



Plan Lee Highway
Existing Conditions Analysis Report
DECEMBER 2019

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BACKGROUND AND OVERVIEW

About Plan Lee Highway

Plan Lee Highway is the formal planning process for the community to work alongside the County to develop a long-range plan that will set out a comprehensive vision for the Lee Highway corridor and guide long-term public and private investment.

For almost a decade, the Lee Highway community leaders have been working through grass-roots efforts to engage the communities along the corridor in discussions about the corridor’s future. The community interests include:

- Creating a renewed sense of place;
- Improving walkability;
- Promoting and strengthening retail and other businesses;
- Recognizing historically significant community resources and celebrating cultural resources; and
- Creating opportunities for diverse housing options for all ages and incomes.

Now with the assistance of the County staff and a multi-disciplined planning consultant team, these broad ideas can be honed and ultimately memorialized as County Board-adopted policy.

The plan will provide a well-defined vision with goals, objectives, and recommendations for nine Key Planning Elements including:

- Land Use
- Economic Vitality
- Housing
- Urban Design and Building Form
- Transportation and Connectivity
- Public Schools and Facilities
- Public Spaces
- Historic and Cultural Resources
- Sustainability and Resiliency

Recommendations under these planning elements may have tailored significance and strategies along the entire length of the corridor.

About the Existing Conditions Analysis

This Existing Conditions Analysis (ECA) is the first in a series of reports supporting the multi-phase planning process. The analysis builds upon previous work and community conversations as part of the Lee Highway 2016 Community Visioning Process, County pre-planning work, and the Plan Lee Highway kick-off events in early 2019 including a community open house, community focus groups, and a Lee Highway Alliance Walking Tour. This report includes data, maps, and visuals about the physical characteristics, demographics, regulatory framework, history and existing conditions of the corridor and will serve as a reference throughout the planning process. It also identifies potential opportunities and constraints for achieving the preliminary aspirational goals established at the beginning of this planning process which accounted for community input received prior to the start of this planning process and adopted County plans and policies. The ECA will provide a platform for more community discussions on the refinement of the aspirational goals, the areas suitable for change along the corridor under this plan, the types of change appropriate for those areas, and ultimately the comprehensive vision for the corridor. This introduction provides a high-level overview of key aspects of the corridor, identifies several opportunities and challenges to reaching planning goals, and, while not an exhaustive list, calls attention to several areas that will require discussion with the community forum and broader public through the goal refinement and scenario testing and refinement phases.

Lee Highway Today

The Lee Highway planning area encompasses 1,600 acres extending 4.6 miles from the eastern to the western boundaries of Arlington County. Home to over 23,000 people and 7,800 jobs, the planning area includes 14 distinct neighborhoods of various types of residential dwellings, bifurcated by a state highway. The corridor accommodates local and regional traffic and serves between 17,000 and 30,000 vehicles per day, depending on locations and commuter use patterns.

Historic Context

Lee Highway is one of Arlington’s oldest roads and was pivotal to the development of the County. The planning area originally experienced modern subdivision development in the early- to mid-1900s. The earliest neighborhoods to be established were Hall’s Hill, one of the County’s three remaining historically African American neighborhoods, and Lyon Village, Cherrydale, and Maywood along the Great Falls and Old Dominion Railroad. Later, with the completion of Lee Highway as a state highway and

exponential growth during and after World War II, the remaining larger parcels of land between Waverly Hills and East Falls Church were platted and subdivided for more single-family housing in Leeway, Yorktown and other neighborhoods. Strip-style commercial growth occurred along the corridor’s frontage, supported by the residential communities surrounding the corridor yet also bolstered by more regional shoppers enabled by the corridor’s auto-oriented nature. Prior to the construction of I-66, Lee Highway was one of the main routes that connected the northern Virginia suburbs to the core of Washington, D.C. Many changes have occurred in the Lee Highway corridor and there is value in documenting such change. The study of the architectural and cultural resources, along with the personal stories associated with Lee Highway, will assist with highlighting important aspects of the corridor’s history and help further define its sense of place.

Core Study Area

Today, the Lee Highway core study area (the area along the corridor frontage under consideration for change) is characterized by low-rise commercial development and pockets of apartment and multi-family condominium communities, with many surface parking lots and multiple driveways connected directly to the main roadway. Currently, Lee Highway is guided by the land use vision adopted by the County Board in the 1960s, which effectively institutionalized the land use pattern in place at that time and is typical of the auto-oriented public realm and general development pattern commonly found on commercial corridors throughout the country. The existing zoning is also reflective of this land use vision and the associated regulations have facilitated this predominantly auto-oriented form of development.

In terms of physical characteristics, the streetscape along Lee Highway does not offer adequate shade due to the limited tree canopy coverage. The sidewalks are narrow and often obstructed by poles carrying overhead utilities. There are also inadequate buffers between the pedestrian paths and vehicular travel lanes. More than two-thirds of the core study area (67%) is impervious (ground and roof). Bikeshare stations have been installed over the past several years, yet the corridor provides cycling lanes or facilities in very few areas. The Master Transportation Plan’s (MTP) Transit Element defines Lee Highway as part of its Primary Transit Network (PTN). The corridor is served by WMATA and Arlington Transit (ART) bus routes, with ART providing most transit connectivity between neighborhoods and between neighborhoods and commercial nodes. However, as demonstrated by the state highway classification, lane configurations, and auto-oriented

commercial development pattern, the dominant mode of travel is the automobile.

Commercial development is primarily characterized by original and aging building stock ranging from one to two stories, with the best examples of inviting and activating building design located in Cherrydale, Waverly Hills, and East Falls Church. Buildings there provide large window openings, active building frontages and doorways that are easily accessible from pedestrian paths. The corridor serves as a primary commercial destination for the northern half of the County, providing access to convenience goods, services, and dining for many of the County’s residents. With little to no competition north of the planning area and Rosslyn to the east, Lee Highway has a competitive advantage for neighborhood-serving businesses. The retail inventory includes a significant number of smaller spaces, ideal for independent businesses. Vacancy rates for retail are low with spaces available with moderate rents that are higher than the County average. These factors, along with the corridor’s auto-oriented nature, have sustained a successful retail environment. New businesses that could offer a more diverse supply of retail and services must compete for the limited quantity of available commercial real estate that provides adequate parking, foot traffic, and square footage that meets their needs.

Neighborhoods such as Cherrydale, Maywood, Waverly Hills, North Highlands, Lyon Village and East Falls Church have larger, multi-family buildings along the corridor. Other neighborhoods have smaller scale multi-family buildings along the corridor. In 2017, the County Board adopted a Housing Conservation District, and applied this district to six multi-family areas within the Core Study Area (in addition to other multi-family areas within the County), which contain a significant portion of the County’s “Market-Rate Affordable Units” (MARKs). This district was established to encourage the retention and renovation of existing rental affordable housing units and provide opportunities for the creation of new affordable units (either rental or ownership) when redevelopment occurs to help address the significant loss of affordable housing occurring Countywide.

Public spaces and facilities are dispersed throughout the core study area, including three fire stations, two community centers, and one library. While all of the fire stations will have experienced reinvestment by the end of the planning process (Fire Station No. 8 design is underway), facilities providing recreational and cultural amenities are of varying age and functionality. It is also important

to note that there are no public land or facility resources that provide space for core support services including operations and storage of equipment and materials, which is needed along the corridor.

Residential Edges and Broader Planning Area

Most residential areas enjoy comfortable streetscapes with lush landscaping, street trees, and sidewalks. The residential neighborhoods behind the Lee Highway frontage are primarily characterized by single-family homes with limited quantities of two-family dwellings and small apartment buildings. While most of the commercial properties in the core study area have seen little change, the single-family neighborhoods have evolved significantly – here and throughout the County. Spurred by regional growth in demand for housing and enabled by the County’s current zoning framework, many of the single-family dwellings, originally two to three bedrooms in size, are being renovated or torn down and replaced with significantly larger dwellings with more bedrooms and increased lot coverage.

Public facilities and spaces located within the residential areas outside the core study area are comprised of schools and parks that are well-distributed but not always well-connected to each other and to the communities they serve. Renovations and redevelopment in single-family neighborhoods have been the largest contributors to growth in school-age children enrollment. All schools in the planning area are currently overcapacity in their existing form, and Dorothy Hamm Middle School will soon complete an addition project to add more seats. This growth in school-age children is a trend likely to continue.

Key Considerations for Planning Process

The conditions today present both challenges and opportunities to meet the preliminary aspirational goals drafted for the planning area. During the remainder of the planning process, the staff team will monitor other County initiatives and will work alongside other departments, agencies and community partners to identify areas where the preliminary aspirational goals need further refinement.

Challenges and Opportunities

The business mix in the planning area is diverse, and the local economy is successful. The corridor has a competitive advantage for neighborhood serving businesses, as the business types that currently exist are well suited to the surrounding market. Promoting and strengthening the existing diverse commercial base requires understanding of the existing market and exploring ways to

encourage more business types that are well suited to that market. Vibrant residential neighborhoods with multiple housing types are found throughout the corridor, however, expanding typologies would help achieve the goal for diverse housing options for all ages and incomes.

Redevelopment potential exists in several key nodes, providing opportunities to help realize community interests and other Plan goals, such as creating new spaces for public use, affordable housing, better streetscapes and improved stormwater management and infrastructure. Enhancing existing public spaces with other adjacent complementary uses and improving and strengthening the physical connections of existing public spaces will help to activate existing centers of activity and improve walkability. Public art can be a means of expressing the history, character, and identity of the community and contributes to creating a renewed sense of place.

Watershed-scale investment in stormwater system capacity and measures to provide ‘overland relief’ will be required to reduce risks from extreme flooding in priority watersheds, and the corridor crosses several of these priority areas. Potential opportunities to acquire land and establish overland relief areas can also provide multiple community benefits beyond flood risk reduction, including open space, habitat, integration with nature (biophilia), stormwater quality mitigation, and bicycle and pedestrian transportation corridors.

Moving forward, achieving the goals may come with some trade-offs. The following considerations, illuminated by the review of existing conditions, will help influence future discussions about the goals and vision:

- Conditions and community priorities may differ along the corridor, which may lead to a recommendation for a range of strategies that are dependent on location along the corridor.
- Redevelopment could impact the way existing businesses operate.
- Public infrastructure improvements (e.g., stormwater facilities, trees, etc.) may require enhanced coordination between the private and public sectors.
- Economic feasibility impacts what types and levels of redevelopment can occur.
- The corridor’s classification as a National Highway System Route will inform the way in which Lee Highway changes to a Main Street environment.

Partnerships and Community Engagement

In the next phases of the Plan Lee Highway planning process, strategies to address these challenges and opportunities will be developed and evaluated. The Plan Lee Highway team will partner and coordinate with concurrent County planning processes and other agencies to create an achievable plan with goals that can be implemented.

- Housing Arlington is an umbrella initiative that will take a proactive, expanded approach to achieve an equitable, stable, adaptive community. Over a multi-year period, the program will generate holistic housing solutions through planning and implementation tools, housing policy, financial resources, and innovative local and regional public-private partnerships.
- Under Housing Arlington’s Land Use Tools initiative, the Housing Conservation District (HCD) continues to bring policy ideas to realization through the development of new, voluntary zoning tools for property owners in the HCD. The analyses and policies established thus far will be incorporated into the planning study discussions, primarily as part of the discussion of land use scenarios in Phase 2. Draft HCD recommendations will be coordinated with ideas and materials emerging from the Plan Lee Highway planning study. Both processes will continue to share findings to understand how one informs the other. Any draft zoning changes for the HCD will be adopted for Lee Highway when further reconciliation occurs and with input from the County Board.
- The County is embarking upon a parallel planning process to develop new plans for stormwater management and infrastructure in the County as a whole, and especially within the priority watersheds which have experienced repetitive extreme flooding. Given the corridor’s position at the top of several of these priority watersheds, coordination with that planning process will be critical to a successful plan for Lee Highway.

Several key analyses will start or be undertaken with the development of land use scenarios in Phase 2:

- An assessment of impacts of new residential development on student enrollment and public facility and infrastructure needs arising from potential future development along the corridor.

- An assessment of opportunities for the acquisition, expansion, renovation, redevelopment, consolidation, and co-location of uses to steward public resources and use them efficiently and creatively, and potentially integrate them into mixed-use community destinations.
- Applying recently adopted Public Space Master Plan recommendations for public amenities to guide and evaluate the land use scenarios.
- Continued collaboration with the Virginia Department of Transportation (VDOT) to ensure the development of strategies that meet regional commuting needs yet also provide for a new Main Street experience that the community seeks in key nodes along the corridor.

Extensive community engagement will be a focal point during the next phase of work. To complete Phase 1 (Gathering Information) and shift into Phase 2 (Developing Ideas), this engagement will further refine the community’s goals for Plan Lee Highway, provide a stronger understanding about the community’s interest in visualizing areas that could be planned differently, and test those ideas for further consideration in relationship to the community goals, public infrastructure needs, and overall level of feasibility. The contents of this report provide detailed information on the issues and opportunities that will inform those community discussions.

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Project Staff Team and Participants

In order to prepare an inclusive, well-coordinated and forward-thinking long-range plan for Lee Highway that will guide decisions on future public and private investments, the County has established a multi-disciplinary Staff Team and designed a multi-layered community engagement process. The Plan Lee Highway process is led by the Staff Team, supported by AECOM (the planning consultant), and validated by the community.

The Staff Team is comprised of staff members from the three government agencies that are working together to collaborate and agree on a County plan for the Lee Highway corridor – Arlington County, Arlington Public Schools (APS) and the Virginia Department of Transportation (VDOT). The goal for establishing a Staff Team is to provide a forum for the multiple agencies and departments to share relevant information and data, coordinate on ongoing projects and processes, and to give feedback on proposed recommendations.

The County's multi-layered engagement approach is designed to encourage communication and collaboration with a broad set of stakeholders throughout the Plan Lee Highway process. To that end, the County Manager has appointed a Community Forum (a team of community members) and a Working Group (subset of the Community Forum), which is convened at key milestones during the planning process to provide feedback on the proposed vision, goals, objectives, analyses, recommendations and implementation tools and serve as liaisons to facilitate broader community engagement.

In 2019, there have been four Working Group meetings and one meeting with the entire Community Forum. However, smaller focus group meetings with Community Forum members and business and property owners, as well as stakeholder interviews and interviews with developers have also taken place during 2019.

Arlington County
<ul style="list-style-type: none"> ■ Community Planning, Housing and Development (Lead Department) ■ Economic Development ■ Environmental Services (Transportation, Community Energy, Stormwater, Public Facilities) ■ Parks and Recreation
Arlington Public Schools
<ul style="list-style-type: none"> ■ Planning and Evaluation ■ Facilities and Operations
VDOT
<ul style="list-style-type: none"> ■ Transportation and Land Use ■ Multi-modal Planning
AECOM (Lead Planning Consultant)
<ul style="list-style-type: none"> ■ Urban Design and Architecture ■ Housing ■ Historic Preservation & Cultural Resources ■ Real Estate Economics ■ Public Space and Landscape Architecture ■ Transportation and Traffic
Community
<ul style="list-style-type: none"> ■ Lee Highway Alliance ■ Civic Associations ■ Business/Property Owners ■ Housing Groups ■ Advisory Boards and Commissions ■ At-Large



Purpose of Study

Over the last 50 years, Arlington County has grown and changed dramatically through the emergence of Metro and the creation of employment centers in Crystal City and the Rosslyn-Ballston Corridor. Other corridors, like Columbia Pike, are growing as well. The plans for these corridors are guiding both public and private investments, including the development of new mixed-use development and infill residential with the aim of addressing housing demand.

The arrival of Amazon's HQ2 to National Landing is amplifying a need to diversify the housing opportunities offered throughout the County. Regional growth has increased development pressure on Lee Highway, a commercial and residential corridor that serves north Arlington neighborhoods and commuters.

Given the character of Lee Highway and limited planning to date, there is a mounting desire within the community to improve the corridor and consider how future development can transform the character in a proactive rather than a reactive manner.

Plan Lee Highway (PLH) is the County's planning process for developing a long-range plan that will set out a comprehensive vision for the corridor and guide long-term public and private investment. From the planning study's Project Scope and Charge, the plan should "among other things, create a renewed sense of place, improve walkability, promote and strengthen retail and other businesses, recognize historically significant community resources, celebrate cultural resources, and create opportunities for diverse housing options for all ages and incomes."

The plan will build from the work of the community on the 2016 Visioning Study and provide a clear vision with goals, objectives, and recommendations for nine Key Planning Elements including land use, building height and form, general open space locations, and transportation/connectivity improvements for the corridor. It will identify implementation tools (e.g., short-term wins, land use policies and zoning ordinance amendments, or where needed, recommendations for further study of a particular area).

Refer to project website for full project description at:
<https://projects.arlingtonva.us/plans-studies/land-use/lee-highway/>

Plan Lee Highway - Background

PRIOR PLANNING AND COMMUNITY VISIONING EFFORTS

There have been two previous significant planning efforts in the Lee Highway Corridor planning study area, the Lee Highway Cherrydale Revitalization Plan (1994) and the East Falls Church Area Plan (2011). Each of these plans establish a vision, goals, and specific recommendations for land use, streetscape, transportation, open space, and other planning elements and have been used to guide redevelopment projects. Specific districts on the General Land Use Plan for Cherrydale and East Falls Church provide high-level planning guidance for those areas. Cherrydale and East Falls Church will remain in the broader Lee Highway planning study area, and will be evaluated to develop a cohesive vision and recommendations for network-wide elements, such as transportation and open space. The study will identify issues that may require a future analysis (including the potential review and refinement) of these adopted plans to align with the new policies presented in the Lee Highway Plan.

In 2012, citizens from the Waverly Hills Civic Association, who were developing their Neighborhood Conservation Plan, began to discuss the issue that the Lee Highway corridor itself was in need of a comprehensive plan to help shape the future of the corridor. The idea of developing a comprehensive plan grew in February of 2013, the Lee Highway Presidents Breakfasts (LHPB) organization was established, involving 9 civic associations.

In 2014, the LHPB formed a Strategic Partnership with Arlington County and held walking tours of the corridor to familiarize people with the strengths, weaknesses, and opportunities for change. They also held several community meetings, attended by hundreds of people, as a visioning exercise to understand what the community liked, disliked, and how they viewed change in the future. This led to the formation of the LHPB's Community Advisory Committee (CAC), which comprised of many more civic association representatives.

The CAC developed nine Guiding Principles, based on the responses from the 2014 community meetings, to guide the re-visioning of the corridor. In the fall of 2015, the LHPB transitioned into the Lee Highway Alliance (LHA) in order to form a broader coalition of stakeholders including communities/neighborhoods, land owners, businesses, institutions, etc. The LHA includes 18 civic association leaders, many which have been actively engaged in the communities along Lee Highway since 2012, to develop a community-based vision, and identify actions and strategies to achieve it. More information can be found at: <https://www.leehighwayalliance.com/>.

The grassroots effort, led by the Lee Highway Alliance, paved the way for a community-wide visioning process - an intensive multi-day design charrette to continue the conversation about the community's long-term vision for Lee Highway. The Visioning Charrette, which took place at the Langston Brown Community Center November 6 - 9, 2015, was a joint effort between the County and the LHA and was led by planning consultant Dover, Kohl & Partners. The goal of the charrette was to:

- Confirm the LHA's Guiding Principles;
- Identify locations of activity centers along the corridor;
- Explore street design ideas and desired character of future development; and
- Identify needs for transportation and open space improvements.

The results of the charrette were summarized in the 2016 Visioning Study report, a seven-month study that provides preliminary vision principles and recommendations for future development based on the community input that was received at the charrette. The vision calls for Lee Highway to become a walkable, urban main street with a string of neighborhood activity centers between Rosslyn and East Falls Church, along with new transportation and housing options, better public spaces and more. The 2016 Visioning Study report was meant to serve as a basis for future community discussions, the scope of work for the formal County planning study, and the County's preliminary aspirational goals.

Lee Highway Key Dates

- 2013 Lee Highway Presidents Breakfast (LHPB) formed
- 2015 Lee Highway Alliance (LHA) formed
- 2012 - 2016 Early Community Engagement and Visioning Process
 - Breakfast meetings with Civic Association Presidents
 - Walking tours
 - Community Meetings
 - Development of Guiding Principles
 - Presentations to Civic Associations
 - Spearheading Community Visioning Process
 - Community Visioning Charrette (2015)
 - Visioning Study Report (2016)
- 2017 - 2018 Pre-Planning Effort: Staff undertook a pre-planning effort to develop a scope and process for the formal planning study with community input through a series of Community Open Houses.
- 2018 Request for Proposals Issued and Contract Awarded

2016 Visioning Study

The 2016 Visioning Study is a report that summarizes consultant-based (Dover Kohl and Partners) recommendations for future development, which was based on community input received at the Visioning Charrette that took place in 2015.

While there was general community support for the recommendations in the Vision Study, it was also noted that a few broad concerns were communicated that should be further evaluated and discussed with the community during the Plan Lee Highway process.

Broad Concerns Raised in 2015 that Deserve Additional Consideration:

- Lee Highway is a neighborhood-serving corridor for a geographically broad population—a unique mix of suburban and urban without a metro or light rail line. Solutions that are appropriate for the Rosslyn Ballston (RB) corridor are probably not right for Lee Highway. A prime example of this is retail parking. Because retail serves single-family homeowners who live too far away to walk, and because small businesses believe parking is important to their success, adequate retail parking must be carefully considered;
- Lee Highway will continue to function as a major east west arterial commuter route into Washington DC, and the roadway should not be less than two vehicular lanes in each direction;
- Schools are overcrowded but the Visioning Study does not adequately address how development pressure may affect the school population over time. Schools and other community facilities must be included in the initial discussion and all along the way;
- Fire Station 8 is an incredibly significant historical landmark. Any future long-range plan must include this as a major consideration;
- A robust and honest conversation needs to occur about how planning can move towards the goals of the Affordable Housing Master Plan of 2500 units and address the issue of aging in place along Lee Highway; and
- A more innovative conversation needs to begin about how Lee Highway fits within the County's economic development plans, and how the corridor can strengthen economic competitiveness as a hub for innovation to improve the tax base while providing additional jobs and income.

It has been nearly 4 years since the Visioning Charrette occurred and there are many residents who were either not involved in that process or are new to the area. As a result, the County will continue to seek community feedback to validate and refine the 2016 Vision Study principles and recommendations and the County's Preliminary Aspirational Goals (as stated in the Charge) throughout the Plan Lee Highway process. As part of the planning study kick-off, two community engagement sessions were held to initiate the study and begin to engage the community. The purpose of these meetings was to familiarize the attendees with the 2016 vision principles and recommendations, the overall project scope and schedule, and the tasks for Phase 1. The meetings provided an opportunity for the attendees to provide feedback on the 2016 Lee Highway Visioning Study and the County's Preliminary Aspirational Goals.

The community feedback communicated during the Plan Lee Highway Kick Off meetings, highlighted many of the same broad concerns from 2016. The feedback received also provided a general sense of which opportunities and issues the community wants to learn more about and are important to expand on in future educational forums. In addition, it provided staff and the consultants a sense of which issues are most critical to address further in educational forums and future focus group meetings.

CONTEXTUAL COUNTY PLANS, POLICIES, AND STUDIES

Neighborhood Conservations Plans

Since 1964, the County's Neighborhood Conservation Program has served as a unique grass roots effort that relies on neighborhood volunteers to help plan their communities. As part of the program, participating neighborhoods commit to conserving and improving their communities by preparing and updating Neighborhood Conservation Plans. Those plans reflect community needs and serve as a guide for future planning efforts. The program focuses on engaging residents in discussions about public improvements, such as, installation of sidewalks, curbs and gutters, streetlights, park improvements and renovations, neighborhood art, beautification, traffic management and pedestrian safety improvements. The plans, however, vary by neighborhood and can provide recommendations for additional conditions and issues specific to the community including land use, zoning, housing, historic preservation, urban forestry and other challenges and opportunities.

Currently, 50 neighborhoods participate in the Neighborhood Conservation Program, 12 of which are in the planning study area. Each community in Arlington that participates in the Neighborhood Conservation Program has a representative that serves as a liaison to county staff, as part of the Neighborhood Conservation Advisory Committee. The Committee meets monthly and nominates plan-based improvement projects to the County Board for future funding. The program has been a model for other communities around the country and is the type of grass roots engagement that helps makes Arlington a great place to live.

The following Lee Highway neighborhoods currently have conservation plans in place. Many of these plans are more than 20 years old.

- Maywood (1965)
- Lyon Village (1978)
- Arlington East Falls Church (1986)
- Donaldson Run (2000)
- Old Dominion (2002)
- Cherrydale (2004)
- Tara-Leeway Heights (2005)
- Highland Park – Overlee Knolls (2006)
- Yorktown (2006)

- Leeway (Overlee) (2010)
- Waverly Hills (2013)
- Waycroft-Woodlawn (2013)

Cherrydale Neighborhood Revitalization Plan (1994)

Cherrydale is centered around the intersection of five points, which consists of Quincy Street, Military Road, Old Dominion Road and Lee Highway. In the late 19th century, Cherrydale began to shift from a rural and agricultural area into a residential community with a commercial corridor. The relocation of the Alexandria County Courthouse to Arlington in 1898 and the establishment of a commuter railroad in 1906 initiated a period of rapid residential and commercial development in the neighborhood. It's characterized by quiet streets lined with huge old trees and well maintained single-family homes, many of them historic bungalows dating back to the late 1800s and early 1900s.

In April 1995, the County Board established a Special Revitalization District for the Cherrydale commercial area along Lee Highway. This was an effort to provide a framework for guiding public and private investment in specific commercial and adjacent transition areas. The County's goal is to revitalize the area's image and encourage the continuation of existing businesses, in a manner that is compatible with the overall character of the surrounding residential neighborhoods. Below is a list of the overarching goals for revitalization in the Cherrydale Revitalization Plan:

- Preserve the neighborhood retail character and vitality of the Lee Highway/Cherrydale commercial corridor by retaining existing businesses, and by implementing traffic improvements;
- Establish a sense of place and positive image for the Lee Highway/Cherrydale area by preserving buildings and existing landscape medians, which contribute significantly to the character of Cherrydale, and by providing a better streetscape which would bring about visual and functional cohesiveness between both sides of Lee Highway;
- Preserve the integrity of residential neighborhoods by not allowing expansion of commercial uses into residential areas and by visually and functionally improving transitions between both uses;
- Providing for a pleasant, safe and diverse pedestrian experience by visually and physically connecting activities throughout Cherrydale and facilitating pedestrian flow between the north and south sides of Lee Highway;

- Provide for a safe and efficient flow of vehicular traffic to and from the Cherrydale commercial area on major thoroughfares that are well-designed and landscaped, and that promote safe pedestrian movement; and
- Encourage and facilitate the use of public transportation by providing adequate, safe and attractive pedestrian facilities.

The Cherrydale Revitalization Plan contains recommendations for land use, zoning, transportation and urban design related issues. For the Cherrydale neighborhood, the planning study will focus on evaluating recommendations for networkwide elements (transportation and open space) and will identify potential conflicts with the recommendations in the Cherrydale Revitalization Plan. While the planning study will not evaluate land use scenarios in the Cherrydale neighborhood, it is important to understand the plan's recommendations for other elements to determine potential impacts of proposed adjacent redevelopment.

Below is a summary of the relevant recommendations in the Cherrydale Revitalization Plan that will be evaluated, through the planning study, to identify issues that may require a future analysis (including the potential review and refinement) of the adopted plan recommendations to align with the new policies presented in the Lee Highway Plan.

Land Use and Zoning:

- Explore amending the GLUP to recognize existing uses and zoning.
- Explore zoning ordinance amendments to allow appropriate levels of convenience retail with mid-rise residential development.
- Explore zoning ordinance amendments to encourage the provision of housing above commercial development.
- Enforce landscape and parking requirements to ensure appropriate transitions and buffering between commercial and residential uses.
- Enforce design guidelines.
- Require submission of landscape plans.
- Work with owners of auto-dealerships at the five-points intersection to encourage upgrading, modernization and redesign of their facilities.

Transportation:

- Traffic improvements:
 - Investigate the need for additional left turn lanes from Lee Hwy onto neighborhood streets.
 - Investigate the need for additional traffic signals along Lee Hwy, including at N. Oakland Street.
- An eastbound on-street bicycle lane, a westbound shared bicycle lane, and on-street parking during non-peak hours.
- Improve bicycle access and jogging trails by upgrading existing facilities, and expanding them, where possible.

Urban Design:

- Public Spaces:
 - Implement an integrated pathway/open space system that will visually and functionally connect activity nodes by linking plazas, parks and focal points.
 - Create new visual focal points in conjunction with redevelopment of key sites by encouraging development of "place makers" that may include public art, fountains or other features.
 - Create a centrally located plaza to act as a major focal point.
 - Establish gateways by improving appearance of major entry points.
- Streetscape:
 - Implement the recommended streetscape plan including standards for street furniture, street trees and other streetscape elements.
 - Include maintenance considerations for both new and existing elements when upgrading public improvements.
 - Provide adequate sidewalks.
 - Construct and/or modify sidewalks to include curb cuts and ramps for the physically disabled.
 - Create a barrier between pedestrian and vehicular traffic through placement of street trees, planters, etc.
 - Coordinate undergrounding of overhead utilities.
 - Encourage undergrounding or relocation of transformers with adequate screening.
 - Explore alternatives for screening of electrical substation.

■ Private Properties:

- Through the Business Conservation Program, encourage appropriate renovation of historically significant buildings, where functionally and economically feasible.
- Review new development proposals for architectural compatibility, particularly with the Maywood Historic District.
- Enforce urban design guidelines for commercial properties.
- Implement recommended solutions to address a variety of transition problems, such as improving the functioning of loading and service areas and enhancing back of commercial buildings (lighting, landscaping and paving).
- On south side of Lee Highway, enhance appearance of alleyways between commercial and residential development.
- Encourage construction of low masonry walls and provision of landscaping adjacent to surface parking lots for screening.
- Enhance existing buildings by encouraging streetscape, landscaping and façade improvements, as well as, improvements to existing parking facilities (redesign, paving, restriping).
- Ensure adequate parking and encourage location of parking lots to the rear of commercial buildings.
- Limit and control parking and vehicular access points to commercial uses to foster more efficient circulation for drivers and pedestrians alike.
- Consider development and adoption of a “sign overlay district” to provide consistent design regulations for business, information and identification signage.

East Falls Church Area Plan (2011)

East Falls Church is located on the western end of the planning study area and along the County’s boundary line adjacent to the City of Falls Church. The area is bisected by Interstate 66 and Metrorail’s orange line and is characterized as having an attractive residential community with single-family homes, townhouses, parks, schools and some commercial and industrial uses centered around the intersection of Westmoreland Street, Lee Highway, Washington Boulevard and Interstate 66.

In 1936, East Falls Church rejoined Arlington County after having been a part of the City of Falls Church for over 60 years. Most of the single-family homes were built between the 1930s and 1950s as the area became a suburb of Washington, D.C. It was also at this time that the metropolitan region experienced a significant population experience, just as streetcars and trolleys were being replaced by an expanding network of roads and highways.

Planning efforts for this neighborhood included the East Falls Church Land Use Study, adopted by the County Board in May 1986. The study recommended: preserving residential neighborhoods, enhancing convenience service commercial uses and coordinating new development near the County line with the style and scale of new development in the City of Falls Church. A citizen-based task force was appointed in 2007 to help develop a plan for East Falls Church and to generate a vision for transit-oriented development near the Metrorail station.

The County Board adopted the East Falls Church Area Plan in April 2011 and designated this area as the East Falls Church Neighborhood Center District. The area plan builds on the recommendations from the citizen task force. Below is a summary of the relevant recommendations and key elements in the East Falls Church Area Plan that will be evaluated, through the planning study, to identify issues that may require a future analysis (including the potential review and refinement) of the adopted plan recommendations to align with the new policies presented in the Lee Highway Plan.

Citizen Task Force Recommendations:

- Preserving single-family areas and historic and natural resources.
- Limiting building heights to four to six stories along building frontages, with specific height guidance for the park-and-ride site up to nine stories.
- Outlining goals and strategies for attaining affordable housing units.

The plan identified major challenges including connecting both sides of I-66 through better bicycle and pedestrian facilities, addressing current and future traffic issues, and providing opportunities for mixed-use development that complements the character of the neighborhood.

Key Elements of Plan:

- A “Neighborhood Center” vision:
 - preserving the surrounding single-family neighborhoods;
 - preserving and creating new open spaces;
 - providing opportunities for additional neighborhood-oriented retail; and
 - enhancing pedestrian and bicycle connections to the Metrorail station.
- A new mixed-use development node at the existing 422-space park-and-ride site to include:
 - ground floor retail;
 - a pool of 100 to 200 shared public parking spaces priced to favor short-term parkers;
 - a public open space; and
 - continuation of existing bus operations.
- New public open spaces adjacent to the W&OD Trail near Lee Highway.

Urban design guidelines and standards are incorporated into the East Falls Church Area Plan to ensure that future development is aligned with the plan goals and to improve the visual character of East Falls Church. These guidelines identify objectives important to the neighborhood, such as pleasant, walkable sidewalks that connect the surrounding residential neighborhoods to area amenities, neighborhood-serving retail, calmer streets that include bicycle lanes and on-street parking and building heights that complement surrounding uses.

Design goals include:

- Establish compatible relationships between the new buildings’ bulk, form and materials and the surrounding residential neighborhood;
- Create lively and dynamic public environments that are accessible to all users; and
- Promote high quality architecture that uses superior modern materials and design vocabulary that also acknowledges the history of East Falls Church.



Figure 0.1 Lee Highway Planning Study Area
Source: AECOM

LEE HIGHWAY STUDY AREA

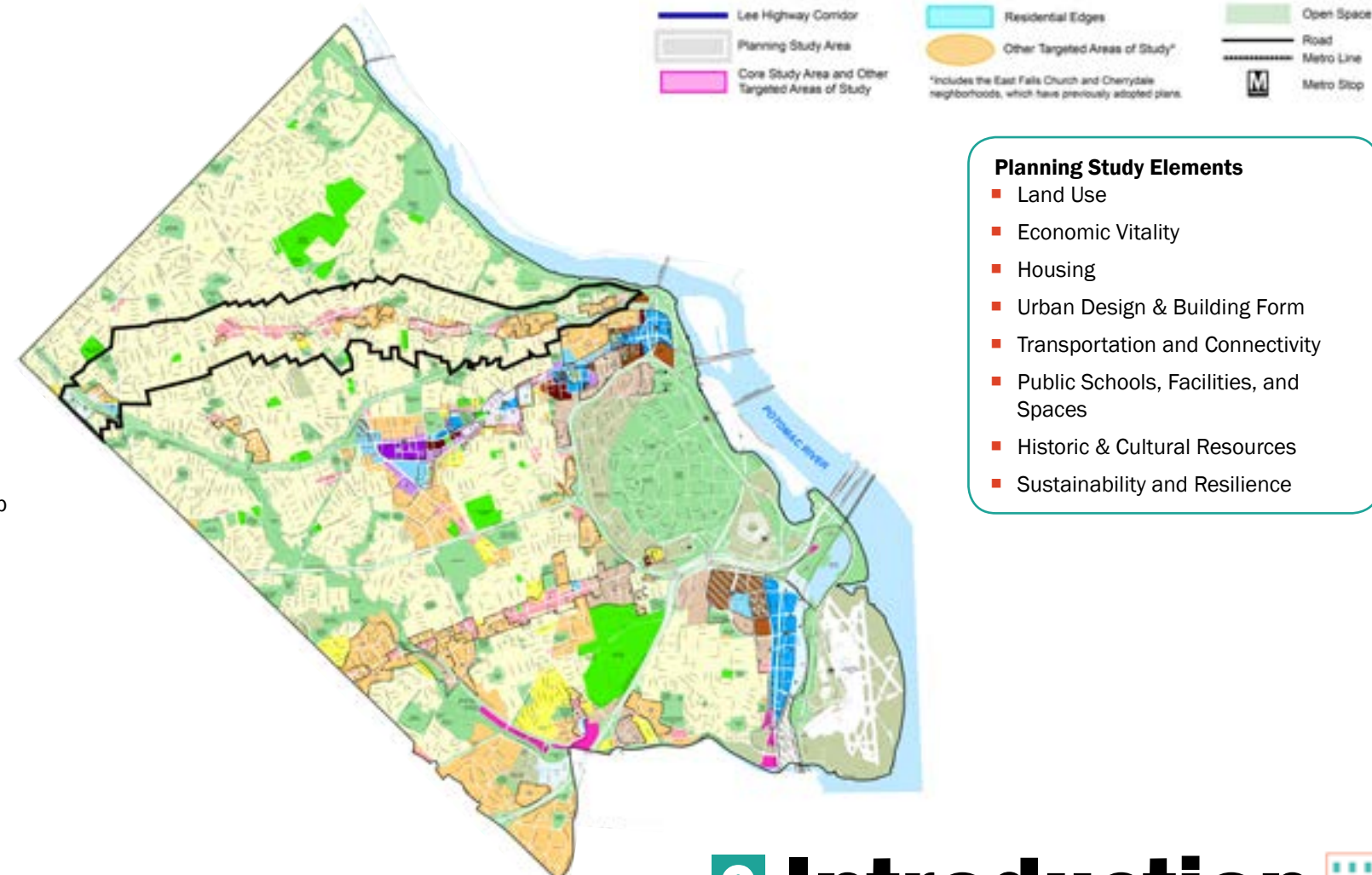
The Lee Highway corridor is the northern most commercial corridor in Arlington County. It is approximately 4.6 miles long and connects east-west between Rosslyn and East Falls Church. The general planning study area for the Lee Highway corridor encompasses approximately 2.5 square miles which includes 14 civic associations that are wholly or partially within the planning study area boundary. The general planning study area also includes smaller geographic areas that will receive more detailed analysis.

Planning Study Area - entire study area and includes the census blocks that fall within one-quarter mile to the north and south of Lee Highway. For the entire planning study area, the planning study will develop a vision and recommendations for network-wide elements (i.e. transportation and open space).

Core Study Areas - priority areas with the most opportunity for change and in need of a vision. The core study areas are specific areas within the overall planning study area that are located on or nearest to Lee Highway, and are designated commercial and multi-family on the County's General Land Use Plan. In some instances, the core study areas include single-family development that are adjacent to commercial and multi-family development. The core study areas have no specific adopted policy guidance today. For these areas, the planning study will evaluate land use scenarios (ranging from small or limited infill to larger redevelopment).

Residential Edges - single-family areas adjacent to commercial and multi-family development. The residential edges will be analyzed to evaluate a) potential impacts from adjacent redevelopment, b) opportunities for additional housing types that transition appropriately to the single-family areas, and c) opportunities for lot consolidation to facilitate the redevelopment of narrow parcels along the Lee Highway frontage.

Other Targeted Areas of Study - areas designated commercial and multi-family on the County's General Land Use Plan in the Cherrydale and East Falls Church neighborhoods. These areas have adopted policy guidance in place that allows for additional density and height through the special exception site plan approval process. For these areas, the planning study will develop a vision and recommendations for network-wide elements (i.e. transportation and open space) and will identify issues that may require a future analysis (including the potential review and refinement) of the adopted plans to align with the new policies presented in the Lee Highway Plan.



- Planning Study Elements**
- Land Use
 - Economic Vitality
 - Housing
 - Urban Design & Building Form
 - Transportation and Connectivity
 - Public Schools, Facilities, and Spaces
 - Historic & Cultural Resources
 - Sustainability and Resilience

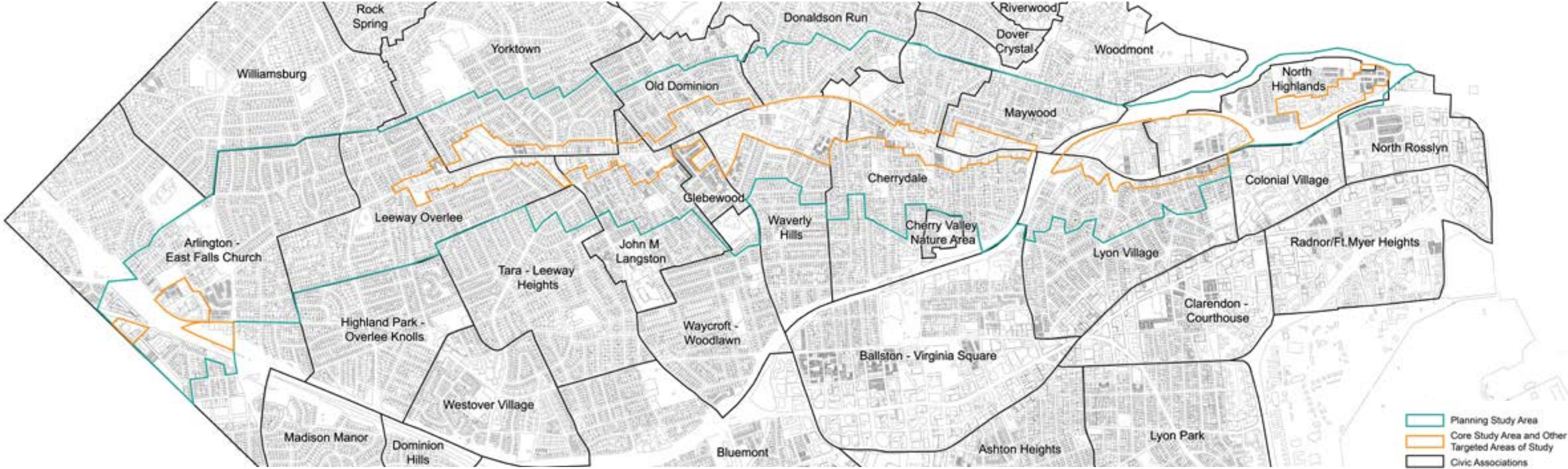


Figure 0.2 Civic Associations in Planning Study Area
Source: AECOM

OBSERVATIONS

- There are 14 civic associations represented within the Planning Study Area

PRELIMINARY ASPIRATIONAL GOALS FOR KEY PLANNING ELEMENTS: A STARTING POINT

From Arlington County's Project Scope and Charge:

The planning process includes a study of the nine interrelated key planning elements listed below. The preliminary aspirational goals for each of the planning elements, have been identified by the County based on adopted County Plans and policies, and community input received prior to the start of the planning process. The preliminary aspirational goals will help to guide the planning study, both in the existing conditions analysis (phase one) and the evaluation of the land use scenarios (phase two). The planning study will monitor other County initiatives and staff will work alongside other departments, agencies and community partners, to identify areas where the preliminary aspirational goals do not align with community input. The planning study will evaluate ways to reconcile these issues and further refine the aspirational goals to develop recommendations for the plan.

1. LAND USE



Goal: Transform Lee Highway into a walkable, main street corridor, with a wide range of housing types, retail, services, and other uses that serve the diverse needs of nearby communities.

2. ECONOMIC VITALITY



Goal: Support retail, restaurants, and other commercial businesses through strategic measures consistent with the Arlington County Retail Plan to ensure that Lee Highway continues to be a prosperous corridor. Identify opportunities to preserve or develop complementary uses, such as residential, office, and public spaces that meet daily community needs and boost synergies among different land uses and promotes and strengthens a diverse commercial base.

3. HOUSING



Goal: Expand housing options to achieve a diverse mix of types, affordability, and tenure. Strive to achieve the goals set forth in the Affordable Housing Master Plan, including achieving 2,500 committed affordable rental units (CAFs) at 60% of the area median income (AMI). At present, there are 266 CAFs and 126 market rate affordable units (MARKs) in the study area that are affordable to households earning up to 60% AMI. An additional 1,466 existing MARKs in the study area are affordable to households earning up to 80% AMI. Explore opportunities to achieve housing for middle-income households and to accommodate residents who want to age in the Lee Highway community.

4. URBAN DESIGN & BUILDING FORM



Goal: Promote a walkable environment with context-sensitive buildings that engage with streets and transition in scale, height and character appropriately to adjacent neighborhoods. Encourage high-quality architecture that reflects the local historic character, where appropriate, and place-making through conscientious urban design.

5. TRANSPORTATION & CONNECTIVITY



Goal: In close coordination with VDOT, redesign Lee Highway into a complete street that better serves all modes of travel, while recognizing its continued role as a commuter corridor. Strive to achieve a multimodal corridor that encourages bus ridership through land use recommendations and transit-oriented urban design principles. Improve walkways and overall pedestrian and bicycle connectivity throughout the study area. Examine ways to right-size parking, improve transit access, and promote alternative modes of travel. Enhance safe routes to school and access to public space.

6 & 7. PUBLIC SCHOOLS, FACILITIES, AND SPACES



Public Spaces Goal: Ensure that the Lee Highway community is connected to and well served by a diverse mix of public spaces that balance community needs. Embrace streetscapes as an important element of public space. Strive to achieve the goals and recommendations of the improved update to the County's Public Spaces Master Plan.

Public Schools and Facilities Goal: Ensure that public facilities meet the needs of the County and the Lee Highway community. Monitor growth along the Lee Highway corridor to assess and adequately plan for future public facility needs. Identify areas that may be appropriate for future County-wide public facility needs, including core support services, while recognizing that this process will not replace siting or use determination processes to locate specific uses.

8. HISTORIC & CULTURAL RESOURCES



Goal: Identify and support preservation of historic resources that increase public understanding and appreciation for the corridor's architectural and cultural history consistent with the policies of the Historic Preservation Master Plan, and the Historic Resources Inventory (HRI). Increase awareness of and enhance arts, public art, and cultural activities in the corridor.

9. SUSTAINABILITY & RESILIENCY



Goal: Design and construct buildings, street improvements, and park projects using environmentally sustainable and energy efficient practices. Make the Lee Highway frontage more comfortable and attractive with less impervious surfaces and more "green" features (trees, stormwater management, gathering spaces).

PLAN LEE HIGHWAY - THE PLANNING STUDY

PROJECT PHASES

Plan Lee Highway will be a multi-year process that will take a closer look at the long-term goals for this important corridor and its surrounding areas. The planning process will refine, validate and build upon the community's vision and the guiding principles and recommendations as expressed in the 2016 Lee Highway Visioning Study report to fully characterize this future vision. The planning process will include a study of nine interrelated key planning elements and will identify implementation tools that would be studied in further detail in a subsequent process after plan adoption, such as General Land Use Plan and Zoning Ordinance amendments and prioritization of any capital improvement projects. As is the case with many of the County's land use plans, the County expects that the primary tool for implementation of infrastructure improvements will be private development. Reliance on County resources for implementation may be limited and must be prioritized and strategically applied through future budget and Capital Improvement Plan (CIP) processes.

Phase One:

The first part of Phase One involves the review of all relevant information and an analysis of the existing conditions along the corridor, around eight key planning elements (land use, economic vitality, housing, building form and urban design, transportation and connectivity, public spaces and facilities, historic preservation and cultural resources, and sustainability and resiliency) to understand the corridor's distinct qualities and identify the opportunities and constraints for achieving the preliminary aspirational goals. A Cultural Resources Survey will also be conducted and a methodology for analyzing land use scenarios (that will be developed in phase two), will be established.

The engagement opportunities in phase one include a community kickoff meeting, a series of stakeholder interviews, focus group meetings, Community Forum/Working Group meetings, online surveys and a Public Workshop. It also includes a series of educational forums on various topics. The purpose of the workshop is to:

- Present the key findings of the existing conditions analysis.
- Engage the broader community in discussions on key issues to gain a greater understanding of community perspectives and priorities.
- Refine, validate, and build upon the vision presented in the 2016 Visioning Study report.

The second part of phase one involves preparing a Preliminary

Character Areas report. The report will include a map, which generally outlines development typologies along the corridor with descriptions of the land use, density, building height and identity characteristics. The Character Areas Map will also generally describe the future development pattern along the corridor and will identify the areas for preservation and the areas for redevelopment (nodes) where infill, partial or full redevelopment may occur. The report will also identify refinements needed to the vision principles and goals for the key planning elements, based on community feedback.

Phase Two:

Phase Two involves the refinement of the future development pattern, as described in the Character Areas Map, through the development and evaluation of land use scenarios and transportation strategies. The land use scenario analysis will describe and evaluate the potential for change in terms of the physical environment, quality of life and economic impact. This will result in the development of a Preliminary Concept Plan for Lee Highway.

The engagement opportunities in phase two include additional Community Forum/Working Group meetings, a Public Workshop, follow-up focus group meetings, and a series of public meetings to present the Preliminary Concept Plan for Lee Highway. The purpose of the public workshop, at the beginning of Phase two, is to present the land use scenario analysis and transportation strategies and obtain an understanding of community preferences for change. The feedback received at the workshop and follow-up focus group meetings will inform the Preliminary Concept Plan (including refined character areas and descriptions, and refined principles and goals for the key planning elements), which will be presented in a series of public meetings to the community for input.

Phase Three and Four:

Phase Three will be the refinement of the Preliminary Concept Plan, developed in Phase Two, to prepare a draft County Plan that reflects the community's input and vision for the Lee Highway corridor. The engagement opportunities in phase three include additional Community Forum/Working Group and focus group meetings to review the refined concept plan. The draft County Plan will then be posted on the project website for community review and input.

Phase Four is the review of the draft County Plan through additional community meetings and the County's formal public review process, leading up to public hearings (by the Planning Commission and County Board) for adoption of the final Lee Highway Plan.

PROJECT OUTCOMES

The expected outcome is a comprehensive plan that:

- Establishes a high-level framework with:¹
 - A forward-looking vision supported by goals and objectives for the corridor;
 - Recommendations for changes to the Comprehensive Plan and other County policies and regulations;
 - A range of short- and long-term, innovative strategies to support the vision and goals;
 - Identification of future implementation tools (i.e. zoning ordinance amendments); and
 - Identification of issues that may require a future analysis or study, including the potential review and refinement to already-adopted plans for East Falls Church (2011) and Cherrydale (1994) to align with the new policies presented in the Lee Highway Plan.
- Advances the multi-modal vision in partnership with VDOT, which owns and operates the Lee Highway right-of-way.
- Guides private development and informs future Capital Improvement Plan decisions, while recognizing that change will take time to be realized and private development initiatives will likely be the main contributor to realizing the future vision.
- Culminates an inclusive, effective and timely process that reflects the Lee Highway community and broader Arlington community perspectives, respects the time commitments of stakeholders, and is mindful of available staff and Contractor resources.

¹ https://arlingtonva.s3.amazonaws.com/wp-content/uploads/sites/31/2018/09/PlanLeeHighway_Study-Scope-Charge.pdf

PLANNING PROCESS - MILESTONES AND COMMUNITY ENGAGEMENT

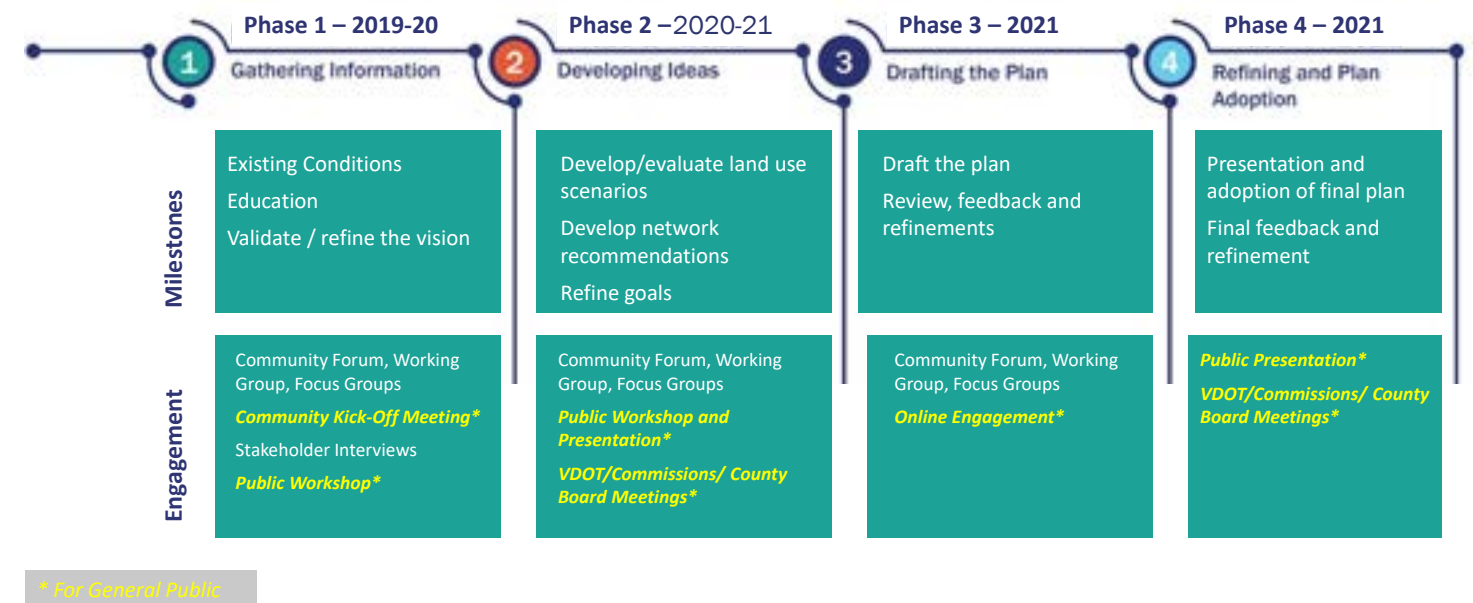


Figure 0.3 Planning Process Milestones and Community Engagement
Source: AECOM

THIS REPORT

This report presents the analysis of existing conditions prepared by the Consultant and County Staff for the planning study area, based on the County's Preliminary Aspirational Goals for nine Key Planning Elements, and recent dialogue with stakeholders and Working Group members. The existing conditions analysis is the first main task for phase one of the planning study. The purpose of the existing conditions analysis is to:

- Document the physical characteristics, demographics, regulatory framework, history and conditions of the corridor;
- Establish a baseline understanding of the opportunities and constraints for achieving the aspirational goals; and
- Provide a framework for community discussions on the refinement of the aspirational goals, areas of change and potential land use scenarios.

Approach and Organization of Analysis:

For each planning element, the existing conditions analysis begins with a review of relevant key County documents, plans, policies and regulations, followed by a qualitative and quantitative analysis for the overall planning study area, core study areas, residential edges and other targeted areas of study.

The key documents for the Lee Highway Planning Study Area includes the principles and recommendations from the 2016 Visioning Study, applicable Neighborhood Conservation Plans and the relevant plans for the Special Districts in the planning study area (Cherrydale Revitalization Plan and East Falls Church Area Plan). It also takes into account ongoing studies for which the County has established a policy framework but has not established the zoning regulations for implementing such policies (i.e. Housing Conservation District), to understand the applicability of those studies in the planning study area.

The qualitative and quantitative analysis includes a series of maps and diagrams utilized to document both corridorwide and area specific conditions, inventory and data points. Analysis of the networkwide elements, such as transportation and public spaces, is conducted corridorwide. Analysis of the other elements is conducted for specific areas including the core study areas, residential edges and other targeted areas of study (Cherrydale and East Falls Church).

The findings from this analysis will be used to understand how and to what extent the land use scenarios impact the existing conditions and/or achieve the preliminary aspirational goals. The development of a methodology for evaluating the land use scenarios is the second task in phase one. The methodology will identify the metrics of success for achieving the aspirational goals for each planning element.

Plan Lee Highway

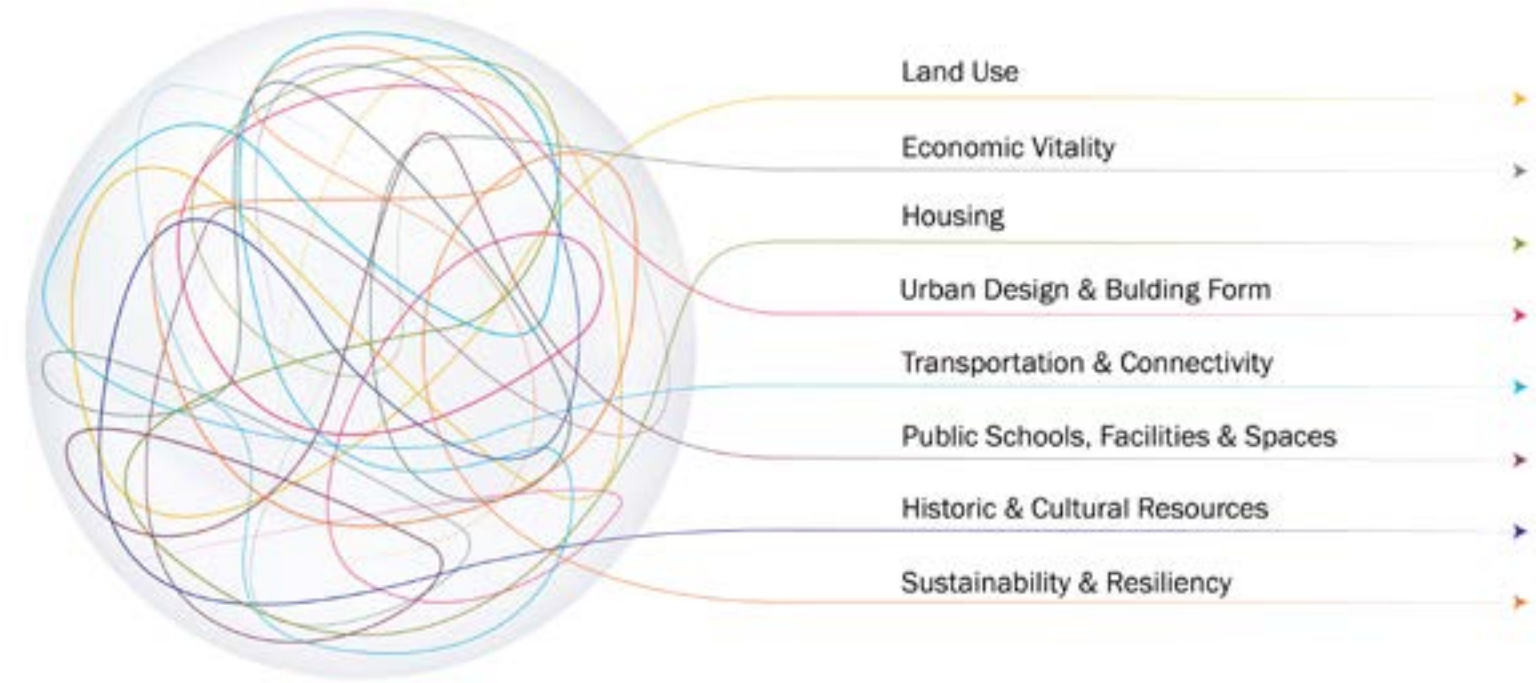


Figure 0.4 Key Planning Elements Broken Out for Analysis

Land Use

OVERVIEW

The planning study area consists of more than 1,600 acres, primarily in the form of low density commercial and residential uses, and supported by public uses. While the commercial land uses have a lower intensity in the planning study area than in other corridors located within Arlington County, such as the Rosslyn-Ballston Metro Corridor, the businesses support roughly one-third of Arlington County’s population. The existing mix of uses, and the form they create, have been shaped by multiple forces - the economy, development trends over time, and the County’s ordinances, policies and plans.

This section first reviews and considers impacts from relevant plans and policies and provides an overview of the County’s regulatory framework, including the types of development that are currently permitted and the various development approval processes that are available. It then analyses corridorwide, where the land uses are distributed in the planning study area to better understand how the General Land Use Plan (GLUP) and Zoning currently align. Following this analysis, this section takes a closer look at the existing development in each neighborhood across all zoning districts. Lastly, this section provides an overview of the current development standards for each zoning district. Understanding the current conditions and regulatory framework will help inform the changes that will be needed to meet the County’s preliminary aspirational land use goal.

Key Demographics	Planning Study Area	Arlington County	%
2018 Population	23,230	225,500	10%
2018 Jobs	7,808	212,822	4%
Median Age	36.6	35.2	--
Household Size (people)	2.32	2.09	--
Education (have at least a bachelors degree)	76%	75.7%	--
Income	\$130,000	\$110,388	118%

Table 1.1 Key Demographics
Source: ESRI, 2019 (derived from ACS estimates)

Preliminary Aspirational Goal

Transform Lee Highway into a walkable, main street corridor, with a wide range of housing types, retail, services, and other uses that serve the diverse needs of nearby communities.

2016 Vision Study Principle*

Series of mixed-use activity nodes of varying scale and character.

2016 Vision Study Recommendations*

- Establish location and boundary of multiple mixed-use centers/hubs of activity
- Identify where mixed-use is desired/required versus allowed
- Define centers, edges and sensitive transition areas in each node
- Establish great destinations to enhance walkability
- Create opportunities for increased residential, office, and commercial uses
- Identify potential redevelopment sites

*The County will continue to seek community feedback to validate and refine the 2016 Vision Study principles and recommendations and the County’s Preliminary Aspirational Goals throughout the Plan Lee Highway process.

LAND USE OBSERVATIONS

- There is a greater percentage of single family residential uses along the Lee Highway corridor than other corridors in Arlington County, including Columbia Pike and Rosslyn-Ballston. The Lee Highway corridor is nearly twice as long as the Columbia Pike and Rosslyn-Ballston corridors.
- The Columbia Pike and Rosslyn-Ballston corridors are both high-density corridors.
- There is only one type of commercial in the planning study area - service commercial. The amount is similar to Columbia Pike, and significantly more than Rosslyn-Ballston.
- Commercial development in the planning study area is from a similar era as Columbia Pike, both of which precedes the more recent commercial development of Rosslyn-Ballston.

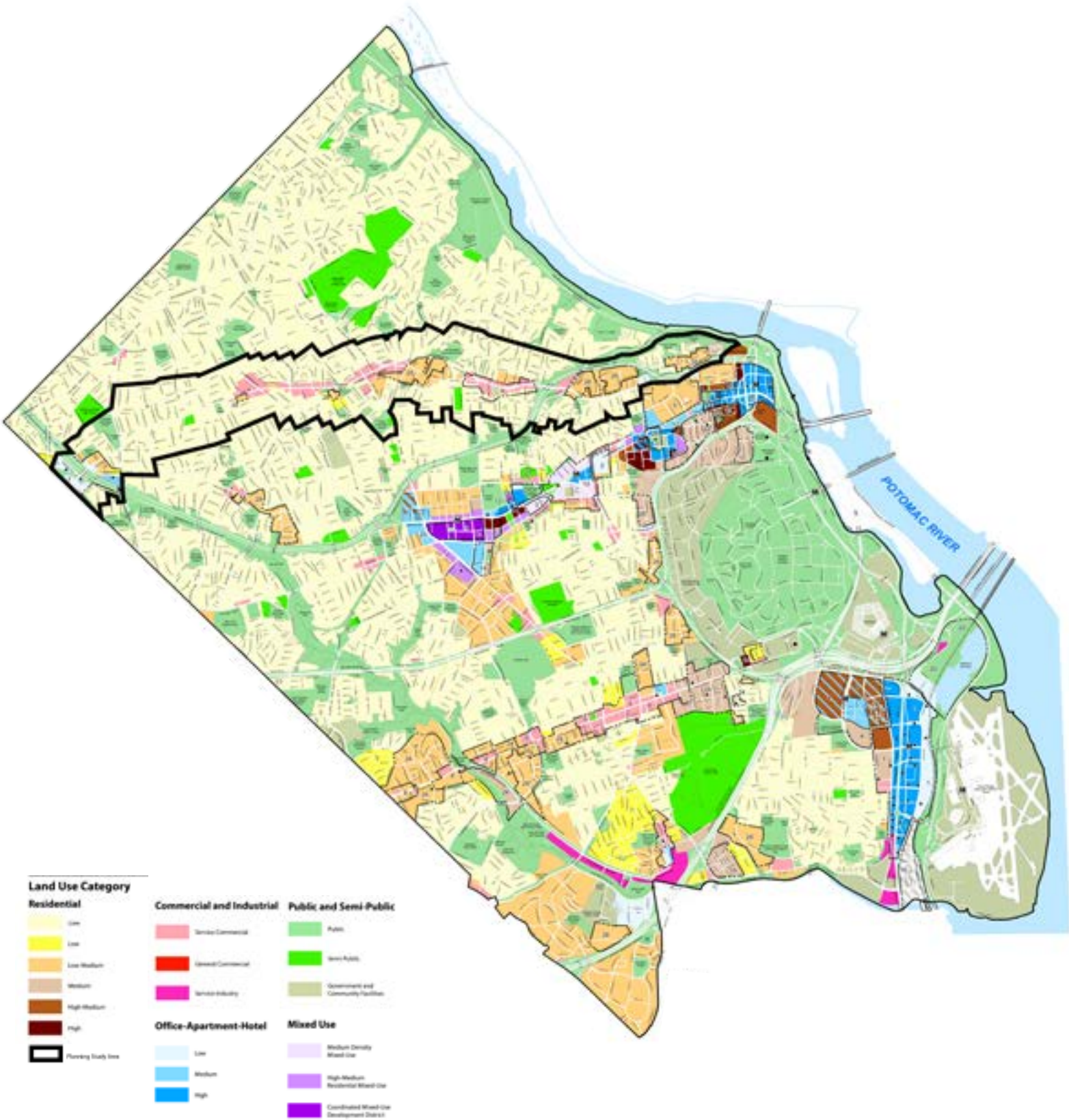


Figure 1.1 Arlington County General Land Use Plan
Source: Arlington County General Land Use Plan

KEY DOCUMENTS + TAKEAWAYS

Arlington County’s planning framework includes land use ordinances, policies, plans, and guides. A selection of those relevant to this study are reviewed below.

General Land Use Plan (GLUP) (2018)

Part of the Comprehensive Plan, the GLUP is the County’s primary policy guide for general land use decisions and future development. As a forward-looking policy, it establishes the overall character, extent, and location of general land use categories found within the County. It designates 18 classifications within the County, 10 of which are found within the planning study area.

For the Lee Highway planning study area, the GLUP also integrates the plans for special districts and neighborhoods including the specific plans for Cherrydale and East Falls Church and the 12 Neighborhood Conservation Program plans. It also integrates the 6 Housing Conservation District areas and 13 Historic Preservation Districts that are located in the planning study area. For more information refer to the chapters on Housing and Historic and Cultural Resources within this report.

Zoning Ordinance (2019)

The Zoning Ordinance regulates land use by establishing zoning districts for all land within the County, as well as, development standards for each zoning district including: the types of uses allowed; the size, placement, lot coverage and height of buildings; the provision of off-street parking; and the location and size of signage. The Zoning Ordinance establishes 40 zoning districts within the County, 20 of which are found within the planning study area.

The Zoning Ordinance also establishes what type of development is permitted ‘by right,’ and what type is permitted as ‘special exception’ – through a site plan or use permit approval process. Special exception developments are projects that propose additional height, density, or another form of development that is not permitted by-right under the Zoning Ordinance and require additional review, community input and County Board approval. Other alternative forms of development are allowed by the County for specific areas and/or zoning districts, including unified developments for residential and commercial uses.

Lee Highway Briefing Book (2014)

Produced by the County, the Lee Highway Briefing Book integrates its land use analysis across other topics such as economics and development, community facilities, transportation, and housing. The Briefing Book provides a review of the regulatory environment, including the General Land Use Plan (GLUP), zoning, and other relevant ordinances, policies, and plans.

2018 Addendum - provides a summary of development projects from 2000-2018 (residential, commercial, and mixed-use development) that have been constructed or approved (but not yet constructed) in the planning study area since 2000. It identifies 19 projects in total, 16 of which have been constructed and 3 that have not. Five of the projects were approved and constructed as by-right development, while 13 were approved and constructed as special exception development through the site plan process. The other three projects were also approved as special exception development, however, they have been approved through the use permit process and have not yet been constructed.

Lee Highway / Cherrydale Revitalization Plan (1994)

The main objective of the Cherrydale Revitalization Plan is to provide guidance for creating a lively and attractive neighborhood commercial area through public and private efforts. A summary of relevant challenges the plan sought to overcome included:

- Recommending streetscape, urban design improvements, and redevelopment concepts to improve aging character of commercial strip.
- Preserving the neighborhood retail character and residential neighborhoods by not allowing expansion of commercial uses into residential areas.
- Improving the pedestrian experience and flow of vehicular traffic.
- Identifying inconsistencies between the GLUP and the zoning and recommending changes to the GLUP where appropriate to clarify the County’s vision in line with the Cherrydale Revitalization Plan recommendations.

East Falls Church Area Plan (2011)

The main objective of the East Falls Church Area Plan is to provide guidance for creating a lively and attractive neighborhood with mid-rise (generally 4-9 stories), mixed-use residential, office and/or hotel development with neighborhood- serving retail, inviting public spaces, enhanced streetscape to promote pedestrian activity and safety, and transportation improvements to mitigate traffic impacts. The plan established the “East Falls Church Neighborhood Center District” as a cohesive center for the neighborhood with private development and public improvements.

Neighborhood Conservation Plans

Neighborhood Conservation Plans are prepared and developed by neighborhood civic associations, with support by County staff. These plans, while many are outdated, provide relevant context and general guidance for future development considerations and capital improvement projects. Currently, there are 12 neighborhoods within the planning study area that have their own Neighborhood Conservation Plan.

Observations

- Collectively, the plans and policies seem to generally direct growth and development to maintain a low-density development pattern, with moderate increases in types of use, density and intensity on parcels located along Lee Highway. Since these plans directly impact the form of development, modifications could be made to promote different outcomes that are based on the neighborhoods’ priorities for meeting the aspirational goals.
- The Lee Highway Cherrydale Revitalization Plan provides a sound basis with regards to promoting the enhancement of the neighborhood, in line with preliminary aspirational goals for Lee Highway. The East Falls Church Area Plan offers potentially the most change in its planning framework approach, focusing on increased height, density and types of uses that correspond to the Metro stop located in the neighborhood. However, the plan is still considered to be largely in line with preliminary aspirational goals. Plan Lee Highway will not provide recommendations for redevelopment in Cherrydale and East Falls Church, however, it will provide recommendations for networkwide elements (such as open space and transportation) to ensure proper connectivity and a cohesive approach for the entire corridor. Plan Lee Highway will also identify potential conflicts of the two plans with the vision for Lee Highway and impacts to Cherrydale and East Falls Church, as a result of proposed adjacent development, that may require additional analysis through future planning efforts.
- Many of the Neighborhood Conservation plans focus on guiding public and private investment in a specific area and on physical revitalization (e.g. improving the public realm and streetscape). Plan Lee Highway will provide recommendations for redevelopment and public realm and streetscape improvements in certain areas that may be different from the recommendations in the Neighborhood Conservation plans.

Regulatory Framework

DEVELOPMENT TYPES

There are three types of development permitted in Arlington County: By-right, Special Exception and Form Based Code. All zoning districts contain development standards for by-right development, however, not all zoning districts allow for special exception development. Form based code development is only permitted in commercial and residential areas along Columbia Pike.

By-Right Development

Specific uses and development standards for by-right development are determined in advance for each zoning district and specifically authorized by the Zoning Ordinance. By-right development is development that follows the rules as prescribed. For example, a single family zoning district would allow single-family detached residences by-right, so long as the site development requirements are met (e.g. height, yards, bulk).¹

Key Considerations:

- No flexibility and no discretion in its administration.
- Approved administratively.

Special Exception

Special exception developments are developments requesting an 'exception' to the by-right rules. Additional uses and development standards (which are appropriate, but which may have impacts on surrounding uses if appropriate safeguards are not imposed) may be permitted in certain zoning districts, however, they require additional levels of review/approval and/or community input. For example, a multi family zoning district allows apartment buildings of 40 feet in height by-right, however, there is a provision that allows the height to be exceeded to a maximum of 75 feet for properties that are adjacent to a more intense residential district.²

Key Considerations:

- Allows for site-specific flexibility (i.e. development form, use and density, beyond what is otherwise permitted by- right).
- Allows for discretion in its administration.
- Subject to special conditions/requirements (particular to use) to mitigate impacts.
- Two forms of approval: Use Permit and/or Site Plan depending on level of impact.
- Approved by County Board.
- Virginia State Code enables Special Exceptions.

¹ Arlington County Zoning Code. <https://building.arlingtonva.us/glossary-of-terms/>

² Ibid.

Form Based Code

Form based code developments are developments that utilize the community endorsed zoning tool developed for commercial and residential areas along Columbia Pike. The optional zoning tool is based on prescriptive regulations that are aimed at providing greater flexibility in use and activity, while achieving a predictable built environment (including a high quality public realm) without a negotiated review process like special exception developments. Community aspirations are incorporated into specific regulations (i.e. new streets, public parks, affordable housing, urban design).

Key Considerations:

- Allows for discretion in its administration.
- Two forms of approval: Administrative (by-right) or Use Permit (special exception) streamlined review process with lower application fees.
 - By-right and special exception use permit applications are reviewed by the Form Based Code Administrative Review Team composed of County staff members. Both types of approval require a preliminary, community and final review period.
 - Community review period: includes a presentation to impacted civic associations and meeting with Form Based Advisory Working Group to evaluate staff's assessment of the application's degree of compliance with the Form Based Code.
 - Final review period: for administrative applications, additional community meetings may be required, however, Zoning Administrator completes final review and issues letter of approval; For special exception use permit applications, an additional community meeting is required and County Board issues final approval.

APPROVAL PROCESSES

Use Permit

The use permit is one form of approval for special exception developments that are appropriate in certain zoning districts, but which may have impacts on surrounding uses if appropriate safeguards are not imposed. Uses that require use permit approval include group living, certain public, civic and institutional uses (i.e. schools, day cares and hospitals), commercial and transitional parking.

Key Considerations:

- Application is reviewed by interdepartmental staff team.
- Requires public hearing before County Board.
- County Board shall find that use will not:
 - Adversely affect health or safety of persons residing or working in neighborhood of proposed use.
 - Be detrimental to public welfare or injurious to property or improvements in neighborhood.
 - Be in conflict with purposes of master plans of County.
- In granting any use permit, County Board may designate conditions that assure use will conform to foregoing requirements and that such use will continue to do so.
- May require additional review and input from Planning Commission, if sufficient impacts are found.

Site Plan

The site plan is the second form of approval for special exception developments that are appropriate in certain zoning districts, but which may have impacts on surrounding uses if appropriate safeguards are not imposed. The County's site plan approval process is structured as incentive zoning, which is enabled by the State Code, to help implement the Comprehensive Plan, GLUP and supporting plans and policies. Most significant private and public projects in Arlington are approved through the site plan approval process. The majority of site plan approvals are for hotel, residential, office and mixed-use development in certain high-density zoning districts and typically within the Metro Station corridors.¹

Incentive Zoning:

The use of bonuses in the form of increased density or other benefits to the developer, in exchange for providing certain features, design elements, uses, services, or amenities desired by the community, including but not limited to:

- Site design incorporating principles of new urbanism and traditional neighborhood development.
- Environmentally sustainable and energy-efficient building design.
- Affordable housing creation and preservation.
- Historic preservation.
- Community improvements.

¹ Arlington County. <https://building.arlingtonva.us/project/site-plan-projects/>

Key Considerations:

- The site plan approval process is an iterative and multi-phase process.
- Application is reviewed by County Staff, CPHD Lead Planner, and Interdepartmental Staff Team.
- Site Plan Review Committee (SPRC) - the forum for Planning Commission, other Commissions (as needed), public, and community stakeholders to review and discuss proposed project and determine:
 - Appropriateness of proposal for land use, density, form, height, public infrastructure, open space and other features.
 - Compliance of proposal with adopted plans and policies.
- A public hearing before Planning Commission and County Board is required for approval.
- Subject to following conditions/requirements:
 - Provisions for protection of abutting properties.
 - Expiration date of site plan approval.
 - Access and design for off-street parking and loading.
 - Provisions of space for community facilities (i.e. recreation and open space, library and fire facilities, utilities etc.).

Recent Development Interest:

- Interest for the development of day care facilities, particularly along Lee Highway, has increased. Day care facilities are considered a special exception use and can only be approved through the use permit approval process. Due to recent amendments to the Zoning Ordinance, day cares are now permitted in all zoning districts.
- Interest for the development of senior living facilities, along Lee Highway, has also increased. Until recently, senior living facilities were only permitted in Public Zoning Districts. In September 2019, the County Board adopted amendments to the zoning ordinance to permit the establishment of assisted living facilities in the RA 8-18, C-O-1.0, C-O-1.5, and C-O-2.5 zoning districts and nursing homes in the RA 8-18 zoning districts, and to revise the zoning definition for assisted living facilities. The County is currently undertaking an additional zoning study, as part of its Housing Arlington Initiative, to further evaluate in which other zoning districts (and under what conditions) senior living facilities should be allowed.



Figure 1.2 GLUP - Planning Study Area

Source: AECOM

Note: The GLUP is the County's primary policy guide for general land use decisions and future development. As a forward-looking policy, it establishes the overall character, extent, and location of general land use categories found within the County. The County will interpret the precise land use designation of a parcel at time of application. The GLUP does not depict property lines, as illustrated on the map above. Property lines on this map are intended as a visual tool only



%	GLUP Land Use Designations
Residential	
71%	Low (1-10 units per acre)
<1%	Low (11-15 units per acre)
11%	Low-Medium (16-36 units per acre)
<1%	Medium (Up to 37-72 units per acre)
Commercial	
6%	Service Commercial
Public and Semi-Public	
8%	Public
<1%	Semi-Public
<1%	Government and Community Facilities
Office-Apartment-Hotel	
2%	Low (Max. 1.5 F.A.R - 72 units/acre - 110 units/acre)
<1%	Medium (Max. 2.5 F.A.R - 115 units/acre - 180 units/acre)
100%	Total Land Area*

Table 1.2 GLUP - Planning Study Area

*Excludes ROW

December 2019

LAND USE OBSERVATIONS - CORRIDOR WIDE

Commercial Designations

- There is only one GLUP commercial designation in the planning study area - Service Commercial. At 6% of total land area, these areas are located primarily between Spout Run Parkway and N Randolph Street in Cherrydale and Lyon Village (including the Lyon Village Shopping Center) in the east and between Lorcom Lane and N. Kensington Street (including Lee Heights Shopping Center, Garden City Shopping Center, Glebe Lee Shopping Center, and the Lee Harrison Shopping Center) in the west.

Residential Designations

- There are two types of low-density residential designations in the planning study area, the "Low" Residential (1-10 units per acre) and "Low" Residential (11-15 units per acre) designations. Together, these low-density residential designations are clearly the predominant land use at 72% of total land area. Most of these areas are located north and south of the Service Commercial and "Low-Medium" Residential areas along Lee Highway.

- In general, development intensity decreases as one moves away from the highway. However, there are a few areas designated "Low" Residential (1-10 units per acre) that front on Lee Highway. These areas are between N. McKinley St and N. Kensington St, which features predominantly commercial uses; between N. Harrison St and N. George Mason Drive, which is characterized by single family development; between N. Buchanan St and N. Glebe Road, which is characterized by commercial development; between N. Stafford St and N. Randolph St, which is characterized by single family and townhouse development; between N. Highland St and N. Veitch Street, which features a mixture of commercial uses, single family, and multi-family development; and between 21st St N. and N. Smyth Street, which features a mixture of multi-family development and townhouse development.
- "Low-Medium" Residential designations make up 11% of the land area. They are primarily located in North Highlands, Waverly Hills, and East Falls Church.

- At less than 1% of total land area, medium residential density land uses are only located in the east end of the North Highlands neighborhood.
- A majority of the 2% of Office-Apartment-Hotel is located in East Falls Church, which is the result of the GLUP amendments subsequent to the East Falls Church Area Plan adoption, and a small area in the North Highlands neighborhood reflecting the GLUP amendment and site plan approval for the Verde Point development in the late 2000s.
- Public, semi-public and government/community facilities, at 9% of the total land area, are distributed throughout the planning study area, supporting neighborhoods across the length of the corridor.

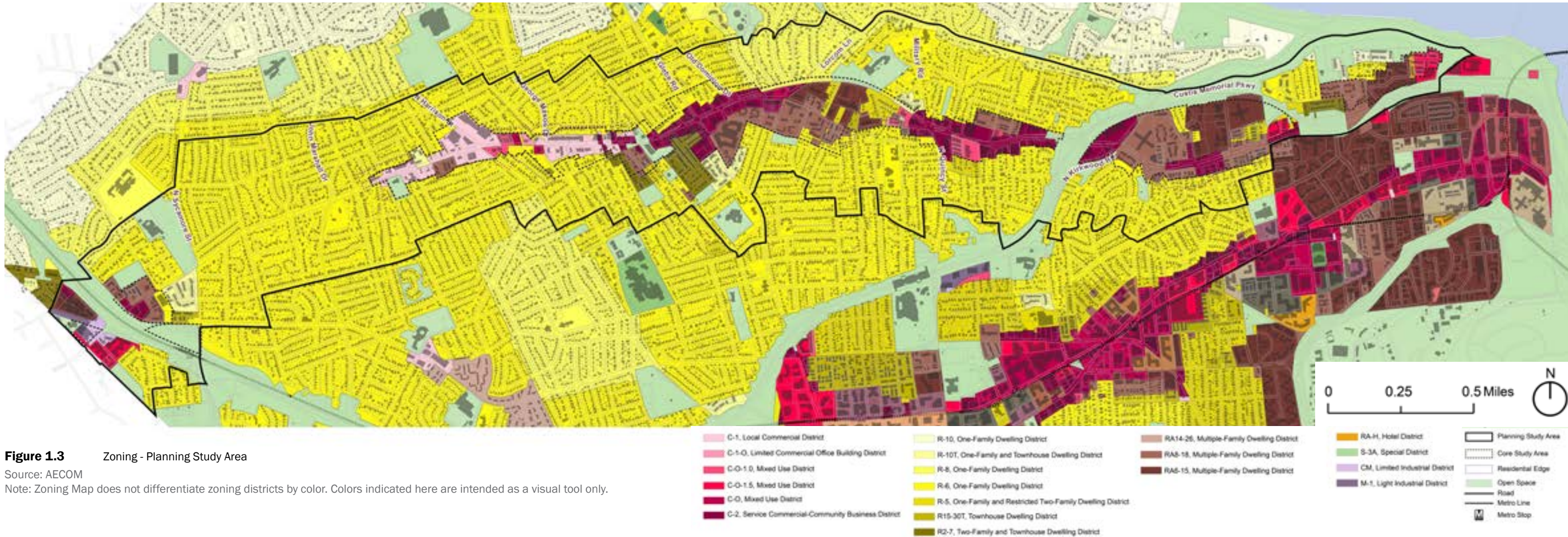


Figure 1.3 Zoning - Planning Study Area

Source: AECOM
 Note: Zoning Map does not differentiate zoning districts by color. Colors indicated here are intended as a visual tool only.

% Zoning Categories and Districts			% Zoning Categories and Districts		
Residential (R)			Public District		
<1%	R-10	One Family	8%	S-3A	Special District
1%	R-10T	One Family and Townhouse	Commercial + Mixed-use		
5%	R-8	One Family Dwelling	<1%	RA-H	Hotel District
63%	R-6	One Family Dwelling	2%	C-1	Local Commercial
1%	R-5	One Family and Restricted Two Family Dwelling	<1%	C-1-O	Limited Commercial Office Building
<1%	R15-30T	Townhouse	1%	C-O-1.0	Mixed-use
1%	R2-7	Two Family and Townhouse	1%	C-O-1.5	Mixed-use
Multiple-Family Residential			<1%	C-O	Mixed-use
<1%	RA14-26	Multiple Family Dwelling	4%	C-2	Service Commercial-Community Business
7%	RA8-18	Multiple Family Dwelling	Industrial		
<1%	RA6-15	Multiple Family Dwelling	<1%	CM	Limited Industrial
			<1%	M-1	Light Industrial
100% Total Land Area*					

Table 1.3 Zoning - Planning Study Area
 *Excludes ROW

ZONING OBSERVATIONS - CORRIDOR WIDE

- There are 20 zoning districts in the planning study area - primarily residential, commercial, and mixed-use.
- A mix of commercial and residential (medium to high-density) uses are found along the corridor, primarily in core areas, which are commercial, multi-family, and mixed-use zoning categories.
- One-family zoning districts R-8 and R-6 comprise 68% of the planning study area. Two family zoning districts R2-7 only comprise 1% of the total land area, however two-family dwellings are also permitted in select one-family, townhouse, multi-family, and commercial zoning districts.
- At 8% of total land area, special districts (parks and public facilities) are integrated into the residential fabric across the planning study area.
- At less than 2% of the planning study area, industrial zoning districts are located in East Falls Church.

General Inconsistencies between GLUP and Zoning

GLUP

Zoning

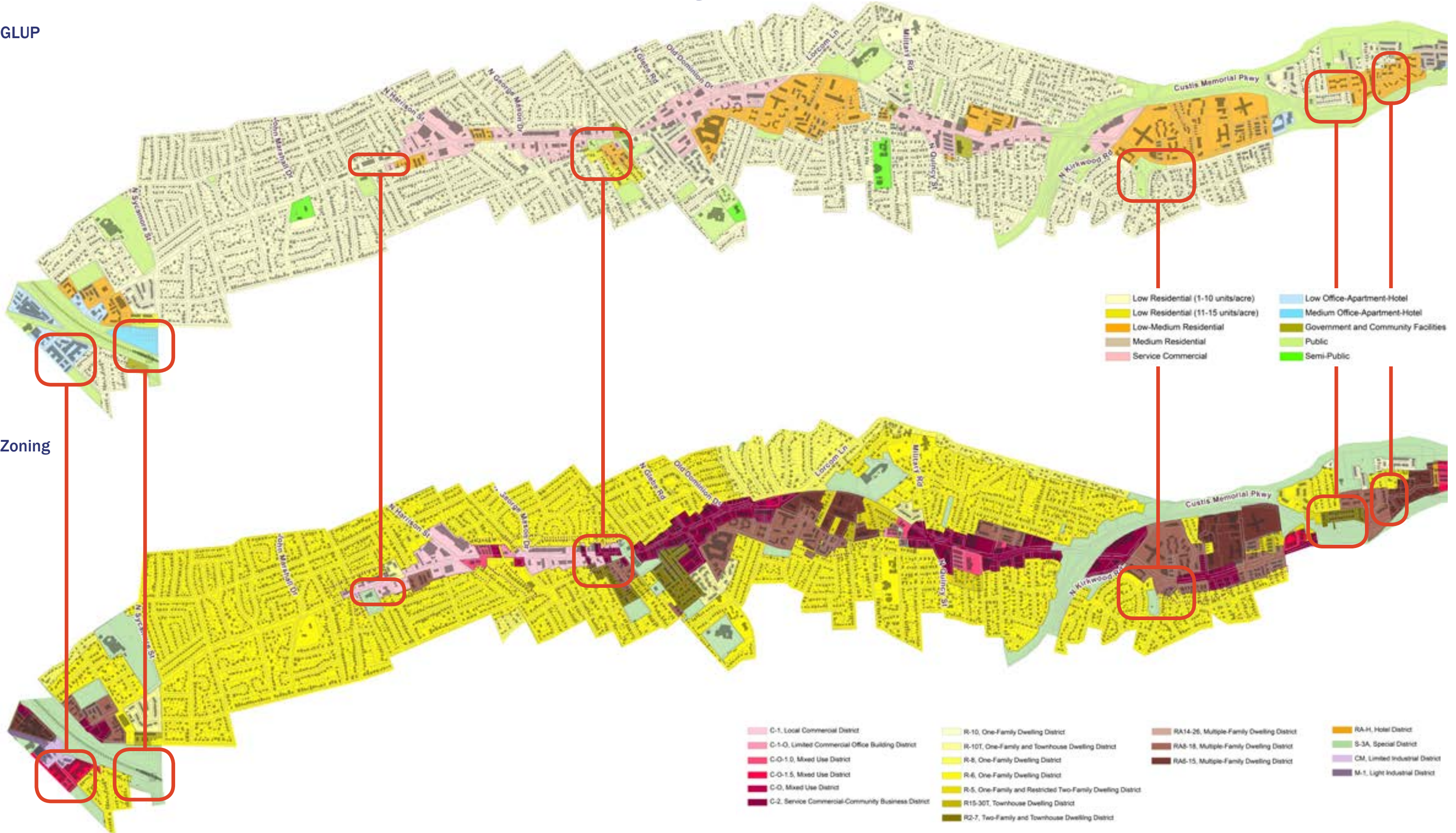


Figure 1.4 GLUP and Zoning
December 2019

Note: Zoning Map does not differentiate zoning districts by color. Colors indicated here are intended as a visual tool only.
Note: The GLUP is the County's primary policy guide for general land use decisions and future development. As a forward-looking policy, it establishes the overall character, extent, and location of general land use categories found within the County. The County will interpret the precise land use designation of a parcel at time of application. The GLUP does not depict property lines, as illustrated on the map above. Property lines on this map are intended as a visual tool only.

General Inconsistencies Between GLUP and Zoning

The General Land Use Plan provides policy guidance for general land use decisions and future development. As a forward-looking policy, it establishes the overall character, extent, and location of general land use categories found within the County. It also identifies the zoning districts that correspond with each land use designation. In some cases, the zoning districts do not correspond with the land use designation for an area. This may create situations in which the zoning for a particular parcel permits a certain use or intensity of development that is different from the land use vision for that area, thereby creating an inconsistency.

Why do inconsistencies exist?

Inconsistencies are not uncommon in the County and are the result of a) zoning districts preceding the 1961 adoption of the County's General Land Use Plan; b) formal County initiated amendments to the GLUP, for a specific area, as a result of a planning process; or c) mapping errors.

Why do we care about inconsistencies on Lee Highway?

Knowing where the inconsistencies are, and the types of inconsistencies, is important to establish a baseline understanding of what the current development regulations (prescribed by the zoning ordinance) say in relation to the overall aspiration (GLUP). Specifically, it will help us understand which provides more flexibility in terms of the types of uses allowed, the level of intensity and/or density permitted in an area, and whether there could be undesired consequences as a result of the inconsistency. This information is also helpful, when determining the best path for enabling and/or approving a development.

In East Falls Church, for example, the County amended the GLUP to Office-Apartment Hotel to incentivize redevelopment and implement the area plan. The existing zoning in that area is Industrial, which does not correspond with the land use designation. In that case, the inconsistency was a result of the GLUP amendment. This will be resolved through redevelopment, as rezonings are expected to be initiated by the property owner/developer.

There are also areas along the corridor where the GLUP envisions low-medium density residential development, but the zoning classification is C-2. C-2 permits service commercial uses by-right and does not allow multi-family residential, either by-right or through special exception. If a property owner was interested in developing multi-family residential in this area, this would be consistent with the GLUP but not the zoning and a rezoning would be required.

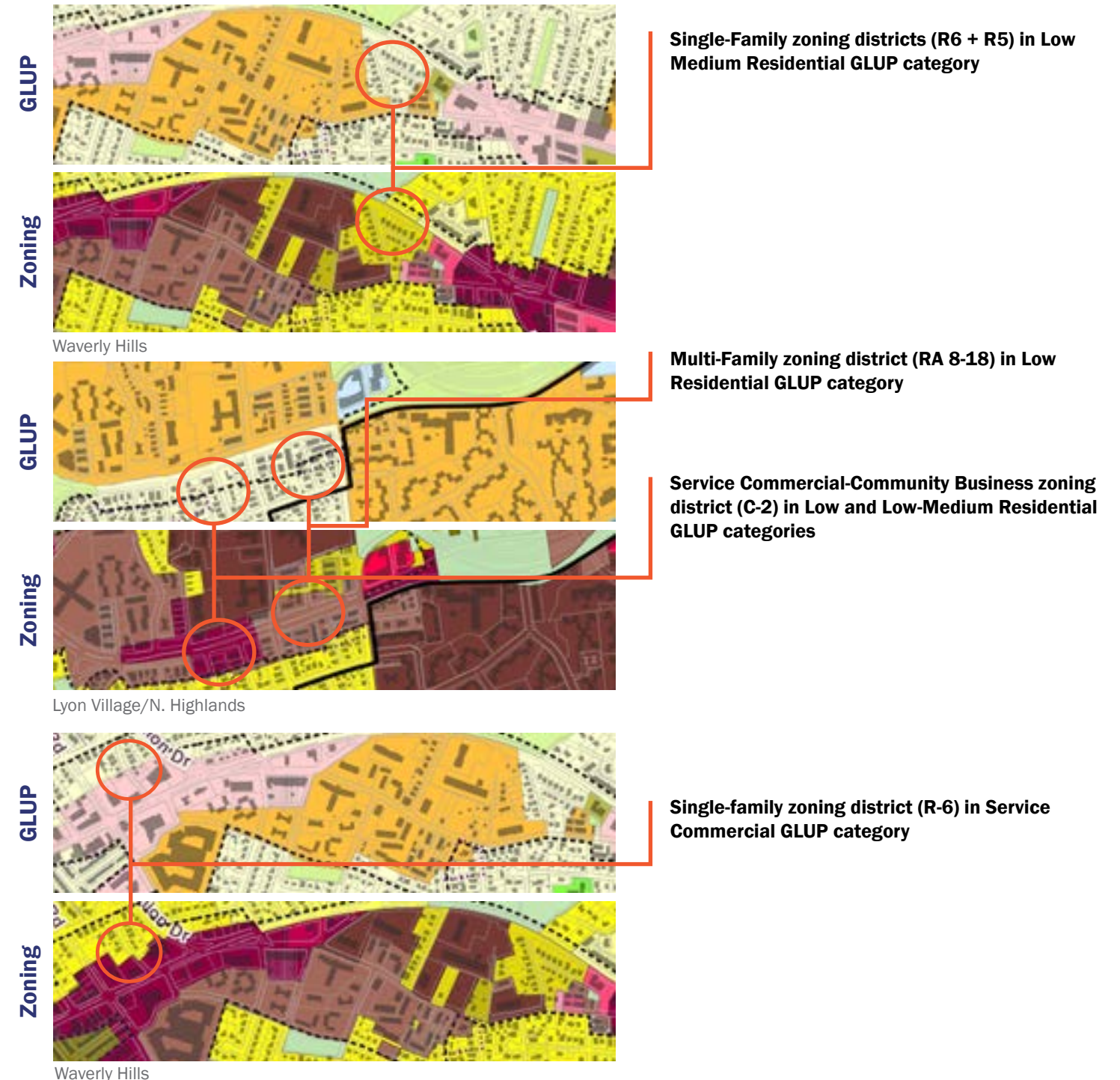
However, if a property owner was interested in developing commercial in this area, this would be consistent with the zoning but not the GLUP. In this case, a rezoning would not be required and the development would be permitted by-right. This use (service commercial) may be incompatible with the surrounding uses and may create an undesirable condition, particularly, if the area is predominantly single-family.

Another example are areas along the corridor where the GLUP envisions low density residential (i.e. single family), but the zoning permits low to medium density residential (i.e. multi-family). If a property owner was interested in developing single family residential in this area, it would be considered consistent with both the zoning and the GLUP and a rezoning would not be required. If a property owner was interested in developing multi-family in this area, it would be considered consistent with the zoning but not the GLUP. In this case, a rezoning would not be required and the development would be permitted by-right. This use (multi-family) may be incompatible with the surrounding uses and may create an undesirable condition, particularly, if the area is predominantly single-family.

What will we do with what we learn?

During the planning process, inconsistencies will be evaluated to determine if the current GLUP designations are appropriate or if a GLUP amendment should be recommended - either to align with the underlying zoning district or align with a land use scenario envisioned through the planning process. Recommendations for GLUP amendments as well as potential zoning tools, that may be appropriate to incentivize redevelopment in the planning study area, will be considered through a separate implementation process following adoption of a plan for Lee Highway.

EXAMPLES WHERE INCONSISTENCIES OCCUR



Zoning District by Neighborhoods

The following are images of existing development in each neighborhood across all zoning districts except Special Districts (parks and public facilities) and One-Family Zoning Districts. The purpose of this analysis is to visually understand how the development patterns for each zoning district differ across the neighborhoods.

East Falls Church



C-1, Local Commercial District	R-10, One-Family Dwelling District	Planning Study Area
C-1-O, Limited Commercial Office Building District	R-10T, One-Family and Townhouse Dwelling District	Civic Association
C-O-1.0, Mixed Use District	R-6, One-Family Dwelling District	
C-O-1.5, Mixed Use District	R-6, One-Family Dwelling District	
C-O, Mixed Use District	R-5, One-Family and Restricted Two-Family Dwelling District	
C-2, Service Commercial Community Business District	R15-30T, Townhouse Dwelling District	
RA14-26, Multiple-Family Dwelling District	RQ-7, Two-Family and Townhouse Dwelling District	
RA6-18, Multiple-Family Dwelling District	RA-H, Hotel District	
RA6-15, Multiple-Family Dwelling District	S-3A, Special District	
	CM, Limited Industrial District	
	M-1, Light Industrial District	

Key Diagram



Note: Zoning Map does not differentiate zoning districts by color. Colors indicated here are intended as a visual tool only.



CM: Econo Lodge and Cube Smart (Lee Hwy Building); C-O-1.5: Crescent Apartments



R-10T: Townhomes



CM: Animal Hospital, Auto Service Shop; M-1 Cube Smart (rear building)



C2: Gas Station



C2: Auto Service Shop



C-O-1.5: The Westlee Condos



RA 8-18: Townhomes and Office Building



RA 6-15: Falls Station Condos

Zoning District by Neighborhoods

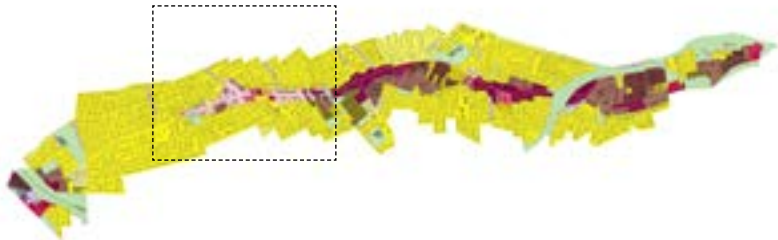
The following are images of existing development in each neighborhood across all zoning districts except Special Districts (parks and public facilities) and One-Family Zoning Districts. The purpose of this analysis is to visually understand how the development patterns for each zoning district differ across the neighborhoods.

Leeway Overlee, Yorktown, and John M. Langston



C-1, Local Commercial District	R-10, One-Family Dwelling District	Planning Study Area
C-1-O, Limited Commercial Office Building District	R-10T, One-Family and Townhouse Dwelling District	Civic Association
C-O-1.0, Mixed Use District	R-6, One-Family Dwelling District	
C-O-1.5, Mixed Use District	R-6, One-Family Dwelling District	
C-O, Mixed Use District	R-5, One-Family and Restricted Two-Family Dwelling District	
C-2, Service Commercial Community Business District	R15-30T, Townhouse Dwelling District	
RA14-26, Multiple-Family Dwelling District	R2-7, Two-Family and Townhouse Dwelling District	
RA6-18, Multiple-Family Dwelling District	RA-H, Hotel District	
RA6-15, Multiple-Family Dwelling District	S-3A, Special District	
	CM, Limited Industrial District	
	M-1, Light Industrial District	

Key Diagram



Note: Zoning Map does not differentiate zoning districts by color. Colors indicated here are intended as a visual tool only.



C-1: Shopping Centers at N. Harrison Street and Lee Highway Intersection (Yorktown)



C-O: Bank on Lee Highway West of N. George Mason Drive (Leeway Overlee)



C-1: Commercial on Lee Highway East of N. George Mason Drive (John M. Langston)



C-2: Commercial on Lee Highway (John M. Langston)



C-O-1.0: Townhouses on Lee Highway (Yorktown)



C-1-O: Office on Lee Highway (Yorktown)



C-O-1.0: Bank and Office on Lee Highway (Leeway Overlee)



RA 8-18: Single, Multi-Family and Townhouse on N. Cameron Street (John M. Langston)

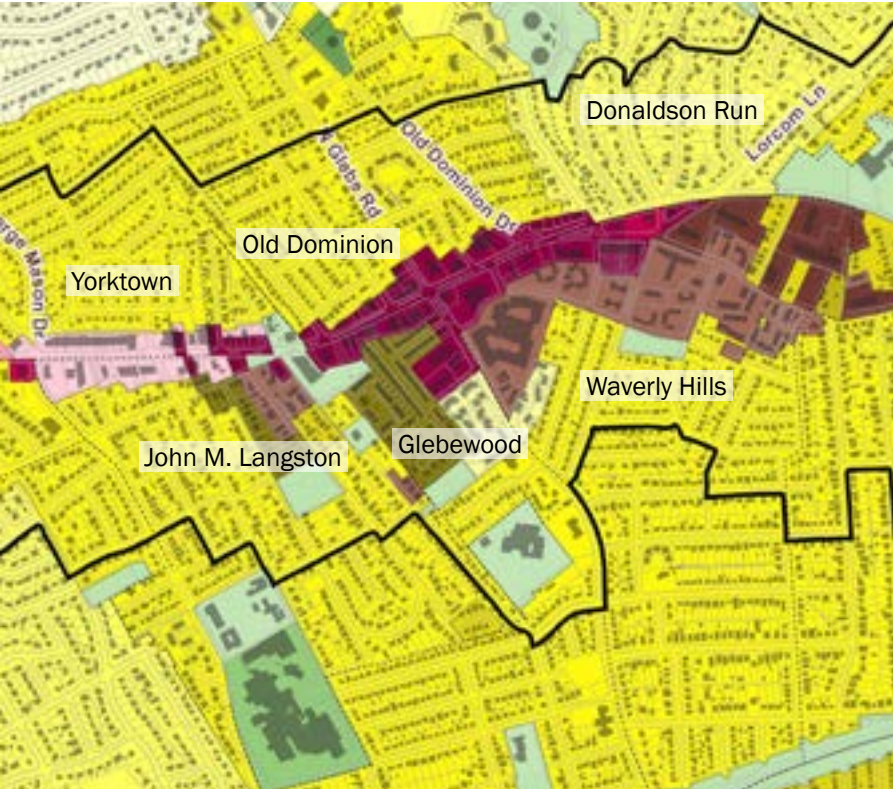


R2-7: Semi-detached on 21st Street N. (John M. Langston)

Zoning District by Neighborhoods

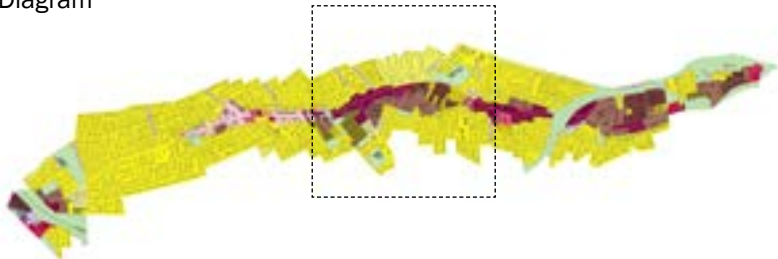
The following are images of existing development in each neighborhood across all zoning districts except Special Districts (parks and public facilities) and One-Family Zoning Districts. The purpose of this analysis is to visually understand how the development patterns for each zoning district differ across the neighborhoods.

Old Dominion, GlebeWood, and Waverly Hills



C-1, Local Commercial District	R-10, One-Family Dwelling District	Planning Study Area
C-1-O, Limited Commercial Office Building District	R-10T, One-Family and Townhouse Dwelling District	Civic Association
C-O-1.0, Mixed Use District	R-8, One-Family Dwelling District	
C-O-1.5, Mixed Use District	R-6, One-Family Dwelling District	
C-O, Mixed Use District	R-5, One-Family and Restricted Two-Family Dwelling District	
C-2, Service Commercial Community Business District	R15-30T, Townhouse Dwelling District	
RA14-26, Multiple-Family Dwelling District	R2-7, Two-Family and Townhouse Dwelling District	
RA6-18, Multiple-Family Dwelling District	RA-H, Hotel District	
RA6-15, Multiple-Family Dwelling District	S-3A, Special District	
	CM, Limited Industrial District	
	M-1, Light Industrial District	

Key Diagram



Note: Zoning Map does not differentiate zoning districts by color. Colors indicated here are intended as a visual tool only.



RA 6-15: Horizons Apartments on Lee Highway (Waverly Hills)



RA 8-18: Avalon Apartments (Waverly Hills)



C-2: Commercial on Lee Highway (GlebeWood)



R10-T: Townhouses on N. Abington Street (GlebeWood)



C-2: Lee Heights Shopping Center on Lee Highway (Waverly Hills)



C-2: Commercial on Lee Highway (Old Dominion)



C-O: Commercial on Lee Highway (Waverly Hills)

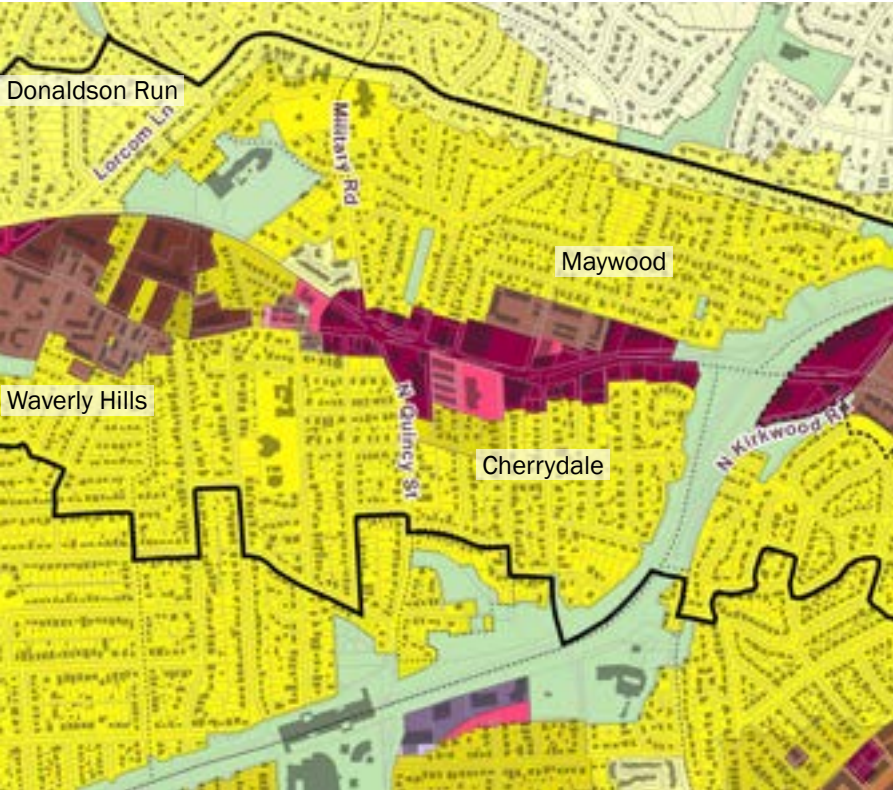


R2-7: Townhouses on Brandywine Street (GlebeWood)

Zoning District by Neighborhoods

The following are images of existing development in each neighborhood across all zoning districts except Special Districts (parks and public facilities) and One-Family Zoning Districts. The purpose of this analysis is to visually understand how the development patterns for each zoning district differ across the neighborhoods.

Cherrydale and Maywood



C-1, Local Commercial District	R-10, One-Family Dwelling District	Planning Study Area
C-1-O, Limited Commercial Office Building District	R-10T, One-Family and Townhouse Dwelling District	Civic Association
C-O-1.0, Mixed Use District	R-6, One-Family Dwelling District	
C-O-1.5, Mixed Use District	R-6, One-Family Dwelling District	
C-O, Mixed Use District	R-5, One-Family and Restricted Two-Family Dwelling District	
C-2, Service Commercial Community Business District	R15-30T, Townhouse Dwelling District	
RA14-26, Multiple-Family Dwelling District	RQ-7, Two-Family and Townhouse Dwelling District	
RA6-18, Multiple-Family Dwelling District	RA-H, Hotel District	
RA6-15, Multiple-Family Dwelling District	S-3A, Special District	
	CM, Limited Industrial District	
	M-1, Light Industrial District	

Key Diagram



Note: Zoning Map does not differentiate zoning districts by color. Colors indicated here are intended as a visual tool only.



C-O-1.0: Mixed-use Building on 2101 North Monroe Street (Maywood)



RA 8-18: Cherry Hill Apartments (Maywood)



RA 14-26: Townhouses on N. Randolph Street (Cherrydale)



C-2: Safeway Site (Cherrydale)



C-1-0: Law Office on Old Lee Highway (Cherrydale)



C-O-1.0 Cherrydale Health and Rehabilitation Center on North Nelson Street (Cherrydale)



C-2: Auto Service Shop (Cherrydale)

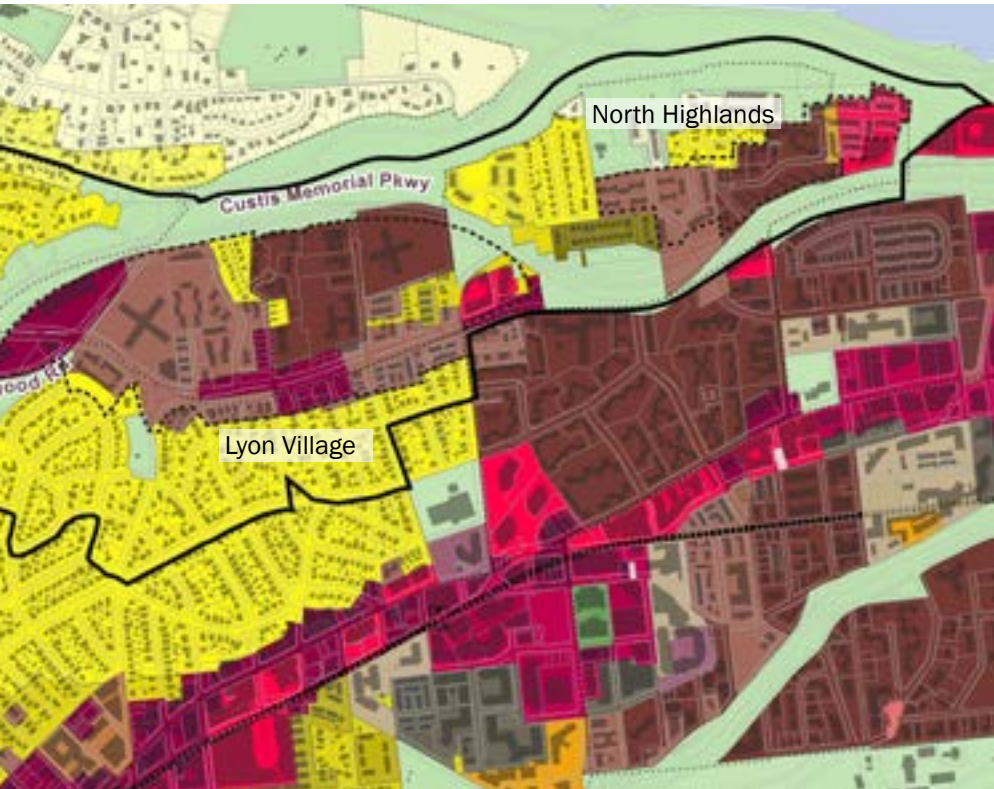


C-2: Koons Arlington Toyota Auto Dealer (Cherrydale)

Zoning District by Neighborhoods

The following are images of existing development in each neighborhood across all zoning districts except Special Districts (parks and public facilities) and One-Family Zoning Districts. The purpose of this analysis is to visually understand how the development patterns for each zoning district differ across the neighborhoods.

North Highlands and Lyon Village



C-1, Local Commercial District	R-10, One-Family Dwelling District	Planning Study Area
C-1-O, Limited Commercial Office Building District	R-10T, One-Family and Townhouse Dwelling District	Civic Association
C-O-1.0, Mixed Use District	R-6, One-Family Dwelling District	
C-O-1.5, Mixed Use District	R-6, One-Family Dwelling District	
C-O, Mixed Use District	R-5, One-Family and Restricted Two-Family Dwelling District	
C-2, Service Commercial Community Business District	R15-30T, Townhouse Dwelling District	
RA14-26, Multiple-Family Dwelling District	R2-7, Two-Family and Townhouse Dwelling District	
RA6-18, Multiple-Family Dwelling District	RA-H, Hotel District	
RA6-15, Multiple-Family Dwelling District	S-3A, Special District	
	CM, Limited Industrial District	
	M-1, Light Industrial District	

Key Diagram



Note: Zoning Map does not differentiate zoning districts by color. Colors indicated here are intended as a visual tool only.

December 2019



C-2: Lyon Village Shopping Center, Pawn Shop, and Walgreens Sites (N. Highlands)



C-2: 7-11 Site, Burger 7 and Car Sales (N. Highlands)



C-O-1.5: Mom's Organic Market and Verde Point Apartments (N. Highlands)



R2-7: Semi-detached on 21st Street N. (N. Highlands)



RA 6-15: 21st Street North looking East (N. Highlands)



C-O-1.5: Townhomes on 22nd Street North (N. Highlands)



C-2: Gas Station (Lyon Village)



RA 8-18: Lyon Village Apartments/Cardinal House Condos (Lyon Village/N. Highlands)



RA 8-18: Palisade Gardens Condos on North Scott Street (N. Highlands)



RA 6-15: Potomac Towers Apartments and Adams House Condos on North Adams Street looking North (N. Highlands)



Figure 1.5 Commercial Zoning Districts - Planning Study Area

Source: AECOM

Note: Zoning Map does not differentiate zoning districts by color. Colors indicated here are intended as a visual tool only.

CURRENT DEVELOPMENT STANDARDS

Zoning District	Permitted Uses	Height (maximum)		Density/FAR (maximum)	
		By-Right	Special Exception	By-Right	Special Exception
C-1-O, C-1, C-2	Multi-Family	n/a	n/a	n/a	n/a
	Low or Moderate-Income Housing	n/a	n/a	n/a	n/a
	All Other Uses (including Hotels in C-2)	C-1-O: 35' C-1: 35' C-2: 45'	C-1-O: n/a C-1: n/a C-2: Thru Site Plan, in Cherrydale Special Revitalization area up to six stories not including mechanical penthouses, unless otherwise stated in Revitalization plan.	C-1-O: Site area up to 9,999 sf up to 0.4 FAR Site area from 10,000 sf - 19,999 sf up to 0.5 FAR Site area 20,000 sf and above up to 0.6 FAR C-1: 1.0 FAR C-2: 1.5 FAR	C-1-O: n/a C-1: n/a C-2: Through Site Plan, in Cherrydale Special Revitalization area an additional 0.5 FAR may be allowed, for mixed-use buildings only. (Includes a requirement for retail on ground floor and undergrounding of utilities)

Table 1.4 Current Development Standards for Commercial Zoning Districts

Table is a general representation of the development regulations (for height and density), prescribed in the zoning ordinance, for select uses permitted in each zoning district and may be different for specific site development applications.

PURPOSE OF DISTRICTS AND OBSERVATIONS

- C-1-O:** the intent of Limited Commercial Office Building District is to provide areas for non-retail commercial uses such as offices and financial institutions in a low-intensity manner. There are only two C-1-O parcels in the planning study area and they are located in Yorktown and Cherrydale.
- C-1:** the intent of Local Commercial District is to provide locations for low intensity development, primarily in the form of a unified shopping center, where retail and personal service uses predominate and where there is also limited opportunity for office uses and business service uses. C-1 zoning districts are primarily located in the western half of the corridor, in Yorktown, John M. Langston and Leeway Overlee neighborhoods.
- C-2:** the intent of Service Commercial-Community Business District is to provide locations for commercial development where the variety in retail, service and office uses is intended to serve a broad-based community. The C-2 district should be developed as linear commercial and be located primarily along principal arterial streets as designated in the Arlington County Master Transportation Plan. The C-2 district provides for an expanded range of uses, greater density and greater height than the C-1 district. C-2 zoning districts are generally located between N. Edison St. and Lorcom Ln./N. Woodstock St, between N. Randolph St. and Spout Run Pkwy. Also along I-66 and Washington Boulevard in East Falls Church.

FLOOR AREA RATIO (FAR)

The gross floor area of all buildings on a lot divided by the lot area. Examples shown all have an FAR of 1.0.



OPTIONAL ZONING TOOLS

The County provides two optional zoning tools to incentivize the development of mixed-use in certain commercial zoning districts. These include the Unified Commercial / Mixed-use Development option and the C-2 Site Plan option.

Unified Commercial / Mixed-use Development (UCMUD) (applicable to C-1/C-2 Zoning Districts in planning study area except in Cherrydale)

Purpose:

To provide for flexible, site-specific solutions for revitalization of existing shopping areas while preserving commercial service levels (including, in certain circumstances, new construction in C-2 and C-3). Provide for construction of residential units within C-2 and C-3 district, as part of a mixed-use development, according to specific guidelines.

Key considerations of the UCMUD include:

- Promotes compatibility of commercial developments within commercial district and surrounding properties by coordinating building placement, orientation, scale, bulk; parking; signage; landscaping; streetscape; pedestrian facilities; and historical features.
- Provides for creative opportunities which encourage and retain local and small business.
- Promotes opportunities for affordable housing.
- Approved through Use Permit.

General Development Standards:

Use

- Residential dwelling units are only permitted when project contains a minimum of 0.4 F.A.R. of commercial or retail uses located on first (ground) floor. Additional required commercial or retail uses above 0.4 F.A.R. may be located on any floor.

Building Height

- 45' maximum, except for mechanical penthouses, if set back a distance equal to their height from building edge and height does not exceed 12 feet.

Density

- For developments with commercial and residential uses: max total F.A.R. of 2.0 (minimum of 0.1 F.A.R. and maximum of 1.1 F.A.R. of residential uses).
- Commercial uses: Max 1.5 F.A.R.

Additional standards are provided for placement and orientation of buildings, first floor height, first floor fenestration, building entrances, landscaping, streetscape, parking and loading, trash collection and storage areas.

Observations

- Allowing residential units only when retail is provided on the ground floor is restrictive and limits development potential of future projects.
- The minimum 0.9 FAR of commercial overall, is generally considered too high. In addition, the market does not support retail on the ground floor along the entire corridor.
- There are two UCMUD projects that have been approved in the planning study area since 2000, however neither of these projects have been built.¹
 - One project was proposed to be located in Old Dominion, at the corner of Lee Highway and N. Wakefield. It proposed almost 12,000 sqft of commercial space and 12 dwelling units.
 - The other project was proposed to be located in North Highlands, at the corner of Lee Highway and N. Cleveland St. It proposed almost 12,000 sqft of commercial space and 22 dwelling units.

¹ Lee Highway Briefing Book. <http://arlingtonva.s3.amazonaws.com/wp-content/uploads/sites/31/2014/10/Lee-Highway-Briefing-Book-101714-draft.pdf>

C-2 Site Plan (applicable to C-2 Zoning Districts in Cherrydale only)

Purpose

The C-2 Site Plan option is only applicable to the Cherrydale neighborhood area, which is a designated "Special Revitalization District" in the GLUP.

General Development Standards:

- Building heights is limited to the height standard prescribed in the revitalization area plan or up to six stories.
- An additional 0.5 FAR (for a maximum overall FAR of 2.0) is permitted.
- Ground floor uses of office buildings are required to be retail commercial. The first floor of any office building shall be designed and used for retail commercial uses.
- All aerial utilities in the public right-of-way at the periphery of the site and within the site shall be placed underground.

Observations

- Hunter's Park, an affordable senior housing complex in Cherrydale, was the first development to utilize the C-2 site plan option for commercial mixed-use development.
 - Includes dwelling units for 85 people, with additional amenities including a rooftop garden terrace, a library, computer rooms, and gathering place for special events.
 - Affordable for seniors, 62 years and older, with incomes less than 60% AMI.



Rendering of approved project (unbuilt) on 2515 Lee Highway - Example of UCMUD (source: Lee Highway Briefing Book - Addendum 2018)



Hunters Park, Cherrydale - Example of C-2 Development

COMMERCIAL MIXED-USE ZONING DISTRICTS

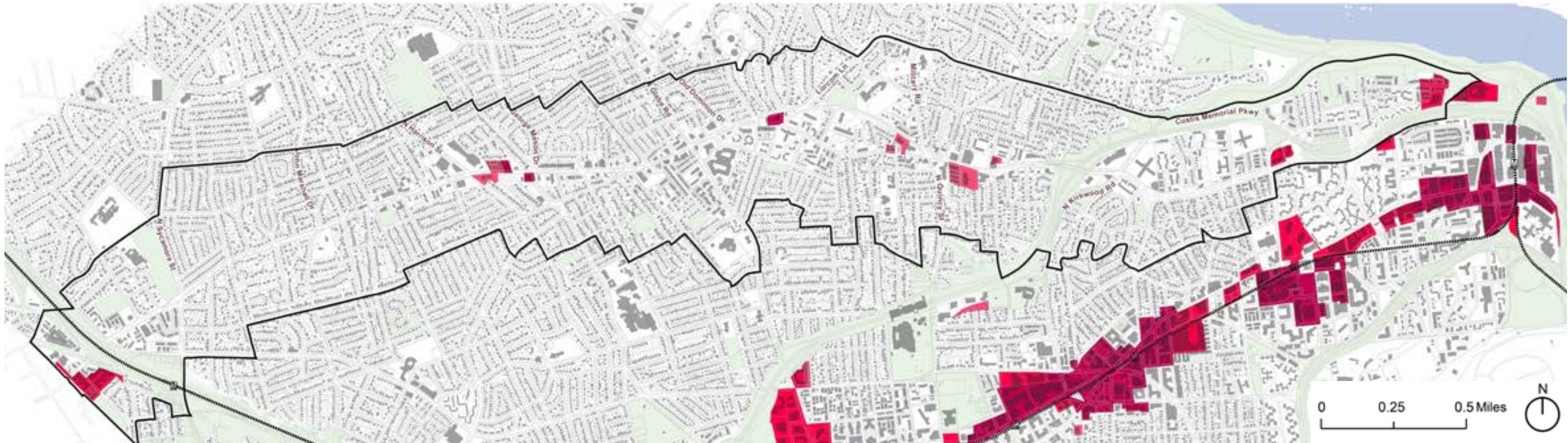


Figure 1.6 Commercial Mixed-Use Zoning Districts - Planning Study Area

Source: AECOM

Note: Zoning Map does not differentiate zoning districts by color. Colors indicated here are intended as a visual tool only.

CURRENT DEVELOPMENT STANDARDS

Zoning District	Permitted Uses	Height (maximum)		Density / FAR (maximum)	
		By-Right	Special Exception	By-Right	Special Exception
C-O-1.5	Multi-Family and Hotels	n/a	Site Plan: Sites < than 20 acres: 10 stories (4) Sites > than or = 20 acres: 12 - 18 stories (n/a on Lee Highway - largest site is approximately 7 acres) (5)	n/a	Site Plan: Multi-Family: 72 u/a Hotels: 110 u/a (6)
	Institutional	35' (1)	n/a	(1) (3)	1.5 FAR (6)
	Office and Commercial	35' (2)	Sites < than 20 acres: 8 stories (4) Sites > than or = 20 acres: 12 - 18 stories (5)	(3)	1.5 FAR (6)

Table 1.5 Current Development Standards for C-O-1.5

Table is a general representation of the development regulations (for height and density), prescribed in the zoning ordinance, for select uses permitted in each zoning district and may be different for specific site development applications.

FLOOR AREA RATIO (FAR)

The gross floor area of all buildings on a lot divided by the lot area. Examples shown all have an FAR of 1.0.



- (1) Only religious institutions are permitted by-right.
- (2) For permitted office and commercial uses only.
- (3)
 - Site area up to 9,999 sf up to 0.4 FAR
 - Site area from 10,000 sf - 19,999 sf up to 0.5 FAR
 - Site area 20,000 sf and above up to 0.6 FAR
- (4) Sites < than 20 acres: No building (excluding mechanical penthouse area) shall exceed 8 stories for office and 10 stories for multiple-family. Varied building heights will be encouraged. Maximum average height shall not exceed 8 stories.
- (5) Sites > than or = 20 acres: Varied building heights will be encouraged. Maximum average height shall not exceed 12 stories with no individual buildings exceeding 18 stories. Buildings greater than 12 stories (for multiple-family/hotels) or 8 stories (for offices) shall not be located within 200 feet of a residential district with a lower height limit.
- (6) Restaurants, theaters, hotel meeting rooms, and community facilities and uses may be permitted and may exceed permitted densities by site plan approval, provided any reduction in required parking shall follow special study of their related parking requirements.

PURPOSE OF DISTRICTS AND OBSERVATIONS

- C-O-1.0: the intent of this district is to provide for limited office building land use and, under appropriate conditions, office building, hotel, multiple-family, commercial and/ or institutional redevelopment of older commercial areas. The maximum FAR and density permitted in this zoning district ranges between 0.4 and 1.0 FAR and between 40 and 60 units/acre respectively (depending on the permitted use). C-O-1.0 zoning districts are located in pockets throughout the corridor, specifically in Cherrydale, Waverly Hills, Leeway Overlee and Yorktown neighborhoods.
- C-O-1.5: the intent of this district is to provide for limited office building land use and, under appropriate conditions, office building, hotel, multiple-family, commercial and/or institutional redevelopment of older commercial and industrial areas. The maximum FAR and density permitted in this zoning district ranges between 0.4 and 1.5 FAR and between 72 and 110 units/acre respectively (depending on the permitted use). C-O-1.5 zoning districts are located at both ends of the corridor, in neighborhoods that are near metro stations, primarily in North Highlands and East Falls Church neighborhoods.
- C-O: the intent of this District is to provide for limited office building land use, and under appropriate conditions, to encourage rebuilding with high-rise office buildings, hotels, or multiple-family dwellings in the vicinity of Metrorail stations. The maximum FAR permitted in this zoning district ranges between 0.4 and 4.8 FAR (depending on the permitted use). There is no maximum residential density. C-O zoning districts are located primarily in the Leeway Overlee and Yorktown neighborhoods in the planning study area and on the east end of the corridor just outside the planning study area (Key Bridge Marriott Hotel). In Leeway Overlee and Yorktown, the C-O zoning districts were applied several decades ago, before lower scale options for commercial development existed to permit development greater than what is permitted in C-2 zoning.



Figure 1.7 Multi-Family Zoning Districts - Planning Study Area

Source: AECOM

Note: Zoning Map does not differentiate zoning districts by color. Colors indicated here are intended as a visual tool only.

PURPOSE OF DISTRICTS AND OBSERVATIONS

- The Zoning Ordinance does not set a specific purpose for multi-family districts.
- There is a small cluster of RA 14-26 parcels in the planning study area - located in Cherrydale (less than 1% of all multi-family zoning districts), near the border with Waverly Hills. This zoning district has the lowest intensity of all multi-family zoning districts in the planning study area.
- RA 8-18 zoning districts are the most prominent in the planning study area and are located in North Highlands, Lyon Village, Maywood, Waverly Hills, John M. Langston, Leeway Overlee and East Falls Church neighborhoods.
- RA 6-15 zoning is the highest intensity residential zoning district in the planning study area. These multi-family zoning districts are located in the North Highlands and Waverly Hills neighborhoods.

CURRENT DEVELOPMENT STANDARDS

Zoning District	Permitted Uses	Height (maximum)			Density (maximum)		
		By-Right	Use Permit	Site Plan	By-Right	Use Permit	Site Plan
RA 8-18	One-Family	35' (3 stories)	n/a	n/a	7u/a	n/a	n/a
	Duplexes / semi-detached	35' (3 stories)	n/a	Site Plan: 35' (3 1/2 stories)	12u/a	n/a	Site Plan: 12u/a
	Townhouse	40' (or 4 stories)(5)	n/a	Site Plan: 40' (4 stories)(5)	36 u/a (5)	n/a	Site Plan: 36u/a (5)
	Multi-Family	40' (or 4 stories)	Use Permit: n/a	Site Plan: 75' (or 8 stories)	36 u/a	Use Permit: n/a	Site Plan: 36 u/a
	Low or Moderate-Income Housing	n/a	Use Permit Option A (Sec. 12.3.7.B.1.a): 40' (or 4 stories) or height already legally existing on site at time of application, whichever is greater (3) Use Permit Option B (Sec. 12.3.7.B.2.a): 50' (4)	Site Plan (Sec. 12.3.7): 60' except as provided by Sec. 15.5.9 (1) Sec. 15.5.9.A.1-3: up to 6 additional stories or 60' above height permitted in district (75' or 8 stories), whichever is smaller (1)(2)	n/a	Use Permit Option A (Sec. 12.3.7.B.1.b): No additional density permitted beyond number of units already legally existing on site at time of application. (3) Use Permit Option B (Sec. 12.3.7.B.2): 36 u/ac (including existing multiple-family dwellings) (4)	Site Plan (Sec. 12.3.7.A): 45 u/a (includes up to 25% increase in density above 36 u/a per Sec. 12.3.7.A.1) (1)

Table 1.6 Current Development Standards for RA 8-18

Zoning District	Permitted Uses	Height (maximum)			Density (maximum)		
		By-Right	Use Permit	Site Plan	By-Right	Use Permit	Site Plan
RA 6-15	One Family	35'	n/a	n/a	7 u/a	n/a	n/a
	Duplexes / semi-detached	35' (3 1/2 stories)	n/a	Site Plan: 35' (3 1/2 stories)	12 u/a	n/a	Site Plan: 12 u/a
	Townhouse	60' (or 6 stories)(5)	n/a	Site Plan: 60' (or 6 stories) (5)	48 u/a (5)	n/a	Site Plan: 48 u/a (5)
	Multi-Family	60' (or 6 stories)	Use Permit: n/a	Site Plan: 125' (or 12 stories)	48 u/a	Use Permit: n/a	Site Plan: 48 u/a
	Low or Moderate-Income Housing	n/a	Use Permit Option A (Sec. 12.3.7.B.1.a): 60' (or 6 stories) or height already legally existing on site at time of application, whichever is greater (3) Use Permit Option B (Sec. 12.3.7.B.2.a): 70' (4)	Site Plan (Sec. 12.3.7.A): 70' except as provided by Sec. 15.5.9 (1) Sec. 15.5.9.A.1-3: up to 6 additional stories or 60' above height permitted in district (125' or 12 stories), whichever is smaller (1)(2)	n/a	Use Permit Option A (Sec. 12.3.7.B.1.b): No additional density permitted beyond number of units already legally existing on site at time of application. (3) Use Permit Option B (Sec. 12.3.7.B.2): 36 u/ac (including existing multiple-family dwellings) (4)	Site Plan (Sec. 12.3.7.A): 60 u/a (includes up to 25% increase in density above 48 u/a per Sec. 12.3.7.A.1) (1)

Table 1.7 Current Development Standards for RA 6-15

Table is a general representation of the development regulations (for height and density), prescribed in the zoning ordinance, for select uses permitted in each zoning district and may be different for specific site development applications. Because only a few lots within the planning study area are designated RA 14-26 (less than 1%), the development standards for that zoning district are not depicted here.

- (1) Site Plan provisions apply for sites greater than 20,000 sf or with 10 or more existing dwelling units
- (2) Site Plan provisions apply if:
 - Site is abutting or across street from a property for which district regulations or General land use plan designation allow, by site plan, a height greater than proposed height; and
 - Proposed projects provide a variety of housing units and design
 - Design refers to townhouse or terraced construction in association with the high-rise development to achieve tapering
- (3) Use Permit Option A provisions apply to projects:
 - For additions to or enlargement of buildings on property and modifications of setbacks, yard, coverage, parking and/or density
 - Requesting designation as a Voluntary Coordinated Housing Preservation and Development District (VCHPDD)
- (4) Use Permit Option B provisions apply for sites equal to or less than 20,000 sf and have been designated a VCHPDD
- (5) In HCD areas, Townhouses are no longer allowed by-right in this district and must request Site Plan approval.

ONE, TWO FAMILY, AND TOWNHOUSE ZONING DISTRICTS



Figure 1.8 One, Two Family, and Townhouse Zoning

Source: AECOM

Note: Zoning Map does not differentiate zoning districts by color. Colors indicated here are intended as a visual tool only.

PURPOSE OF DISTRICTS AND OBSERVATIONS

- The most predominant residential zoning district in the planning study area is R-6. Single family is allowed by right, however, two-family dwellings are permitted through special exception.
- A majority of R-6 zoning districts are located outside of the core areas, however some are located within the core areas, particularly in North Highlands and Lyon Village.
- R-8 zoning districts, the second most prominent district, only permits single family dwellings. These zoning districts are located primarily to the north of Lee Highway, particularly in Donaldson Run and along the northern part of Maywood.
- There are not many R-5 zoning districts (1%) in the planning study area. These zoning districts do appear in pockets in Waverly Hills, Cherrydale, and North Highlands.
- R-10 and R-10T zoning districts are distributed in small amounts along the corridor, in core and edge areas.
- The least prominent residential zoning district in the planning study area is R2-7 (less than 1%). R2-7 zoning districts encourage missing middle housing typologies such as duplexes and semi-detached.

CURRENT DEVELOPMENT STANDARDS

Zoning District	Permitted Uses	Height (maximum)		Density (maximum)	
		By-Right	Special Exception	By-Right	Special Exception
R8	Single-Family	35'	n/a	5.4 u/a	n/a
R6	Single-Family	35'	n/a	7 u/a	n/a
	Duplex / semi-detached	n/a	Use Permit: 35' (1)	n/a	Duplex: n/a Semi-detached: Use Permit: 10 u/a (1)
R5	Single-Family	35'	n/a	8 u/a	n/a
	Duplex / semi-detached	n/a	Use Permit/Site Plan: 35' (2)	n/a	Duplex: n/a Semi-detached: Use Permit/Site Plan: 10 u/a (2)
R10	Single-Family	35'	n/a	4.4 u/a	n/a
R10T	Single-Family	35'	n/a	4.4 u/a	n/a
	Semi-detached	n/a	Site Plan: 36'	n/a	n/a
	Townhouse	n/a	Site Plan: 36'	n/a	n/a
R2-7	Single-Family	35'	n/a	8 u/a	n/a
	Duplex / semi-detached	35'	Site Plan: 35'	12.4 u/a	Site Plan: 12.4 u/a or 10 u/a (1)
	Townhouse	35'	n/a	12.4 u/a	n/a
R15-30T	Single-Family	35'	n/a	8 u/a	n/a
	Duplex / semi-detached	n/a	Duplex - Use Permit/Site Plan: 35' (2) Semi-detached - Use Permit/Site Plan: 35' (2) or 45' everywhere else	n/a	Duplex - n/a Semi-detached: Site Plan: 15 u/a (2)
	Townhouse	n/a	Site Plan: 45'	n/a	Site Plan: 15 u/a - 30 u/a (3)

Table 1.8 Current Development Standards for One Family, Two Family, and Townhouse Zoning Districts

Table is a general representation of the development regulations (for height and density), prescribed in the zoning ordinance, for select uses permitted in each zoning district and may be different for specific site development applications.

Notes:

1. On transitional sites abutting all zoning districts except C-1 or C-1-0.
2. Permitted only on sites abutting RA, C or M or located on principal or minor arterials. Two-family dwelling lots on sites that share lot lines with the districts aforementioned, shall be located no more than 100' from the shared lot line or on sites that are located on principal or minor arterial streets.
3. The County Board may permit a maximum density of up to 30 u/a based on characteristics of site in neighborhood and on need for community facilities, open and landscaped areas, circulation and utilities.

OVERVIEW

While the Lee Highway business ecosystem is largely oriented to neighborhood-serving commerce, the businesses vary greatly in their meaning to nearby residents and the way in which they engage the street. Several corridor businesses, such as Bill's Hardware, the Heidelberg Bakery and The Italian Store are commonly identified as part of what makes Lee Highway special. Other businesses are less iconic, but still an important part of daily life. The planning study will build on this solid business foundation and identify ways to maintain the role of local neighborhood businesses in daily life, while leveraging the strengths of the surrounding market.

This section, divided into three parts, gives a more in-depth look at the Lee Highway business ecosystem. The first part provides an overview of the existing economic conditions along the corridor. This includes a Strengths, Challenges ("Weaknesses"), Opportunities and Concerns ("Threats") (SWOT) analysis, which is based on economic research, as well as, interviews with commercial business owners along the corridor. A breakdown of the types and locations of businesses currently found along the corridor (within the ground floor spaces) allow for an analysis of the market served and how the local market accesses the businesses. The second part focuses on understanding the competition the Lee Highway businesses have with other neighborhood and regional-serving businesses that serve the same market. Lastly, the third part provides insight on the national and local economic trends that may influence the future business mix of the corridor.

Preliminary Aspirational Goal

Support retailers, restaurant owners, and other commercial businesses owners through strategic measures consistent with the Arlington County Retail Plan to ensure that Lee Highway continues to be a prosperous corridor. Plan for complementary uses, such as residential, office, and public spaces that meet daily community needs and boost synergies among different land uses. Seek opportunities to promote and strengthen a diverse commercial base, while recognizing that Lee Highway is not a major employment market like the Rosslyn-Ballston and Route 1 corridors.

2016 Vision Study Principle*

Maintain economic vitality by encouraging a diverse mix of services and destinations, and by utilizing innovative economic development strategies.

2016 Vision Study Recommendations*

- Define the economic role of the corridor within the County and the region
- Identify strategies to retain and attract a variety of local businesses
- Encourage reinvestment in the corridor
- Encourage entrepreneurship and more jobs on the corridor
- Identify infrastructure investments needed to support mixed use (i.e. parking, public open space)
- Identify opportunities for a public/private partnership (i.e. BIDs)
- Reduce regulatory barriers

*The County will continue to seek community feedback to validate and refine the 2016 Vision Study principles and recommendations and the County's Preliminary Aspirational Goals throughout the Plan Lee Highway process.



KEY DOCUMENTS + TAKEAWAYS

Arlington County Retail Plan (2015)

- Plan emphasizes that clustered retail, in a two-way, two-sided street environment, is an ideal retail situation. "Grocery Store Policy" adopted by County in 1985 provides for flexibility in zoning /other regulations to encourage retention, expansion, or relocation of grocery stores in Arlington.
- Three-quarters of businesses in Arlington County are locally or regionally owned.
- The County recommends balancing placement of outdoor cafes, merchandise and mobile vending with pedestrian accessibility and circulation.
- The County recommends allowing for creative design of ground floor facades to facilitate identity and visibility for individual tenants and to encourage an active and attractive mixed use environment.

Arlington Future Office Market Study (2014)

- Increasing/intensifying regional competition for office tenants.
- Increase in efficiency in the use of office space across multiple sectors.
- Main prospects for growth in office use in Arlington: professional, scientific and technology-related industries.

AED Lee Highway Retail Profile (2018)

- Lee Highway is primarily a neighborhood-serving retail corridor catering to the surrounding market area.
- Dominated by affluent families, who spend significantly on items like apparel and furniture.
- Retail offerings emphasize casual dining, grocery, personal services, and upscale specialty shops.

Economic Indicators Report (2018)

- Slight slowdown in housing market over the last year.
- Significant (29%) increase in listing prices for single family attached housing.
- Slight (2.3%) decrease in hotel occupancy and room rates.
- 1.9% increase in retail sales.

AED Lee Highway Commercial Market Data (2019)

- Small, service-oriented users drive commercial demand.
- Office buildings are older; majority are less than 5,000 sqft.
- In the short to medium term, parking access will remain important for commercial uses.
- Embarking on a transformative effort may disrupt a currently functioning model.



WHAT MAKES THE CORRIDOR SUCCESSFUL?

Lee Highway's success to date as a "healthy" commercial corridor with low vacancy (5.5% for office; 3.1% for retail space) and low turnover is driven primarily by:

- Its auto-oriented nature. The high traffic counts expose businesses to thousands of potential customers daily and free visible parking creates a beneficial perception of accessibility. Its convenient location to I-66 and major local arterials offers a steady flow of traffic.
- A mix of (primarily) local-serving businesses and services, the proximity of affluent, single-family neighborhoods and middle to upper-middle income multifamily developments that provide a reliable, loyal core customer base.
- Moderate rents that allow smaller businesses to establish a position in the market (retail lease rates range from the low \$30s to \$60 per square foot varying by age of space, co-tenancy and availability of parking).
- Higher-income, well-educated population, with a significant concentration of families w/children under 18 – overall population tends to skew slightly older than County as whole.
- Consistent with the Lee Highway Retail Profile, Arlington Economic Development noted that :
 - Grocery, general retail, auto, bank/financial, beauty service, and personal service uses (among others), are more concentrated along Lee Highway compared with Arlington as a whole.
 - Sit-down restaurant, clothing & apparel, fitness, health care, and entertainment uses are less prevalent along the Lee Highway corridor, compared with Arlington County as a whole.

Observations on Vacancy and Rental Rates

- Lee Highway has lower retail, office and multi-family rental vacancy rates than the County as a whole. (5.5% for office; 3.1% for retail space).
- Lower office and multi-family rents than the County as a whole.
- Higher retail rents than the County as a whole, but lower than the Rosslyn-Ballston corridor.

OVERALL OBSERVATIONS

Strengths

- Very low vacancy rate across all uses – relative to Arlington County as a whole, corridor is "healthy" in terms of vacancy.
- Retail inventory includes a significant share of small spaces, which are ideal for independent businesses.

Challenges/"Weaknesses"

- Limited existing developable space, constrained parcel area – there is a need to create space (through parcel assemblage, owner cooperation, etc.).
- Because of high occupancy and lack of available space, there is little room to add new retail concepts in the short term.
- With the exception of a few key centers, development is relatively dispersed – few "destination" centers.
- Lack of vacancy and turnover along the corridor has limited opportunities for large-scale redevelopment in recent years. There are few large parcels to begin with, and very few have come available in recent years. This hinders certain types of entertainment uses (such as a theater) and larger format retail in particular.
- Traffic congestion, particularly at peak travel times, is an issue for the corridor.

Threats

- There is significant regional competition for entertainment, restaurant, and clothing & apparel uses.
- Establishing credit-worthiness for new businesses and proving new business models in a changing marketplace can create risk for building owners.
- Redevelopment along the corridor may create difficult conditions for smaller businesses.

Opportunities

- Opportunity to take advantage of underutilized corner properties at key intersections to create identity/sense of place.
- Potential for ancillary user/owner office space, small start-up/incubator/co-working spaces as part of mixed use development.
- Consolidated/shared parking will provide important amenity for customers, while decreasing vehicle trips between commercial properties.
- Some potential for some small-to-midscale hotel/hospitality uses as part of a larger mixed-use redevelopment strategy are possible at key locations.
- Potential for additional child care service opportunities in strategic locations along the corridor, due to the concentration of high-income families living in the residential areas in and surrounding the Lee Highway study area.
- Significant opportunity also exists for businesses in the fitness, gym, and lifestyle market.

PERSPECTIVES OF LEE HIGHWAY BUSINESSES AND COMMERCIAL PROPERTY OWNERS

During focus group discussions and in interviews business owners and property shared the following overall insights regarding opportunities and challenges presented by Lee Highway conditions.

Opportunities

- Visibility from a major arterial roadway and major cross streets is important to maintain.
- More residents in new development nearby would benefit neighborhood serving businesses.

Challenges

- There is a desire for more convenient parking, but space constrains supply.
- Parcel size limits redevelopment options in some cases.



BUSINESS TYPES AND THEIR MARKET

Business types along Lee Highway

The chart below depicts the different types of business in the Planning Area and shows how they compare in terms of their relative number and their relative amount of cumulative square footage. The areas listed are for ground floor space only.

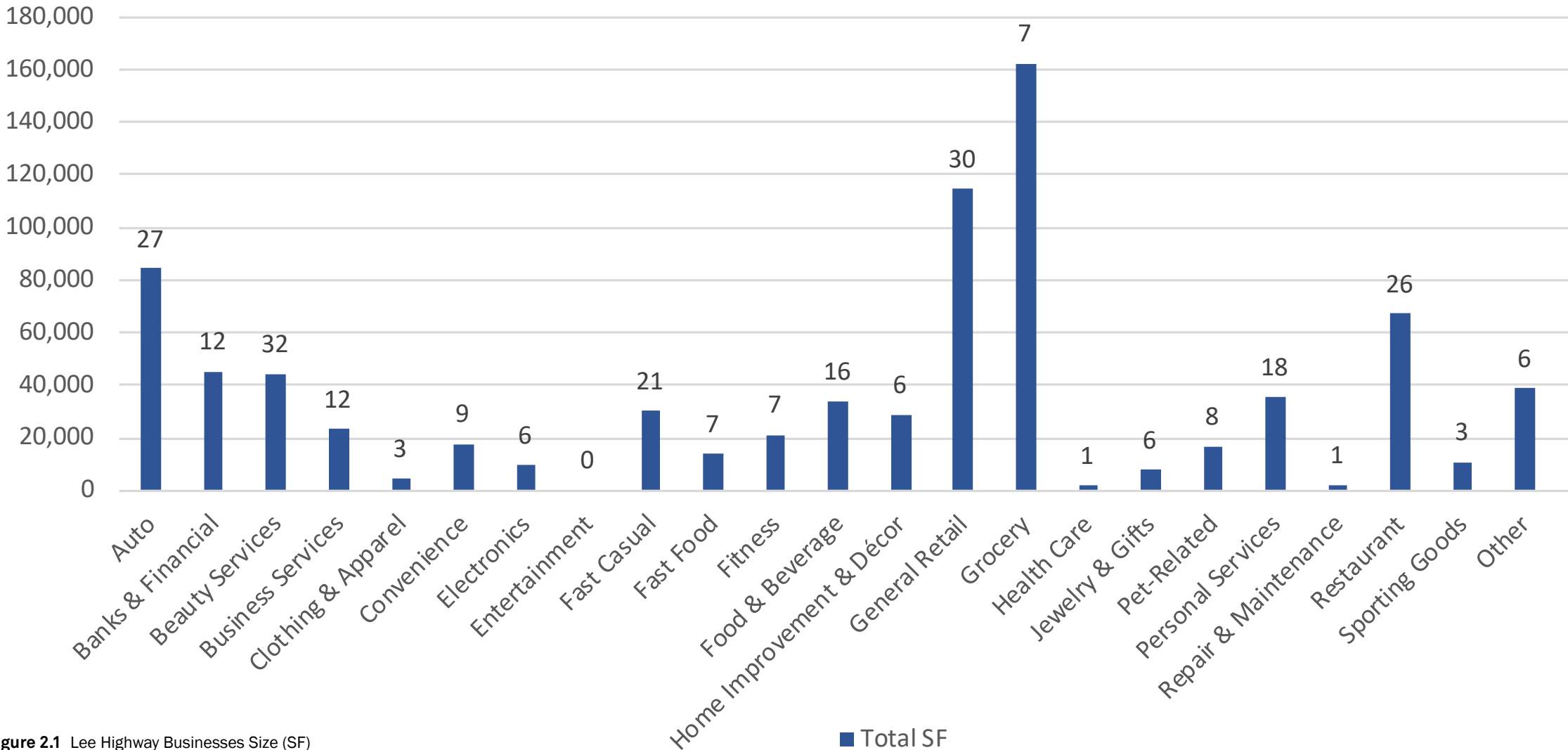


Figure 2.1 Lee Highway Businesses Size (SF)
Source: AED

Who is the market for Lee Highway businesses?

The Lee Highway Market has:

- A higher household median income than Arlington as a whole by \$21k per year.
- A higher median home value than the County as a whole by \$117k.
- A higher share of owner-occupied housing than the County as a whole (54% vs. 39%).
- A larger average household size than County as a whole (2.32 vs. 2.09).
- An 8% higher share of families with children under 18 than the County as a whole.
- There is approximately twice the share of families with children (under 18) north of I-66 as south of I-66.
- Nearly 80% of households north of the corridor have access to two or more vehicles, as compared to just over 50% along the Lee Highway corridor and just under 40% of the County as a whole.



The ESRI Business Analyst offers another way of breaking down the market for Lee Highway businesses. Their systems map demographic (psychographic) data based on descriptive categories that can be used to derive broad insights.

80% of the Corridor

Top Tier – 34% of Households

- Median Age – 47.3
- Median HH income - \$173,000
- Average HH size – 2.84
- General characteristics –
 - Own home
 - Either married w/o children, or married with older children
 - Spend the most on health care and entertainment and recreation**
 - Outspend the national average on housing, food, apparel and services, transportation, health care, entertainment and recreation, and pension and social security by the highest amount of all other segments

Laptops and Lattes – 31% of Households

- Median Age – 37.4
- Median HH income - \$112,200
- Average HH size – 1.87
- General characteristics –
 - Tend to rent
 - Are typically single
 - Spend the most on apparel and services, housing, and education
 - Outspend the national average on housing, food, apparel and services, transportation, health care, entertainment, and pension and social security

Urban Chic – 17% of Households

- Median Age – 43.3
- Median HH income - \$109,400
- Average HH size – 2.39
- General characteristics –
 - Tend to own home
 - More than half are married couples and one-third are single
 - Spend the most on apparel and services and health care
 - Outspend the national average on housing, food, apparel and services, transportation, health care, entertainment and recreation, pension and social security

20% of the Corridor

Metro Renters – 11.4% of Households

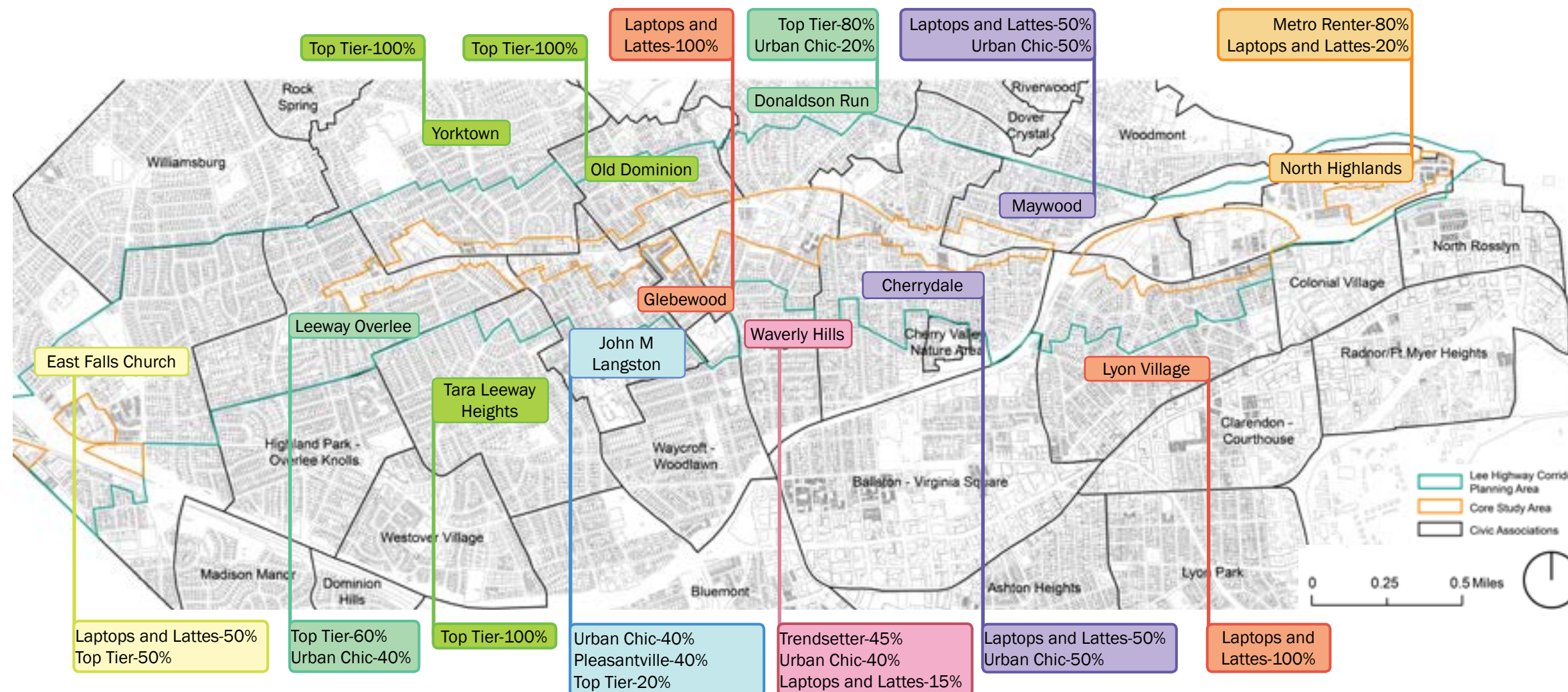
- Median Age – 32.5
- Median HH income - \$67,000
- Average HH size – 1.67
- General characteristics –
 - Tend to rent – particularly near transit
 - Are typically single
 - Spend the most on apparel and services, housing, and food
 - Outspend the national average on housing, food, apparel and services, transportation, health care, and education.

Trendsetters – 5.5% of Households

- Median Age – 36.3
- Median HH income - \$63,100
- Average HH size – 2.12
- General characteristics –
 - Tend to rent
 - Are typically single
 - Spend the most on apparel and services, housing, and education
 - Outspend the national average on housing, food, apparel and services, transportation, health care, entertainment, and pension and social security

Pleasantville – 1.7% of Households

- Median Age – 42.6
- Median HH income - \$92,900
- Average HH size – 2.88
- General characteristics –
 - Tend to own home (mortgage)
 - Spend the most on housing, healthcare, and transportation
 - Outspend the national average on housing, food, apparel and services, health care, entertainment and recreation, pension and social security



OBSERVATIONS

- The most prevalent segment, Top Tier, is found primarily across the western half of the corridor – from East Falls Church to as far east as Waverly Hills and Donaldson Run. Top Tier spend the most on healthcare, entertainment and recreation.
- The second most prevalent segment, Laptops and Lattes, is found primarily on either ends of the corridor. In East Falls Church in the west, and Cherrydale, Maywood, Lyon Village, and North Highland neighborhoods in the east. Laptops and Lattes spend the most on apparel and services, housing, and education.
- The third most prevalent segment, Urban Chic, is found primarily in the middle of the corridor, with the strongest presences in the John M. Langston and Maywood neighborhoods. Urban Chic spends the most on apparel and services and healthcare.
- John M. Langston is the only neighborhood with a Pleasantville segment of HH. Pleasantville spends the most housing, healthcare, and transportation.
- Metro Renters, the fourth largest Tapestry segment in neighborhoods along Lee Highway is the predominant segment in the North Highlands neighborhood, which is also one of the closest neighborhoods along the corridor to Rosslyn/DC. Metro Renters spend the most on apparel and services, housing, and food. This area also has the highest concentration of multi-family residential.

Figure 2.2 Lee Highway Neighborhood Segments Across the Corridor
Source: AECOM

This map depicts the density of ground floor business locations along the corridor. The closer the businesses are to each other, the brighter the heat map color.

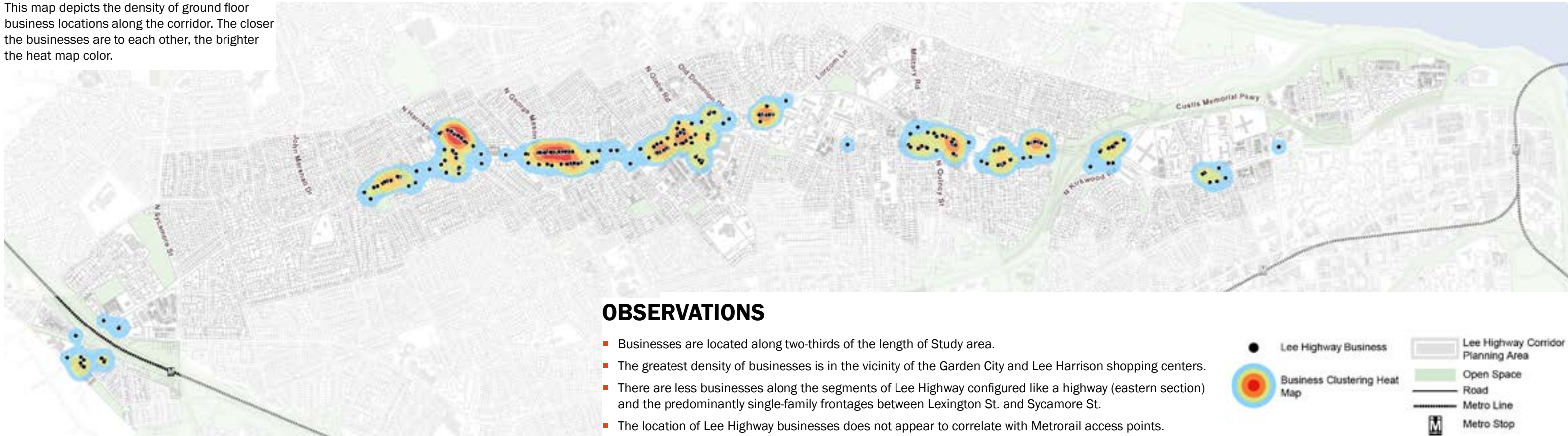


Figure 2.3 Ground Floor Retail Locations - Planning Study Area
Source: AECOM

This map depicts the density of ground floor business locations along the corridor in relation to intersections with major crossing streets.

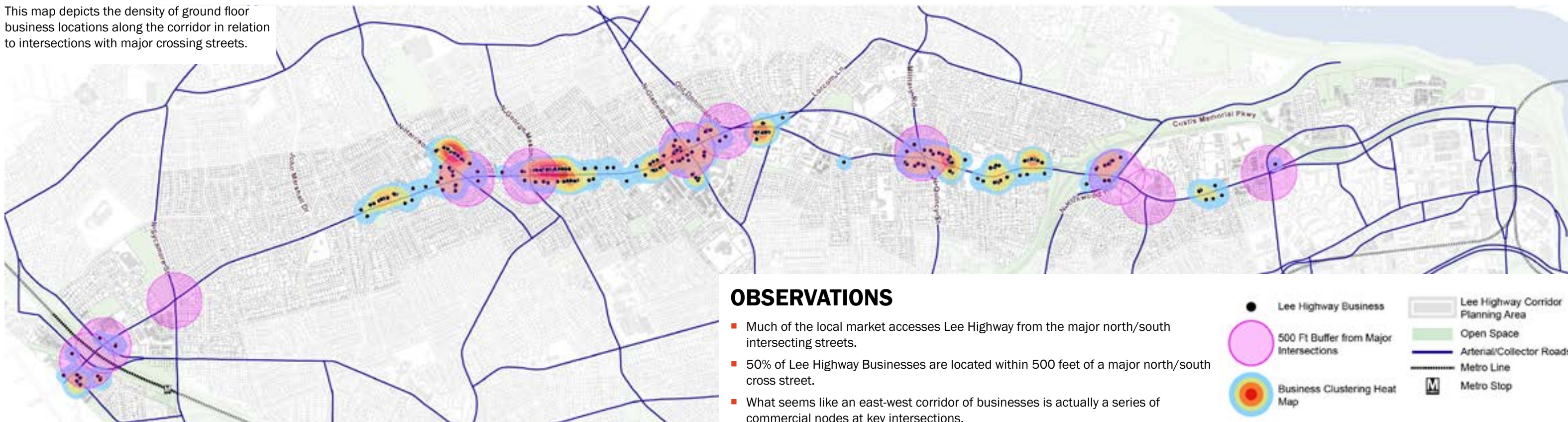


Figure 2.4 Ground Floor Business and Major Intersection Locations - Planning Study Area
Source: AECOM

COMPETITIVE LANDSCAPE NEIGHBORHOOD-SERVING BUSINESSES

This map includes layered polygons highlighting locations within a 5 minute drive time of neighborhood serving business areas that compete with the Lee Highway Corridor. The darker the blue tone, the more access that location has to competing neighborhood serving businesses within 5 minutes.



Figure 2.5 Neighborhood Serving Businesses
Source: AECOM

OBSERVATIONS

- There is much greater competition south and west of the study area in areas such as Falls Church and the Rosslyn - Ballston Corridor.
- The Lee Highway Corridor is well positioned to serve the auto-oriented and affluent neighborhoods north of the corridor.

COMPETITIVE LANDSCAPE DESTINATION BUSINESSES

This map includes layered polygons highlighting locations within a 15 minute drive time of region-serving business areas that compete with the Lee Highway Corridor. The darker the blue tone, the more access that location has to competing region-serving businesses within 15 minutes.

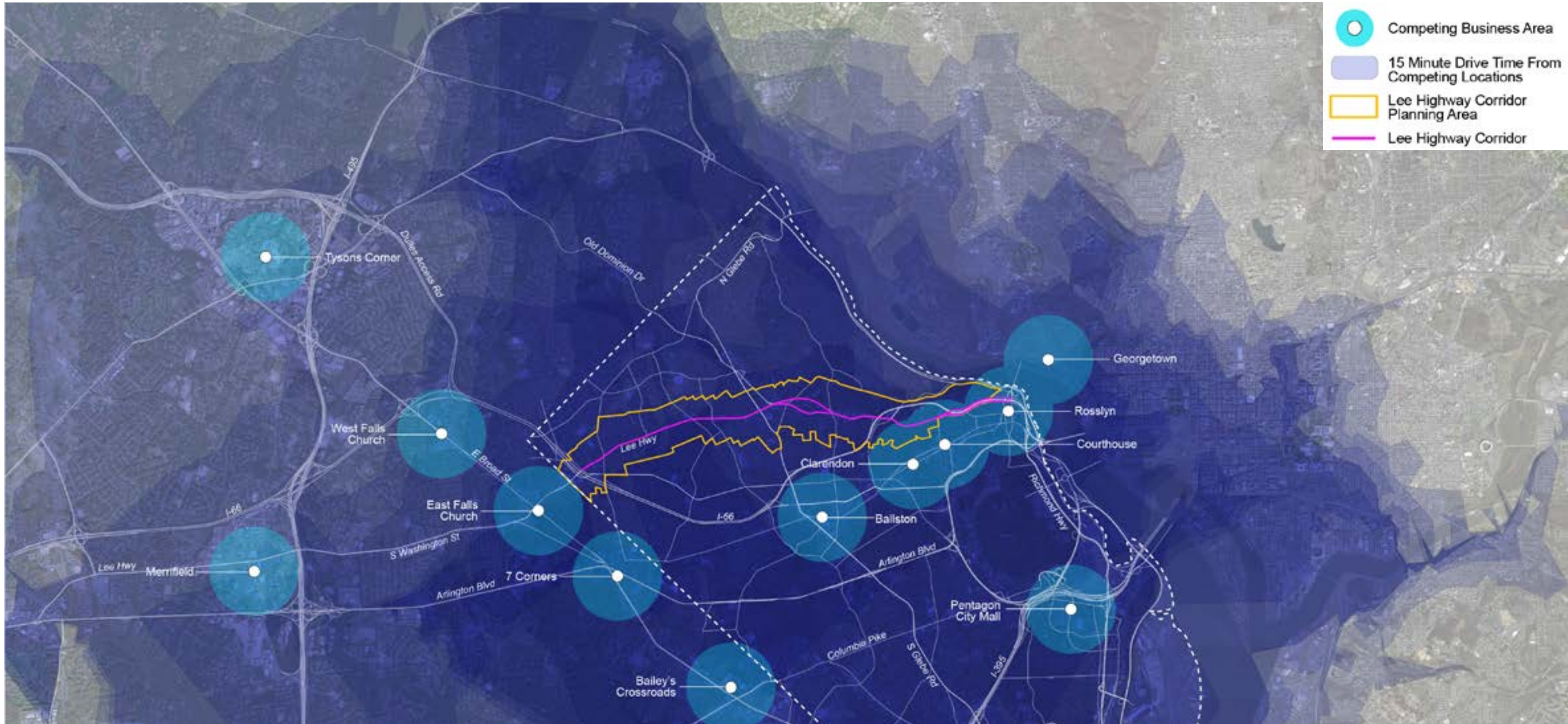


Figure 2.6 Region Serving Businesses
Source: AECOM

OBSERVATIONS

- There is significant competition for destination businesses from established areas such as Tyson's Corner, Pentagon City and the Rosslyn-Ballston Corridor.
- Any destination business will have to offer a unique experience and superior or differentiating goods/services.

Two neighborhood serving business types that are in demand now and can possibly grow in the future include Home Improvement / Decor (hardware, furnishings, art and building materials, etc.) and Family Education / Wellness oriented businesses (Dance, yoga, health clubs, martial arts, childcare, etc.).

HOME IMPROVEMENT & DECOR



- The corridor is already a destination for these businesses (over 60,000 SF in total).
- 20% of Arlington County residents live north of I-66. Lee Highway is well situated to serve them.

FAMILY EDUCATION & WELLNESS



- Neighborhoods north of I-66 have the highest average household size in the entire County. Lee Highway is well situated to serve them.

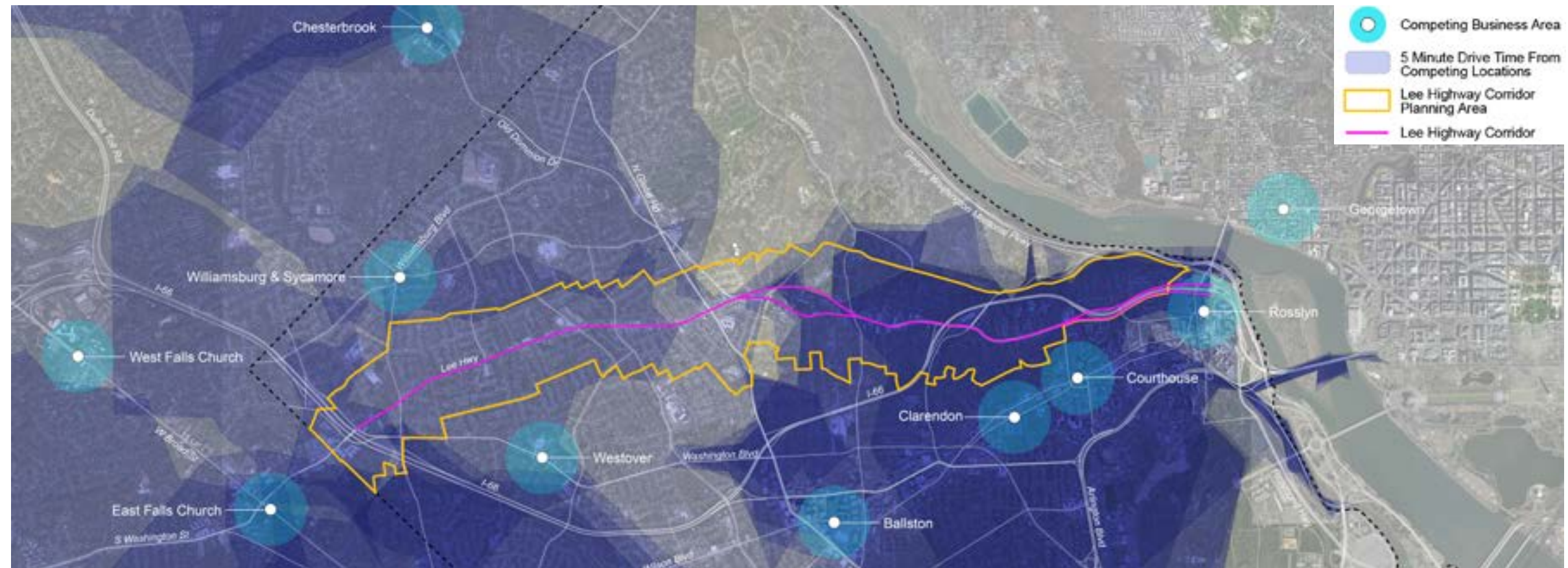


Figure 2.7 Home Improvement & Decor Businesses

Source: AECOM

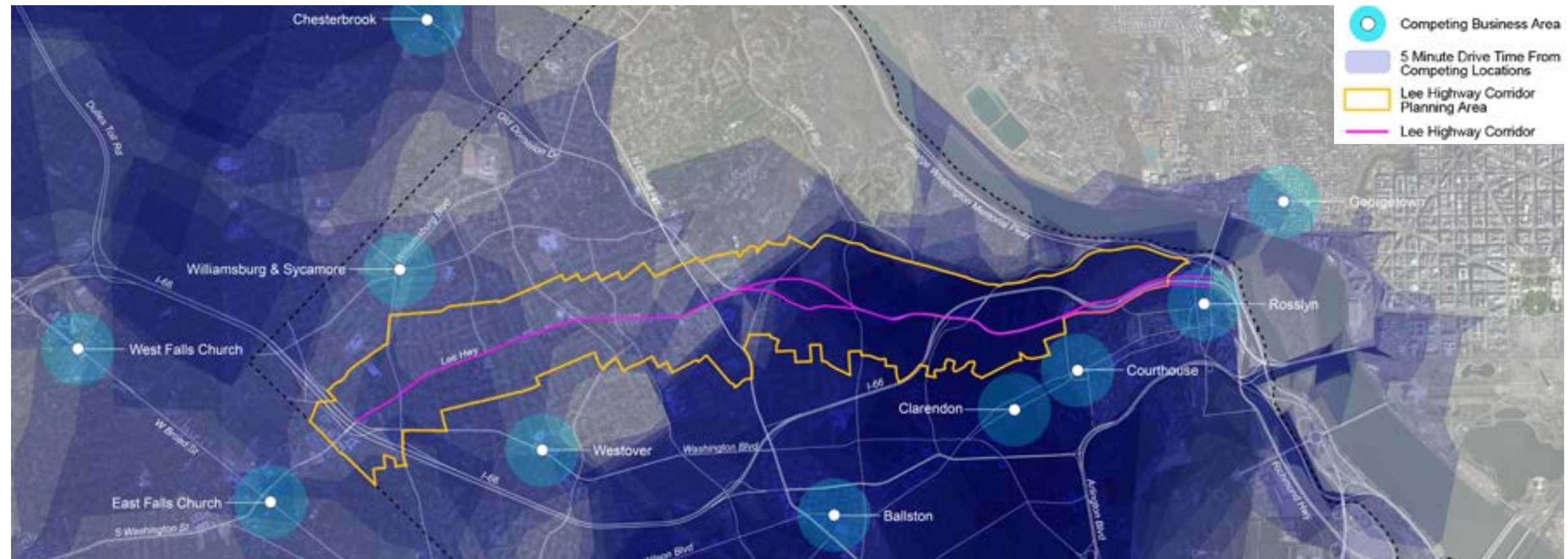


Figure 2.8 Family Education & Wellness Businesses - Lee Highway Corridor Planning Area

Source: AECOM



NATIONAL ECONOMIC TRENDS

As we look toward the future economy of Lee Highway, there are a few national trends that could influence the business mix and new opportunities.

- Today, America has roughly 53 million freelance workers (34% of the workforce). And freelancers are the fastest growing segment of the workforce.¹
- 65% of children entering primary school today will end up in jobs that don't exist yet.²
- Within two decades, 47% of U.S. jobs might be at risk due to advances in computers, automation, and artificial intelligence (AI).³

These trends point to the need for flexible space that can adapt to a variety of commercial needs, as well as the need to provide social experiences that can't be replicated virtually, and provide a connection to community. These types of spaces can be integrated into both commercial and residential properties.



¹ Upwork Quarterly Skills Index
² World Economic Forum
³ National League of Cities' Future of Work in Cities report

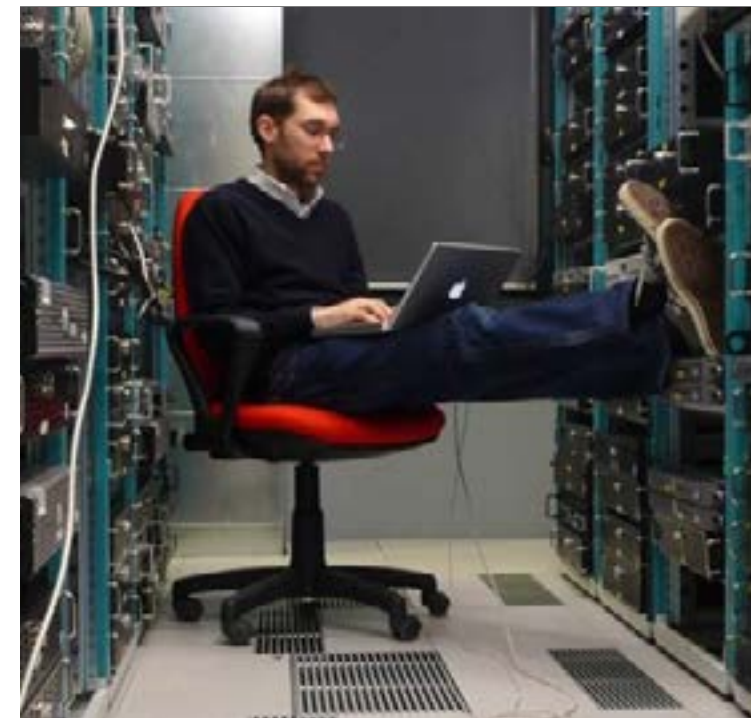


LOCAL ECONOMIC TRENDS

As we look toward the future economy of Lee Highway, there are a few local trends that may influence the business mix and new opportunities.

- Although retail jobs are declining nationally, they continue to grow in the DC area. Over the past two decades, nearly two out of every three new retail jobs created were at eating and drinking establishments.
- "In the future, we may see our region's retail districts increasingly dominated by restaurants, coffee shops, and other places that offer consumer experiences beyond simply purchasing a product."¹
- The arrival of Amazon, the VT Innovation Campus and related businesses will increase the region's position as a tech hub and offset relatively slow growth in government employment. The close-in locations in Northern Virginia will continue to be in demand.

These trends point to the need for integrated experiences where food, culture, shopping, education and wellness are blended geographically.



¹ MWC0G

OVERVIEW

The Lee Highway planning study area is home to more than 23,000 people who primarily live in low-density single-family and multi-family residential dwellings. While there is a strong housing market in the planning study area (the median price for a home is more than \$700,000),¹ there are significant issues related to declining affordability and meeting the range of housing needs for current and future residents of all incomes, ages, and abilities.

This section first reviews and considers impacts from relevant plans and policies, beginning with the Housing Arlington Initiative - a County Board initiative for making the County a more-inclusive housing community that takes care of its neediest while providing ample opportunity for its middle-income residents and beyond. Housing Arlington is an umbrella program with several individual initiatives that focus on affordable housing, missing middle housing and multi-level partnerships. Following this analysis is an inventory of the existing affordable housing within the core study area and residential edges. This section then takes a spatial approach to better understand the existing housing types in the overall planning study area, and the tenure for the housing in the core study area and residential edges. It also evaluates the periods of construction and takes a closer look at the housing types that have been recently constructed and approved in the core study area and residential edges. Later, observations from the existing conditions analysis are intended to provide a bridge between the current conditions and where there are opportunities and challenges in meeting the County's aspirational goal for housing in Lee Highway and the County as a whole.

Preliminary Aspirational Goal

Expand housing options to achieve a diverse mix of types, affordability, and tenure. Strive to achieve the goals set forth in the Affordable Housing Master Plan, including achieving 2,500 committed affordable rental units (CAFs) at 60% of the area median income (AMI). At present, there are 266 CAFs and 126 market rate affordable units (MARKs) in the study area that are affordable to households earning up to 60% AMI. An additional 1,466 existing MARKs in the study area are affordable to households earning up to 80% AMI. **Explore opportunities to achieve housing for middle-income households and to accommodate residents who want to age in the Lee Highway community.**

¹ CoStar Property; AECOM, April 2019

2016 Vision Study Principle*

Improve appearance, functionality and affordability.

2016 Vision Study Recommendations*

- Increase residential variety to include multi-family apartment homes and other housing types, including: duplexes, townhouses and accessory units.
- Enable development of housing for elderly.
- Promote development of housing types that allow people to stay in their neighborhood or “age-in-place.”
- Evaluate potential for increased density to enhance development feasibility.
- Evaluate potential affordability requirement on all new developments.

*The County will continue to seek community feedback to validate and refine the 2016 Vision Study principles and recommendations and the County's Preliminary Aspirational Goals throughout the Plan Lee Highway process.

HOUSING ARLINGTON INITIATIVE

Housing Arlington is a County Board initiative launched in April 2019 that is being coordinated by the Department of Community Planning, Housing and Development (CPHD) and supported by the County's other departments and partner agencies. Over a multi-year period, Housing Arlington will use individual initiatives and programs to answer questions around housing – and the inevitable new issues that will crop up over time. It will build on decades of work with previous initiatives, such as the Affordable Housing Master Plan (adopted in 2015) and the Housing Conservation District (2017).

The Lee Highway planning study provides an opportunity to test many of the recommendations found in the individual Housing Arlington initiatives, including the Housing Conservation District.

Vision

The vision for Housing Arlington is for the County to be a more-inclusive housing community that takes care of its neediest while providing ample opportunity for its middle-income residents and beyond, one that is grounded in equity, opportunity, stability and adaptability. The initiative focuses on providing solutions for:

- Affordable Housing: How do we create housing opportunities for our low-income population, using affordable units, grants, home buying assistance and more?

- Missing Middle Housing: How do we create a range of moderately-priced homes for households with incomes too high for subsidies but too low for many market-rate homes?
- Multi-Level Partnerships: How do we better use local, regional, state, and federal; public, private and non-profit partnerships to innovate housing policy and practices to enable Arlington to achieve its housing affordability goals and objectives?

Why is this important?

While the critical work of providing support to low-income residents continues, housing affordability for many Arlington residents is recognized as an increasing challenge. Traditional affordable housing efforts focus on financial and planning tools that serve residents on the lower end of the economic spectrum, usually 80% or below of the area median income. Examples include development of committed affordable units, housing grants for low-income renters, down payment and closing cost assistance for moderate income home buyers, and real estate tax relief for low- and moderate-income senior homeowners. These strategies are critical to achieving Arlington's vision to be a diverse, inclusive and sustainable community that all can call home.

However, housing affordability is also a challenge for middle-income households with incomes too high to qualify for subsidies, but not high enough to afford newly built or moderately-priced market rate homes that meet their needs. The term “missing middle” was coined by Daniel Parolek to define a range of multi-unit or clustered housing types compatible in scale with single-family homes that help meet the growing demand for walking urban living. Examples include accessory dwellings, stacked flats, duplexes, triplexes, fourplexes and smaller multifamily buildings, and can represent more naturally affordable housing options.

While the term was developed as a design concept, it has also begun to resonate as an affordability concept, generally referring to households earning between 80-120% of the area median income. In Arlington, this translates to annual income in the range of \$65,000 (for a single-person household at 80% AMI) to \$145,560 (for a four-person household at 120% AMI). These households, many of whom are already here, are seeking both a housing type and price point that are not readily available in the Arlington market. This range of housing types support residents as they look to move from rental to ownership, start their families and downsize as they age.

Housing Arlington sees effective solutions through the combination of planning and implementation tools, housing policy, financial resources and innovative local and regional public-private partnerships to generate holistic solutions for residents along the economic spectrum.

Anticipated Outcomes

- Land use tools: Evaluate additional land use tools that allow for greater flexibility in use, density and form of development, in exchange for providing affordable and diverse types of housing. In 2019, the County completed amendments to the accessory dwelling regulations, which were intended to increase supply of housing and support aging in place. As part of this process, the County will undertake a “Missing Middle Study” with the intent to identify policy options and potential implementation tools to broaden the range of housing types available in Arlington, and possibly creating units affordable to households earning between 80-120% AMI. Additionally the County will continue the work on the Housing Conservation District; which is aimed at preserving multi-family areas and rental affordability, and will propose additional zoning tools including amendments to the density bonus provision stipulated in the 2005 Affordable Housing Ordinance.
- Financial tools: Evaluate funding sources that the County provides to support affordable housing and lower-income renters and homeowners, identify new loan strategies and other financial tools to support housing affordability.
- Institutional partnerships: Explore ways for staff to partner with institutional landowners (such as churches, universities, and community-serving nonprofits) with unused or underused acres to potentially add housing.
- County employee housing: Staff will investigate the tools that Arlington could use to assist public employees to live close to work.
- Condominium initiative: Examine strategies that help ensure the preservation of existing moderately priced condominiums by supporting condo associations, giving access to feasible capital improvements, and providing support to financially vulnerable buildings.
- Affordable Housing Master Plan: Alongside all of these initiatives, Arlington will also review its plan to address the supply, access, and sustainability of committed affordable housing and market rate affordable housing, with an eye towards broader strategies regarding housing affordability.

KEY DOCUMENTS + TAKEAWAYS

There is a robust body of policies, plans, and studies related to housing, in particular for affordable housing, that set a strong direction for the County and for the study area. A brief overview of relevant documents is provided with consideration for direct or indirect influence or impact on the planning study area.

Affordable Housing Master Plan (2015)

Part of the Comprehensive Plan, the Affordable Housing Master Plan (AHMP) sets out the County's affordable housing policy that enables the County to 'respond to the current and future needs of residents of all levels of income in the County.' It calls for the County to explore zoning regulations that would "allow and promote a wider diversity of housing and household types in single-family neighborhoods that help meet the evolving needs of families and households while maintaining neighborhood character and underlying zoning." It also seeks to ensure that everyone in the community has access to housing and that the supply is sustainable. A selection of objectives from the plan that PLH could influence include:

- 1.1 - Produce and preserve a sufficient supply of affordable rental housing to meet current and future needs. Prevent the loss of MARKs and CAFs.
- 1.2 - Produce and preserve a sufficient supply of affordable ownership housing to meet future needs.
- 2.2 - Ensure low- and moderate-income individuals and families can access housing.
- 2.4 - Enable Arlington residents to age in the community.
- 3.2 Promote affordable housing close to transit.

The AHMP's aspirational goal for Lee Highway is to achieve 2,500 affordable units (up to 60% AMI - both MARKs and CAFs) by 2040. It defines affordable as 'when rent or mortgage (plus utilities) is 30% or less of a household's gross income.

Affordable Housing Ordinance (2005)

In certain zoning districts, the Affordable Housing Ordinance offers developers an additional density and height bonus for providing affordable housing, through the site plan approval process. Developers have a choice of either providing affordable units on-site or contributing to the Affordable Housing Investment Fund (AHIF). These projects are also subject to additional affordable housing requirements.

Market-Rate Affordable Housing Report (2017)

This report looks at the current state of MARKs in Arlington County, first by reviewing Arlington's past efforts to preserve MARKs in the County; secondly, by providing a current inventory and analysis of MARKs in the non-planned areas of the County (such as the Lee Highway planning study area); and lastly, by reviewing the existing and potential tools for advancing the preservation of this component of the housing stock. This report is a result of the AHMP policy that the County "make every reasonable effort to prevent the loss of market rate affordable rental housing" (policy 1.1.3).

December 2019

There are two areas within the planning study area that are addressed directly in the report as areas of moderate risk for loss of MARKs - Central Lee Highway and East Lee Highway. Risks are generally attributed to the likelihood of various market pressures that push rents and property values up, even though it is an area that is considered to have 'low redevelopment potential under existing zoning.' An additional level of risk was identified for East Lee Highway. Because of its proximity to Rosslyn, demand from people seeking more affordable options in this area could also drive rents and property values up. The development and findings of this report led to the establishment of the Housing Conservation District.

Housing Conservation District (2017)

The Housing Conservation District (HCD) is one of the Housing Arlington efforts that began in 2017 with the establishment of the district and the adoption of the HCD Policy Framework. There are 12 HCD areas in total, 6 of which are in the planning study area. The effort was initiated in response to the loss of over 14,000 market-rate affordable housing units county-wide since 2000. The HCD was designated in all areas of the County zoned for multi-family residential uses and with General Land Use Plan designation for low-medium residential use. Areas within the existing planning corridors (Rosslyn-Ballston, Columbia Pike, and Richmond Highway) were not included because these areas already have planning guidance and/or policies regarding the retention of affordable housing.

The effort was also initiated to explore ways to preserve or create affordable housing and expand housing options (both rental and ownership) by introducing new financial tools and land use tools that encourage new housing forms. Specifically, HCD goals are aimed at preserving the character of these existing multi-family areas and encouraging the development of a variety of housing types; some of which would be affordable to a broad range of households. With the establishment of the HCD Policy Framework, in 2017, the County reclassified townhouse development as a special exception use (within the HCD areas) requiring site plan approval, community review and County Board approval. Phase 1 of this effort included an analysis of the HCD areas, which is summarized in the May 2019 HCD update report. The update report also provides findings and concepts for future implementation. Phase 2 will begin at the end of 2019 to develop the land use and financial tools. Work on the HCD will continue through 2020.

HCD Update Report (May 2019)

- Released in May 2019, the HCD Update Report included the following findings: the supply of market-rate affordable units (MARKs) is dwindling; all existing MARKs cannot be preserved or replaced; HCD multi-family neighborhoods have a particular character; County financial resources will never be enough to solve the problem (i.e. a mix of land use and financial tools are needed); and there is no one-size-fits all solution for all HCD areas.

Proposed actions in the report included:

- Develop a set of new optional zoning regulations (no rezoning required).
- Develop by-right development options and streamlined approval processes through use permit approval.
- Establish a conceptual review tool - "Housing Conservation Plan" - for staff to review development projects in advance of a by-right or Special Exception Use Permit development application to ensure that the proposed redevelopment is consistent with the goals and objectives of the HCD.
- Establish that density be controlled by form & height by removing specific density limits (units/acre).
- Provide the County Board authority to modify setbacks, coverage, and parking regulations.
- Allow for Historic Affairs Landmark Review Board (HALRB) review for "Essential" and "Top 1/3 Important" designated sites in the County's Historic Resources Inventory (HRI).
- Implement new affordability standards for HCD redevelopment options.
- Allow townhouse development via Use Permit Approval (on a portion of a site, while maintaining multi-family on the remainder of the site).

Plan Lee Highway will evaluate the applicability of the proposed HCD tools, in the study area (for HCD areas), during Phase 2 of the planning process, which includes the development and evaluation of the land use scenarios.

The planning study may recommend further refinement of the proposed HCD tools and recommendations. It is anticipated that recommendations for HCD areas will be coordinated with and subject to the PLH vision, goals, and final recommendations.

Accessory Dwelling Regulations (2019)

The Zoning Ordinance defines an accessory dwelling (AD) as "a complete independent dwelling unit, with kitchen and bath, designed, arranged, used, or intended for occupancy by not more than three persons for living purposes." The County currently permits accessory dwellings in single-family residential districts on lots that contain one-family dwellings. In Arlington, accessory dwellings can be located within or attached to the main dwelling, such as a basement apartment or an addition, or as a detached accessory dwelling, either within an existing accessory building, such as a detached garage, or within a newly-constructed accessory building. The AHMP identified ADs as an existing tool to "help meet the goals of having an adequate supply of housing to meet community needs, and for supporting older adults to age in place." Since the AHMP was adopted in 2015, the County Board has adopted two updates to revise the AD regulations. The latest Zoning Ordinance amendment, adopted in May 2019, permitted the establishment of new detached accessory dwellings. The amendment also increased flexibility to convert an existing accessory building into a detached accessory dwelling.

Arlington County
Housing Conservation District



Source: Arlington County

WHAT IS AFFORDABLE HOUSING?

Affordable housing in Arlington County means that households pay 30% or less of income on rent/mortgage plus utilities.

How is Housing Determined to be Affordable?

Affordable units are classified by Area Median Income (AMI), a national measure determined by the US Department of Housing and Urban Development (HUD). Arlington County tracks affordability on two levels - CAFs are affordable to households earning up to 60% of AMI; and MARKs are frequently identified as affordable to a broader range, including those households up to 80% of AMI.¹

What is a CAF?

Committed affordable units (CAFs) are housing units that are: (1) wholly owned by nonprofits, excepting any units planned to serve households with incomes above 80% of median family income; or (2) are guaranteed by agreement with the federal, state, or county government to remain affordable to low and moderate income households for a specified period of time through mechanisms such as site plan requirements, contracts with private owners, or Internal Revenue Service (IRS) regulations governing tax-exempt financing; or (3) received government subsidy to assist with the purchase.²

What is a MARK?

Market-rate affordable housing units (MARKs) are housing units that have market rents that are affordable to low-and moderate-income households by virtue of the age, location, condition and/or amenities of the property. These units are not regulated by the County or any other public agency, so there is no assurance that lower-income households live in these lower-rent housing units. In addition, there is no guarantee that these homes will remain affordable to lower-income households.

While the AMI changes annually, the incomes and rents shown in the tables below provide a current indication of what is considered 'affordable' in today's dollars (2019).

Incomes by Percent of Median for Affordable Rental Units (2019)

Household Size	80%	60%	50%	40%
1	\$68,000	\$51,000	\$42,500	\$34,000
2	\$77,680	\$58,260	\$48,550	\$38,840
3	\$87,360	\$65,520	\$54,600	\$43,680
4	\$97,040	\$72,780	\$60,650	\$48,520
5	\$104,880	\$78,660	\$65,550	\$52,440
6	\$112,640	\$84,480	\$70,400	\$56,320

Rents by Percent of Median Income for Affordable Rental Units (2019)*

Unit Size	80%	60%	50%	40%
Studio	\$1,700	\$1,275	\$1,062	\$850
1	\$1,942	\$1,365	\$1,138	\$910
2	\$2,184	\$1,638	\$1,365	\$1,092
3	\$2,524	\$1,893	\$1,577	\$1,262
4	\$2,816	\$2,112	\$1,760	\$1,408

Table 3.1 Incomes and Rent by percent of median income

* Note: If tenants pay for utilities, an estimate of the monthly utility expenditure is deducted from these amounts to arrive at the maximum allowed lease rent

Source: <https://housing.arlingtonva.us/income-rent-limits/>



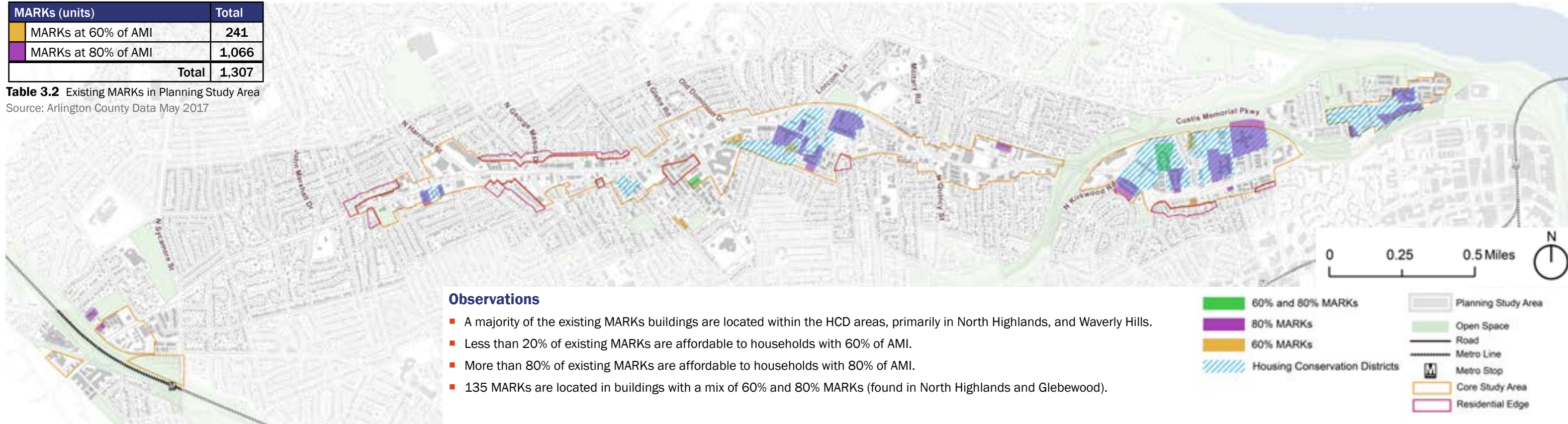
Arlington Mill (South Arlington)

¹ Affordable Housing Master Plan 2015
² Ibid

EXISTING MARKS

MARKS (units)	Total
MARKS at 60% of AMI	241
MARKS at 80% of AMI	1,066
Total	1,307

Table 3.2 Existing MARKS in Planning Study Area
Source: Arlington County Data May 2017



Observations

- A majority of the existing MARKS buildings are located within the HCD areas, primarily in North Highlands, and Waverly Hills.
- Less than 20% of existing MARKS are affordable to households with 60% of AMI.
- More than 80% of existing MARKS are affordable to households with 80% of AMI.
- 135 MARKS are located in buildings with a mix of 60% and 80% MARKS (found in North Highlands and GlebeWood).

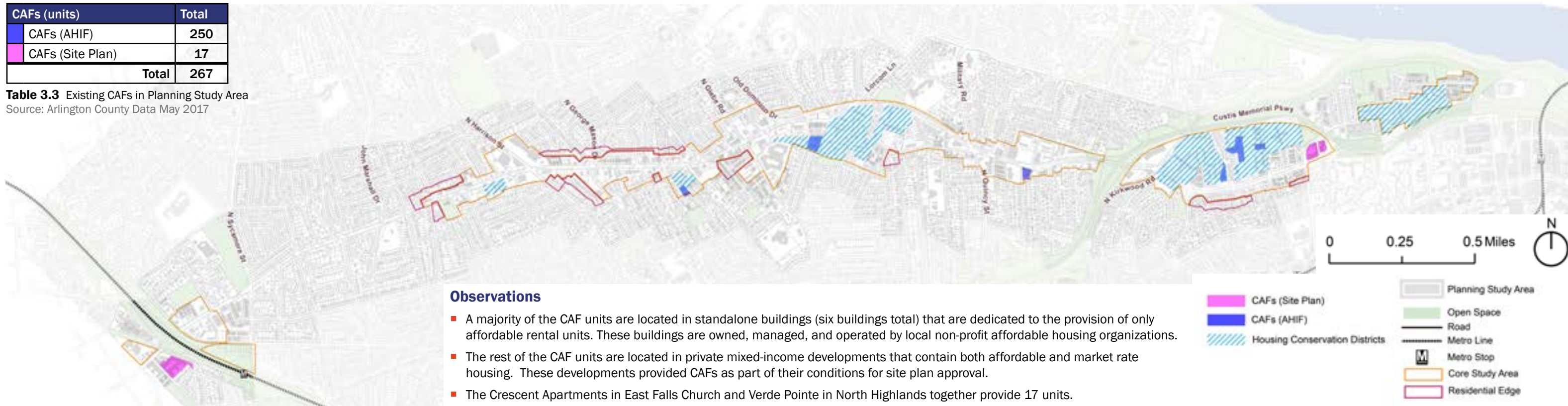


Figure 3.1 Existing MARKS in Planning Study Area

EXISTING CAFS

CAFs (units)	Total
CAFs (AHIF)	250
CAFs (Site Plan)	17
Total	267

Table 3.3 Existing CAFs in Planning Study Area
Source: Arlington County Data May 2017



Observations

- A majority of the CAF units are located in standalone buildings (six buildings total) that are dedicated to the provision of only affordable rental units. These buildings are owned, managed, and operated by local non-profit affordable housing organizations.
- The rest of the CAF units are located in private mixed-income developments that contain both affordable and market rate housing. These developments provided CAFs as part of their conditions for site plan approval.
- The Crescent Apartments in East Falls Church and Verde Pointe in North Highlands together provide 17 units.



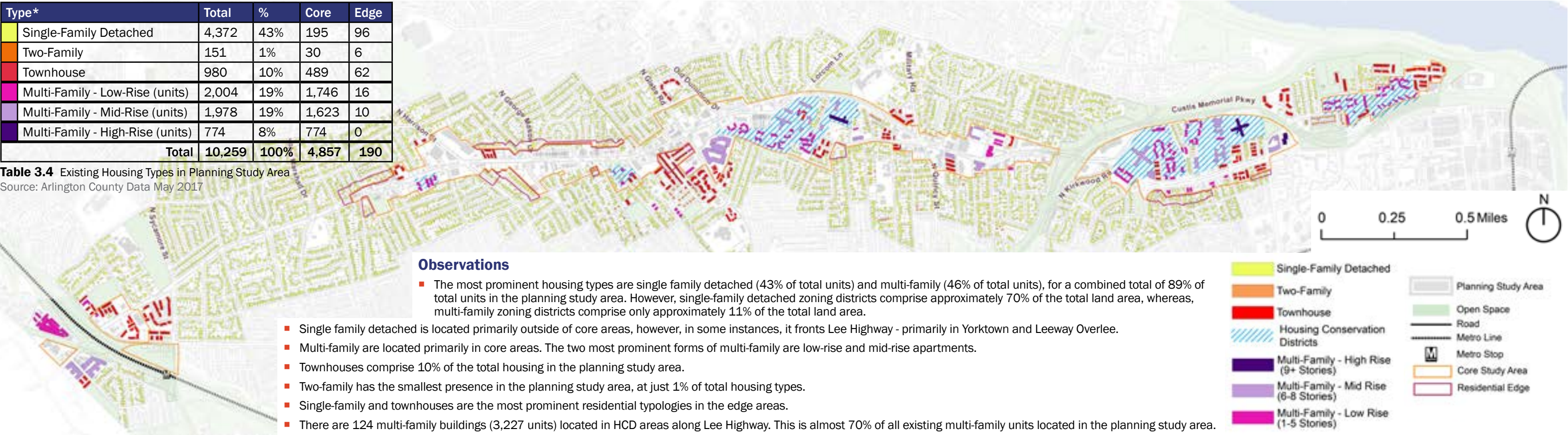
Figure 3.2 Existing CAFs in Planning Study Area

Source: Arlington County Data May 2017
Inventory provided is approximate based on Arlington County data.

EXISTING HOUSING TYPES

Type*	Total	%	Core	Edge
Single-Family Detached	4,372	43%	195	96
Two-Family	151	1%	30	6
Townhouse	980	10%	489	62
Multi-Family - Low-Rise (units)	2,004	19%	1,746	16
Multi-Family - Mid-Rise (units)	1,978	19%	1,623	10
Multi-Family - High-Rise (units)	774	8%	774	0
Total	10,259	100%	4,857	190

Table 3.4 Existing Housing Types in Planning Study Area
Source: Arlington County Data May 2017



Observations

- The most prominent housing types are single family detached (43% of total units) and multi-family (46% of total units), for a combined total of 89% of total units in the planning study area. However, single-family detached zoning districts comprise approximately 70% of the total land area, whereas, multi-family zoning districts comprise only approximately 11% of the total land area.
- Single family detached is located primarily outside of core areas, however, in some instances, it fronts Lee Highway - primarily in Yorktown and Leeway Overlee.
- Multi-family are located primarily in core areas. The two most prominent forms of multi-family are low-rise and mid-rise apartments.
- Townhouses comprise 10% of the total housing in the planning study area.
- Two-family has the smallest presence in the planning study area, at just 1% of total housing types.
- Single-family and townhouses are the most prominent residential typologies in the edge areas.
- There are 124 multi-family buildings (3,227 units) located in HCD areas along Lee Highway. This is almost 70% of all existing multi-family units located in the planning study area.

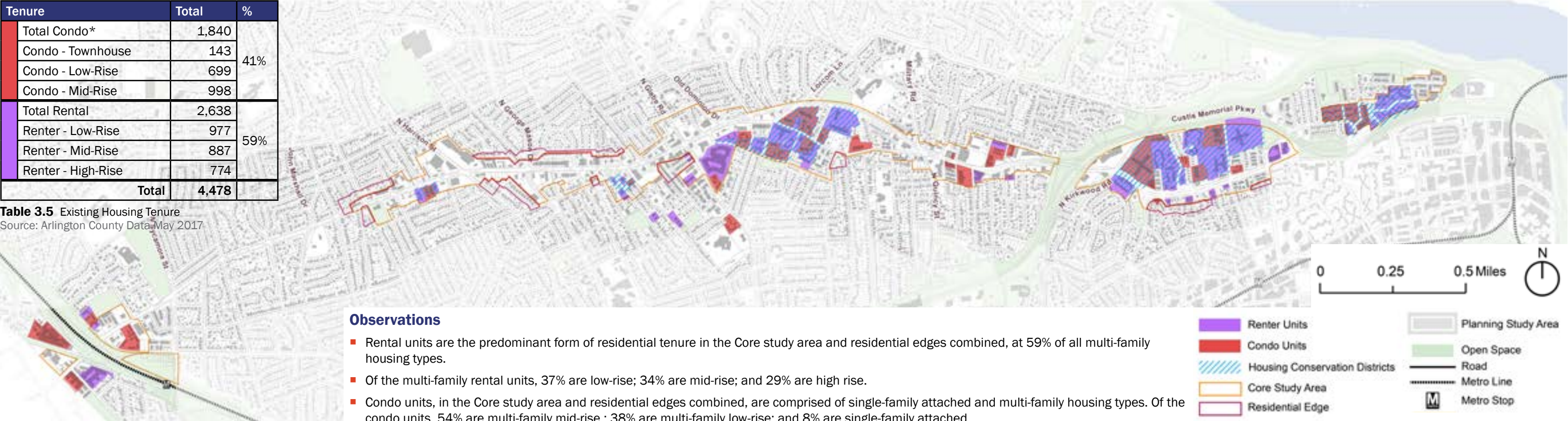
* Two-family housing types include duplex and semi-detached dwellings. Single-family attached housing types are residential structures designed as Townhouses and can include fee simple or condo housing units. Multi-family housing types include garden style apartments and other apartment building typologies.

Figure 3.3 Existing Housing Types in Planning Study Area

EXISTING HOUSING TENURE

Tenure	Total	%
Total Condo*	1,840	41%
Condo - Townhouse	143	
Condo - Low-Rise	699	
Condo - Mid-Rise	998	
Total Rental	2,638	59%
Renter - Low-Rise	977	
Renter - Mid-Rise	887	
Renter - High-Rise	774	
Total	4,478	

Table 3.5 Existing Housing Tenure
Source: Arlington County Data May 2017



Observations

- Rental units are the predominant form of residential tenure in the Core study area and residential edges combined, at 59% of all multi-family housing types.
- Of the multi-family rental units, 37% are low-rise; 34% are mid-rise; and 29% are high rise.
- Condo units, in the Core study area and residential edges combined, are comprised of single-family attached and multi-family housing types. Of the condo units, 54% are multi-family mid-rise ; 38% are multi-family low-rise; and 8% are single-family attached.

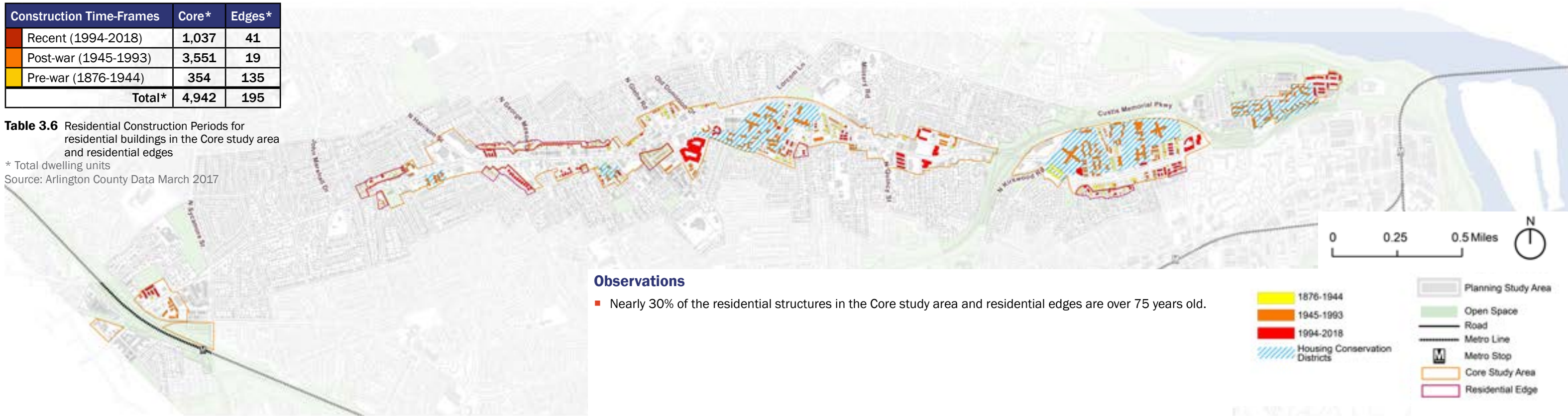
Figure 3.4 Existing Housing Tenure in Planning Study Area
Inventory provided is approximate based on Arlington County data. *For this analysis, Condo units are assumed to be owner-occupied. It does not take into account condo units that may be rented.

RESIDENTIAL CONSTRUCTION PERIODS

Construction Time-Frames	Core*	Edges*
Recent (1994-2018)	1,037	41
Post-war (1945-1993)	3,551	19
Pre-war (1876-1944)	354	135
Total*	4,942	195

Table 3.6 Residential Construction Periods for residential buildings in the Core study area and residential edges

* Total dwelling units
Source: Arlington County Data March 2017



Observations

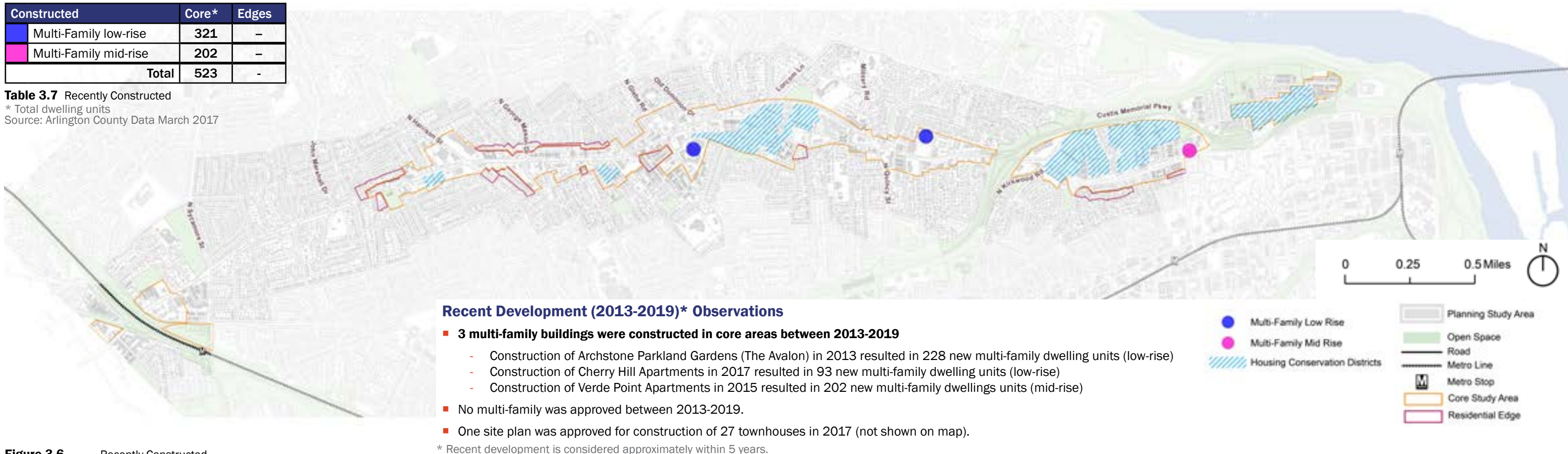
- Nearly 30% of the residential structures in the Core study area and residential edges are over 75 years old.

Figure 3.5 Residential Construction Periods

Constructed	Core*	Edges
Multi-Family low-rise	321	-
Multi-Family mid-rise	202	-
Total	523	-

Table 3.7 Recently Constructed

* Total dwelling units
Source: Arlington County Data March 2017



Recent Development (2013-2019)* Observations

- 3 multi-family buildings were constructed in core areas between 2013-2019**
 - Construction of Archstone Parkland Gardens (The Avalon) in 2013 resulted in 228 new multi-family dwelling units (low-rise)
 - Construction of Cherry Hill Apartments in 2017 resulted in 93 new multi-family dwelling units (low-rise)
 - Construction of Verde Point Apartments in 2015 resulted in 202 new multi-family dwellings units (mid-rise)
- No multi-family was approved between 2013-2019.
- One site plan was approved for construction of 27 townhouses in 2017 (not shown on map).

* Recent development is considered approximately within 5 years.

Figure 3.6 Recently Constructed

RECENTLY CONSTRUCTED 2013-2019

ACHIEVING THE GOAL: INCREASING HOUSING OPTIONS

Expanding housing options to achieve a diverse mix of types, affordability, and tenure (rent and owner-occupied) is the County's preliminary aspirational goal. In terms of affordability, this includes achieving housing for lower and middle-income households. Accommodating residents who want to age in the Lee Highway community is another part of the goal for expanding housing options.

By providing greater housing choices, developments can meet the housing needs of increasingly diverse residents and household types (such as young families, low- and moderate-income residents, retirees, and people with disabilities).

Diversity of Housing Types

A diverse community has various dwelling types and sizes – usually achieved through a wider range of lot sizes and a variety of building forms. Currently, there is a clear predominance of two housing types in the planning study area - single family detached and multi-family. The multi-family types range from low-rise to high-rise development:

- Low-rise multi family housing options include:
 - Garden style apartments, which are typically 3 or 4 stories in height with surface parking. These buildings have a smaller floorplate with smaller units and do not provide elevators or on-site amenities.
 - Buildings with larger floorplates that are up to 5 stories in height with structured parking. These buildings provide elevators and limited on-site amenities (i.e. pool and/or gym).
- Mid-rise multi family housing options include:
 - Apartment buildings that are typically 6 to 8 story in height with large surface parking lots. These buildings have a larger floorplate with many smaller units and provide elevators and limited or no on-site amenities (i.e. pool and/or gym).
 - Buildings with larger floorplates, which are typically 6 to 8 stories in height with structured parking. These buildings provide elevators and expanded on-site amenities (i.e. pool, community room, and/or gym).

- High-rise multi family housing options include:
 - Apartment buildings that are greater than 8 stories in height with large surface parking lots. These buildings have a larger floorplate with many smaller units and provide elevators and limited or no on-site amenities (i.e. pool and/or gym).
 - Apartment buildings which are greater than 8 stories in height with underground parking. These buildings have larger floorplates, provide elevators, and expanded on-site amenities (i.e. pool, community room, and/or gym).

The single family detached and multi family, together comprise 89% of all housing types found within the planning study area. Only 11% of the housing stock in the area is an alternative housing type, of which 10% is townhomes and 1% is two-family (i.e. semi-detached or duplex). The planning study area does not provide other alternate types of housing, such as mansion house apartments, which include three-plex (3-unit), four-plex (4-unit), six-plex (6-unit) and eight-plex (8-unit) buildings that look like large houses. Providing a variety of housing types like these as well as small-scale mixed-use buildings, cottages, and accessory dwellings, can also help to expand the options available for housing that is affordable to households at low and moderate income levels.

Affordability

Housing in Arlington County has become increasingly unaffordable over the years. The absolute number of dwelling units affordable to households at 60% of the regional Area Median Income (AMI) dropped (in the County overall) from 12,164 in 2010 to 10,197 in 2018.¹ This was largely in the form of MARKS, which decreased by 50%, from 6,840 to only 3,126.² The percentage of all housing units that these affordable units represent dropped more sharply, from 11.5% to 8.8%. Committed Affordable Units (CAFs) increased by almost 2,000 during the same period.

In the planning study area, the trends are similar to those at the County level. As of 2015, when the AHMP was adopted, there were 554 units affordable at 60% AMI in the 'Lee Highway/East Falls Church' area of the County. Presumably because of a loss of MARKS, that number had decreased to 519 by 2018 (affordable units in this instance comprise both CAFs and MARKS).

¹ Arlington County Annual Affordable Housing Report Fiscal Year 2018 Indicators
² Ibid.



Verde Point - 11 CAF units in North Highlands (Source: AECOM)



Cameron Commons - 16 CAF units in John M. Langston (Source: AECOM)



Hunters Park - 74 CAF units for seniors in Cherrydale (Source: AECOM)



Ancient Oaks - 96 MARKS units at 60% in HCD in North Highlands (Source: AECOM)



Potomac Towers - 324 MARKS units at 80% in HCD in North Highlands (Source: AECOM)



Fort Strong Apartments - 114 MARKS units at 60% & 80% in HCD in North Highlands (Source: AECOM)

The County's aspirational goal for housing in the planning study area is to 'Strive to achieve the goals set forth in the Affordable Housing Master Plan, including achieving 2,500 committed affordable rental units at 60% of the area median income (AMI).' Currently, there are just 519 affordable units up at 60% AMI in the planning study area (affordable units in this instance are comprised of both CAFs and MARKs). Bridging the gap of approximately 2,000 is a big endeavor - especially in the face of existing challenges.

Single-family detached and single family attached (particularly newer townhouses) housing is expensive and out of reach for many people. Inclusive of single family homes, townhomes, and condo units, a snapshot of median prices by select neighborhoods from within the planning study area is as follows:³

- Median price for homes in area from Leeway to Maywood is \$624,000
- Median price for homes in Donaldson Run is \$1.6 million
- Median price for homes in East Falls Church is \$899,000
- Median price for homes in North Highlands is \$363,000

None of the median prices listed for homes in Maywood, Donaldson Run, East Falls Church, or North Highlands are considered affordable for residents with incomes at 60% or 80% AMI.

The multi-family housing inventory in the planning study area is comprised primarily of 1 and 2-bedroom units:⁴

- 11% studios - with a median rent of \$1,450⁵
- 47% 1BR - with a median rent of \$1,620
- 39% 2BR - with a median rent of \$2,227
- 3% 3BR - with a median rent of \$2,840
- Zero 4BR units in study area

Studios are considered affordable for residents at 60% and 80% AMI. One bedroom units are affordable to residents at 80% AMI. No other apartment units types are affordable for residents at 60% or 80% AMI.

Affordability Observations

- The uphill struggle in improving affordable housing today is less a function of housing policy than it is of the increasing desirability of Arlington as a place to live and the associated increases in land and housing value. Arlington County has a robust and effective system for producing and preserving affordable units through its Affordable Housing Investment Fund (AHIF), but it is difficult to meet the need with financial resources alone.
- Arlington has a sound history of partnering with churches and the American Legion to co-locate affordable housing with private institutions, however, the County will need to be creative to find new types of partnerships.
- In 2018, CAF production increased from about 250 new CAFs per year to more than 500. Recent production of CAFs is primarily driven by preservation of MARKs, although new CAF projects also come on line almost every year. This system demonstrates the County's strong commitment to affordable housing.
- The planning study will explore with County officials and non-profit developers the extent to which CAFs can contribute to meeting the corridor's goal of producing 2,500 new affordable units over the next 20 years, since the goal is to produce units at or below 60% of AMI. The planning study will also provide an opportunity to test many of the recommendations found in the individual Housing Arlington initiatives including the HCD.

Aging-in Community and Aging-in Place

Many seniors indicate that they would prefer to age in place, either staying in their current home or choosing from a range of affordable, age-appropriate housing options within their community. A 2010 AARP survey found that 88% of respondents over age 65 wanted to remain in their homes for as long as possible, and 92% said they wanted to remain in their communities.

The physical environment of many places, including the planning study area, presents barriers to elder health, well-being, and the ability to age in place. These include community design that separates residential and commercial areas, the absence of adequate alternative transportation services, and limited accessible housing.

Creating multi-generational, livable communities

Changes that positively affect the health and well-being of aging residents include encouraging mixed-use and walkable neighborhoods that help individuals maintain or increase access to goods and services. Creating a variety of walking destinations builds social capital and increases physical activity. Key features for older adults also include access to quality health care and support services.

Safe, convenient, and attractive public transportation options

Improving access to, and increasing frequency of, public transportation will allow aging residents to stay involved in their community and stay self-sufficient at the same time. Resolving service issues related to unreliable, infrequent, or unsafe public transportation modes, and improving paratransit services is key for older adults to stay autonomous and engaged in their community.

Accessible housing that's affordable

Aging in place can mean how people will obtain the support and care they will need as they age while retaining as much independence as possible. As people age, this may include adding supplementary services to facilitate their living conditions and maintain their quality of life. Making these options viable includes allowing home modifications to meet the changing needs of aging residents, providing affordable housing options suitable for aging residents, and connecting seniors to the services they need in the places that they live.

Aging in Place Observations

- There are two senior living facilities in the planning study area that have existed for more than 20 years. Interest for development of senior living facilities along Lee Highway has increased. There is a preliminary development proposal for a six-story senior living facility in the Waverly Hills neighborhood. In September 2019, the County Board adopted amendments to the Zoning Ordinance that expanded the zoning districts where assisted living facilities and nursing homes are permitted. The County is currently undertaking an additional zoning study, as part of its Housing Arlington Initiative, to further evaluate in which other zoning districts (and under what conditions) senior living facilities should be allowed.
- The cost of maintaining a home (including property taxes) can present significant barriers to aging in place.
- Zoning and building options can play a large role in easing the impact of housing cost by providing flexibility in housing solutions. These solutions may include allowing existing homes to be divided into multiple units (e.g., English basement) or smaller accessible multi-family developments (e.g., patio homes) within the community designed specifically to address the needs of the elderly.
- For older adults who need to downsize because of financial reasons or physical disabilities (e.g., difficulty climbing stairs), Accessory Dwellings serve as an alternative form of housing, whereas for older adults who can remain in their own home but require some financial or personal care support, adding an Accessory Dwelling creates a rental unit or a living space for a caregiver.

³ Redfin.com
⁴ CoStar Property; AECOM, April 2019 (Note: Amount in Studio to 4 Bedroom does not sum to All Multifamily. Some units are not tracked by number of bedrooms.)
⁵ CoStar counts studio and efficiency units as one type of apartment.

Challenges to Achieving Increased Housing Options

There are a number of challenges to increasing housing options in the study area - particularly from a new-build or redevelopment perspective. Gaining a deeper understanding of the challenges that are specific to the planning study area will result in more informed solutions and provide a better starting point for the next phases of work. In order to gain insight, a multi-faceted approach was taken - including desktop research, interviews with residential developers and property owners, and conversations with the community. From this effort, the following challenges been identified:

1. Building new housing types within the planning study area is considered challenging due to limitations of zoning regulations (i.e. minimum lot standards for width, area and setbacks). Multi-family dwellings, for example, are required to be constructed in lots that are a minimum of 75 feet wide and 7,500 sf in size. This precludes multi-family housing types from being developed in smaller lots.
2. The County's development approval process (4.1 Site Plan) is considered cost-prohibitive and time-consuming for many developers, increasing costs for development.
3. The County's minimum off-street parking requirements are considered too high and inflexible, increasing costs for multi-family development.
4. The physical configuration of lots create development challenges - a majority of lots along the corridor are shallow and ownership patterns are fragmented - forcing lot assemblage through property acquisition.
5. Land prices are high.
6. Construction costs are high.

Observation - Zoning is restricting new development

- Zoning has not been comprehensively reviewed or updated in the planning study area in recent history and is considered overly prescriptive by all developers interviewed. This comment was made frequently in reference to restrictive height, density, parking requirements. This is particularly relevant in light of the small size, irregular shape, and varying topography of many parcels in the planning study area, and increased flexibility was considered an important consideration to encourage new development.

- Developers look for more leeway in zoning codes to problem solve and create interesting places - especially important for multi-family and mixed-use.
- The density (25%) and height (6 story) bonus for special exception developments that provide low and moderate income housing, does not function as intended - there is a mismatch between the maximum Floor Area Ratio (FAR)/Density and the maximum height that can be achieved through the bonus.

Observation - Development Approval Process (4.1 Site Plan) is cost-prohibitive, time-consuming and increases development costs

- There are areas where the GLUP has been updated, but not the zoning, thereby requiring a property owner to submit a request for rezoning and Special Exception - Site Plan Approval, under Administrative Regulation 4.1, in order to develop density or use designated by the GLUP.
- By-right development regulations are considered outdated and push developers to the Special Exception - Site Plan Approval process. This is time-consuming, sometimes up to two years, because it requires community input and County Board approval. It is also costly - typically around \$750,000.
- The time and costs associated with the site planning process are prohibitive for smaller developers, who could be catalysts for more mid-sized development - particularly missing middle housing (refer to missing middle section on following page).
- The Unified Commercial/Mixed-use Development (UCMUD) Use Permit was meant to offer a less onerous option with lower fees and a streamlined approval process, however, requirements for retail have made it unattractive to developers.

Observation - Minimum off-street Parking Standards are too high and increase development costs

- The cost of accommodating required parking on lots within the planning study area is too high to 'pencil out' and is a significant driver of low-density development.
- There are no other options for meeting parking minimums (other than on-site) and no flexibility for certain types of desired arrangements (i.e. on-street spaces, shared parking, centralized parking areas, tandem parking, etc.)

Observation - Shallow parcels and other physical constraints prohibits development

- Parcels are consistently shallow along the corridor: 15% of parcels fronting Lee Highway are less than 60ft in depth, and 33% of parcels are between 60-90ft in depth.

- Parcels are often small and individually owned - creating additional complexity in efforts towards consolidating parcels for additional height/density or other development objectives.

Observation - Land prices are high

- Arlington land prices are generally around \$125 per square foot, however, they can be more than \$160 per square foot in the planning study area. Lee Highway is between Rosslyn and Columbia Pike for land prices, with Rosslyn typically around \$160, and Columbia Pike typically around \$90 per square foot.¹
- Partial redevelopment of existing affordable housing (such as garden-style multi-family complexes) to achieve additional density, is seen as problematic because of the high cost of retrofitting buildings and bringing properties into compliance with the Zoning Ordinance. The County is looking at ways to address nonconforming conditions through the various individual efforts of the Housing Arlington Initiative, including the Housing Conservation District.
- Development of new affordable housing in the planning study area is challenging because of higher land prices. Other places in the County offer lower price points, such as in the southern part of the County such as Penrose, Douglas Park, and Shirlington.²

Observation - Construction costs are high

- There are a number of factors that contribute to the cost of new housing such as land value/cost, construction costs, and fees for developing a project. Some factors have a significant cost burden that directly impacts affordability. Reducing County fees for affordable projects, decreasing the land cost basis through County initiated rezonings and reducing the cost of construction can all have a significant impact to the final costs.
- New types and techniques for construction evolve over time with positive impacts on safety, sustainability, health and costs reduction. Currently, wood-frame construction has become popular for urban mixed-use residential developments. There are limitations of height using this type of construction (maximum of 4 - 5 stories over a 1-2 story concrete podium); however, recent technology and building code changes are providing developers the option of using wood frame for high-rise projects (9 plus stories). The use of wood construction can reduce construction costs and is considered a more sustainable way to build.³

¹ <https://www.arlnow.com/2017/12/05/ask-elli-how-much-does-land-cost-in-arlington/>

² Ibid.

³ <https://www.nytimes.com/2019/10/03/opinion/wood-buildings-architecture-cities.html>



OPPORTUNITIES FOR ACHIEVING INCREASED HOUSING OPTIONS

All insights from background research and interviews with developers and property owners point to the Lee Highway corridor as an attractive place to develop. There are a number of ways to incentivize developers to build additional housing options that help to increase the diversity of housing types, affordability and tenure in the study area. Strategies that begin to address the challenges include development and implementing more flexible policies and zoning regulations (i.e. to achieve more housing types and parking minimums) and streamlined review processes (to reduce development costs).

What is the Missing Middle?

Missing middle housing is a series of residential housing types that span the range of densities between single-family detached homes and mid-rise to high-rise apartment buildings. Missing middle housing types help create a moderate density that can support public transit, services and amenities within walking distance. Missing middle building typologies range from skinny houses, cottage houses, accessory dwellings (AD), duplexes, tri- and four-plexes, mansion house apartments, townhouses, and stacked flats, to small-scale apartment buildings.

These housing types can provide a way for communities to transition between low and high density areas and develop more character-rich, walkable neighborhoods that appeal to a broader range of residents including young individuals, couples and families, and elderly and disabled residents who want to stay in a family neighborhood. Missing middle housing types can also benefit a wide range of potential homeowners and renters of different affordability levels.

Observations - Missing middle is the right scale and size for many places along the corridor

- There is an opportunity to produce more Missing middle housing by the private sector under current market conditions.¹
- Many developers are interested in producing four-plexes and mansion house apartments because of the ability to sell multiple units on a property that currently only allows development of single family detached dwellings (with or without an AD).
- There is interest in small apartment buildings and stacked flats (hybrid apartment/townhomes), however, high costs of building structured parking on small sites can threaten the financial viability of some of these projects.

¹ Later in Phase 1 of this study, AECOM will examine in detail the financial feasibility of different types of Missing middle projects on or near Lee Highway.

SKINNY HOUSES



What is a skinny house? These narrow houses typically have rooms arranged one behind the other, sometimes with increased height and length to still achieve many livable areas - all on a small parcel.

Why skinny houses? (Applicability to study area) These houses have a smaller built area and typically lower construction costs - potentially resulting in a lower price point and providing one option among many to diversify housing types along the corridor.

Where are they now? Clarendon, VA

COTTAGE HOUSES



What is a cottage house? A group of single family homes with similar layouts developed around a centrally located common space.

Why cottage houses? (Applicability to study area) Typically considered more affordable as these houses are much smaller in size than the existing single-family detached homes. The accessible floor plan is an appealing option for those aging and wanting to stay in the community.

Where are they now? Falls Church, VA

ACCESSORY DWELLINGS



What is an accessory dwelling (AD)? ADs are accessory and adjacent to a primary housing unit. ADs are significantly smaller than the average single-family home and tend to be one of two units owned by a single owner on a single family residential lot.

Why ADs? (Applicability to study area) ADs incrementally increase affordable housing units; ADs also provide additional income for home owners or for families to live together intergenerationally - and for seniors to age in place.

Where are they now? Arlington, VA

DUPLEXES



What is a duplex? One building that has two separate units, one above the other.*

Why duplexes? (Applicability to study area) Duplexes could be a feasible opportunity to solve many housing dilemmas. Converting existing homes into a duplex keeps the character of the neighborhood while increasing density at a smaller scale. A newly constructed duplex arguably takes the same amount of space as a single family home.

Where are they now? DC

*In Arlington County, duplexes are required to have separate entrances, one on the front of the building and one on the other side.

FOUR-PLEX



What is a Four-Plex? A small residential building containing four units each with different entrances, separated by walls, floors, or both. There is no one style or configuration associated with a four-plex and units can be divided in many ways.

Why Four-Plexes? (Applicability to study area) Four-plexes would be feasible on standard 6,000 sq ft parcels, currently zoned for single-family detached housing within the planning study area.

Where are they now? Richmond, VA

MANSION HOUSE APARTMENTS



What is a mansion house apartment? The division, and most likely conversion, of a once single-family home into separate functioning units, normally with one main entrance and access corridor or stair.

Why mansion house apartments? (Applicability to study area) Converting existing homes maintains the overall neighborhood character, while increasing affordability and density.

Where are they now? Richmond, VA

OVERVIEW

For residents and business owners along Lee Highway, issues of land use, urban design and building form are integrated, interconnected and in some cases interchangeable. The placement of buildings, their scale, orientation, aesthetics, the circulation and parking serving them, and their relationship to each other all become an integral part of land use discussions. Through engagement activities to date, the community has expressed overall that ‘how’ a site or neighborhood is developed is just as important as ‘what’ uses are developed. In addition, it is understood that the basic form and character of the buildings along the corridor has a direct effect on the public realm and will either enable or hinder walkability and sustainability.

This section looks at three main areas – the public realm, the parcel configuration and building form. For the public realm, it begins with an analysis of the overall streetscape conditions within the planning study area, which includes an assessment of the sidewalks, tree canopy, on-street parking, and bus stops along streets. It then takes an overall look at the building frontages along Lee Highway and other commercial corridors to understand how buildings interface with the street, in terms of creating active use on the ground floor and ‘eyes on the street’. After examining the public realm, this section takes a closer look at the configuration of the parcels to understand the typical dimensions of lots (particularly the depths of parcels on Lee Highway), how buildings and parking are placed on the site, site access, and typical building setbacks. Lastly, this section analyzes the building forms in the planning study area, particularly the typical building types and design, to understand the character and identity they create for the neighborhoods. Building heights and issues of transition created by height and mass, as well as, activity or use are also analyzed.

Other elements that are integrated and interconnected with urban design and building form, such as connectivity (street, pedestrian and bicycle) and public spaces are discussed separately in the Transportation and Connectivity and Public Spaces chapters.

Preliminary Aspirational Goal

Promote a walkable environment with context-sensitive buildings that engage with streets and transition in scale, height and character appropriately to adjacent neighborhoods. Encourage high-quality architecture that reflects the local historic character, where appropriate, and place-making through conscientious urban design.

2016 Vision Study Principle*

Strengthen neighborhoods by emphasizing unique architectural character, public space activities, and sensitive transitions.

2016 Vision Study Recommendations*

- Encourage high level activity and visual appeal at ground level
- Define levels of intensity and specific building height parameters along corridor
- Smooth height transitions between commercial and residential uses
- Promote distinct neighborhood character through architectural design
- Maintain existing residential character in residential sections along corridor, as well as, areas adjacent to residential neighborhoods
- Create ample sidewalks, high quality landscaping and intuitive wayfinding
- Consider alternative parking solutions (i.e. on-street, rear, shared, public, structured)

*The County will continue to seek community feedback to validate and refine the 2016 Vision Study principles and recommendations and the County’s Preliminary Aspirational Goals throughout the Plan Lee Highway process.

KEY DOCUMENTS + TAKEAWAYS

Master Transportation Plan Streets Element:

The County’s Master Transportation Plan (MTP) takes the long view in promoting effective travel and accessibility for the County’s residents, workers, and visitors through the year 2030. It provides a policy framework to guide the development of projects and programs, advance the County’s goals and objectives, and help direct investment. The MTP, along with the GLUP, is designed to ensure that land use and transportation planning are integrated.

The MTP establishes policies for enhancing the existing street network

“Maintain and enhance a grid-style street network. Facilitate desired creation, realignment or relocation of existing streets as appropriate, including through vacation of existing and acquisition of new street right-of-way. Enhance the connectivity of the existing street network by constructing new streets with redevelopment of large blocks and avoiding permanent closures or other reductions in street connectivity. Whenever feasible, new streets should be publicly-owned. Privately-owned streets should have in place agreements with the County regarding their maintenance and provision for public access. Seek to manage privately-owned streets in the same manner as those publicly-owned, including such areas as parking regulation.”

Arlington County Landscape Standards (December 2017):

The County requires all properties to provide street trees, landscaping and plantings for screening parking areas and as buffers between zoning districts of varying intensities and/or use.

“Street trees: All properties requiring site landscaping shall include major deciduous trees at the minimum rate of one for every 35 feet along any property line abutting public right-of-way. The requirement may be satisfied by planting trees within the public right-of-way at a location to be designated by the zoning administrator or, alternatively, such trees shall be planted on site within the front yard setback.”

“A landscaped strip a minimum of five ft. wide shall be provided where a parking area abuts streets, sidewalks, street right-of-way and alleys separating C districts from R, RA, and S-3A districts. Deciduous trees shall be spaced every 25 linear ft., to be measured along the property line, in the planting areas with a minimum of three evergreen shrubs, planted on center, which attain a minimum height of three ft. at maturity, planted between.”

Cherrydale Neighborhood Conservation Plan (2014)

An important theme in this document was for the preservation of the historic character of buildings and the neighborhood. It was recommended that new construction “adopt certain architectural styles, features and proportions so that their new homes fit with the surrounding structures.”

East Falls Church Area Plan (2011)

A major goal was to ensure that new buildings are compatible with and transition appropriately to adjacent single-family neighborhoods. Guidance was given to limit building heights to 4-6 stories, with an exception of 9 stories for the Park & Ride site along the metro line.



The style, form, and type of building architecture in the study area contribute to the uniquely eclectic character of Lee Highway. This variety also highlights the need for transitions between land uses and building types within the corridor.

PUBLIC REALM OVERVIEW

The public realm is those external spaces that are accessible to all. These include our public open spaces and streets. The buildings that frame the streets along with the spaces they create, form part of the context and character of a neighborhood between them and bring about a sense of identity and place. The design of each streetscape should be informed by its land use, mobility requirements, cultural context, and contribute to a neighborhood's identity.

Streetscape Conditions

Within the planning study area, the streetscape conditions vary significantly. Not only are commercial streets vastly different from residential streets, but between the types of commercial or residential streets there are also significant differences. Lee Highway in the Cherrydale neighborhood, for example, looks quite different from the rest of the corridor. In Cherrydale, most of the commercial and mixed-use buildings are closer to the street. The roadway itself is narrower yet provides street trees and in some areas on-street parking. For most of the Lee Highway corridor, the buildings are further from street, with large parking lots directly in front. The right-of-way is wider, yet sidewalks are narrower and there are fewer or no street trees.

Residential neighborhoods, for the most part, contain pleasant streetscapes with lush landscaping and street trees and adequate sidewalks. Neighborhoods like Donaldson Run and Waverly Hills, for example, are characterized by their signature street trees. Some neighborhoods don't have sidewalks on every street, however, the finely manicured private landscape areas along with the exquisite residential structures provide a truly pleasant environment for people to walk. Other neighborhoods like East Falls Church and Leeway Overlee have areas without sidewalks and street trees.

Building Frontages

The distance between sidewalks and building facades varies greatly along the corridor. This characteristic relates to the organic way the corridor developed, helps create a sense of variety and helps define the character of the different neighborhoods along the corridor. For example, in portions of Cherrydale and along Westmoreland St. in East Falls Church buildings frame the streetscape, create a human scaled experience that make pedestrians feel comfortable and include a high proportion of ground floor fenestration that creates a welcoming atmosphere for people walking, riding or driving by.

In some cases though the variation in setback can also lead to challenges that hinder walkability. The portion of Lee Highway where the buildings are further from the street edge is also the area where the buildings provide the least engaging facades. These buildings overall have less windows and less inviting doorways. In some cases they have expansive blank walls. The combination of discontinuous building walls and larger setbacks creates an undefined street edge that, without street amenities, can make pedestrians feel less welcome. This is also true for most other streets that traverse commercial areas like portions of N. Harrison Street, N. Glebe Road, N. George Mason Drive or Spout Run.



THE PUBLIC REALM

BUILDING FRONTAGE



Waverly Hills



Cherrydale



East Falls Church



Waverly Hills

Good building frontages promote a sense of welcome, invite social interaction, and can drive economic performance. A positive building frontage generally creates a close, human-scale relationship between the first floor of the building and the street by providing large windows that allow visibility inside or outdoor eating areas that activate the street with people coming and going.



Lyon Village



Leeway Overlee



Waverly Hills



Lyon Village

Poor street frontages generally have buildings with blank walls, fences or walls along the street that prohibit visual and physical access, or a large unlandscaped parking lot separating the building from the street. This is a corridor-wide issue.

THE PUBLIC REALM

SIDEWALKS & PEDESTRIAN CROSSINGS



Cherrydale

A walkable sidewalk gives pedestrians a sense of safety and comfort. There is ample width given to the pedestrian way and it is separated from the street by plantings and/or furnishings. A positive building front also helps with the pedestrian's experience. Crosswalks are well marked, lit and signaled. Curb radii are tighter at the corners, making crossing distances shorter.



North Highlands



Waverly Hills



Cherrydale



Lyon Village



Glebeewood

Conversely, poor sidewalks generally exist on streets dominated by the automobile. Little space is given to the pedestrian, and there is little separating them from traffic moving by. Utility poles are often in the way and there are few, if any, street trees. Crosswalks are poorly marked and require the pedestrian to activate the crossing signal



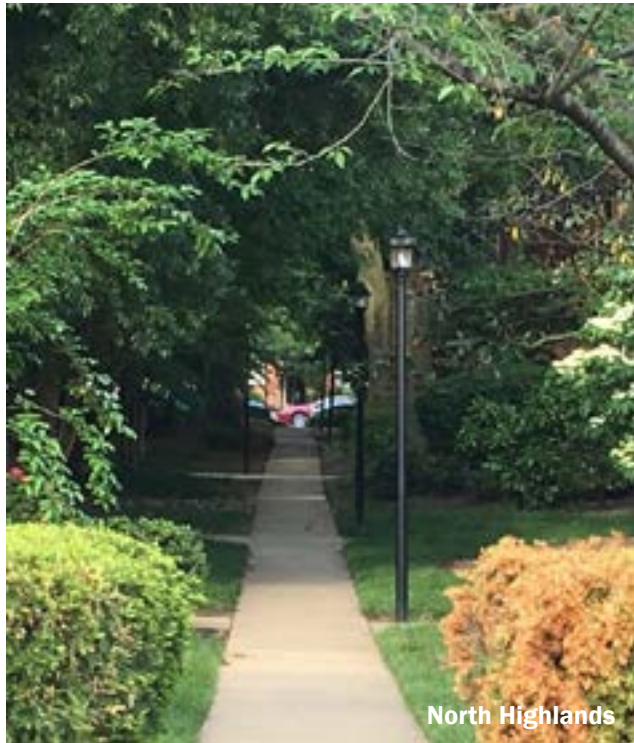
Leeway Overlee



Typical Condition

THE PUBLIC REALM

STREET TREES



North Highlands



Maywood



North Highlands



East Falls Church

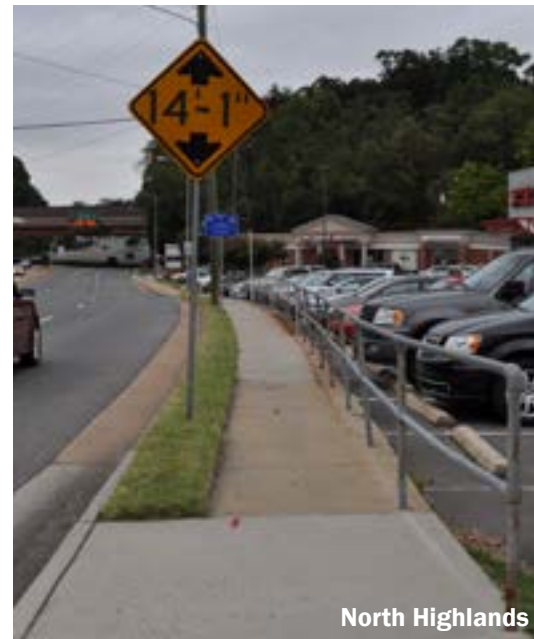


North Highlands

Street trees and lush landscapes are an important character defining feature of many Lee Highway residential neighborhoods. They create the atmosphere and micro-climate that supports walkability and provide a connection to nature that enhances quality of life.



Garden City



North Highlands



Old Dominion



Cherrydale



Waverly Hills

Conversely, the lack of street trees and plantings along the commercial corridors has the effect of undermining the experience and deterring pedestrian activity.

THE PUBLIC REALM

BUS STOPS



Bus Stop 678 (Before)



Bus Stop 646 (Before)



Bus Stop 6000700



Bus Stop 6000710

The photos are of completed improvements to bus stops on Lee Highway as part of the Lee Hwy and Washington Blvd Bus Stop Consolidation and Accessibility Project. To date, 15 bus stops along the corridor have been made ADA accessible, along with a range of passenger enhancement(s) placement, to include shelters, benches, trash/recycling receptacles, and lean bars.



Bus Stop 678 (After)



Bus Stop 646 (After)



Bus Stop 6000700

Location	Bus Stop Regional IDs	Improvements
Lee Highway @ N Lexington St.	#6000700	Sidewalk, Shelter, Bench, Trash/ Recycling Cans, Landing Pad
Lee Highway @ N Jefferson St.	#6000710	Sidewalk, Bench, Landing Pad
Lee Highway @ N Powhatan St.	#6000678	Landing Pad, Bench, Retaining Wall
Lee Highway @ Sycamore St.	#6000646	Landing Pad

Table 4.1 Bus Stop IDs



Figure 4.1 Block Pattern
Source: AECOM

0 0.25 0.5 Miles



Frequency of intersections can be an indicator of connectivity, walkability and traffic calming. The more streets and intersections, the healthier the urban experience is in general. This takes into account a greater opportunity to connect adjoining neighborhoods, calming traffic along Lee Highway and other major corridors while bringing people closer to more destinations.

Comparison Roadway Segment	Intersections per 1/2 Mile
Wilson Blvd - Clarendon-Ballston	7 (AVG. Block Length 370 ft.)
W Broad St. Falls Church	5 (AVG. Block Length 505 ft.)
Washington St Old Town Alex.	7 (AVG. Block Length 410 ft.)

Roadway Segment	Intersections per 1/2 Mile
Lee Hwy - Harrison to Glebe	4 (AVG. Block Length 560 ft.)
Lee Hwy - Glebe to Kirkwood	5 (AVG. Block Length 515 ft.)
Lee Hwy Kirkwood to Veitch	6 (AVG. Block Length 450 ft.)

Table 4.2 Intersection Frequency

OBSERVATIONS

- There are many instances in the planning study area where the street grid is disconnected, creating a pattern of large blocks.
- Most lots are irregular which can present challenges for establishing street connections and efficient redevelopment but can also present opportunities for unique and memorable architectural design.
- The eastern portion of Lee Highway has fewer intersections. The blocks in this area are larger in size (between 700'-1,000'), making it difficult to walk to different destinations. It is also the area with the least number of east-west streets that run parallel to Lee Highway, making the neighborhoods in this area the least connected and most dependent on Lee Highway for accessibility. New street connections through these blocks, to enhance pedestrian and vehicular access, must be considered as part of redevelopment.
- The finest grain, most connected, walkable block patterns are found in the Western portion of Lee Highway and older neighborhoods (i.e. Lyon village, John M. Langston and Cherrydale). The blocks in these areas can be between 200' and 400' long.
- In some locations, lack of connectivity is due to topographic challenges between or within neighborhoods.

THE PUBLIC REALM

SIDEWALKS



Figure 4.2 Sidewalks
Source: AECOM



In some locations where sidewalks do not exist, they may not be necessary. Neighborhood streets like the one shown above in Leeway Overlee have quiet and narrow streets that are comfortable to walk on.



Even if sidewalks exist they can seem inadequate at times along wide roadways with cars traveling at high speeds.



There is a lack of east-west connections through the different multi-family properties of Lyon Village north of Lee Highway

OBSERVATIONS

- Lack of adequate sidewalks are a problem in many parts of the planning study area, even in areas where there is good street connectivity. Some neighborhoods have narrow streets and sidewalks are not feasible. Sometimes the conditions of the sidewalks are poor.

PARCEL CONFIGURATION OVERVIEW

Just as there are variations in the streetscape conditions and building frontages, there are also variations in the configuration of lots within the planning study area.

Generally, large commercial properties along Lee Highway and other commercial streets are auto-oriented, where the parking occupies a large percentage of the site and is placed directly in front of the buildings, pushing the buildings far from the street edge. Most of these parcels only have access to Lee Highway and in many cases, have multiple access points (curb cuts) on Lee Highway. Parcels don't always share access points and parking lots don't always connect internally, creating more local traffic on Lee Highway. The exception are a few buildings within Cherrydale and East Falls Church, where the parking is in the rear of the lot, either underground or above ground as a surface lot or in an enclosed structure. These sites have access points off secondary roads, allowing the rest of the roadway network to share the burden of the traffic rather than spilling it out onto Lee Highway. In all cases, commercial properties have a high percentage of lot coverage. Lot coverage is the area of a lot covered by all impervious features (i.e. driveways, parking, structures, walkways, decks etc.) within the lot. In addition, most commercial properties provide the service and/or loading areas along the rear of the lots, which in many cases are adjacent to single family areas. The smaller commercial properties along Lee Highway have the same general configuration as the large properties, however, they have very limited site area for parking. These parcels also only have access to Lee Highway and contribute to the numerous curb cuts along the corridor.

The configuration of most multi-family residential properties in the planning study area is exactly like the conditions described above for commercial properties, except multi-family sites usually contain more green space and, therefore, have a lower percentage of lot coverage. For one and two-family housing types, parking is usually in one or two spaces along a driveway either in the front or side of the building with direct street access. The exception is those parcels with parking in the rear that are accessed off an alley or service road. One and two-family sites have a higher percentage of green space.



HIGHER DENSITY RESIDENTIAL LOT AREA ANALYSIS

Semi-detached Lots

- Number of lots: 100 (14 are irregular in shape)
- Lot width
 - Range: 16.5' – 75'
 - % of lots less than 35' wide (min. requirement): 60%
 - % of lots greater than or equal to 35' wide: 40%
 - 39% of lots are between 25' and 30' wide
- Lot depth
 - Range: 72' – 153'
 - % of lots less than 100' deep: 65%
 - % of lots greater than 100' deep: 35%
 - % of lots between 100' and 110' deep: 27%
 - % of lots between 110' and 125' deep: 2%
 - % of lots greater than 150' deep: 6%
- Lot area
 - Range: 1,669 sf – 9,556 sf
 - % of lots less than 3,500 sf (min. requirement): 58%

Observations

- Approximately 60% of the semi-detached lots are non-conforming in terms of minimum lot width. The zoning regulations require a minimum lot width of 35'. Lots that are narrow in width are also likely to be non-conforming in terms of minimum side setbacks.
- Approximately 60% of the semi-detached lots are non-conforming in terms of minimum lot area. The zoning regulations require a minimum lot area of 3500 sf.
- Approximately 65% of the lots are less than 100' in depth. The zoning regulations do not regulate lot depth.
- Smaller lots that are also less than 100' in depth have limited site area for the construction of accessory dwellings and, in some cases, on-site parking. These lots are also likely to be non-conforming in terms of minimum front setback or on-site parking.
- In order to encourage the preservation and development of semi-detached dwellings, the zoning regulations will need to be adjusted based on the size of lots that currently exist.

Duplex Lots

- Number of lots: 25 (8 are irregular in shape)
- Lot width
 - Range: 40' – 94'
 - % of lots less than 70' wide (min. requirement): 88%
 - % of lots greater than or equal to 70' wide: 12%
 - 56% of lots are between 50' and 59' wide
- Lot depth
 - Range: 88' – 212'
 - % of lots less than 100' deep: 20%
 - % of lots greater than 100' deep: 80%
 - % of lots between 100' and 110' deep: 4%
 - % of lots between 111' and 120' deep: 16%
 - % of lots between 121' and 130' deep: 24%
 - % of lots between 131' and 140' deep: 8%
 - % of lots between 141' and 150' deep: 12%
 - % of lots greater than 150' deep: 16%
- Lot area
 - Range: 3,725 sf – 10,975 sf
 - % of lots less than 7,000 sf (min. requirement): 68%

Observations

- Approximately 88% of the duplex lots are non-conforming in terms of minimum lot width. The zoning regulations require a minimum lot width of 70'. Lots that are narrow in width are also likely to be non-conforming in terms of minimum side setbacks.
- Approximately 68% of the duplex lots are non-conforming in terms of minimum lot area. The zoning regulations require a minimum lot area of 7000 sf.
- 80% of the lots are greater than 100' in depth. The zoning regulations do not regulate lot depth.
- Larger lots that are also greater than 100 in depth have more site area for construction of accessory dwellings and on-site parking.
- In order to encourage the preservation and development of duplex dwellings, the zoning regulations will need to be adjusted based on the size of lots that currently exist.

Multi-Family Lots/Parcels (Low-rise, 1-5 stories)

Some low-rise multi-family sites are single lot parcels; however, the majority are parcels with multiple lots. Parcels with multiple lots were measured as one consolidated site.

- Number of parcels: 59 (44 are irregular in shape)
- Parcel width: ranges 55' – 735'
- Parcel depth: ranges 78' – 500'
- Parcel area ranges: 6,584 sf – 159,560 sf (less than a 1/4 acre – 3.7 acres)

Observations

- Low-rise multi-family parcels range between 6,600 sf (less than a 1/4 acre) and 159,600 sf (3.7 acres) in size.
- Approximately 82% of the low-rise multi-family parcels are greater than 20,000 sf.
- In certain multi-family zoning districts (for sites with an area of more than 20,000 square feet, or with 10 or more existing dwelling units) the Affordable Housing Ordinance offers developers an additional density (25%) and height (6 stories) bonus for providing low or moderate-income housing, through the site plan approval process.

Multi-Family Lots/Parcels (Mid-rise, 6-8 stories)

Some mid-rise multi-family sites are single lot parcels; however, the majority are parcels with multiple lots. Parcels with multiple lots were measured as one consolidated site.

- Number of parcels: 10 (9 are irregular in shape)
- Parcel width: ranges 146' – 552'
- Parcel depth: ranges 110' – 748'
- Parcel area: ranges: 41,903 sf – 291, 159 sf (0.96 acres – 6.6 acres)

Observations

- Mid-rise multi-family parcels range between 41,900 sf (0.96 acre) and 291,000 sf (6.6 acres)
- All 10 mid-rise multi-family sites are greater than 20,000sf.
- In certain multi-family zoning districts (for sites with an area of more than 20,000 square feet, or with 10 or more existing dwelling units) the Affordable Housing Ordinance offers developers an additional density (25%) and height (6 stories) bonus for providing low or moderate-income housing, through the site plan approval process.

Multi-Family Lots/Parcels (High-rise, 9+ stories)

Some high-rise multi-family sites are single lot parcels; however, the majority are parcels with multiple lots. Parcels with multiple lots were measured as one consolidated site.

- Number of parcels: 4 (all are irregular in shape)
- Parcel width: ranges 120' – 653'
- Parcel depth: ranges 207' – 566'
- Parcel area: ranges: 25,966 sf – 314,923 sf (0.6 acre – 7.3 acres)

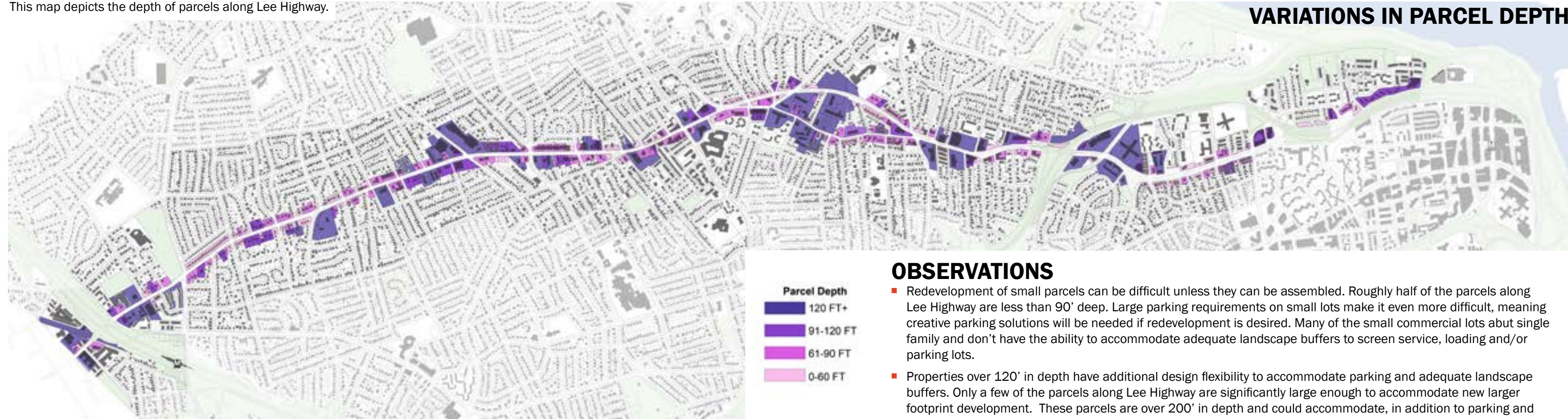
Observations

- High-rise multi-family parcels range between 26,000 sf (0.6 acre) and 315,000 sf (7.3 acres)
- All 4 high-rise multi-family sites are greater than 20,000sf.
- In certain multi-family zoning districts (for sites with an area of more than 20,000 square feet, or with 10 or more existing dwelling units) the Affordable Housing Ordinance offers developers an additional density (25%) and height (6 stories) bonus for providing low or moderate-income housing, through the site plan approval process.

PARCEL CONFIGURATION

VARIATIONS IN PARCEL DEPTH

This map depicts the depth of parcels along Lee Highway.



OBSERVATIONS

- Redevelopment of small parcels can be difficult unless they can be assembled. Roughly half of the parcels along Lee Highway are less than 90' deep. Large parking requirements on small lots make it even more difficult, meaning creative parking solutions will be needed if redevelopment is desired. Many of the small commercial lots abut single family and don't have the ability to accommodate adequate landscape buffers to screen service, loading and/or parking lots.
- Properties over 120' in depth have additional design flexibility to accommodate parking and adequate landscape buffers. Only a few of the parcels along Lee Highway are significantly large enough to accommodate new larger footprint development. These parcels are over 200' in depth and could accommodate, in addition to parking and landscape buffers, more development with appropriate building mass transitions.

Figure 4.3 Variations in Parcel Depth

Source: AECOM

VARIATIONS IN BUILDING SETBACK

This map depicts the variations in setback between buildings and Lee Highway.

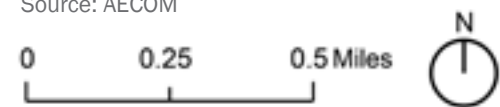


OBSERVATIONS

- The variation in setbacks works with the eclectic architectural mix of styles to create different experiences along the corridor.
- In general, buildings at corners of major intersections with Lee Highway have the greatest setbacks, which result in vast and undefined spaces.
- Vehicle speeds tend to correlate with setbacks. The closer buildings are to Lee Highway, like in Cherrydale, the slower the vehicle speed.

Figure 4.4 Variations in Building Setback

Source: AECOM



PARCEL CONFIGURATION

PARCELS WITH ACCESS ONLY TO LEE HIGHWAY

This map depicts the depth of parcels that can only be accessed from Lee Highway.



Figure 4.5 Parcels with Access Only to Lee Highway

Source: AECOM

OBSERVATIONS

- Lee Highway will remain the sole access point for many corridor properties.
- Even if curb cuts are reduced overall through redevelopment, many parcels will still only have access to Lee Highway because there is no alternate or secondary road access.

Examples of Variation in Property Access to Lee Highway

Yorktown



Old Dominion



Cherrydale



North Highlands



BUILDING FORMS OVERVIEW

A number of factors combine to result in the diverse mix of building types found along the corridor today. The economics of land value, construction costs, dramatic DC skyline views, auto-oriented commercial economy, and proximity to the streetcar at first and eventually to Metro, all influence building scale, form, and character. This in turn shapes the character and identity of our neighborhoods. In many locations along Lee Highway, building orientation and form is determined by how vehicles access the property and park. While this makes sense for successful 20th century auto-oriented destinations, the form of new development may need to change in order to meet goals of increased housing choice, improved walkability, multi-modal access and to create new places that encourage people to interact in the 21st century.

This section begins with an assessment of the building types present today and describes their pros and cons with respect to the preliminary aspirational goals. Each residential housing type (one-family, two-family, and multi-family, for example), has a variety of building typologies that vary in terms of form, scale, number of units, building design, setbacks, and location and access to parking. For non-residential uses, such as retail, commercial and mixed-use developments, there are also various building types. The building typologies found within the planning study are documented in the following section.

The relationships between structures and the spaces they create (or don't create) can either cause friction or resolve conflict. Examining the transition of uses along commercial and residential edges as well as the transition of heights between low and high intensity buildings, will help assess where there are problems that need to be addressed or avoided in the future. This will also inform how neighborhoods components can better work together as a cohesive assembly. Going forward, understanding the factors that influence form, along with the unique characteristics of each neighborhood, will help protect what makes Lee Highway communities special while accommodating growth, new destinations, and amenities.

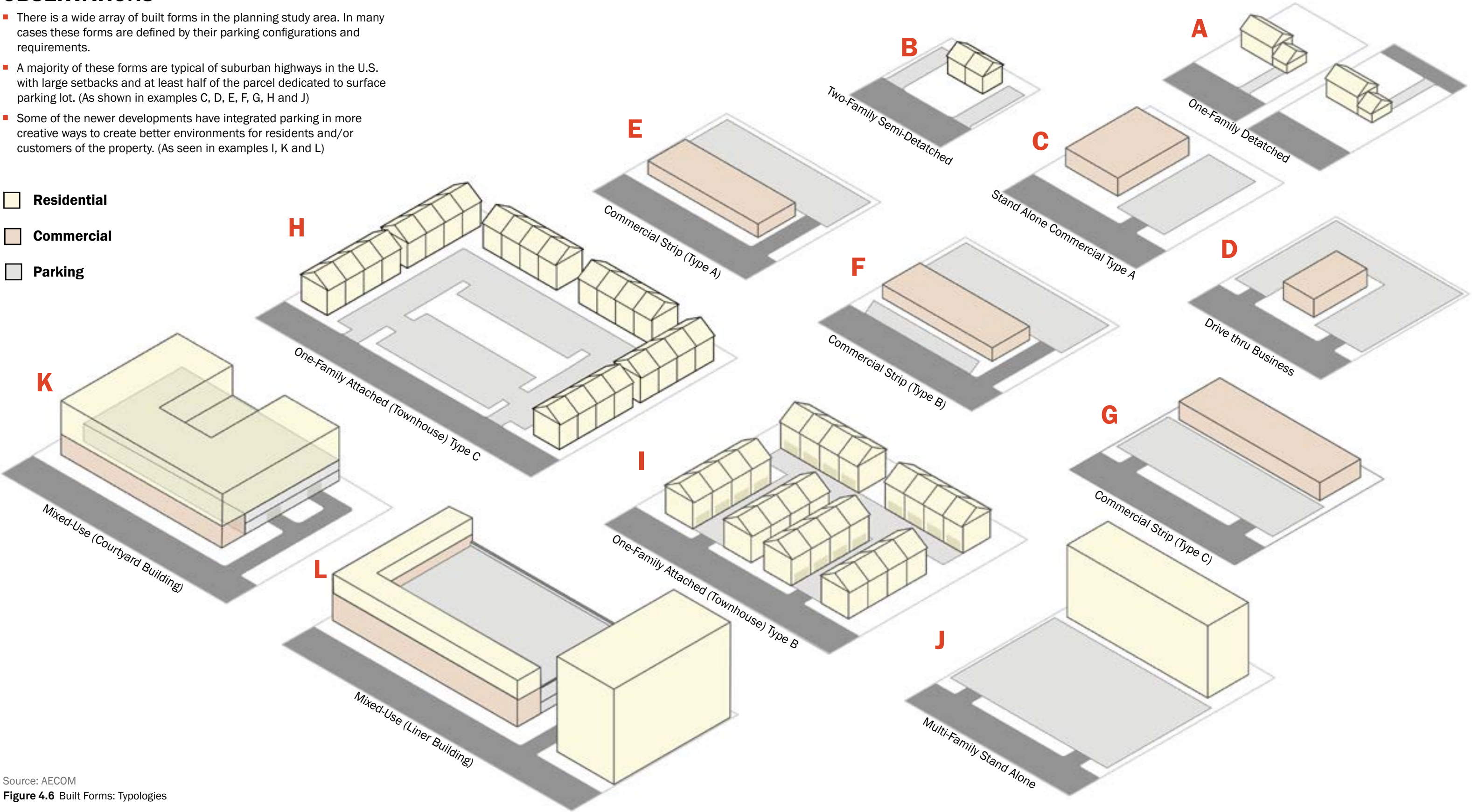


BUILDING FORMS TYPOLOGIES

OBSERVATIONS

- There is a wide array of built forms in the planning study area. In many cases these forms are defined by their parking configurations and requirements.
- A majority of these forms are typical of suburban highways in the U.S. with large setbacks and at least half of the parcel dedicated to surface parking lot. (As shown in examples C, D, E, F, G, H and J)
- Some of the newer developments have integrated parking in more creative ways to create better environments for residents and/or customers of the property. (As seen in examples I, K and L)

- Residential
- Commercial
- Parking



Source: AECOM
Figure 4.6 Built Forms: Typologies

ONE FAMILY DETACHED



A residential building containing one dwelling unit designed for one family and located on a single lot with required yards on all four sides.

- A desirable housing type with a lower density and higher purchasing price.

ONE FAMILY ATTACHED (TOWNHOUSE)

One of a series of three or more attached similar dwelling units, located on separately-owned lots or on a single lot, separated by common party walls without openings extending from basement to roof, and where each unit has its own external entrance.

TYPE A (GARAGE PARKING IN FRONT)



- This is a compact and dense single family housing type where the garage fronts the street taking up most of the ground floor. The parking backing out to the street precludes the placement of continuous trees along the street and creates an uncomfortable and unsafe pedestrian experience.

TYPE B (GARAGE PARKING IN REAR)



- Parking located at the rear of the lot, and accessed off an alley, allows for the front door, windows, stoops, porches and other architectural elements to front the street or other public spaces.

TYPE C (SURFACE PARKING LOT IN FRONT)



- Surface parking takes up valuable space and has a detrimental effect on the environment, as well as, the character of the community. When placed along the street edge, the building frontage is interrupted.

TWO FAMILY SEMIDETACHED



A residential building with two attached dwelling units located on two lots that share a common wall along the lot line and where each dwelling unit has its own external entrance.

TWO FAMILY DUPLEX



Two attached dwelling units in a single structure on a single lot with dwelling units situated either wholly or partially over or under the other dwelling unit. The building has all exterior characteristics of a one-family attached dwelling, having a single front entrance or one front and one side entrance on the first floor. Second floor access is provided by an exterior or interior stairway.

STACKED FLATS



Two attached dwelling units in a single structure on a single lot with dwelling units situated either wholly or partially over or under the other dwelling unit. The building has all exterior characteristics of a townhouse over another townhouse, each having one or two floors in height. Building has two front entrances (accessed off the street or a common open space), one half a floor above the first floor and the other half a floor below or; a single front entrance (accessed off the street or a common open space), that opens to a vestibule with separate entrances and/or stairwell to each unit.

MULTI-FAMILY
GARDEN APARTMENT COMPLEX

A cluster of two or more low-rise buildings (on one parcel in a campus like setting) arranged around a green space with a large surface parking area or a series of smaller surface parking lots. Open lawns, landscaping, and pathways are considered common areas. Some buildings have a central entrance, with an internal hallway leading to the apartments. Other buildings provide private entrances for each unit from the outside. Garden apartments usually do not provide elevators.

- Pros - Small scale, dense multifamily development that can blend in seamlessly with traditional single family homes, in terms of scale, and provide common outdoor space.*
- Cons - Takes up a lot of space due to distribution of buildings and large surface parking areas. Their inward orientation and peripheral surface parking areas can create a poor street edge and pedestrian experience.



LOW-RISE (1-5 STORIES)



LOW-RISE (1-5 STORIES)

MULTI-FAMILY
STAND ALONE BUILDING

One or two independent buildings (low to high-rise) on one parcel with surface or underground parking. Stand alone buildings are usually surrounded by surface parking and have limited green space.

- Pros - Small to large scale, dense multifamily developments.*
- Cons - Large scale developments can take up a lot of space due to large surface parking areas. High-rise structures can create issues of transition when placed adjacent to single family areas. Stand alone buildings usually do not establish a relationship with other buildings to help define the street edge.



LOW-RISE (1-5 STORIES)



MID-RISE (6-8 STORIES)



HIGH-RISE (9+ STORIES)



MULTI-FAMILY
COURTYARD BUILDING

A building characterized as having a central open space that is open to the sky and enclosed by habitable space or active uses (i.e. residential) on at least three sides. Parking is stand alone or integrated above or below ground and is screened from street view.

- Pros - Larger scale, dense multifamily development that can create tight knit walkable blocks with interior courtyards that provide private and/or common outdoor space.*
- Cons - Can create large super-blocks if allowed to become too large.



LOW-RISE (1-5 STORIES)

* Multi-family development can provide young professionals and families, on the lower end of the income brackets, an affordable place to live. Below grade parking, however, can add to condo or rental costs. Denser development can also provide more patrons for local businesses in close proximity.



COMMERCIAL STRIP TYPE A (PARKING IN REAR OR SIDE)

- Buildings are placed closer to the street with storefronts accessed directly off the sidewalk. Parking is located in the rear or side of building.
- Pedestrian oriented



COMMERCIAL STRIP TYPE B (PARKING IN REAR OR ON-STREET)

- Building is setback slightly to provide outdoor seating. A single (teaser) row of parking is provided along the street.
- Pedestrian and auto-oriented



COMMERCIAL STRIP TYPE C (PARKING IN FRONT)

- Building is setback significantly with a single (teaser) or double row of parking in the front yard.
- Auto-oriented



COMMERCIAL SHOPPING CENTER

- This commercial building type usually includes numerous small retail locations anchored by a large tenant, such as a grocery store.
- In front of the building is a large parking lot.
- Auto-oriented



DRIVE-THROUGH BUSINESSES

- Gas stations, fast food and banks make up the majority of this single use building type.
- The wide curb cuts associated with this building type can hinder walkability.
- Auto-oriented



AUTO SERVICE & REPAIR SHOPS

- Includes garage building and car lot.
- The lack of a buffer between the sidewalk and parking makes pedestrians feel unwelcome.
- Auto-oriented



AUTO DEALERSHIP

- Includes large car lot and dealership building.
- Auto-oriented



**STAND ALONE COMMERCIAL BUILDING
TYPE A (SMALL FLOORPLATE)**

- Typically small retail shops and services.
- This building type can blend in seamlessly with traditional single family homes, in terms of scale.
- When parking is provided in the rear, this building type can encourage pedestrian activity.



**STAND ALONE COMMERCIAL BUILDING
TYPE B (LARGE FLOORPLATE)**

- Typically a large grocery store or pharmacy.
- This building type requires a large parking lot for its single use, which is usually located along the front or side of the building.
- Auto-oriented



**STAND ALONE OFFICE BUILDING
TYPE A (SMALL FLOOR PLATE)**

- This building type can blend in seamlessly with traditional single family homes, in terms of scale.
- Parking is located in the front or rear. When parking is provided in the rear, this building type can encourage pedestrian activity.



**STAND ALONE OFFICE BUILDING
TYPE B (LARGE FLOOR PLATE)**

- Parking is located on a surface lot or below grade.



STAND ALONE HOTEL BUILDING

- Parking is located either on a surface lot, surrounding the building, or in an adjacent garage.

MIXED-USE STAND ALONE BUILDING

A single building (low to mid-rise) on one parcel with surface parking in the rear or underground. Stand alone mixed use buildings are placed close to the street edge.



LOW-RISE (1-5 STORIES) TYPE A (SMALL FLOORPLATE)

- Classic Main Street type building - Ground floor commercial with 1 or 2 stories of office or residential above and parking in the rear.



LOW-RISE (1-5 STORIES) TYPE B (LARGE FLOORPLATE)

- Ground floor commercial with 1 to 4 stories of office or residential above and parking in the rear or underground.

BUILDING FORMS MIXED-USE

Mixed use building definition:

A building constructed to accommodate more than one use category such as, but not limited to, ground floor retail and upper-story residential or office uses, or lower-story hotel and upper-story residential uses.

MIXED-USE COURTYARD BUILDING

A building characterized as having a central open space that is open to the sky and enclosed by habitable space or active uses (i.e. residential, office) on at least three sides. Parking is stand alone or integrated above or below ground and is screened from street view.



LOW-RISE (1-5 STORIES)

- Ground floor commercial with 1 to 4 stories of office or residential above.



MID-RISE (6-8 STORIES)

- Ground floor commercial with 5 to 7 stories of office or residential above.

MIXED-USE LINER BUILDING

A building that conceals an above ground garage (or other non-active use) with habitable space or active uses (i.e. residential, office). Parking is stand alone or integrated.



LOW-RISE (1-5 STORIES)

BUILDING FORMS HEIGHT



Figure 4.7 Building Forms: Height
Source: AECOM



OBSERVATIONS

- Current building heights vary greatly along the corridor.
- Nearly all buildings fronting on Lee Highway are 4 stories or less.
- Most taller buildings are set back significantly.
- High-rise buildings (86 ft. +) are only in a few locations including, Waverly Hills, and North Highlands.

■ Residential
 ■ Commercial
 ■ Mixed-Use
 ■ Institutional



EAST FALLS CHURCH



LEE HARRISON



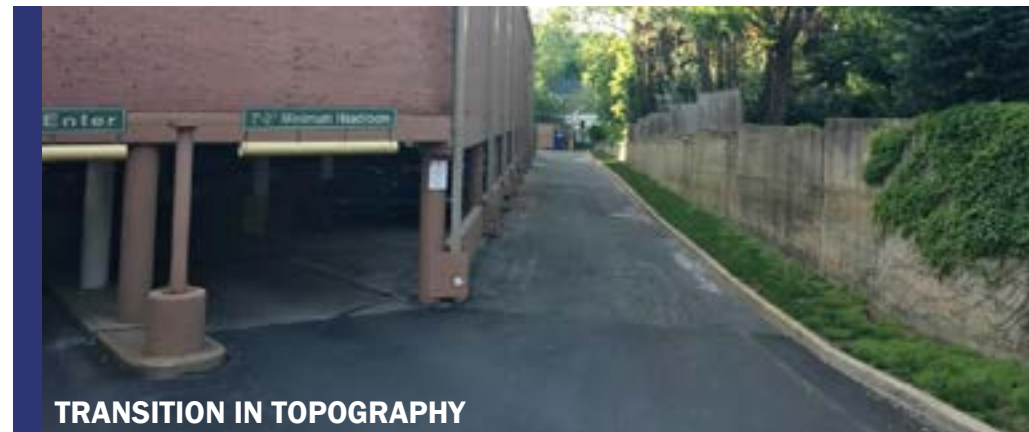
GARDEN CITY

Figure 4.8 Transitions: East Falls Church, Lee Harrison, and Garden City
Source: AECOM

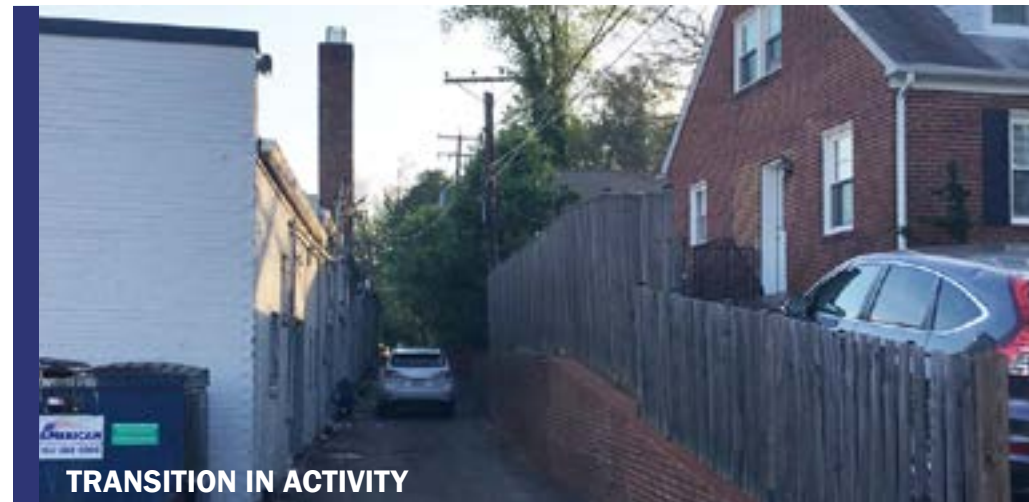


TRANSITION IN BUILDING HEIGHT

- In East Falls Church, recent mixed-use infill development relates well to adjacent existing neighborhoods by placing buildings of greater mass and height away from existing single family. Townhomes are also used as a transitional building type.
- A new mixed-use building steps down gradually (2 stories) along single family transitions and courtyard spaces help to break up massing.
- The convergence of Lee Highway, the W&OD Trail, Washington Blvd, and I-66 create a connected hub with proposed building heights ranging from 4 to 9 stories.



TRANSITION IN TOPOGRAPHY



TRANSITION IN ACTIVITY

- The Lee Harrison shopping center, for example, uses the topography to reduce impacts of service areas to adjoining neighborhood.
- Commercial parking needs can create challenges for adjoining neighborhoods during peak demand as business patrons may use neighborhood streets to park.
- Many commercial parcels along Lee Highway are very shallow and their service areas (i.e. trash and loading) are close to single family, leaving little space for landscape buffers.



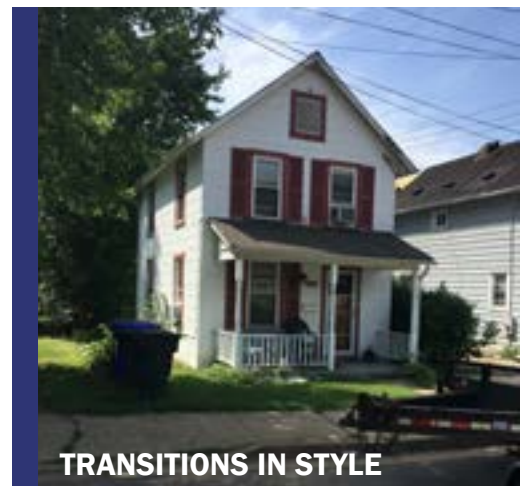
TRANSITION IN ACTIVITY

- While the service areas in the Garden City shopping center are further away from single family, the higher elevation of the commercial properties make the service areas more apparent. Buffers here are insufficient and don't reduce impacts.

Residential
 Commercial
 Mixed-Use
 Institutional



Figure 4.9 Transitions: John M. Langston and Waverly Hills
Source: AECOM



- An eclectic mix of styles can be a strength when the diversity of styles have a harmonious relationship in a similar scale.
- Reinvestment in older building stock helps to maintain neighborhood character. Infill development keeps development pattern and building forms small, which are suitable in this neighborhood.

- There are good examples of landscape transitions creating beneficial buffers.
- In some cases the width of a building can cause it to seem out of character with adjacent properties and limit pedestrian connectivity.
- There is a less than ideal transition in activity between the Avalon residential property and the service area of the adjoining commercial area.

- The taller residential buildings in the Waverly Hills area were designed to capture views of DC.
- There are abrupt transitions between buildings of different scales (9 stories vs. 2 stories).
- Setting the taller buildings back from the street and property line improves the transition to smaller adjacent buildings.
- Lee Highway has a much more walkable character in Old Dominion due to the width of the street, the proximity of the buildings to the street, street trees, and lighting.

■ Residential
 ■ Commercial
 ■ Mixed-Use
 ■ Institutional



CHERRYDALE



NORTH HIGHLANDS (WEST)



NORTH HIGHLANDS (EAST)

Figure 4.10 Transitions: Cherrydale, North Highlands West, and North Highlands East
Source: AECOM



TRANSITIONS IN TOPOGRAPHY

- Newer development in Cherrydale uses the topography to mitigate impacts of scale.
- The proximity of buildings to the street creates more of a traditional main street relationship here than in other parts of the corridor.
- Townhomes are used successfully to transition between multi-family and single family building types on N. Pollard Street



TRANSITIONS IN SCALE

- This segment of the corridor contains many tall buildings in close proximity to single family and townhouse development.
- In some cases, topography is used successfully to minimize the impacts of taller buildings .
- Buildings on the north side of Lee Highway are significantly taller than the buildings on the south side.



TREES CREATING COHESION

- Height and scale between single and multi-family buildings are relatively compatible and consistent in this area.
- Trees throughout the neighborhood help create a cohesive character between buildings of different age, style and density.

Transportation and Connectivity

OVERVIEW

An effective transportation system does far more than just provide a network of roads or get people from A to B - it enables and encourages a desired daily life in cooperation with land use. In doing so, it makes the best use of existing streets and rights-of-way (ROW) to move people, goods, and services safely, efficiently, and when feasible, through various modes of travel. It seeks to protect travelers and neighborhoods from traffic speeds that are incompatible with adjacent uses which can result in crashes, leading to personal injury and or property damage. It also incorporates environmental considerations into every street-related decision to effect a positive change in the environment and public health, and to respect the existing character of local neighborhood streets.

The roadway system in the planning study area includes a combination of State and County-owned and operated roads. The Virginia Department of Transportation (VDOT) is responsible for asphalt maintenance and traffic signs on Lee Highway, I-66, N. Glebe Road, Spout Run Parkway (Lee Highway to Lorcom Lane), Washington Boulevard (North Glebe Road to Lee Highway) and Old Dominion Drive. The Federal Government is responsible for Spout Run Parkway (Lorcom Lane to George Washington Memorial Parkway). All other streets are County-owned and operated. The County is responsible for maintenance and operations of all traffic signals and related infrastructure on both the primary and secondary roads.

This section examines the existing conditions of the planning study area's transportation system, including:

- Street Network and Connectivity
- Lee Highway Street Configuration and Streetscape Elements
- Lee Highway Operations (i.e. Traffic volumes and travel times)
- Pedestrian Network and Connectivity
- Bicycle Network and Connectivity
- Transit Network and Connectivity
- Ride Sharing Options
- Opportunities for Multi-modal Connectivity
- Parking

This section takes into account the committed and planned transportation improvements; the I-66 widening and addition of HOT (express) lanes; VDOT Roadway Functional Classification, VDOT and AASHTO standards, Roadway Design Manual and Multi-modal Design Guidelines; the County's Street Typology Design Guidelines; and the County's Multi-modal Needs Assessment for Lee Highway. It evaluates traffic and other existing conditions to identify opportunities and challenges for achieving preliminary aspirational goals and key considerations. VDOT's design standards, the County's street typology design guidelines and preliminary aspirational goals will be compared to identify areas of alignment, conflict and need for flexibility when considering future improvements to the Lee Highway corridor. Further discussion with

Preliminary Aspirational Goal

In close coordination with VDOT, redesign Lee Highway into a complete street that better serves all modes of travel, while recognizing its continued role as a commuter corridor. Strive to achieve a multimodal corridor that encourages bus ridership through land use recommendations and transit-oriented urban design principles. Improve walkways and overall pedestrian and bicycle connectivity throughout the study area. Examine ways to right-size parking, improve transit access, and promote alternative modes of travel. Enhance safe routes to school and access to public space.

2016 Vision Study Principle*

Be 'Complete', with safe access for pedestrians, cyclists, transit riders, and drivers, as well as improved streetscape design.

2016 Vision Study Recommendations*

- Establish working relationship with VDOT
- Balance the need of all modes
- Enhance walkability through continuous connections
- Improve traffic flow
- Reduce reliance on single occupancy vehicles
- Reduce travel speed and calm traffic
- Enhance cycling routes – either on or parallel to Lee Highway
- Enhance transit service, improve bus stops, increase frequency, add routes

KEY DOCUMENTS + TAKEAWAYS

VDOT will be needed to identify areas where additional flexibility is feasible to better achieve the plan goals.

Arlington County Master Transportation Plan (Adopted 2008 and amended through 2017)

The County's Master Transportation Plan (MTP) takes the long view in promoting effective travel and accessibility for the County's residents, workers, and visitors through the year 2030. It provides a policy framework to guide the development of projects and programs, advance the County's goals and objectives, and help direct investment. The MTP, along with the GLUP, is designed to ensure that land use and transportation planning are integrated.

The MTP contains three elements:

- MTP Goals and Policies document, which includes a transportation vision for Arlington, guiding planning principles, goals and strategies and policy statements. General Transportation Policies:

- Integrate Transportation with Land Use
- Support the Design and Operation of Complete Streets
- Manage Travel Demand and Transportation Systems
- MTP map which illustrates key existing transportation facilities and planned system improvements. Also included on the map are typologies of streets and general locations for proposed new arterial and local streets.
- Additional Modal Elements that provide detailed information in the following areas: Transportation Demand and System Management, Transit, Streets, Parking and Curb Space Management, Pedestrians, and Bicycles.

The MTP establishes policies for the creation of Complete Streets with the following purpose:

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

The MTP does not recommend widening or taking of right-of-way

"Unlike previous Arlington long-range transportation plans, the existing 2007 MTP does not propose the acquisition of substantial new right-of-way or an increase in road-widening efforts. Rather, the 2007 MTP seeks to use existing rights-of-way more efficiently through greater usage of group-riding, public transit and non-motorized transport (Transportation Demand Management), more-effective management of existing street capacity (Transportation System Management) and more-effective integration and balancing of travel modes through the implementation of Complete Streets."

The MTP establishes policies for enhancing the existing street network

"Maintain and enhance a grid-style street network. Facilitate desired creation, realignment or relocation of existing streets as appropriate, including through vacation of existing and acquisition of new street right-of-way. Enhance the connectivity of the existing street network by constructing new streets with redevelopment of large blocks and avoiding permanent closures or other reductions in street connectivity. Whenever feasible, new streets should be publicly-owned. Privately-owned streets should have in place agreements with the County regarding their maintenance and provision for public access. Seek to manage privately-owned streets in the same manner as those publicly-owned, including such areas as parking regulation."

Arlington Master Transportation Plan - Bicycle Element Update (2019)

In April 2019, the County Board approved an update to the MTP Bicycle Element and an amendment to the MTP Map depicting the Arlington Bike and Trail Network, which details current bikeways and the bicycle network under the Bicycle Element update. Within the MTP's Goals and Policies document, there are nine transportation policies regarding biking. These nine policies are grouped into five categories - completing the bikeway network, increasing bicycle use, enhancing safety, managing and maintaining facilities, and integrating bicycling with other modes. For these five categories, implementation actions are identified to provide details on how best to achieve the stated outcomes.

Lee Highway Multi-Modal Needs Assessment (2015)

The Multi-Modal Needs Assessment analyzed a section of Lee Highway from Spout Run Parkway to North Lexington Street. It preceded the Visioning Study and was intended to help identify future improvements, immediate and longer-term, while providing guidance on how the improvements could be implemented. The future improvements were organized into three sets of prioritized needs and project types: near-term improvements appropriate for implementation by the County regardless of the status/outcome of the vision plan; near-term and mid-term improvements appropriate for implementation in coordination with the private sector; and longer-term, larger-scale improvements that would be identified through the visioning and/or planning process or General Land Use Plan amendments. Examples of improvement projects include:

- Install highly visible crosswalks (continental style) in the few locations lacking a highly-visible treatment
- Install rectangular rapid flash beacons at several unsignalized intersections with high pedestrian volumes (if warranted by an engineering study)
- Remove utility poles that obstruct the sidewalk right of way
- Install missing sidewalk or increase the sidewalk width
- Add pedestrian islands to reduce crossing length (if warranted by an engineering study)

Source: https://www.mwcog.org/assets/1/6/LeeHwyTLCReportwithAppendices_7.2.15-Compressed.pdf

*The County will continue to seek community feedback to validate and refine the 2016 Vision Study principles and recommendations and the County's Preliminary Aspirational Goals throughout the Plan Lee Highway process.

OVERVIEW (CONTINUED)

Impacts from I-66 Changes

VDOT has been monitoring changes in travel time/speed along Rte 29 to determine how the tolling changes to I-66, beginning in December of 2017, have influenced circulation patterns. The reports published between December 2017 and August 2018 show the Rte 29 travel speed has consistently increased while travel time along the corridor decreased.

Source: http://66expresslanes.org/documents/august_2018_performance_report_for_i-66_express_lanes_inside_the_beltway.pdf

Committed and Planned Transportation Improvements in the Planning Area

- VDOT is currently building a pedestrian and cyclist bridge to carry the W.&O.D. Trail over Lee Highway.
- The Lee Highway and Washington Blvd. Bus Stop Consolidation and Accessibility Improvements Project is upgrading some bus stops and pedestrian waiting areas while removing underutilized stops and performing spot improvements at key crossings and ramp locations.
- The Lee Highway and Glebe Rd Intersection improvements Project addresses under grounding utilities as well as sidewalk and crossing upgrades near the intersection.
- A new sidewalk was recently constructed along the south side of Old Dominion Dr. Across from Dorothy Hamm Middle School.
- Bus bays and pedestrian access improvements will be added at the East Falls Church Metro Site
- A northern Entrance to the East Falls Church Metro Station from the Washington Blvd. Bridge over I-66.
- Custis Trail Improvements near Gateway Park are nearly complete.
- Recent pedestrian and lane allocation improvements were made to the 5-points intersection in Cherrydale.
- Lee Highway (at Lynn Street) improvements: Custis Trail widening, Lee Highway intersection improvements.

Vehicle Availability

American Community Survey responses can be used to obtain a general understanding of vehicle usage patterns and commuting behaviors within the planning area. These patterns and behaviors can also be compared to other nearby areas to help identify opportunities and challenges relative to meeting plan goals. The following charts list this information by geography, which includes the parts of the County that lies directly north and south of the Lee Highway planning study area boundary. The Rosslyn-Ballston (RB) Corridor is a geographic area defined by the County's General Land Use Plan.

Nearly 80% of households in the R-B Corridor, Lee Highway and South Arlington have one or two vehicles available per household. North Arlington has the least number of households with only one vehicle, as compared to the other areas, and the highest percentage of households with two or more vehicles. Lee Highway has the second highest percentage of households with two or more vehicles.

Commuting Trends

Most Lee Highway Commuters (60 percent) drive alone to work, and an even higher percentage (approximately 70 percent) of North Arlington Commuters drive solo. Commuters use public transit in the R-B corridor at nearly twice the rate of those who live along Lee Highway, but car-pooling rates are similar between the two geographies. A slightly higher percentage of Lee Highway commuters bike to work than workers in both adjoining neighborhoods and in the County as a whole. The R-B corridor has a significantly higher rate of pedestrian commuting (10 percent of workers) than any of the other geographies analyzed.

Household Vehicle Availability (Percentage & Total) Based on Geography (Includes Renters & Owners)

	North of Study Area		RB Corridor		Lee Highway		South of Study Area		Arlington County	
	%	Total	%	Total	%	Total	%	Total	%	Total
No vehicle available	1.4%	92	17.6%	4,812	6.9%	651	13.9%	11,955	12.4%	12,698
1 vehicle available	17.8%	1,171	57.8%	15,796	40.5%	3,828	50.6%	43,669	47.6%	48,689
2 vehicles available	53.0%	3,483	20.3%	5,551	39.1%	3,696	27.7%	23,934	30.4%	31,127
3 vehicles available	21.8%	1,431	3.4%	917	9.5%	899	5.9%	5,077	7.2%	7,409
4 vehicles available	5.2%	345	0.8%	220	3.0%	280	1.2%	1,074	1.7%	1,699
5 or more vehicles available	0.8%	55	0.2%	47	0.9%	88	0.6%	545	0.7%	688

Source: ESRI Business Analyst Online, 2013 - 2017 ACS Estimates

Summary

	North of Study Area		RB Corridor		Lee Highway		South of Study Area		Arlington County	
	%	Total	%	Total	%	Total	%	Total	%	Total
No vehicle available	1.4%	92	17.6%	4,812	6.9%	651	13.9%	11,955	12.4%	12,698
One or more vehicles available	98.6%	6,485	82.4%	22,531	93.1%	8,791	86.1%	74,299	87.6%	89,612

Source: ESRI Business Analyst Online, 2013 - 2017 ACS Estimates

Table 5.1 Household vehicle availability (total and percentage) based on geography

Workers Age 16+, Means of Transportation to Work

	North of Study Area	Lee Highway	RB Corridor	South of Study Area	Arlington County
Population	19,655	23,358	51,429	186,462	229,534
Households	6,576	9,443	27,343	86,254	102,310
Total Workers	8,919	14,177	38,009	121,875	145,017
Drove alone	70%	60%	42%	51%	53%
Carpooled	7%	6%	4%	6%	6%
Public Transportation	7%	21%	37%	28%	26%
Bus or trolley bus	1%	6%	6%	8%	8%
Metro	7%	14%	31%	19%	18%
Taxicab	1%	1%	0%	0%	0%
Motorcycle	0%	0%	0%	0%	0%
Bicycle	2%	3%	1%	2%	2%
Walked	1%	3%	10%	6%	5%
Other means	0%	1%	1%	1%	1%
Worked at home	12%	7%	5%	6%	7%

Source: ESRI Business Analyst Online, 2013 - 2017 ACS Estimates

Table 5.2 Means of transportation to work

OVERVIEW (CONTINUED)

Virginia Department of Rail and Public Transit (DRPT)

The Virginia Department of Rail and Public Transit (DRPT) published a series of guidelines in 2013 for planning and designing multi-modal transportation facilities in concert with walkable places and transit-oriented development. The Multimodal System Design Guidelines were created in coordination with VDOT and is incorporated into the Road Design Manual in Appendix B2. The Guidelines are currently being updated and have three major goals:

- Create a statewide resource for local planners, engineers, designers, policy and decision makers, and anyone else engaged in multimodal planning throughout Virginia.
- Identify integrated land use, transportation and urban design approaches to support multimodal mobility.
- Provide guidelines to help planners optimize transit investments and reduce reliance on single occupancy vehicles

While the guidelines depict possible solutions that can improve multi-modal circulation within public streets, they do not intend to prescribe a particular design or mobility service type. They do describe potential treatments for streetscape renovations and new roadways, based on the combination of the priority modes of transportation to be accommodated (Modal Emphasis) and the anticipated intensity/density of a proposed activity in a multimodal center.

The guidelines describe **Modal Emphasis** as “the designation of one or more travel modes that should be emphasized in the design of the cross-section for a corridor. It is important to note, however, that Modal Emphasis does not mean that other travel modes are excluded; other modes should still be accommodated in a Multimodal Corridor. For example, a corridor that passes through a dense urban downtown that is walkable, bikeable and has extensive transit service could be designated with Modal Emphases of Pedestrian, Bicycle and Transit. By contrast, a corridor that carries a lot of high-speed auto traffic and premium commuter transit service but few bicyclists and pedestrians could be designated with only a Transit Modal Emphasis, but may still accommodate other modes in some fashion.” In the case of Lee Highway, the Modal Emphasis will be determined through the recommendations of county-wide plans as well as stakeholder and public engagement.

The guidelines also define a series of Multi-Modal center typologies based on a number of factors including **Activity Density**. Activity Density is a measure of population and employment density and is expressed in terms of (jobs plus population) per acre. The following excerpt table from the guidelines lists the activity density ranges for the transect of typologies as well as other metrics.

MULTIMODAL CENTER INTENSITY			
Center Type	Activity Density (Jobs + people/acre)	Gross Development FAR (residential + non-residential)	Net Development FAR (residential + non-residential)
P-4 Urban Core	70.0 or more	1.0 or more	1.6 or more
P-5 Urban Center	33.75 to 70.0	0.5 to 1.0	0.8 to 1.6
P-4 Large Town or Suburban Center	11.75 to 33.75	0.21 to 0.5	0.3 to 0.8
P-3 Medium Town or Suburban Center	6.63 to 11.75	0.10 to 0.21	0.15 to 0.3
P-2 Small Town or Suburban Center	2.13 to 6.63	0.03 to 0.10	0.05 to 0.15
P-1 Rural or Village Center	2.13 or less	0.03 or less	0.05 or less
SP Special Purpose Center	Varies	Varies	Varies

Table 5.3 Multimodal center intensity excerpt from the DRPT Multimodal System Design Guidelines. (2013) page 46

As a point of reference, the Activity Density of the Lee Highway study area today is approximately 23. This number generally corresponds to the P-4 *Large Town or Suburban Center* typology. It is important to note that some portions of the corridor may have a higher or lower Activity Density than the study area as a whole. For context, the P-4 typology is summarized as follows.

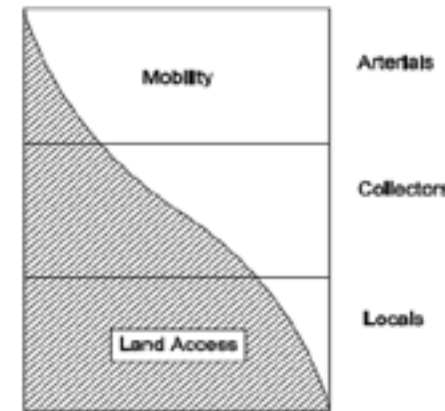
P4 LARGE TOWN/SUBURBAN CENTER SUMMARY TABLE	
ACTIVITY DENSITY ((jobs + people)/acre)	14 to 34
GROSS DEVELOPMENT FAR (residential + non-residential)	0.2 to 0.5
NET DEVELOPMENT FAR (residential + non-residential)	0.3 to 0.8
SUPPORTED TRANSIT TECHNOLOGY	Express Bus
Height of Buildings	3 story average 6 story typical maximum

Table 5.4 Multimodal center intensity excerpt from the DRPT Multimodal System Design Guidelines. (2013) page 54

It is important to note that while those factors are based on relevant state-wide examples, the characteristics of a particular location and context may cause stakeholders to come to a different conclusion on the appropriate supported transit technology, building height or development intensity. The guidelines provide a helpful context in benchmarking a particular location against others in the state and in starting conversations with stakeholders.

AASHTO Policies/Standards

The American Association of State Highway and Transportation Officials (AASHTO), is a standards setting body which publishes specifications, quality control protocols and guidelines that are used in highway design and construction throughout the United States. Despite its name, the association represents not only highways but air, rail, water, and public transportation as well. AASHTO informs VDOT policies and technical requirements for all VDOT roads. The diagram below illustrates how AASHTO views the role of different types of roadways on a spectrum ranging from providing land access to frequent destinations along a roadway to providing mobility between major destinations at the ends of the road.



Source: 2011, AASHTO, A Policy on Geometric Design of Highways and Streets, Chapter 1, Section 1.2.3, page 1-7



Source: Arlington County Master Transportation Plan (2017) and Bike Element Update



Figure 5.1 VDOT Roadways Functional Classifications
 Source: <http://www.arcgis.com/home/webmap/viewer.html?webmap=3eca6c9adb6649c988d98734f85baddb>

Design Criteria	Standard	Potential Variance	Potential Rationale for Variance
Design Speed	30 mph min.	25 mph if approved by FHWA	Area near congested Interstate interchange
Lateral Offset between face of curb and vertical features/obstruction (edge of sign, poles, lights, etc.)	2 feet min.	18" minimum; 3 feet minimum at intersections and driveway openings.	18" is already a variance for urban conditions / standard in MUTCD.
Clear Zone (lateral offset does not satisfy clear zone)	14-16 feet	4 - 6 feet minimum (depending on objects and whether items are breakaway design)	Urbanized area with lower operating speeds
Minimum lane width	11' 12' at interchange locations 12' to be considered for heavy bus traffic	10' for inner lane if not frequently traveled by heavy trucks and if outer lane is 11' wide	Footnotes within manual allow for 10' variance in case by case situations based on context, and truck restrictions.
Minimum gutter pan width	24" width outside of travel lane as per detail CG-6 or CG-7 or equivalent approved Arlington County Design	Detail CG-2 and CG-3 does not have dedicated space for the gutter pan* Or Arlington's approved curb design.	Potential to consider asphalt bike lane up to the face of curb instead of dedicated concrete gutter pan to be explored further.

*since gutter pans serve hydraulic function, eliminating gutter pan necessitates other measures given hydraulic standards for roadways.

Table 5.5 Summary of Select VDOT Guidance For Urban Principal Arterials Within the Roadway Design Manual

December 2019

VDOT Road Design Manual

VDOT's Road Design Manual establishes specific design standards for lane width, clear zone widths, intersection spacing and signalization.

"The application of the criteria provided in the geometric design standard tables must be made in relation to their effect on the roadway system and in conjunction with sound engineering judgment to ensure an appropriate design. The economic, environmental and social factors involved in highway design shall also be considered. The designer should always attempt to provide for the highest degree of safety and best level of service that is economically feasible. The "minimum" design criteria shown in the tables should only be used when overriding economic or environmental considerations so dictate.

Flexibility in Design: The policies and procedures addressed in IIM-LD-235 (Context Sensitive Solutions) and IIM-LD-255 (Practical Design Flexibility in the project development process) are intended to clarify and emphasize VDOT's commitment to project and program development processes that provide flexibility, innovative design and Context Sensitive Solutions (CSS) to transportation challenges."

Source: Roadway Design Manual Appendix A. <http://www.virginiadot.org/business/locdes/rdmanual-index.asp>

OBSERVATIONS

- All roadways have a functional classification. VDOT's Transportation and Mobility Planning Division (TMPD) determines the functional classification according to federal guidance that takes into account type of trips, expected volume, what systems the roadway connects and whether the proposed functional classification falls within the mileage percentage thresholds established by the Federal Highway Administration (FHWA)."
- The FHWA classifies Lee Highway as a National Highway System Route (NHS). The NHS includes the Interstate Highway System as well as other roads important to the nation's economy, defense, and mobility. The NHS was developed by the Department of Transportation (DOT) in cooperation with the states, local officials, and metropolitan planning organizations (MPOs).
- VDOT classifies Lee Highway as an Other/Urban Principal Arterial, similar to Glebe Road, Wilson/Clarendon Blvd. and Route 7. These arterials are intended to:
 - serve the major activity centers of a metropolitan area and the highest traffic volume corridors,
 - carry a high proportion of total urban travel on the minimum amount of mileage,
 - provide continuity for major rural corridors to accommodate trips entering and leaving an urban area,
 - carry a significant amount of intra-area travel, and,
 - serve demand between the central business district and outlying residential areas of a metropolitan area."

Source: http://www.virginiadot.org/Functional_Classification_Comprehensive_Guide.pdf

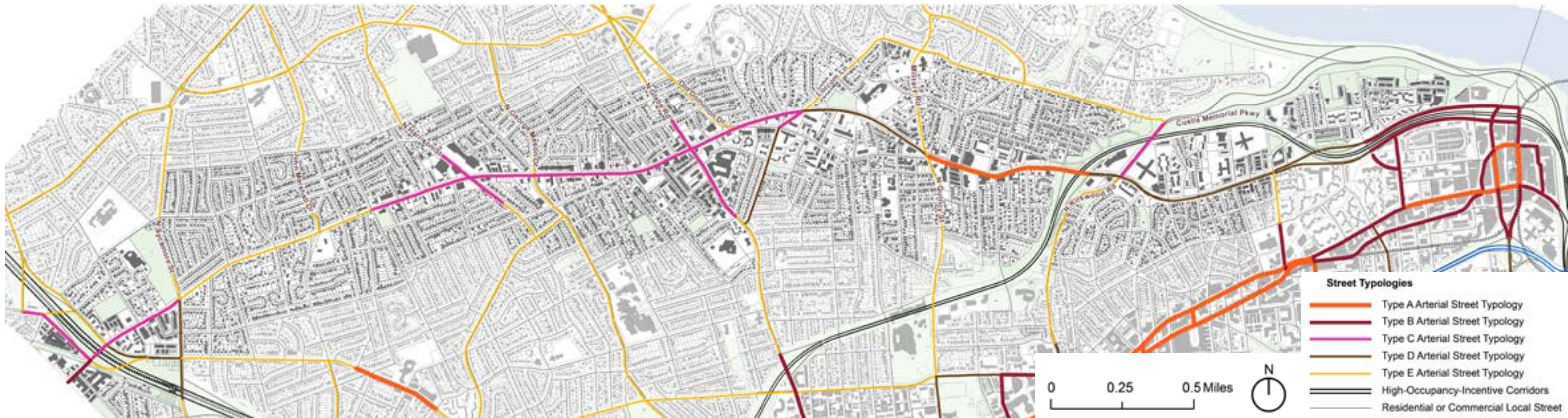


Figure 5.2 Arlington County Street Typologies
Source: Arlington County Master Transportation Plan, 2017

Arlington County Street Typologies

Each of Arlington’s roadways has been placed into one of three categories - controlled-access highways, arterial streets (principal and minor) and local streets (non-arterial principal and minor) - based upon definitions used across the United States to categorize streets by their travel function. The primary determinant of a street’s category is the degree to which vehicular travel on a street is for access to the immediate or proximate properties. Controlled-access highways (i.e. I-66, I-395, George Washington Memorial Parkway, Arlington Boulevard) are major highways/facilities that are owned and/or managed by state and federal agencies for regional, state, and national purposes. Arterial streets (i.e. Lee Highway, N. Glebe Rd., N. Harrison Street) are those that primarily provide for “through” travel rather than solely for access to adjacent properties. Streets upon which most of the vehicular traffic is generated by, or destined to the immediate properties, are identified as “local” streets. Typically, residential and commercial streets are local. The functional classification system is focused exclusively on vehicles, as opposed to taking all modes of travel into account, and only distinguishes between higher-and lower-order streets. The County uses the functional classification of streets to guide operational and maintenance priorities.

To augment the existing functional classification system, the MTP establishes a set of street typologies and design criteria for both

arterial and local streets. The typologies have been developed to enable the County, its residents, and its businesses to understand streets in terms of their land use and multimodal function, not just their motor vehicle function. This approach takes into account the broader aspects of street function, such as framing building lots, setting block lengths, providing public space, and accommodating public transit and bicycle and pedestrian travel in recognition of the adjacent land uses.

The Streets Modal Element of the MTP provides guidance on typical street elements (number of travel lanes, median priority, target speed, transit service, bike accommodations, driveway access, on-street parking priority) and desired dimensional thresholds for the pedestrian way (sidewalk, furniture zone and landscaping) to complement the street typology’s land-use context and function. These recommendations are the principal guide for the rebalancing, redesigning and rebuilding of all streets to become Complete Streets that accommodate all expected transportation users and also take into account the scale and character of the streets’ settings. Complete Streets do not necessarily entail dedicated facilities for each mode (e.g., transit lane, bike lane, sidewalk), particularly on lower-volume streets. However, Complete Streets do ensure that travel by all modes is accommodated in a manner appropriate to the context of the street. Factors such as existing and planned land-use

types and intensities, right-of-way availability, travel demand, transit operations, neighborhood character, historic designations, presence of mature trees, topography, and community concerns are also considered in the development of the final dimensions and design of any street.

In the planning study area, Lee Highway is identified on the MTP map as an arterial street typology with five sub-types (Types A-E). The controlled-access highways, I-66 and Potomac River bridges, are further identified on the map as high-occupancy-incentive corridors. The local streets in the planning study area are neighborhood residential and commercial streets.

Arterial Street Typologies

Type A - Primarily Retail Oriented Mixed Use. An arterial street segment that serves (or is planned to serve) a dense commercial area and is fronted by (or planned to be fronted by) predominantly high-intensity, ground-level retail and consumer service. It is highly oriented to pedestrian, bicycle, and transit access with wide sidewalks, bike lanes, and transit stops prioritized over motor vehicles’ travel space and parking.

Type B - Primarily Urban Mixed Use. An arterial street segment

that serves (or is planned to serve) a dense mixed-use area that is fronted by (or planned to be fronted by) a variety of commercial, institutional, government, and/or residential uses. The street design emphasizes pedestrian, transit, and bicycle travel with adequate facilities provided within the street right-of-way.

Type C - Primarily Commercial Center. An arterial street segment that serves (or is planned to serve) a low- or medium-density commercial area that may be equally oriented to retail stores, service and industrial use. This street emphasizes transit and motor vehicle travel, including truck movement.

Type D - Primarily Garden Apartments and Townhouse Neighborhoods. An arterial street segment that serves (or is planned to serve) a primarily residential area with medium to high densities, such as multistory residential buildings. This street emphasizes pedestrian, transit, bicycle travel, and motor vehicle access.

Type E - Primarily Single-Family Residential Neighborhoods. An arterial street segment that serves (or is planned to serve) and traverses a primarily single-family home neighborhood and is fronted by (or is planned to be fronted by) residential, park, or institutional property. This street’s design emphasizes bicycle and pedestrian travel, local motor vehicle travel, and transit access.

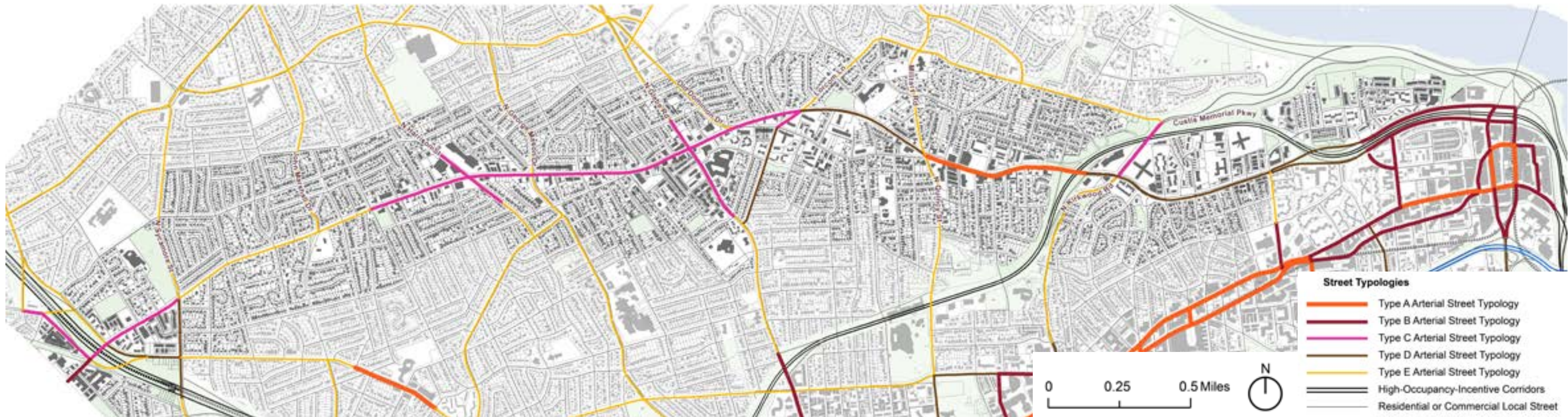


Figure 5.3 Arlington County Street Typologies
Source: Arlington County Master Transportation Plan, 2017

Street Typologies (Continued)

Local (Non-Arterial) Street Typologies - Arlington County owns, manages and maintains its local streets. The primary purpose of local public streets is to provide access to residences and businesses within the community. Local public streets also provide internal connectivity within neighborhoods and link neighborhoods within the County. Local street sub-types include urban center local, neighborhood principal, neighborhood minor, pedestrian priority, shared streets and alleys. Private alleys and private streets supplement the local public street system and are intended to operate as part of the local public street system without differences in design or operation. While most local streets (public or private) have relatively low traffic demands, they also need to accommodate, to varying degrees, multiple modes of travel. In the planning study area, only neighborhood principal and neighborhood minor streets exist. The other sub-types are primarily found in the Rosslyn-Ballston corridor.

Urban Center Local - Primarily Medium or High-Density Residential, Commercial, or Mixed-use Areas in the Rosslyn Sector Area. These streets, often called “side streets”, may include street-level shops, but do not have the same level of pedestrian and vehicular activity as arterial streets. Typically, these streets provide service, utility and emergency vehicle access to alleys,

loading docks, and building areas for loading and unloading goods, recyclables, and refuse. In addition, they can be the primary building access routes for vehicles and pedestrians.

Neighborhood Principal - Primarily Lower-density Residential Areas. These streets provide access for fronting properties and links to adjacent streets.

Neighborhood Minor - Primarily Low and Medium-density Residential Areas. These streets are very similar to neighborhood principal streets in form and function. The distinctive feature of these streets is their nearly exclusive orientation to providing access to residences.

Pedestrian Priority - A car-free travel corridor that provides public pedestrian access to adjacent buildings and properties fronting the street and serves as a public meeting place and location for commerce, communication and other community activities.

Shared Streets - A local street where the needs of motor vehicles are generally secondary to the needs to pedestrians, bicyclists and other roadway users.

Alleys - The primary purpose of alleys is to provide for loading and parking access that is not obtrusive to the activity on the adjacent sidewalks and streets. Other purposes of alleys include providing locations for utilities, allowing circulation within a block, and enhancing firefighting capabilities.

High-Occupancy-Incentive Corridors - Selected limited access highways and Potomac River bridges are envisioned to have facilities, restrictions, fees and other measures that encourage high-occupancy travel. These measures can include High-Occupancy-Vehicle (HOV) lanes, High-Occupancy-Toll (HOT) lanes, ramp metering and congestion fees. The Streets Modal Element provides additional details.

OBSERVATIONS

- Arlington County draws its Street Typologies from Federal guidance, similarly to VDOT.
- The County also establishes street typologies and design criteria based upon the adjacent land uses they serve and the proportion of different circulation modes that should be accommodated.
- The County’s street typologies have no regulatory “teeth” but they do help in evaluating land use proposals.
- Lee Highway is described by the County as 5 different types of arterial roads. Type, A, B, C, D and E.
- Lee Highway, and portions of N. Glebe, N. Harrison, and Spout Run Parkway are the only Type C “Commercial Center” arterials north of I-66.
- Lee Highway is crossed by many other arterial roads.
- The segment of Lee Highway in Cherrydale is the only portion currently classified as “highly oriented to pedestrian, bicycle and transit access”
- The County’s street typologies are intended to augment the underlying functional classification. The planning process could inform future updates to the existing street typologies, in the planning study area, to better align with the Plan goals.

LEE HIGHWAY STREET CONFIGURATION

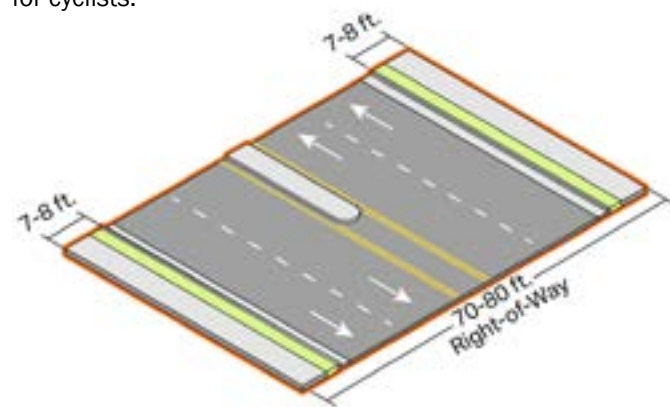
TYPICAL STREET SECTIONS

Figure 5.4 Lee Highway Typical Street Sections
Source: AECOM



W Jefferson to Quincy St

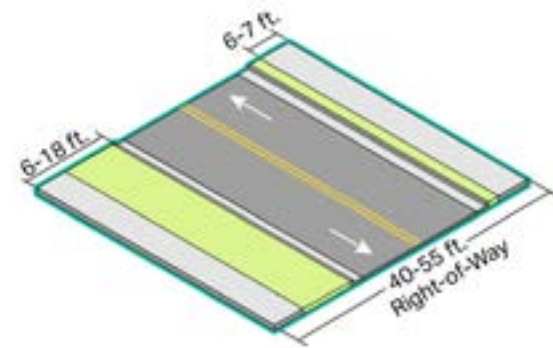
This segment conveys vehicles well but does not encourage pedestrian activity or provide safe and convenient access for cyclists.



*There is a third lane westbound between Lorcom Ln and where Old Dominion turns North off of Lee Highway

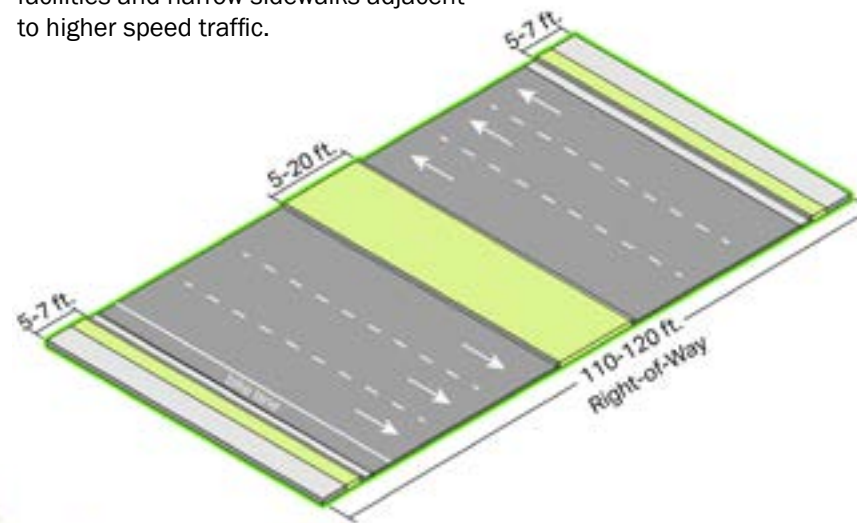
Woodstock to Quincy St (Old Lee Highway)

This segment of Lee Highway is highly walkable and easy to cross.



I-66 Overpass to Veitch

This segment provides the most travel lanes for vehicles, minimal bicycle facilities and narrow sidewalks adjacent to higher speed traffic.



Quincy to I-66 Overpass

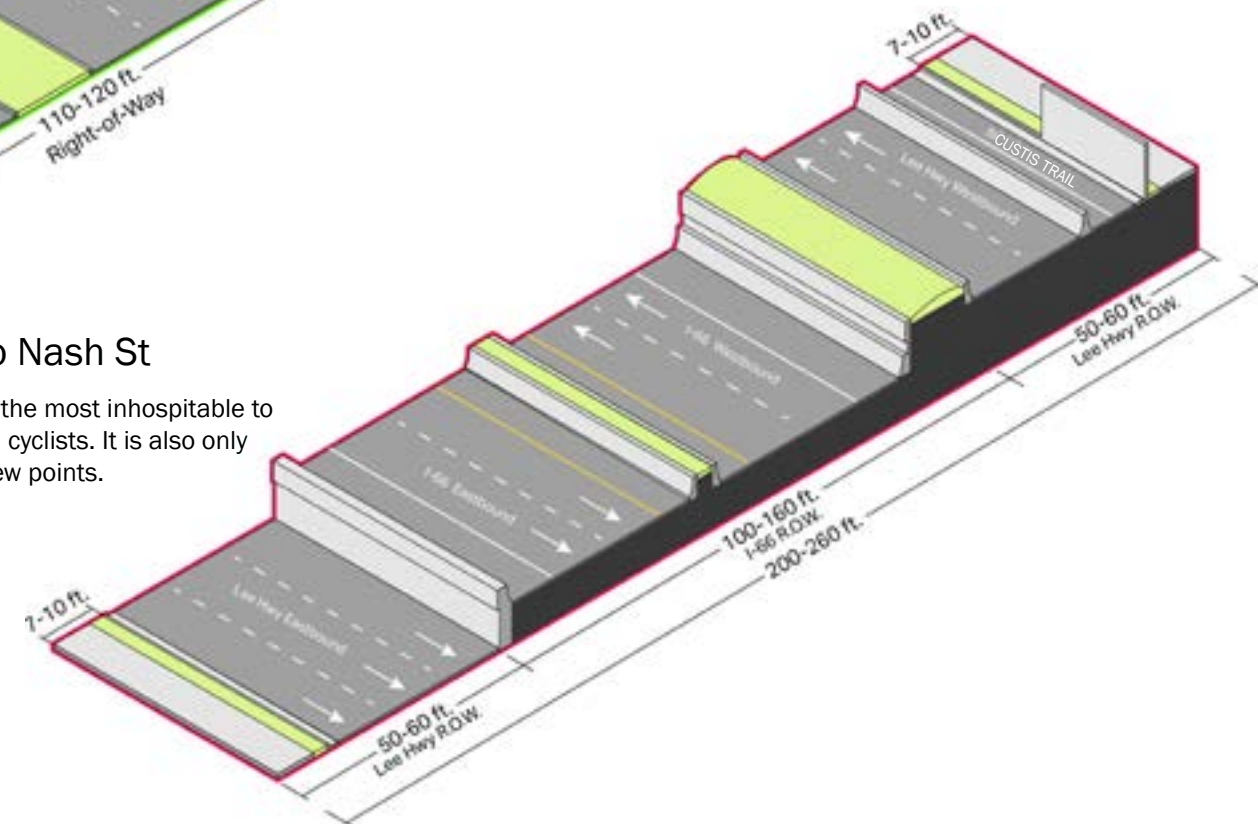
This segment best balances the need to move vehicles with adequate sidewalks, facilities for cyclists and street trees.



* Parking exists between Pollard and Oakland St
Median size varies greatly as well

Veitch to Nash St

This segment is the most inhospitable to pedestrians and cyclists. It is also only crossable at a few points.



OBSERVATIONS

- Lee Highway varies dramatically in character and function, from a typical Main Street to a Highway.
- Crossing times depend on width of right-of-way.
- The majority of Lee Highway in the planning study area has a right-of-way width of 70-80 ft with four lanes of traffic.
- The narrowest portion of Lee Highway, Old Lee Highway, has a right-of-way width of 45-55 ft with two lanes of traffic.
- The widest portion of Lee Highway is the segment where Lee Highway is split by I-66, which runs through the middle, and has an overall width of 200-240 ft.
- Medians of varying size are used to limit left turns or to separate oncoming traffic. This space could potentially be re-allocated to meet multi-modal goals.

- Sidewalk
- Planting Strip

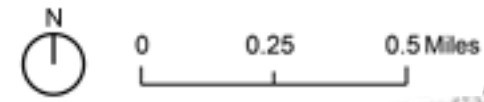
Note: The diagrams above are generalized and are not representative of the street sections for the entire length of the Lee Highway corridor.

LEE HIGHWAY STREETScape ELEMENTS

SIDEWALK WIDTH

Figure 5.5 Sidewalk Width, Tree Canopy, Street Light Types

Source: AECOM



OBSERVATIONS

- For the most part, the sidewalks along Lee Highway are less than 6' in width.
- The narrowest part of the corridor (between Woodstock and Quincy Streets), parts of Cherrydale, the north side of Lee Highway (east of Veitch Street) and a few other random spots have wider sidewalks.
- Above-ground utilities constrain the sidewalk space and make it a difficult pedestrian environment.
- Undergrounding utilities is very expensive and time consuming.

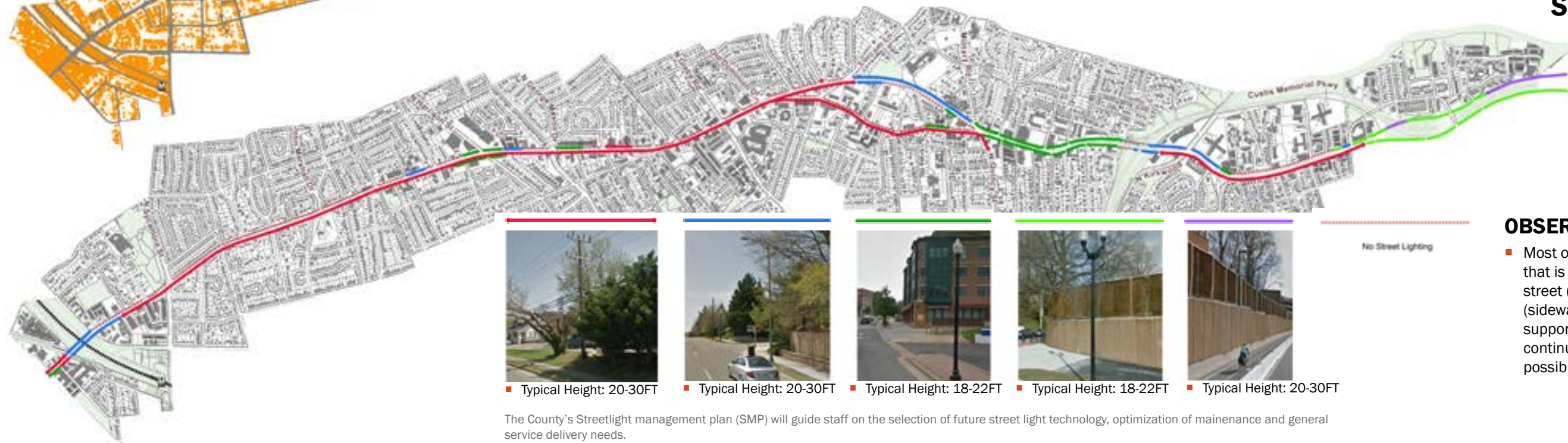
AREAS WITHOUT TREE SHADE



OBSERVATIONS

- Nearly all of Lee Highway is unshaded, lacking street trees or trees from abutting properties.
- The central segment, from Old Dominion Dr. to Lexington St. is devoid of shade completely.

STREET LIGHT TYPES



OBSERVATIONS

- Most of the corridor utilizes street lighting that is more oriented to lighting the street (cars) than the pedestrian space (sidewalk). Pedestrian level lighting supports walkability by establishing continuous light levels, which make it possible for people to recognize faces.



The County's Streetlight management plan (SMP) will guide staff on the selection of future street light technology, optimization of maintenance and general service delivery needs.

LEE HIGHWAY OPERATIONS

POSTED SPEED LIMIT AND RIGHT-OF-WAY WIDTH

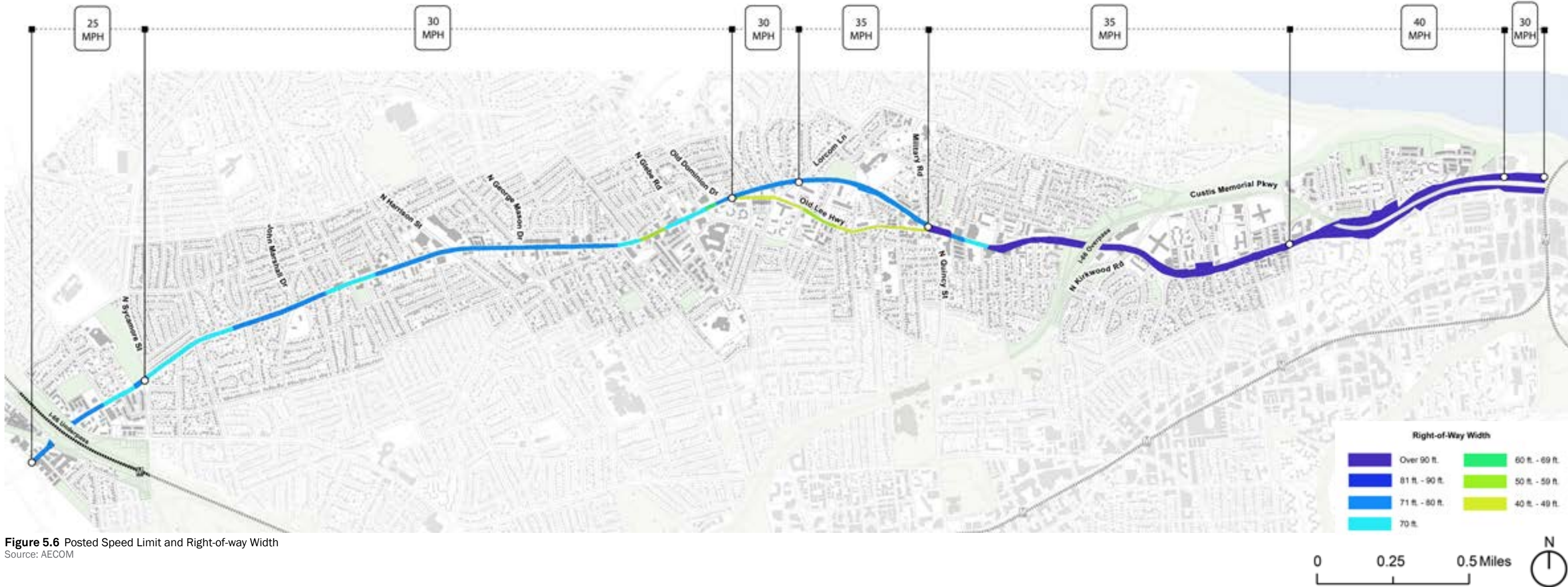


Figure 5.6 Posted Speed Limit and Right-of-way Width
Source: AECOM

OBSERVATIONS

- In general, the wider the right-of-way, the greater the number of lanes and the higher the posted speed.

LEE HIGHWAY OPERATIONS

Areas of greatest collision activity

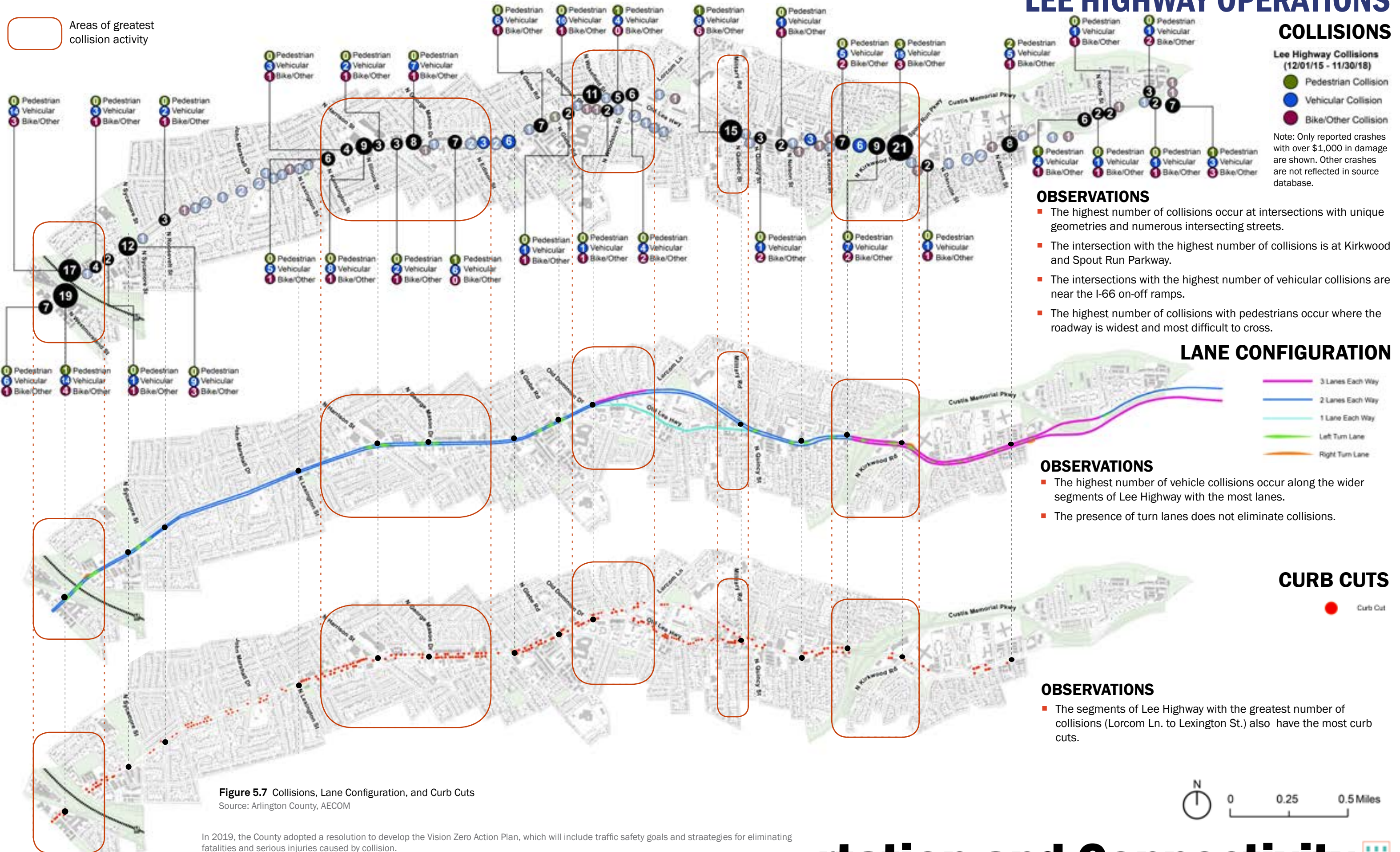
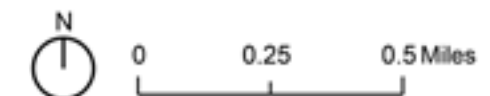


Figure 5.7 Collisions, Lane Configuration, and Curb Cuts
Source: Arlington County, AECOM

In 2019, the County adopted a resolution to develop the Vision Zero Action Plan, which will include traffic safety goals and strategies for eliminating fatalities and serious injuries caused by collision.



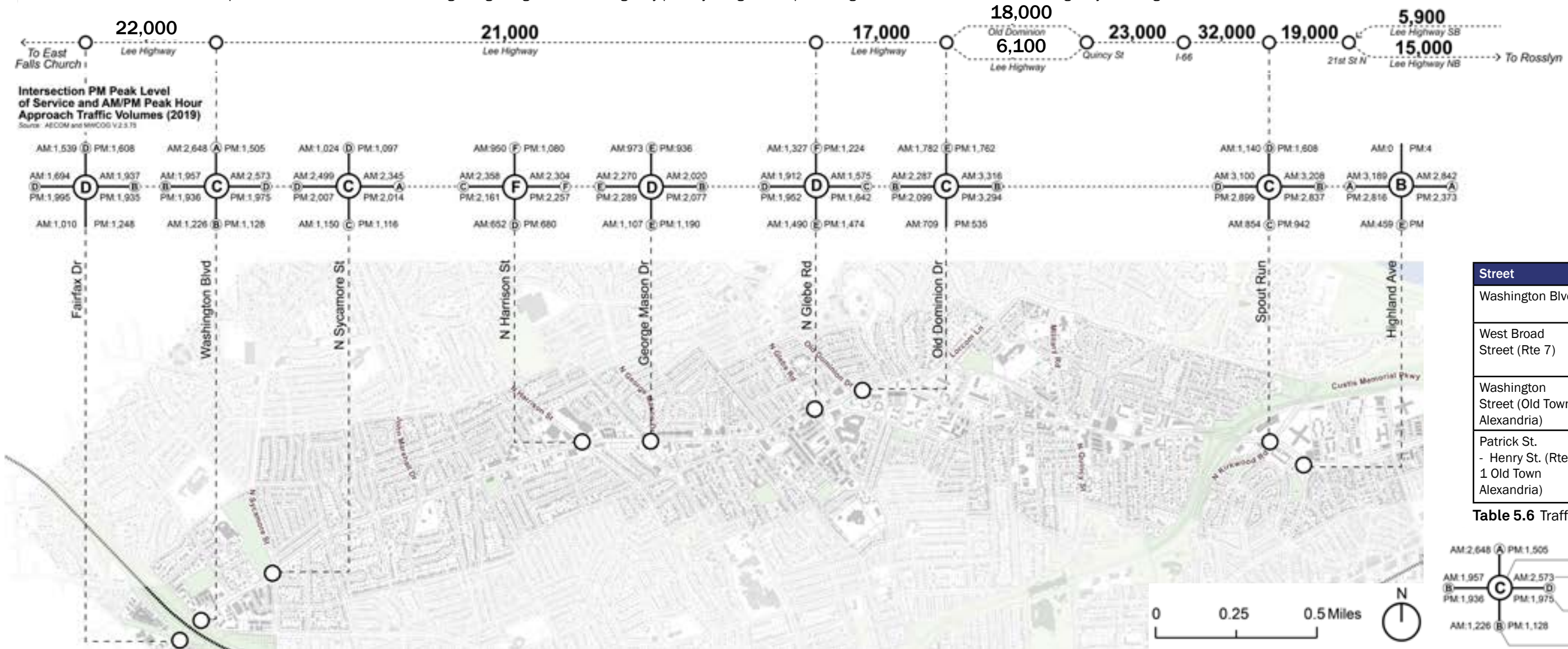
Annual Average Daily Traffic Volume Estimates by Section of Route

Source: Virginia Department of Transportation Daily Traffic Volume Estimates Including Vehicle Classification Estimates Jurisdiction Report, 2017

Note: Traffic Volume numbers represent the number of cars traveling along a segment of Lee Highway per day. A significant percentage of the number of cars on Lee Highway is through traffic.

LEE HIGHWAY OPERATIONS

TRAFFIC VOLUMES



Street	Segment	AADT
Washington Blvd	Sycamore St - Glebe Rd	15,000
West Broad Street (Rte 7)	West St. - Washington St. (Rte 29)	23,000
Washington Street (Old Town Alexandria)	GW Parkway - Duke St	28,000
Patrick St. - Henry St. (Rte 1 Old Town Alexandria)	Wilkes St. to King St. (2 parallel rds. Combined)	51,000

Table 5.6 Traffic Volume Comparison

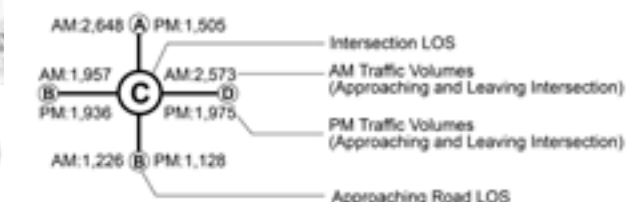


Figure 5.8 Virginia Department of Transportation Daily Traffic Volume Estimates Including Vehicle Classification Estimates

Source: http://www.virginiadot.org/info/resources/Traffic_2017/AADT_000_Arlington_2017.pdf

Level of Service (LOS) Definitions for Signalized Intersections

Signalized intersection level of service (LOS) is determined based on a weighted control delay for an entire intersection and is stated in terms of average control delay per vehicle (in seconds). Control delay is a measure of the increase in travel time a vehicle experiences based on multiple variables: signal phasing and coordination, signal cycle length, and traffic volumes related to intersection capacity and resulting queues. LOS criteria for signalized intersections are as follows:

- **LOS A:** ≤10 Average Control Delay (second/vehicle), Free flow of traffic
- **LOS B:** >10 - 20 Average Control Delay (second/vehicle), Stable flow of traffic (slight delays)
- **LOS C:** >20 - 35 Average Control Delay (second/vehicle), Stable flow of traffic (acceptable delays)
- **LOS D:** >35 - 55 Average Control Delay (second/vehicle), Approaching unstable flow (tolerable delay, occasionally wait through more than one signal cycle before proceeding)

- **LOS E:** >55 - 80 Average Control Delay (second/vehicle), Unstable flow (intolerable delay)
- **LOS F:** >80 Average Control Delay (second/vehicle), Forced flow (congested and queues fail to clear)

Source: Highway Capacity Manual 2010, Transportation Research Board, 2010.

Using LOS to analyze intersections along Lee Highway during the worst conditions at peak periods provides insights into the needs of each intersection currently and a projection of how each intersection will fare in the future. Understanding those intersections that perform the worst allows for targeted improvements to those intersections and helps the County maintain the highest LOS during peak hours.

The existing weekday PM peak hour synchro model was used to calculate the signalized intersection LOS for Lee Highway and compare it to VDOT's Annual Average Daily Traffic Volume Estimates by Section of Route.

OBSERVATIONS

- Average traffic volumes along Lee Highway vary greatly, from roughly 17,000 to over 30,000 cars per day.
- The eastern portion of the corridor is much more influenced by commuting traffic based on its connections with I-66, Rosslyn and Georgetown.
- Many cars to and from the western portion of the corridor turn at Glebe Rd. as evidenced by the reduced volume to the east.
- Lee Highway and Harrison Street is the worst performing intersection based on Level of Service today.
- Most traffic congestions are caused by the combined effect of through traffic traveling east/west, frequency of intersections and turning movements from north/south traffic intersecting with Lee Highway.
- Since 2000, the population within the corridor has gone up roughly 16%. During that same time period average daily traffic volumes along Lee Highway have gone down between 16% - 24%. This is due primarily to increased public transportation options including metro ridership, as well as the recent trend of telecommuting.

LEE HIGHWAY OPERATIONS

ACTUAL PEAK HOUR TRAVEL SPEEDS

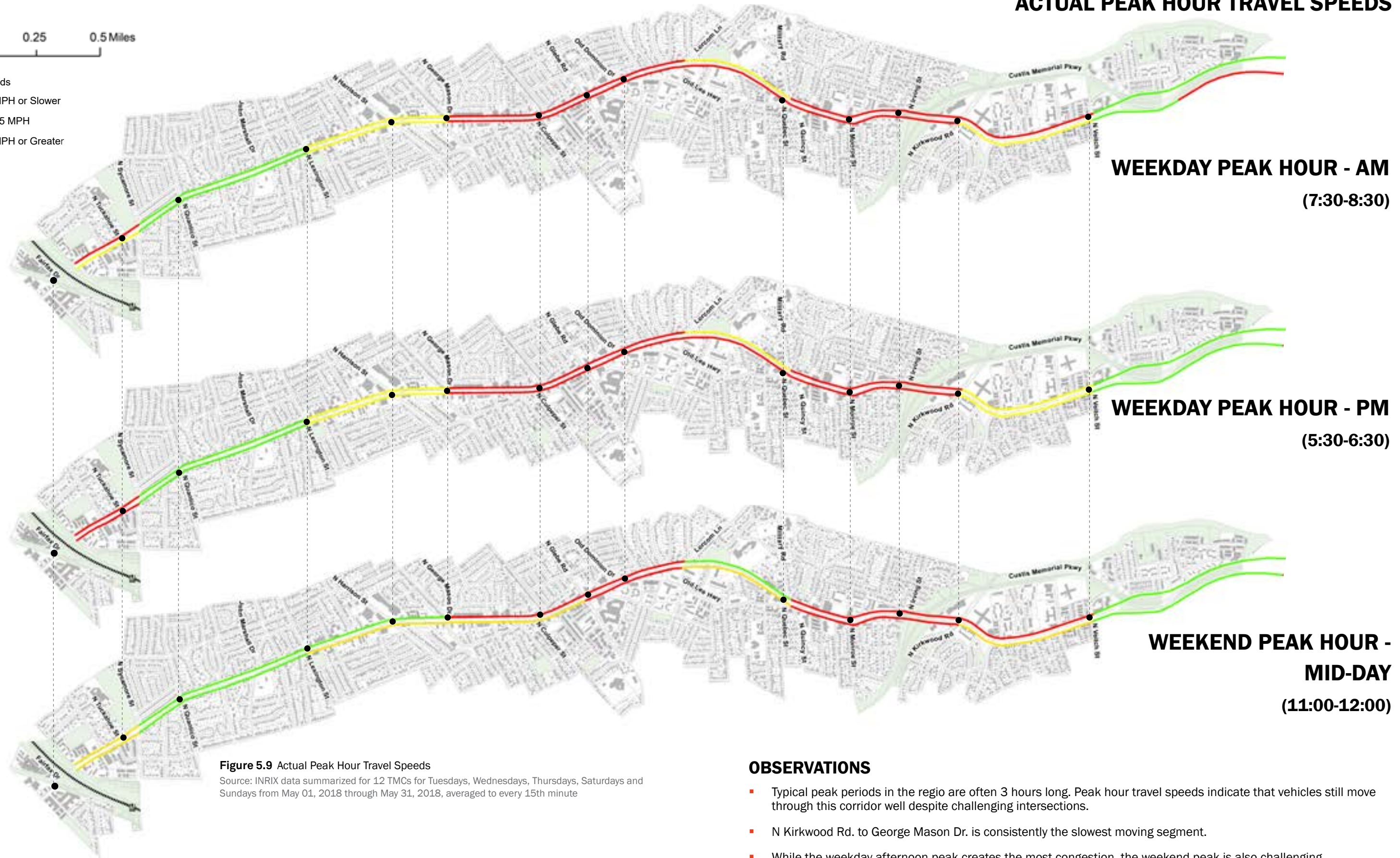
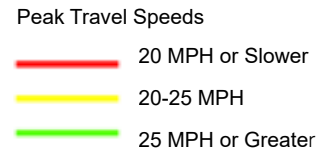
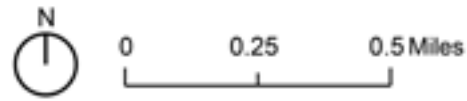


Figure 5.9 Actual Peak Hour Travel Speeds
 Source: INRIX data summarized for 12 TMCs for Tuesdays, Wednesdays, Thursdays, Saturdays and Sundays from May 01, 2018 through May 31, 2018, averaged to every 15th minute

OBSERVATIONS

- Typical peak periods in the regio are often 3 hours long. Peak hour travel speeds indicate that vehicles still move through this corridor well despite challenging intersections.
- N Kirkwood Rd. to George Mason Dr. is consistently the slowest moving segment.
- While the weekday afternoon peak creates the most congestion, the weekend peak is also challenging.

LEE HIGHWAY OPERATIONS

Figure 5.10 Actual Average Travel Speed and Posted Speed Limit

Source: INRIX data summarized for 12 TMCs for Tuesdays, Wednesdays, Thursdays, Saturdays and Sundays from May 01, 2018 through May 31, 2018, averaged to every 15th minute

ACTUAL AVERAGE TRAVEL SPEEDS* COMPARED TO POSTED SPEED LIMIT

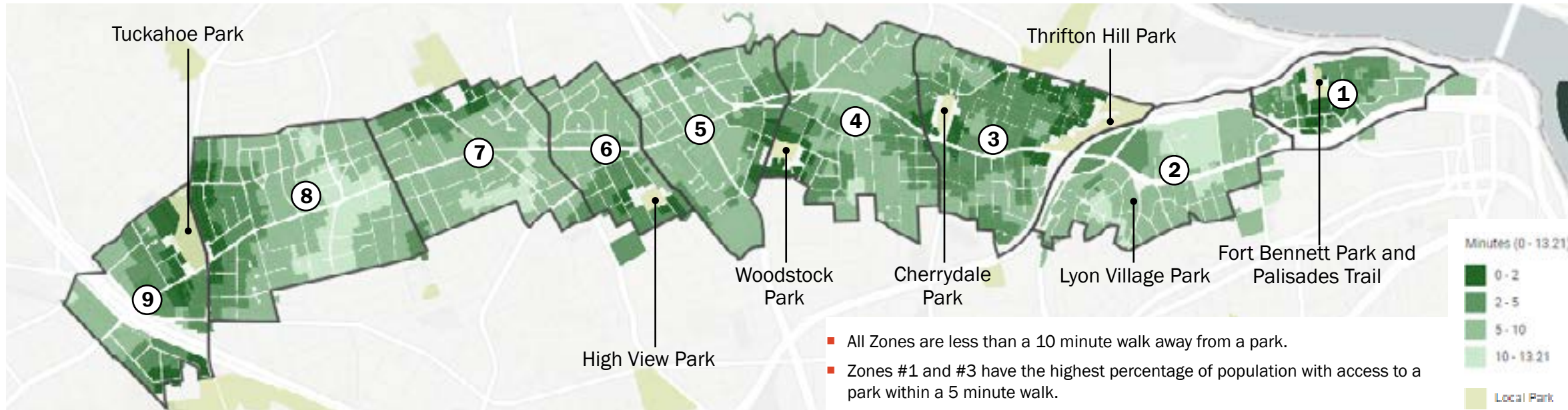


	1	2	3	4	5	6	7	8	9	10
Posted Speed Limit (MPH)	25	30	30	30	30	35	35	35	35	40
Eastbound Peak AM Average Speed (MPH)	21	30	23	19	17	21	20	15	21	32
Westbound Peak PM Average Speed (MPH)	21	30	24	18	15	28	18	14	20	29
Composite Average (Average of Two-Way Peak AM & PM Travel Speeds)	21	30	24	19	16	24	19	15	20	30
Eastbound Weekday Peak AM Travel Time (Secs)	54	83	101	113	78	70	87	32	101	31
Eastbound Weekend Peak AM Travel Time (Secs)	43	84	87	107	77	76	89	23	97	32
Westbound Weekday Peak PM Travel Time (Secs)	72	81	92	88	122	54	105	24	103	41
Westbound Weekend Peak PM Travel Time (Secs)	45	84	82	102	96	49	97	22	97	41

Table 5.7 Lee Highway Corridor Vehicle Speeds

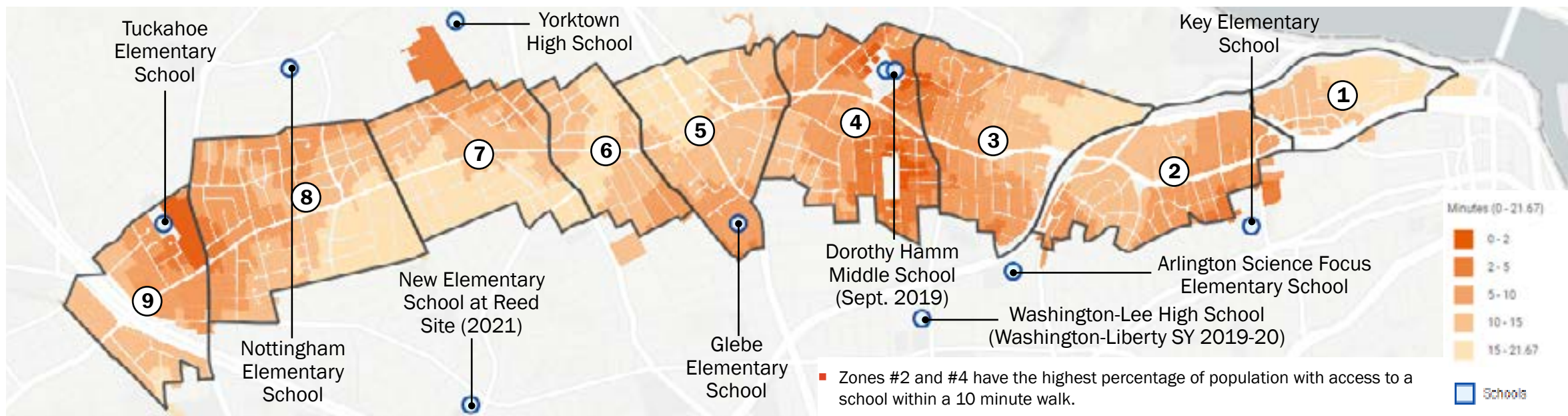
*The County uses 85% travel speeds rather than average.

PEDESTRIAN NETWORK



WALKING TO PARKS

Zones	% (<5 Min walk)	% (<10 Min walk)	Minutes to Park
1	57%	100%	4.0
2	1%	72%	8.9
3	78%	100%	3.5
4	46%	99%	4.6
5	24%	99%	3.3
6	46%	100%	2.6
7	24%	91%	2.9
8	32%	83%	2.6
9	46%	76%	5.8

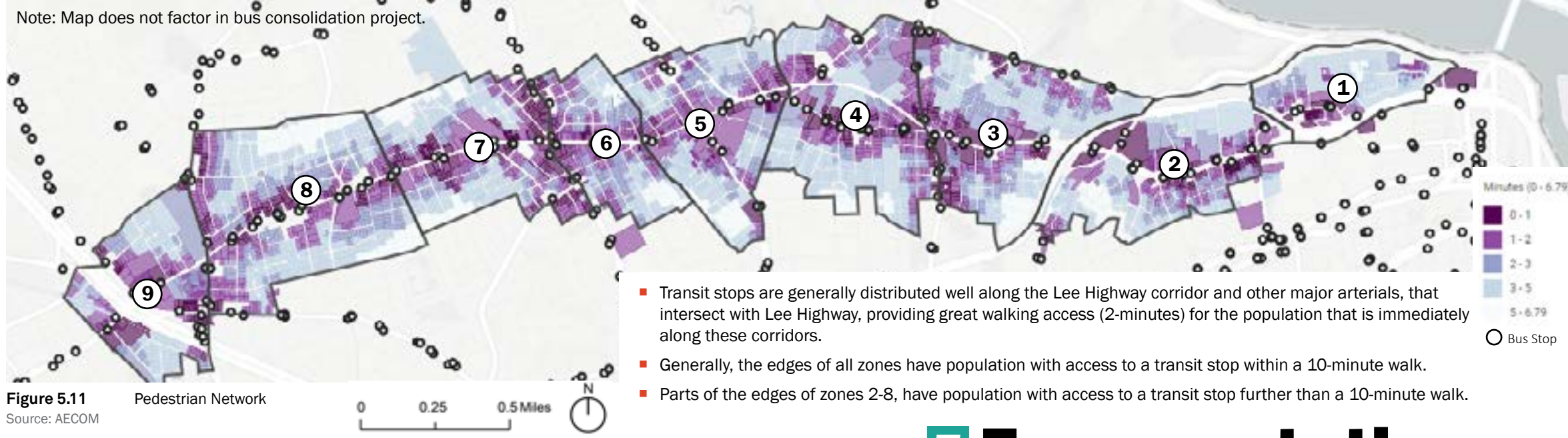


WALKING TO SCHOOLS

Zones	% (<10 Min walk)	Minutes by Walk
1	0%	16.0
2	61%	9.8
3	47%	10.3
4	71%	7.8
5	10%	13.3
6	14%	13.3
7	18%	13.8
8	49%	10.8
9	34%	11.4

WALKING TO TRANSIT STOPS

Zones	% (<2 Min walk)	% (<5 Min walk)	Minutes by Walk
1	44%	98%	4.5
2	26%	98%	9.4
3	35%	94%	3.0
4	45%	97%	4.6
5	50%	98%	3.3
6	31%	89%	3.1
7	42%	88%	2.9
8	34%	88%	2.7
9	51%	99%	4.0



Methodology For Assessing Walking Distance in Zones

The Urban Footprint mapping tool was utilized to assess which zones (or parts of zones) are within walking distance of a park, school or transit stop. This was determined by analyzing the travel time for the shortest distance along road (and walk path segments) to manually added points of interest, based on average walking speed and segment length that can be reached within a 5-minute walk to parks, 10-minute walk to schools and 2-minute walk to transit. Walking accessibility is based on distance only and does not take into account all road and walk path conditions/issues that may exist (i.e. discontinuous street grid/sidewalks, grade level changes, etc.). These maps illustrate the walking accessibility that could be achieved if adequate improvements are made (to roads and walk paths) to obtain good to optimal conditions for walking. This information may be useful for determining which zones need additional roads and/or walk paths to increase pedestrian connectivity.

Figure 5.11 Pedestrian Network
Source: AECOM

BIKING ON LEE HIGHWAY

Arlington has made a commitment to improving conditions for bicycling and has installed many miles of bike paths and bike lanes throughout the County. The challenges now facing the County are how to provide bike facilities (preferably with some separation from vehicles) on neighborhood streets and corridors, like Lee Highway, with limited right-of-way and competing uses for this space. Improving conditions for cyclists in the corridor will require innovative designs and trade-offs between competing priorities, including overall traffic flow, bicyclists, pedestrians, transit users and parking.

In general, conditions for cyclists are not desirable in the Lee Highway planning study area. This is due to either safety concerns for traveling along or across Lee Highway, lack of protection from the elements and places to park bikes when reaching a destination, or it is simply not convenient. The Lee Highway planning study area presents some unique challenges for improving conditions for cycling, both along and across the corridor:

Between County line to N. Glebe Road (north side) and between County line and N. Culpeper Street (south side):

- The western end of Lee Highway, where it is predominately single family residential, has limited right-of-way and is unlikely to redevelop.
- East of the single family residential, which is primarily strip commercial centers, the right-of-way is also constrained. Additionally, the lots are not deep enough to dedicate additional space for expanding the right-of-way.
- In this area establishing parallel routes along 26th and 22nd Streets for cyclists could be a more realistic solution.

From Glebe Road/N. Culpeper Street to Military Road:

- This area has a high potential demand for biking to destinations on Lee Highway, because of the surrounding higher density residential, yet presents the greatest challenges for improving conditions for cycling.
- Parallel routes are harder to achieve in this area because east-west streets through the neighborhoods don't always align or connect to each other directly.
- The parcels with frontage along Lee Highway are primarily commercial, however, there are several single-family lots. The commercial and single family lots are shallow. There are only a few areas where the parcels are deep enough, to potentially dedicate additional space for expanding the right-of-way.

- The right-of-way for Lee Highway also varies significantly. It ranges between 70' and 90' wide.
- Bicycle facilities on "Old Lee Highway" are not feasible. The right-of-way on this road is less than 50'.
- Re-striping of Lee Highway and/or redevelopment (through the consolidation of parcels) may be the only solutions for incorporating bicycle facilities on this segment of Lee Highway.

East of Military Road to the I-66 overpass (Cherrydale Neighborhood):

- There have been recent improvements to this segment of the Lee Highway corridor, as part of the Cherrydale Revitalization Plan and recent development projects, to include sidewalk, lighting and median improvements and the addition of bike lanes and on-street parking.
- Bike lanes currently exist on the south side of Lee Highway.
- On-street parking currently exists on the south side of Lee Highway for two block frontages only.
- Parallel routes are harder to achieve on the south side of Lee Highway because east-west streets through the neighborhoods don't always align or connect to each other directly. Changes in topography may also present a challenge for establishing parallel routes in both the north and south sides.
- The parcels on the north side of Lee Highway are deeper. Redevelopment of those parcels may provide an opportunity for allocating a bike lane on that side.
- East of the Koons used car dealership, Lee Highway widens significantly from 4 to 6 lanes. Re-striping and reallocating excess pavement to bicycle facilities may be a solution here.

East of Kirkwood Road to Rosslyn:

- This is the widest segment of Lee Highway with 6 lanes of travel.
- There is an opportunity to continue Arlington's tradition of reallocating roadway capacity to bicycle facilities in this segment.
- The conversion of the third (outer) travel lane in each direction to a separated bikeway, would be possible if traffic studies indicated that traffic flow would not be greatly impacted.

In general, the numerous existing and potential new bikeway crossings on Lee highway will need to be carefully reviewed. Options for crossings that improve user sense of comfort and safety will need to be designed. Expansion of Capital Bikeshare west of the Cherrydale Neighborhood area should also be pursued.



Source: 2016 Vision Study



Source: Shutterstock

BICYCLE NETWORK

EXISTING + PLANNED FACILITIES

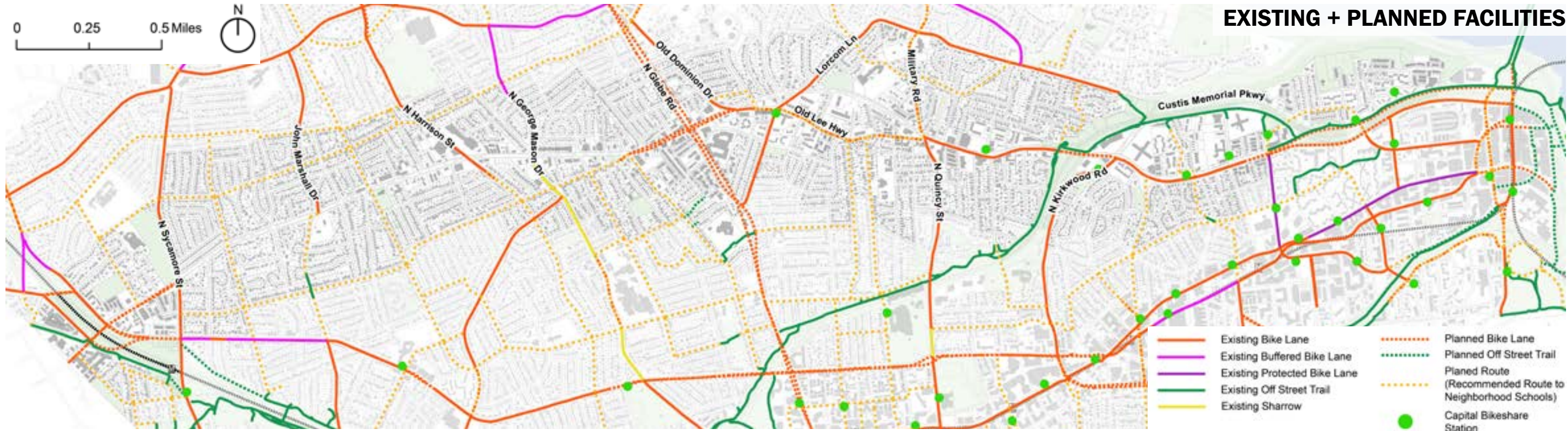


Figure 5.12 Bicycle Network: Existing + Planned Facilities Source: AECOM and MTP Bicycle Element

Planned Bike Lanes & Recommended Bike Routes:

Planned bike lanes, shown on the map above are per the adopted update to the Bicycle Element of the MTP (April 2019). Recommended bike routes were included in the previous Bike Element of the MTP. Summaries of the information contained in the adopted update to the Bike Element (as it relates to the planning study area), are provided below.

East Falls Church

While there are no existing bicycle facilities on Lee Highway in this area, the East Falls Church Area Plan and the Bicycle Element Recommend:

- Bike Lanes on Lee Highway from the County Line to Sycamore Street
- Wider sidewalks on the I-66 Bridge
- A grade separated crossing of Lee Highway for the W&OD Trail is currently being constructed and will be funded as part of the I-66 project

Sycamore Street to Glebe Road

- There are no existing bicycle facilities on Lee Highway in this area.
- The Bicycle Element calls for adding bike lanes in this area, and for adding parallel bike routes on 22nd Street, from Sycamore Street to Cameron Street and 26th Street from Sycamore Street to Harrison Street.

Glebe Road to Military Road/Quincy Street

- There are no existing bicycle facilities on Lee Highway in this area.
- The Bicycle Element calls for bike lanes on Lee Highway in this area.
- Consideration should be given to splitting westbound and eastbound bikeways, so that westbound stays on Lee Highway and eastbound travels along Old Lee Highway.
- A new at grade pedestrian crossing is proposed at the new entrance to Dorothy Hamm Middle School, near Taylor Street.

Cherrydale

A bike lane exists on the south side of Lee Highway between Quincy Street and Kenmore Street.

- The Bike Element calls for adding a bike lane on the northside for the entire area and extending southside bike lane to Kirkwood Road.

Kirkwood Road to Rosslyn

- The Custis Trail serves as a parallel route in this area.
- A bike lane exists on the northside of Lee Highway from Highland Street to Wayne Street.
- The Bike Element calls for bike lanes on both sides of Lee Highway from Kirkwood Street to Oak/Nash Streets.

OBSERVATIONS

The civic and commercial areas along Lee Highway are significant destinations for cyclists. The Highway however provides little or no facilities for cyclists to safely or conveniently access these destinations.

- The segment between Spout run and Rosslyn has a wider right of way that could potentially be utilized to provide safer, more convenient bicycle facilities.
- The opening of Dorothy Hamm Middle School creates a major destination on Lee Highway. With the school becoming a neighborhood school again the potential for more students to walk and bike to the school is large. Bike lanes and safer crossings have been installed by Arlington County adjacent to and near Swanson Middle School, which has seen a big increase in the number of students riding to school.
- Lee Heights Shopping Center is already a popular destination. Demand for better walking and bicycle access for students from Dorothy Hamm Middle School to the area will likely increase. Improved walking and bicycle access to the area, as well as the addition of bicycle parking, could also help to relieve parking pressure in the area.

- Bicycle access to the Lee Harrison shopping area is limited. Providing better bike access from adjacent neighborhoods and increasing the bicycle parking, should help to encourage more bicycle trips to the shopping center and potentially reduce the parking pressures that currently exist.
- Bicycle safety improvements at intersections could be an important part of encouraging cycling and meeting multi-modal goals. These improvements could include bike boxes between the crosswalk and stop bar at intersections where bike lanes are added to facilitate left turns for cyclists and improve their visibility, efficiency, and safety.
- The planning study will further evaluate the planned bike lanes and recommend bike routes during the development of the land use scenarios.

ARLINGTON COUNTY TRANSIT NETWORK

The MTP Transit Element defines Lee Highway as part of its Primary Transit Network (PTN). The goal for all corridors on the PTN is to provide:

- Higher frequency and quality transit services to encourage a low-auto-usage lifestyle and higher all-day patronage, including transit services operating at 15-minute intervals or better every day for about 18 hours.

Together, the PrTN (Premium Transit Network) and PTN corridors are the most critical avenues for the movement of people and goods in Arlington. Performance targets should be achieved through a combination of transit service expansion and ongoing targeted land redevelopment.¹

The MTP sets out the following implementation actions:

- Upgrade service frequency, span of service, reliability and quality.
- Implement additional local north-south bus service that improves north and south linkages to existing commercial centers.
- Develop connections between paratransit and PTN services for those paratransit riders that can use fixed route services to complete their trips.

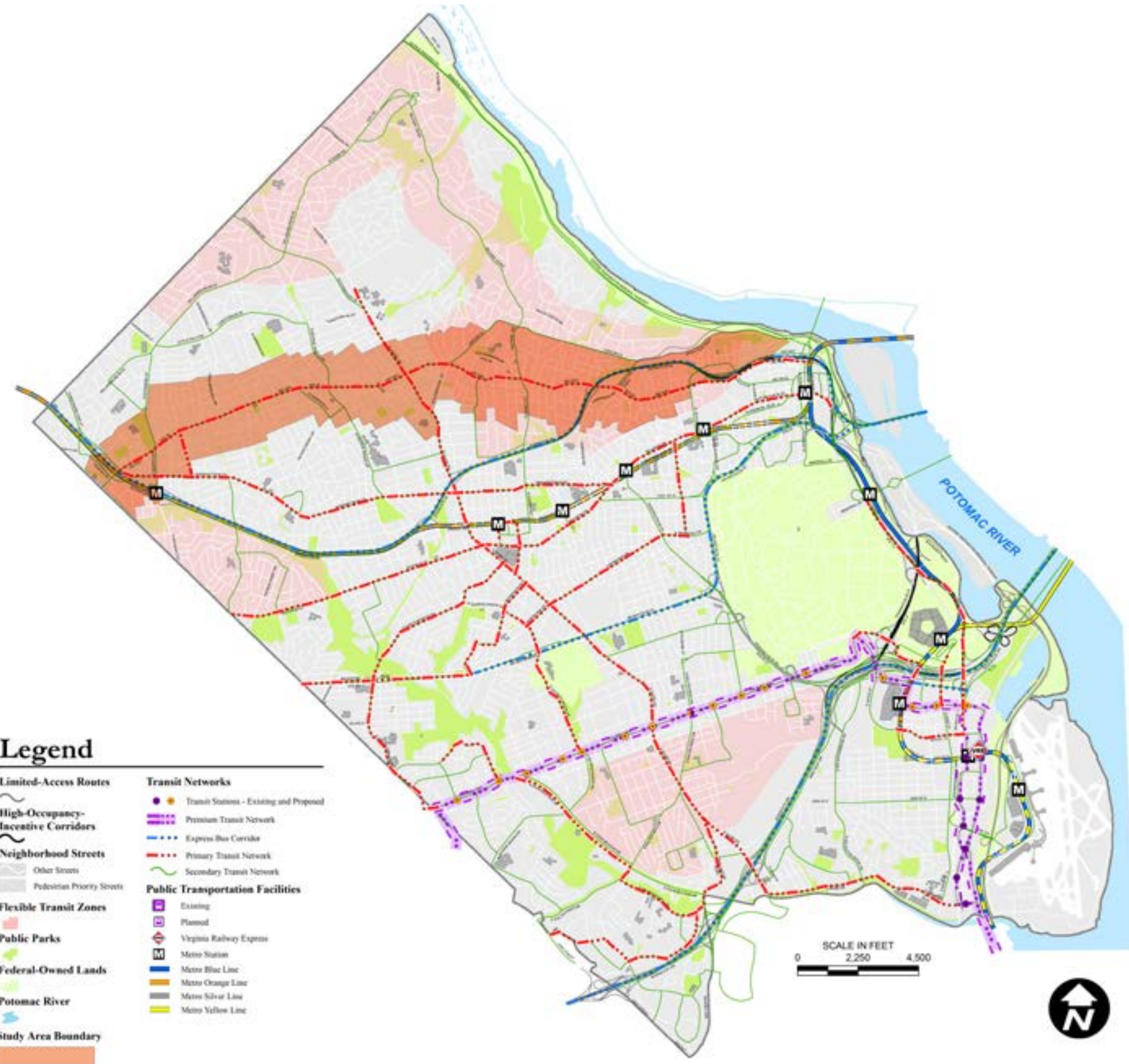


Figure 5.13 Transit Network - Arlington County
Source: Arlington County Master Transportation Plan

¹ Arlington County Master Transportation Plan

TRANSIT NETWORK

WMATA BUS ROUTES

Route	Average Weekday Passengers (April 2019)
23A,B,T	3,021
2A	2,314
5A	754
26A	703
3Y	433
3T	337
15K	275

*APRIL REPRESENTATIVE OF HIGH RIDERSHIP MONTH
Source: AECOM



- WMATA routes run mostly east-west paralleling I-66 and Metrorail.
- WMATA's 3Y route will be impacted by the Lee Highway Bus Stop Consolidation and Accessibility Improvements.

Figure 5.14 WMATA Bus Routes
Source: National Capital Region Transportation Planning Board

ART BUS ROUTES

Route	Average Weekday Passengers (April 2019)
ART 55	1,525
ART 51	335
ART 52	309
ART 53	207
ART 61	132
ART 62	81

*APRIL REPRESENTATIVE OF HIGH RIDERSHIP MONTH

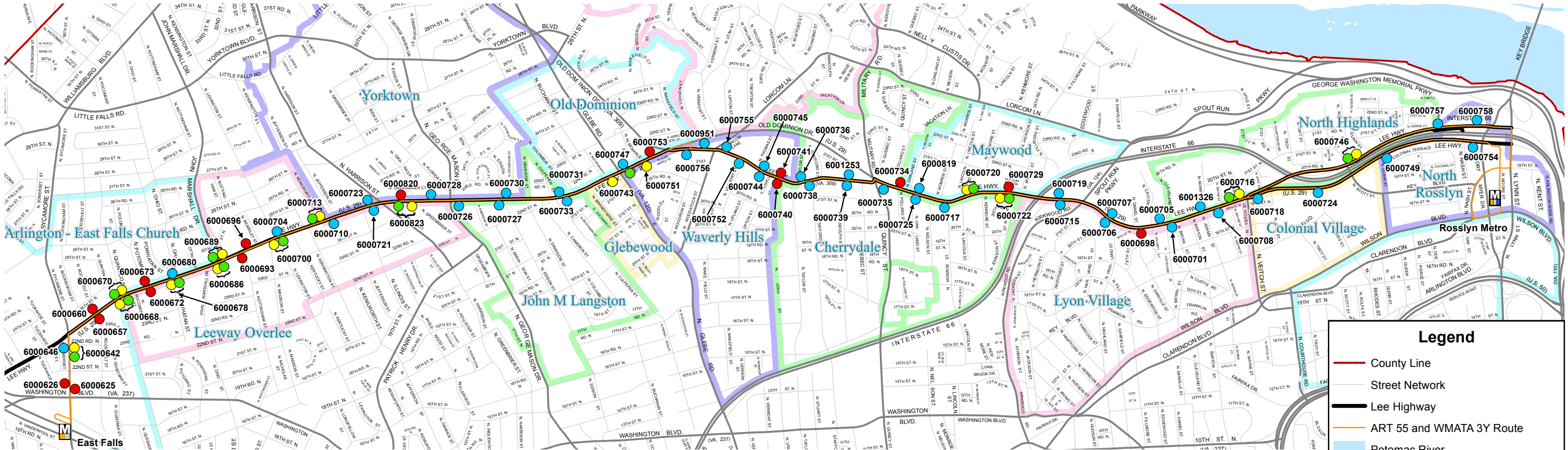


- ART routes provide most of the transit connectivity between Lee Highway and commercial nodes.
- ART routes move people between Lee Highway neighborhoods.
- ART's 51, 55, and 62 routes will be affected by the Lee Highway Bus Stop Consolidation and Accessibility Improvements.

Figure 5.15 ART Bus Routes
Source: National Capital Region Transportation Planning Board

TRANSIT NETWORK

LEE HIGHWAY BUS STOP CONSOLIDATION



Legend

- County Line
- Street Network
- Lee Highway
- ART 55 and WMATA 3Y Route
- Potomac River
- M Metro Orange/Silver Line Station
- M Metro Orange/Blue/Silver Line Station
- Planned Bus Stop Location Changes**
- Existing Stop — No Change
- Existing Stop — Relocated
- New Location of Relocated Stop
- Existing Stop — Removed
- Civic Association Boundaries**
-
-
-
-
-

Figure 5.16 Lee Highway Planned Bus Stop Consolidation
 Source: Arlington County https://projects.arlingtonva.us/wp-content/uploads/sites/31/2017/11/DES-Lee_Hwy_Corridor_All_Proposed_Bus_Stop_Changes.pdf

Bus Stop Consolidation and Accessibility Improvements

The Bus Stop consolidation project aims to improve the quality of existing bus stops. This project will, at a minimum, bring all stops up to compliance with the Americans with Disabilities Act for accessibility, and increase the efficiency (meaning fewer stops and faster service) of bus service along the Lee Highway and Washington Boulevard corridors. Additional improvements may include adding bus shelters and/or seating where there is adequate room. A few areas along the Lee Highway corridor have insufficient right-of-way to accommodate these added features. For these areas, Plan Lee Highway will evaluate opportunities for additional space to be provided through redevelopment.



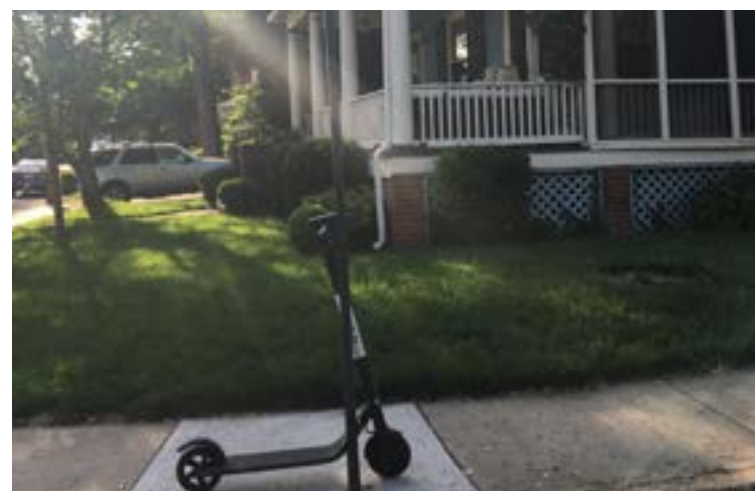
Figure 5.17 Ride Sharing Options
Source: AECOM



Docked Bikeshare

- Eight Capital Bikeshare stations exist along Lee Highway roughly from North Quinn St to N Woodstock St, with one station by the East Falls Church Metro Station.
- The western portion of the corridor is not served at all by docked bikeshare options.
- Docks for Capital Bikeshare can be configured to be sited on a street, sidewalk, or open space. The base size of a station with 11 docks is 6' x 31'9", with access depth of 1-3' for a street station and 6' for sidewalk/park/plaza stations.

Source: https://nacto.org/wp-content/uploads/2016/04/NACTO-Bike-Share-Siting-Guide_FINAL.pdf



Dockless Bikeshare & Scooters

- Dockless bikeshare and scooters provide more transportation freedom than docked bikeshare for 'last mile transit'.
- Scooters are occasionally used in the corridor mostly in areas closer to Metro stations.



Source: <https://www.wired.com/story/uber-bid-dominance-mobility/>

Ride Hailing

- Ride hailing can serve as a supplemental form of transportation in areas that are not easily accessible to Metro station, WMATA, and ART bus routes.
- Cost and user accessibility can be a limiting factor in the effectiveness of ride hailing as a supplemental form of transportation.



Source: <http://dcmicrotransit.com/service-overview/>

Micro Transit

- Different techniques are already being piloted for new 'last mile transit' options.
- The Olli autonomous-vehicle has a pilot program at Fort Myer.

OPPORTUNITIES FOR MULTI-MODAL CONNECTIVITY

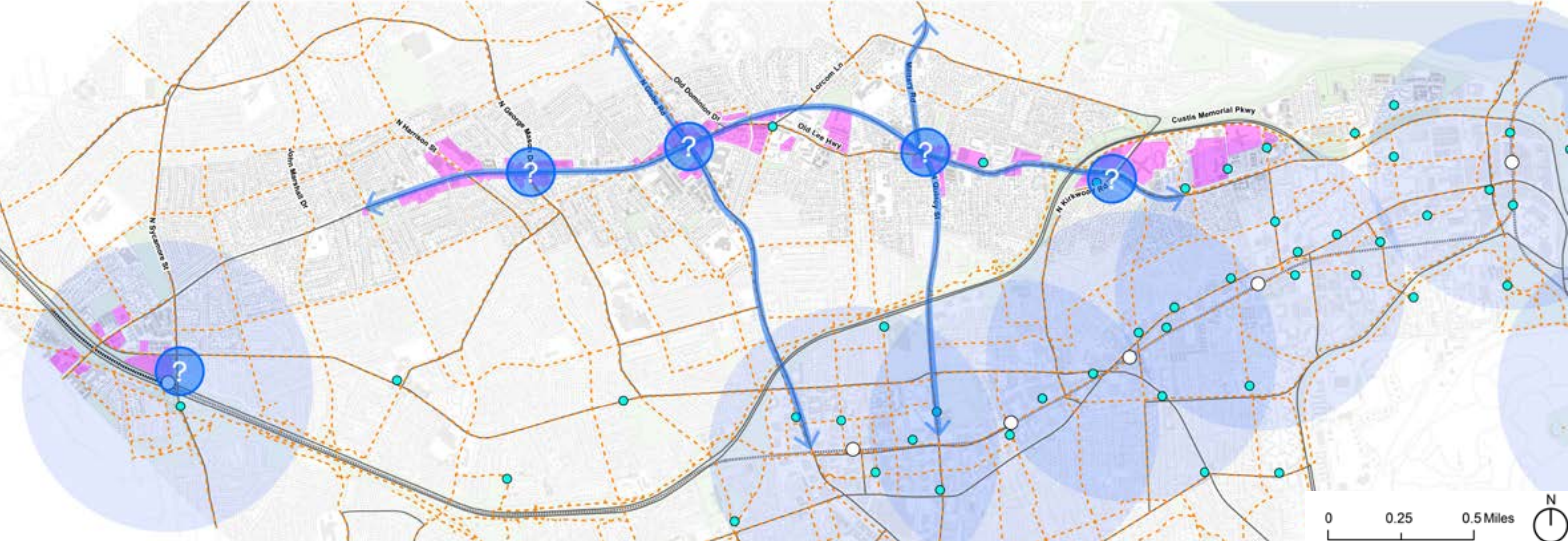
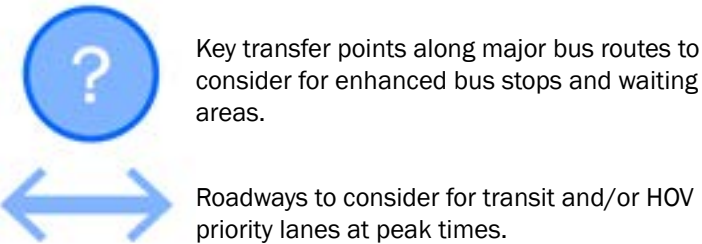


Figure 5.18 Opportunities for Multi-Modal Connectivity
Source: AECOM

- The east and west ends of the corridor currently have the greatest multi-modal access due to proximity to Metro and Capital Bikeshare.
- A large majority of the previously identified opportunity areas for new development are beyond convenient walking distance to Metro.
- Additional circulator routes to connect between Metro and Lee Highway destinations will need to be considered.



	Capital Bikeshare Station		1/2 Mile Walking Radius from Metro Stop		Planning Study Area
	Bike Routes (Existing, Planned, & Recommended)		Open Space		Metro Line
	Bus Routes (Existing)		Metro Stop		
	Previously Identified Opportunity Areas*				

*Areas identified through the visioning study or previous community led efforts as areas of opportunity for change. These areas will be refined through future engagement and analysis.

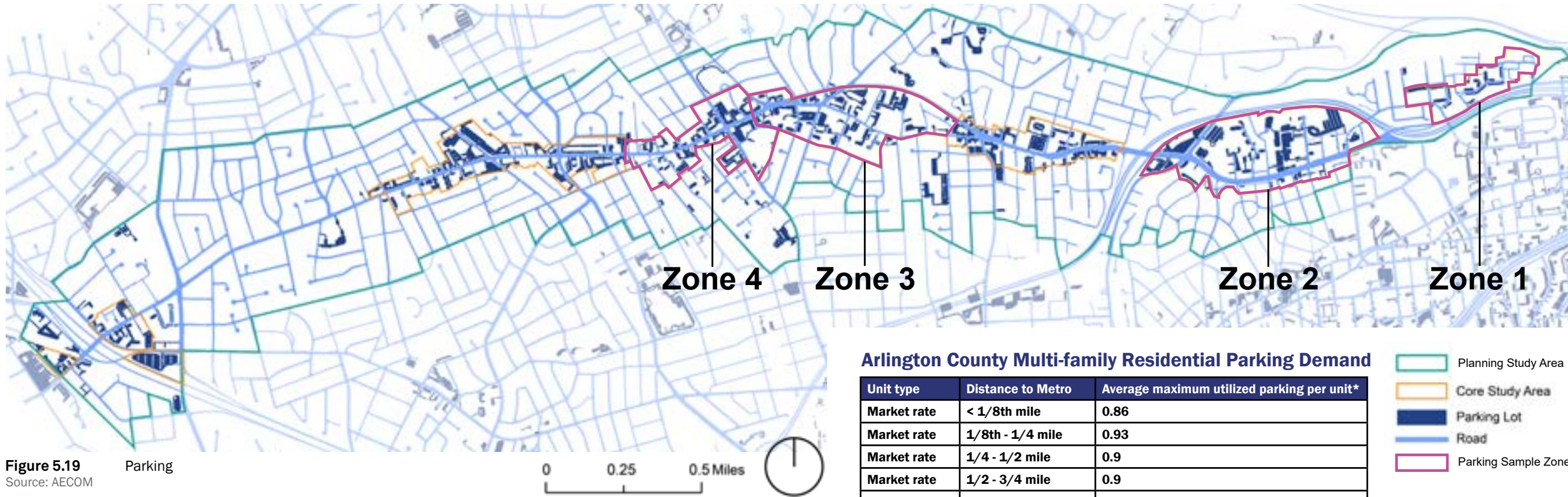


Figure 5.19 Parking
Source: AECOM

OBSERVATIONS

- Roadways make up 17% of Core land area.
- Parking lots make up 24% of Core land area.
- Commercial parking utilization varies greatly along the corridor. Destinations like the Lee Heights Shopping Center have higher utilization and more parking spaces per commercial area than the shopping centers at Spout Run Pkwy.
- Overall, the total parking provided (on street and off) in each sample zone roughly equals the approximate off street parking required. Within those zones, some properties provide many fewer spaces on-site than generally what is required and rely on on-street parking to meet their needs. Conversely some properties are over parked.
- Observed utilization trends suggest that actual parking demand is likely less than the parking required for those properties.
- The general community perception is that off-street parking is challenging to find and navigate.
- Multi-family utilization within Arlington County averages 0.98 spaces per unit for market rate and 0.81 spaces per unit for CAF developments. By comparison, market rate projects in DC's NoMA neighborhood market rate average 0.4 spaces per unit utilized and recent development along the Silver Line in Fairfax County average 1.3 spaces per unit utilized.
- Sharing parking resources between complimentary businesses can help address parking challenges.

Arlington County Multi-family Residential Parking Demand

Unit type	Distance to Metro	Average maximum utilized parking per unit*
Market rate	< 1/8th mile	0.86
Market rate	1/8th - 1/4 mile	0.93
Market rate	1/4 - 1/2 mile	0.9
Market rate	1/2 - 3/4 mile	0.9
Market rate	3/4 - 1 mile	1.3
CAF	1/4 - 1/2 mile	0.73
CAF	1/2 - 3/4 mile	0.71
CAF	3/4 - 1 mile	1.01

Source: Arlington County

*Calculated by averaging the max parking utilization or registered vehicles per unit for 110 projects throughout Arlington County (2016)

CAF = Committed Affordable Unit



Off Street Parking Requirements

Zone	Name	Off Street Parking requirements
C-1	Local Commercial	1 sp per 250 SF of first floor area + 1 sp per 300 SF remaining floor area
C-1-0	Limited Commercial Office Building District	1 sp per 250 SF of first floor area + 1 sp per 300 SF remaining floor area
C-2	Service Commercial-Community Business District	1 sp per 250 SF of first floor area + 1 sp per 300 SF remaining floor area
C-0	Mixed Use District	Office, Retail, Service Commercial Space: 1 sp per 530 SF gross floor area* Multi-Family Dwellings: 1 sp per unit* Hotel: .7 sp per guest room and dwelling unit*
C-0-1.0	Mixed Use District	General retail/service - 1 sp per 250 SF of first floor area + 1 sp per 300 SF remaining floor area General Office- 1 sp per 250 SF of first floor area + 1 sp per 300 SF up to 5th floor + 1 sp per 400 SF above 5th. Multi-Family Residential - 1.125 sp per unit (first 200 units) + 1 sp per unit (additional units)
C-0-1.5	Mixed Use District	General retail/service - 1 sp per 250 SF of first floor area + 1 sp per 300 SF remaining floor area General Office- 1 sp per 250 SF of first floor area + 1 sp per 300 SF up to 5th floor + 1 sp per 400 SF above 5th. Multi-Family Residential - 1.125 sp per unit (first 200 units) + 1 sp per unit (additional units)
CM	Limited Industrial District	Variable by specific use
M-1	Light Industrial District	Variable by specific use
R-5	One-Family and Restricted Two-Family Dwelling District	2 sp per unit
R-6	One-Family Dwelling District	1 sp per unit or 2 sp per unit if on cul-de-sac
R-8	One-Family Dwelling District	1 sp per unit or 2 sp per unit if on cul-de-sac
R-10T	One-Family and Townhouse Dwelling District	2.5 sp per unit
R2-7	Two-Family and Townhouse Dwelling District	Two-family - 1 sp per unit - Townhomes - 2.2 sp per unit
R15-30T	Townhouse Dwelling District	2 sp per unit for semi-detached units. All others uses as per 14.3
RA6-15	Multiple-Family Dwelling District	1.125 sp per unit (first 200 units) + 1 sp per unit (additional units)
RA8-18	Multiple-Family Dwelling District	1.125 sp per unit (first 200 units) + 1 sp per unit (additional units)
RA14-26	Multiple-Family Dwelling District	1.125 sp per unit (first 200 units) + 1 sp per unit (additional units)
RA-H	Hotel District	1sp per guest room or dwelling unit
RA-H-3.2	Multiple-Family Dwelling and Hotel District	Multi-Family Dwellings: 1 sp per unit* Hotel: 1 sp per guest room and dwelling unit* Commercial Uses: 1 sp per 300 SF gross commercial floor area*

*Parking to be below grade or within the structure housing the use to which the parking is appurtenant except as allowed in an approved site plan
Source: AECOM

Comparison of Parking Provided to Parking Required by Zone

	Zone 1		Zone 2		Zone 3		Zone 4	
	Avg.	Range for Zones	Avg.	Range for Zones	Avg.	Range for Zones	Avg.	Range for Zones
Ratio of parking provided to approx. required (off street only)	0.81	(0.71-0.91)	0.94	(0.42-1.37)	0.98	(0.67-1.77)	1.15	(0.35-3.18)
Ratio of parking provided to approx. required (off street + on street)	1.14	(1.07 - 1.24)	1.01	(0.42-1.37)	1.15	(0.76-1.98)	1.28	(0.35-3.18)

Note: The ratios in this chart depict the number of spaces approximately provided divided by the number of spaces approximately required in the same area. Measurements were taken using aerial photography and generalized parking requirements.

Source: AECOM

Observed Off-street Parking Utilization for Selected Sites

Residential and commercial destinations	Off street parking utilization	Off street parking utilization
	Friday PM rush hour	Saturday late AM
Mixed-use - Verde Pointe (N. Highlands)	55%	86%
Residential - Potomac Towers (N. Highlands)	49%	74%
Commercial center NW corner of Lee Hwy and Spout Run Pkwy (N. Highlands)	56%	48%
Commercial center SW corner of Lee Hwy and Spout Run Pkwy (Lyon Village)	25%	23%
Commercial - Lee Heights Shopping Center (Waverly Hills)	73%	78%
Commercial - Russell Building (Waverly Hills)	67%	31%
Commercial Center SE corner of Lee Hwy and Glebe Rd.	42%	64%
Commercial Center NE corner of Lee Hwy and Glebe Rd.	22%	34%
Commercial - Lee Harrison Shopping Center (surface lot)	97%	96%
Mixed-use - WestLee Condominiums (2200 North Westmoreland St.) (East Falls Church)	30%	75%

Note: Occupancy observed March 15th and 16th 2019

Source: AECOM

Public Schools, Facilities & Spaces

OVERVIEW

Arlington County recognizes that public facilities are essential to meeting the needs of the community. As the community grows, so does the need for the public facilities that serve them. In some cases, these needs are for schools, cultural facilities (i.e. community centers and libraries) and recreational facilities (i.e. parks and trails), but there are also needs for facilities such as government offices, public safety and/or human services. In other cases, these needs are for core support services, which are the set of functions, activities and processes that are required for the successful execution of a program to provide a certain level of consistency in output. Core support services include operations and storage of critical equipment and materials. Consequently, there are many public needs to meet and land is a precious and constrained resource in Arlington County. There is relatively little readily available land for the expansion or construction of public facilities.

Processes that may impact the planning study area are the Arlington Public Schools (APS) and County Capital Improvement Plans (CIP), the Public Facilities Plan, as well as, future school boundary adjustments. The CIP process, which funds school and County capital projects, will begin in the fall of 2019 and will be voted on in the November 2020 bond referendum. The future elementary school boundary adjustment process (as a result of the new elementary school at the Reed site in 2021) will be planned in 2020, to take effect in September 2021. County and APS Staff, with input from the Joint Facilities Advisory Commission, are also currently drafting the scope of work for a county-wide Public Facilities Plan (County and School Facilities). The purpose of this plan is to develop a long-range, comprehensive plan to guide the collaborative, creative, timely, and efficient siting and development of County and School facilities.

To meet the growing needs of North Arlington, Plan Lee Highway will address ways to steward the public land resources that exist within the study area, use them efficiently and creatively, and potentially integrate public facilities into mixed-use community destinations.

The first part of this section provides an inventory of existing public assets (land and buildings), within the planning study area and a ½ mile radius beyond, to understand the ownership pattern and the location of these assets. It then takes a closer look at the existing schools, community centers, libraries, public safety facilities and parks and other public spaces, to understand the physical characteristics of each and the types of programs,

services and/or amenities they provide. For schools, for example, this section analyses the current school year's capacity and enrollment as well as the 10-year enrollment projections to understand how Arlington Public Schools (APS) estimates growth and identifies needs.

The second part of this section provides an analysis of the existing public facilities network (in and adjacent to the planning study area), to understand where the facilities are in relation to one another and the level of connectivity that currently exists between them. Specifically, it identifies where there are existing barriers and gaps in connectivity and what those conditions are generally attributed to. The Lee Highway community has expressed the desire for 'additional gathering places' (and spaces that allow flexibility of use) and better connectivity to existing and new destinations. After understanding the spatial and physical relationship between the public facilities, this section provides examples of different types of "gathering places" and identifies opportunities for creating 'social hubs' along Lee Highway. More discussions with the neighborhoods will be held to better understand the types of activities the community desires in these spaces, as well as, where improvements are needed to improve connectivity. Lastly, this section provides examples of public art in an outside of the County, including permanent installations and temporary activations and programming on Lee Highway. Public art is a means to tell the history of a place. While speaking to its character and identity, it contributes to placemaking. The cultural resources survey will uncover stories and events that are part of the significant history of the corridor and will identify opportunities for incorporating additional public art to celebrate that history in the study area.

Other elements that are integrated and interconnected with public spaces, such as, urban forestry, urban design and connectivity (street, pedestrian and bicycle) are discussed separately in the Urban Design and Building Form, Transportation and Connectivity, and Sustainability and Resiliency sections.

*The County will continue to seek community feedback to validate and refine the 2016 Vision Study principles and recommendations and the County's Preliminary Aspirational Goals throughout the Plan Lee Highway process.

Preliminary Aspirational Goal

Public Spaces: Ensure that the Lee Highway community is connected to and well served by a diverse mix of public spaces that balance community needs. Embrace streetscapes as an important element of public space. Strive to achieve the goals and recommendations of the County's Public Spaces Master Plan (PSMP).

Public Schools and Facilities: Ensure that public schools and facilities meet the needs of the County and the Lee Highway community. Monitor growth along the Lee Highway corridor to assess and adequately plan for future public schools and facility needs. Identify areas that may be appropriate for future County-wide needs, including core support services, while recognizing that this process will not replace siting or use determination processes to locate specific uses.

2016 Vision Study Principles*

Public Spaces: Provide new community open spaces and gathering places that are integrated with walk/bike networks.

Public Schools and Facilities: Align new public facilities and services with corridor growth and preserve/enhance existing amenities.

2016 Vision Study Recommendations*

Public Spaces:

- Create walkable/bikeable network of new and existing neighborhood open spaces and social gathering places
- Refresh and connect existing destinations (i.e. recreation facilities, schools, natural areas etc.)
- Provide art in public spaces
- Provide spaces for active and passive recreation serving a range of age groups and families
- Embrace streetscapes as an important element of public space

Public Schools and Facilities:

- Continue to pursue joint County/Community Studies of potential future use of Fire Station 8.
- Monitor growth to assess and adequately plan for future schools and other public facilities, including core support services.



Glebe Elementary School (Source: APS)



Cherrydale Library (Source: <https://www.cherrydalelibrary.org/LIBRAR14.HTM>)



Lyon Village Park (Source: parks.arlingtonva.us)

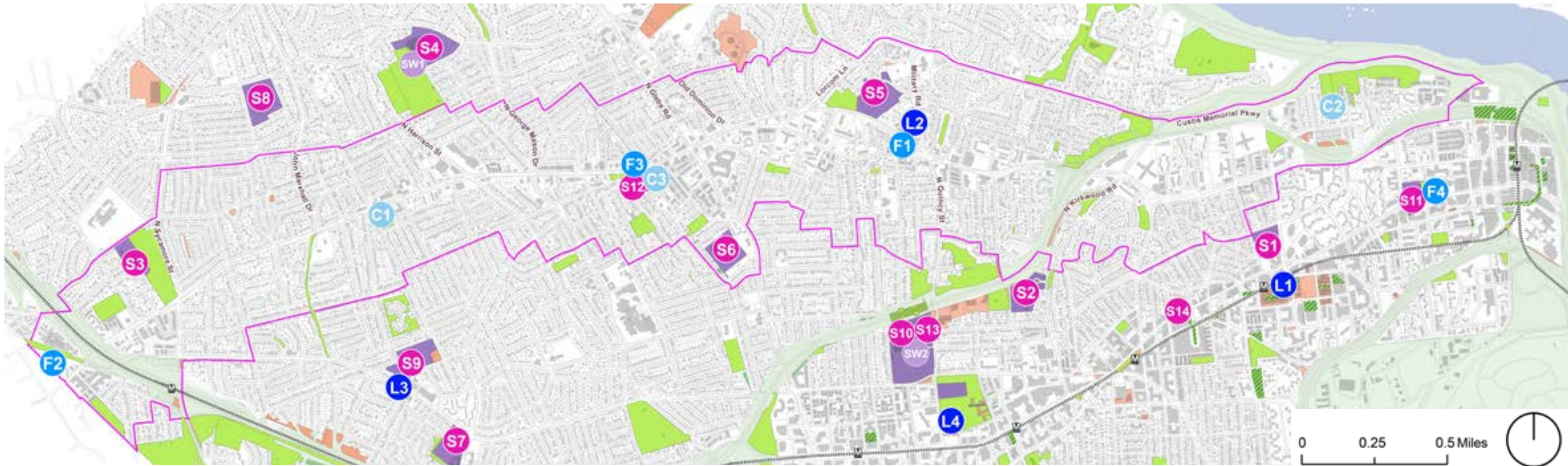


Figure 6.1 Existing Public Assets
Source: AECOM

APS Facilities Inventory	
Schools	
S1	Key Elementary School
S2	Arlington Science Focus Elementary School
S3	Tuckahoe Elementary School
S4	Yorktown High School
S5	Dorothy Hamm Middle School (9/2019)
S6	Glebe Elementary School
S7	Swanson Middle School
S8	Nottingham Elementary School
S9	New Elementary School at Reed Site (2021)
S10	Washington-Lee High School*
S11	H-B Woodlawn and Stratford Secondary Program (9/2019)
S12	Langston Secondary Program
S13	Arlington Education Center
S14	New Directions Program

APS Facilities Inventory	
SW1	Yorktown High School Swimming Pool
SW2	Washington-Lee High School Swimming Pool
County Facilities Inventory	
Library	
L1	Plaza Library & Arlington Shop
L2	Cherrydale Library
L3	Westover Library
L4	Central Library
Community Center	
C1	Lee Community Center
C2	Dawson Terrace Community Center
C3	Langston Brown Community Center

County Facilities Inventory	
Fire Station	
F1	Fire Station 3
F2	Fire Station 6
F3	Fire Station 8
F4	Fire Station 10

In Planning Study Area



OBSERVATIONS

- In many cases public facilities are co-located, this presents a great opportunity to provide a major destination for community interaction.
- Public facilities colocated with public outdoor space also provide potential great community experiences
- Leveraging existing facilities can be a good strategy to grow additional opportunities in the surrounding area

SCHOOLS OVERVIEW

This section takes a close look at the current school year's (2018-2019) capacity (number of permanent seats available) and student enrollment (number of students) for all schools, in and adjacent to the planning study area, to understand each school's capacity utilization. This information provides insight on which schools today are over capacity and rely on relocatable classrooms to provide additional seats. Based on the actual September 30, 2018 enrollment counts, the majority of the schools along the corridor were at or over capacity. For example, the H-B Woodlawn and Stratford Secondary Program and Swanson Middle School are both over capacity at 112% and 132%, respectively. As a result, in September 2019, the H-B Woodlawn and Stratford Secondary Program is moving from their building on Vacation Lane (in Waverly Hills) to the new Heights Building on Wilson Boulevard (in Rosslyn). A new middle school, Dorothy Hamm, is opening at the Stratford site to relieve over capacity at Swanson and Williamsburg middle schools.

Arlington Public Schools (APS) projects student enrollment for 10 years into the future. Enrollment projections are based on resident births, enrollment trends, and anticipated student yield from future residential development. The 10-year enrollment projections do not take into consideration potential new residential development that may arise from the planning study, as APS only factors in approved development projects and 10-year housing forecasts. This section explains how APS estimates growth, using student generation rates (SGRs), for each housing type and affordability level. It then looks at the 10-year (school year 2028-29) enrollment projections and compares it to the current school year's (2018-2019) capacity (number of permanent seats) to understand the capacity utilization based on future growth. The majority of the schools, in and adjacent to the planning study area, are projected to continue to be over capacity in 10 years, particularly the elementary schools. To address this, a new elementary school will open at the Reed site in 2021 and will provide additional permanent seats. While this will improve neighboring schools' capacity utilization, additional seats may still be needed to accommodate growing enrollment. Pre-K through 12 grade enrollments will continue to grow and is expected to increase approximately 25% by 2028. APS uses their Capital Improvement Plan and the Arlington Facilities and Student Accommodation Plan to determine the level, timing, and location of future seat needs.

Additional student enrollment and need for other public facilities can be expected from potential residential development in the planning study area, as a result of the Lee Highway Plan. There are clear concerns regarding how this will be adequately planned, funded, implemented, operated and maintained in the future. In phase 2, the planning study will test the impact on student enrollment and other public facilities arising from the land use scenarios. Further study for potential locations of future public facilities, that may be appropriate, or where existing public facilities may expand will be included in the land use scenario analysis. Additional consideration for how public facilities can be integrated into the existing built environment, capitalizing on potential future groupings of land uses that would support new public facilities will be evaluated. Alternatively, how existing public facility sites can be redeveloped to optimize a public/private arrangement will also be analyzed. APS and the County have established a shared use agreement to make available their respective spaces to the other, in order to maximize school and community facilities as a community asset. This was established to help address child obesity as part of the safe routes to school national partnership. The primary mission in joint use facilities is meeting the educational needs of students as well as serving the recreational needs of the community.

APS Needs

- Majority of schools along the corridor were at or over capacity based on September 30, 2018 enrollment. This is likely to continue, even with the opening of a new elementary school at the Reed site.
- APS PreK-12 enrollment will continue to grow and is expected to increase approximately 25% by 2028.
- Additional student enrollment can be expected from potential residential development in the Lee Highway Planning Area arising from the Lee Highway Plan.
- APS uses the CIP and Arlington Facilities and Student Accommodation Plan (AFSAP) to determine the level, timing, and location of future seat needs.

KEY DOCUMENTS + TAKEAWAYS

Arlington Public Schools FY 2019-28 CIP (2018)

Every two years, the School Board adopts a CIP that addresses APS capital needs—investments needed to improve or enhance the infrastructure of our schools—over the next ten years. The CIP includes major capital projects, such as new schools and school additions, as well as major maintenance and minor construction projects. The 2019-28 CIP and the 2017-26 CIP both included funding for a new elementary school at the Reed site to open in 2021. The 2017-26 CIP included funding to add seats at Yorktown High School.

- The next APS and County Capital Improvement Plan (CIP) processes, which fund school and County capital projects, will begin in Fall 2019 and will be voted on in the November 2020 bond referendum.
- Recent APS CIP funded projects along Lee Highway include:
 - Dorothy Hamm Middle School, 2019
 - The Heights Building, 2019
 - New Elementary School at Reed site, 2021

Arlington Facilities and Student Accommodation Plan 2016-25 (2018)

The AFSAP provides a comprehensive look at student enrollment and building capacity within Arlington Public Schools (APS). The plan provides important data about demand, needs and capacity in order to make informed decisions about current and future APS facilities and programs. Specific information about each school is provided, as well as an overall look at enrollment/capacity issues throughout the county. APS faces significant challenges as student enrollment is at its highest point in the history of APS, and enrollment is only expected to continue growing over the next decade.

- Boundary adjustments are used to create attendance zones for new schools and balance enrollment among schools.
 - Future Elementary School boundary process planned in 2020 to take effect in September 2021 when the new elementary school at the Reed site opens.
 - This process may adjust elementary boundaries for schools along Lee Highway
 - Recent past boundary processes include:
 - High School, 2016
 - Middle School, 2017
 - Elementary School, 2018



Langston Secondary Program at Langston Brown Community Center (Source: APS)



Glebe Elementary School (Source: APS)

PUBLIC SCHOOLS

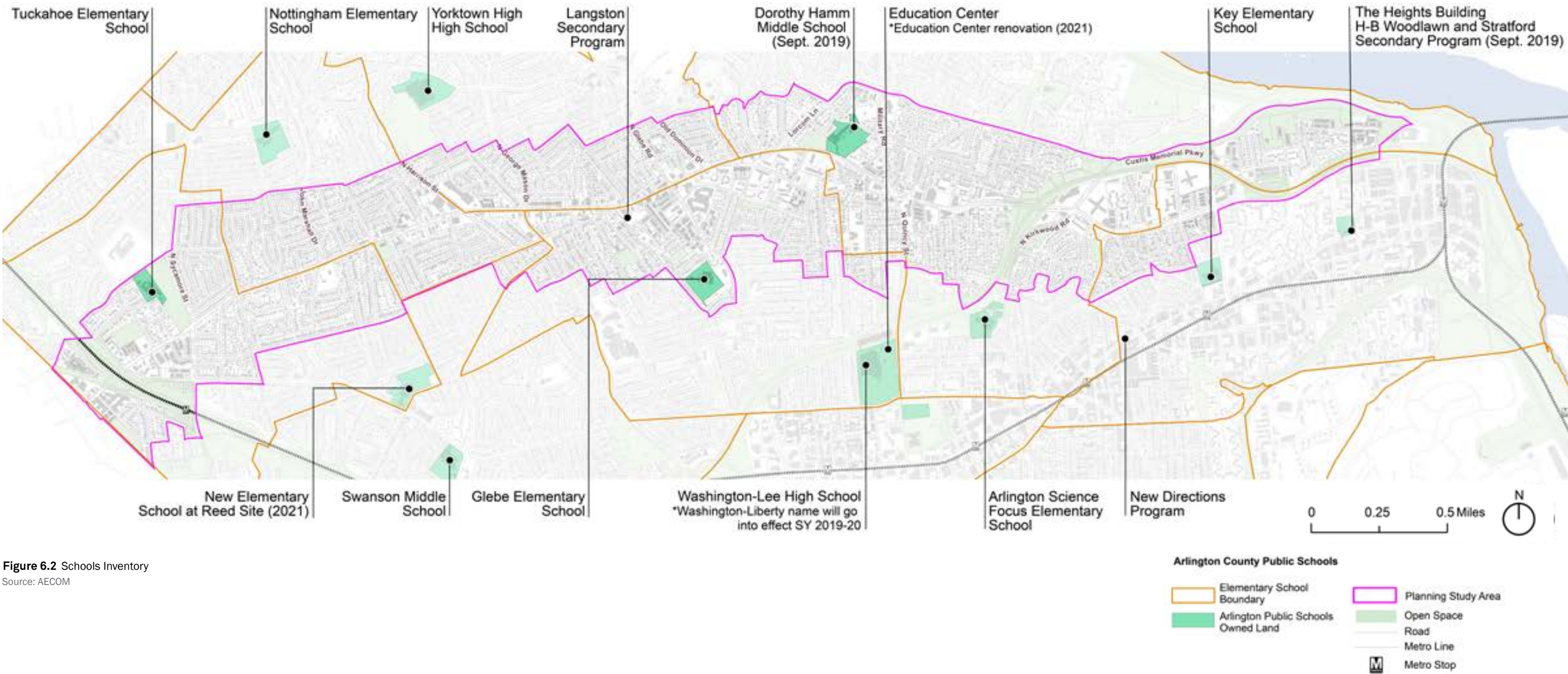


Figure 6.2 Schools Inventory
Source: AECOM

PUBLIC SCHOOLS SCHOOLS IN STUDY AREA

(As of September 2019)

	Schools (PreK to Grade 12)	Year Built	Most Recent Major Renovation ¹	APS Property Area ² (Acres)	Gross Building Area ³ (Square Feet)
In Study Area	Glebe Elementary School (ES)	1971	2004	6.96	82,889
	Tuckahoe Elementary School (ES)	1953	1999	6.57	69,685
	Dorothy Hamm Middle School (MS) ⁴	1950	2019	9.10	185,819
	Langston High School Continuation Program (HS)	2002	--	4.02	47,291

1- Source: APS and the Environment, Energy Conservation, Energy Report Cards, 2018. <https://www.apsva.us/aps-goes-green/energy-conservation/energy-site-intensity-elementary-school/>

2- Acreage, Land Book, Property Cards, Arlington County Department of Real Estate Assessments, 2019

3- APS Facility Inventory, 06/19/2018

4- Beginning September 2019 the H-B Woodlawn and Stratford secondary programs will move from their building on Vacation Lane to The Heights Building. The building on Vacation Lane will open as the new Dorothy Hamm Middle School.



Langston Secondary Program (Source: APS)



Dorothy Hamm Middle School (2019) (Source: APS)



Tuckahoe Elementary School (Source: APS)



Glebe Elementary School (Source: APS)



	Schools (PreK to Grade 12)	Year Built	Most Recent Major Renovation ¹	APS Property Area ² (Acres)	Gross Building Area ³ (Square Feet)
Adjacent to Study Area	Arlington Science Focus Elementary School (ES)	1953	2000	6.22	68,127
	Key Elementary School (ES)	1968	1999	4.36	84,617
	Nottingham Elementary School (ES)	1952	2006	8.95	70,944
	Taylor Elementary School (ES)	1953	2013	15.54	80,428
	Swanson Middle School (MS)	1939	2005	6.70	132,158
	New Directions Secondary Program	1960	2001	0.75	11,217
	The Heights Building (H-B Woodlawn and Stratford Secondary Programs ^{4,5})	2019	--	2.60	181,803
	Washington-Lee High School ⁶ (HS)	2009	2015	22.59	378,068
	Yorktown High School (HS)	2013	2018	12.34	355,887

1- Source: APS and the Environment, Energy Conservation, Energy Report Cards, 2018. <https://www.apsva.us/aps-goes-green/energy-conservation/energy-site-intensity-elementary-school/>

2- Acreage, Land Book, Property Cards, Arlington County Department of Real Estate Assessments, 2019

3- APS Facility Inventory, 06/19/2018

4- Beginning September 2019 the H-B Woodlawn and Stratford secondary programs will move from their building on Vacation Lane to The Heights Building. The building on Vacation Lane will open as the new Dorothy Hamm Middle School.

5- Secondary programs include Grades 6-12

6- The new name Washington-Liberty will go into effect for the 2019-20 school year.

PUBLIC SCHOOLS

SCHOOL YEAR 2018-19 CAPACITY AND ENROLLMENT

	Schools (PreK to Grade 12)	SY 2018-19 Capacity (Permanent Seats)	September 30, 2018 Enrollment	Capacity Utilization
In Study Area	Glebe Elementary School (ES)	510	595	117%
	Tuckahoe Elementary School (ES)	545	536	98%
	H-B Woodlawn and Stratford Secondary Program ¹	666	747	112%
	Langston Secondary Program	150	121	81%
Adjacent to Study Area	Arlington Science Focus Elementary School (ES)	553	683	124%
	Key Elementary School (ES)	653	726	111%
	Nottingham Elementary School (ES)	513	503	98%
	Taylor Elementary School (ES)	659	671	102%
	Swanson Middle School (MS)	948	1,251	132%
	New Directions Program	--	--	--
	Washington-Lee High School (HS) ²	2,208	2,275	103%
	Yorktown High School (HS)	2,189	2,078	95%

1- Beginning September 2019 the H-B Woodlawn and Stratford secondary programs will move from their building on Vacation Lane to The Heights Building. The building on Vacation Lane will open as the new Dorothy Hamm Middle School.
 2- The new name Washington-Liberty will go into effect for the 2019-20 school year.

OBSERVATIONS

- Capacity is the number of permanent seats; does not include seats in relocatable classrooms.
- Relocatable classrooms are used as needed to accommodate student enrollment when schools are over capacity.
- Capacity Utilization is the number of students enrolled divided by the number of permanent seats.
- Majority of schools along the corridor were at or over capacity based on September 30, 2018 enrollment.

PUBLIC SCHOOLS

SCHOOL YEAR (SY) 2019-20 CAPACITY AND SY 2028-29 ENROLLMENT PROJECTIONS

	Schools (PreK to Grade 12)	SY 2019-20 Capacity (Permanent Seats)	SY 2028-29 Enrollment Projection	Capacity Utilization ¹
In Study Area	Glebe Elementary School (ES)	510	724	142%
	Tuckahoe Elementary School (ES)	545	620	114%
	Dorothy Hamm Middle School (MS) ²	1,000	863	86%
	Langston Secondary Program	150	121	81%
Adjacent to Study Area	Arlington Science Focus Elementary School (ES)	553	886	160%
	Key Elementary School (ES)	653	776	119%
	Nottingham Elementary School (ES)	513	578	113%
	Taylor Elementary School (ES)	659	830	126%
	Swanson Middle School (MS)	948	1,194	126%
	New Directions Program	--	--	--
	The Heights Building ² (H-B Woodlawn and Stratford Secondary Programs)	775	759	98%
	Washington-Liberty High School (HS) ³	2,208	2,679	121%
Yorktown High School (HS)	2,189	2,407	110%	

1-A new ES at Reed site will open in 2021 (total of 725 permanent seats/110,672 sf). The additional permanent seats are not factored into the capacity utilization calculation (indicated above) at the individual school level because the new school boundaries have not been determined yet. The additional permanent seats will improve neighboring schools' capacity utilization, however, additional seats may still be needed to accommodate growing enrollment.

2-Beginning September 2019, the H-B Woodlawn and Stratford secondary programs will move from their building on Vacation Lane to The Heights Building. The building on Vacation Lane will open as the new Dorothy Hamm Middle School.

3-The new name Washington-Liberty will go into effect for the 2019-20 school year.

4-Single family detached dwellings generate the highest number of student enrollment.

OBSERVATIONS

- APS projects student enrollment for 10 years into the future.
- Enrollment projections are based on resident births, enrollment trends, and anticipated student yield from future residential development.
- Projections include future residential development assumptions from approved development projects and 10-year housing forecasts.
- Majority of schools are projected to be over capacity based in part on approved development projects⁴.
- In 2021 a new elementary school at Reed site will provide additional permanent seats¹.
- Planning process will test impact on enrollment from potential new residential development arising from the land use scenarios.



Student Generation Rates for 2019-20 School Boundaries*									
Housing Type and Affordability Level	Elementary School					Middle School		High School	
	Arlington Science Focus School	Glebe	Nottingham	Taylor	Tuckahoe	Dorothy Hamm	Swanson	Washington-Liberty	Yorktown
Single Family Detached	0.211	0.245	0.324	0.233	0.251	0.118	0.131	0.131	0.152
Townhouse	0.148	0.101	0.064	0.095	0.157	0.041	0.028	0.034	0.055
Duplex	0.044	0.109	--	0.048	0.220	0.004	0.051	0.115	0.030
Apartment Elevator - Market Rate	0.020	0.103	--	0.013	--	0.009	0.010	0.008	0.007
Apartment Elevator - Mixed Income	0.075	--	--	0.078	0.042	0.024	0.014	0.047	0.027
Apartment Elevator - CAF	0.100	--	--	--	--	0.080	0.144	0.185	0.063
Apartment Garden - Market	0.050	0.161	0.205	0.035	0.121	0.022	0.042	0.076	0.045
Apartment Garden - Mixed Income	0.000	--	--	--	--	0.014	0.117	0.157	0.206
Apartment Garden - CAF	0.239	0.429	--	0.202	--	0.086	0.135	0.210	0.102
Condo-Elevator	0.024	0.010	--	0.025	0.039	0.007	0.005	0.013	0.009
Condo-Garden	0.018	0.070	0.059	0.035	0.039	0.006	0.019	0.033	0.013
Total	0.047	0.183	0.307	0.141	0.202	0.031	0.054	0.064	0.074

* Source: https://www.apsva.us/wp-content/uploads/2019/02/Fall-2019-28-APS-Enrollment-Report_v12_.pdf

How is Student Enrollment from Future Housing Estimated?

- Every year APS estimates growth from future residential development by producing student generation rates (SGR).
- SGRs are used to estimate number of enrolled students likely to come from a new residential unit (by housing type and affordability level). Student generation rates may be different for each school boundary area.
- SGRs are based on actual data. 2018 SGRs used September 30, 2018 student enrollment counts (from APS) and inventory of residential units (from Arlington County’s Master Housing Unit Database - MHUD).
- More information is available in the Annual Enrollment Projections Report: https://www.apsva.us/wp-content/uploads/2019/02/Fall-2019-28-APS-Enrollment-Report_v12_.pdf
- SGRs are calculated for each elementary, middle, and high school attendance zone.
- SGRs will be applied to land use scenarios to test the enrollment growth of potential residential development in the Planning Area (based on most recent SGR data and school boundaries).
- Based on actual data, SGRs are adjusted each year for the following housing types and income levels:
 - Single Family Detached
 - Townhouse
 - Duplex
 - Apartment Elevator – Market Rate
 - Apartment Elevator – Mixed Income
 - Apartment Elevator – Committed Affordable
 - Apartment Garden – Market Rate
 - Apartment Garden – Mixed Income
 - Apartment Garden – Committed Affordable
 - Condo Elevator
 - Condo Garden



PUBLIC FACILITIES OVERVIEW

Land is a precious and constrained resource in Arlington County and as the community grows, so does the need for the public facilities that serve them. In some cases, these needs are for community centers, libraries, schools, recreational facilities (i.e. parks, trails), government offices, public safety and/or human services. In other cases, these needs are for core support services, which are the set of functions, activities and processes that are required to provide a certain level of consistency in output. Core support services include operations and storage of critical equipment and materials. Consequently, there are many public needs to meet with relatively little readily available land for the renovation, expansion or construction of new public facilities. To meet the growing needs of North Arlington, Plan Lee Highway will address ways to steward the public land resources that exist within the study area, use them efficiently and creatively, and potentially integrate public facilities into mixed-use community destinations.

County Needs

- Land for public facilities is constrained.
- Address ways to steward public land resources and allow for potential partnership for Public Facilities on private land, or through land acquisition, to meet growing needs (i.e. community centers/libraries, schools, recreational/cultural facilities, government offices, operations and storage of equipment/materials, public safety and human services).

This section takes a look at the programs and services the existing cultural (community centers and libraries) and public safety (fire stations) facilities along Lee Highway provide and the date of their most recent upgrades or date of construction.



Fire Station #8 (Source: Arlington County)

KEY DOCUMENTS + TAKEAWAYS

Arlington Community Facilities Study Final Report (2015)

This study reviews the County's current community facilities (as of 2015), identifies challenges and makes recommendations for moving forward with next steps. This study is the origin of the Joint Facilities Advisory Commission (JFAC), a stakeholder of this project. While the planning study area for this project is included within the County's overall study, the report does not identify needs for specific areas - rather it looks at the needs of the County as a whole.

Arlington County FY 2019-2028 CIP (2018)

The County's most recent CIP was produced last year. In developing the plan, considerations for both immediate and longer-term capital needs were made with regards to the County's capital assets, e.g. public land and facilities, parks, playgrounds and outdoor structures, streets, bridges, pedestrian and bicycle systems, water and sewer infrastructure, technology systems and equipment, traffic control devices, among others. The CIP identifies several capital assets to be funded in the planning study area over the next ten years, including the design and construction of Fire Station #8 building.

- Recent County CIP funded projects in the vicinity of Lee Highway include:
 - Fire Station #8 (CIP 2019-2028)
 - Fire Station #10 (CIP 2019-2028)
 - Re-envisioning Quincy Park and Central Library (CIP 2019-2028)
 - Westover Library Maintenance Capital (CIP 2019-2028)

Arlington County Public Facilities Review Committee: Principles of Civic Design

These principles are intended to inform the design of civic facilities in Arlington, including buildings and other projects, to ensure they meet community goals for attractiveness, durability, and functionality. The principles reinforce and supplement existing County planning documents and policies and are meant to promote compliance with certain basic principles, but not to inhibit creative design. Each project is reviewed individually, and for each project, certain principles may be stressed over others.



Langston Brown Community Center (Source: APS)

PUBLIC FACILITIES

FACILITIES IN THE STUDY AREA

Facility	Programs and Services Provided	Most Recent Upgrades/Construction Date
Cherrydale Library	Library amenities (includes public computers and art exhibits)	1961
Dawson Terrace Community Center	Martial arts program	2016
Fire Station 3	Emergency response	Constructed 2010
Fire Station 6	Emergency response	Constructed 2000
Fire Station 8*	Emergency response	Constructed 1963 (replacement facility to be completed 2021)
Langston Brown Community Center	Senior center, arts and crafts room, dance studio, teen lounge and indoor basketball court	Constructed 2002
Lee Community Center and Arts Center	Arts studio (print & pottery) and public computer lab for 55+ members during senior program hours	2001



Cherrydale Library (Source: <https://www.cherrydalelibrary.org/LIBRAR14.HTM>)



Dawson Terrace Community Center (Source: <https://parks.arlingtonva.us/locations/dawson-terrace/>)



Fire Station 3 (Source: <https://fire.arlingtonva.us/locations/fire-station-3-cherrydale-military-road>)



Fire Station 6 (<http://wikimapia.org/1193153/Fire-Station-6-Falls-Church>)



Fire Station 8 (<https://fire.arlingtonva.us/locations/fire-station-8-lee-highway/>)



Langston Brown Community Center (Source: APS)



Lee Community Center and Arts Center (Source: <https://parks.arlingtonva.us/locations/lee-community-center-park/>)

*A new four-bay station, in the location of the existing Fire Station No. 8, will be constructed. In January 2017, the County Board approved the acquisition of three parcels to use as a temporary location for Fire Station No. 8, while the new one is being built. The parcels, located at 2211, 2215 and 2217 N. Culpeper Street, are immediately adjacent to the existing station – this keeps the station in the same general area and affords minimal disruption in fire operations. The temporary location is expected to include temporary engine bay structures on the 2211 and 2215 parcels and the living quarters will be located in the existing 2217 N. Culpeper Street residential building. Design of the permanent station is currently in progress. Recommendations for the future use of the three parcels will be evaluated as part of the land use scenario analysis in Phase 2.

The Fire Station No. 8 History and Legacy (FS8HL) working group was established in January 2018 and charged to develop and recommend strategies to recognize, emphasize and honor the history and legacy of the Hall's Hill/High View Park Volunteer Fire Department and Fire Station No. 8.

PUBLIC SPACES OVERVIEW

Arlington County has a long history of recognizing the importance of public spaces for the quality of life of residents, workers, and visitors. Ranked as the fourth best community among the 100 largest in the United States for total acreage, investment, amenities and access to parks, Arlington's nationally accredited public space system continues to achieve high standards in quality.

The County's Public Spaces Master Plan (PSMP) defines public spaces as spaces that support recreation and leisure, natural resources, casual use, historic and cultural resources and is either publicly owned or has guaranteed public access – including parks, plazas, trails, streets and recreation facilities. In Arlington County this includes parks, playgrounds and/or sports fields inside APS properties that provide general public access after school hours. Cultural facilities, such as, libraries and community centers are also considered public spaces. Public spaces have multiple purposes – to allow people to gather, interact, recreate, communicate, work and connect with nature. As destinations, they help establish neighborhood identity. As streets and trails, they establish walkable communities and enable 'community' as much as move people through them to their destination. The County envisions a network of publicly – and privately – owned public spaces.

The Lee Highway community has expressed the desire for 'additional gathering places' (and spaces that allow flexibility of use) and better connectivity to existing and new destinations. More discussions with the neighborhoods will be held to better understand the types of activities the community desires in these spaces, as well as, where improvements are needed to improve connectivity. This section focuses on the parks and other public spaces in the planning study area.

PSMP vision for public spaces:

'Arlington County envisions a network of publicly- and privately-owned public spaces that: a) connect the County's established neighborhoods and growing corridors to natural areas; b) protect valuable natural resources; c) provide opportunities for structured and casual recreation; and d) ensure access to the Potomac River, Four Mile Run, and their tributaries.'

KEY DOCUMENTS + TAKEAWAYS



Public Spaces Master Plan (April 2019)

<https://projects.arlingtonva.us/plans-studies/comprehensive-plan/public-spaces-master-plan/>

The Public Spaces Master Plan (PSMP) (and other critical components of the Comprehensive Plan) guide coordinated development and set high standards of public services and facilities, addressing a wide-ranging set of community needs. The PSMP also provides a planning framework that guides the implementation of the public space improvements identified and prioritized in the Capital Improvement Plan (CIP) and will guide the County in stewardship of Arlington's public spaces for future generations to enjoy.

The PSMP update includes the County's first Level of Service (LOS) approach, a context-sensitive, activity-based methodology to meet the County's current and future needs through population-based and access standards. This LOS approach will serve as an essential planning tool, which will help the County maintain and manage the public space system. The PSMP also focuses on using a comprehensive criteria for land acquisition, evaluating athletic fields for potential conversion to synthetic turf or addition of lighting and a new category of dog runs. Additionally, it identifies and defines a new category of space, deliberately designed "casual use" spaces that support casual, impromptu use that is vital to the quality of life for all Arlingtonians.

The PSMP is one of eleven (11) elements of the County's Comprehensive Plan and is supported by three sub-elements that will be updated in the future by the County:

- Urban Forest Master Plan: includes a variety of long-term goals, strategies and priorities that address tree canopy in a comprehensive, systematic manner.
- Public Art Master Plan (currently being updated): outlines a strategy for how public art, with elevated standards for design, architecture and landscape architecture, will improve the quality of public spaces and the built environment in Arlington – for civic placemaking.
- Natural Resources Management Plan: provides recommendations and best practices to enhance, preserve and protect natural resources.

Note: The County will be updating the UFMP & NRPM through a combined process.

The PSMP is organized around six Strategic Directions (overarching policy statements): Public Spaces, Trails, Resource Stewardship, Fiscal Sustainability and Partnerships, Programs and Operations and Maintenance. These Strategic Directions continue to build upon and advance the efforts from the previous PSMP, with eleven new Priority Actions and many specific recommendations (Action Steps) to support each of the Strategic Directions. It is important that public space planning, within the Lee Highway Corridor, seek to advance or contribute to the success of the County's Priority Actions for the next 20 years:

- Priority Action 1. (Rec 1.1) - Add at least 30 acres of new public space over the next ten years.

- Priority Action 2. (Rec. 1.1.2) - Secure or expand the public spaces envisioned by sector, corridor and other plans adopted by the County Board and ensure they provide amenities that meet the County's needs.

Adopted County plans provide direction for where new public spaces should be located in the more densely populated corridors. While the size and general function of these spaces may be identified in such plans, the level of service standards set in the PSMP shall guide the selection of amenities to be built in these new spaces as they are master planned. *Note: Upon completion, it is envisioned that the Lee Highway Corridor Plan will be adopted by the County Board and added to the list of plans for Priority Action item #2 above.*

- Priority Action 3. (Rec 1.2) - Utilize level of service as a planning tool to manage public space assets efficiently.
- Priority Action 4. (Rec 1.2.5) – Analyze athletic field utilization to improve data on the current use and assess future athletic field needs.
- Priority Action 5. (Rec 1.3) - Ensure access to spaces that are intentionally designed to support casual, impromptu use and connection with nature.
- Priority Action 6. (Rec 1.5.2) - Complete the implementation of adopted park master plans.
- Priority Action 7. (Rec 1.5.9) - Develop park master plans for all new parks or when renovation of an existing park requires a major rearrangement of park amenities.
- Priority Action 8. (Rec 1.8) - Ensure and enhance access to the Potomac River, Four Mile Run and their tributaries while improving the tree canopy, native vegetation, and other natural resources along waterways.
- Priority Action 9. (Rec. 2.1) - Expand Arlington's network of connected multi-use trails.
- Priority Action 10. (Rec 3.1) - Update the Natural Resources Management Plan and Urban Forestry Master Plan through a combined process.
- Priority Action 11. (Rec 3.2) - Protect, restore, and expand natural resources and trees.

OVERVIEW (CONTINUED)

PSMP General Recommendations:

The PSMP includes over 200 specific recommendations, most of them which apply county wide. Some of these recommendations which can be applied in the corridor would increase the amount of public space in the planning study area:

- Improving connectivity to existing public spaces and provides policies that guide access improvements
- Enhancing existing public spaces
- Creating new public spaces where needed most
- Creating flexible 'Casual Use' spaces:
- The objective is to ensure that casual use spaces are considered to be an intentional, integral part of Arlington's public space system. Casual use spaces should not be leftover space after other uses are accommodated.
- Following established design guidelines for privately – owned public spaces
- Acquiring land to meet plan goals*

*In and around the Lee Highway planning study area, the PSMP encourages land acquisitions for the expansion of existing parks (i.e. Cherrydale Park, Tuckahoe Park, Oak Grove Park, Windy Run Park) and to preserve access to Gateway Park.

In addition to the eleven new Priority Actions listed above from the PSMP, the plan identifies several other actions which have direct relevance to the planning of the Lee Highway Corridor. Below are the key relevant actions for strategic directions of the PSMP document:

1 Public Spaces

- 1.1.3. Incorporate the recommendations of the PSMP into future sector, corridor, and other County plans, and use County-wide needs and level of service analyses to guide the inclusion of additional public space in those plans.
- 1.1.4. Ensure that privately owned public spaces conditioned in site plans are informed by this plan's level of service analyses and guided by the Privately-Owned Public Space Design Guidelines
- 1.1.6. Explore strengthening and expanding the use of the County's Transfer of Development Rights policy as a tool to create and consolidate future public space.
- 1.2.3. Consider siting new amenities in locations that are or can be made accessible by as many modes of transportation as possible.
- 1.3.1. Undertake an inventory of casual use spaces to better understand their distribution and gaps.
- 1.3.2. Explore opportunities to develop standards for casual use spaces.
- 1.5.3. Consolidate recreation facilities and activities that are currently distributed throughout community centers into fewer, larger recreation centers.
- 1.5.14. Consider multi-modal improvements in the park master planning process to increase accessibility by walking, biking, driving, and public transit.
- 1.6.1 Explore expanding the offering or permitting of concessions in public spaces in high density corridors, adjacent to sports fields, and at locations where special events are regularly held.

2 Trails

- 2.1.1. Complete an "inner loop" of protected routes that connects the Custis, Four Mile Run, Arlington Boulevard, and Mount Vernon Trails.
- 2.1.2. Complete an "outer loop" of protected routes that connects the Four Mile Run, Mount Vernon, and Zachary Taylor Trails.

Note: Both the proposed 'inner loop' and 'outer loop' are within the Lee Highway Corridor's eastern and western areas as shown below in Figure 18 from the PSMP.

Observations:

- Lee Highway and its parallel routes can make this important link possible.



Figure 6.3 Map of conceptual inner and outer loops

<https://projects.arlingtonva.us/plans-studies/comprehensive-plan/public-spaces-master-plan/>

3 Resource Stewardship

- 3.2.2. Pursue easements to protect natural areas, mature tree canopy and heritage resources.
- 3.3. Integrate natural resources, trees and natural resource interpretation into the design of public spaces.
- 3.3.1. Explore opportunities to participate in and join the Biophilic Cities movement.

- 3.3.2. Expand natural areas and tree canopy within high-density corridors.
- 3.3.6. Encourage nature-inspired play and experiences in public spaces.

Note: Overall, the tree canopy coverage in the planning study area is consistent with high density areas such as Columbia Pike and Rosslyn-Ballston Corridors. There is a mix of public spaces with high and low tree canopy coverage. Properties directly fronting Lee Highway have very little tree canopy coverage.

4 Fiscal Sustainability & Partnerships

- 4.1.1. Explore opportunities to improve joint-use facilities to maximize public access to amenities and use land and other resources more efficiently. Identify additional existing APS facilities that could be used as public space.
- 4.1.3. Expand participation in planning for publicly accessible amenities on APS property.
- 4.1.6. Continue to collaborate with APS to preserve natural resources, athletic fields, outdoor learning areas and other public space when designing and building new schools.
- 4.3.1. Look for opportunities to create new partnerships with organizations to maximize the intended use of public spaces and revise existing agreements to ensure mutually beneficial outcomes.

5 Programs

- 5.1.5 - Increase drop-in opportunities to allow more flexibility for residents and improve program participation.
- 5.6.1 - Employ lessons learned from past experiences with activating public spaces to develop program plans for spaces that are meant for or could accommodate additional usage.
- 5.6.2 - Consider reconfiguring or adding amenities to public spaces to support flexible programming.

6 Operations & Maintenance

- 6.2.2 - Target waste reduction, recycling, reduced greenhouse gas emissions, reduced energy usage and reduced water consumption.
- 6.2.3 - Conduct pilot projects of innovative sustainability measures to test their effectiveness for County-wide implementation.
- 6.2.4 - Continue to utilize native plant species and water-wise plant materials.
- 6.2.6 - Make use of available planting spaces for trees and other vegetation on public lands such as traffic islands and curb bump-outs while ensuring clear and adequate sight lines for drivers, cyclists, or pedestrians.

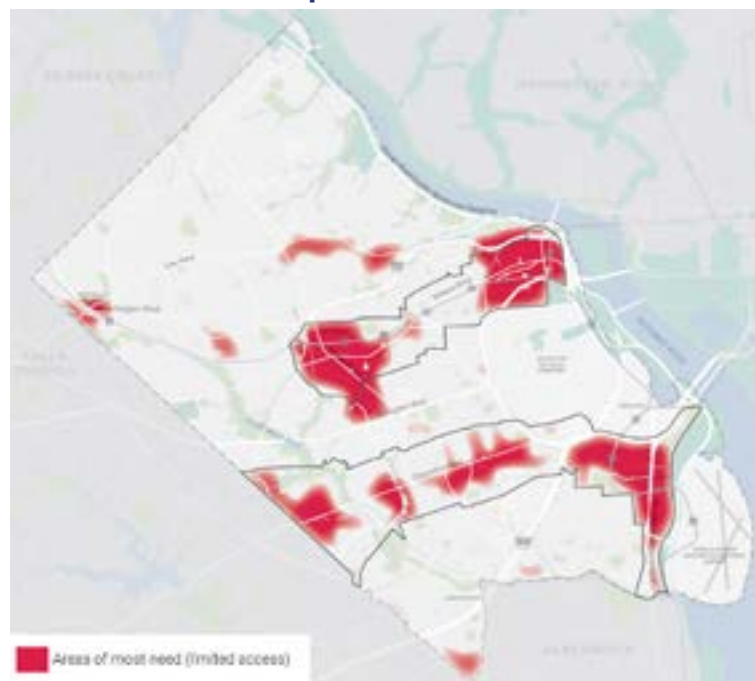
Trends Affecting Public Spaces:

National, regional, and local trends affect the County's public spaces. A regional trend with the greatest impact is population growth, which affects the number of facilities recommended in the County over the coming years and increases the pressure to preserve natural resources and provide casual use spaces. The PSMP identifies several demographic and recreation trends which have impact on the provision of public spaces throughout the County as well as in the Lee Highway Corridor. These include:

- Private Leagues: Activities such as Social Leagues or "Club Sports" are increasing in demand. These privately-run leagues target the 22-35-year-old demographic, and encourage non-competitive recreation in sports such as softball, kickball, and volleyball. The leagues and their participants prefer to participate in these activities in the denser areas of Arlington where there is convenient access to transportation and to restaurants and bars for after play gathering.
- Pickleball: the demand for pickleball, a paddle sport that combines elements of badminton, tennis, and ping-pong and is played on a court similar to a tennis court, has grown rapidly in the County. Requests for repurposing or adapting existing indoor and outdoor courts to pickleball have become frequent.
- Dog Parks and Runs: The County has seen a multitude of new multi-family buildings developed and former or planned office buildings converted to residential development. Many of these residential buildings allow residents to have dogs in their units and actively market their pet-friendly status. Understandably these owners are looking for places to walk or exercise their canine friends, while socializing with other fellow dog owners, which puts pressure on existing dog parks or public spaces that may not be appropriate for dogs.
- Community Gardens: Similarly, residents in those multi-family buildings are recognizing the value of growing their own food and are looking for locations to do so. Requests for access to the County's established community gardens has gone up markedly.
- Car-Free Lifestyles: Development also impacts the way people move around. Many residents are opting for to go car free or utilize other options for their daily commute. Issues between trail users and commuters using things such as electric bikes, electric scooters or other unique vehicles on the County's multi-use trails has become more common.
- Inclusive Recreation: There has been an increase in demand for both adapted programming to enable people of all abilities to try new activities as well as an increase in the demand for inclusion services so that program users can participate in general programs that can be offered for people of all abilities.

PSMP - ACCESS ANALYSES

Limited Access “Hotspots”



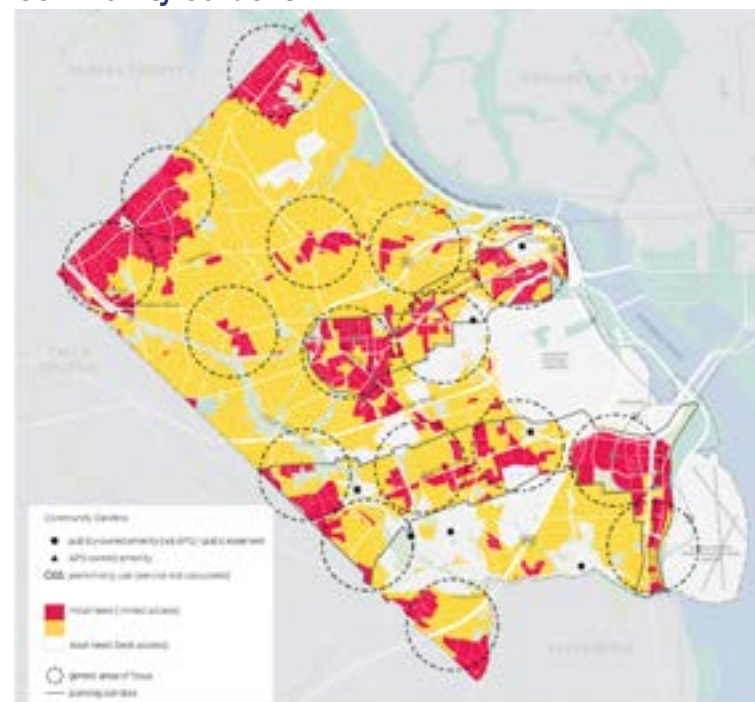
<https://projects.arlingtonva.us/plans-studies/comprehensive-plan/public-spaces-master-plan/>

Level of Service Approach:

The PSMP has introduced a new Level of Service (LOS) approach for understanding how many amenities are needed in the County and at what locations. The methodology uses both population-based and access standards, depending on the type of amenity that is being evaluated. These standards are guidelines and are used to support investment decisions related to park facilities and amenities. Standards can and will change over time as industry trends change and demographics of the community change.

The amenities with only population-based standards are those that people expect to have to travel further to use, that have unique land needs or are cost-prohibitive to replicate across the County. Examples of these are natural lands and community centers. Amenities with both population-based and access standards are those that users would typically expect to be able to easily access near their homes or those that serve outdoor athletic programs and drop-in play. These include basketball courts, playgrounds, community gardens, multi-use trails and dog parks among other types of amenities. The Lee Highway Corridor contains both kinds of amenities. Complete data on current and recommended LOS for these amenities can be found in the *Population-Based Standards* in the PSMP.

Community Gardens

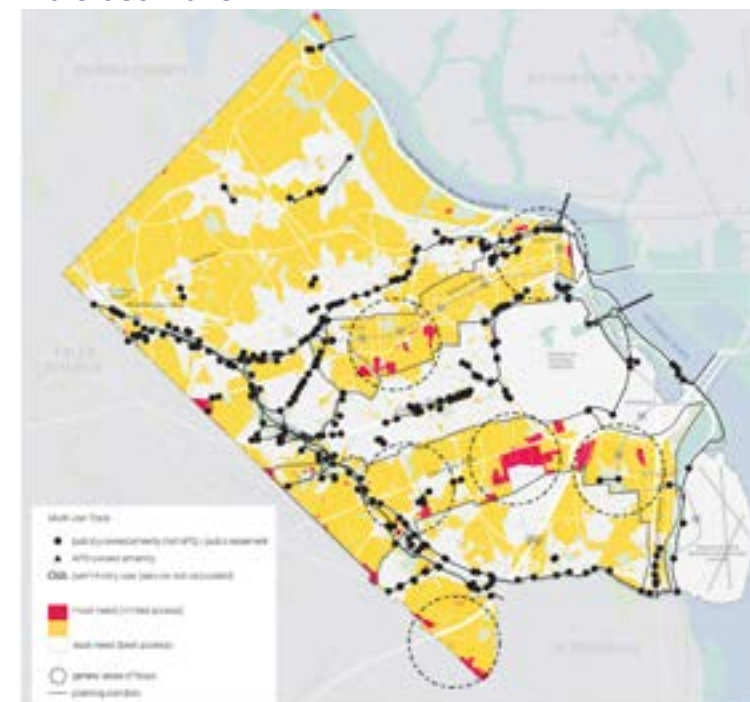


Access Analysis:

Access standards were created as a planning tool to better understand the locations where the County needs more or fewer amenities. These standards are based on travel times rather than distances. Because the County has robust road, transit, bicycle and pedestrian networks, residents indicated that travel time is more important than distance as they can cover different distances in the same amount of time with different transportation options. In addition, the PSMP recognizes that access to amenities will not necessarily be the same in high-density and low-density areas. High-density and low-density areas have different development patterns, different amounts and configurations of public space, and correspondingly different expectations for access to amenities. For example, in high-density areas (Rosslyn-Ballston and Columbia Pike Corridors) access is characterized by shorter walking distances to smaller types of amenities.

The Lee Highway Corridor is not a designated high-density corridor. Access to public spaces in the planning study area is currently characterized by longer walking distances to larger, more recreation-oriented parks and natural areas. There is a total of 24 existing public spaces within the planning study area with varying degrees of public accessibility and types of amenities. As the corridor's population increases, the capacity of existing public spaces may be reduced, and additional public spaces may be needed to serve the growing population. Additionally, the types of

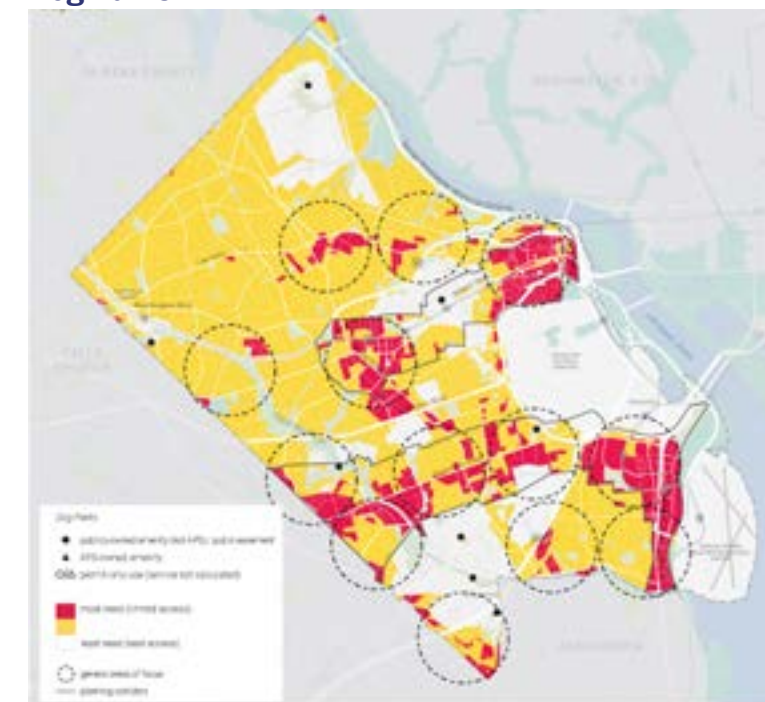
Multi-use Trails



public spaces that are provided in the future may need to be more diverse in terms of size and activity. Land is limited in the planning study area and the types of recreational amenities provided at the larger-scale sites, such as Tuckahoe Park and Thirfton Park, may not be possible to replicate. This will increase the need to provide enhanced access to these and other outdoor and indoor recreational facilities.

The PSMP update includes a series of LOS Access Maps (shown above) to indicate how well the County is serving the population for each type of amenity. Areas depicted in red indicate that the population in that area has limited access, those depicted in yellow have moderate access needs and those indicated in white have the best access. The analysis that results in the Access Maps is complex due to the many factors that are used as inputs. For example, within a particular area there may be multiple amenities of the same type available, which would appear to indicate that the area is well served. However, the area may be lacking sidewalks or have a physical barrier such as a highway that limits access which would result in them being shown as red or yellow. The black dashed circles call special attention to general areas with limited or moderate access and/or areas projected to have significant population growth. Amenities located outside County boundaries are not taken into consideration for this analysis. As a planning tool, these Access Maps will be used in combination with population-based standards to provide guidance for future planning.

Dog Parks



Observations:

- Access to facilities can be improved by either adding new facilities or improving connections to existing destinations.
- The PSMP mapped levels of accessibility to basketball courts, community gardens, multi-use trails, off-leash dog parks, playgrounds, diamond fields, tennis courts, picnic areas, rectangular fields and volleyball courts.
- Some amenities, such as common use spaces, were not part of the access analysis.
- Some Lee Highway neighborhoods have limited access to a variety of facilities and amenities.
- There is less access to community gardens, multi-use trails and dog parks in the planning study area.
- There is better access to sports fields, recreation centers and other amenities in the planning study area.
- The central portion of the Lee Highway Corridor (between N Glebe Rd and N Quincy St.) generally has the most limited access.

PUBLIC SPACES PARKS INVENTORY



Figure 6.4 Map of conceptual inner and outer loops
Source: AECOM

Parks throughout the planning study area create the anchors of the public space system today. There are over 20 parks of varying size that offer facilities aimed at providing for recreation, respite and interaction with nature.

PUBLIC SPACES PARKS INVENTORY

Park Name	Address	Land Area in Acres	Uses (i.e. playground, basketball court, volleyball court, athletic fields, community center, trails)	Ownership
W&OD Railroad Regional Park	Shirlington Road and South Four Mile Run Drive	550.25 acres total; 44.18 acres in Arlington	Multiuse Trail, Grass Lawn	NOVA Parks
Charles A Steward Park	2400 North Underwood Street	3.99	Athletic Field, Half Basketball Court, Playground, Shelter, Grass Lawn, Forest	County
Tuckahoe Park	2400 North Sycamore Street	12.25	Athletic Fields, Playground, Tennis Courts, Trails, Forest	County
Lee Community Center	5722 Lee Highway	2.14	Community Center, Athletic Field, Basketball Court, Playground	County
Halls Hill/High View Park	4998 Lee Highway	0.48	Seating, Public Art	County
Woodstock Park	2049 North Woodstock Street	1.27	Playground, Basketball Court, Grass Lawn	County
Cherrydale Fire Station Park	4040 21st Road North	0.09	Seating, Grass Lawn	County
Cherrydale Park	2176 North Pollard Street	0.90	Playground, Trail, Forest	County
Maywood Park	3210 22nd Street North	0.26	Playground, Grass Lawn	County
Thrifton Hill Park	2814 23rd Street North	8.64	Trail, Forest, Grass Lawn	County
Dawson Terrace Community Center	2133 North Taft Street	3.50	Dawson-Bailey House, Dawson Terrace Recreation Facility, Athletic Field, Playground, Basketball Courts, Charcoal Grills	County
Fort Bennett Park and Palisades Trail	2220 North Scott Street	10.54	Trails, Forest	County
Isaac Crossman Park at Four Mile Run	1900 North Westmoreland Street	2.84	Forest	County
John Marshall Greenway	In Progress	2.19	Trail	County
High View Park	1945 North Dinwiddie Street	2.73	Athletic Field, Playground, Basketball Courts, Shelter, Charcoal Grills	County
Slater Park	1837 North Culpeper Street	1.64	Forest, Grass Lawn	County
Stratford Park	4321 Old Dominion Road	3.45	Athletic Field, Tennis and Basketball Courts	County
21st St N and N Stafford St Park	2045 North Stafford Street	0.27	Grass Lawn	County
18th St N and N Lincoln St Park	In Progress	0.12	Trail	County
Kirkwood Road Park	1950 Kirkwood Road	2.44	Forest	County
Lyon Village Park	1800 North Highland Street	1.52	Playground, Sprayground, Tennis Courts, Basketball Court, Shelter	County
McCoy Park	2121 21st Street North	1.71	Seating, Grass Lawn, Forest, Trail	County
Langston-Brown Community and Senior Center	2121 North Culpeper Street	2.53	Tennis Court, Half Basketball Court, Playground, Community and Senior Center	County/APS
Dorothy Hamm Middle School	4100 Vacation Lane	9.08	Athletic Field	County/APS
Glebe Elementary School	1770 North Glebe Road	7.16	Athletic Field, Playground	County/APS
Tuckahoe Elementary School	6550 26th Street North	4.68	Playground	County/APS



PUBLIC NETWORK

EXISTING PUBLIC NETWORK

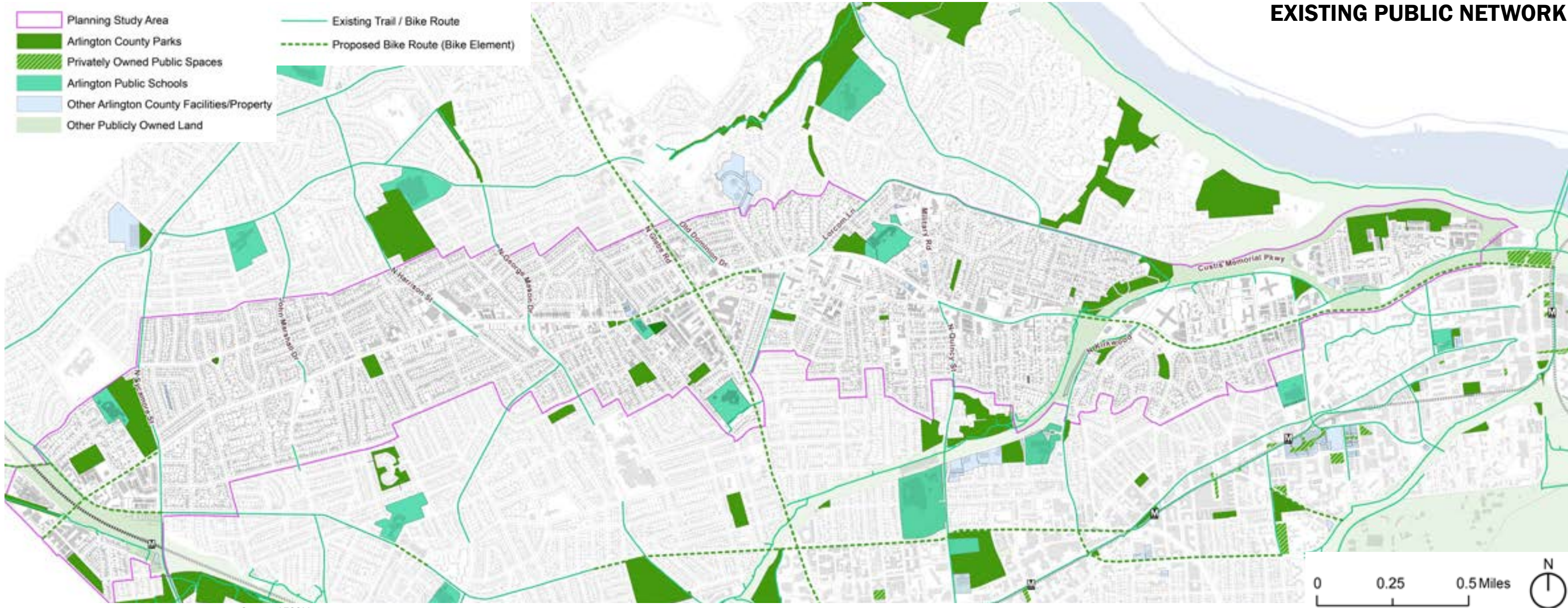
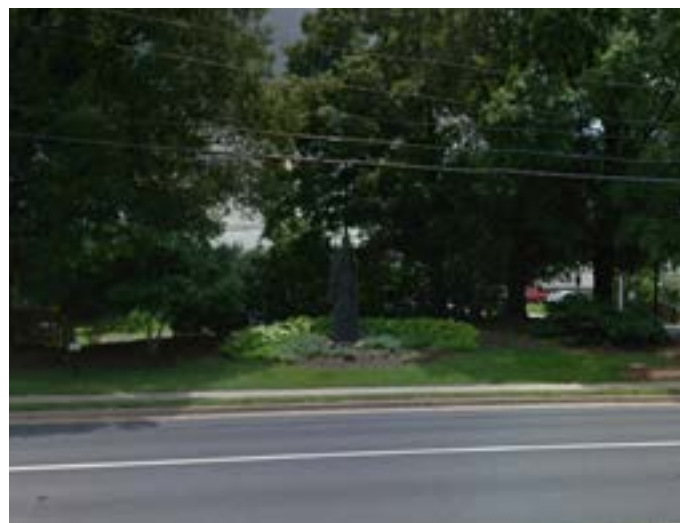


Figure 6.5 Existing Public Network Source: AECOM



Public Network: This report defines public network as a group of diverse destinations linked by animated, inviting and safe connections for pedestrians and cyclists.

Observations:

- The broader public space network includes parks of varying ownership as well as the existing and proposed cycling and pedestrian routes that connect them with corridor neighborhoods
- While there are examples of good connections, barriers or connectivity gaps exist throughout the planning study area.

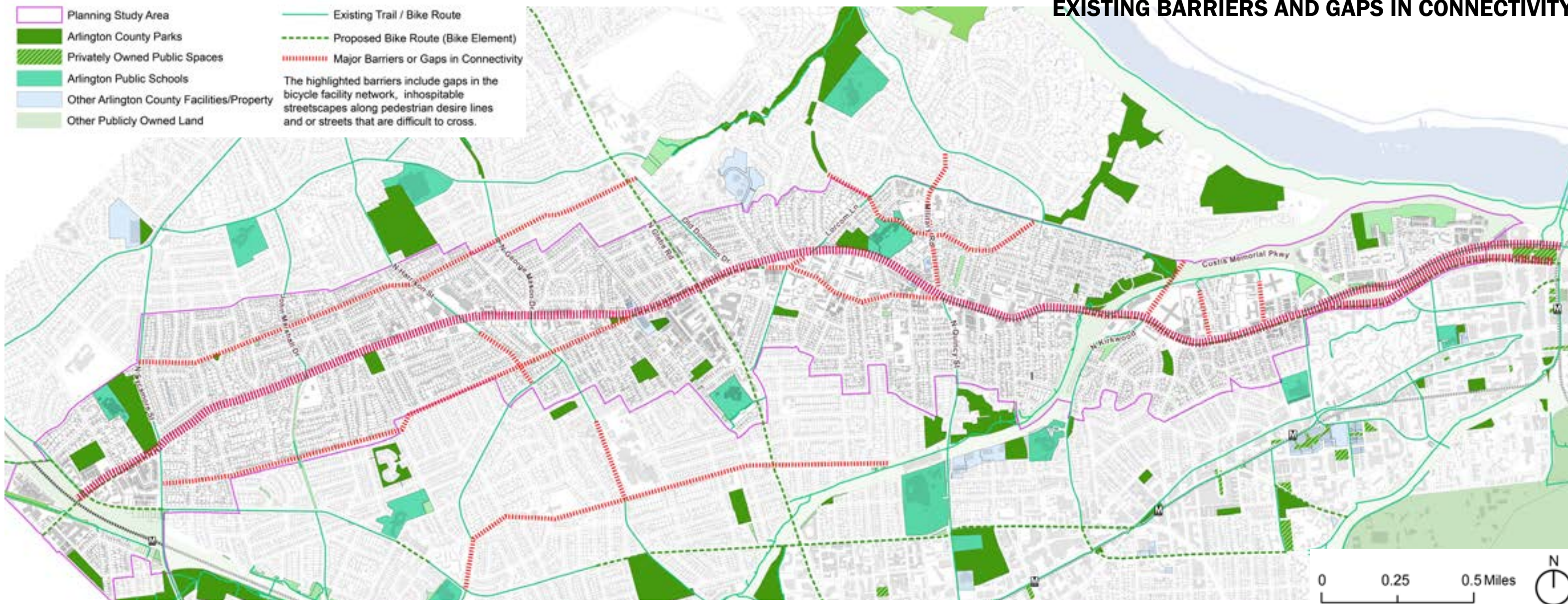


Figure 6.6 Existing Barriers and Gaps in Connectivity Source: AECOM



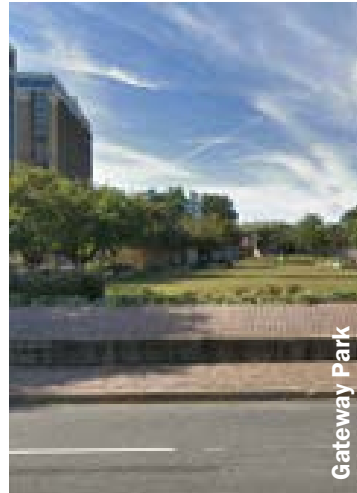
Observations

- The red lines identified on this map represent areas where various types of barriers and gaps in connectivity exist, including steep grades, challenging crossings, lack of wayfinding, dead-end streets, and/or inadequate or lack of facilities (i.e. sidewalks, bike lanes).
- These areas will be further studied to determine the types of improvements that should be recommended.
- Lee Highway itself acts as a significant barrier. Its difficult crossings hinder N/S connections and its lack of pedestrian and cycle amenities limit E/W connections.

Existing Outdoor Gathering Places



Lyon Village Park



Gateway Park



Tuckahoe Park



Woodstock Park



Dorothy Hamm School



High View Park

The Lee Highway community has expressed the desire for additional 'gathering places' (and spaces that allow flexibility of use) and better connectivity to existing and new destinations. Gathering places are those spaces where people congregate that are outside of the home and workplace. These spaces are also known as the 'third places' and can be both outdoor and indoor.

Outdoor gathering places can serve for both recreation and leisure activities. Larger outdoor gathering places provide ample space for people to gather for recreational activities (i.e. sports) and events (i.e. concerts). In the planning study area there are several other spaces and outdoor gathering places like Tuckahoe Park and High View Park. Smaller spaces, like Halls Hill Park, are generally smaller or woven into larger active spaces allowing people to gather in close groups or provide a small retreat for contemplating the outdoors. The photos on the right are examples of other types of outdoor gathering places that are either public or publicly accessible.

Examples of Potential Outdoor Gathering Places



Existing Indoor Gathering Places



Lee Center



Heidelberg Bakery



Langston Brown Center



Lee Heights Shops



The Italian Store



Moore's Barber Shop

Indoor gathering places can take many forms and can vary significantly, based on the type of uses and activities they provide. Indoor gathering places can also be both active and passive. Gyms, health clubs and indoor sports/recreational facilities are examples of active indoor gathering places, whereas, libraries, churches and community centers are examples of passive indoor gathering places.

With the advances in technology and the ability for some people to work from 'anywhere', certain 'third places' have become more popular. These include cafes and hotel lobbies. These community-oriented businesses include commercial and/or non-commercial functions with an emphasis on providing free space for social interaction – without having to purchase a product. Co-working office spaces are also being designed to encourage social interaction by providing shared office spaces, meeting rooms and lounge areas, along with other amenities/services like coffee shops, bars and restaurants. These spaces double up as a nightlife destination. The Lee Highway corridor already has several 'third places', like Heidelberg Bakery and Moore's Barber Shop, which are an integral part of the history and culture of the corridor and have strengthened community ties over the years.

Examples of Potential Indoor Gathering Places



Indoor gatherings are also possible at venues like recreation centers, libraries and hotel lobbies.

STREETSCAPES AS CONNECTIVE PUBLIC SPACE



Streets support daily life as connections and in some cases as destinations. New gatherings spaces must be flexible and provide a variety of experiences at a variety of scales.



(Even in cases with limited r.o.w.) streets can be designed to improve the pedestrian experience while moving vehicles.

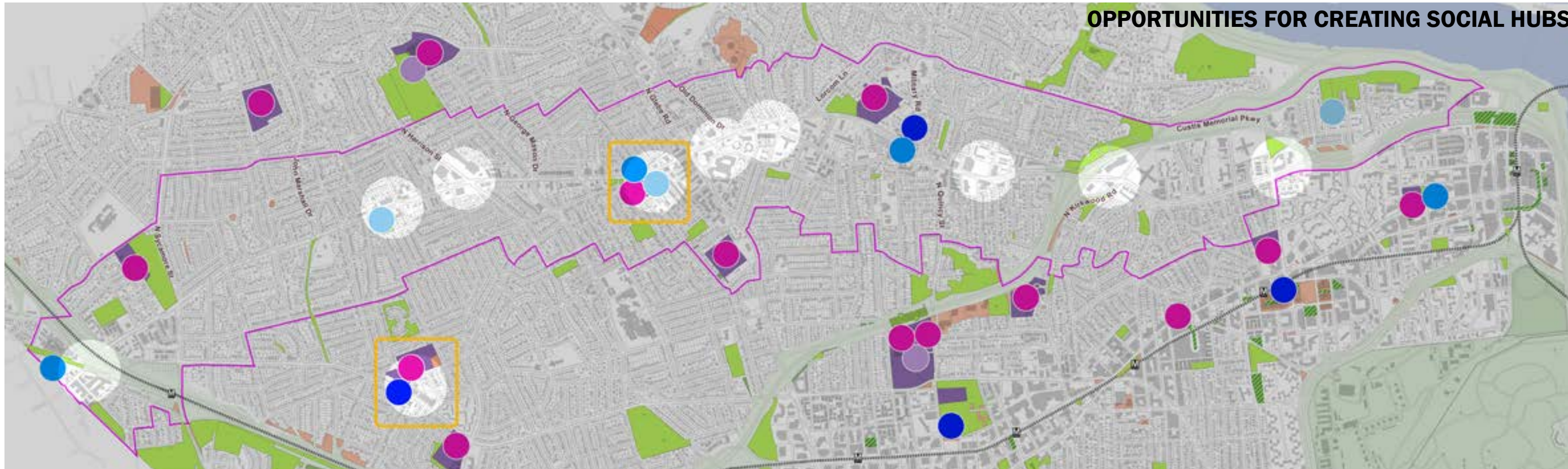


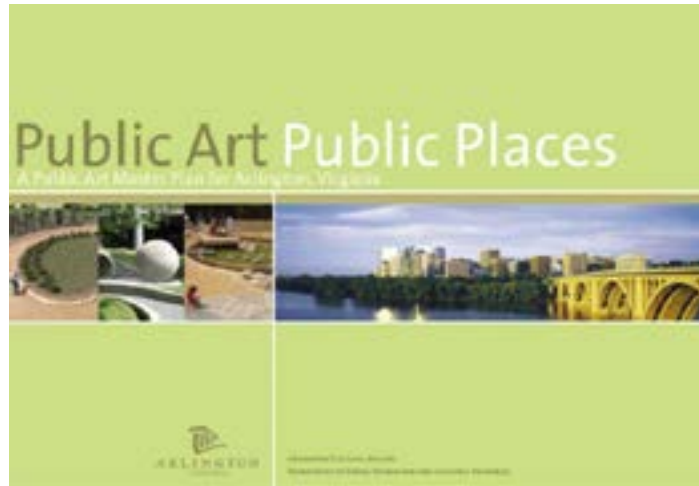
Figure 6.7 Opportunities for Creating Social Hubs

Source: AECOM



OBSERVATIONS

- In general, public facilities (schools and other community facilities) are not co-located with commercial destinations.
- Public facilities can play an important role in establishing mixed-use destinations.
- Neighborhood commercial businesses (i.e. restaurants, cafes, gyms, studios, daycares etc.) and traditional community buildings (i.e. places of worship, post offices, courthouses, YMCAs etc.) provide community 'social' places. When public facilities are combined in close proximity with neighborhood businesses, other traditional community buildings and open space, community 'social hubs' emerge. Examples include Westover and the intersection of Lee Highway and Culpepper St.
- Social hubs are places that provide many different services and things to do, to attract a broad spectrum of people and promote social activity.



OVERVIEW

Public art is a means to tell the history of a place. While speaking to its character and identity, it contributes to placemaking. The cultural resources survey will uncover stories and events that are part of the significant history of the corridor and will identify opportunities for incorporating additional public art to celebrate that history in the study area.

PUBLIC ART MASTER PLAN

The 2004 Public Art Master Plan (PAMP), a sub-element of the Comprehensive Plan in support of the Public Spaces Master Plan, provides guidance for project prioritization and implementation processes for public art associated with County-funded projects, site plan/special exception projects and community-initiated projects. The PAMP recommends:

- Public art be located in prominent locations that are visually accessible and in places where people gather.
- Public art should engage aspects of Arlington's landscape, urban form, history and culture that make it distinct.

PAMP UPDATE

- Currently in the process of updating 2004 plan (Draft for public review tentatively scheduled for release fall 2019)
- Update proposes Lee Highway as a new priority area for providing public art (temporary and permanent) in nodes/ redevelopment areas identified through the Lee Highway planning process.
- Update will coordinate with other County planning efforts including the PSMP and Plan Lee Highway.
- PAMP update supports the recommendations in the East Falls Church Area Plan (2011) for public art at the East Falls Church Metro Station proposed West Entrance and central plaza.

ARTS IN THE LEE HIGHWAY CORRIDOR

Several works of public art currently exist along the Lee Highway corridor initiated by the County, the community or a developer. Additionally, temporary arts activations have been programmed in the area over the years. These projects are a means of speaking to the history and character of the community.

The Family and Memory Bricks by Winnie Owens-Hart (2004)

Lee Hwy between N Dinwiddie and N Cameron Streets
Permanent Public Art

A native of Halls Hill/High View Park (HHHVP), Winnie Owens-Hart was commissioned to develop artwork reflective of the history and values of this predominantly African-American community. Interested in symbolizing HHHVP's strong sense of community, the artist designed The Family, a monumental steel sculpture of a man, woman, and child with clasped hands. Arranged in a triangular configuration, this grouping symbolizes unity among families and residents of the neighborhood. The artist also worked with youth apprentices to create another work, Memory Bricks, at this same location. Under the direction of Owens-Hart, seven apprentices created decorative bricks and organized three community events where residents could also customize their own bricks. The bricks line an oval walkway and serve as visual reminders of the neighborhood's past.

Up and Down by Graham Caldwell (2006)

2200 N Westmoreland Street
Permanent Public Art

Up and Down consists of a coliseum-like building that buttresses a leaning tower. This tower commemorates all of Arlington's razed buildings and was inspired by Arlington's original courthouse which was demolished in 1977. The project was funded by Silverwood Homes, Inc.

Lee Highway Mural by Kate Fleming (2015)

Lee Hwy between N Uhle and N Veitch Streets
Permanent Public Art

Kate Fleming received a Spotlight Grant from the Arlington Commission for the Arts to create this mural. She worked with the community in the neighboring Engleside Cooperative on the project.

Change Begins Inside by David de la Mano (2019)

4745 Lee Highway
Temporary Public Art

Spanish artist David de la Mano was commissioned to create a mural at Lee Hwy and N Glebe Rd. The mural project was a collaboration between the Lee Highway Alliance, Spain Arts & Culture and Arlington Arts.

County Wandering – Lee Highway Walking Tour by Graham Coreil-Allen (2017)

Temporary Activation/Programming

On April 31, 2017, Baltimore-based artist Graham Coreil-Allen led a walking tour along Lee Hwy as part of the County Wandering series. The tours explored and reimagined the urban and suburban spaces of Lee Highway, Courthouse Square, Rosslyn and Columbia Pike. Each tour was led by Coreil-Allen and featured community leaders and county representatives speaking about recent and ongoing planning efforts.

Amos Kennedy Visiting Artist (2018-2020)

Temporary Activation/Programming

In 2018, artist Amos Kennedy was engaged to commemorate Arlington's civil rights history over an 18-month period working with Arlington Cultural Affairs and Arlington Historic Preservation. He participated in the Lee Highway Winter Festival of Lights on December 1, 2018 and created a special print for the occasion with quote by John M. Langston. Additionally, he created a print for the 60th anniversary of the desegregation of Stratford Junior High School. More work with Kennedy in the Lee Hwy area is forthcoming in 2020.

Arlington Art Truck (2018-present)

Temporary Activation/Programming

The Arlington Art Truck is a curated mobile tool box for artists-in-residence who, from April to October, engage the public in interactive art projects in various locations across the County. The Art Truck has been a presence in the Lee Highway corridor for activations at the Marymount Farmers Market, including Ties That Bind by Lorenzo Cardim and artists Charlene Wallace and Angela Latson (Oct. 12, 2019) and Arlington Abstracted by artist Marc Pekala (Oct. 20, 2019). Pekala's project consisted of colorful tiles he designed and created that were inspired by eight Arlington businesses past and present including Moore's Barber Shop, a Legacy Business on Lee Highway.

Lee Arts Center

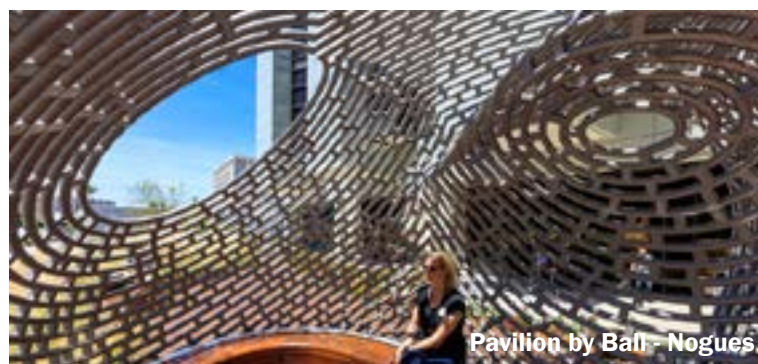
5722 Lee Hwy
Cultural Facility

The Lee Arts Center is a fully equipped professional open studio for artists, in ceramics and printmaking. It houses a mini-gallery with regular exhibitions of visiting and resident artists. Master workshops are offered throughout the year.





Emergent by Jill Anholt



Pavilion by Ball - Nogues



Fulton Market, Chicago



Devon Ave, Chicago



Chinatown Green Alley
San Francisco, CA



Ellis Square, Savannah, GA



Clouds by Olaf Breuning



Wharf District Parks, Boston

Public art, activations and enhanced design features can help reveal community stories, reflect community identities and create a sense of place.

Historic and Cultural Resources

OVERVIEW

Historic and cultural resources are a key planning element of this study. A Cultural Resources Survey will be conducted as part of this study to assist the County in identifying and recognizing resources that increase public understanding and appreciation for the Lee Highway corridor’s architectural and cultural history. The survey takes in non-traditional resource types beyond traditional buildings, such as open spaces, parks, and gathering places, as well as objects and resources deemed locally significant by its residents. The survey will also seek to increase awareness of the significant stories, events, people, arts and cultural activities in the study area. The identification, recognition, and preservation of resources such as these are crucial to maintaining the strong, resilient communities, along Lee Highway.

The Cultural Resources Survey will include, in addition to background research and oral interviews, an architectural survey of specific properties along Lee Highway. The architectural survey will be one of the many data points considered by staff when developing future recommendations regarding appropriate levels of preservation (i.e. full building preservation, façade preservation or other conservation methods) for historically significant buildings and sites along the corridor. These recommendations will be consistent with the policies of the County’s Historic Preservation Master Plan and the Historic Resources Inventory (HRI). Strategies will be recommended to retain and enhance both historic and cultural resources.

The first part of this section is a brief history of the development of the Lee Highway corridor and its surrounding neighborhoods for context. The second part provides a description of the different levels of historic designations (National, State and Local) that exist and a list of the Lee Highway properties within each level. It also provides an overview of the implications each of the designations have on a property’s: a) ability to undertake repairs, alterations, additions or demolitions, b) requirement for preservation and/or c) requirement for special review. This part also provides an overview of the recent County efforts to identify (or ‘flag’) its most valuable historic resources, to signal that special consideration should be taken when thinking about redevelopment of these sites, as well as, the implication of this identification on a property. The third part of this section provides an overview of the approach for the Cultural Resources Survey and the various components, along with the preliminary prioritized list of resources to be researched and surveyed.

Preliminary Aspirational Goal

Identify and support preservation of historic resources that increase public understanding and appreciation for the corridor’s architectural and cultural history consistent with the policies of the Historic Preservation Master Plan and the Historic Resources Inventory. Increase awareness of and enhance arts, public art, and cultural activities in the corridor.

For the purposes of this report, public art is detailed in the public spaces section.

2016 Vision Study Principles*

Maintain a unique sense of place through preservation of sites of historic significance.

2016 Vision Study Recommendations*

- Cultural resources will inform the planning of destinations and amenities.
- Preserve and integrate historic buildings and sites into future development as a coordinated part of planning.
- Incorporate historic buildings or commemorative art into design of new community open spaces.
- Preserve and celebrate historic and cultural resources and neighborhoods by organizing events, tours and activities that educate about heritage.
- Identify architecture and other elements that comprise the character and make up the Lee Highway corridor.

*The County will continue to seek community feedback to validate and refine the 2016 Vision Study principles and recommendations and the County’s Preliminary Aspirational Goals throughout the Plan Lee Highway process.

KEY DOCUMENTS + TAKEAWAYS

Historic Preservation Master Plan (2006)

Part of the Comprehensive Plan, the Historic Preservation Master Plan is the primary guide for historic resources in the County. The purpose of the plan is to establish proactive priorities, goals and objectives for County Historic Preservation activities that involve the historic built environment and County history in general.

The Plan makes broad policy-level recommendations concerning history and historic preservation activities for the Historic Preservation Program and its partners in Arlington County. Its goals are to enhance the understanding of Arlington’s history and historic character; better integrate preservation values into County planning, land use, and other policies and practices; and protect historic neighborhoods, corridors, commercial centers, and civic buildings.

Key takeaways

- Mandates survey and historic designation
- Surveys date from 1998-2013/14
- No previous comprehensive Lee Highway Survey



Stratford Junior High School (Source: AECOM)



Cherrydale Library (Source: AECOM)



Dawson-Bailey House (Source: AECOM)

BRIEF HISTORY OF LEE HIGHWAY

The following excerpt, from the 2014 Lee Highway Briefing Book, describes the history of Lee Highway as a roadway in Arlington County.

Lee Highway, one of Arlington's older roads, was pivotal to the development of the County's northernmost streetcar suburbs and post WWII commuter suburbs. Prior to the Civil War, Little Falls Road and the Georgetown and Falls Church Road (now Wilson Boulevard) were the primary transportation routes from Falls Church and points west to the Chain Bridge and Aqueduct Bridge to Georgetown. Before the Civil War, Lee Highway consisted of large farms owned by the prominent Hall, Febrey, and Wunder families, to name a few. After the Civil War, these large family farms were partially broken up and portions sold off in smaller parcels to individual families. This allowed for the creation of new communities, and with a growing population, a greater need for better and more varied transportation routes than the area's rural farm lanes.

In addition, troop movements during the Civil War took a great toll on local and regional roads. Consequently, after the War, there was a great need for improved transportation routes to Washington, DC. At the behest of Arlington and Falls Church landowners, an Act of the Virginia General Assembly in 1867 approved the opening of stock subscriptions to allow for the establishment of the Fairfax and Georgetown Pike Company and the eventual creation of the Fairfax and Georgetown Road—the precursor to Lee Highway. The road would supplement the old Falls Church Road by providing a northern route for travel between Falls Church and Georgetown. The project proceeded slowly and was abandoned by the 1870s, but was revived in 1888 when landowners near Falls Church finally incorporated for the creation of the road. However, the road was never established as a turnpike with tolls, and its construction proceeded sporadically. By 1900, the road had been completed, running from Falls Church to the Aqueduct Bridge.

This unpaved road, named the Georgetown and Fairfax Road, was the precursor to the modern Lee Highway. The establishment of the Great Falls and Old Dominion Railroad in 1906 hastened the residential development along this route. After crossing the Aqueduct Bridge in Georgetown, the rail line branched off from the older Washington, Arlington and Falls Church electric trolley, and traveled north through Cherrydale. The rail line had two stops along Lee Highway, one at Dominion Heights (Lee Highway and the east side of North Monroe Street) and the second at Cherrydale (intersection of Lee Highway and Old Dominion Drive at the intersection of Military Road) before continuing north along what

is now Old Dominion Drive to Great Falls. The Conservative Realty Company, the developers of Maywood, took advantage of this new commuter route and recorded the first neighborhood plats between 1909 and 1913.

At this time, road construction and maintenance was almost universally a local issue, with individual land owners responsible for the care and construction of roads that fronted or traversed their properties. The vast majority of roads in the County at the turn of the 20th century were unpaved and this proved adequate for most horse-drawn vehicles and commerce. It was the rise of automobile and truck traffic, and the inadequacy of the old dirt road network to accommodate this type of vehicle, that led to the great advances in the national transportation network after World War I. Following a recommendation from the Virginia State Highway Commission in 1921 that an 18-foot wide concrete highway be constructed, Lee Highway was added to the state highway system by an Act of the General Assembly in March 1922.

Once the road was open, new communities and subdivisions sprung up along this new commercial corridor. Hall's Hill, Maywood, Cherrydale, Lyon Village, and Waverly Hills were well established neighborhoods along the thoroughfare before the buildup of forces and workers at the outset of World War II. During and after the War, the County experienced exponential population growth, and the remaining larger parcels of land between Waverly Hills and East Falls Church were platted and subdivided for more single-family housing in Leeway, Yorktown and other neighborhoods.

Today, Lee Highway in Arlington serves as a crucial commercial corridor that links together many neighborhoods and communities.

Lee Highway Briefing Book (2014)
<http://arlingtonva.s3.amazonaws.com/wp-content/uploads/sites/31/2014/10/Lee-Highway-Briefing-Book-101714-draft.pdf>



(Source: VDOT)



(Source: VDOT)



(Source: VDOT)



(Source: VDOT)



1934 Aerial



2019 Aerial

OBSERVATIONS

- When comparing the 1934 and 2019 photographs it becomes apparent how the shape of historic farms and location of stream valleys influenced today's roadway network.
- Early suburban neighborhoods first appeared along the streetcar line which ran through much of present day Lee Highway, turning north at Old Dominion Drive.

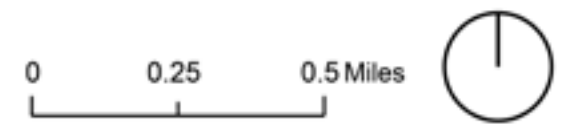


Figure 7.1 Corridor Evolution
Source: Arlington County, VA - MAPS: Historic Aerial Photographs

DESIGNATION OF HISTORIC RESOURCES

National Register of Historic Places

The National Register of Historic Places (NRHP) was established as part of the National Historic Preservation Act of 1966 and is the nation's official list of buildings, structures, sites, objects, and districts that embody the historical and cultural foundations of the United States that are worthy of preservation. Managed by the Virginia Department of Historic Resources (VDHR) in partnership with the National Park Service for properties in Virginia, the NRHP recognizes properties of local, state, and national significance.

Within a historic district, above-ground resources are designated as either contributing or non-contributing to the historic district's overall significance. A historic property or historic district can be nominated for listing in the NRHP if it:

- Has achieved historical significance at least 50 years prior or is of exceptional importance.
- Is associated with at least one of the following:
 - An important event or historical trend
 - A significant person whose specific contributions to history can be identified and documented
 - An important architectural or engineering design; or it represents the work of a master; or it is a distinguishable entity although its components may lack individual distinction
 - Has the potential to answer important research questions about human history (most commonly these properties are archaeological sites)
- Retains physical integrity through retention of historic materials, appearance, design, location, setting, and other physical features.

Virginia Landmarks Register

The Virginia Landmarks Register (VLR) was created in 1965 by the Virginia General Assembly in the Code of Virginia and is the Commonwealth's official list of places of historic, architectural, archaeological and/or cultural significance. The VLR is managed by VDHR staff on behalf of the Virginia Board of Historic Resources.

Designed to educate the public about the significance of listed places, the VLR has the same criteria and nomination process as the NRHP. Note that the permission of a majority of private property owners is required for an individually nominated property

or a historic district to be listed in the NRHP or VLR. Both types of listing are generally treated the same under state and federal environmental and cultural resource laws and regulations.

Listing in the NRHP and VLR officially recognizes the historic significance of a place, building, site, or area and is strictly honorary. A property's listing encourages, but does not require, preservation of the property or historic district, while at the same time it offers limited protections to properties from potentially harmful federally or state-funded activities. Additionally, NRHP and VLR listing may qualify owners for voluntary state and/or federal historic property rehabilitation tax credit programs and VDHR's historic easement program.

12 historic resources (4 individual sites and 8 historic districts) are listed in the NRHP/VLR that are wholly or partially within the Lee Highway Study Area. In addition, VDHR has determined two historic districts are "potentially eligible" for listing in the NRHP and VLR based on their historic/architectural significance:

1. Calvert Manor
2. Cherrydale Historic District
3. Cherrydale Volunteer Fire Department
4. Colonial Village Historic District
5. GlebeWood Village Historic District
6. Highland Park-Overlee Knolls Historic District
7. Lyon Park Historic District
8. Lyon Village Historic District
9. George Crossman House
10. Maywood Historic District
11. Stratford Junior High School
12. Waverly Hills Historic District
13. Leeway-Overlee Historic District ("potentially eligible" for NRHP and VLR listing)
14. Old Dominion Historic District ("potentially eligible" for NRHP and VLR listing)

Because individual designation and/or listing as part of a historic district is largely honorary, their value in the overall historic preservation of the Lee Highway Study Area is somewhat limited. Owners of NHRP/VLR-listed properties may undertake any repairs, alterations, additions, or demolitions that are permitted to owners

of non-historic properties and must adhere to existing Arlington County zoning and building regulations.

The principal economic benefit of NRHP/VLR listing is in the form of tax credits for historic property owners. As noted above, property owners who rehabilitate historic properties may be eligible for state and federal tax credits during the year a project is completed.

Owners must apply for these credits before they start work by contacting the VDHR. Thorough pre-construction documentation is required, including photographs and written descriptions of the planned work. Only work on the historic building, not new construction or additions, qualifies for tax credits. The following tax credits can be combined and are available:

- Federal Tax Credit Program: available to property owners who have rehabilitated their historic building. It allows property owners to claim 20% of rehabilitation expenses for income-producing (rental or commercial) properties that are certified historic buildings. A certified historic building is one that is listed in the NRHP either as an individual building or as a contributing building in a historic district. Rehabilitation work must comply with the Secretary of the Interior's Standards for Rehabilitation.
- Virginia Tax Credit: available for both owner-occupied and income-producing properties. Owners may claim 25% of eligible rehabilitation expenses; but properties must be listed or eligible for listing in the VLR or contribute to a historic district listed in the state register. Rehabilitation work must comply with the Secretary of the Interior's Standards for Rehabilitation.
- Federal Tax Credit: 10% credit available for non-historic commercial buildings that were "placed in service" prior to 1936 and are being rehabilitated for non-residential use.
- Federal and State tax credits may be combined.

Arlington County Local Historic Districts

Designation as an Arlington County Local Historic District helps to protect and share local history and instills a sense of pride and community. Historic Districts are designated by the Arlington County Board and can include individual resources or collections of historic buildings, garden apartments, districts, cemeteries and natural formations per Section 11.3 and Section 15.7 of the County Zoning Ordinance.

In collaboration with property owners and the Historical Affairs and Landmark Review Board (HALRB), the applicant and County's Historic Preservation Program staff research and partake in the

local designation process to apply for listing as an Arlington Local Historic District.

Unlike nationally and state-recognized historic properties, properties designated as Arlington County Local Historic Districts are protected by a zoning overlay and are entitled to design review assistance. Additionally, they are required to obtain special approval through the Certificate of Appropriateness (CoA) process for any exterior changes, new construction, or demolition. This process helps guide and manage proposed exterior changes within the district. It also offers protection from inappropriate alterations and incompatible new construction to ensure the architectural and historic integrity of individual buildings and larger neighborhood districts are maintained.

The following 7 properties are wholly or partially within the Lee Highway Study Area and are designated as Arlington County Local Historic Districts:

- Calloway Cemetery
- Cherrydale Volunteer Fire Department
- Dawson-Bailey House
- Eastman-Fenwick House
- Benjamin Elliott Coal Trestle
- Maywood Historic District
- Stratford Junior High School

LOCATION OF DESIGNATED HISTORIC RESOURCES

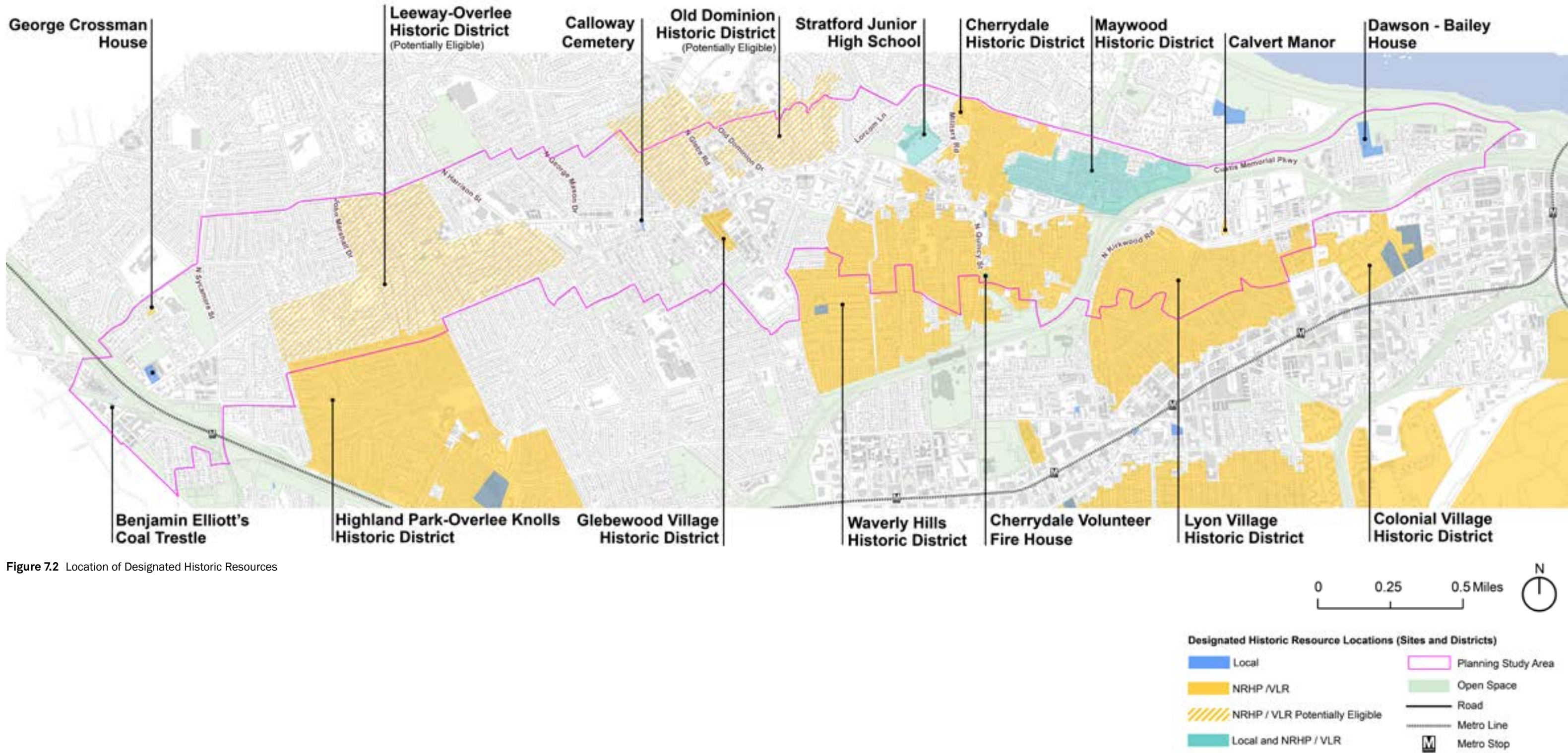


Figure 7.2 Location of Designated Historic Resources

COUNTY EFFORTS FOR IDENTIFICATION OF HISTORIC RESOURCES

The identification of the County's significant historic resources by both dedicated volunteers and organizations such as the Arlington Historical Society has been ongoing since shortly after World War II. Arlington County in Virginia: A Pictorial History (Netherton 1987) was an early attempt to synthesize these previous identification efforts. Beginning in the late 1980s and continuing into the early 2000s, Arlington County sponsored and/or funded numerous phased historic architectural identification surveys to record and document the County's numerous historic residential neighborhoods dating from the early 20th century through the New Deal and post-World War II periods. Beginning in the 1980s, Virginia's State Historic Preservation Office, also known as the Virginia Department of Historic Resources (VDHR), began to digitize its vast collection of architectural and survey records of the Commonwealth's historic resources, including those in Arlington County. In 2013, VDHR launched the Virginia Cultural Resources Information System (VCRIS), its on-line cultural resource inventory for use by local government planning agencies, historic preservation professionals, and the general public.

The County has carried out a robust program of cultural resources identification, historic designation, and preservation as part of its comprehensive planning process. Arlington was the first Virginia locality, and is one of only a few nationwide, to create a Historic Resources Inventory (HRI) — a groundbreaking effort to comprehensively identify and rank specific types of its historic buildings according to their historical and architectural significance. More recently, the County has identified historic resources associated with Arlington's legacy businesses, as well as African-American history through the segregation and Civil Rights eras. Efforts to document historic resources associated with the county's "near history" of the 1960s and 1970s, as well as of other previously overlooked ethnic and cultural groups, are ongoing. To date, there have been no previous Arlington County architectural surveys that have focused on Lee Highway as a historic roadway and transportation corridor, or on the character-defining features of the architectural and historic resources located along the corridor.

Although the County has its share of nationally recognized historic resources, including Arlington House (The Robert E. Lee Memorial), the Pentagon, and Arlington National Cemetery, Arlington County is also notable for its characteristic streetcar-era residential subdivisions, World War II-era garden apartments, and strip shopping centers and commercial buildings.

Arlington County Historic Resources Inventory

The County's Historic Resources Inventory (HRI) is a planning tool designed specifically to assist property owners and the County in determining Arlington's most valuable historic resources and how best to address preservation and development goals simultaneously. This effort was initiated in the late 2000s to comprehensively identify and rank specific types of the County's historic buildings according to their historical and architectural significance. Phase 1 of the HRI was limited to three types of historic resources: Garden Apartments and Complexes (low-, mid-, and high-rises); Shopping Centers; and Commercial Buildings. At the completion of the survey, a total of 394 historic resources were identified and assessed for their significance and integrity. Each property is classified into one of six categories: Essential, Important, Notable, Minor, Altered/Not Historic and Demolished. There are only 23 properties identified in the highest category of Essential — those with the greatest historical, architectural or visual prominence - in the County. In October 2011, the County Board adopted the following eight policy goals for the HRI:

1. Strengthen Arlington's sense of place by valuing historic buildings and the human stories associated with them;
2. Promote historic preservation as a viable and continuing community benefit;
3. Incorporate sustainable design principles in the renovation of all existing historic buildings and in new construction;
4. Promote the preservation of the *Essential* historic buildings in the HRI;
5. Promote the preservation of the *Important* historic buildings in the HRI;
6. Promote the preservation of the *Notable* buildings in the HRI;
7. Contribute to the lasting historic record of the County by documenting historic resources listed in the HRI; and
8. Continually integrate historic preservation planning principles into County policies.

There are 52 properties located in the Lee Highway planning study area that are listed in the HRI. Below in parentheses are the number of properties identified within each category:

- Essential – County's top priorities for preservation that include the most significant, best preserved, and key resources that best define Arlington history (1)
- Important – Central to County's history, but less distinctive than and/or have less physical integrity than Essential (20)

- Notable – Have historic elements related to County's history, but lack sufficient historic context, integrity, and/or significance compared to Essential and Important (8)
- Minor – Altered substantially over time and/or not distinctive examples of their building type (9)
- Altered/Not Historic - (6)
- Demolished - (8).

Arlington County Legacy Businesses

During the Spring of 2017, students in the Urban Design Studio at Virginia Tech's Masters in Urban and Regional Planning Program (Alexandria campus) partnered with the County's Historic Preservation Program (HPP) to document and map "Legacy Businesses," defined as those businesses in operation for more than 10 years. The study also gave special attention to businesses over 25 years old in the Green Valley neighborhood and along Lee Highway in Arlington, both of which are undergoing redevelopment and/or community visioning processes.

Through oral interviews and archival research, the study produced short histories of several business and their relation to the overall Arlington community. The goal of the Legacy Businesses project was to bring to light the stories and voices associated with long-time places that may not be typically viewed as "historic" resources, but that nonetheless comprise an essential part of community character and vitality. Although some of the buildings housing Legacy Businesses have been inventoried as part of one or more past architectural surveys, existing information in VCRIS should be updated with the information collected as part of the Virginia Polytechnic Institute (Virginia Tech) project and new records created for buildings not previously surveyed. The buildings housing Legacy Businesses also should be evaluated for eligibility for listing in the NRHP/VLR and as Local Historic Districts. It is recommended that this planning study continue the efforts of this work.

African-American Historic Resource Surveys in



"The Family" sculpture by Winnie Owens-Hart in High View park (part of County's Public Art Collection (Source: AECOM))

the Lee Highway Study Area

Historic resources associated with the history and culture of Arlington County's African-American population have been the focus of neighborhood architectural surveys conducted in Arlington County during the 2000s, as well as by residents, students, and local historians. These studies have explored the Antebellum, Reconstruction, and Jim Crow-era history of the County's African-Americans, as well as the more recent history of the Civil Rights era, especially the integration of the Arlington County public schools and restaurants in the late 1950s and early 1960s. Two recent studies that attempt to synthesize the still evolving effort to identify and adequately document African-American historic resources include the National Register of Historic Places Multiple Property Documentation Form "African-American Historic Resources in Arlington County, Virginia" (DRAFT)(Thunderbird Archaeology 2017) and "A Guide to the African American Heritage of Arlington County, VA" (2017).

Cataloging Resources - Virginia Cultural Resources Information System

The Virginia Cultural Resources Information System (VCRIS) serves as a central repository for information about individual properties, sites, and historic districts. VCRIS also provides interactive views of information in VDHR's Archives, displays mapping and geographic information, and presents evaluative information about the historic significance of resources. VCRIS also allows users to add updated information to existing records or create new records in the DHR Archives and resource database. Although information on Arlington County's history and architecture also resides in such research repositories as the Arlington County Library's Center for Local History, VCRIS is the principal data base for Arlington's cultural resources, both architectural and archaeological.

Data collected as part of this 2019 Lee Highway Cultural Resources Study will be entered into VCRIS, where it will be accessible by federal and state review agencies, the Virginia Department of Transportation, Arlington County Government, and the general public.



Calloway Church (Source: AECOM)

COMPARISON AND IMPLICATIONS OF HISTORIC DESIGNATIONS

Designation	Description	Impact of Designation or Listing	Applicability to PLH
National Register of Historic Places (NRHP)	Nation's official list of recognized buildings, structures, sites, objects and districts of local, state and national significance.	<ul style="list-style-type: none"> Listing in the NRHP and VLR is honorary. Designation requires permission of a majority of property owners. Listing encourages but does not require preservation. Owners may qualify for voluntary state and federal tax credit programs and historic easement programs 	11 historic resources (four individual properties and seven historic districts) are listed in the NRHP/VLR that are wholly or partially in study area.
Virginia Landmarks Register (VLR)	State's official list of places of historic, architectural, archaeological and/or cultural resources.	<ul style="list-style-type: none"> Owners of NRHP/VLR properties may undertake any repairs, alterations, additions, or demolitions permitted while adhering to zoning and safety regulations. 	
Arlington County Local Historic Districts	Includes individual resources or collections of historic buildings, garden apartments, districts, cemeteries and natural formations	<ul style="list-style-type: none"> Designated by County Board through a public process between property owners, the Historical Affairs and Landmark Review Board (HALRB), and County Historic Preservation staff. Sites/areas are protected by a County zoning overlay district which are subject to a design review process – to help guide and manage proposed exterior changes. Property owners are required to obtain a Certificate of Appropriateness (CoA) for any exterior changes, new construction, or demolition. 	There are 6 individual properties and 1 district that are wholly or partially in study area.

Table 7.1 Comparison and Implications of Historic Designations

Observations

- There are multiple levels of designation, from national to state and county. These tables show the relevant designations or listings of historic resources.
- Each designation or listing has its own criteria and process for becoming 'designated' or 'listed'.
- Designation or listing can have different impacts on what can be done to the site or property, whether it is an 'honorary' listing or whether it requires additional consideration or review by a relevant agency for redevelopment, modifications, or demolition. National and state listing is honorary, and does not impact development. The County's Local Historic Districts requires additional review by the County and HALRB.
- The Arlington County Historic Resource Inventory (HRI) is a planning tool designed specifically to assist property owners and the County in determining the County's most valuable historic resources and how best to address preservation and development goals simultaneously.
- The Arlington County Legacy Business Study and African-American Historic Resources Surveys provide a helpful basis in uncovering resources and stories from within the planning study area that haven't yet been shared or told.

COMPARISON AND IMPLICATIONS OF IDENTIFICATION EFFORTS

Efforts	Description	Impact of Identification	Applicability to PLH
Arlington County Historic Resource Inventory (HRI)	County inventory that identifies and ranks specific types of historic buildings according to their historical and architectural significance – primarily garden apartments and commercial buildings. Each property is classified into 1 of 6 categories, including essential, important, notable, minor, altered/not historic, and demolished. * 2009-2010 survey approved by board in 2011 will be updated in future, however, current form provides important foundation point for this planning study.	<ul style="list-style-type: none"> Policy Guidance: Resources are 'flagged' for special consideration (when reviewing development applications) to help balance preservation goals with new development and other community benefits. For essential, important, and notable resources, county strives to protect Essential and important resources require HALRB review 	There are 52 HRI resources located in the planning study area. 29 of these will be surveyed as part of PLH, including 21 Important and 8 Notable
Arlington County Legacy Businesses Study	Study conducted by students of Virginia Tech's Masters in Urban and Regional Planning Program. Brings to light the stories and voices associated with places that comprise an essential part of community character and vitality. Typically defined as those businesses in operation for over 10 years.	<ul style="list-style-type: none"> Intent is to evaluate list for potential eligibility in NRHP/VLR and local districts No impact 	This study gave special attention to businesses along Lee Highway, particularly those over 25 years old. It is an important resource for planning study to build on.
African-American Historic Resource Surveys	Architectural surveys that explore the Antebellum, Reconstruction, and Jim Crow-era history of the County's African-Americans, as well as the more recent history of the Civil Rights era, especially the integration of the Arlington County public schools and restaurants in the late 1950s and early 1960s.	<ul style="list-style-type: none"> Two recent studies that synthesize and document African-American historic resources includes "African-American Historic Resources in Arlington County, Virginia" (DRAFT) and "A Guide to the Heritage of African-Americans in Arlington County, Virginia" (2017). No impact 	These are a resource for PLH to build on.

Table 7.2 Comparison and Implication of Identification Efforts

2019 CULTURAL RESOURCES SURVEY APPROACH

The Lee Highway Cultural Resources Survey will utilize a four-step “tiered approach” to allow the County flexibility to document priority sites in the greatest depth. The first step consists of overall background research to determine types and significance of known and previously identified resources. The second step is to identify the resources that will be researched, surveyed, and documented at a reconnaissance and or in-depth level. The survey area includes approximately 650 potential resources. Approximately 380 of the 650 potential resources have been previously surveyed. This study will survey a total of 120 resources. Of the 120 resources, 15 will receive in-depth analysis and the remainder of the 105 resources will be analyzed at a reconnaissance level. The third step will be to conduct the field surveys and more in-depth research, followed by documentation. The recording of the collected historical and architectural information into VCRIS for resources studied at both the reconnaissance and in-depth level will comprise the fourth and final step.

Based on information collected during the background research phase, AECOM and the County’s Historic Preservation Program staff have developed a preliminary prioritized list of 100 resources to be researched and surveyed. The remainder of the 20 potential resources are to be selected based on community input received throughout the process to date and at the upcoming public workshop.

Priority Resources

The historic resources in the Lee Highway survey area that will be prioritized for research, surveying and documentation in VCRIS, have been selected from the sources and/or priorities listed below and summarized in the table that follows. The resources that will be researched and surveyed represent resource types located across the entirety of the Lee Highway corridor and include resources that were under-represented in previous architectural surveys—such as resources that are less than 50 years old—and may include local examples of standardized resource types, such as garden apartment complexes, late-1960s subdivisions, and neighborhood parks.

Other resource types may include properties and businesses that are significant for reasons other than architecture, including association with a locally significant person, events, families, or for cultural affiliations. The preliminary list of 100 properties selected by staff and the Consultants is also provided in this section.

- **Properties with Frontage on Lee Highway:** No previous County architectural survey has focused specifically on Lee Highway, or on the character-defining features of the architectural and historic resources located along the corridor. Of the nearly 3,000 resources in the Lee Highway Study Area recorded in VCRIS, only 130 have Lee Highway addresses, and most of these were recorded as part of neighborhood surveys that included or fronted on small sections of the corridor. Most of the existing information on previously recorded Lee Highway resources is incomplete and/or out-of-date. Priority will be given to re-surveying a significant percentage of these 130 Lee Highway resources, to update the architectural and historical information in VCRIS, and evaluate them within their historic context.
- **HRI Properties:** The 52 resources identified in the HRI list within the Lee Highway Study Area, include a mix of garden apartments, commercial buildings, and shopping centers. Adequate historical and architectural information exists only on Calvert Manor Apartments, the only property ranked as Essential in the study area. Priority will be given to re-surveying those HRI properties in the study area that have been categorized as Important or Notable, to update the architectural and historical information in VCRIS, and evaluating them within their historic context as part of the Lee Highway corridor.
- **African-American Historic Resource Surveys:** Priority will be given to surveying and documenting non-building resources such as parks, cemeteries, and sites of demolished buildings and structures of historical importance for the African-American community, such as the sit-ins which took place in Cherrydale. The resources will be selected based on community input, informant interviews and historical research through the planning study. The two recent studies that synthesize and document African-American historic resources, including the draft “Multiple Property Documentation of African-American Historic Resources in Arlington County, Virginia” and “A Guide to the Heritage of African-Americans in Arlington County, Virginia” (2017), will be utilized to evaluate these resources for local, state, and national designation and enter collected information into VCRIS.
- **Post-1955 Resources and Modern Architecture:** Identify, research, and record significant post-1955 resources in the Lee Highway Study area that were not included in previous architectural surveys because they did not meet the 50-year-and-older threshold for survey and documentation. Identify, research, and record significant examples of Modern architecture (Brutalist, Mid-Century Modern, International Style, Post-Modern and LEED-certified) in the Lee Highway Study area and enter collected information into VCRIS.

- **Parks, Open Spaces, and Community Facilities:** Only a few historic resources used for recreation, as gathering spaces, and as community facilities in the Lee Highway Study Area have been documented during previous architectural surveys. Additionally primary-source historical documentation on Arlington County parks is mostly elusive or non-existent. This study will continue to identify and document through informant interviews and other sources significant parks, open spaces, and community resources and will evaluate these resources for local, state, and national designation. Collected information will be entered into VCRIS.

Observations

There are a number of important sites, events and stories found along the corridor that contribute to community identity and deserve to be made more legible, brought forward and celebrated. While some resources located on the corridor have been previously studied, the approach has been fragmented, and is currently incomplete. Further work is needed to bring it together in a coherent way.

The Cultural Resources Survey offers an opportunity to better understand the historic and cultural resources that have previously been studied and to identify new resources to study. This study will uncover new places, events, and people that have contributed to making Lee Highway special and will be an integral part in defining and bringing forward the identity of the Lee Highway neighborhoods.

Storylines to be developed further

- Lee Highway’s history and its character-defining features as related to the African-American community and Civil Rights Movement, including:
 - Legacy Businesses
 - Post-1955 resources
 - Civil Rights-era resources
- Lee Highway’s history and its character-defining features as related to Civil War sites.
- Role of the highway and its impact on Arlington County
- Legacy Businesses Study: Priority will be to build on the information collected during the 2017 Virginia Tech Study, to include architectural and photographic documentation of previously identified Legacy Businesses in the Lee Highway Study Area. This also includes updating the existing architectural and historical information in VCRIS and evaluating the businesses within their historic context.
- Civil War Forts: The sites of two earthen forts – Fort Bennett and Fort Strong – erected during the Civil War as part of the military defenses of Washington are located within the Lee Highway study area. Although neither fort is still extant, their sites are commemorated by historical markers placed in 1965 on the 100th anniversary of the war’s end. Both fort sites will be researched within the context of the Civil War in Arlington and added to VCRIS.

SUMMARY TABLE OF RESOURCES TO BE SURVEYED BY RESOURCE TYPE

Resource Type / Theme	Number of resources to be surveyed by type
Historic Resource Inventory (HRI)	29
Legacy Businesses	20 (10 of these to be selected after public input)
African-American Resources	20 (5 of these to be selected after public input)
Civil War Forts	2
Parks, Recreation, Public Spaces, and Community Facilities	8
Properties with frontage on Lee Highway (Previously surveyed and requires update)	36
Modern Architecture	5 (5 of these to be selected after public input)
Total	120 (20 of these to be selected after public input)

Table 7.3 Summary Table of resources for survey and documentation, by resource type

PRELIMINARY LIST OF PROPERTIES FOR RECONNAISSANCE-LEVEL OR IN-DEPTH SURVEY AND DOCUMENTATION

#	Name / Address	VDHR ID No.	Source
<i>Historic Resource Inventory (HRI)-Listed Properties in Lee Highway Study Area</i>			
1	Fort Bennett Apartments, 21st St North and North Pierce St	000-4694 through 000-4713 (16 bldgs.)	HRI – Important Level
2	Taylor Apartments, 1660-1670 21st Rd North	000-4699	HRI – Notable Level
3	Palisade Gardens Apartments, North Scott St and 21st St North	000-0471, 000-0471-0002, 000-0471-0003, 000-0471-0004, 000-0471-0005, 000-0471-0006, 000-0471-0007	HRI – Important Level
4	McClaine Courts Apartments, 2500-2502 Lee Highway (Top 1/3)	000-7010	HRI – Important Level
5	Unnamed Apartments, 2634 Lee Highway (Top 1/3)	000-7061	HRI – Important Level
6	Admiralty Apartments, 2000-2020 North Calvert St	Not in VCRIS	HRI – Important Level
7	Fort Strong Apartments, 2000-2012 North Daniel St	Not in VCRIS	HRI – Important Level
8	Lyon Village Apartments, 3000 Lee Highway and 3111 20th Street N (Top 1/3)	000-7287; 000-7288; 000-7289	HRI – Important Level
9	Unnamed Commercial Building, 3206 Lee Highway (In Cherrydale HD)	000-7821-0420	HRI – Notable Level
10	Unnamed Service Station, 4035 Old Dominion Drive	000-9669	HRI – Notable Level
11	Cherrydale Motors, 3412 Lee Highway (In Cherrydale HD)	000-7785 and 000-7821-0582	HRI – Important Level
12	Ivey Building, 3436 Lee Highway (In Cherrydale HD)	000-7786	HRI – Notable Level
13	Unnamed Commercial Building, 3612 Lee Highway (In Cherrydale HD)	000-7821-0536	HRI – Important Level
14	Cherrydale Hardware (Masonic Hall), 3805 Lee Highway (In Cherrydale HD)	000-7821-0609	HRI – Important Level
15	Unnamed Commercial Building, 3811-3815 Lee Highway (In Cherrydale HD)	000-7821-0427	HRI – Notable Level
16	Unnamed Commercial Building, 4040 Lee Highway (In Cherrydale HD)	000-7821-0430	HRI – Important Level
17	Unnamed Commercial Building, 2113 North Quebec Street (In Cherrydale HD)	000-4286	HRI – Notable Level
18	Unnamed Apartments, 2040-2060 North Vermont St	000-8978 and 000-8979	HRI – Important Level
19	Vermont Terrace Apartments, 2026-2030 North Vermont St, 2051-2055 Woodrow Street	000-8976 and 000-8977	HRI – Notable Level

Table 7.4 Properties proposed for Reconnaissance-Level or In-Depth Survey and Documentation

#	Name / Address	VDHR ID No.	Source
<i>Historic Resource Inventory (HRI)-Listed Properties in Lee Highway Study Area (con't)</i>			
20	Lee Highway-Woodstock Shopping Center, 4500-4550 Lee Highway	000-8981	HRI – Important Level
21	Dominion Terrace Apartments, 2030-2036 North Woodrow St; 4635-4641 and 4701-4705 20th Road North	Not in VCRIS	HRI – Important Level
22	Unnamed Commercial Building, 4625 Old Dominion Dr	000-3448	HRI – Important Level
23	Unnamed Commercial Building, 4745-4753 Lee Highway	000-3585	HRI – Notable Level
24	Unnamed Commercial Building, 4763-4775 Lee Highway	000-3588	HRI – Important Level
25	Unnamed Commercial Building, 4801 Lee Highway	000-3589	HRI – Important Level
26	Vale Apartments, 4751-4753 21st Rd North (Top 1/3)	000-4881	HRI – Important Level
27	John Delaschmutt Apartments, 1931-1941 North Cameron St	000-4811, 000-4812	HRI – Important Level
28	Dominion Electric Building, 5053 Lee Highway	000-4135	HRI – Important Level
29	Garden City Shopping Center, 5123-5183 Lee Highway	Not in VCRIS	HRI – Important Level
<i>Legacy Businesses on Lee Highway</i>			
1	KH Art Framing, 4745 Lee Highway	000-3585 (same as #23 above)	2017 VPI: Legacy Businesses on Lee Highway
2	Lebanese Taverna, 4400 Old Dominion Drive	Not in VCRIS	2017 VPI: Legacy Businesses on Lee Highway
3	Lyon Village Shopping Center, Center, 3115-3133 Lee Highway	Not in VCRIS	2017 VPI: Legacy Businesses on Lee Highway
4	Preston's Pharmacy, 5101 Lee Highway	Not in VCRIS	2017 VPI: Legacy Businesses on Lee Highway
5	Sam Torrey Shoe Service, 5267 Lee Highway	Not in VCRIS	2017 VPI: Legacy Businesses on Lee Highway
6	Sterling Framing, 2103 North Pollard Street	Not in VCRIS	2017 VPI: Legacy Businesses on Lee Highway
7	Moore's Barber, 4807 Lee Highway	000-3623	2017 VPI: Legacy Businesses on Lee Highway
8	Glebe Radio & Appliance, 5060 Lee Highway	Not in VCRIS	2017 VPI: Legacy Businesses on Lee Highway
9	Heidelberg Bakery, 2150 North Culpeper St	Not in VCRIS	2017 VPI: Legacy Businesses on Lee Highway
10	Brown's Honda, 3920 Lee Highway	Not in VCRIS	2017 VPI: Legacy Businesses on Lee Highway

#	Name / Address	VDHR ID No.	Source
<i>Legacy Businesses on Lee Highway, con't</i>			
11	Cardinal Realty, 4500 Old Dominion Drive	Not in VCRIS	2017 VPI: Legacy Businesses on Lee Highway
12	Robert Shreve Fuel Company, 6873 Lee Highway	Not in VCRIS	2017 VPI: Legacy Businesses on Lee Highway
13	Suburban Animal Hospital, 6879 Lee Highway	Not in VCRIS	2017 VPI: Legacy Businesses on Lee Highway
14	Macpherson Opticians, 5064 Lee Highway	Not in VCRIS	2017 VPI: Legacy Businesses on Lee Highway
15	Republic Electronics, 5801 Lee Highway	Not in VCRIS	2017 VPI: Legacy Businesses on Lee Highway
16	Northside Veterinary Clinic, 4003 Lee Highway	Not in VCRIS	2017 VPI: Legacy Businesses on Lee Highway
17	Reinhart's Garage, 3203 Lee Highway	Not in VCRIS	2017 VPI: Legacy Businesses on Lee Highway
18	Ruffino's Spaghetti House, 4763 Lee Highway	000-7821-0428	2017 VPI: Legacy Businesses on Lee Highway
19	The Italian Store, 3123 Lee Highway	000-7821-0419	2017 VPI: Legacy Businesses on Lee Highway
20	Lee-Lexington Beauty Salon, 5707 Lee Highway	000-3588	2017 VPI: Legacy Businesses on Lee Highway
<i>African-American Resources in Planning Study Area</i>			
1	Calloway United Methodist Church and Cemetery, 5000 Lee Highway	000-8509 (Church)	A Guide to the African American Heritage of Arlington County, Virginia
2	Mount Salvation Baptist Church and Cemetery (Charles J. Bryant, architect) 1961 North Culpeper Street	000-9812 and 000-8469	A Guide to the African American Heritage of Arlington County, Virginia
3	Sumner School Site, Intersection of Lee Highway and North Culpeper Street	Not in VCRIS	A Guide to the African American Heritage of Arlington County, Virginia
4	Fire Station No. 8, 2209 North Culpeper Street	Not in VCRIS	A Guide to the African American Heritage of Arlington County, Virginia
5	Firehouse (First integrated firehouse), 4845 Lee Highway	000-9811	A Guide to the African American Heritage of Arlington County, Virginia
6	"Segregation Wall," between North Edison Street and North Glebe Road along south end of High View Park	Not in VCRIS	A Guide to the African American Heritage of Arlington County, Virginia

#	Name / Address	VDHR ID No.	Source
<i>African-American Resources in Planning Study Area, con't</i>			
7	John M. Langston School Site (Site of present Langston-Brown Community Center)	Not in VCRIS	A Guide to the African American Heritage of Arlington County, Virginia
8	Peoples Drug Store (4709 Lee Highway and Old Dominion Dr.)	Not in VCRIS	Site of Civil Rights-era lunch counter "sit-ins"
9	Drug Fair, (3811-3815 Lee Highway) (In shopping center next to Cherrydale Hardware)	000-7821-0427	Site of Civil Rights-era lunch counter "sit-ins"
10	Howard Johnson's (4700 Lee Highway)	Not in VCRIS	Site of Civil Rights-era lunch counter "sit-ins"
11	Drug Fair (5401 Lee Highway)	Not in VCRIS	Site of Civil Rights-era lunch counter "sit-ins"
12	High View Park, 1945 N Dinwiddie Street	Not in VCRIS	Arlington County Parks and Recreation
13	Slater Park, 1837 N Culpeper St	Not in VCRIS	Arlington County Parks and Recreation
14	Halls Hill/High View Park and Sculpture	Not in VCRIS	Arlington County Parks and Recreation
15	1900 North Cameron Street (Home of architect and longtime civil rights activist E. Leslie Hamm)	000-4806	Public meeting input
16	NAME (to be determined)	TBD	Public meeting input. Examples: Home businesses, day care, beauty parlor, lodging, homes of locally prominent individuals, known builders/architects.
17	NAME (to be determined)	TBD	
18	NAME (to be determined)	TBD	
19	NAME (to be determined)	TBD	
20	NAME (to be determined)	TBD	
<i>Civil War Forts</i>			
1	Fort Bennett, 2220 N Scott Street	Not in VCRIS	Arlington County Historical Marker Program
2	Fort Strong	Not in VCRIS	Arlington County Historical Marker Program
<i>Parks, Recreation, Public Spaces and Community Facilities</i>			
1	Lyon Village Park 414 N Fillmore Street in Lyon Park HD	000-5375	Arlington County Parks and Open Spaces
2	Cherrydale Branch Library, 2190 North Military Road	Not in VCRIS	Community Facility
3	Lee Community Center (former Lee School), 5722 Lee Highway	000-4209-0090	Community Facility

#	Name / Address	VDHR ID No.	Source
<i>Parks, Recreation, Public Spaces and Community Facilities, con't</i>			
4	Thrifton Hill Park, 2814 23rd (in Maywood HD)	Not in VCRIS	Maywood HD
5	Maywood Park, 3210 22nd Street (in Maywood HD)	000-5056-0052	Arlington County Parks and Open Spaces
6	Lyon Village Community Center, 1920 N Highland Street (in Lyon Park HD)	000-5375	Arlington County Parks and Open Spaces
7	Cherrydale Park, 2176 N Pollard Street	Not in VCRIS	Arlington County Parks and Open Spaces
8	Overlee Community Center, 6030 Lee Highway	000-4209-0039	Community Facility
<i>Lee Highway Properties Previously Surveyed (requires update)</i>			
1	Carriage House Restaurant, 4030 Lee Highway	000-9663	VCRIS 1950-1969 Building
2	Cherrydale Auto Glass, 4060 Lee Highway	000-9664	VCRIS 1950-1969 Building
3	Linda's Café, 5050 Lee Highway	000-8512	VCRIS 1950-1969 Building
4	Cherrydale Elementary School (site), 3710 Lee High	Not in VCRIS	VCRIS 1950-1969 Building
5	Commercial Building, 5210 Lee Highway	000-4820	VCRIS 1950-1969 Building
6	Commercial Building, 3811 Lee Highway (In Cherrydale HD)	000-7821-0427	VCRIS 1950-1969 Building
7	Key Bridge Marriott (original section), 1401 Lee Highway	000-6261	VCRIS 1950-1969 Building
8	Christ U.M. Church, 5714 Lee Highway	000-4209-0091	VCRIS
9	Gifford's Ice Cream Parlor, 5555 Lee Highway	000-4147	VCRIS
10	Tops Dry Cleaners 5210 Lee Highway	000-4820	VCRIS
11	Sport Fair, 5010 Lee Highway	000-4793	VCRIS
12	4782 Lee Highway	000-4891	VCRIS
13	4770 Lee Highway	000-4890	VCRIS
14	4756 Lee Highway	000-4889	VCRIS
15	4755 Lee Highway	000-3587	VCRIS
16	4748 Lee Highway	000-4888	VCRIS
17	4736 Lee Highway	000-8980	VCRIS
18	4308 Lee Highway	000-7813	VCRIS

#	Name / Address	VDHR ID No.	Source
<i>Lee Highway Properties Previously Surveyed (requires update), con't</i>			
19	4113 Lee Highway (In Cherrydale HD)	000-7821-0431	VCRIS
20	4050 Lee Highway (In Cherrydale HD)	000-7793/000-7821-0611	VCRIS
21	4038 Lee Highway (In Cherrydale HD)	000-7821-0608	VCRIS
22	4036 Lee Highway (In Cherrydale HD)	000-7821-0429	VCRIS
23	4003 Lee Highway (In Cherrydale HD)	000-7821-0428	VCRIS
24	4001 Lee Highway (In Cherrydale HD)	000-7792/000-7821-0610	VCRIS
25	3824 Lee Highway	000-7789	VCRIS
26	3630 Lee Highway (In Cherrydale HD)	000-7821-0426	VCRIS
27	3620 Lee Highway (In Cherrydale HD)	000-7821-0425	VCRIS
28	3614 Lee Highway	000-7788	VCRIS
29	3610 Lee Highway	000-7787	VCRIS
30	3520 Lee Highway (In Cherrydale HD)	000-7821-0424	VCRIS
31	3514 Lee Highway (In Cherrydale HD)	000-7821-0423	VCRIS
32	3510 Lee Highway (In Cherrydale HD)	000-7821-0422	VCRIS
33	3332 Lee Highway (In Cherrydale HD)	000-7821-0421	VCRIS
34	3212 Lee Highway (In Cherrydale HD)	000-7821-0581	VCRIS
35	3100 Lee Highway	000-9025	VCRIS
36	2522 Lee Highway	000-7015	VCRIS
<i>Modern Architecture</i>			
1	3200 Lee Highway (MTFA Architects)	Not in VCRIS	To be determined in the field
2	4624 Lee Highway	000-8973	To be determined in the field
3	Wood-Lee Arms Apartments, 4400 Lee Highway	Not in VCRIS	To be determined in the field
4	4620 Lee Highway	Not in VCRIS	To be determined in the field
5	NAME (to be determined)	TBD	To be determined in the field

Sustainability & Resiliency

OVERVIEW

While sustainability and resiliency is a broad topic with many integrated components, this element of Plan Lee Highway focuses on three key aspects that are of priority to the County and corridor neighborhoods: (1) stormwater management, (2) energy management, and (3) strengthening connections to nature (i.e. biophilia). The element focuses on these areas due to increased frequency of flooding events, the opportunity to meet the targets of the County’s Community Energy Plan, and the consistent desire to “green” Lee Highway while enhancing biophilic amenities in adjacent neighborhoods.

This section begins with an overview of the County’s energy consumption and the Community Energy Plan’s (CEP) goal for reduced energy-related emissions. It then describes various methods for reducing energy-related emissions that together have a compounding effect.

In terms of stormwater resources management, this section focuses on the planning study area’s impervious surfaces, undulating topography, location of storm drainage infrastructure, watersheds, and floodplains and flood-prone areas to understand existing conditions and characteristics that contribute to a range of stormwater impacts (from water quality to stream erosion to flooding) within and downstream of the planning area. Additionally, it analyzes the tree canopy in the planning study area as well as tools that can help mitigate stormwater impacts alongside the considerable infrastructure investments and land use changes that will be needed to reduce extreme flooding risks.

Preliminary Aspirational Goal

Design and construct buildings, street improvements, and park projects using environmentally sustainable and energy efficient practices. Make the Lee Highway frontage more comfortable and attractive with fewer impervious surfaces and more “green” features (trees, stormwater management facilities, gathering spaces).

2016 Vision Study Principle*

‘Green’ the corridor by incorporating street trees and improved landscaping in public spaces and sustainable design techniques in new construction.

2016 Vision Study Recommendations*

- Continue to conduct educational forums on urban/sustainable design techniques
- Specify standards for sustainable design in new construction (i.e. high-efficiency and/or high-productivity energy and water solutions, biophilic components, etc.).

*The County will continue to seek community feedback to validate and refine the 2016 Vision Study principles and recommendations and the County’s Preliminary Aspirational Goals throughout the Plan Lee Highway process.

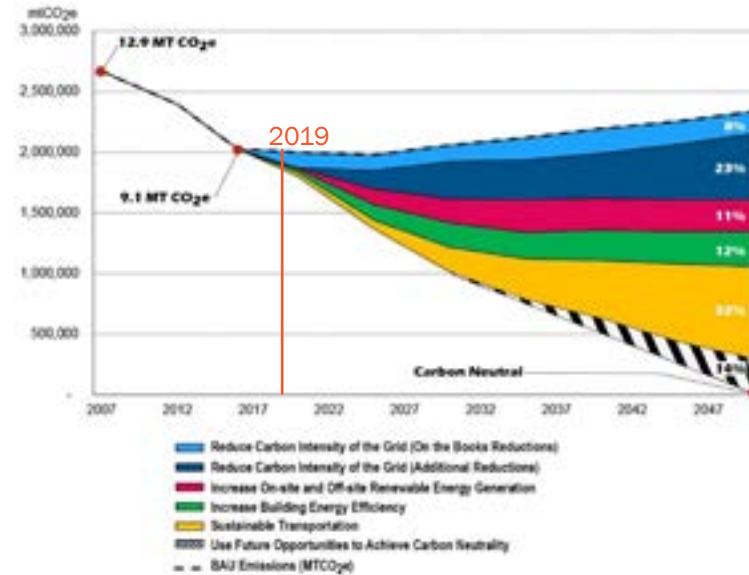


Figure 8.1 Arlington County Greenhouse Gas Emissions Reductions

Source: Arlington County CEP (2019)

Observations

- Arlington has been on a path to reduced greenhouse gas emissions since 2007.
- It will take a multi-layered approach to meet the desired targets by 2050.



KEY DOCUMENTS + TAKEAWAYS



Community Energy Plan (2019)

<https://environment.arlingtonva.us/energy/community-energy-plan-cep/>

In September 2019, the Arlington County Board adopted an update to the Community Energy Plan (CEP), setting ambitious targets for transforming the County’s energy sector. The updated CEP sets a goal for Arlington to become carbon neutral by 2050. Additional headline goals include achieving 100% renewable electricity for the community by 2035 and achieving 100% renewable electricity for County government operations by 2025. The CEP incorporates goals for buildings, resilience, renewable energy, transportation, County government actions, and education and human behavior. The CEP’s goals and policies are consistent with the County’s innovative land use planning for transit-oriented design, preservation of green and open space, and economic development grounded in diverse markets and innovative technologies.

Energy Consumption

“More than 61% of Arlington’s energy use is connected to building sector consumption – distributed across commercial and multifamily buildings, single-family homes, workplaces, and shopping areas.



The remainder (39%) is associated with transportation-related energy use, including vehicles, public transportation, signalization, and electric and hybrid vehicle charging infrastructure “



Observations

- Older building stock, like that along Lee Highway, can be less energy-efficient and result in higher emissions.
- Shifting vehicular trips to pedestrian, bicycle and transit trips and using more electric vehicles can reduce the energy and emissions burden.

Community Energy Plan Emissions Goal:

CARBON NEUTRALITY BY 2050

“The baseline for Arlington’s CEP is calendar year 2007. That year, the community as a whole was responsible for generating 12.9 metric tons (mt) of CO2e/capita/year...”

The goal of carbon neutrality by 2050 is ambitious, but consistent with rapid improvements in infrastructure and the demonstrated trend of significant advances in operational and cost efficiency over the next 25 years ”

Source: Arlington County CEP (2019)

Observations

- To reduce energy-related emissions, new buildings will need to be much more energy efficient. Existing buildings will need to be retrofitted for energy efficiency. On-site renewable energy will need to be included as well.

KEY DOCUMENTS + TAKEAWAYS

Urban Forest Master Plan (2004)

<https://projects.arlingtonva.us/urban-forest-master-plan-2/>

The Urban Forest Master Plan includes a variety of long-term goals, strategies and priorities that address tree canopy in a comprehensive, systematic manner.

Natural Resources Management Plan (2010)

<https://projects.arlingtonva.us/natural-resources-management-plan/>

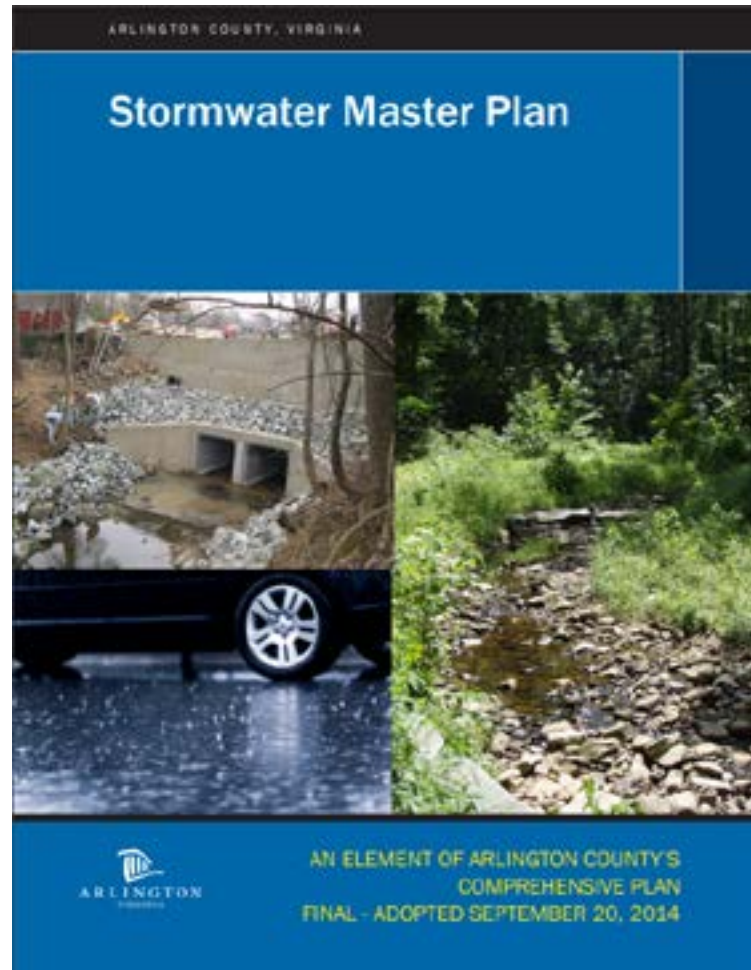
The Natural Resources Management Plan provides recommendations and best practices to enhance, preserve and protect natural resources.

Stormwater Master Plan (2014)

https://arlingtonva.s3.dualstack.us-east-1.amazonaws.com/wp-content/uploads/sites/31/2014/05/SWMP_FINAL_Sept2014.pdf

The Stormwater Master Plan (1996) and Watershed Management Plan (2001) were updated and combined into a comprehensive Stormwater Master Plan, adopted by the County Board on Sept. 20, 2014. The Plan contains information on the condition of the County's stormwater management systems, streams and watersheds in addition to recommendations for improvements.

The Plan has identified several high priority projects, both in and outside the planning study area, to improve the stormwater system, watersheds, and streams. These projects include traditional stormwater infrastructure improvements and green infrastructure.



System capacity

Watershed-scale investment in system capacity will be required to reduce risks from extreme flooding in several priority watersheds. Land use changes will also be needed to provide 'overland relief' to minimize property damage and safety risks when storm drain systems overflow during these severe storm events.

Acquiring land and establishing overland relief areas can provide multiple benefits beyond flood risk reduction, including open space, habitat, stormwater quality mitigation, and bicycle and pedestrian transportation corridors. Several system capacity projects identified in the Stormwater Master Plan have either been completed or are currently under or nearing construction.

Additional projects from the list of high-priority projects will be proposed for implementation through the County's Capital Improvement Plan (CIP). The CIP covers a 10-year period and is updated every two years. The Fiscal Year (FY) 2021-2030 CIP is currently under development and will be adopted by the County Board in 2020.

Retrofits

A watershed retrofit is the addition of a stormwater facility to an area that currently doesn't have one. Adding a stormwater facility can help slow down and filter stormwater runoff before it flows into local streams. This is important in areas like Arlington, where much of the County was developed before stormwater requirements were enacted. Green infrastructure in the public right-of-way, such as a green street retrofit, is an example of a retrofit used to reduce the volume of stormwater and stormwater pollutants that enter local streams, the Potomac River, and the Chesapeake Bay.

The County worked with the Center for Watershed Protection to develop watershed retrofit plans and a County-wide project inventory. During the process, all of the County's watersheds were studied to find space where distributed stormwater facilities can be added. The Watershed Retrofit Study was completed in December 2013.

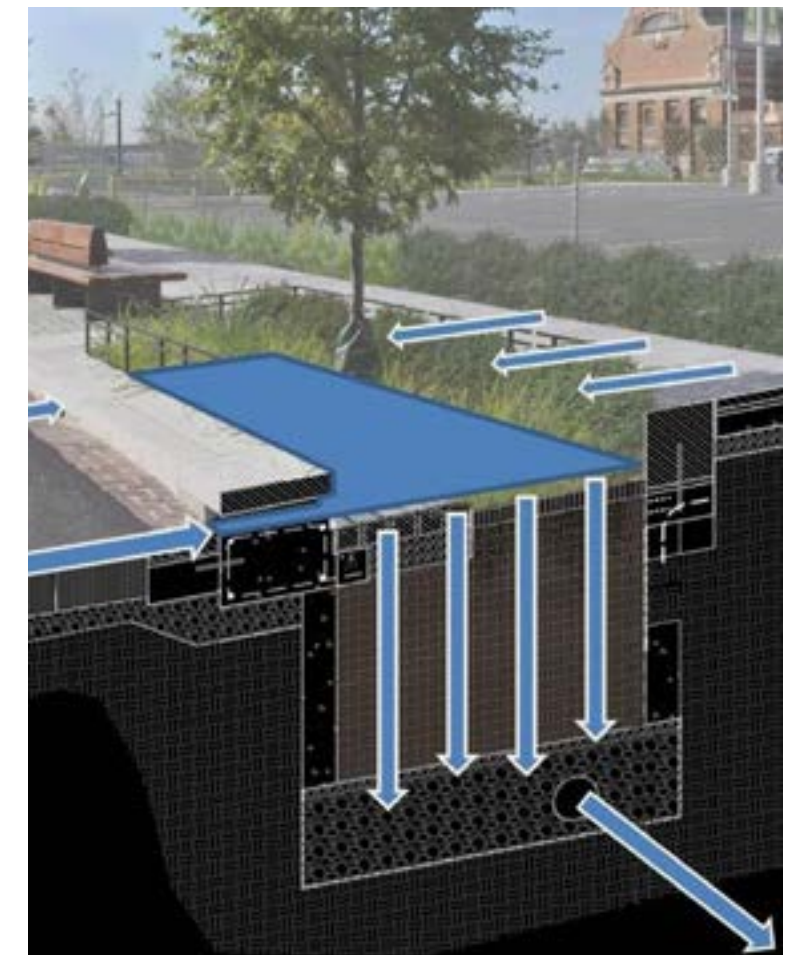
With more recent experience and analysis following extreme flooding in 2018 and 2019, larger-scale retention/detention facilities are also needed to manage larger rainfall volumes. These facilities will be explored within County parks and rights-of-way as well as School properties, with an emphasis on integrating water 'quality' and 'quantity' functions and objectives.

Streams

A County-wide stream assessment was completed from 2011-2012 to determine stream condition and restoration potential to develop a prioritized list of stream restoration projects. Stream restoration can reduce stream bank erosion and downstream sedimentation and improve stream habitat for aquatic organisms. Stream restoration can also protect public safety as well as nearby storm and sanitary sewer and potable water infrastructure in a way that is more sustainable than hardening the stream crossing or using other pipe protection methods. The County-wide stream assessment looked closely at both physical stream conditions and infrastructure conditions with the goal of developing restoration priorities for specific stream systems and surrounding infrastructure.

Redevelopment

The Stormwater Management Ordinance (Chapter 61) requires stormwater management techniques to mitigate stormwater pollution and runoff impacts from development activities. The ordinance's ability to control runoff volume for larger storms is limited, however, and with continued increases in impervious surfaces from redevelopment activity – especially in single family neighborhoods – stormwater impacts are also expected to continue to increase overall. Additional tools to improve the mitigation of stormwater impacts within and downstream from the planning area could be delivered through the land development permitting process and the design and delivery of public park and transportation corridor projects (e.g., green infrastructure, stormwater detention/retention, trees and additional native landscaping, permeable paving, etc.).



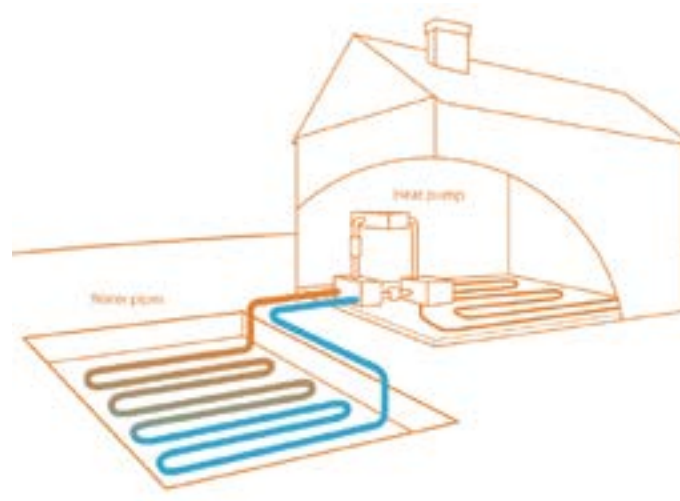
Source: AECOM

OBSERVATIONS

- In order to reach the County's 2050 carbon neutrality goal, reductions must be achieved through combinations of each of these strategies.
- Each component plays a critical role.

- Retrofitting existing homes and businesses, which have long lifespans, will help meet County goals and can save money.
- Retrofits include building envelope and insulation upgrades, roof top photovoltaic (PV) solar installations, the use of ambient energy through ground-source heat exchange, increased control of the times of day when energy is used, and the use of energy storage systems to minimize peak power demands

■ Building Retrofits + Low Energy New Buildings



■ Additional Retrofits + Electrification of Vehicles

- Planting trees reduces cooling energy demand while providing numerous co-benefits, such as reduced heat island impacts.
- Onsite PV solar can be added to existing buildings and parking areas.
- LED lighting reduces power demand.
- Renewable and cleaner grid energy can support electric mobility.
- Electric mobility can contribute to reductions in greenhouse gas emissions.



■ Decarbonizing Electricity

- Cleaner grid energy will be critical to meeting County goals.
- This means increasing wind and solar generation.
- This can also mean recycling and or sequestering carbon from natural gas generation.
- Micro-grids and demand management practices can reduce emissions as well.



Building Emissions Reduction Observations

- PV solar, building envelope improvements and HVAC system retrofits have the highest on-site potential to lower carbon emissions.
- Retro-fitting existing buildings and installing onsite PV solar can reduce grid demand by 15 - 30% depending on adoption rates.*
- Decarbonizing electricity is critical to meeting County CEP goals. It will be needed to address at least 1/3 of the necessary reduction in emissions.*
- The changes needed to meet County building energy and emissions goals could result in many new jobs and improve the reliability of the energy system as well.



Source: solarindustrymag.com

* based on a general emission reductions analysis performed by AECOM

Changes in mobility to help meet CEP goals

Increase Transit ridership

- Optimize bus service by exploring transit priority at peak times, connecting with on-demand services and addressing last-mile connectivity.

Improve walkability

- Reduce Vehicle Miles Traveled (VMT) through balanced, mixed-use neighborhoods and pedestrian friendly experiences.

Enable and encourage bicycling, scooting

- Create an environment that rewards bicycling and improves safety for all ages and comfort levels.

Electrification

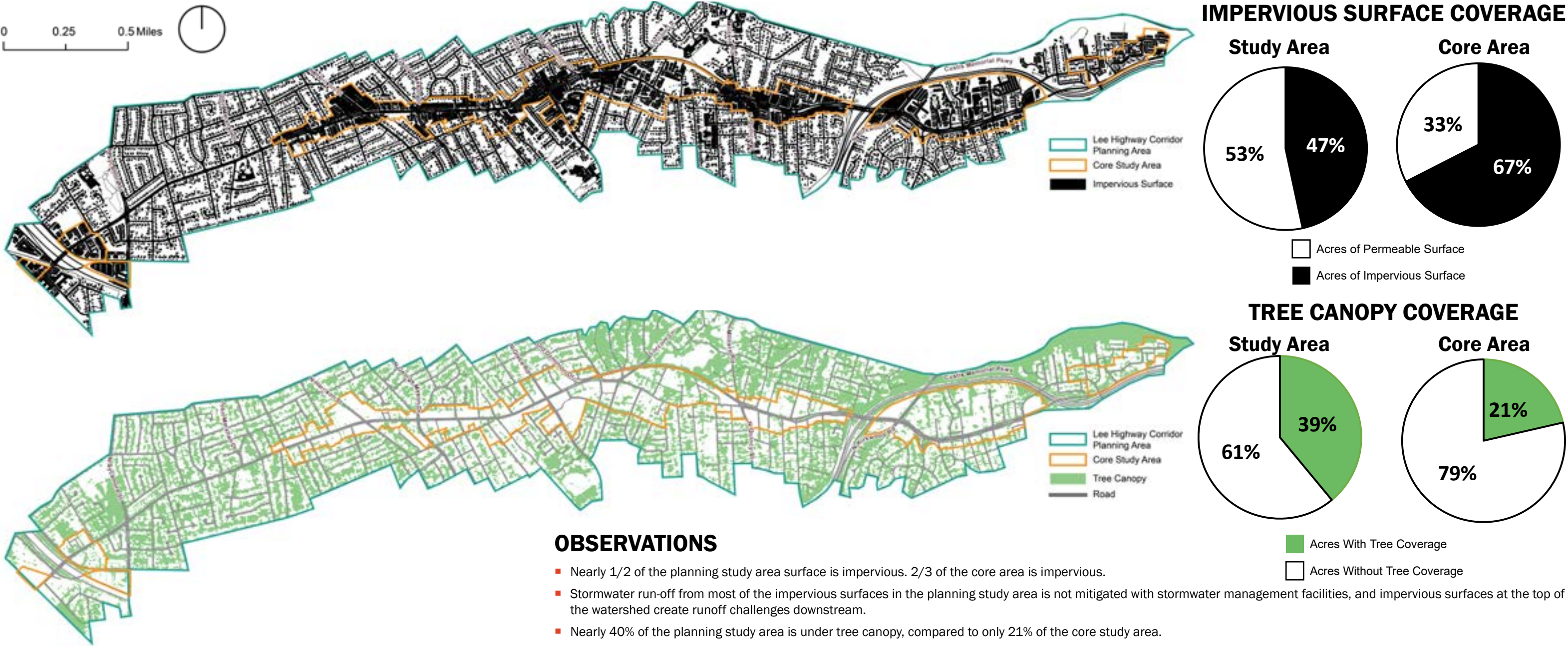
- Electric vehicles (including electric buses) have a lower carbon footprint than conventional vehicles. Facilitating electric vehicle charging infrastructure and electrifying "vehicle must" trips can reduce emissions.



Source: Virginia.org

IMPERVIOUS SURFACE AND TREE CANOPY COVERAGE

Impervious surfaces and tree canopy coverage can greatly influence environmental quality. A robust tree canopy improves air quality, reduces excessive heat island effect, helps reduce and absorb stormwater and connects the community with the natural world. Impervious surfaces shed run-off during storm events and can cause challenges for downstream neighborhoods and infrastructure.



OBSERVATIONS

- Nearly 1/2 of the planning study area surface is impervious. 2/3 of the core area is impervious.
- Stormwater run-off from most of the impervious surfaces in the planning study area is not mitigated with stormwater management facilities, and impervious surfaces at the top of the watershed create runoff challenges downstream.
- Nearly 40% of the planning study area is under tree canopy, compared to only 21% of the core study area.
- Contiguous forests exist along the valleys leading to the Potomac, but not at higher elevations.
- Some neighborhoods have a higher tree density than others (e.g., Donaldson Run vs. John M. Langston).
- Commercial areas and large apartment complexes have the least tree canopy coverage, often due to surface parking lots.
- Lee Highway right-of-way and/or sidewalk width is constrained in certain areas and presents a challenge for providing consistent tree canopy along the corridor.

Figure 8.2 Impervious Surfaces and Tree Canopy Coverage
 *Impervious surface data includes sidewalks and driveways
 Source: AECOM

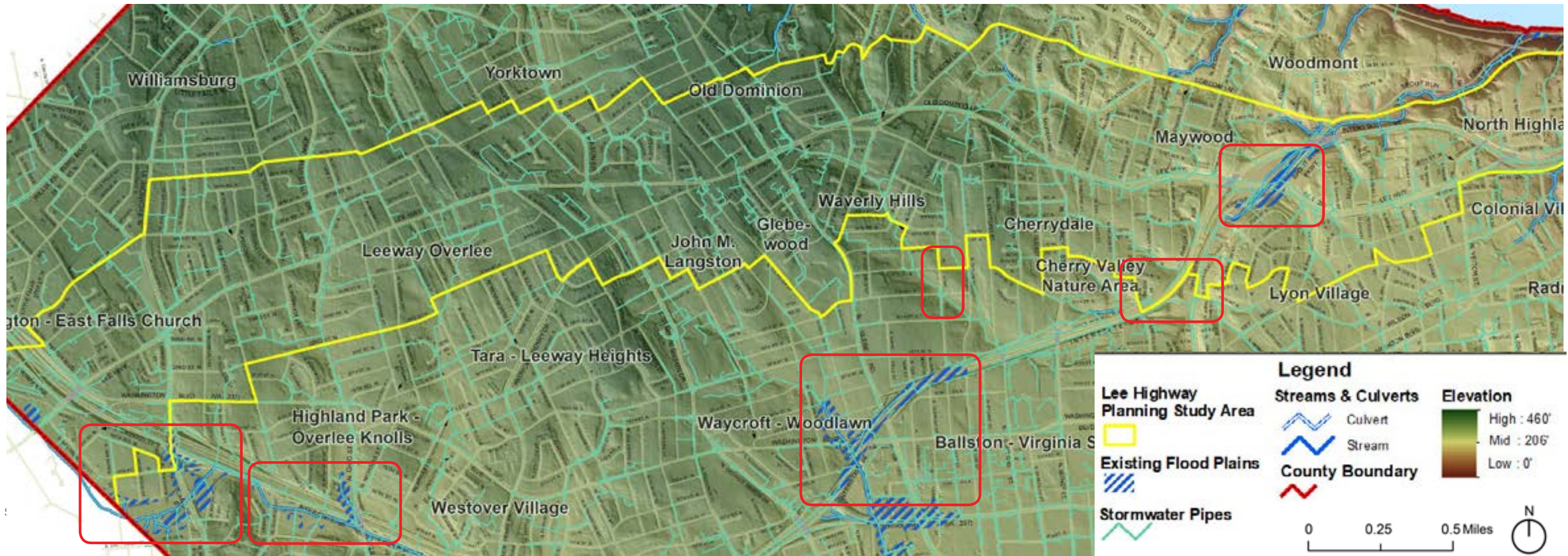


Figure 8.3 Topography and Stormwater Challenges

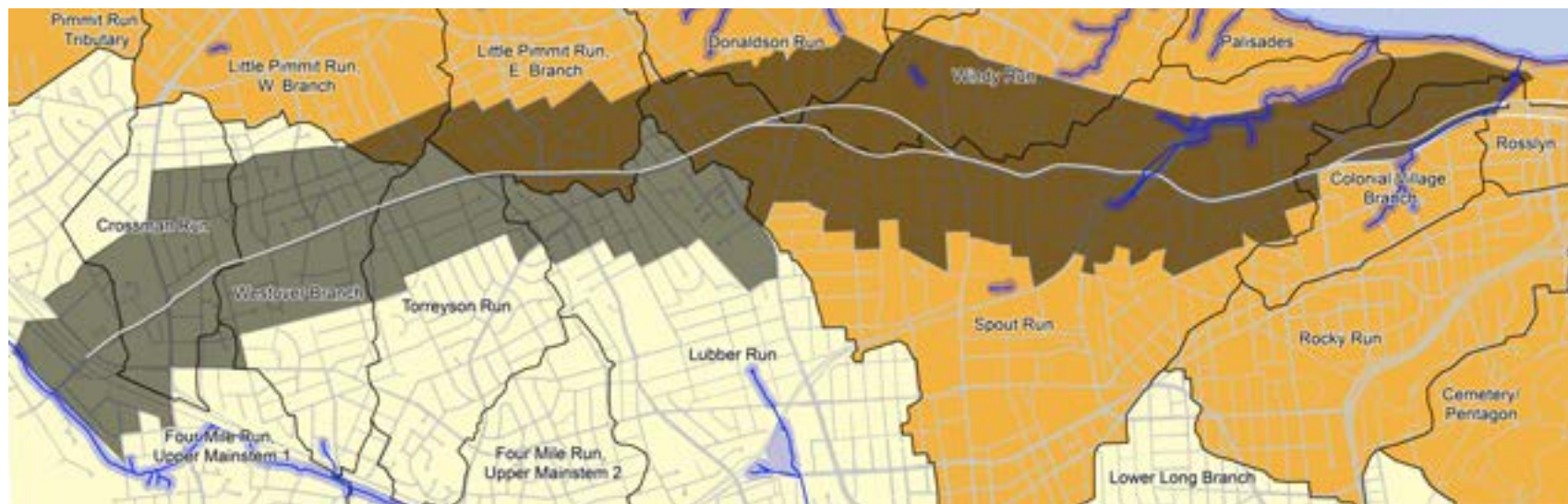


Figure 8.4 Lee Highway Corridor Watersheds
Source: AECOM

OBSERVATIONS

- Lee Highway neighborhoods are three-dimensional. Part of their character comes from the undulating topography.
- The planning study area drains through 13 different tributary watersheds.
- Floodplains occur along the I-66 corridor.
- In some parts of the planning study area, Lee Highway follows the edges of watersheds.
- Recent flooding events outside of typical flood plains ('interior flooding' from storm drain overflows) resulted from a combination of multiple high intensity storm events, high amounts of impervious surface generating run-off and aging infrastructure.
- A very small percentage of the Lee Highway study area falls within the flood plain, but flooding impacts have been felt in many places throughout it.
- In some cases flooding is made worse by conditions that prevents direct and safe paths for water to follow (e.g. overland relief).

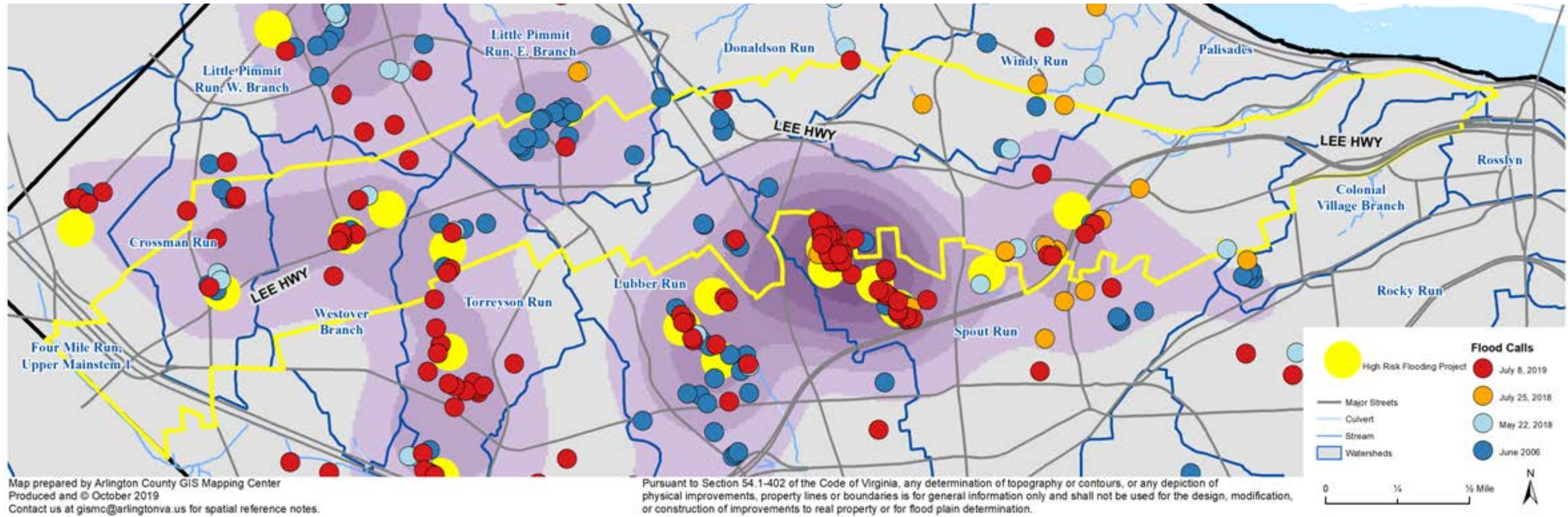


Figure 8.5 Flood Calls Heat Map
Source: Arlington County

OBSERVATIONS

- Community goals related to sustainability and resiliency (including stormwater, energy and green infrastructure/trees) may require additional investment and development.
- As development and redevelopment increase, and storm patterns demonstrate heightened frequency, intensity and duration, stormwater management and flood risk reduction will require expanded engineering and technical approaches (watershed-scale as well as localized infrastructure projects) and aligned investments. Together, these approaches and investments can preserve public safety, foster property protection, and increase resiliency.

BIORETENTION

Bioretention areas use special soils and plants to intercept, store, filter and infiltrate stormwater run-off, limiting the volume of run-off downstream and reducing pollutant loads. Bioretention areas can be incorporated into parks, plazas, and streetscapes. This approach can be expanded to store larger volumes of stormwater by adding underground storage.

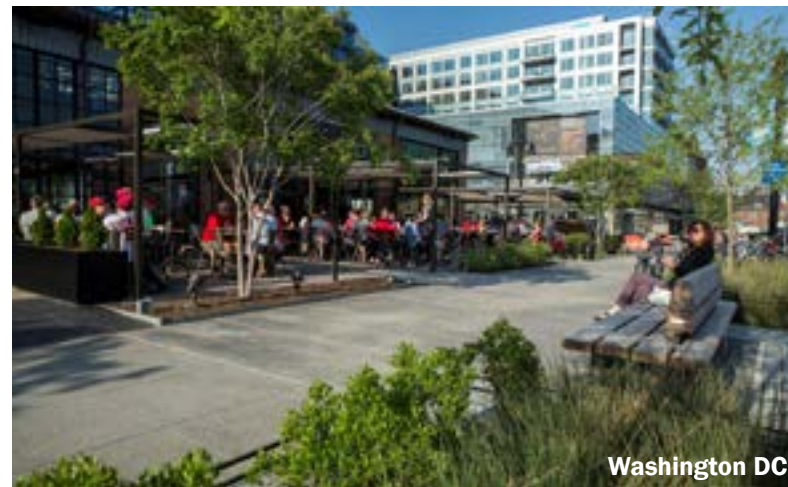


Kensington St. Arlington, VA

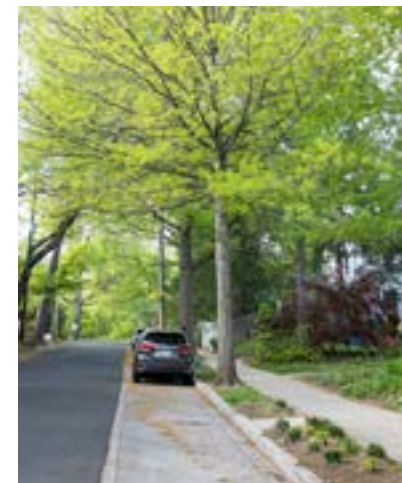


Williamsburg Blvd. Arlington, VA

Source: Arlington County, Department of Environmental Services



Washington DC



Source: AECOM

GREEN ROOFS

Green roofs capture run-off temporarily and filter it through roof top vegetation, slowing the flow of run-off and reducing negative impacts on local waterways. Green roofs can have energy benefits as well by improving roof insulation in buildings.



London, UK



San Jose, CA

Source: AECOM

PERMEABLE PAVEMENT

Permeable pavement maintains a resilient surface for walking, cycling or driving but allows a portion of stormwater run-off to flow through the surface and be stored, filtered and infiltrated. Permeable pavement also can remove pollutants and reduce downstream impacts.



Gulf Branch Nature Center, Arlington, VA
Source: Arlington County, Department of Environmental Services



Washington DC
Source: AECOM



Washington DC
Source: AECOM

IMPERVIOUS COVER REMOVAL, TREE CANOPY CONSERVATION AND PLANTING

Previously constructed roadway infrastructure can often cover more area than is necessary with impervious surfaces such as asphalt and concrete. These locations present opportunities to replace the impervious surfaces with permeable turf or planted areas to decrease the negative effect on surrounding water bodies.



Arlington, VA

Before and After

N 22nd Street looking east toward N Powhatan Street



Arlington, VA

Before and After

Yorktown Boulevard at intersection with 30th Street N looking west toward Little Falls Road

Source: Arlington County, Department of Community Planning, Housing and Development, Neighborhood Services Division, Neighborhood Conservation Section

ARLINGTON COUNTY PROGRAMS

Commercial Green Building Program

Arlington County encourages developers to build high-performance green buildings to reduce environmental impacts in our community.

<https://environment.arlingtonva.us/energy/green-building/new-construction/>

Residential Green Home Choice

Free program that helps homeowners, builders and designers create homes that are better for you and the planet.

<https://environment.arlingtonva.us/energy/greenhomechoice/>

County Building Energy Report Cards

A series of Building Report Cards that highlight many of the changes that have led to energy savings on county property retrofit projects.

<https://environment.arlingtonva.us/energy/county-operations/building-energy-report-cards/>

EcoAction Arlington Solar Cooperative Program

Solar co-ops bring homeowners together to take advantage of the group's bulk purchasing power to get discounted pricing and a quality installation for solar panels and EV charging stations.

<https://www.ecoactionarlington.org/community-programs/solar-co-op/>

Arlington P.A.C.E. Program

A program that helps building owners access private-sector financing to upgrade their building with energy efficiency, clean energy, and water efficiency improvements.

<https://arlington-pace.us/>

Arlington Watershed Retrofit Studies

A series of watershed retrofit plans and a County-wide project inventory.

<https://projects.arlingtonva.us/plans-studies/environment/watershed-retrofit-study/>

Arlington Storm Sewer Capacity Study

A study of the storm sewer system to identify areas that need to be enlarged or modified to address localized flooding issues.

<https://projects.arlingtonva.us/plans-studies/environment/storm-sewer-capacity-study/>

Arlington Green Streets Program

A study of County watersheds and identification of appropriate spaces on County land where green street projects can be added.

<https://projects.arlingtonva.us/programs/stormwater-management/green-streets/>

Stormwater Wise Landscapes Program

A program that provides funding for voluntary projects that will reduce stormwater runoff from private property.

<https://environment.arlingtonva.us/stormwaterwise/>

Stormwater Management Regulatory Ordinance

Regulations regarding the Land Disturbing Activity/Stormwater permit for any project totaling 2,500 square feet or more of disturbed area.

<https://building.arlingtonva.us/stormwater-management-ordinance/>

Arlington Tree Canopy Fund:

Administered by EcoAction Arlington and the Arlington County Urban Forestry Commission (UFC), the fund provides grants to individuals and community groups to plant and maintain trees on private property. Since its inception, 1,213 trees have been planted.

<https://www.ecoactionarlington.org/community-programs/trees/>

Arlington Tree Giveaway Program:

The Arlington County Department of Parks and Recreation provides young native trees to Arlington residents at no cost. This annual program is very popular and has yielded many beautiful trees and benefited the community.

<https://environment.arlingtonva.us/register-for-your-free-tree/>



Source: AECOM

AECOM

KGD ARCHITECTURE
ALTA PLANNING + DESIGN
VERTICAL VISIONS



ARLINGTON
VIRGINIA