the City of Alexandria and Alexandria Renew Enterprises (AlexRenew), the city's wastewater treatment facility, AlexRenew would provide a non-potable water source and piping system from the Alexandria treatment facility to the Covanta site for use by Covanta as make-up water for its cooling towers. Since Covanta is the largest potable water user in the City, this would significantly reduce the potable water usage for the development. This will require an assessment during the planning process of other potential users, in addition to Covanta, for the non-potable water in the future Eisenhower West development. The more users that can be found the more economically viable the proposal will be for AlexRenew.

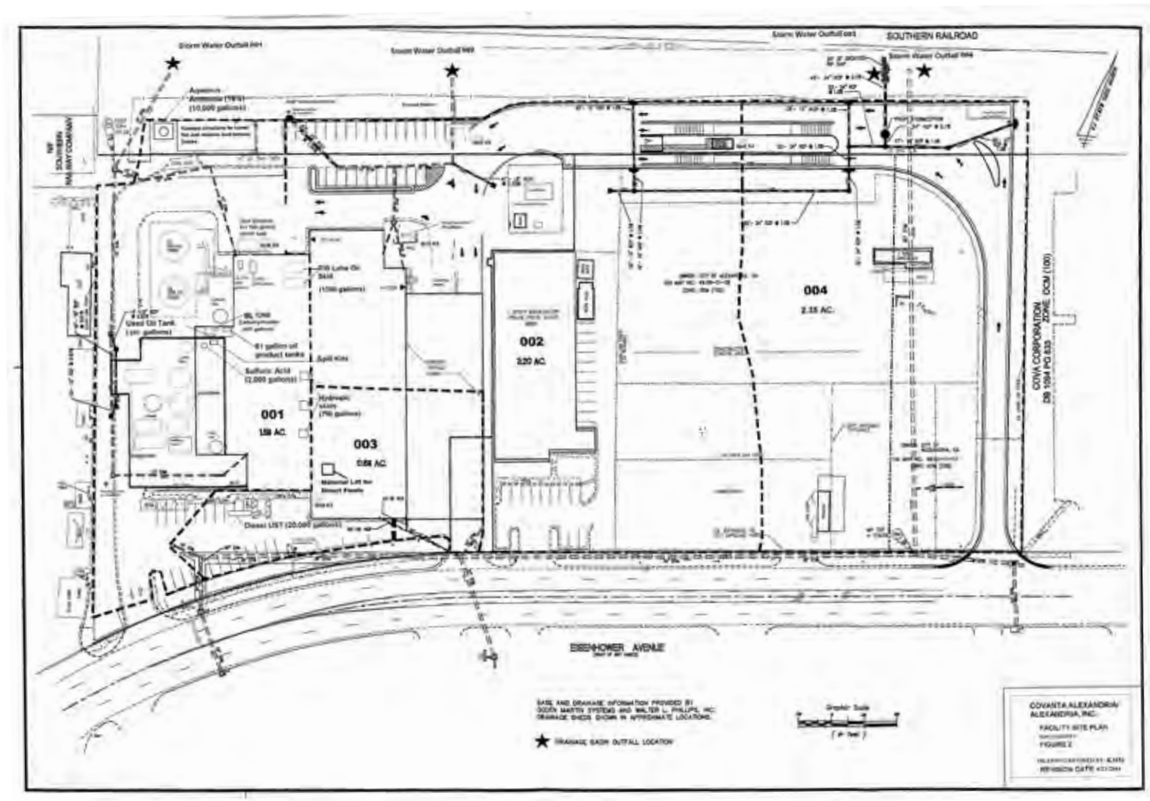
3. **Extend Non-Potable Water from Alexandria Renew for Heat Rejection.** Under a similar agreement between the City of Alexandria and AlexRenew as indicated above, piping would be provided to and from the Covanta site for use as a heat rejection system in-lieu-of utilizing the cooling towers on-site.

Issues

- Location of Covanta near the Van Dorn Metrorail Station
- Issues of odor with its proximity of this heavy industrial use to future new development including residential uses
- Approximately 350 feet of frontage on Eisenhower Avenue

Opportunities

- Convert facility to Combined Heat & Power (CHP) plant
- Extend non-potable water from AlexRenew for cooling tower make-up
- Extend non-potable water from AlexRenew for heat rejection
- Potential for a more active frontage along Eisenhower Avenue



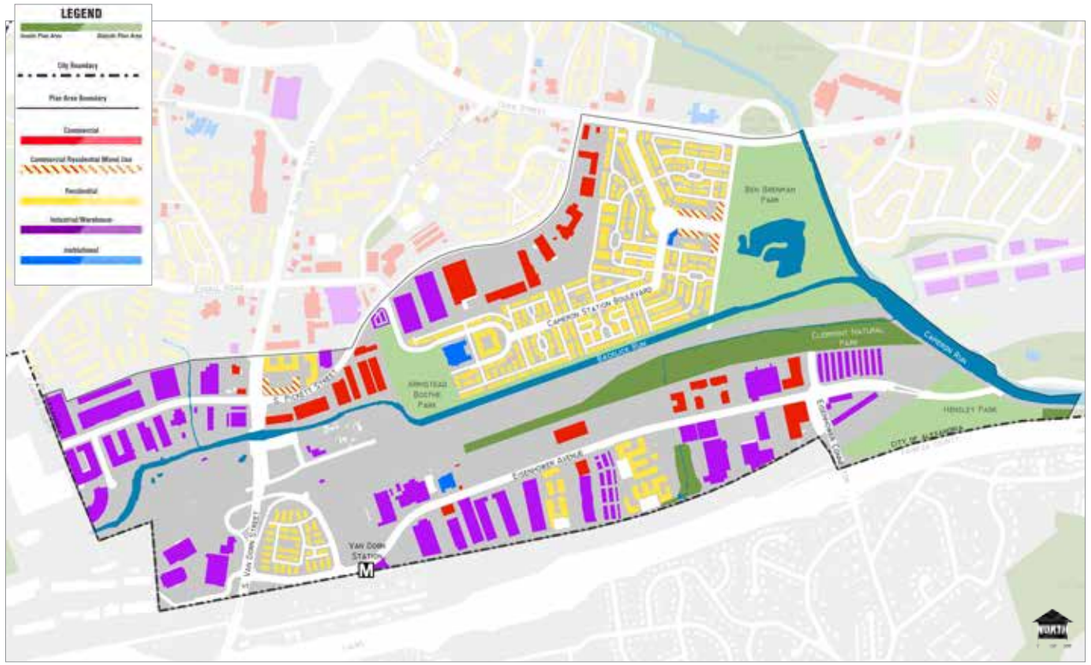


Fig B.1 - Existing conditions - building use

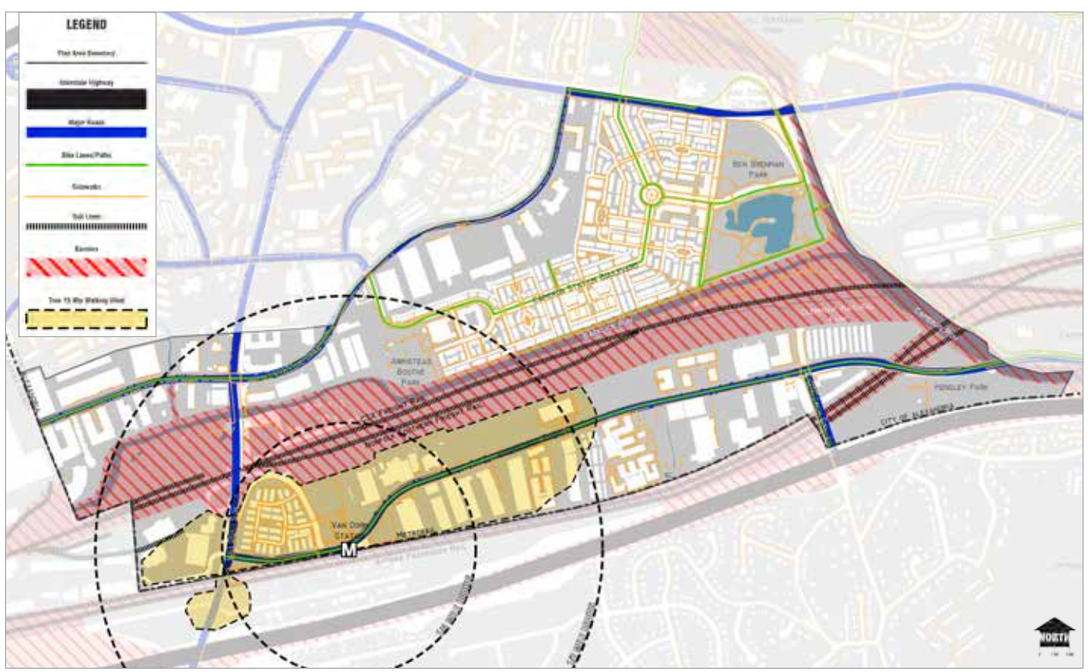


Fig. B.2- Existing conditions - transportation and connectivity

APPENDIX B - SUMMARY OF ISSUES AND OPPORTUNITIES

ISSUES

LAND USE

- Disconnected and car-oriented urban form
- Lack of cohesive or defining architectural character (Cameron Station and Summers Grove excepted)
- Incompatibility of islands of residential uses surrounded by roadways and heavy industrial uses
- Segregated uses, with little mixed-use (see Fig. B.1)
- Disconnected and inwardly-focused industrial/ warehouse uses
- Location of Covanta near the Van Dorn Metrorail Station with approximately 350 feet of frontage on Eisenhower Avenue
- Lack of affordable housing options

TRANSPORTATION AND CONNECTIVITY

- General lack of north-south connectivity. CSX/NS tracks are a major barrier to north-south connectivity. WMATA tracks and 495 are a major barrier to connectivity with Fairfax County (see Fig. B.2)
- Few cross streets along Eisenhower Avenue create long blocks not scaled to pedestrians
- Minimal use of bicycles along Eisenhower Avenue despite its being an official bike route
- Underutilization of the Van Dorn Metro station due to a combination of physical barriers for pedestrians, and low population in the area
- Underutilization of transit due to lack of walkability despite its proximity

PARKS AND OPEN SPACE

- Lack of significant, accessible green space south of the CSX/NS tracks (see Fig. B.3)
- Lack of accessibility to parts of Backlick Run on the west end of the study area
- Lack of small locally-serving public spaces and parks

BUILDINGS AND ARCHITECTURE

- Aging existing building stock in the plan area
- Lack of character-defining or historic buildings
- Newer uses are predominantly residential. Continued residential construction threatens to reduce the diversity of uses in the plan area
- Underutilized parcels of land
- Long narrow parcels that make individual redevelopment of many of the warehouse uses difficult
- Barriers to cohesive redevelopment including numerous property owners in the plan area

INFRASTRUCTURE AND ENVIRONMENT

- High amount of impervious surfaces creating stormwater runoff and heat islands (see Fig. B.4)
- Lack of tree cover
- Low-lying area in the region causes flooding and drainage issues
- Lack of sufficient existing stormwater management facilities
- Existing small-diameter sewer system pipes in the plan area require upsizing
- Existing encroachments in the Resource Protection Area (RPA)
- Riparian buffer is degraded

OPPORTUNITIES

LAND USE

- Create one or more multi-use communities that include employment opportunities, residential capacity and destinations that take advantage of the proximity to the Metro Station and support a 24/7 environment
- Increase housing diversity by encouraging a range of high-quality options affordable and accessible to households of different income levels, ages, abilities, and sizes

Fig. B.3 - Existing conditions - parks and open space

Fig. B.4 - Existing conditions - surface environment

- Explore opportunities to collocate affordable housing units with future civic or municipal uses
- Increase the population of Eisenhower West through new, denser development to provide additional users of transit and create "eyes on the street" to enhance safety in the area
- Potentially assemble properties under the right conditions
- Support future commercial uses
- Celebrate and link area historic resources such as Bush Hill
- Build on natural assets such as parks, streams - to help define the character of Eisenhower West
- Define areas for celebration of local ethnic and cultural groups

TRANSPORTATION AND CONNECTIVITY

- Transform the disconnected and car-oriented area into a model of a connected and walkable-bikeable area
- Create better connectivity with the future multi-modal bridge
- Create a pedestrian-scaled street grid along Eisenhower Avenue
- Create better connections between all areas to each other, to other properties along the Eisenhower Avenue corridor, and to the rest of the City
- Create improved north-south transit, pedestrian, and bicycle connections across tracks when vehicular connections are not possible
- Rethink Eisenhower Avenue, Pickett Street, and Van Dorn Street to better accommodate bicyclists and pedestrians
- Create additional pedestrian connections to increase use of the Van Dorn Metrorail station and local bus lines from the local and surrounding communities
- Improve bikeability in the plan area

PARKS AND OPEN SPACE

- Build on natural assets - parks, streams – to enhance the natural character of Eisenhower West
- Improve and repair existing parks
- Create north-south connections between parks on either side of railroad tracks
- Increase access to quality park space
- Increase variety of types of parks and public spaces
- Celebrate and increase access to Backlick Run
- Expand Clermont Natural Park - a priority in the Open Space Master Plan

BUILDINGS AND ARCHITECTURE

- Replace aging buildings with new, sustainably designed, higher density uses to leverage the location, amenities, infrastructure in the plan area
- Build diverse new uses including commercial and retail to support existing residential and the potential future residential market.
- Leverage land resources with higher density development where appropriate
- Integrate new public spaces such as parks and plazas with new trails and development

INFRASTRUCTURE AND ENVIRONMENT

- Incorporate green roofs in new buildings or collect and reuse stormwater
- Integrate green and LID (Low Impact Development) strategies in site development
- Increase tree cover to provide shade, cooling, and to sequester greenhouse gasses (GHGs)
- Analyze drainage areas to determine potential locations for stream improvements and stormwater management facilities
- Integrate green infrastructure strategies and technologies into industrial sites
- Integrate green infrastructure strategies at Backlick Run and Holmes Run connection points
- Plan and share local and regional SWM facilities among new developments
- Restore Resource Protection Areas
- Create more open space, parks, and trails that can be used within the floodplain
- Upgrade sanitary sewer system as new development occurs

APPENDIX C - MARKET ANALYSIS

Executive Summary

HR&A, under contract to SmithGroupJJR, completed a real estate market analysis to inform the development of a Small Area Plan ("SAP") for the Eisenhower West area of Alexandria, Virginia. The following is an overview of HR&A's key findings and recommendations.

Market Analysis Objectives

HR&A's analysis provides a baseline assessment of current and projected market conditions. The goal of this work is to inform the development of the Small Area Plan, which will consider:

- What land uses are market supportable in the short and long terms?
- What is an appropriate balance of land uses in the area?
- How can the City encourage population growth while also encouraging job growth?
- How can the City facilitate transit-oriented development in Eisenhower West?

Demographic and Economic Trends

- Eisenhower West was primarily a commercial and industrial area until the introduction of residential development in the late 1990s. As a result, the residential population grew by almost 300% to nearly 5,000 people between 2000 and 2014. New households in Eisenhower West tend to have higher households incomes, be younger, and have fewer children than in the City overall.
- Eisenhower West is not a particularly employment dense area. The 8,418 jobs represent 8.1% of the City's total jobs and are largely in wholesale trade and administrative & support services (back office). Employment in these sectors represents 32% of wholesale trade jobs and 25% of back office.
- Businesses in Eisenhower West benefit from its location inside the Beltway and proximity to Washington, DC business and consumer markets.

Residential

- **Eisenhower West contains 3,058 residential units, all of which have been developed since 1999. There are roughly equal numbers of owned and rented units across a mix of townhouse and multifamily developments.**
- **Low vacancy and increasing rents in Northern Virginia, along with the presence of an older multifamily apartment stock in West Alexandria, suggest demand for new multifamily rental development. Eisenhower West's Metro-accessible location inside the Beltway make it attractive to this type of development.**
- **Regionally, the for-sale housing market is also strong with increasing inventory and declining averages of the number of days units are on the market before being sold.**

Retail

- Retail in Eisenhower West and the surrounding area is primarily characterized by dated shopping malls and car dealerships. With the exception of the proposed redevelopment of Landmark Mall, there has been little new retail built in the past 20 years.
- Area residents, rather than workers, are the primary drivers of retail sales in the trade areas, and the introduction of new residential development in the area will continue to drive up demand.
- There is additional unmet demand for new grocery stores, general merchandise stores, and restaurants in Eisenhower West.
- While redevelopment plans for Landmark Mall and potential redevelopment within the Van Dorn corridor may absorb some of this demand, the gaps appear substantial enough to support new neighborhood-oriented retail development in Eisenhower West.

Industrial

- The industrial stock in Eisenhower West is old and out of date. Excluding Restaurant Depot, no new industrial property has been developed since 1985.
- Vacancy in Eisenhower West has increased for both warehouse and flex buildings, a result of tenants either moving to more modern buildings elsewhere, or going out of businesses (as reflected by the decline in employment in key sectors, including wholesale trade and transportation and warehousing).
- Industrial rents in Eisenhower West have been consistently higher compared to the MSA, suggesting a premium due to its location inside the Beltway, despite the older industrial stock. However, new industrial development in this area would be challenging given the comparatively high cost of land.

Office

- With only 4 office buildings, Eisenhower West is not a major office market in the City of Alexandria. Over 80% of the space is in the 607,000 SF Victory Center, which has been vacant since it was renovated in 2009 due to a building configuration that does not meet current GSA requirements.
- **Location of the Transportation, Security Administration (TSA) headquarters to Victory Center will stimulate interest in Eisenhower West for office space.**
- Demand for office space in all markets is stagnant or declining: regional office rents remain flat, and citywide office rents have declined since the recession. In addition, vacancy rates in the City have surpassed those in the region.
- In order to receive financing, the majority of regional office construction is either build-to-suit or significantly pre-leased. In the near term, new office development in Eisenhower West is likely challenging, with the exception of small-scale, locally serving office uses. In the longer term, however, the area does benefit from its proximity to Metro and the Capital Beltway.

Hotel

- The regional hotel market is highly competitive. As a result, while occupancy has remained stable, hotel revenue has declined significantly. Therefore, the relative stability in occupancy has been achieved at the expense of hotel revenues, which will impact the potential for new development in both the short- and medium-term.
- Hotels in secondary submarkets with brands most likely comparable to what could be supported in Eisenhower West are generally older, particularly in submarkets in western portions of the City and adjacent to the Beltway. There may be an opportunity in Eisenhower West for development of a new, mid-priced hotel that would compete with the older products in other highway adjacent locations.

Summary of Opportunities and Challenges

HR&A recommends that the area wide development plan consider strategic opportunities around key nodes and be flexible to current and future market conditions.

Short Term (0-7 years)

- In the short term, the supply of new residential development is anticipated to meet housing demand generated by the plan area's middle and upper income households. The area has already seen some infill residential development and this pattern could continue on key sites.
- New residents will add to demand for retail and other amenities, and support new retail development in Eisenhower West even with significant renovations at the Landmark Mall and in the Van Dorn area.
- In addition, industrial uses in existing buildings will remain viable, as there is still demand from tenants seeking locations inside the Beltway close to consumer and business markets.
- Regionally, near term demand for office development is low. The recent announcement of the location of the TSA Headquarters to the Victory Center will stimulate interest in the area as an office location.

Medium Term (7-15 years)

- In the medium term, Eisenhower West will be in the midst of a transforming area with implementation of the Landmark/Van Dorn Corridor Plan.
- Industrial uses, particularly in rented facilities, may face redevelopment pressure as a result of increasing residential and retail demand, need for new spaces, and cheaper land elsewhere.
- Office users will likely still prefer walkable, transit accessible, mixed-use communities, which could be accommodated in Eisenhower West. Assuming a recovered regional market, absorption in transit-accessible areas closer to the region's core, and interested tenants, Eisenhower West would become a more desirable office location.
- The area could also potentially support the development of mid-scale hotels, as either new flags in the market competing with older products nearby or if regional occupancy rates remain stable and revenue trends improve.
- Strategic redevelopment and potential colocation of public uses can create opportunities to provide housing options affordable to a range of incomes and welcoming to different household types—including young professionals, families, seniors, and workers critical to the economic competitiveness and sustainability of the area. The Plan area hosts (and will continue to attract) a wide variety of employers. The success of these businesses will, in part, rely on the availability of a diverse workforce. Providing affordable and life stage-appropriate housing in close proximity to jobs and transit will help improve workers' and residents' quality of life, reduce congestion, lessen economic leakage, and strengthen the City's tax base.

Long Term (15-30 years)

- Eisenhower West is well situated to support a balance of residential and commercial development. The Van Dorn Metrorail Station and proximity to the Beltway will continue to be assets.
- The Small Area Plan should be flexible to be responsive to changing economic conditions. Industrial uses will relocate for cheaper space outside the Beltway.
- Unless owners are incentivized to invest in new industrial facilities or industrial users own their sites, these uses are likely to convert to residential or other commercial uses if zoning allows.
- There may also be opportunities for new office development as vacant space around stations closer to the region's core is absorbed.
- This will in turn generate more local demand for hotel development, attracting visitors who are conducting business in Eisenhower West and seeking more affordable accommodations with good highway access.
- As hotels and multifamily buildings have similar building envelopes, long-term planning should allow for strategic multifamily sites to accommodate potential future hotel development.

Introduction

Plan Overview

The Eisenhower West Small Area Plan plan area ("Plan Area") consists of roughly one square mile located on the southwestern corner of the City bordering Fairfax County. It is bounded by the Yellow Line Metro in the South, the Alexandria/Fairfax County border to the West, McConnell Avenue to S. Pickett Street in the North, and Holmes Run Trail to the East.

Project Purpose

Eisenhower West has undergone a significant transition in uses, and the last Small Area Plan was completed in 1992. Formerly consisting solely of commercial uses, including light and heavy industrial activities, the area has seen new residential and mixed-use developments which have introduced nearly 5,000 new residents to the area since the first developments were delivered in 1999.

In light of this rapidly changing environment, the City of Alexandria identified the Eisenhower West area as a candidate for a Small Area Plan. The City retained SmithGroupJJR to assist with the plan, who in turn solicited HR&A Advisors, Inc. ("HR&A") to perform a market scan of residential, retail, office, and industrial real estate to determine the future possibilities for Eisenhower West.

HR&A's analysis seeks to inform components of the Small Area Plan, including:

1. What land uses which are market supportable both in the near term and in the foreseeable future?
2. What might the mix or balance of land uses look like in the Plan Area?
3. How can the City seek to encourage population growth while also encouraging job growth?
4. How can the City facilitate transit-oriented development in Eisenhower West?

HR&A's analysis, contains a summary of the real estate inventory in Eisenhower West, how this inventory has changed over time, and how regional demographic, economic, and real estate market dynamics may affect real estate development in the future.

Figure 1: Eisenhower West Plan Area

Demographic and Economic Analysis

Demographics

The Plan Area's population has grown significantly since 2000 due to extensive new residential development.

- The completion of Cameron Station, The Exchange at Van Dorn, and The Reserve at Eisenhower has added 3,600 residents to Eisenhower West through 2014. As there were only two residential clusters in Eisenhower West prior to 2000 (Summers Grove and portions of Cameron Station), these developments almost tripled the resident population, bringing the total number of residents to nearly 5,000.
- While Eisenhower West only represents 3% of the City's total population, the addition of 3,600 residents from 2000 to 2014 represented 22% of the City's overall growth in this period.

Year	Eisenhower West	Alexandria	Washington MSA
2000	1,235	128,283	4,837,430
2010	4,832	139,966	5,636,232
2014*	4,907	144,869	5,874,437

Figure 2: Total Population
*2014 population estimated by ESRI. Does not include new residents in the recently completed Modera Tempo (formerly "Landmark Gateway"), which began leasing these units in July, 2014, and opening them for occupancy in October, 2014.
Source: City of Alexandria; ESRI Business Analyst

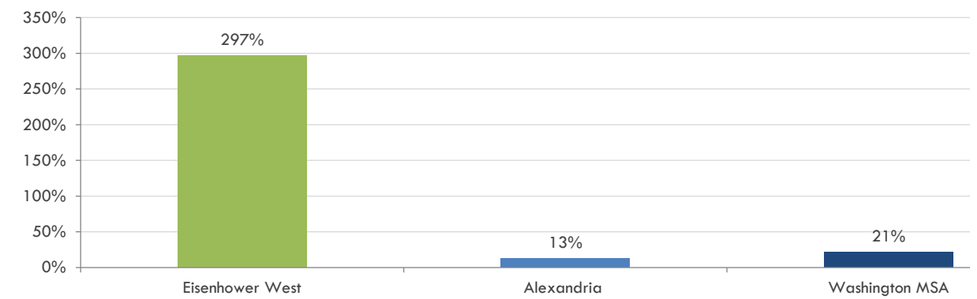


Figure 3: Percentage Change, Population, 2000-2014
Source: City of Alexandria; ESRI Business Analyst

Households in Eisenhower West earn higher incomes than households in the City and the Washington MSA overall.

- Median household income in Eisenhower West is 52% higher than the City as a whole, and 39% higher than the Washington MSA (the Region).
- Sixty-nine percent of households in Eisenhower West have annual incomes greater than $100,000, compared to 42% of households in the City and 46% of all households in the Washington MSA.

	Eisenhower West	Alexandria	Washington MSA
Median Household Income	$125,984	$83,054	$90,415

Figure 4: Median Household Income
Source: ESRI Business Analyst

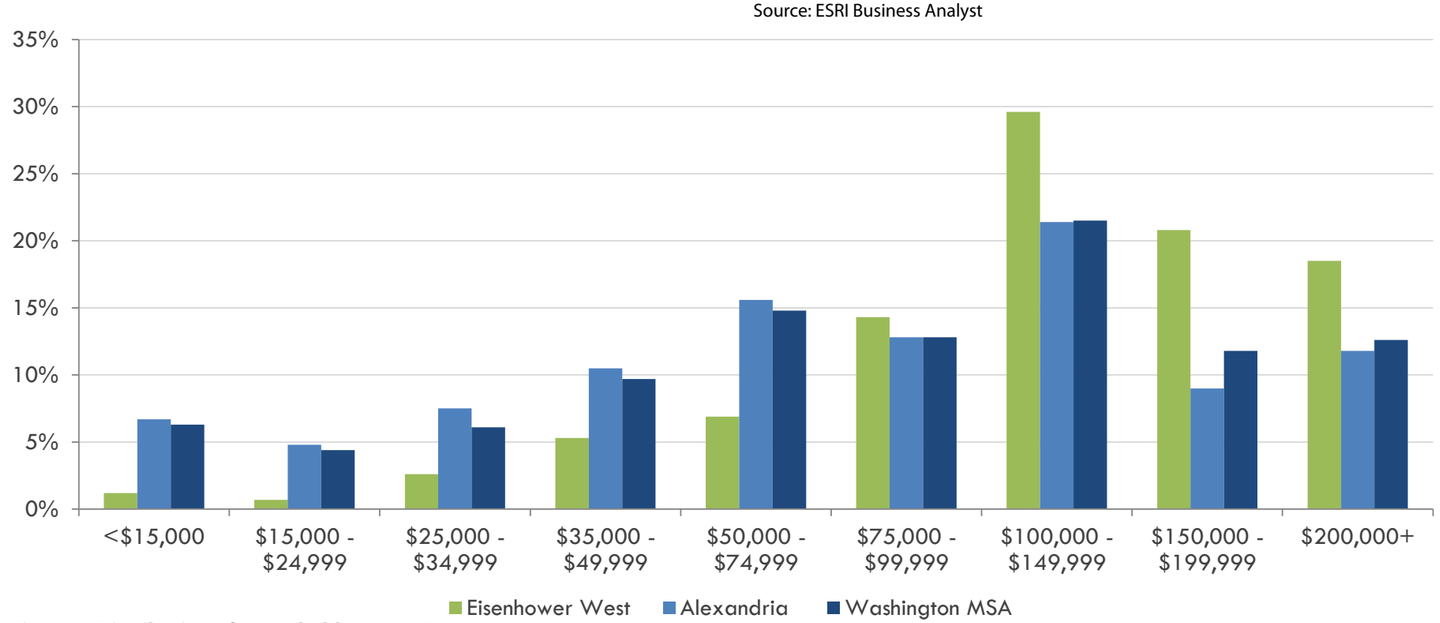


Figure 5: Distribution of Household Income, 2014
Source: ESRI Business Analyst

Demographic and Economic Analysis (cont'd.)

Demographics

Households in Eisenhower West tend to be younger and without children.

- Householders below the age of 45 comprise 55% of all households in Eisenhower West, and 50% in the City of Alexandria. By comparison, these households comprise 40% of all households in the Washington MSA.
- Households in Eisenhower West consists of 40% single-person households, lower compared to the City (43%) and significantly higher compared to the MSA (27%).
- Households in Eisenhower West consists of 28% married couples without children, a higher concentration than both the City (20%) and the MSA (24%).
- As the area matures, households may increase the number of children.

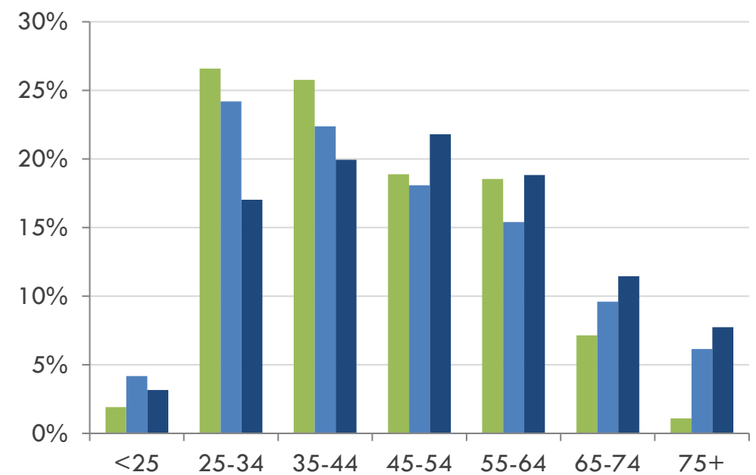


Figure 6: Percentage of Households by Age of Householder, 2014
Source: City of Alexandria, ESRI Business Analyst

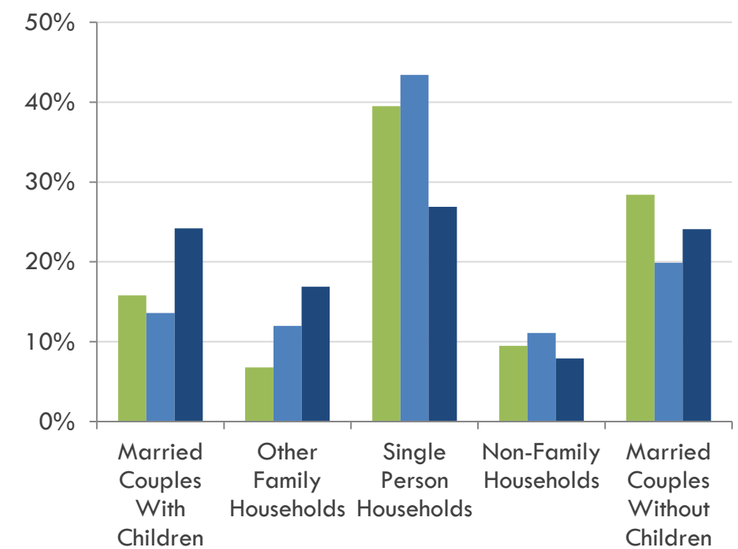


Figure 7: Percentage of Households by Composition, 2014
Source: City of Alexandria, ESRI Business Analyst

Economics

Regional and citywide unemployment rates have remained lower than national unemployment rates prior to and during the recent recession.

- Historically, the annual unemployment rate in the Region and the City of Alexandria have trended together and have been much lower than the national unemployment rate, indicating a strong and stable employment base in the region. On average, from 2000-2013 the City of Alexandria's unemployment rate has been 3 percentage points lower than the national unemployment rate.
- Between 2011 and 2013, local unemployment rates in Alexandria and the Washington MSA did not decline as rapidly as the national rate, possibly as a result of contraction in the federal government.

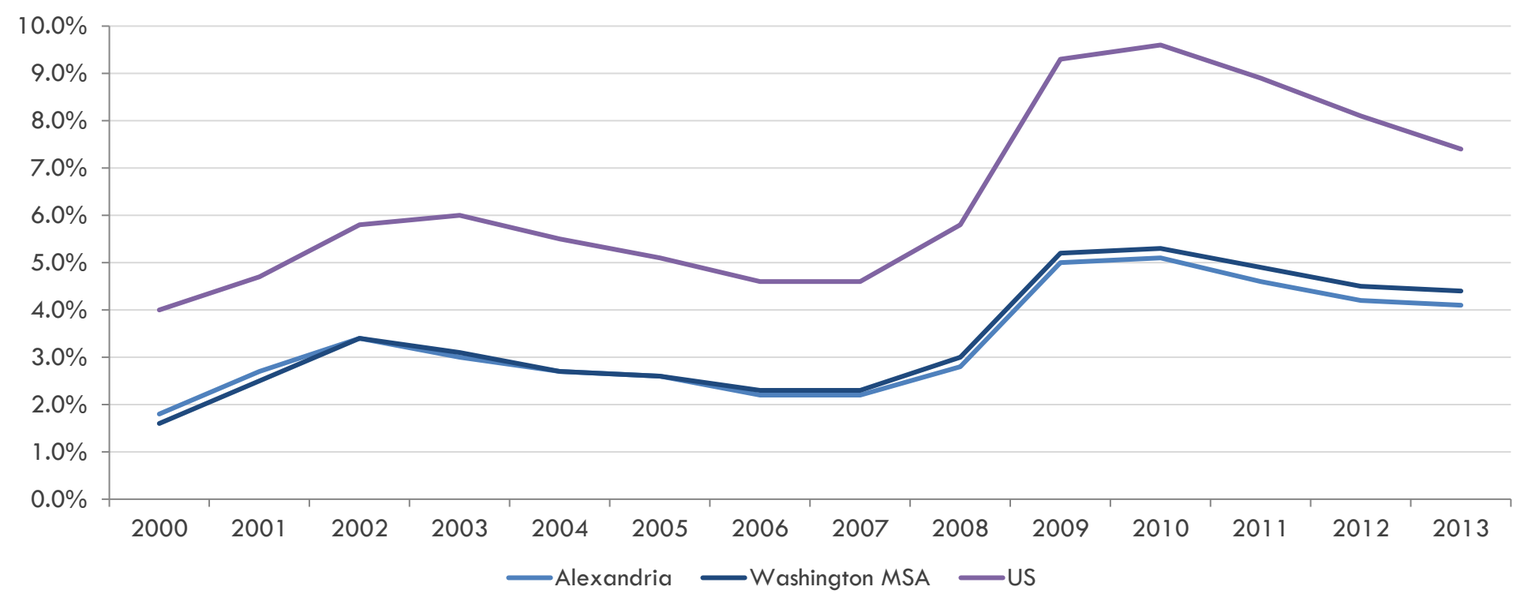


Figure 8: Annual Unemployment Rate, 2000-2013
Source: Bureau of Labor Statistics

Demographic and Economic Analysis (cont'd.)

Economics

Despite its heavily commercial character, Eisenhower West represents only a small portion of the City's total employment.

- The 8,418 jobs in Eisenhower West comprise 8.1% of the City's total jobs (103,724).
- Eisenhower West accounts for 32% of all wholesale trade jobs within the City of Alexandria. This industry comprises those business which sell merchandise to other businesses rather than directly to the public, such as Restaurant Depot.
- In addition, administrative, support, and waste management jobs comprise over 25% of all such jobs within the City. These industries include "back office" support industries such as office administration, human resources, clerical services, security and surveillance services, cleaning, waste disposal, and others.
- The area contains only a small number of jobs in traditional office-using industries.

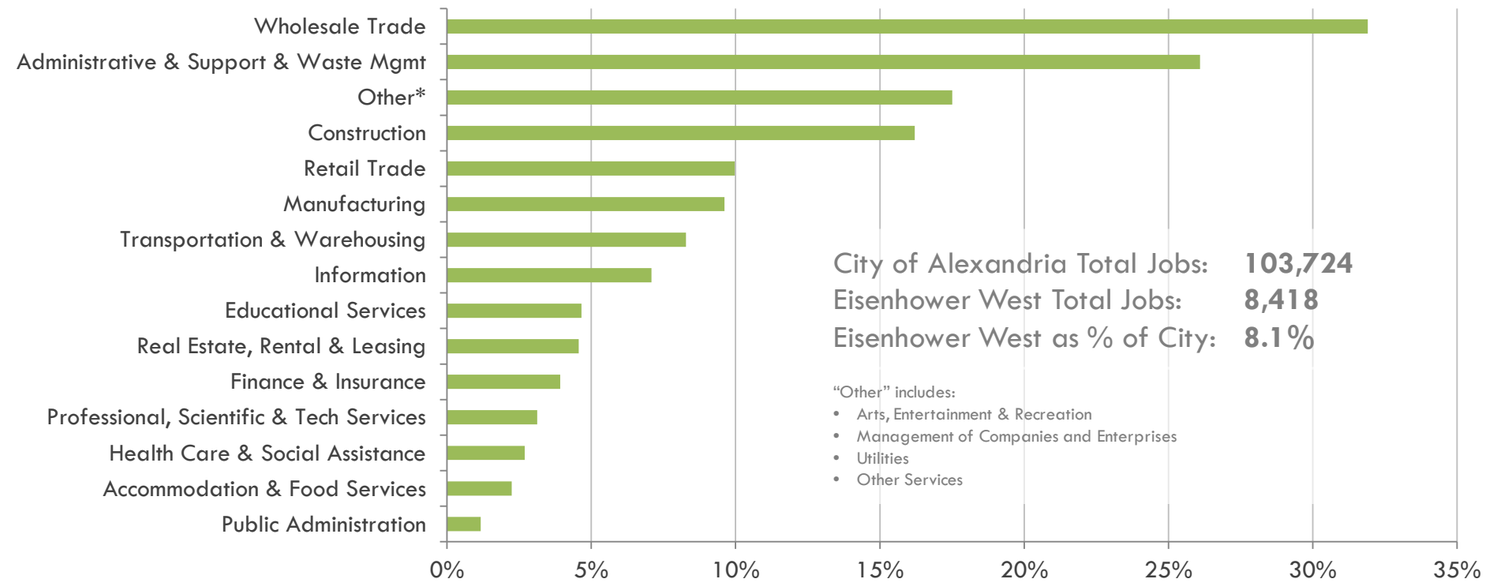


Figure 9: Percentage of Alexandria Employment within Eisenhower West
Source: ESRI Business Analyst

Administrative, support, and waste management industries make up the majority of all jobs in Eisenhower West.

- Just over 3,500, or 42%, of the Plan Area's labor force works in administrative, support, and waste management sectors.
- Nearly 3,800, or 45%, of all jobs in Eisenhower West are distributed evenly across retail, professional, scientific, and technical service, wholesale trade, construction, manufacturing, transportation, and other sectors.

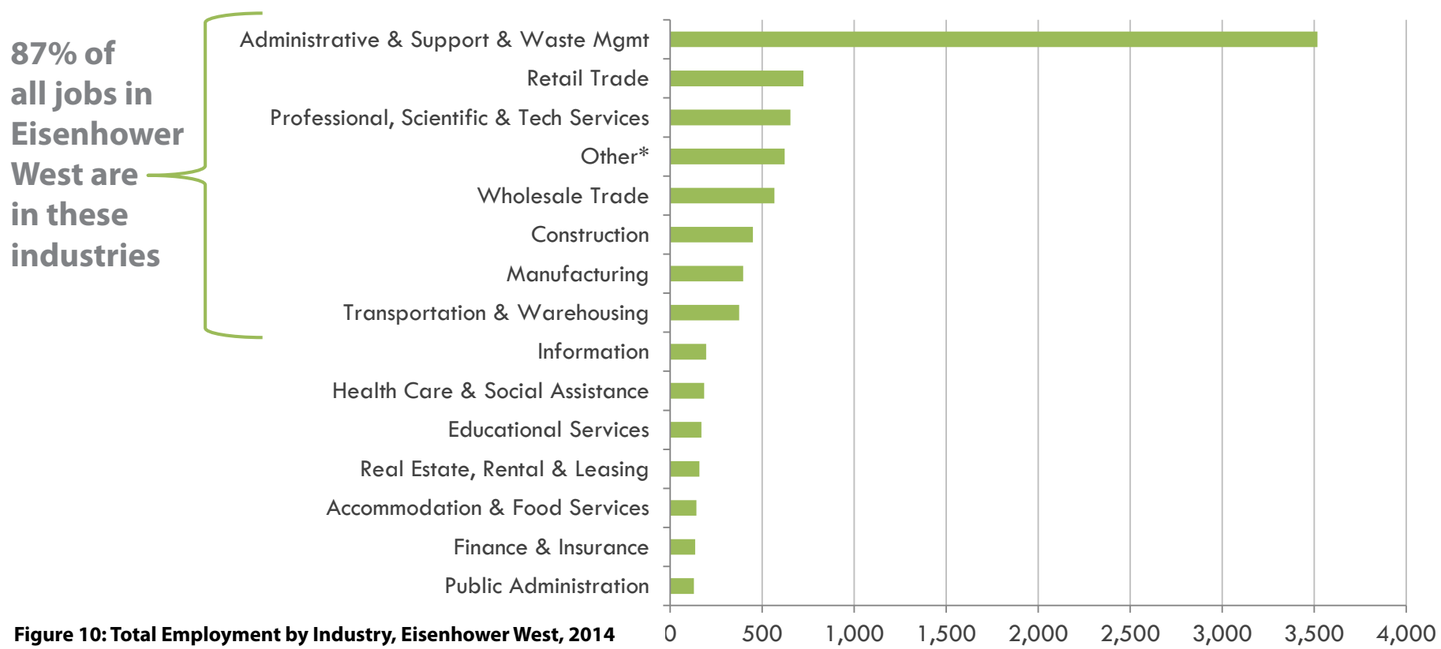


Figure 10: Total Employment by Industry, Eisenhower West, 2014
Source: ESRI Business Analyst

Demographic and Economic Analysis (cont'd.)

Economics (cont'd.)

Citywide, many of the industry sectors which make up the majority of Eisenhower West's employment base have declined since 2002.

- Many of the industry sectors which make up the majority of jobs in Eisenhower West, underlined in green in the graph below, experienced citywide losses between 2002 and 2011, including retail trade, wholesale trade, construction, and transportation and warehousing. In contrast, these industries have grown regionally, with the exception of construction.
- Administrative, support, and waste management remained relatively static Citywide, but has grown throughout the MSA.
- Jobs related to professional/scientific/technical services and manufacturing grew in Alexandria. However, the City did not capture a similar share of professional, scientific, and technical services jobs as the MSA.

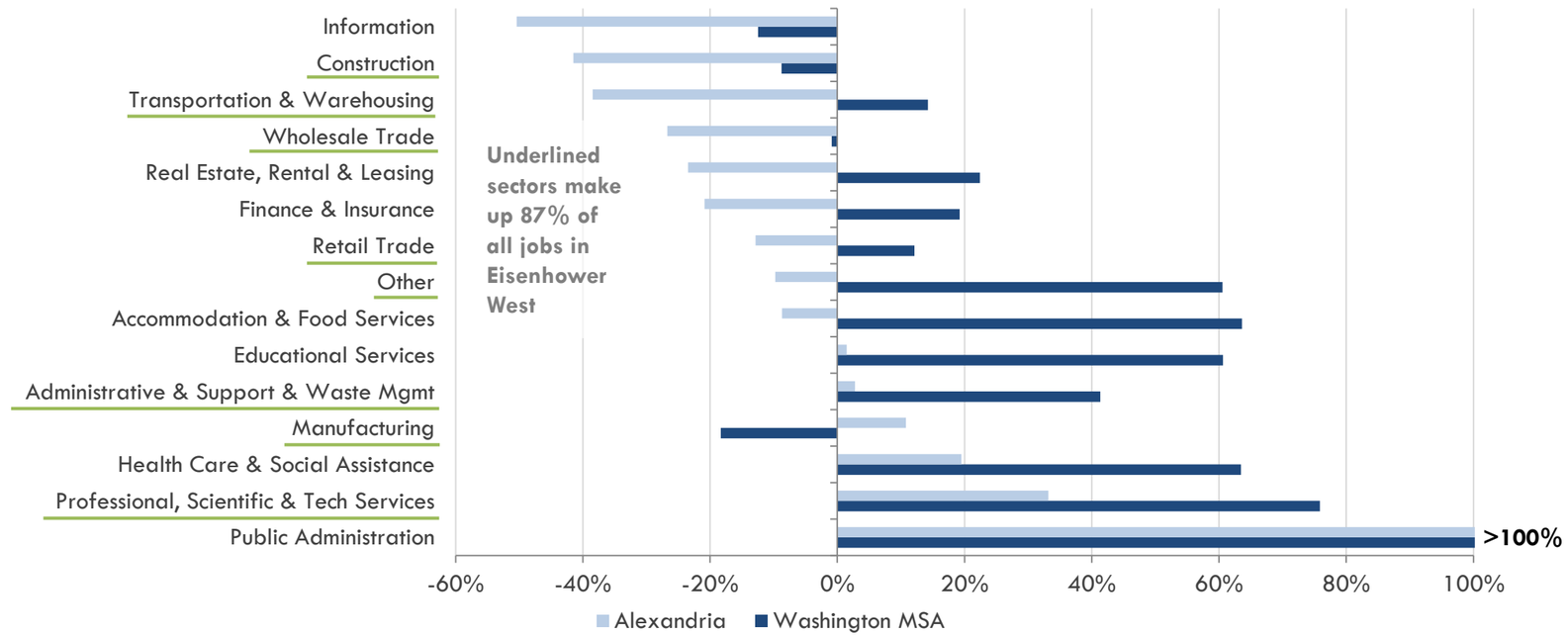


Figure 11: Percentage Change in Employment by Industry, 2002-2011
Source: US Census Bureau; Center for Economic Studies, LEHD

Conclusions and Implications

In the context of a region experiencing overall population growth, the population in Eisenhower West has grown substantially as the result of new housing development, mainly Cameron Station.	⇨	With projected continued regional growth, demand for housing and related amenities is likely to increase. New housing development will also drive demand for retail and other amenities in Eisenhower West.
Jobs in Eisenhower West are mainly concentrated in industries, such as warehousing and wholesale trade, that have declined regionally.	⇨	While it may be challenging for Eisenhower West to continue to retain these jobs given regional market conditions, it provides an opportunity for the area to attract new job-generating sectors.
Administrative, Support, and Waste Management industries comprise most of the Plan Area's jobs, and remained stable between 2002 and 2011.	⇨	These sectors benefit from Eisenhower West's location and affordability. In the near term, they are likely to remain stable.

Real Estate Market Assessment

Real Estate

HR&A assessed the market for the already eclectic mix of residential, retail, office, and industrial properties located within Eisenhower West.

- The Eisenhower West plan area is primarily commercial with newer pockets of residential development.
- Industrial properties, including warehouses and flex space, dominates the Plan Area, comprising 70% of all non-residential land uses on a square foot basis.
- Many of the commercial buildings are older, with an median age of 34-39 years. Residential development is much newer, with a median age of 13 years.
- Amongst residential properties, there is a mix of multifamily and single-family/townhouse developments. Most of these projects consist of for-sale units in Summers Grove, Cameron Station, and The Reserve at Eisenhower; though there are rental units located within two multifamily developments, The Exchange at Van Dorn and the recently completed units at Modera Tempo (formerly "Landmark Gateway").
- There are rental units located within two multifamily developments, The Exchange at Van Dorn and the recently delivered Modera Tempo (formerly, "Landmark Gateway").
- Excluding the operations at Virginia Paving and Vulcan Materials, the industrial stock is made up of small, single-story warehouses and flex space home to a variety of tenants.
- For the most part, retail uses in Eisenhower West consist of auto dealerships, with some big box uses such as Home Depot, and some neighborhood serving retail located in strip/neighborhood centers.
- Most of the office space within the Plan Area is located in the 607,000 SF Victory Center. Despite being renovated in 2009, it is 100% vacant as of this report. The area's remaining office space is located in older, single-story buildings.

Land Use	Gross Square Feet/Units	Median Year Built
Office	735,515 SF	1979
Industrial*	3,430,134 SF	1975
Retail	739,194 SF	1977
Total Commercial	**4,904,843 SF**	
Residential**	2,727 Units	2001

Figure 12: Land Use by Gross Square Feet/ Units
Source: CoStar; City of Alexandria

*Includes all warehouse and flex; excludes Virginia Paving and Vulcan Materials
**Includes all rental and for-sale multifamily and single family dwelling units in the Plan Area

In addition to comparing Eisenhower West to the region, HR&A analyzed the local market for each product type, the boundaries of which differ slightly depending on industry-accepted definitions of local submarkets.

Product Type	Market Analysis Area	Notes
Multifamily Rental	"West Alexandria": N Quaker Lane to the east City limits to the north, south, and west	West Alexandria is the industry-defined market for multifamily rental product comparable to projects in Eisenhower West
Multifamily For-Sale (Condo) Single-family/ Townhouse	City of Alexandria	The City of Alexandria as a whole is the industry-defined submarket for comparable condos, single-family houses, and townhouses
Retail	One- and three-mile radii from the center of the plan area	Retail areas account for the "draw" of potential consumers based on product type and distance
Office Industrial	City of Alexandria	The City of Alexandria as a whole is the industry-defined submarket commercial real estate uses

Figure 13: Market Analysis Product Types

Residential Real Estate Market Assessment (cont'd.)

Residential Overview

Residential development in Eisenhower West is relatively new, and several developments are scattered amongst commercial uses.

- Residential units within Eisenhower West are located across five developments: Summers Grove, Cameron Station, The Reserve at Eisenhower, The Exchange at Van Dorn, and Modera Tempo (Formerly "Landmark Gateway". Cameron Station is a former army base, while the other developments are redevelopments of former commercial sites.
- All of the residential development has been built within the past 15 years.

Residential product within Eisenhower West consists of a split between single-family[1] and multifamily developments.

- These developments consist of slightly more single-family homes (54%), including detached homes and attached townhouses, than multifamily units (46%). Though somewhat evenly distributed, there are a greater concentration of single-family homes and townhouses in Eisenhower West compared to the City, and fewer than compared to the MSA.

Figure 14: Residential Developments in Eisenhower West
Source: Zillow; HR&A Advisors, Inc.

*This property will eventually consist of 492 units. 161 units have been completed and are available for lease as of this report. Mill Creek will deliver an additional 199 apartments as a part of its first phase, and an additional 132 units in it second phase; both phases are schedule for completion in July/August of 2015.

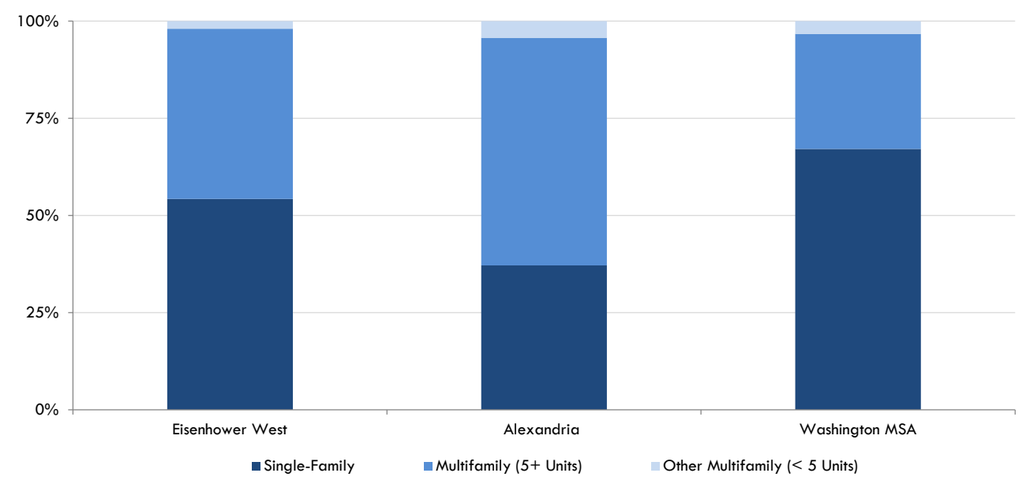


Figure 15: Distribution of Units by Units in Structure, 2014
Source: ESRI Business Analyst

Residential Real Estate Market Assessment (cont'd.)

Residential Overview (cont'd.)

Residential product within Eisenhower West is largely owner-occupied.

- The Plan area maintains higher rates of homeownership compared to the City and the MSA. These homeownership rates reflect the large number of single-family homes and condominiums that comprise the four housing developments in Eisenhower West; however, these data do not yet reflect the recent delivery of 161 rental units at Modera Tempo (formerly "Landmark Gateway").

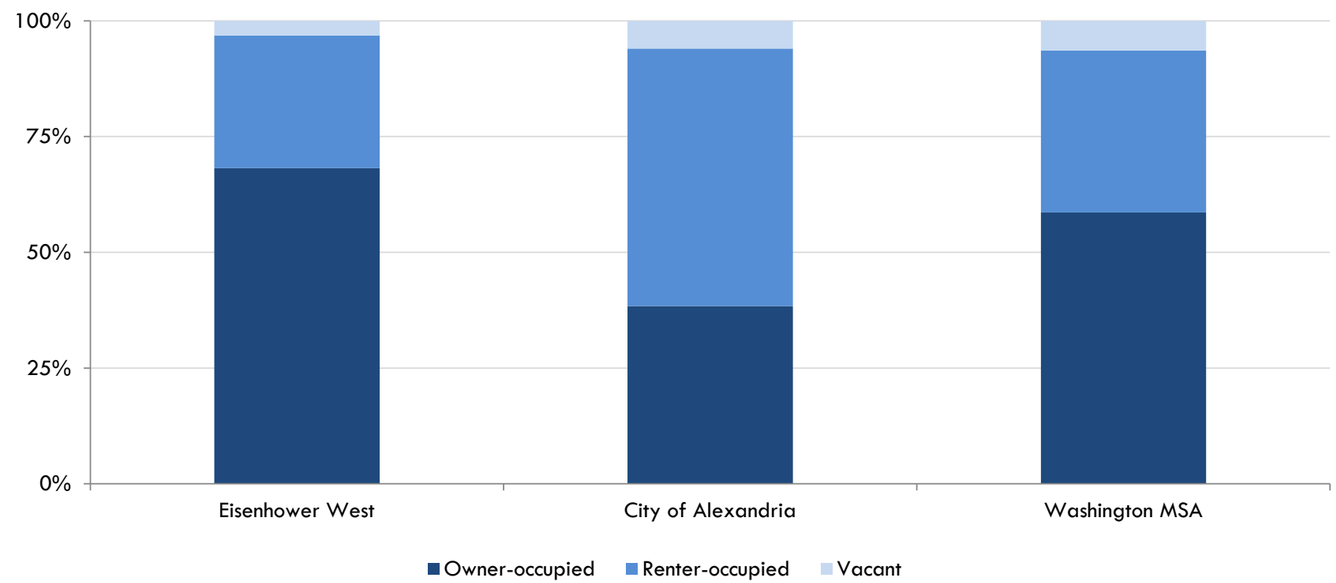


Figure 16: Housing Tenure, All Housing Units, 2014
Source: ESRI Business Analyst

Residential: Multifamily Rental

In contrast to Eisenhower West, rental buildings within the West Alexandria submarket are much older, with few deliveries in recent years.

- Over half (53%) of all existing multifamily rental units in the "West Alexandria" submarket were built during the 1960s.
- Out of the 21,547 units within the West Alexandria submarket, 694 units (3%) are located in Eisenhower West within two developments that were completed in the past decade: The Reserve at Eisenhower in 2007 and the Modera Tempo (formerly "Landmark Gateway") in 2014.
- Developers delivered new apartment units at a rate of approximately 200 units per year through 2003. From 2004-2006, however, over 2,000 units were converted to condos, thus reducing the number of rental units in the area by 9%. The number of total rental units in the area recovered, but remained static until the delivery of Modera Tempo (formerly "Landmark Gateway") in 2014.

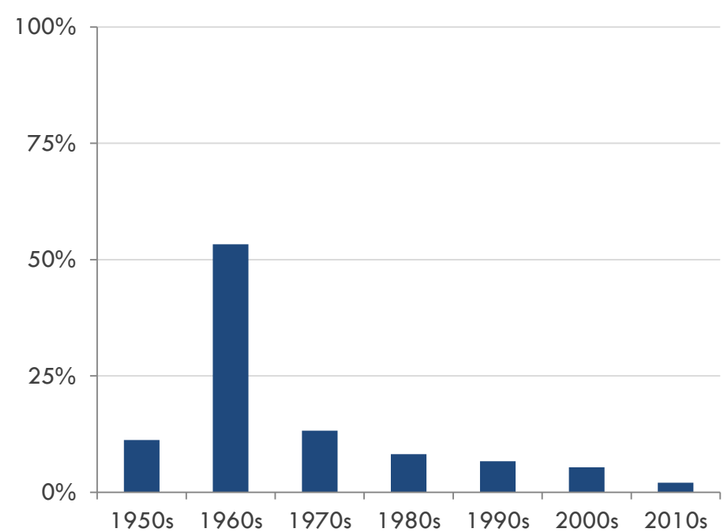


Figure 17: Percentage of Multifamily Units by Decade of Construction, West Alexandria
Source: CoStar

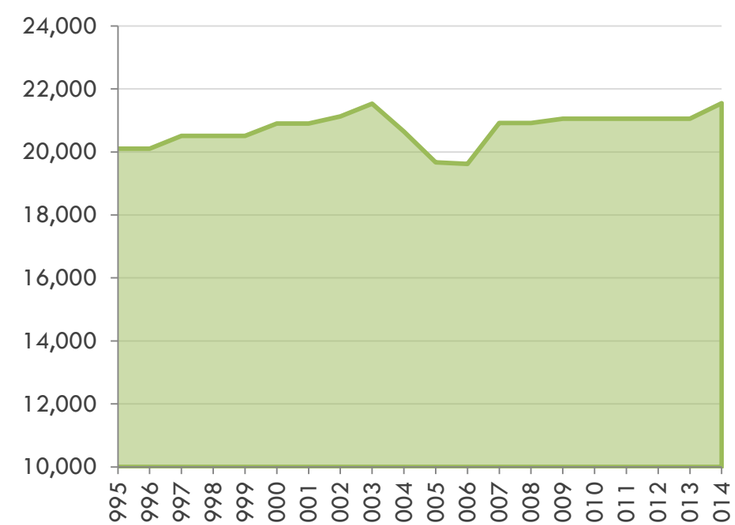


Figure 18: Total Multifamily Rental Inventory (units), West Alexandria, 1995-2014*

*2014 year-to-date, or 2nd quarter as of this report
Source: CoStar

Landmark Gateway (now Modera Tempo)

Developer: Mill Creek Residential

Residential	492 Rental Units
Unit Size	Range from studios (530 SF) to 2-bedroom, 2-bathroom with dens (1,384 SF)
Average Monthly	$1,977/unit
Asking Rent	$2.72/SF
Retail	15,000 SF

Residential: Multifamily Rental

With 161 units leasing and another 331scheduled for completion in July/August 2015, Modera Tempo, (formerly "Landmark Gateway") is the first residential development in Eisenhower West since 2007.

Source: Mill Creek Residential Trust

Residential: Multifamily Rental

The multifamily rental market appears to be recovering post-recession.

- Due to the conversion of many rentals to condos between 2004 and 2006, and removing them from the available supply of rental units, rental vacancy rates decreased and rents continued to increase.
- Given positive economic conditions and inexpensive financing, nearly 1,300 units came online in 2007. These units took several years to be fully absorbed and contributed to a sharp decline in rents in addition to the impacts of the recession.
- Since this initial decrease in rent, West Alexandria has remained less expensive than the rest of the Northern Virginia market, and the gap continues to widen. However, this relative affordability continues to attract tenants, and vacancy has declined from 5% in 2009 to 2% in 2014 (to date).

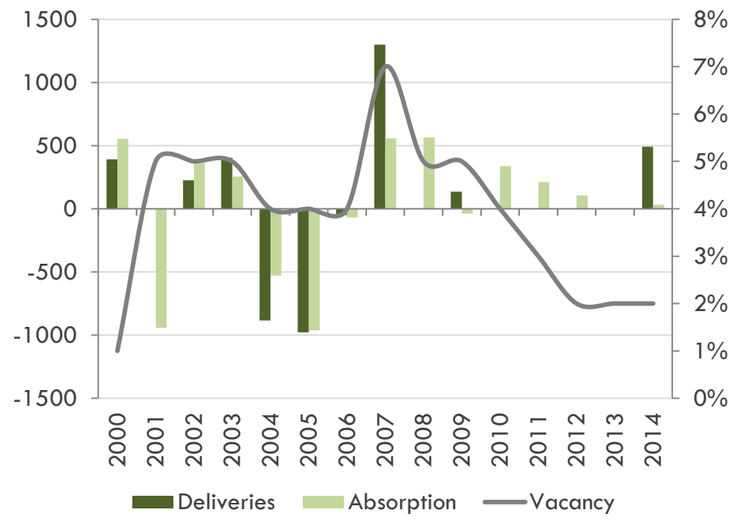


Figure 19: Deliveries, Absorption, and Vacancy, West Alexandria, 2000-2014*
[1] 2014 year-to-date, or 2nd quarter as of this report
Source: REIS

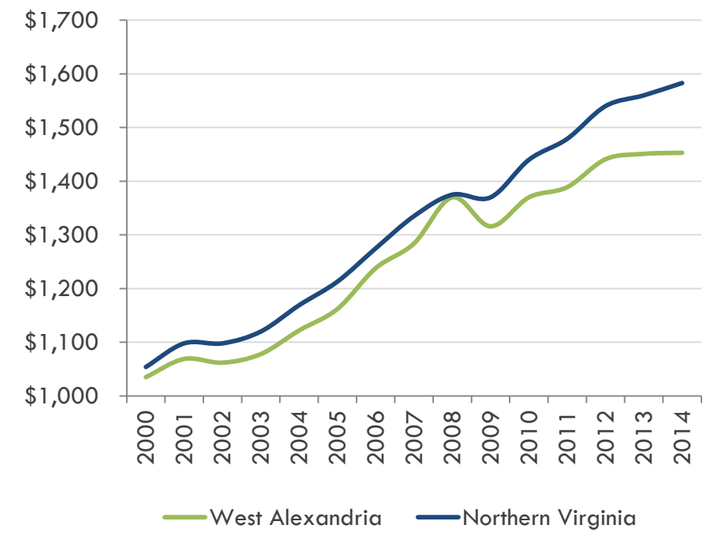


Figure 20: Effective Rent per Unit, 2000-2014*
[1] 2014 year-to-date, or 2nd quarter as of this report
Source: REIS

Residential: For-Sale Housing

The local and regional for-sale housing market is improving.

- The average number of days on market in Alexandria declined from 100 to 65 (-35%) between 2010 and 2014. On average, units in Alexandria are on the market 17 fewer days than in the Washington MSA.
- Increased demand reduced the total inventory of houses available for sale throughout the City between late 2010 and mid-2013. The recent increase in homes for sale may indicate a desire on behalf of homeowners to take advantage of these improving market conditions.
- Strong regional demand for for-sale housing is expected to continue, assuming interest rates remain low.

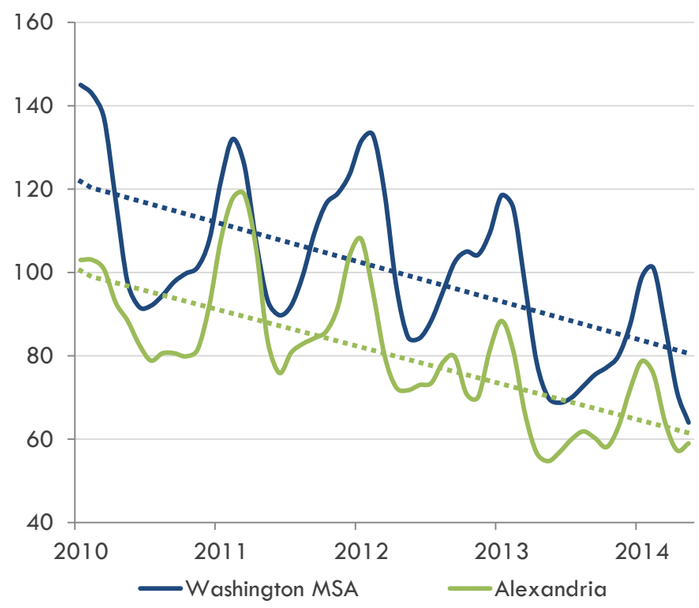


Figure 21: Average Number of Days on Market, 2000-2014*

*2014 year-to-date, or 2nd quarter as of this report
Source: Zillow.com

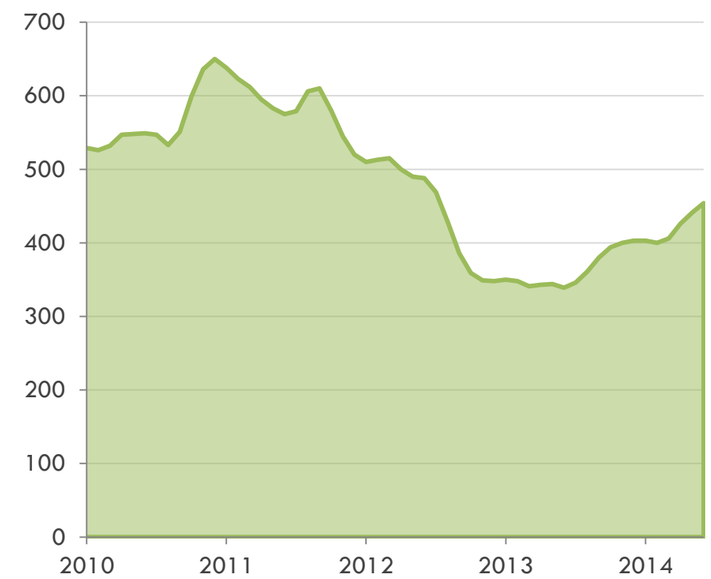


Figure 22: For-Sale Inventory, All Units, Alexandria, 2010-2014*

*2014 year-to-date, or 2nd quarter as of this report
Source: Zillow.com

Residential Real Estate Market Assessment (cont'd.)

Residential: For-Sale Housing

Median home values for all housing types in Alexandria have trailed those in Arlington and Fairfax, but Alexandria remains fairly competitive.

- While lower than Arlington, median single-family home values in Alexandria are higher than in Fairfax County and the Region overall.
- In Alexandria, median values for single-family homes have increased by 23% since the 2009 recession low, and median values for condos have increased by 8% since the 2009 recession low.
- The narrow gap between condominium values throughout the MSA and in Alexandria, Arlington, and Fairfax may indicate that condos in Alexandria are competitive on price. There may be demand for additional condos in Eisenhower West, but prices have grown only 7% (compared to 8% in Arlington and 20% in Fairfax) since their lowest point in 2009.
- Additional new housing development in the plan area could likely be competitive at the right price point.

Residential: Pipeline

A dramatic increase in new building permits demonstrates positive developer response to strong demand for residential rental and for-sale development.

- Multifamily building permits in the City spiked in 2013 as developers have sought to meet the demand for new rental and condominium buildings.
- Pipeline includes a mix of condo and rental projects, the majority of which are part of larger mixed-use developments.
- This activity may signify additional opportunity for residential development in Eisenhower West, depending on the market timing of existing development in the pipeline.

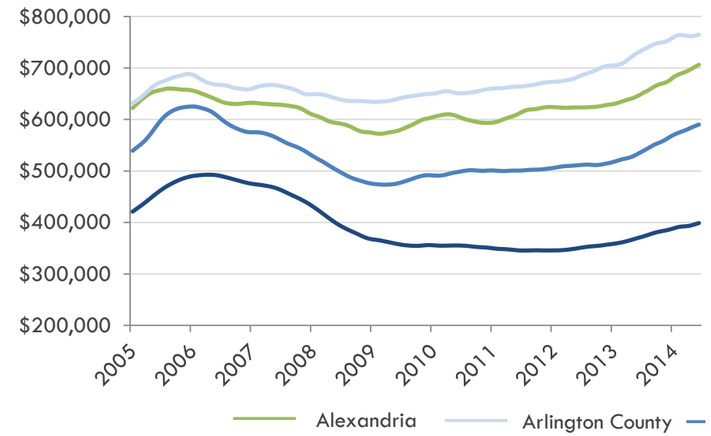


Figure 23: Median Home Value, Single-Family*, 2005-2014**

* Includes all residential structures designed as one dwelling, including townhouses
** 2014 year-to-date, or 2nd quarter as of this report. Source: Zillow.com

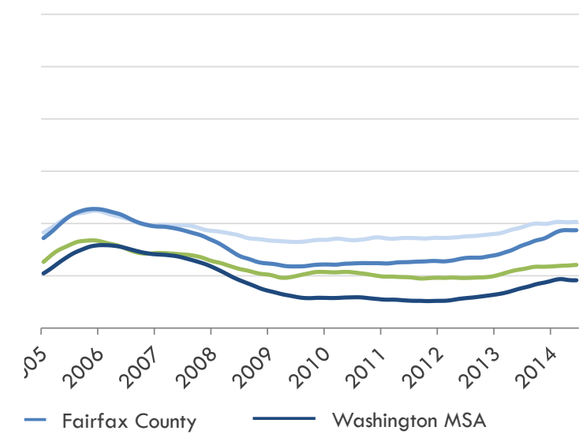


Figure 24: Median Home Value, Condo, 2005-2014**

** 2014 year-to-date, or 2nd quarter as of this report
Source: Zillow.com

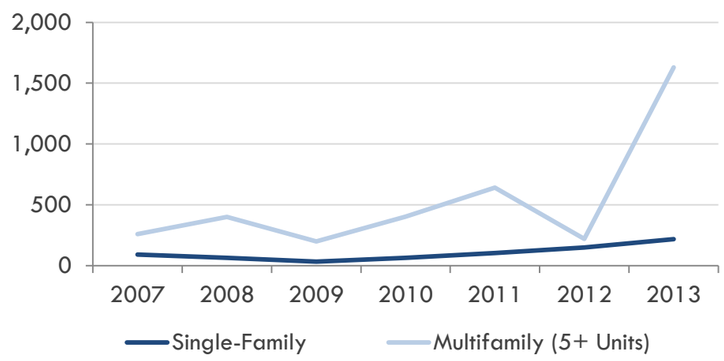


Figure 25: Building Permits Issued, City of Alexandria, 2007-2013

	Residential	Type	Other Uses
Cameron Park	457 Units	Multifamily Condo/Rental, Townhouse	36,000 SF Retail
Landmark Gateway	331 Units	Multifamily (Remaining Phases 1, and Phase 2)	
Pickett's Place	48 Units	Townhouse /Stacked Townhouse	
Eisenhower West Total	**505 Units**		

Figure 26: Eisenhower West Residential Pipeline

	Residential	Type	Other Uses
Landmark Mall	370-400	Multifamily Rental	250,000 – 320,000 SF Retail
Stevenson Ave Condos	121 Units	Multifamily Condo	80,000 SF Office
Washington Suites	219 Units	Multifamily Rental	
Choi Site	300,000 SF	Unknown	500,000 SF Office, 10,000 SF Retail
Van Dorn Plaza	550,000 SF	Unknown	100,000 SF Retail
Millennium/Saul Centers	445,000 SF	Unknown	700,000 SF Office, 125,000 SF Retail

Figure 27: Nearby Residential Pipeline

Source: HUD SOCDS Building Permit Database; CoStar; City of Alexandria; HR&A Advisors

Residential Real Estate Market Assessment (cont'd.)

Residential: Conclusions and Implications

The current supply of housing in Eisenhower West was built since 1999.	Eisenhower West has a new and evolving identify as a residential area.
Several indicators suggest a recovered market for multifamily rental housing, including decreased vacancy, positive net absorption, and a spike in building permits.	Sites in Eisenhower West could be well situated for transit-oriented multifamily developments to capture additional demand due to their location near the Metro and Beltway.
Modera Tempo (formerly "Landmark Gateway") is comparable to the type of multifamily housing in demand throughout the region.	Eisenhower West could support additional, highly amenitized multifamily rental product which appeals to a younger demographic seeking locations inside the Beltway, priced competitively with newer projects elsewhere.

Retail Real Estate Market Assessment (cont'd.)

Retail Overview

HR&A analyzed the sales volume and demand for retail goods within a one-mile and three-mile radius of Eisenhower West.

- The one-mile trade area includes consumers that are within walking, biking, or driving distance from the center of the Eisenhower West Small Area Plan plan area. Consumers typically make frequent trips for day-to-day consumption of "convenience goods" (such as groceries and personal care products) within this radius.
- The three-mile trade area includes consumers within a short drive from the center of the Eisenhower West Small Area Plan plan area. Consumers typically make these longer trips to purchase "comparison goods," including clothing, furniture, electronics, and automobiles. Consumers also travel within this trade area to patronize dining establishments.
- Consumers within both trade areas may not necessary travel throughout the trade areas, as barriers to travel such as the Beltway and I-95 limit the distance to which consumers may be willing to travel.

Retail Supply

Retail clusters in the vicinity of Eisenhower West consist of a diverse mix of locally-serving and regionally-serving shopping centers and other businesses.

- Much of the retail within and surrounding the Eisenhower West plan area consists of malls, shopping centers, and car dealerships, which serve a regional consumer base.
- There is some level of neighborhood-serving retail in the form of strip centers (such as Van Dorn Station), and ground-floor retail in mixed-use buildings in Cameron Station and Modera Tempo (formerly "Landmark Gateway").
- With the exception of Landmark Mall, much of the retail in and around Eisenhower West did not exist until the 1990s.

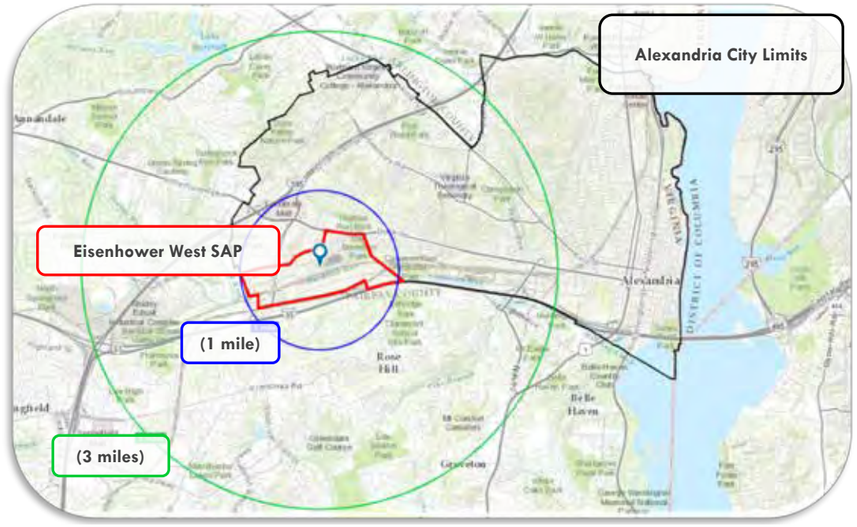


Figure 28: Retail Analysis Trade Areas
Source: HR&A Advisors, Inc.

Comparison Goods
1 mile (Convenience Goods)
Grocery
Personal Care
Miscellaneous
3 miles (Comparison Goods)
Home Furnishing
Electronics
Apparel
Hobby, Books, Music, Sports
General Merchandise
Building Materials
Dining

Figure 29: Convenience and Comparison Goods

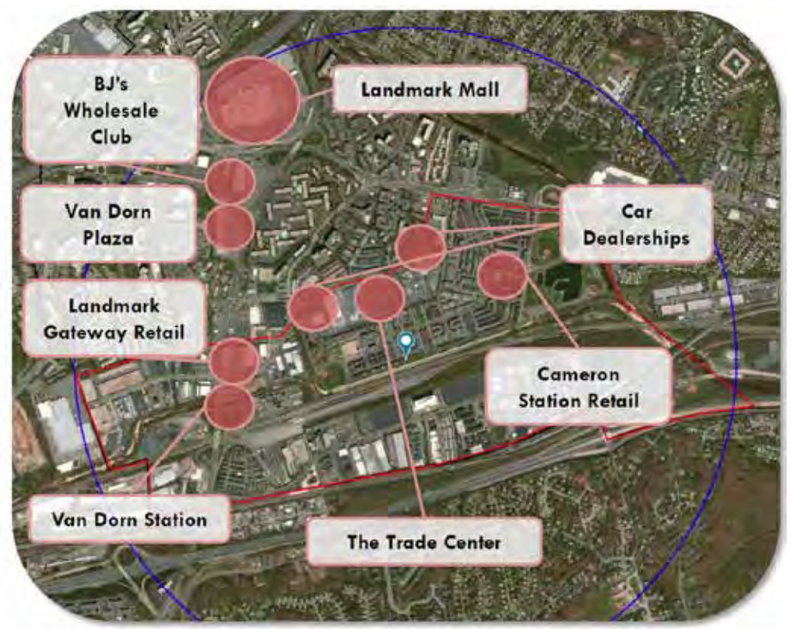


Figure 30: Local Retail Clusters
Source: ESRI Business Analyst, CoStar

Plan Area Primary Retail Clusters

- **Landmark Mall** (1965). A 969,000 SF super-regional shopping center anchored by a Macy's and a Sears. Has struggled in recent years to retain retailers, and is now the subject of plans for major redevelopment.
- **Van Dorn Plaza (1979).** A 119,908 SF shopping center anchored by a Safeway.
- **Van Dorn Station** (1990). A small, 27,000 SF cluster of neighborhood-serving retail.
- **BJ's Wholesale Club (1992).** A 116,869 SF building constructed for and inhabited by BJ's Wholesale Club.
- **The Trade Center** (1993). The largest retail cluster in the Plan Area. This shopping center contains about 20 stores and is anchored by a Home Depot.
- **Cameron Station** (1999-2002). Retail within Cameron Station is located on the ground-floor of mixed-used buildings, totaling 30,000 SF. Tenants includes a coffee shop, salon, cleaners and other small stores which provide convenience goods and amenities to residents.
- **Modera Tempo** (2014) (formerly "Landmark Gateway"). This recently opened apartment building started leasing in July 2014, and began occupying apartments in October 2014. The ground floor retail space is still undergoing initial lease- up.

Retail Real Estate Market Assessment (cont'd.)

Retail Supply

Regionally-serving retail within Eisenhower West competes with a number of major shopping centers within the three-mile trade area.

- Within three miles of the plan area, there are eight major shopping centers totaling 2.8 million SF of retail space.
- These shopping centers offers a range in size from community centers consisting one or two anchors and 15-40 individual stores, to the Landmark Mall, a super-regional mall located within one-mile of Eisenhower West, currently consisting of two anchors (Macy's and Sears) and approximately 30 open stores[1]

The Plan Area has a only a few entertainment, sports, and other recreational venues.

- Two establishments focus on providing sports entertainment—US Bowl and Strike Zone Baseball, each located in older warehouses—while remaining uses are a combination of gyms, yoga studios, and a rock climbing gym in various flex and warehouse buildings throughout the one-mile trade area.
- Redevelopment plans for the Landmark Mall include a movie theater.
- US Bowl is the subject of a proposed redevelopment to construct 48 townhouses[2], which would transform the site from its current use into a residential development. This plan is currently under review by the City.

Shopping Center	Type*	GLA**
1. Landmark Mall	Super-Regional Mall	969,000
2. Plaza at Landmark	Regional Mall	443,000
3. Beacon Center	Community Center	365,115
4. Crossroads Place	Community Center	336,248
5. Village at Shirlington	Community Center	261,000
6. Kingstowne Towne Center***	Community Center	227,359
7. The Trade Center	Community Center	205,837
8. Kings Crossing	Community Center	135,000
Total		**2,807,559**

Figure 31: Area Shopping Centers

* International Council of Shopping Centers archetypes by total GLA
** Gross Leasable Area
*** Refers only to the shopping and retail center

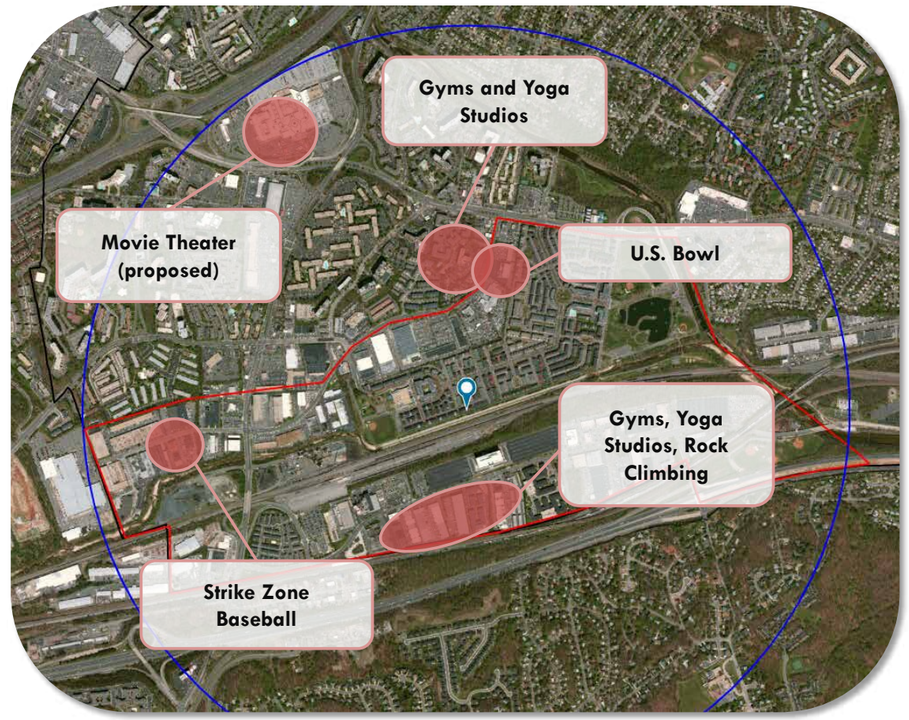


Figure 32: Local Entertainment Establishments

Source: ESRI Business Analyst, HR&A Advisors, Inc.

Source:
[1] Landmark Mall
[2] City of Alexandria

Retail Real Estate Market Assessment (cont'd.

Retail Pipeline

The 2009 Landmark/Van Dorn Corridor Plan ("LVDCP") estimates that parcels near Eisenhower West can support a total of 1.4 million square feet of retail in town centers and mixed-use development.

- Currently, the Landmark/Van Dorn Corridor contains approximately 1.5 million square feet of retail space, located primarily in the Landmark Mall and other various neighborhood centers and freestanding retail buildings.[1] The City envisions that much of this retail space will be replaced with denser, more urban retail in town center-style and mixed-use developments.
- The City envisions properties within the "West End Town Center" as encouraging "regional scale development at this prominent entry into Alexandria," proposing that these properties in total be redeveloped with, at minimum, 1 million SF of retail mainly within town-center style developments. These future developments will absorb much of the demand for regional retail destinations in the area, likely precluding the potential for regional retail destinations in Eisenhower West.
- The City envisions properties within "Pickett Place" as encouraging "a strong community retail center and convenience centers for adjacent residential areas," proposing a minimum of 359,000 SF of retail be developed on these properties in total. These areas, which the LVDCP proposes should contain more neighborhood-oriented retail uses, are located closer to and in some cases within Eisenhower West.

Near-term development activity may absorb much of this demand, though there still may be some opportunities for a variety of types of retail in Eisenhower West.

- Approved redevelopment plans for the Landmark Mall will replace 640,000 SF of existing retail space with 250,000 to 320,000 SF of retail in a town center-style development. The Macy's and Sears will remain, and as a result, the new Landmark Mall will contain 510,000 to 580,000 SF of retail—though this will be less than the 800,000 SF suggested by the LVDCP.
- Two developments—one completed (Modera Tempo - (formerly "Landmark Gateway"), and one approved (Cameron Park)—are located within the Eisenhower West plan area. Though Cameron Park will offer more retail than the minimum proposed, the Modera Tempo is only delivering 15,000 SF of retail—though less than the 250,000 SF of retail suggested by the LVDCP.
- The capacity for Eisenhower West depends on the timing of future developments in the Landmark/Van Dorn Corridor and other submarkets which compete with Eisenhower West for retail spending.

[1] Source: CoStar

Development Block	Land Use	Minimum Retail SF Proposed
West End Town Center		
1. Landmark Mall	Regional Town Center	800,000
2. Choi	Regional Town Center	10,000
3. Millennium/Sal Centers	Regional Town Center	125,000
4. Van Dorn Plaza	Residential/Office Mixed-Use	100,000
Subtotal		1,035,000
Pickett Place		
5. Edsall/Van Dorn North (part)	Residential Mixed-Use	25,000
6. Koons Collision	Residential Mixed-Use	60,000
7. Edsall/Pickett/Van Dorn	Mixed-Use Community Retail Center	250,000
8. Auto Dealer	Residential Mixed-Use	12,000
9. Gateway II Pickett	Residential Mixed-Use	12,000
Subtotal		359,000
Total		**1,394,000**

Figure 33: LVDCP Development Blocks
Source: City of Alexandria

Development Block (LVDCP)	Land Use (LVDCP)	Project Name (Actual)	Minimum Retail SF Proposed (LDVCP)	Retail SF Developed or Approved (Actual)
Landmark Mall	Regional Town Center	Landmark Mall	800,000	510,000-580,000
Edsall/Pickett/Van Dorn	Mixed-Use Community Retail Center	Modera Tempo	250,000	15,000
Gateway II Pickett	Residential Mixed-Use	Cameron Park	12,000	36,000
Total			**1,062,000**	**561,000-361,000**

Figure 34: Recent and Pending Development Activity on LVDCP Development Blocks
Source: City of Alexandria

Retail Real Estate Market Assessment (cont'd.)

Retail Supply

Most retail goods sold within the one-mile trade area of Eisenhower West reflect the Plan Area's many car dealerships and auto parts stores.

- As a result of the numerous car dealerships and auto parts stores in Eisenhower West, Motor Vehicles and Parts Dealers comprise 42% (or $270.2 million) of all retail sales within the one-mile trade area.
- General Merchandise, which includes goods sold in department stores and warehouse clubs, also contributes heavily to local retail sales volume, with goods sold in stores such as Macy's, Sears, and BJ's Wholesale Club responsible for 28% ($104 million) of all retail sales within the one-mile trade area.
- Twenty-six percent (or $170.5 million) of retail sales within one mile of Eisenhower West consists of convenience goods, including Personal Care (25%), Grocery (19%), and Miscellaneous Goods (1%).

Within the three-mile trade area, sales of comparison goods exceed other categories, including motor vehicles and parts.

- Within the three-mile trade area, 30% (or $603.9 million) of retail sales within three miles of Eisenhower West consist of comparison goods, including General Merchandise (20%), Apparel (6%), Electronics (4%), Hobbies etc. (4%), Building Materials (4%), and Home Furnishing (3%).
- These sales exceed sales of goods in Motor Vehicles and Parts Dealers, which comprise 28% (or $570.5 million) of all retail sales.
- Grocery Store goods are responsible for 21% ($412.6 million) of all retail sales within the three-mile trade area.

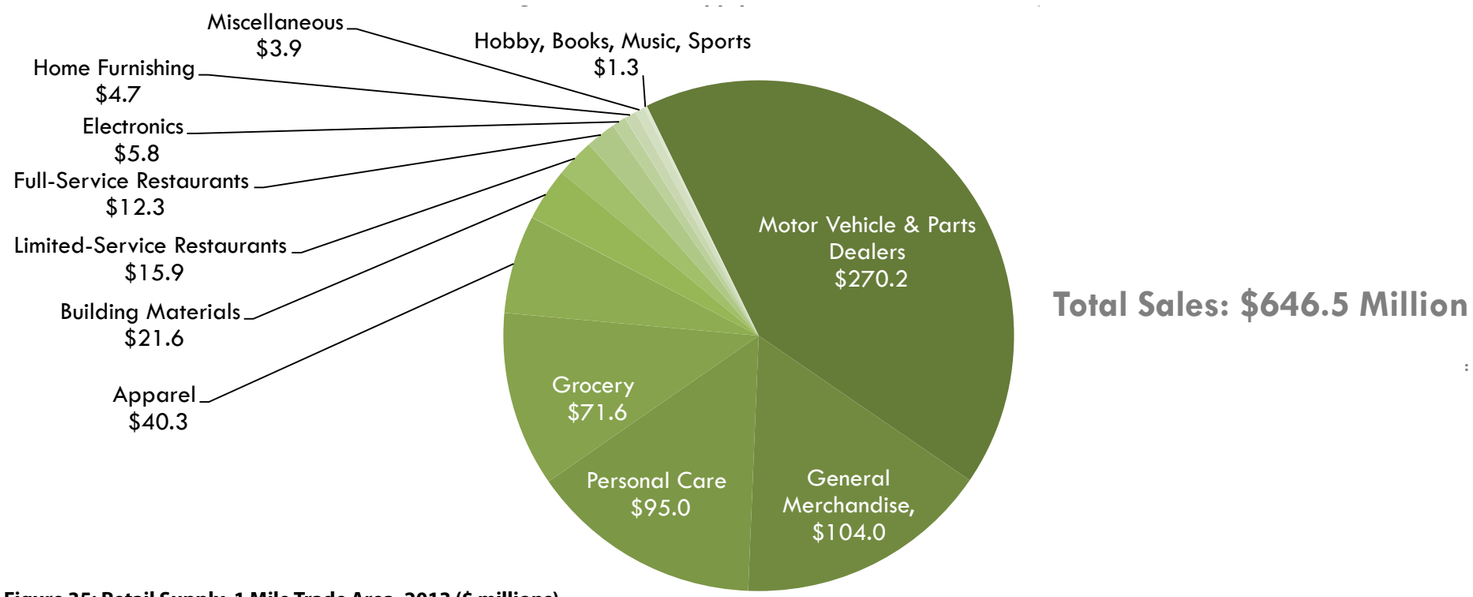


Figure 35: Retail Supply, 1 Mile Trade Area, 2013 ($ millions)
Source: ESRI Business Analyst

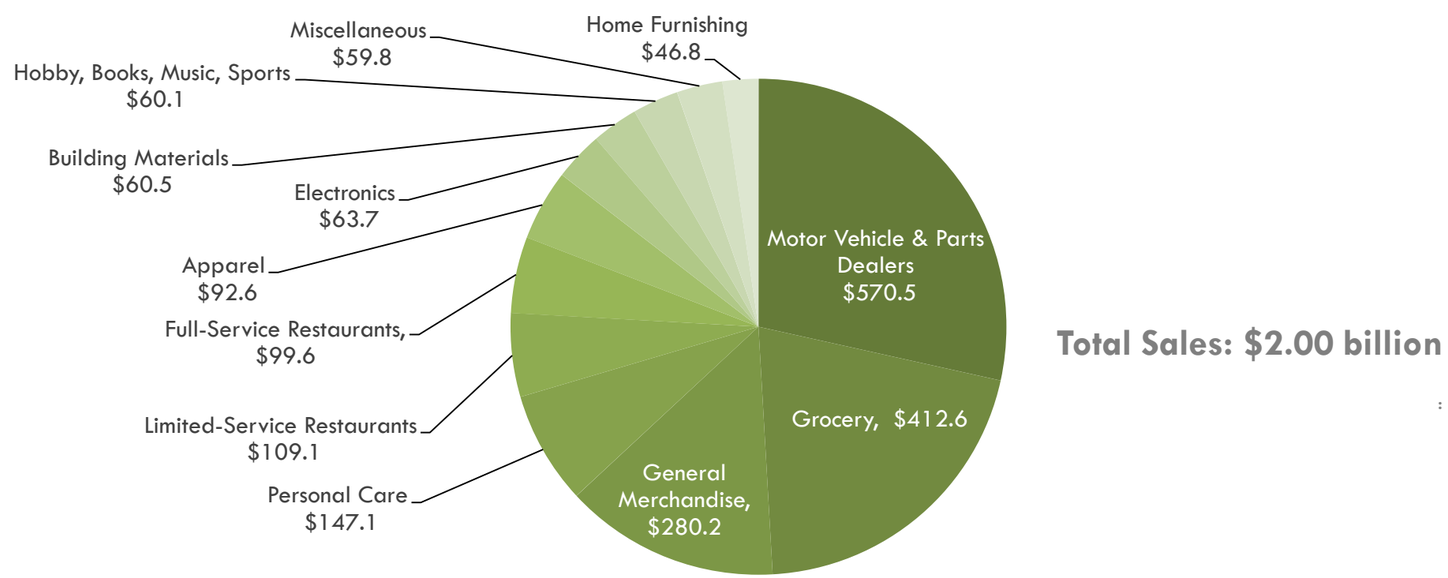


Figure 36: Retail Supply, 3 Mile Trade Area, 2013 ($ millions)
Source: ESRI Business Analyst

Retail Real Estate Market Assessment (cont'd.)

Retail Demand

As residential development continues to increase in Eisenhower West, there will be a greater demand for retail goods across all categories.

- Due in part to the larger number of residents than workers at both geographies, residents spend more in retail goods than workers and drive a significant share of retail demand.
- Residents and workers within a one-mile trade area surrounding Eisenhower West purchased $428.6 million in retail goods across all categories. Residents were responsible for purchasing 80% ($345 million) of these goods.
- Residents and workers within a three-mile trade area surrounding Eisenhower West purchased $2.5 billion in retail goods across all categories. Residents were responsible for purchasing 82% ($2.3 billion) of these goods.

Residents and households within a three-mile trade area spend over $83 million on entertainment and recreation, including frequent attendance at movies and live theater.

- Out of total spending on entertainment/ recreation fees and admission, residents spend 26% of all expenditures ($21.8 million) on movies, theater, opera, and ballet performances.
- A majority of households in a three-mile trade area (83%) have patronized a movie or live theater performance in the last 12 months.

Figure 37: Total Retail Demand, 1-Mile Trade Area, 2013 ($ millions)
* Based on a national average of worker spending per retail category
Source: ESRI Business Analyst, International Council of Shopping Centers

Figure 38: Total Retail Demand, 3- Mile Trade Area, 2013 ($ millions)
* Based on a national average of worker spending per retail category
Source: ESRI Business Analyst, International Council of Shopping Centers

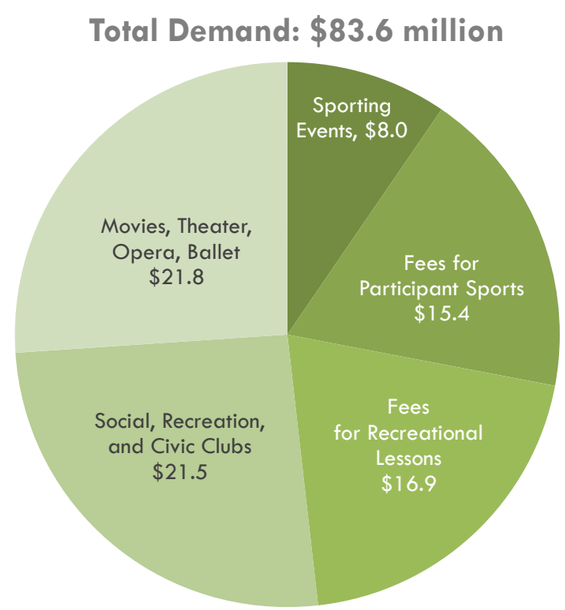


Figure 39: Entertainment Demand, 3 Mile Trade Area, Residents, 2013 ($ millions)
Source: ESRI Business Analyst

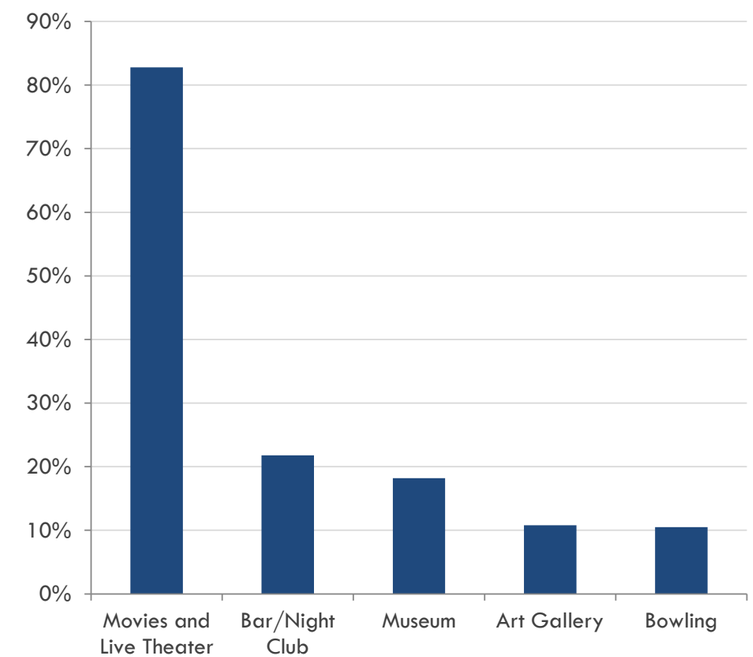


Figure 40: Percentage of all Households Participating in an Activity in the Last 12 months, 3 Mile Trade Area, 2013
Source: ESRI Business Analyst

Retail Real Estate Market Assessment (cont'd.)

Retail Demand (cont'd.)

HR&A estimated the potential for retail development in Eisenhower West to meet unmet demand for retail goods.

- This analysis compares the total dollars spent on retail goods by residents and workers to the dollar value amount of existing sales of retail goods within defined trade areas.
- A trade area demonstrates unmet demand for a retail good when the amount of goods purchased by people who live and work in the area exceeds the amount of existing sales – that is, people who live and work in the area are spending their money elsewhere either due to a lack of supply or the presence of more appealing retail offerings outside of the trade area.
- In this case, HR&A used the ESRI Business Analyst retail sales and expenditure database to compare estimates of spending potential for both one- and three-mile trade areas to estimates of existing sales volumes. These numbers reflect the market conditions in 2013.

Eisenhower West may be able to support additional grocery stores and miscellaneous convenience goods.

- Within the one-mile trade area spending potential for grocery stores ($94M) exceeds existing sales ($72M), indicating support for additional grocery stores within Eisenhower West.
- The same is true for miscellaneous goods, where spending potential ($20M) exceeds existing sales ($4M). Goods in this category include flowers, office supplies, and used merchandise.
- Spending potential for personal care stores ($44M) is lower than existing sales ($95M) within the one-mile trade area, indicating there may not be support for more establishments selling these types of goods in Eisenhower West.

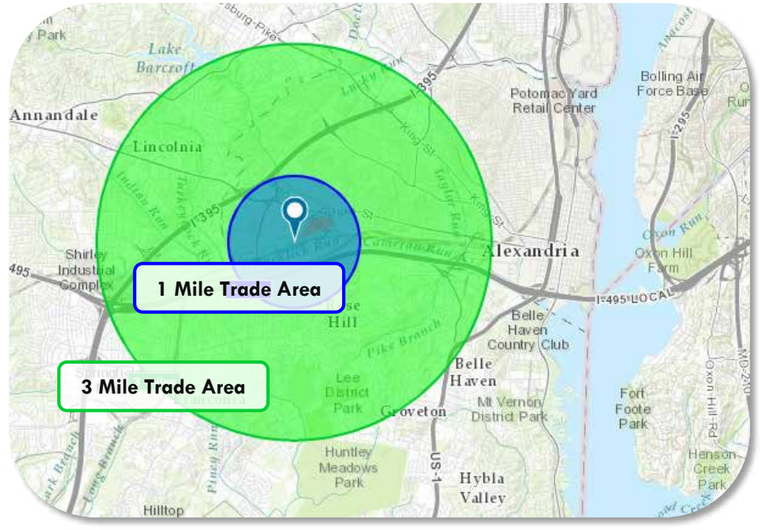


Figure 41: Retail Gap Analysis Trade Areas

Unmet Demand =

Resident and Worker Spending > Existing Sales

	Resident + Worker Spending	Existing Sales	Unmet Spending Potential	Supportable Square Footage
Grocery	$94M	$72M	$22M	150,000 SF
Miscellaneous	$20M	$4M	$16M	70,000 SF
Personal Care	$44M	$95M	($0)	N/A
TOTAL	**$158M**	**$171M**	**$38M**	**220,000 SF**

Figure 42: Unmet Spending Potential, Convenience Goods Within a 1-mile Trade Area, 2013

Source: ESRI Business Analyst, 2013; Maxim Retail Sales

Retail Real Estate Market Assessment (cont'd.)

Retail Demand (cont'd.)

Eisenhower West may be able to support additional establishments in comparison goods across all categories.

- Within the three-mile trade area, total spending potential for comparison goods ($1.33 billion) exceeds total existing sales ($605) across all categories, indicating strong support for new establishments selling a range of goods

Eisenhower West may be able to support additional restaurants, including both full- and limited-service.

- Total spending potential for both full-service and limited-service restaurants ($444M) in the three-mile trade area exceeds total existing sales ($209M), indicating support for additional restaurants in Eisenhower West.
- As the number of residents in the trade area increases as new residential developments come, spending potential for dining establishments will continue to increase.

	Resident + Worker Spending	Existing Sales	Unmet Spending Potential	Supportable Square Footage
General Merchandise	$732M	$280M	$452M	1,140,000 SF
Apparel	$231M	$93M	$138M	340,000 SF
Electronics	$106M	$64M	$42M	62,000 SF
Building Materials	$101M	$61M	$40M	150,000 SF
Hobby, Books, Music, Sports	$88M	$60M	$28M	90,000 SF
Home Furnishings	$75M	$47M	$28M	140,000 SF
TOTAL	$1.33B	$605M	$728M	1,922,000 SF

Figure 43: Unmet Spending Potential, Comparison Goods Within a 3-mile Trade Area, 2013
Source: ESRI Business Analyst, 2013; Maxim Retail Sales

	Resident + Worker Spending	Existing Sales	Unmet Spending Potential	Supportable Square Footage
Full Service Restaurants	$213M	$100M	$113M	264,000 SF
Limited-Service Restaurants	$231M	$109M	$122M	282,000 SF
TOTAL	$444M	$209M	$235M	546,000 SF

Figure 44: Unmet Spending Potential, Dining Establishments Within a 3-mile Trade Area, 2013
Source: ESRI Business Analyst, 2013; Maxim Retail Sales

Retail Real Estate Market Assessment (cont'd.)

Retail Demand (cont'd.)

Eisenhower West can therefore support additional retail, though it is likely that retail clusters elsewhere are capturing much of this unmet spending potential already.

- Although the analysis demonstrates unmet potential for nearly 3 million square feet of additional retail space, much of this activity is already being absorbed by retail clusters beyond the three-mile trade area radius, ranging from numerous grocery anchored shopping centers to other major malls such as The Fashion Centre at Pentagon City in Arlington, Mosaic District in Fairfax, and Springfield Town Center in Springfield.
- In addition, the Landmark/Van Dorn Corridor plan estimates that the corridor could support approximately 1.4 million SF of total retail, including retail establishments which currently exist and may be redeveloped in the future. If built out in the near term, this development could capture some of the retail demand projected for Eisenhower West.

	Supportable Square Footage
Convenience Goods (1 mile)	220,000 SF
Convenience Goods (3 mile)	1,922,000 SF
Restaurants (3 mile)	546,000 SF
TOTAL	2,688,000 SF

Figure 45: Total Supportable Retail Square Footage, 2013
Source: ESRI Business Analyst, 2013; Maxim Retail Sales

Retail

Conclusions and Implications

With the exception of the redevelopment of the Landmark Mall and some mixed use development, there has been little new retail built in the areas near Eisenhower West in the past 20 years.	There is likely demand for retail stores and restaurants in newer facilities.
The City has estimated that the Landmark/Van Dorn corridor can support 1.4 million square feet of retail in new projects, though only three developments are imminent.	New retail development may absorb much of the trade areas' existing demand in the near-term depending on the pace, but the addition of new residential units will introduce additional consumers, who may support additional neighborhood-serving retail in Eisenhower West in the future.
There is unmet demand for comparison goods within a three-mile trade area, particularly for both general merchandise and dining.	Excess demand may justify more general merchandise stores in a variety of formats near-term, and more dining establishments in Eisenhower West; both can be further supported as new residential development is added in the future.
There is unmet demand for grocery stores and miscellaneous convenience goods within a one-mile trade area.	A small grocery store could be supported in the near-term, preferably as part of a mixed use development project, and future residential development can support additional grocery in the long-term.

Office Real Estate Market Assessment (cont'd.)

Office Overview

Eisenhower West lacks a robust office market.

- Eisenhower West contains minimal office space with only 735,515 SF, of which 606,921 SF (83%) is in the vacant Victory Center that was built in 1973, but redeveloped in 2009.
- The City's major office clusters are located in Old Town Alexandria, Carlyle, and along the I-395 Corridor.

Property	Year Built/Renovated	SF
5150 Duke St	1960	9,594
Eisenhower Executive Office Building (4875 Eisenhower Avenue)	1985	49,000
Pickett Center (50 S Pickett Street)	1988	70,000
Victory Center (5001 Eisenhower Avenue)	1973/2009	606,921
Total		**735,515**
Total Citywide Office Square Feet*		**22,192,871**
Eisenhower West as % of City Office Square Feet		**3.3%**

Figure 46: Eisenhower West Office Inventory

*The total inventory noted here includes federally owned office buildings and other owner-occupied office buildings in the City of Alexandria. These buildings are not a part of the market analysis explored herein, which focuses on investor-owned, renter-occupied properties. In addition, many industrial properties in Alexandria contain a small quantity of office space, which does not impact the broader office market and is also not included here. However, industrial properties which contain a significant quantity of office space (typically 50% of total SF or greater) are categorized as "flex" space, and are explored in the Industrial Market Assessment.

Source: CoStar; City of Alexandria

Office Class A

Developers continue to deliver new office space throughout the region, though these buildings are likely build-to-suit or preleased; little has been built in Alexandria.

- The regional market contains 255 million SF of Class A office space, of which 2.2 million square feet was delivered in 2013.
- Build-to-suit or pre-leased space appears to be driving new office development throughout the MSA, as indicated by consistent levels of positive net absorption. Secondary market reports note that the current office pipeline is 58% preleased, which is slightly above the 10-year average pre-lease rate of 47% and indicates that underwriters are requiring developers attract tenants prior to construction.[1]
- By contrast, the City of Alexandria has experienced negative or very low positive net absorption and steadily increasing vacancy since 2009. This is at least partly, if not wholly, due to federal tenants vacating office space in accordance with 2005 Base Realignment and Closure (BRAC).

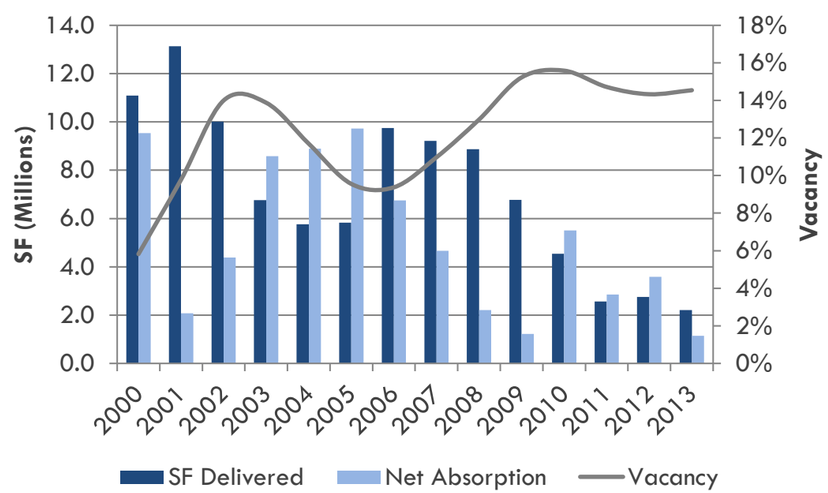


Figure 47: Deliveries, Absorption, & Vacancy, Class A Office, Washington MSA, 2000-2013

Source: CoStar

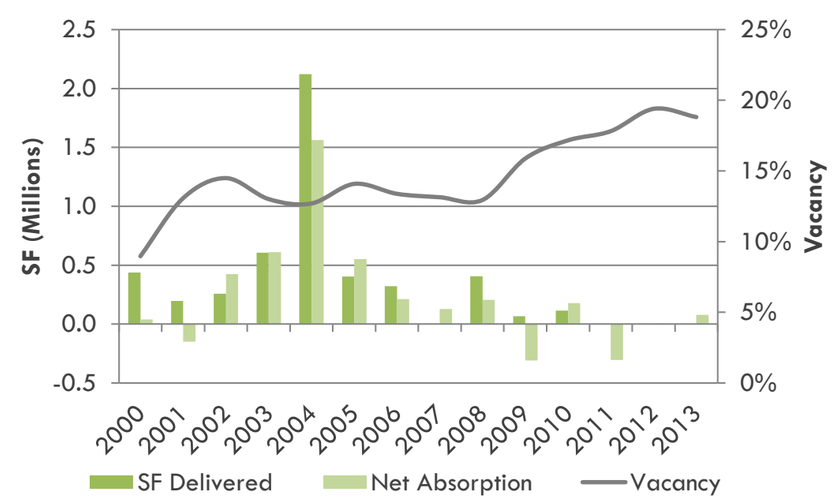


Figure 48: Deliveries, Absorption, & Vacancy, Class A Office, Alexandria, 2000-2013

Source: CoStar

[1] Northern Virginia Office Market, Q2 2014, Transwestern

Office Real Estate Market Assessment (cont'd.)

Office Class A (cont'd.)

While low rates of Citywide employment growth may not support new office construction, competitively priced, existing Class A space can attract tenants to the area.

- Since 2009, vacancy rates for Class A office in the City of Alexandria risen more sharply those of the Washington MSA, resulting in declining rates.
- Class A rents in the City of Alexandria declined 10% between 2010 and 2013. However, since 2012, vacancy has started to decrease, which suggests a possible "flight to quality" by tenants attracted to the high quality space at a lower price point.
- In contrast, Class A rents in the Washington MSA have remained largely stable since 2010, and though vacancy rates declined between 2010 and 2012, they began to increase in 2013.

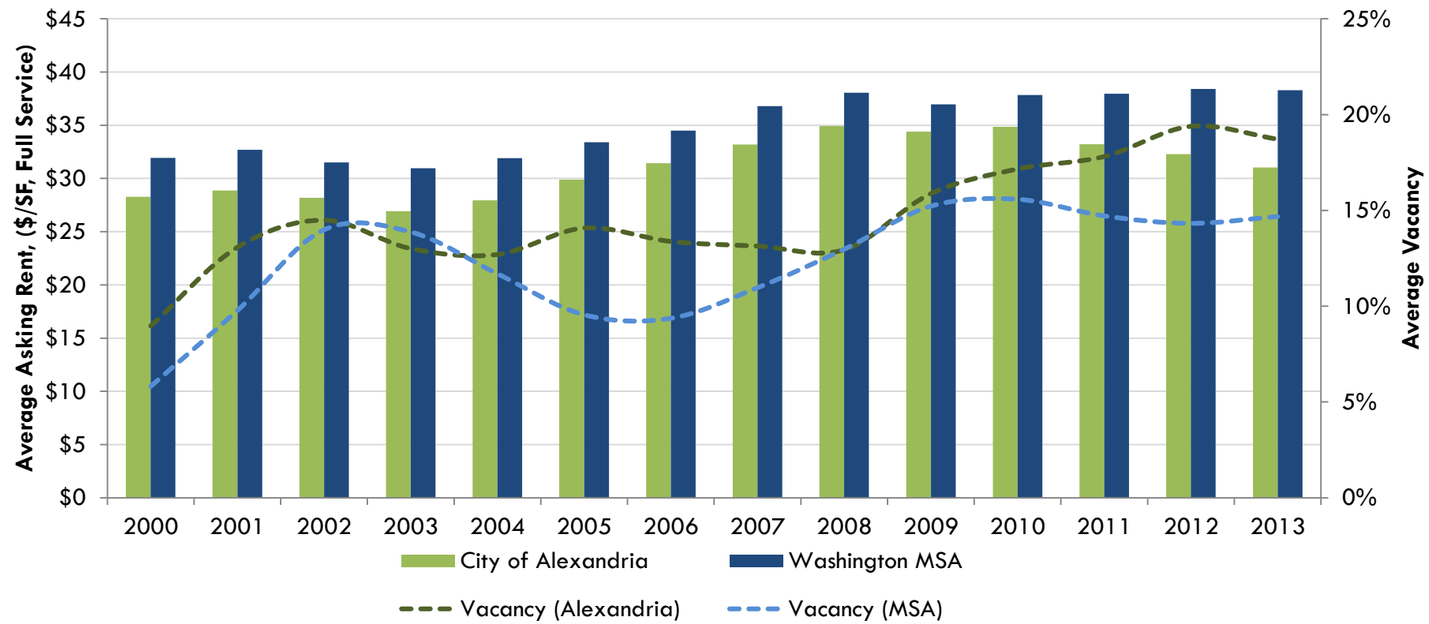


Figure 49: Average Asking Rent and Vacancy, Class A Office, 2000-2013
Source: CoStar

Office Class B

Both regionally and citywide, Class B rents have remained largely stable since 2007, though citywide vacancy has increased rapidly since 2010.

- Rental rates for Class B office space has remained largely stable. However, regional vacancy rates have steadily increased from 9% in 2006 to 14% in 2010 (a 50% increase).
- Similarly, the City experienced a rapid increase in vacancy from 8% in 2010 to 18% in 2013—a 125% increase in almost half the timeframe when compared to the MSA.

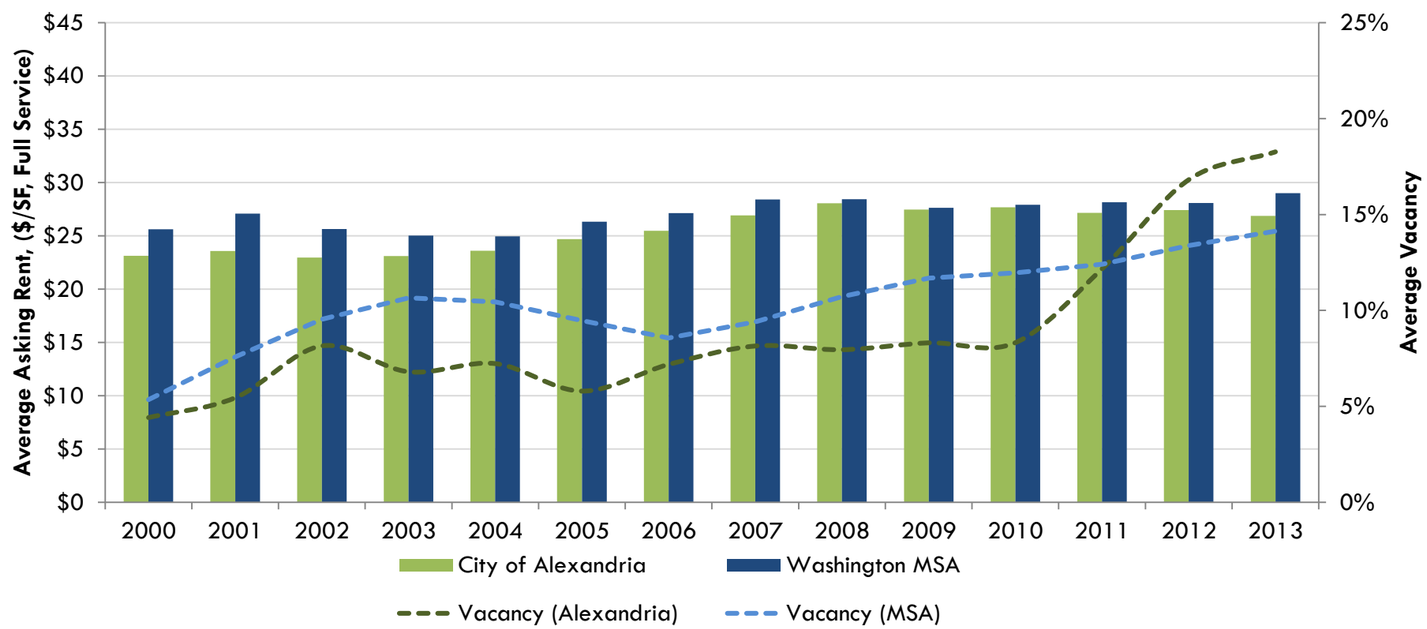


Figure 50: Average Asking Rent and Vacancy, Class B Office, 2000-2013
Source: CoStar

Office Real Estate Market Assessment (cont'd.)

Office: Government Activity

The 2005 round of Base Realignment and Closure (BRAC) has resulted in numerous vacant office properties in the City of Alexandria.

- The latest BRAC round resulted in over 265,000 SF of unoccupied office space throughout the City, as of 2014.
- Through 2017, leases for another 200,000 SF of office space are set to expire as a result of BRAC.

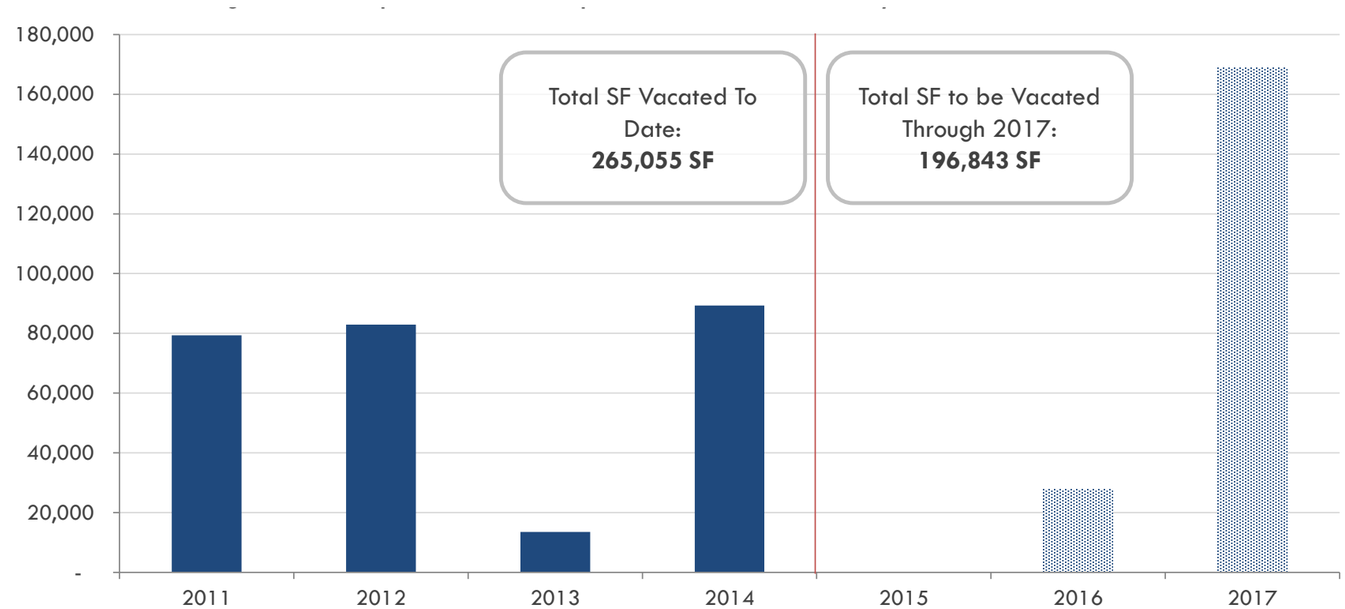


Figure 51: Total Square Feet of Office Space Vacated Due to BRAC,* City of Alexandria, 2011-2017

* Excludes buildings which were demolished or re-leased
Source: City of Alexandria

Office

Conclusions and Implications

Eisenhower West only has four office buildings which account for just over 3% of the total office stock in the City of Alexandria.	Eisenhower West is currently not the focus of office activity in the City.
Regional and citywide office rents have remained flat or declined since the recession, and vacancy rates in the City have surpassed those in the region.	In the near-term, the regional and local office market will continue to soften, indicating declining demand for office space in all markets.
Pre-leasing appears to be the most important factor for new office construction across the region.	There may be opportunities for Eisenhower West to accommodate new office development in the near-term, but likely only if a potential tenant is identified beforehand.
Regionally, Class A buildings have higher vacancy rates than Class B buildings, though decreasing Class A rents may begin to attract tenants.	The Victory Center may find a tenant if these trends continue, though will still struggle to compete with more modern Class A buildings elsewhere.

Industrial Real Estate Market Assessment

Industrial Overview

The Eisenhower West industrial market makes up the majority of industrial product in the City, and is characterized by older buildings and limited new development.

- Industrial properties within the plan area consist of warehouse and flex buildings. These properties account for 78% of all industrial space in the City and drive much of the City's industrial market activity. In interviews with HR&A, brokers note two distinct advantages of Eisenhower West's industrial market: 1) proximity to and location inside the Beltway, and 2) proximity to consumers.[1]
- Brokers also noted, however, that these buildings are older than competitive stock elsewhere, limiting their competitiveness due to higher capital maintenance requirements and obsolete design elements (such as low ceiling heights and narrow column spacing).
- The high concentration of industrial uses also results in a lower job density, which makes it challenging to support retail amenities geared towards workers.

Warehouse	Total Buildings	Total Square Feet	Median Year Built
Eisenhower West	44	2,852,132	1967
City of Alexandria	115	3,231,257	1965
Eisenhower West as % of City	**38%**	**88%**	

Flex	Total Buildings	Total Square Feet	Median Year Built
Eisenhower West	15	578,002	1982
City of Alexandria	62	1,161,167	1966
Eisenhower West as % of City	**24%**	**50%**	

Figure 52: Eisenhower West Industrial Inventory

Industrial Warehouse and Flex

Industrial buildings in Eisenhower West are home to a diversity of tenants in warehouse and flex buildings.

Warehouse

- Warehouses are used for the warehousing and distribution of inventory. Conventionally, warehouses range from 12,500 SF to 125,000 SF in size and maintain 5% to 20% of the building as office space.[2]
- Warehouses in Eisenhower West account for 88% of all warehouse space in the City of Alexandria. Tenants include food vendors and caterers, home services providers (such as plumbers, HVAC technicians, and flooring specialists), electrical contractors, retail distribution centers, as well as UPS and FedEx truck terminals located on Eisenhower Avenue. There is one large distribution center in the area, the 500,000 SF Plaza 500 building in adjacent Fairfax County, which houses Smoot Lumber and other tenants.

Flex

- Flex buildings are designed to be versatile, and can include a number of simultaneous activities ranging from office, research and development, sale of retail goods in a non-store setting, industrial, warehousing, and distribution. Flex space is typically at least 50% office space.
- Flex buildings in Eisenhower West account for 50% of all flex space in the City of Alexandria. Tenants are diverse, and include home goods manufacturing with retail frontages (such as paint suppliers and granite/stoneworkers), printers, law firms, art dealers, auto parts distributors, yoga studios, gyms, a rock climbing gym, and many others.

[1] For example, area residents purchasing goods and service from contractors and home service providers (such as plumbers, HVAC technicians, flooring specialists, etc.), and area hotels purchasing food and catering services from vendors and caterers

[2] Source: CoStar

Figure 53: Plaza 500, 6259 Edsall Road
Source: CoStar

Figure 54: PS Business Park, 4601 Eisenhower Avenue
Source: PS Business Parks

Industrial Real Estate Market Assessment (cont'd.)

Industrial: Warehouse

Though vacancy has continued to climb, there have been only a slight decline in rents both in Eisenhower West and the MSA.

- Though warehouse vacancy in Eisenhower West has increased from 3% to 15% (a 400% increase) between 2008 and 2013 (surpassing the MSA's vacancy rate of 9%), rents have remained largely stable, decreasing from $9.87/sf NNN[1] to $8.58/sf NNN in the same period (a 13% decrease).
- These numbers indicate that, while some tenants are leaving Eisenhower West, the area still can command competitive rents which are higher than those in the MSA.

The area has delivered few new industrial properties in recent years and has largely experienced negative absorption since 2009.

- With the exception of a build-to-suit for Restaurant Depot in 2012, there have been no new warehouses built in Eisenhower West since 1983.
- Negative absorption since 2009—with the exception of a slight positive absorption in 2012—has resulted in increased vacancy throughout all warehouse properties in Eisenhower West.

[1] A "triple-net," or "NNN," lease is an agreement where the tenant/lessee is solely responsible for all real estate taxes, building insurance, and maintenance on the property. Rental rates noted as "NNN" therefore include these costs, which is common for industrial and retail property (and occasionally office).

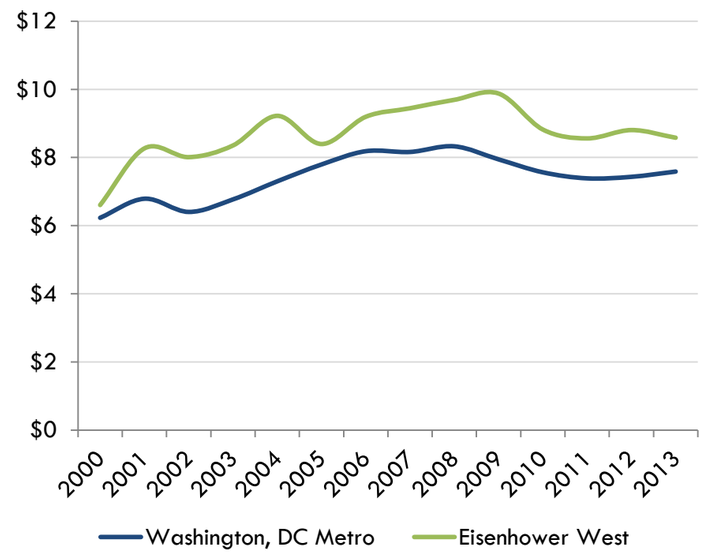


Figure 55: Average Asking Rent, NNN, Warehouse, 2000-2013
Source: CoStar

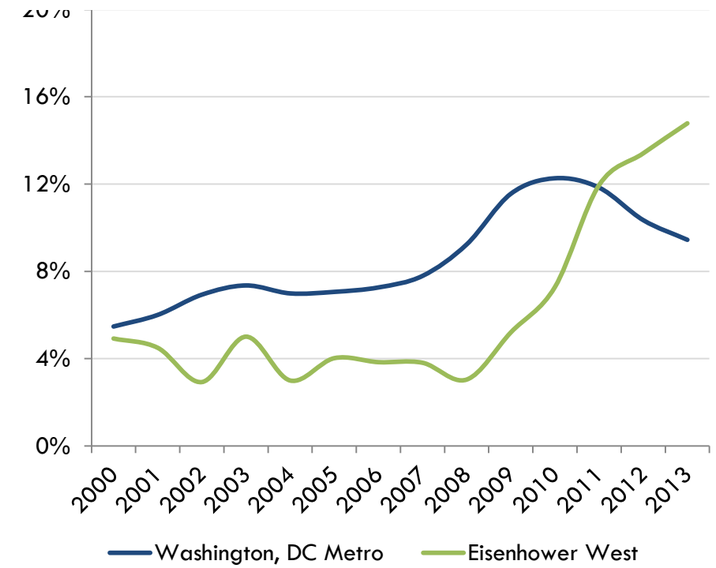


Figure 56: Average Vacancy, Warehouse, 2000-2013
Source: CoStar

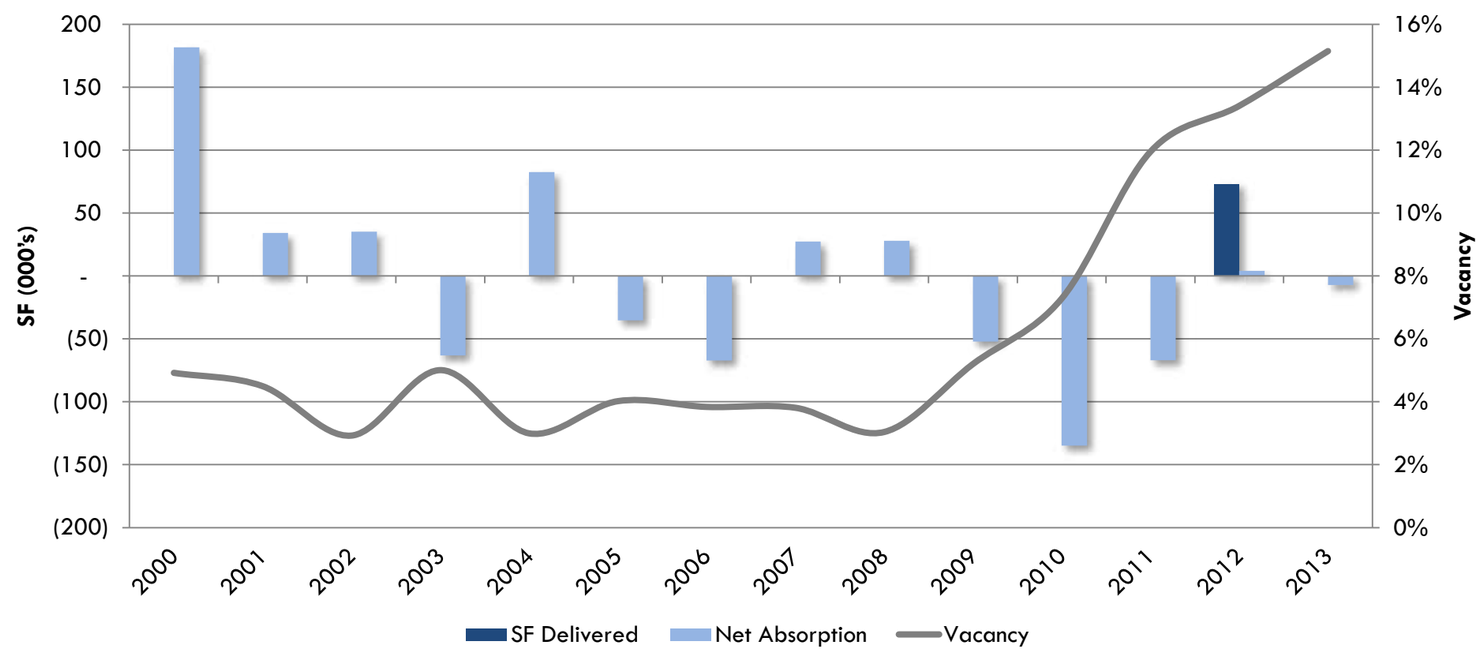


Figure 57: Deliveries, Absorption, & Vacancy, Warehouse, Eisenhower West, 2000-2013
Source: CoStar

Industrial Real Estate Market Assessment (cont'd.)

Industrial: Flex

While Flex in Eisenhower West has typically experienced lower vacancy than the City due to lower rents, in recent years vacancy has surpassed that of the City and the MSA.

- Rents for Flex space in Eisenhower West has consistently been higher than rents in the MSA but much lower than rents in the City overall.
- This gap has widened over time. In 2004, rents in Eisenhower West were only $1.15/sf NNN less than rents in the City overall; however, in 2013, rents in Eisenhower West were $6.02/sf NNN less than in the City overall.
- Typically, this has translated to lower or equal vacancy rates. However, since their lower point at 3% in 2008, vacancy rates in Eisenhower West have increased to 15% in 2013, and have surpassed those of the City (14%) and the MSA (9%), the latter of which has been declining since 2009.

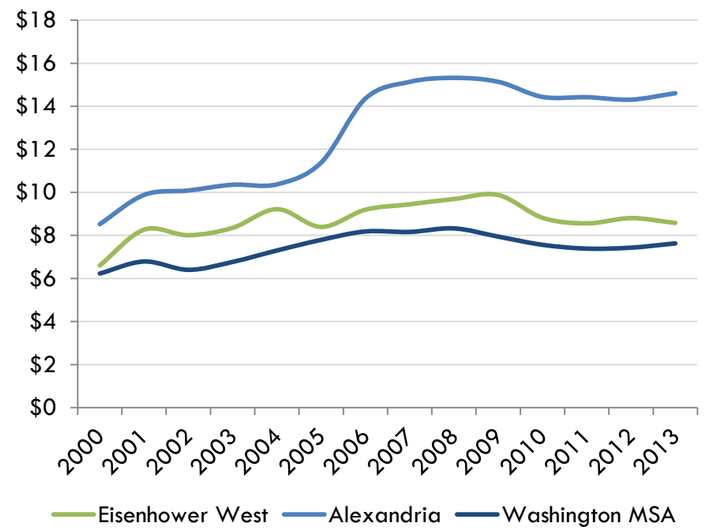


Figure 58: Average Asking Rent, NNN, Flex, 2000-2013
Source: CoStar

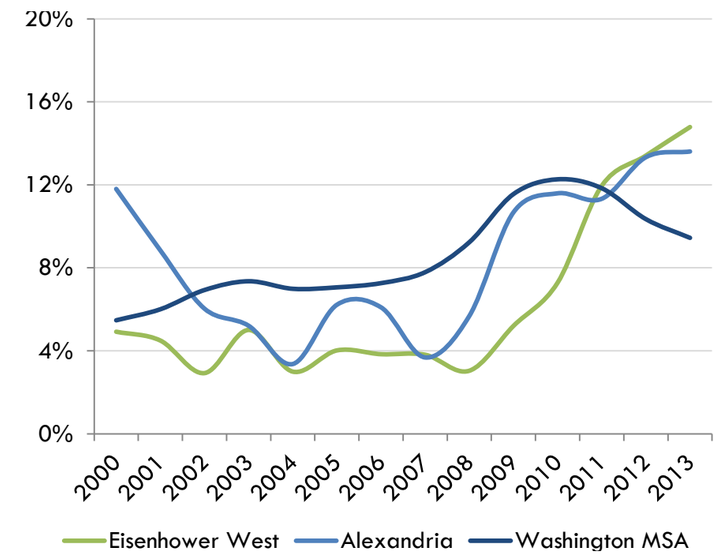


Figure 59: Average Vacancy, Flex, 2000-2013
Source: CoStar

The area has delivered no new Flex properties in recent years and has largely experienced negative absorption since 2008.

- There have been no new deliveries of warehouse product in Eisenhower West since 1985.
- With the exception of 5,000 square feet in 2010 and 18,000 square feet in 2011, Eisenhower West has experienced negative absorption ranging from -56,000 square feet to -38,000 square per year since 2008.

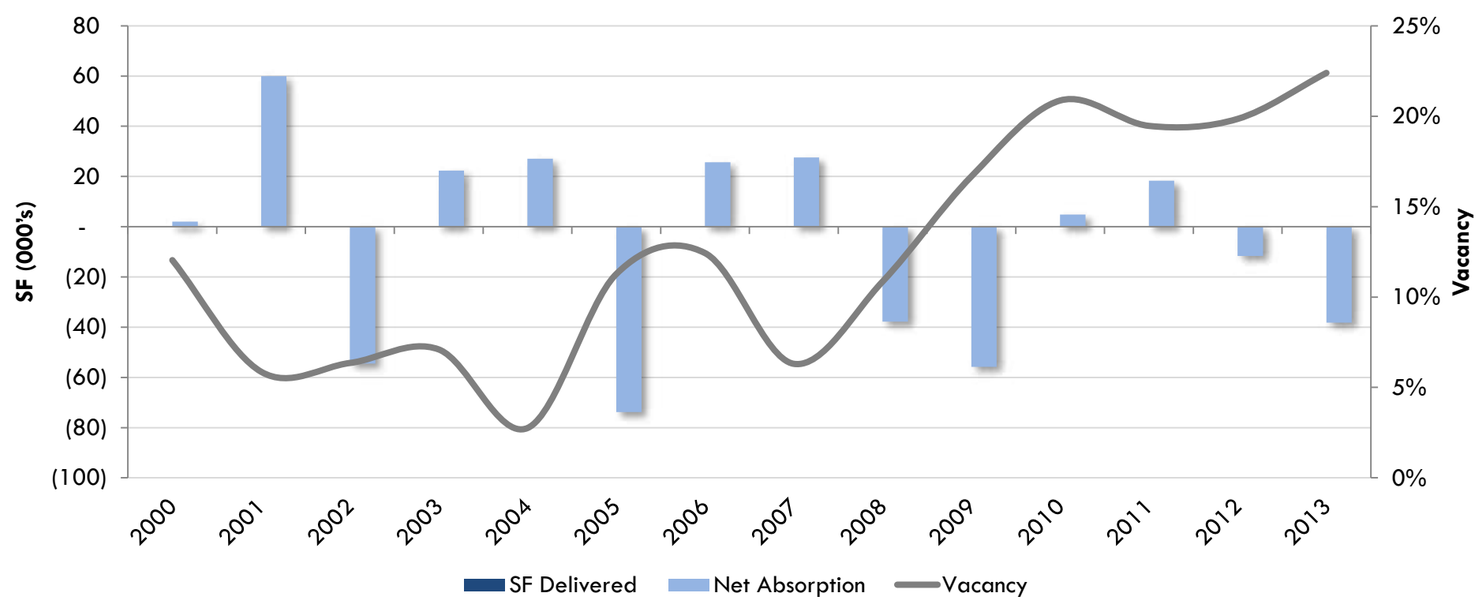


Figure 60: Deliveries, Absorption, & Vacancy, Flex, Eisenhower West, 2000-2013
Source: CoStar

Industrial Real Estate Market Assessment (cont'd.)

Industrial

Conclusions and Implications

Excluding Restaurant Depot, no new industrial space has been developed since 1985, resulting in a very old and out of date industrial stock.	The age of many of the buildings may be impacting their competitive advantage over properties elsewhere in the region with more modern layouts, which may negatively impact the long-term competitiveness of the area's industrial building stock.
Eisenhower West drives the City's warehouse and flex market, and rents have been consistently higher compared to the MSA.	Eisenhower West will continue to be competitive in the near-term due to its location inside the Beltway and proximity to customers, and this demand may also drive some level of long-term investment in industrial property.
Vacancy in Eisenhower West has increased for both warehouses and flex buildings, reflecting the age of the buildings and decline in key industry sectors.	The future of industrial uses in Eisenhower West will depend in the area's ability to continue to attract from growing industries and compete regionally.

Hotel Real Estate Market Assessment

Hotel Overview

Eisenhower West currently lacks a robust hotel market.

- HR&A analyzed clusters of hotels in and adjacent to Alexandria and grouped them into "primary" and "secondary" markets of at least three hotels. HR&A also identified a single hotel – the Comfort Inn & Suites Alexandria – located near the study area.
- Primary markets consist of hotels in areas that are key office clusters and/or heavily visited by tourists. Secondary markets consist of hotels in areas that do not have office clusters, but are adjacent to primary market areas or are accessible to major highways.
- There are no hotels within Eisenhower West, and the Comfort Inn & Suites Alexandria is the only hotel nearby, located just outside of the plan area boundary.

Hotel Supply

Hotels in Eisenhower West are characteristic of those in secondary market areas that offer less expensive accommodations with Beltway access.

- Hotels in primary markets primarily consist of the more expensive upper upscale, upscale, and upper midscale chains.[1]
- Hotels in secondary markets primarily consist of economy and upper midscale chains for customers looking for less expensive options without sacrificing accessibility. The Comfort Inn & Suites Alexandria near Eisenhower West is representative of this group.

[1]Chain scales are grouped based on average room rates. In order of least expensive to most expensive, these groups are: economy, midscale, upper midscale, upscale, upper upscale, and luxury.

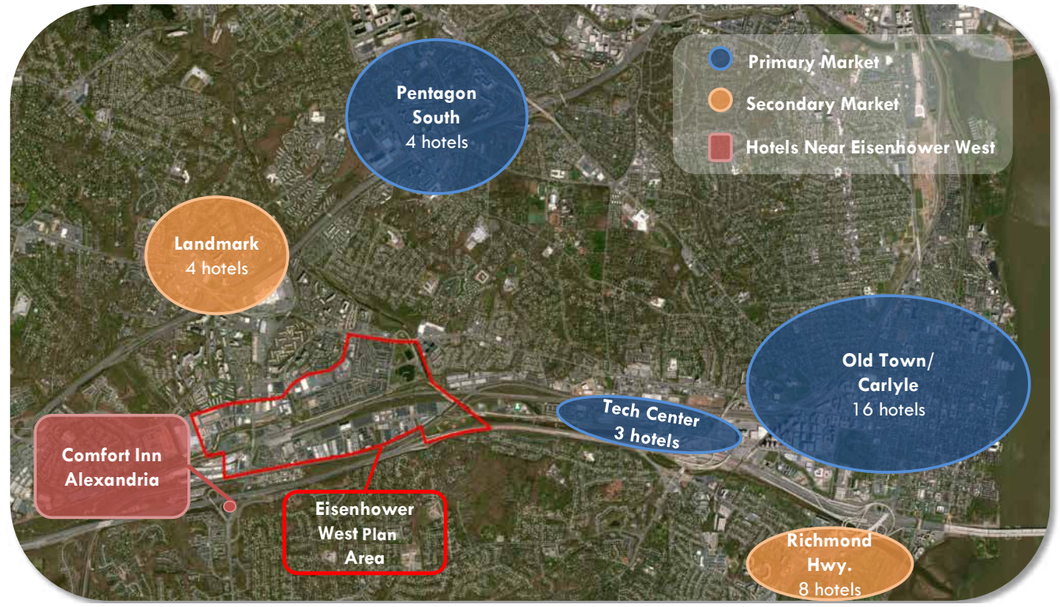


Figure 61: Regional Hotel Supply
Source: Smith Travel Group , HR&A Advisors

Market	Hotels	Total Rooms	Primary Classes	Flags	Customer Base
PRIMARY					
Old Town/Carlyle	16	2,657	Upscale, Upper Upscale	Westin, Kimpton, Hilton, et al	Tourists and business visitors
Pentagon South	4	934	Upper Midscale, Upscale	Hampton Inn, Hilton, et al	Business visitors (Mark Center, Bailey's Crossroads)
Tech Center	3	465	Economy, Upper Midscale	Courtyard by Marriot, Extended Stay, Springhill Suites	Tech Center visitors; customers looking for less expensive options near Old Town/Carlyle
Subtotal	*23*	*4,056*			
SECONDARY					
Landmark	4	552	Economy, Upper Midscale	Days Inn, Comfort Inn, et al	Customers looking for less expensive options on the Beltway
Richmond Highway	8	707	Economy, Upper Midscale	Days Inn, Red Roof Inn, Holiday Inn, Springhill Suites, etc.	Customers looking for less expensive options near Old Town/Carlyle
Hotels Near Eisenhower West	1	143	Upper Midscale	Comfort Inn & Suites	Customers looking for less expensive options on the Beltway
Subtotal	*13*	*1,402*			
Total	**36**	**5,458**			

Figure 62: Alexandria Hotel Markets
Source: Smith Travel Group

Hotel Real Estate Market Assessment (cont'd.)

Hotel Supply (cont'd.)

Hotel markets in western portions of Alexandria have delivered no new hotels since the late 1990s, and those near Eisenhower West were delivered even earlier.

- Recent hotel development activity has been concentrated in primary and secondary markets in and around Old Town and Carlyle, where recent construction has delivered nine new hotels since 2000. New construction hotels have included upper midscale chains in secondary markets, such as the Courtyard Alexandria in Tech Center in 2010, upper upscale chains in primary markets, such as the Hilton Garden Inn Old Town in 2014.
- By contrast, hotels in primary and secondary markets in areas to the west have seen no new construction since the late 1990s. The latest new delivery was of the Extended Stay America in Landmark in 1999.
- Near Eisenhower West specifically, new hotel development is even older: the most recent delivery of a hotel currently in operation was the Comfort Inn & Suites Alexandria in 1965[1].

Hotel Demand

The hotel market in Northern Virginia has grown, with steadily increasing demand and a similarly increasing supply resulting in a stable occupancy rates since 2008.

- Demand equals the total number of room nights sold in a year. The demand for hotel rooms in Northern Virginia – which includes Alexandria, Arlington County, and Fairfax County – increased by 12.2% between 2008 and 2013. Hotel supply, which is the number of room nights available in a year, has increased at a similar rate (13.5%) in the same time period.
- As a result of the similar rates of increase for both demand and supply, occupancy rates for hotels in Northern Virginia have remained relatively stable, averaging 69.9%. These dynamics are due in part to the stable employment rates in the city and in the region, combined with tourism to Alexandria.
- However, RevPAR—a measure of hotel financial performance—has decreased over this same time period. This indicates that hotels in Northern Virginia have had to lower average daily room rates in order to attract customers in the competitive market.

[1] Washington Suites, another hotel located near Eisenhower West, was converted from multifamily apartments to a hotel in 1984. However, the building is currently being converted back to multifamily apartments and is no longer a factor in the local hotel market.

Market	Market Type	Primary Classes	Years Built
Old Town/Carlyle			
Old Town/Carlyle	Primary	Upscale, Upper Upscale	1960-2014
Tech Center	Primary	Economy, Upper Midscale	1991-2011
Richmond Highway	Secondary	Economy, Upper Midscale	1954-2010
Western Portions of Alexandria			
Pentagon South	Primary	Upper Midscale, Upscale	1975-1996
Landmark	Secondary	Economy, Upper Midscale	1972-1999
Hotels Near Eisenhower West			
Comfort Inn and Suites	Secondary	Upper Midscale	1965

Figure 63: Alexandria Hotel Markets, Years of Construction Activity
Source: Smith Travel Group

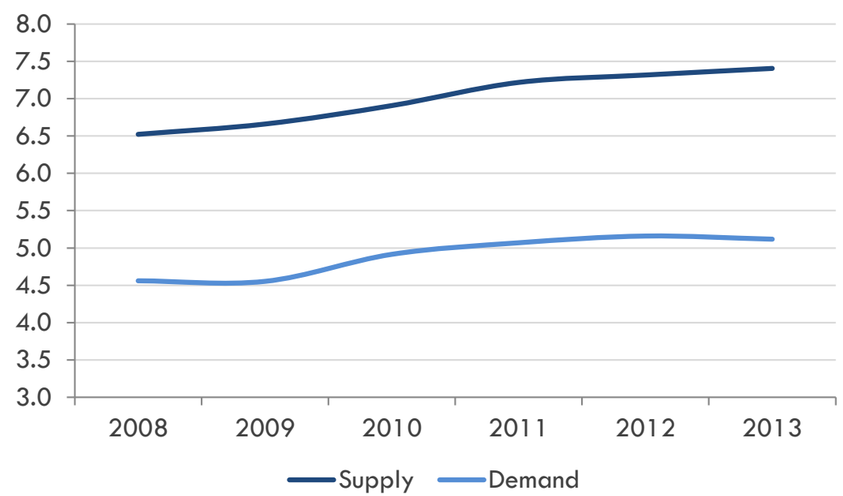


Figure 64: Annual Supply and Demand, Northern Virginia, 2008-2013 (millions of rooms)
Source: Smith Travel Group

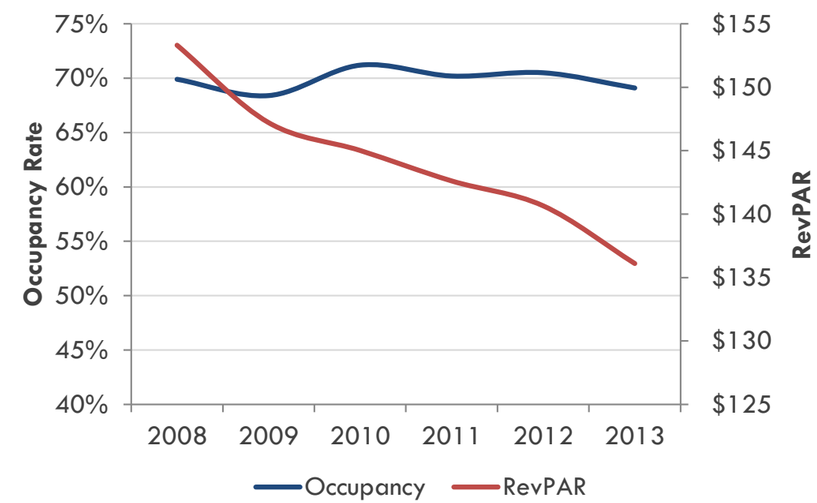


Figure 65: Occupancy Rate and RevPAR*, Northern Virginia, 2008-2013
Source: Smith Travel Group
*"RevPAR" refers to "Revenue Per Available Room." This metric is calculated by multiplying the average daily room rate by the percentage occupancy, and represents the financial performance of a sample of hotels. RevPAR does not take into account revenue from other hotel services, such as restaurants.

Hotel Real Estate Market Assessment (cont'd.)

Hotel

Conclusions and Implications

While occupancy rates have remained stable in the context of increasing supply and demand, RevPAR has declined significantly.

The regional hotel market is highly competitive. The relative stability in occupancy rates has been achieved at the expense of hotel revenues, which will impact the potential for new development in both the short- and medium-term.

Hotels in secondary submarkets with flags most likely comparable to what could be supported in Eisenhower West are generally older, particularly in submarkets in western portions of the City and adjacent to the Beltway.

There may be an opportunity in Eisenhower West for development of a new, mid-priced hotel that would compete with the older products in other highway adjacent locations.

Conclusions: Opportunities and Challenges

Short Term (0-7 years)

- Eisenhower West will experience demand for new residential development. The area has already seen some infill residential development and this pattern could continue on key sites.
- There is currently demand for additional retail in Eisenhower West. However, near-term plans for the redevelopment of Landmark Mall and the Van Dorn Corridor, as well as retail activity elsewhere in the region, may absorb much of the region's demand for comparison goods shopping in the near-term, limiting retail development to neighborhood-oriented retail establishments serving primarily convenience goods, and dining.
- Stable industrial rents indicate there is currently still demand from tenants seeking locations inside the Beltway close to consumer and business markets.
- Any new office development in the near-term will face weak regional and citywide office market dynamics, and new office development in Eisenhower West will be limited to those opportunities when a potential tenant is lined up ahead of time. However, there may be support for new office in mixed-use developments catering to small professional services or medical office spaces developed as part of larger mixed-use projects.
- Near-term prospects for hotel development are challenging, as the recent decline in RevPAR indicates growing competition among all hotels. Due to Eisenhower West's access to major highways, there may be opportunities to develop hotels with flags similar to those found in competitive secondary markets, but market fundamentals may first need to improve.

Medium Term (7-15 years)

- Residential demand will likely remain strong as millennials (a generation larger than the baby boomers) reach peak household formation years.
- As new residential development is introduced both in Eisenhower West and in nearby neighborhoods, the demand for all types of retail will increase, (particularly for convenience goods), and Eisenhower West can capture some of this demand.
- New or replacement industrial development to replace aging buildings will start to be necessary, but may be challenging given the comparatively high cost of land versus achievable industrial rents. This will increase pressure for conversion of buildings with previously stable industrial tenants.
- The area may also be attractive to institutional users (colleges, medical facilities, cultural uses, etc.) that will value the area's transportation network and access to strong residential neighborhoods.
- Traditional office development will likely remain challenging, unless tenants are identified in advance of new building construction.
- Should RevPAR increase, new hotel development in the medium-term will most likely replace existing rooms, and may not add net new rooms to the market. This may result in few opportunities to develop a new hotel in Eisenhower West, but as in the short term, the area's accessibility to major highways may still justify the development of a lower-cost flag similar to those in comparable secondary markets.

Long Term (15-30 years)

- Eisenhower West is well positioned for balanced residential and commercial development. A strategic development plan should consider continued residential and commercial development at key nodes.
- In the long term, new industrial development in this area will likely be very challenging as land prices increase and new industrial development seeks cheaper opportunities further away. The expiring of long-term leases will present opportunities to attract new types of development to the area and standardize its commercial and residential character.
- In the future, opportunities for office development may arise as vacant space around Metro stations closer to the region's center is absorbed. The area may also be attractive to institutional users (colleges, medical facilities, cultural uses, etc.) that will value the area's transportation network and access to strong residential neighborhoods.
- Should demand from these users increase, and Eisenhower West begins to more resemble some of the city's other primary office markets, so will demand for a wide range of hotel chains in the area. In addition, as market fundamentals improve over the long-term, new hotel development may be feasible in Eisenhower West. As hotels have similar building envelopes to multifamily buildings, long-term planning efforts should endeavor to identify areas which can remain flexible and accommodate both uses.

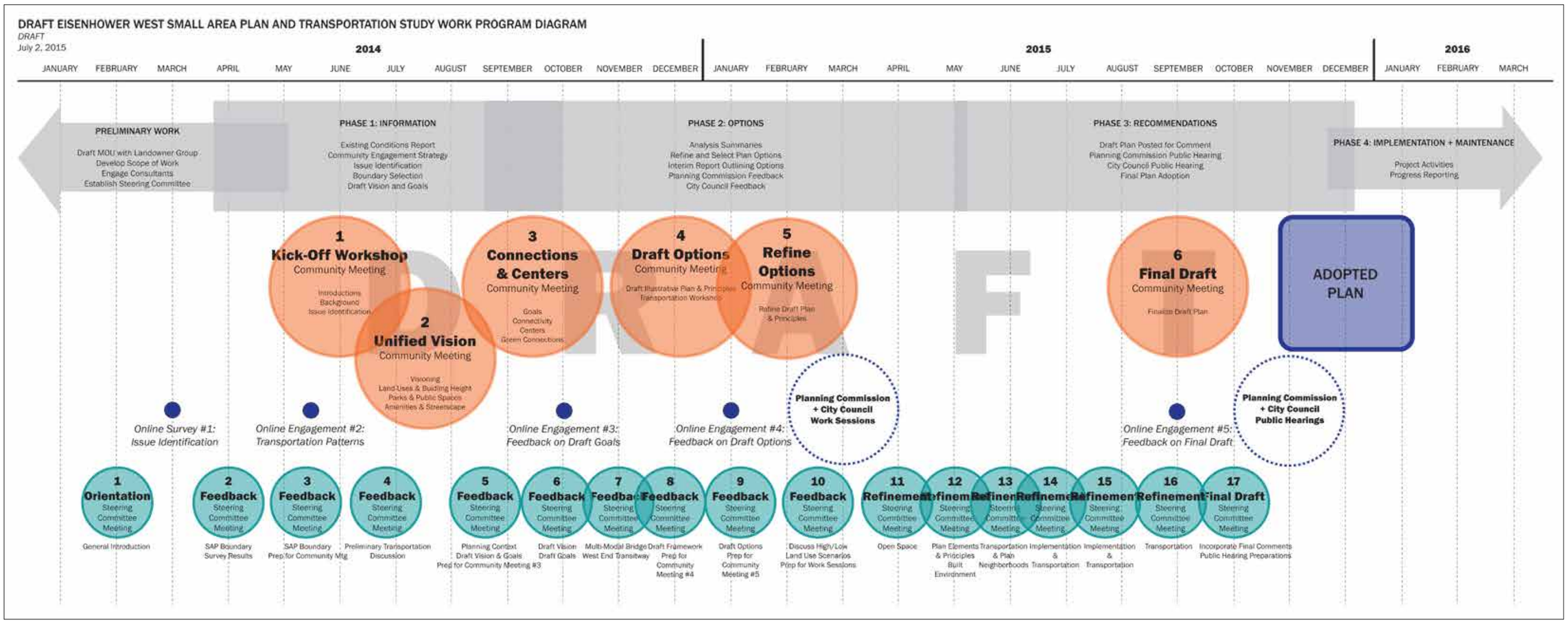
APPENDIX D - COMMUNITY ENGAGEMENT

The Department of Planning and Zoning conducted extensive up-front work to gather information, and frame the planning process. A Steering Committee comprised of landowners and their representatives, local residents, and stakeholders was convened to guide the planning process. A multi-disciplinary consultant team was engaged to provide technical assistance including SmithGroupJJR for urban design, planning, architecture, and energy expertise; HR&A Advisors for expertise with market economics and plan implementation; and Greening Urban for analysis and expertise on the sanitary sewer and sustainable stormwater management elements of the plan. Components of the planning process included:

- Community Engagement
- Issue Identification
- Visioning and Goal Setting
- Existing Conditions Analysis
- Existing Market Analysis
- Development of Alternative Concepts
- Draft Plan Development
- Energy and Environmental Analysis
- Economic Analysis
- Infrastructure Cost and Developer Contribution Analysis
- Implementation Plan
- Plan Documentation

Interdepartmental Coordination

Throughout the planning process, P&Z staff and the consultant team coordinated with representatives of other City departments including:



- Transportation and Environmental Services
- Recreation, Parks, and Cultural Activities
- Alexandria Economic Development Partnership
- Office of Housing

Coordination with Transportation Study

The City conducted a concurrent transportation study for an area encompassing, but larger than, the Eisenhower West study area. The Transportation Study describes and addresses the transportation implications of future development in the area and the potential location, alignment, and impact of a new multi-modal bridge. The bridge would provide additional connectivity between Eisenhower Avenue and the Van Dorn Metrorail station to the south and roadways to the north. The Small Area Plan and the Transportation Study coordinated their efforts throughout the planning process.

Coordination with Utilities

In order to coordinate efforts on critical infrastructure elements that support the Small Area Plan, the project team also met with representatives of the following companies:

- Covanta
- AlexRenew
- Washington Gas
- Dominion Virginia Power

Coordination with Fairfax County

P&Z staff also coordinated with representatives of Fairfax County's Department of Planning and Zoning who also attended Steering Committee and Community Meetings.

Conclusion

The Eisenhower West Small Area Plan was approved by the City Council on November 14, 2015..

COMMUNITY ENGAGEMENT

The Eisenhower West Small Area Plan was developed through a multi-faceted and interactive community engagement process guided by the City-adopted Civic Engagement Principles and supporting practices established in the *What's Next Alexandria Handbook for Civic Engagement*. This outreach approach was designed to maximize participation, gather ideas from residents and stakeholders, and ensure a successful and inclusive planning process to achieve the vision and goals for Eisenhower West.

Photos from Community Meeting #1

EISENHOWER WEST SMALL AREA PLAN MEETINGS

Community Meetings

#1 June 16, 2014	Issues and Opportunities
#2 July 28, 2014	Vision and Goals
#3 September 29, 2014	Nodes, Connections Green Connections
#4 December 8, 2014	Framework Plan Conceptual Land Use Options
#5 February 9, 2015	Concept Plan
#6 September 19, 2015	Draft Plan

Steering Committee Meetings

February 19, 2014	February 23, 2015
April 29, 2014	April 27, 2015,
June 12, 2014	May 13, 2015
June 30th, 2014	May 19, 2015
September 8th, 2014	June 22, 2015
September 25th, 2014	July 27, 2015
November 10, 2014	September 9, 2015
November 24, 2014	October 14, 2015
January 26, 2015	

Steering Committee

In early 2014, the Alexandria City Council appointed a 12-member Steering Committee comprised of various commission representatives, community residents, stakeholders, and landowners' representatives to provide guidance on process related issues, including reviewing and giving feedback on the proposed community engagement, the small area plan boundary, tools and strategies for engagement, agenda setting, community outreach and communications, among other tasks. They also weighed in on technical content elements, such as the project scope and development scenarios for consideration in the transportation study. All 17 Steering Committee meetings were open to members of the public.

Details and materials from all Steering Committee Meetings can be found at http://www.alexandriava.gov/planning/info/default.aspx?id=82036

Community Meetings

Six community meetings were held during the course of the planning period and provided key guidance in shaping the vision of the plan. Each meeting consisted of a presentation by P&Z staff and the consultant team followed by interactive exercises designed to solicit ideas, opinions and feedback on the concepts, options and materials presented. The meetings were designed to be iterative; each successive meeting recapped the previous and built on its results. Doing so illustrated to participants the logical progression and layering of ideas that resulted in the major elements that make up the Eisenhower West Small Area Plan.

Materials from all meetings can be found at http://www.alexandriava.gov/82036

Community Meeting #1: Issues And Opportunities

Planning and Zoning staff introduced the Eisenhower West Small Area Plan project and described the project boundaries, scope, schedule and planning process, and the role of the Steering Committee. They also described the scope of the Transportation Study and the coordination that would take place with the Small Area Plan. Participants engaged in a discussion of key issues and opportunities related to the major elements of the Small Area Plan.

Community Meeting #2: Vision And Goals

An interactive exercise was conducted to help community members envision the future of Eisenhower West. Participants were asked to describe what they liked about Eisenhower West and what they would like to see improved. An artist recorded the results of the discussion, producing the graphic image shown below.

Photos from Community Meeting #2

Photos from Community Meeting #3

Attendees also participated in a dot exercise indicating preferences regarding Land Uses and Building Heights, Parks and Public Spaces, and Amenities and Streetscape Elements for four sub-areas within Eisenhower West.

A third visioning exercise asked participants to think about the places that they were familiar with in Eisenhower West area, and place dots on a map showing locations they thought should be preserved, enhanced, or transformed.

Community Meeting #3: Centers, Connections, Green Connections

The draft goals for the Small Area Plan were described and participants were given the opportunity to comment on the wording. A small group drawing exercise followed in which participants identified the locations of key existing and future nodes, or centers of mixed-use activity. They also determined the appropriate scale for a network of blocks and street connections and where important new green connections and spaces should be placed as well as which existing spaces should be enhanced. Each group then presented their ideas for these framework elements for the plan to the larger group. The discussion revealed commonalities and presented new ideas for the group to weigh in on.

Community Meeting #4: Framework Plan, Conceptual Land Use Options

A presentation of two versions of a draft Framework Plan were presented, resulting from the small group exercises that were conducted at Community Meeting #3. The Framework Plan illustrated the general consensus that was developed during the previous meeting on the locations of future mixed-use nodes, a potential future grid of streets and blocks, and green connections and open spaces throughout Eisenhower West.

A discussion of land use types and a presentation of four conceptual land use options for the future of Eisenhower West followed. The options illustrated through diagrams and images different approaches for distributing land uses in order to achieve the community's vision for the plan area, while integrating the elements of the Framework Plan. A small group exercise was conducted after the presentation during which participants discussed the strengths and weaknesses of the overall concepts and of specific elements of each concept. Each small group then presented their findings to the attendees for additional discussion and feedback.

Photos from Community Meeting #4

Photos from Community Meeting #5

Community Meeting #5: Concept Plan

The concept plan developed throughout the community engagement process was presented including its component elements, such as the characteristics of a "Great Street" and land uses (retail, office, civic, institutional, mixed use, residential, flex space).

The presentation further described the idea of "green fingers", options for the multimodal bridge, and how the refined land use concept plan was derived by layering the plan elements of nodes, existing streets, future streets and connections, parks and green fingers, blocks, land uses, and heights.

Community Meeting #6: Draft Small Area Plan

The Draft Small Area Plan was presented during the 6th and final community meeting and began with an introductory presentation by Planning Director Karl Moritz describing the background and goals of the plan for Eisenhower West. This was followed by a recap of the results of the planning process and previous community meetings. The major elements of the plan were presented including the overall concept for the plan; the land use, transportation and connectivity, parks and open space, and sustainability elements of the plan including energy, sanitary sewer and stormwater. An illustrative drawing and perspective renderings

Photos from Community Meeting #6

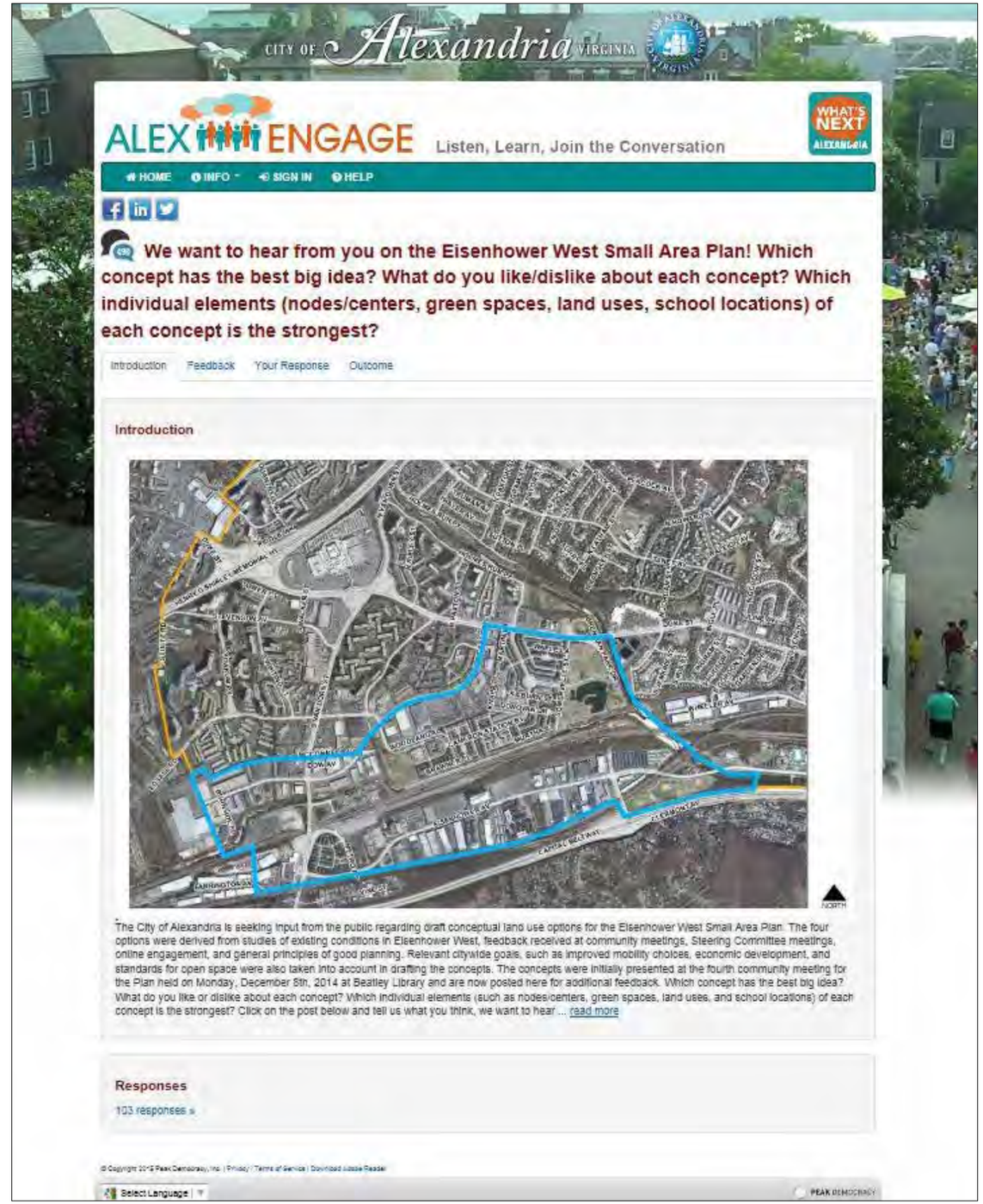


Image from AlexEngage web page for Eisenhower West

of the plan provided more detailed information on the plan and on proposed improvements to each of the 6 neighborhoods within the plan area. Participants then circulated to stations where they could discuss specific elements of the plan, ask questions and provide feedback to the planning team. The Draft report was posted on AlexEngage to solicit additional comments online.

Online Engagement

An essential part of the engagement strategy was an interactive online component that supplemented the Steering Committee and Community Meetings. After key Community Meetings, P&Z posted information from the meeting using the City's AlexEngage website (http://engage.alexandriava.gov) providing a platform for polling, comments, and feedback on specific questions. Both participants who attended the Community Meetings, as well as those who could not attend, had a platform for giving additional feedback. Online engagement played an integral role in updating the public on the progression of the planning process, and the concepts and ideas being developed.

PLANNING CONTEXT

The Eisenhower West Small Area Plan builds on and is informed by several previous plans and studies including:

- Alexandria Industrial Use Study (2009)
  http://alexandriava.gov/uploadedFiles/planning/info/IndustrialUseStudy_Forweb.pdf
- Eisenhower East Small Area Plan (2003)
  http://alexandriava.gov/uploadedFiles/planning/info/eisenhowereast-carlyle/EESAP.pdf
- Landmark/ Van Dorn Corridor Plan (2009)
  https://www.alexandriava.gov/uploadedFiles/planning/info/landmark-vandorn/LVDPlanAllweb.pdf
- Landmark/ Van Dorn Small Area Plan (1992)
  http://alexandriava.gov/planning/info/default.aspx?id=44614#LVD
- Alexandria Open Space Master Plan (2002)
  https://www.alexandriava.gov/uploadedfiles/recreation/info/OpenSpacePlan.pdf
- Citywide Parks Improvement Plan (2014)
  http://alexandriava.gov/recreation/info/default.aspx?id=65170
- Complete Streets Design GuidelinesPolicy (2011)
  http://alexandriava.gov/localmotion/info/default.aspx?id=49868
- Eco City Charter (2008)
  https://alexandriava.gov/uploadedFiles/tes/oeq/EcoCityCharter2008.pdf
- 2030 Environmental Action Plan (2009)
  http://alexandriava.gov/uploadedFiles/tes/eco-city/EAP_FINAL_06_18_09.pdf
- Green Building Policy (2009)
  https://www.alexandriava.gov/uploadedFiles/planning/info/GreenBuildingPolicyhandout.pdf
- Long Range Educational Facilities Plan (2015)
  https://www.alexandriava.gov/uploadedFiles/planning/info/FINALLongRangeEducationalFacilitiesPlanJune232015v3reduced.pdf
- Housing Master Plan (2013)
  https://alexandriava.gov/uploadedFiles/housing/info/Housing%20Master%20Plan%20Final.pdf
- Parks and Recreation Needs Assessment (2013)
  https://alexandriava.gov/uploadedFiles/recreation/info/2013_Alexandria%20Final%20Report.pdf
- Pedestrian and Bicycle Mobility Plan (2008)
  http://alexandriava.gov/uploadedFiles/tes/info/FINAL_FULLPLAN_060108.pdf
- Transitway Corridor Feasibility Study (2012)
  http://alexandriava.gov/HighCapacityTransit
- Transportation Master Plan (2008)
  https://alexandriava.gov/uploadedfiles/tes/info/tes_tmp_complete.pdf

APPENDIX E - CASES STUDIES

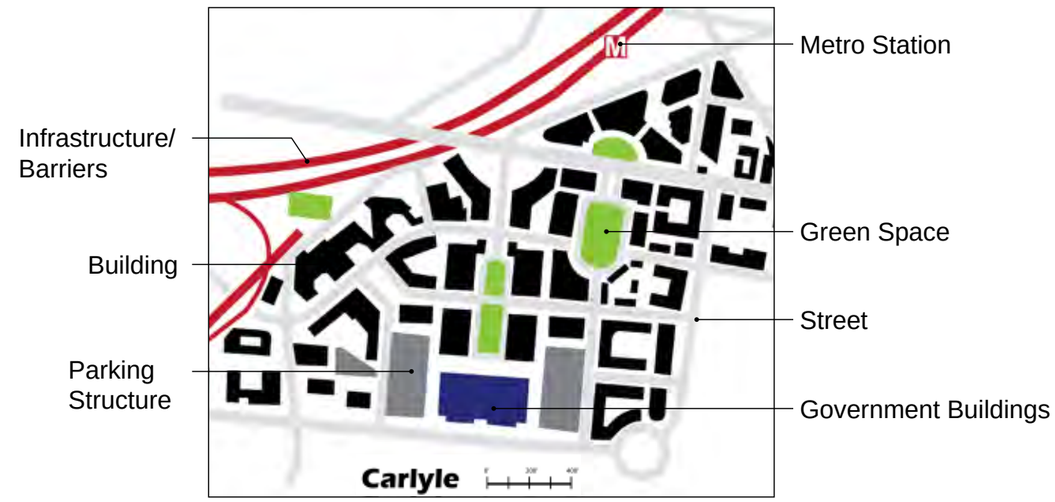
Eisenhower West Plan Area

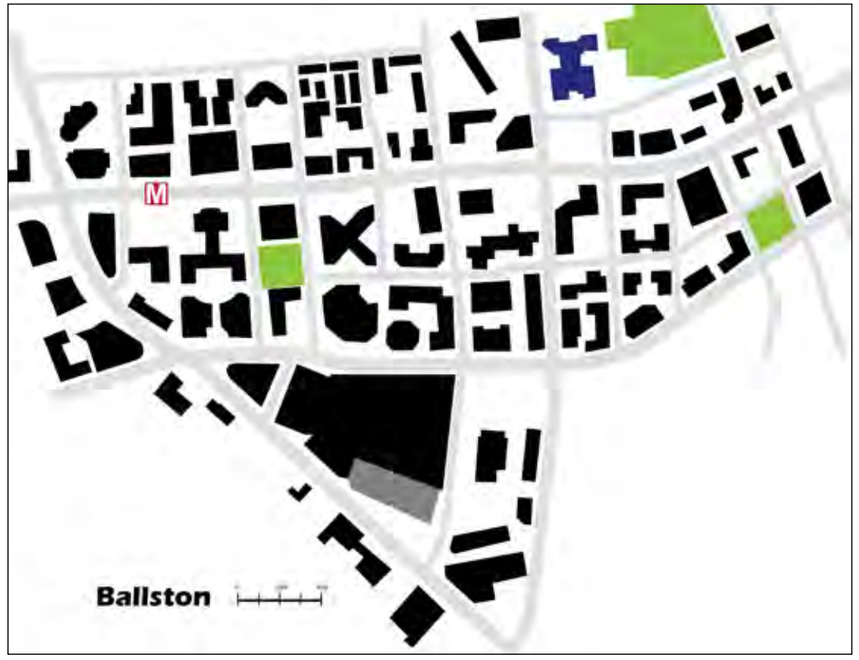
Scale Comparisons

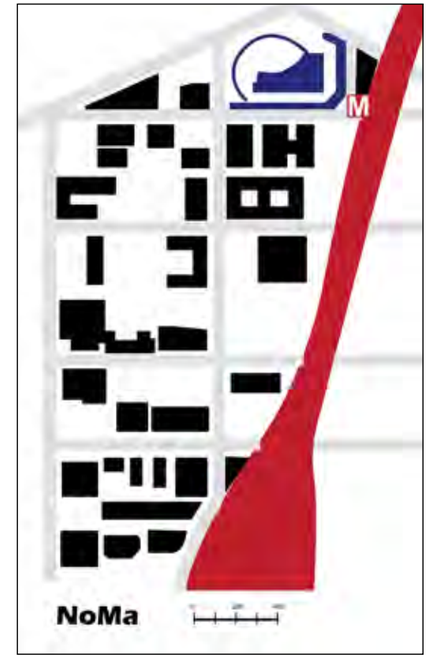
The urban areas illustrated here are showbn at the same scale as the Eisenhower West plan on the previous page.

Similarities to Eisenhower West

- Urban edge communities developing/densifying
- Transit-oriented, walkable
- Above-ground presence of infrastructure acting as a barrier/boundary on the site
- Government offices used to spur development
- Former warehouse/light industrial uses on the site







Reston Town Center

	Phase 1 (1990)	Phases 1+2 (2009)
Retail*	240,000 sf	360,000 sf
Office	530,000 sf	2.1 million sf
Residential		360 units
Theater	13 screens	13 screens
Hotel	514 rooms	514 rooms
Parking		7,000 spaces (6 garages + 1 surface lot)
Open Space	Fountain Plaza	Fountain Plaza
Site	20.6 acres	85 acres

*Retail area includes theater

Key Elements

- Developers determined "critical mass" needed to Phase 1 to be successful on it's own for 10 years

Mosaic District

	Phase 1 (2012)	Phase 1+2
Target	170,000 sf	170,000 sf
Other Retail	170,000 sf	350,000 sf
Office	75,000 sf	170,000 sf
Residential		782 apartments, 138 townhomes
Theater	8 screens	8 screens
Hotel	148 rooms	148 rooms
Parking	2,000 spaces	4,000 spaces, 2 garages
Open Space	1 acre park	2 acres of park
Site	31 acres	31 acres

Key Elements

- Fairfax County and developer Edens formed community development authority (CDA) public/ private partnership
- Used CDA bonds and TIF to finance
- Big box Target sits on top of 3 levels of parking and ground floor retail
- Located 0.5 mi from Dunn Loring Metro
- LEED-ND Silver

Hyattsville Arts District

Retail	40,000 sf
Residential	500 units
Site	25 acres

Key Elements

- Hyattsville Community Development Corporation pursues small business to maintain the character and local, sustainable focus of the community
- Route 1 Corridor plan spans 2 miles through Hyattsville, Brentwood, Mt Ranier
- Current site is an excess of parking and unimproved lots
- Revitalization tools include: arts & entertainment district tax incentives, revitalization tax credits, high technology growth and development incentives, shared parking facilities
- Located 1.5 mi from 2 Metro stations

Rockville Town Center

	2007
Office, Retail, Restaurants	180,000 sf
Residential	644 units
Library	102,000 sf
Parking	1,900 spaces
Site	12.5 acres town center 60 acres total

Key Elements

- Located 15 miles north of Washington, DC
- Direct access to Rockville Metro Plaza (separate project) and Metrorail, plus nearby access to Amtrak/Maryland Area Regional Commuter Train
- Six-blocks of urban infill
- 102,000-square-foot county library and five-story VisArts arts and business innovation center
- 28,000-square-foot public plaza with pavilion and water feature
- Three public/private parking garages

Ft Totten Square

BIG BOX RETAIL

	2015
Walmart	125,000 sf
Other Retail	10,000 sf
Residential	345 units
Parking	775 spaces, below grade and structured
Site	4.6 acres

Key Elements

- Ground-floor Walmart and small retail
- 4 levels residential above
- 1 level parking (400 spaces) below grade for retail; separate garage for residents (375 spaces)
- Located 0.5 mi from Fort Totten Metro

DC-USA

BIG BOX RETAIL

	2008
Target	180,000 sf
Other Retail	695,000 sf
Local Retail	15,000 sf
Parking	1,000 spaces, below grade
Site	5 acres

Key Elements

- Development Corporation of Columbia Heights (DCCH), non-profit community development organization, coordinated neighborhood revitalization
- 2 floors of big boxes above ground floor retail
- Local retail spaces leased at 33% below market rate for small and minority businesses
- Largest retail in DC, includes Staples, Best Buy, Bed Bath & Beyond, Washington Sports Club, Petco, DSW
- Controversial below-grade parking garage- parking requirements were not adjusted to reflect urban requirements; at max capacity 50% of garage is full
- Located at the Columbia Heights Metro

Grocery Stores

Tivoli Giant	2005
Giant	55,000 sf
Parking	2 levels above

Petworth Safeway	2014
Safeway	62,500 sf
Residential	218 units
Parking	215 spaces, below grade

Key Elements

- Both located 0.1 mi from a Metro station
- Safeway has 5 levels of residential above the store
- Giant is connected to historically restored Tivoli Theatre; 2 levels of parking above concealed by facade complimenting historic building

Articles/Studies

INDUSTRIAL MIXED-USE

Economic Opportunity & Small-Scale Manufacturing

Posted on June 23, 2014 by Ilana Preuss

Greenpoint Manufacturing and Design Center

There is a new opportunity in our changing cities to connect more residents with economic opportunity. We can do so by integrating small-scale industrial uses into our city development. Let's call this mixed-use industrial real estate.

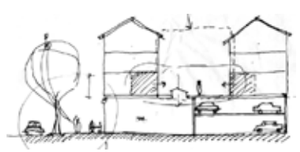
We are seeing a resurgence of small, local producers who are harnessing low-cost technology and changing markets to sell hundreds and thousands of locally produced consumer products. Documented early on by Chris Anderson, and seen across the country today, these companies are often businesses with fewer than 20 employees and sell both in local markets and globally online.

These small-scale manufacturing business owners generally need dedicated production space of less than 5,000 square feet (often as little as 1,000 sq. ft), use clean technologies (think laser cutters), but need affordable, dedicated industrial/production space. They do not fit into office space because of noise, and most retail space is too expensive. So they often find marginal, cheap space at the fringes of our cities and survive on short-term leases or move far out into the suburbs.

The time is ripe for policy change and private sector investment to create this kind of development. The demand for small-scale consumer goods and locally made custom goods are growing, while access to tools and technology gets cheaper. We need to provide affordable space for our local producers to grow their businesses in our city neighborhoods. By doing this, we will be able to connect more people to good-paying jobs, strengthen our small business and startup sectors, and keep these jobs in the city.

Defining mixed-use industrial

A mixed-use industrial development is part of a reuse project that includes new buildings and rehabilitated older buildings, or the rehabilitation of an existing industrial/warehouse structure within a neighborhood with a variety of land uses. New construction is also possible, but the costs need to be offset within a larger project. Two examples begin to illustrate the opportunities for this product type.



INDUSTRIAL MIXED-USE ZONING
An analysis of design considerations

AsianNeighborhoodDesign
Draft: 02.23.07

"small-scale manufacturing business owner generally need dedicated production space of less that 5,000 sf (often as little as 1,000 sf), use clean technologies (think laser cutters), but need affordable, dedicated industrial/ production space. They do not fit into office space because of noise, and most retail space is too expensive"

"A mixed-use industrial development is part of a reuse project that includes new buildings and rehabilitated older buildings...within a neighborhood with a variety of land uses. New construction is also possible, but the costs need to be offset within a larger project."

At Greenpoint Manufacturing and Design Center *"the average tenant is about 18 years in business, and average salaries are $48,000 - well above local service sector salaries. The tenants are predominantly local artisans building products for the local market, but at manufacturing scales."*

Steps for shaping mixed-use industrial spaces:

Zone for it: Communities need to protect existing industrial properties in targeted locations. Small-scale production can also be added as an optional use to other existing zones.

Provide financing and incentives: ...tools such as New Markets Tax Credits or Rehabilitation Tax Credits will be important for industrial redevelopment efforts...

Support business development: Producers should organize themselves to strengthen their community and exposure. Activities like meetups, showcase events, and local competitions all help promote a local producer sector... Partnering with shared tool spaces like TechShop can help identify future business members.

Shared Workspaces

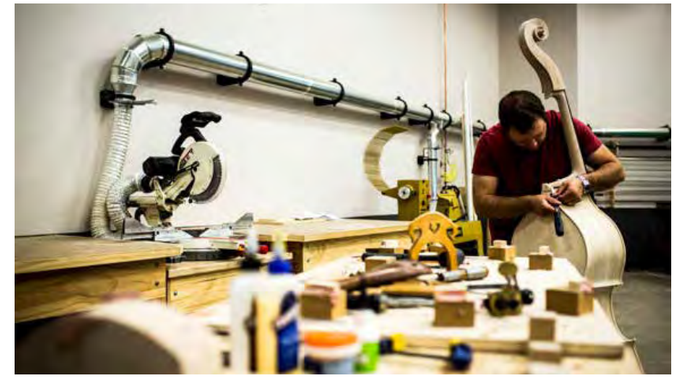
INDUSTRIAL MIXED-USE

TechShop

- Membership-based shared resources, including tools and shops for metalwork, woodwork, painting, electronics, textiles, bike repair, laser cutting, 3D printing
- Backed by R&D companies such as GE, Ford and DARPA
- 'Buy Local' sustainability trends encourage growth of local maker markets
- New TechShop- 1 of 8 nationwide- just opened in Crystal City
- Offers classes for networking and learning

IdeaSpace

- Memberships offered for "Coworking Space," "Dedicated Desk," or "Private Office"
- Provide shared resources for equipment, meeting rooms, event space
- Offers classes
- As of August, was looking for space (30,000 - 45,000 sf) in the District along the Green Line, after considering the Boilermaker Shops at Navy Yard



Mosaica 601

INDUSTRIAL MIXED-USE

	2009
Residential	151 units
Craft Industrial	12 units
Total GSF	256,000
Site	1.83 acres

Key Elements

- 4 stories of residential above flex industrial/design space
- Mixed income rates for housing units
- Vertical integration of residential and industrial