



PROPOSED COMPREHENSIVE PLAN AMENDMENT

ITEM: PA 2015-IV-MV1
November 29, 2017

GENERAL LOCATION: North Kings Highway and Richmond Highway Corridor areas, generally between the Huntington Transit Station Area and Accotink Village/Fort Belvoir

SUPERVISOR DISTRICT: Lee and Mount Vernon

PLANNING AREA: Area IV

PLANNING DISTRICT: Mount Vernon and Lower Potomac Planning Districts

SPECIAL PLANNING AREA:
Huntington Transit Station Area, Richmond Highway Corridor

For additional information about this amendment call (703) 324-1380.

PLANNING COMMISSION PUBLIC HEARING:
Thursday, January 25, 2018 @ 7:30 PM

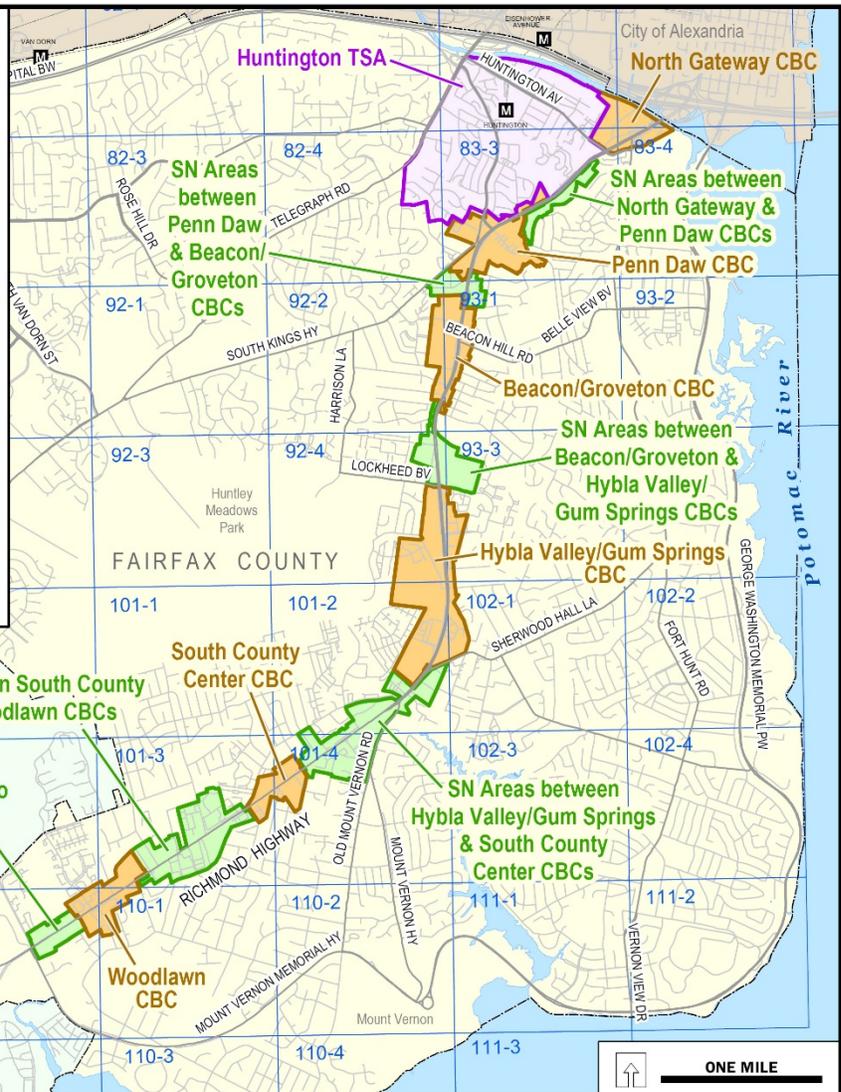
BOARD OF SUPERVISORS PUBLIC HEARING:
Tuesday, March 20, 2018 @ 4:00 PM

PLANNING STAFF DOES RECOMMEND THIS ITEM FOR PLAN AMENDMENT



Reasonable accommodation is available upon 48 hours notice. For additional information about accommodation call the Planning Commission office at (703) 324-2865, or the Board of Supervisors office at (703) 324-3151.

- The Subject Area for Plan Amendment 2015-IV-MV1 Embark Richmond Highway consists of:
- The Huntington Transit Station Area (TSA);
 - The Richmond Highway Corridor Area, which includes:
 - North Gateway Community Business Center (CBC),
 - Penn Daw Community Business Center,
 - Beacon/Groveton Community Business Center,
 - Hybla Valley/Gum Springs Community Business Center,
 - South County Center Community Business Center,
 - Woodlawn Community Business Center, and
 - all Suburban Neighborhoods (SN) adjacent to those CBCs;
 - Accotink Village; and,
 - Transportation recommendations for Richmond Highway/Route 1 to the Occoquan River.



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PLAN AMENDMENT 2015-IV-MV1

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**STAFF REPORT FOR EMBARK RICHMOND HIGHWAY:
PLAN AMENDMENT (PA) 2015-IV-MV1**

BACKGROUND

Route 1 Multimodal Alternatives Analysis

In February 2015, the Virginia Department of Rail and Public Transportation (DRPT) completed a study of multimodal transportation improvements for the Richmond Highway Corridor, entitled the *Route 1 Multimodal Alternatives Analysis (Alternatives Analysis)*. The study's preferred alternative recommended a four-phased implementation of multimodal transportation improvements including a bus rapid transit (BRT) system along Richmond Highway and North Kings Highway, from the Huntington Metrorail Station to Woodbridge in Prince William County, and a Metrorail extension to Hybla Valley. DRPT also evaluated and suggested modifications to the amount of development potential under the Comprehensive Plan within one-half mile of the transit stations in support of the preferred alternative. The DRPT recommendations were based on a number of factors, including the assumed population and jobs density around the potential transit stations; cost effectiveness (e.g. cost per rider, capital cost, annual operations and maintenance cost); timeliness (e.g. potential to begin transit within a decade); and community health and resources (e.g. extent of temporary construction impacts).

The first two phases recommend a primarily median-running BRT system serving nine stations between Huntington and the Fort Belvoir area, a consistent six-lane Richmond Highway cross section with continuous bicycle and pedestrian facilities, and additional street connections parallel to the corridor. The Phase I and Phase II BRT termini would be generally located in the Hybla Valley/Gum Springs and Accotink Village/Fort Belvoir areas, respectively. Phase III would extend BRT to the Woodbridge Virginia Railway Express Station in Prince William County and would consist of additional stations in Fairfax County south of Fort Belvoir and in Prince William County. A longer-term Phase IV would extend the Metrorail Yellow Line from Huntington to Hybla Valley. The *Alternatives Analysis* suggested that the first phase of the BRT system could be operational in 2026 and the second phase in 2028. The timing would be contingent on many factors, including the ability to acquire funding and implement the BRT project phases, such as environmental documentation, conceptual engineering, and right-of-way surveys and acquisition.

Board of Supervisors' Authorization

On May 12, 2015, the Board of Supervisors (Board) endorsed the recommendations of the *Alternatives Analysis*. The Board also authorized Comprehensive Plan Amendment (PA) 2015-IV-MV1, known as Embark Richmond Highway to assess and refine the recommendations of the *Alternatives Analysis* for the corridor from Huntington to Accotink Village/Fort Belvoir. Specifically, the Plan amendment considers:

- The land use density and mix of land uses for the areas within a one-half mile radius of potential stations from Huntington to Accotink Village/Fort Belvoir;
- Corridor-wide guidance for transportation including transit, pedestrian and bicycle systems; urban design guidance, public facilities' needs, and other elements supportive of BRT; and,

- Policy guidance in support of the future extension of Metrorail from the Huntington Metrorail Station to the Hybla Valley/Gum Springs Community Business Center (CBC).

The Board also directed staff to proceed with actions necessary to conduct an Environmental Assessment for the BRT and the associated roadway improvements for Richmond Highway from the Huntington Metrorail Station to Accotink Village/Fort Belvoir, in conjunction with the Virginia Department of Transportation (VDOT) and other appropriate entities; and to initiate the design for the road improvement and BRT projects.

LOCATION AND CHARACTER

Study Area

The study area generally aligns with the potential BRT corridor from Huntington to Accotink Village/Fort Belvoir, and includes the Richmond Highway Corridor area, the Huntington Transit Station Area (TSA), and Accotink Village as shown in Figure 1. Richmond Highway is a north-south oriented transportation route, which serves a dual purpose as a through-commuter roadway and a main street. The commuter corridor connects the southern part of Fairfax County and counties to the south with the City of Alexandria, Arlington County and Washington, D.C. to the north. It also functions as a main street that serves the many commercial uses and residential communities located on or near the corridor.

There are six CBCs along the Richmond Highway Corridor. From north to south, they are: North Gateway, Penn Daw, Beacon/Groveton, Hybla Valley/Gum Springs, South County Center, and Woodlawn. Many of the CBCs are developed with community shopping centers.

The areas between the CBCs, referred to as Suburban Neighborhood Areas (SNAs), contain a number of smaller scale retail and commercial businesses of various types and sizes, such as gas stations, restaurants, motels, banks, plant nurseries and auto-related businesses. Residential communities along and adjacent to the corridor consist of a variety of housing types, including single-family detached homes, townhomes, garden-style apartments, mid-rise units, and mobile homes.

There are four stream crossings of Richmond Highway. Cameron Run runs parallel to the Capital Beltway/Interstate 495 (I-495) and the City of Alexandria boundary and creates the northern boundaries of the Richmond Highway Corridor and the Huntington Transit Station Area (TSA). Little Hunting Creek crosses just south of the Gum Springs community; the North Fork of Dogue Creek crosses just east of Woodlawn Court and the main stem of Dogue Creek crosses Richmond Highway between Sacramento Drive and Jeff Todd Way/Mount Vernon Memorial Highway. The stream crossings provide natural breaks in the otherwise almost entirely developed corridor.

The Huntington TSA and Accotink Village also are included within the study area. The TSA abuts the Richmond Highway Corridor near the I-495 and the North Gateway CBC and contains the Huntington Metrorail Station. Residential development in this area ranges from established single-family detached units and duplex communities to more recently constructed mid- and high-rise

residential buildings. There are also clusters of local retail uses, such as the Huntington Station Shopping Center located along North Kings Highway.

Figure 1. Map of the Potential Bus Rapid Transit System along Richmond Highway



At the southern end of the study area, Accotink Village is located at the intersection of Backlick Road and Richmond Highway. The area is developed with a variety of land uses, such as single-family homes, garden and mid-rise residential buildings, and commercial and institutional uses. Redevelopment of a portion of the Accotink Village as a mid-rise residential building with space for ground floor retail use was completed in 2017.

Stable residential neighborhoods are located on the east and west sides of the Richmond Highway Corridor and North Kings Highway. Huntley Meadows Park is located just west of the corridor. This nationally significant park is over 1,500 acres in size. The park contains Historic Huntley, rare wildlife, and habitats, and is known for some of the best wildlife watching in the Washington Metropolitan Area. Other historic sites, such as George Washington's Mount Vernon and Grist Mill, the Pride of Fairfax, Woodlawn and the Pope Leighey House represent unique assets.

ADOPTED COMPREHENSIVE PLAN RECOMMENDATIONS

The six CBCs within the Richmond Highway Corridor are planned for retail, office, residential, and mixed-use redevelopment and serve as focal points in the corridor. The CBCs are planned for the highest intensity uses in the corridor in order to concentrate redevelopment in these nodes and to reduce sprawling land uses. The interstitial SNAs between the CBCs are recommended to include predominantly low to moderate residential densities in addition to institutional and other nonresidential uses, and open spaces.

In the Huntington TSA, the Plan recommends that new development should be directed into land units within the Transit Development Area (TDA), a smaller core area within the TSA located within a 5 to 7 minute walking distance from the Huntington Metrorail Station. The stable neighborhoods that border the TDA are recommended to be preserved.

In Accotink Village, the Plan generally recommends residential and neighborhood-serving retail uses. Under the redevelopment options, this area is envisioned as a walkable community that provides a mix of residential, neighborhood-serving retail, and limited office uses linked through open spaces and sidewalks.

At the time of staff report publication, the adopted Plan recommendations are located in the Area IV volume of the Comprehensive Plan, 2017 Edition, Mount Vernon Planning District, as amended through March 14, 2017, [Richmond Highway Corridor](#), pages 24-98; [MV1 - Huntington Community Planning Sector](#), pages 99-134; and in the [Lower Potomac Planning District, LP4 Fort Belvoir Community Planning Sector](#), pages 117-132.

PLANNING AND ZONING HISTORY

Corridor-wide Comprehensive Planning

This Plan amendment Embark Richmond Highway is a continuation of a number of planning efforts that have been undertaken for the Richmond Highway Corridor over the past 20 years. In 1991, the Board adopted the Route 1 Corridor Area study recommendations within the Mount Vernon Planning District portion of the Area IV Plan. In 1999, the Board of Supervisors adopted

the Richmond Highway Corridor guidance as a replacement for the Route 1 Corridor Area text. A number of site-specific amendments have modified recommendations for individual sites along the corridor. The most recent amendments are summarized in the subsequent section.

Site-Specific Plan Amendments

During the Embark Richmond Highway Comprehensive Plan process, five site specific Plan amendments, several of which were accompanied by rezoning applications, were authorized or adopted by the Board. By evaluating the Plan amendments concurrently with rezoning applications outside of the Embark process, the analysis proceeded more quickly, allowing the proposals to take advantage of market timing. The approach is consistent with Goal 3 of the Fairfax County Strategy for Economic Success.

A brief description of the amendments and their status at the time of staff report publication is included. The adopted Plan amendments were accounted for in the land use alternative in the Embark process.

Richmond Highway Corridor

Novus Kings Crossing (PA 2015-IV-MV3): On July 28, 2015, the Board authorized a Plan amendment for an approximately 5.2-acre area bounded by Richmond Highway and Fairview Drive, including a portion of Land Unit G in the Penn Daw CBC (Tax Map Parcels 83-3((1))18, 19, and 20). The Board requested that staff consider multifamily residential use up to 375 dwelling units and/or live/work units, and up to 7,500 square feet of retail use. A rezoning application, RZ/FDP 2016-MV-002, was evaluated concurrently with the Plan amendment.

The Board adopted PA 2015-IV-MV3 on October 18, 2016. The amendment resulted in the expansion of the Penn Daw CBC boundary and amending the Plan option for mid-rise multifamily residential use with ground floor retail use or amenity space with conditions. RZ/FDP 2016-MV-002 was adopted on July 25, 2017.

Sky View Drive (PA 2017-IV-MV1): On July 25, 2017, the Board authorized a Plan amendment for an approximately 38,000 square foot area along Sky View Drive surrounded by the Skyview Park townhome community (Tax Map Parcels 101-3((10))6A and 7A) within the SNA between South County and Woodlawn CBCs. The subject property was not included in a 2001 rezoning approval that consolidated the adjacent area to allow for the townhome development. The Board requested that staff evaluate the impacts of Plan language for the subject area that would match the density of Skyview Park, which is developed at approximately 13 dwelling units per acre. Rezoning application, RZ/FDP 2017-MV-024, is being evaluated concurrently with the Plan amendment.

PA 2017-IV-MV1 is scheduled for public hearings before the Planning Commission on December 7, 2017 and the Board on January 23, 2018. Any revisions to the Plan recommendations adopted by the Board would be incorporated into Plan guidance subject to this amendment, as necessary.

Huntington Transit Station Area

Land Units C, D, and G (PA 2014-IV-MV3): On March 25, 2015, the Board authorized a Plan amendment for an approximately 6.3-acre area located south of Cameron Run and north of

Huntington Avenue, generally between Metroview Parkway and Fenwick Drive (Tax Map Parcels 83-1((1))42 and 49A). The Board requested that staff evaluate residential development that aligns with the community and county's vision for development near transit stations. A rezoning application, RZ/FDP 2015-MV-008, was evaluated concurrently with the Plan amendment.

PA 2014-IV-MV3 was adopted by the Board on October 18, 2016. The amendment added an option for multifamily residential use up to 360 dwelling units with conditions. RZ/FDP 2015-MV-008 was deferred indefinitely by the Planning Commission.

Huntington Club (PA 2015-IV-MV4): On October 20, 2015, the Board authorized a Plan amendment for an approximately 19.5-acre area located on the south side of Huntington Avenue, west of the Huntington Metrorail Station (Tax Map Parcels 83-1((1))32 and 83-1((23))1-364), which comprises the Huntington Club Condominiums. The Board requested that staff consider transit-oriented mixed-use development up to an intensity of 4.0 floor area ratio (FAR), with a focus on an increased proportion of residential units and office use for the subject property.

PA 2015-IV-MV4 is scheduled for public hearings before the Planning Commission on December 7, 2017 and the Board on January 23, 2018. Any revisions to the Plan recommendations adopted by the Board would be incorporated into Plan guidance subject to this amendment, as necessary.

Land Unit G (PA 2015-IV-MV5): On November 17, 2015, the Board authorized a Plan amendment for an approximately 4.2-acre area located along Huntington Avenue at the intersection of Huntington Avenue and Telegraph Road (Tax Map Parcel 83-1((1)) 33, 45 and 45A). The Board requested that staff consider mixed-use redevelopment to include residential and/or hotel and office uses up to an intensity of 3.0 FAR, with consideration given to parcel consolidation and the expansion of the adjacent Transit Development Area.

PA 2015-IV-MV5 is scheduled for public hearings before the Planning Commission on December 7, 2017 and the Board on January 23, 2018. Any revisions to the Plan recommendations adopted by the Board would be incorporated into any Plan guidance subject to this amendment, as necessary.

Zoning

Consistent with Comprehensive Plan recommendations to focus development in activity centers, the Board has approved a number of rezoning applications for higher density residential and mixed-use districts, which replace lower-intensity commercial retail districts within the CBCs.

An earlier example of the implementation of Comprehensive Plan policy is the 1978 adoption of a Highway Corridor (HC) zoning overlay district for the Richmond Highway Corridor between the I-495 and the City of Alexandria/Fairfax County boundary to Jeff Todd Way/Mount Vernon Memorial Highway. The HC overlay district imposes additional regulations on certain automobile-oriented, fast-service or quick turn-over uses, including drive-in banks, fast-food restaurants, quick-service food stores and services stations in an effort to prevent or reduce traffic-related problems, such as congestion and accidents, within a thousand feet of either side of the centerline of Richmond Highway.

In 1986, the Board designated the Richmond Highway Corridor as a Commercial Revitalization Area to encourage and facilitate revitalization in the form of quality development and redevelopment projects, particularly those with parcel consolidation. The designation was later formalized as the Commercial Revitalization District (CRD) Zoning Overlay District in 1998 to further the county's commitment to revitalization. The Zoning Overlay District applies to commercial properties mostly within the CBCs, and provides greater flexibility in the development or redevelopment of those properties. The Board also created a policy supporting the expedited and concurrent processing of development proposals and Comprehensive Plan amendments to generate investment activity in CRD areas. The Richmond Highway Corridor is one of the five designated CRDs in Fairfax County.

PROPOSED PLAN AMENDMENT

PA 2015-IV-MV1 proposes to amend the corridor-wide guidance for the Richmond Highway Corridor, establish an enhanced vision for the CBCs, and incorporate the recommendations from the DRPT *Alternatives Analysis*. The Plan amendment focuses on refining the land use, urban design, transportation, parks and recreation, and other recommendations in four of the CBCs – Penn Daw, Beacon/Groveton, Hybla Valley/Gum Springs, and Woodlawn, to support the multimodal improvements and promote revitalization and placemaking. Land use changes are not proposed for the North Gateway and South County CBCs, Huntington TSA, and Accotink Village/Fort Belvoir, as explained in the Recommendations section.

Community Engagement

Central to the process of formulating this proposed Plan amendment is community engagement and coordination with VDOT. To that end the Board appointed a 13-member Advisory Group consisting of representatives from the Lee and Mount Vernon magisterial districts, the Southeast Fairfax Development Corporation (SFDC), and the Fairfax County Planning Commission. The Advisory Group typically met monthly from 2015 through 2017 to assist with community outreach, provide local and subject matter expertise, offer input on technical work and recommendations developed by staff, and reach out to stakeholders and the public to encourage community participation throughout the Plan amendment process. A [project webpage \(www.fairfaxcounty.gov/dpz/embarkrichmondhwy\)](http://www.fairfaxcounty.gov/dpz/embarkrichmondhwy) provided status updates and links to meeting presentations.

In addition to the two-dozen meetings of the Advisory Group, a total of five large community meetings were held as of the date of this staff report publication, with an additional community meeting scheduled for January 2018. These public meetings provided opportunities to present the project to the larger community at project milestones and gather reactions and feedback on key aspects of the amendment, including the land use scenarios, public facilities and transportation analyses, CBC concept planning, and land use recommendations. The high-tech social media platforms of Facebook and Next Door were used to publicize the work and advertise the public meetings to the larger Richmond Highway community, in addition to distributing flyers to community leadership and posting within county buses.

Additional community groups within the Lee and Mount Vernon Districts were also engaged in the process. Staff presented the Comprehensive Plan update at town hall meetings and at civic association and other civic organization meetings, such as the Jefferson Manor Civic Association, Mount Vernon Council of Citizens' Association, and Lee District Land Use Committee. Staff also discussed the concepts with owners of large properties in the corridor. Finally, staff attended the Back to School Fair at Mount Vernon High School to reach members of the community who may not have heard about the project through other outreach efforts.

VDOT Coordination

VDOT has been an active partner with the county in the Plan amendment process, as well as other simultaneous county and VDOT projects in the Richmond Highway Corridor. VDOT staff has regularly participated in community and internal meetings and reviewed the county's transportation analysis for the Plan amendment through a Chapter 870 review. VDOT also has been working with the county to improve Richmond Highway from Jeff Todd Way to Napper Road per Comprehensive Plan guidance by expanding the roadway from two to three lanes in each direction; constructing sidewalks and bicycle routes on both sides of the roadway; and reserving a median to accommodate the planned BRT system. Through close coordination, VDOT and Fairfax County are ensuring that the overall road design can accommodate the proposed BRT system. County staff have attended VDOT's community meetings to provide information about the Comprehensive Plan amendment and the proposed BRT system. VDOT also participates on the Executive Steering Committee that is guiding decisions about the BRT implementation efforts.

ANALYSIS

Corridor-wide Planning Principles and Objectives

The adopted Comprehensive Plan contains Planning Objectives for land use, transportation, urban design, and revitalization. Early in the Embark planning effort, staff and the Advisory Group evaluated the adopted Planning Objectives and recommended revisions to better reflect the future vision for the corridor and guide decision-making. This effort resulted in Eight Guiding Planning Principles that address: 1.) revitalization; 2.) parks and open spaces; 3.) multimodal transportation infrastructure; 4.) urban design; 5.) economic development; 6.) residential communities outside of the CBCs; 7.) the environment; and, 8.) heritage and cultural resources. Many of the underlying concepts in the adopted Planning Objectives such as focusing mixed-use redevelopment in the CBCs, encouraging parcel consolidation, providing effective buffering and transitions to the neighborhoods beyond the CBCs, and establishing high standards for urban design are carried forward from the adopted Plan into the eight Guiding Planning Principles.

Land Use

The DRPT *Alternatives Analysis* recommended a land use scenario that would support BRT. This scenario was evaluated against the adopted Comprehensive Plan development potential. The *Alternatives Analysis* applied a measurement known as *activity density*, the calculation of the total population and jobs within a land area divided by the size of the land area. In terms of population and jobs, the DRPT land use scenario was based on the 2035 regional population and jobs forecast¹

¹ Metropolitan Washington Council of Governments (MWCOC) version 8.2 forecast

with an additional “reasonable increment of growth” to account for new development assumed to occur because of a high-quality transit investment and supportive county transit policies. In terms of land area, DRPT used the half- mile radii around the potential BRT stations (504 acres).

Activity density differs from the traditional expression of development potential that is presented in the adopted Comprehensive Plan. Typically, development potential in the Plan is expressed either through gross square feet and residential units, or density/intensity recommendations of dwelling units per acre (du/ac) and floor-area ratio (FAR). To be consistent with the county’s Comprehensive Plan, the amount of jobs and population was ultimately translated into gross square feet of non-residential development and number of residential units.

After an initial comparison was completed, the land use scenario was refined to exclude significant redevelopment potential within the low density residential neighborhoods that surround the CBCs, which comprise much of the half-mile area around the CBCs. The CBCs themselves range from 46 to 214 acres in size, substantially smaller than the half-mile radii (504 acres) used in the *Alternatives Analysis*. The stable neighborhoods around the CBCs are not recommended to redevelop as higher density uses based on the adopted Comprehensive Plan for the corridor and countywide policy, as well as the revised Guiding Planning Principles for the corridor. Once the county determined the development potential DRPT assumed just within the boundary of the CBCs, the land uses were modified to be appropriately-scaled for the corridor, and the ratio of non-residential to residential development was rebalanced.

Figure 2 compares the activity densities of the adopted Comprehensive Plan to the proposed Embark land use alternative of the four CBCs that are the focus areas for redevelopment. These CBCs were identified offering the best opportunities for redevelopment due their size, parcel ownership and configurations, proximity to the potential BRT stations, the ability to create a grid network of walkable blocks, and opportunities to protect and restore environmentally sensitive areas. Within the alternative, a larger residential component (population) and reduced amount of non-residential use (jobs) is proposed to achieve a more reasonable balance between jobs and population.

Figure 2. Comparison of the adopted Comprehensive Plan and the proposed Embark Land Use Alternative

Community Business Centers	Adopted Comprehensive Plan			Embark Land Use Alternative		
	Jobs	Population	Activity Density	Jobs	Population	Activity Density
Penn Daw – 91 acres	3,520	1,186	52	2,681	1,663	48
Beacon/Groveton – 79 acres	9,643	1,821	145	3,561	2,398	110
Hybla Valley/Gum Springs – 214 acres	9,732	825	49	9,126	4,103	61
Woodlawn – 66 acres	4,345	72	67	2,663	2,142	73

Because activity density is the sum of population and jobs, the difference between the activity densities in the CBCs under the adopted Comprehensive Plan and the Embark Land Use Alternative is relatively small. The greatest difference in activity density among the CBCs occurs in the Beacon/Groveton CBC. The adopted Comprehensive Plan recommends an “unlimited” intensity above a 1.0 FAR for a large consolidated area if certain conditions are met. In the past, an intensity of 2.5 FAR was assumed for redevelopment under the adopted Comprehensive Plan. Upon refinement with this planning effort, a lesser, more appropriately-scaled intensity is recommended for this area in order to incentivize revitalization while meeting other planning objectives, such as compatibility and open space.

The *Alternatives Analysis* identified additional development potential for the two CBCs recommended to be served by a Metrorail extension in the long-term future, Beacon/Groveton and Hybla Valley/Gum Springs. This development potential is reflected in the proposed Comprehensive Plan guidance to suggest an order of magnitude of change but the development potential was not factored into the transportation and public facilities analyses. Further refinement and evaluation, including a corridor-wide transportation analysis, will be required to implement a Metrorail option as described in the Transportation section of this staff report.

Figure 3. Comparison of the corridor-wide land use within the adopted Comprehensive Plan and the Embark Land Use Alternative.

Corridor-wide – 947 acres (North Gateway CBC to SNAs south of Woodlawn CBC/Jeff Todd Way)	Adopted Comprehensive Plan			Embark Land Use Alternative		
	Jobs	Population	Activity Density	Jobs	Population	Activity Density
	35,164	27,090	66	27,561	40,106	71

Notes for Figures 2 and 3:
 Jobs, Population, and Activity Density numbers are approximate.
 Population: 2.10 people/unit (assumes all units are multifamily)
 Jobs factors: Office: 300 (sf)/job; Industrial: 450 sf/job; Retail: 400 sf/job; Hotel: 1300 sf/job;
 Institutional: 500 sf/job.

Figure 3 compares the average activity densities of the adopted Richmond Highway Corridor Comprehensive Plan to that of the proposed Embark land use alternative. Similar to the CBCs, the most significant change proposed corridor-wide is to the ratio of non-residential (jobs) to residential (population) development potential. Both activity densities are within the range that would support BRT, according to DRPT. Corridor-wide there is little difference in the overall development potential between the adopted Plan and the land use alternative.

Urban Design

The adopted Comprehensive Plan includes an urban design section that has not been revised significantly since its adoption. The section is limited to guidance on streetscapes, parking lots, building and site design, and signage. This Plan amendment evaluates the adopted urban design

guidance to include multimodal recommendations, connectivity, urban parks and plazas, and building form, among other considerations.

The process of updating the urban design guidance began with developing building massing models for the CBCs that were identified for significant redevelopment around the potential BRT stations - Penn Daw, Beacon/Groveton, Hybla Valley/Gum Springs, and Woodlawn. The massings were organized around a conceptual grid of streets to understand how the land use alternative could be configured within each CBC. Through this effort, factors such as block sizes, building form and placement, open space arrangements, land use distribution near the potential BRT stations and the edges of the CBC, and multimodal connectivity in the CBCs and across Richmond Highway were considered.

The county engaged a consultant, Rhodeside & Harwell, to build upon these initial efforts and to formulate an urban design framework that could be applied corridor-wide and tailored to each CBC based on their unique assets and opportunities. The themes of the legacy and ecology emerged in this analysis, which acknowledged the prevalent historic and environmental resources within and near the corridor, and are expressed in the proposed urban design concepts and recommendations at both the corridor-wide and CBC levels. The resulting guidance integrates best practices and expand the current recommendations to provide a contemporary vision for the corridor.

Transportation

A transportation analysis was conducted to assess the refined land use alternative described in the previous section. This analysis included projecting transit ridership and BRT performance; estimating intersection levels-of-service; assessing a proposed grid-of-streets in the Penn Daw, Beacon/Groveton, Hybla Valley/Gum Springs, and Woodlawn CBCs; and evaluating the need for additional north-south road capacity. Another component of the transportation analysis tested the efficiency of multimodal components of the network assuming the recommended grid of streets is constructed. This transportation analysis was undertaken to ensure that the transportation system would function for all modes once the land uses and the transportation improvements as envisioned in the Comprehensive Plan are built.

Goals, Objectives, and Measures of Effectiveness

Measures of effectiveness (MOEs) are quantitative and qualitative measurements to determine whether the goals set for the transportation analysis for the land use alternative are being met. The Goals, Objectives, MOEs for the Embark Richmond Highway transportation analysis were prepared by staff and modified based on Advisory Group and community input, as listed in Figure 4.

Figure 4. Transportation Goals, Objectives, and Measures of Effectiveness

Goal	Objective	MOEs
Mitigate traffic impacts of multimodal improvements (BRT, bike/pedestrian) and land use changes	<ul style="list-style-type: none"> • Evaluate north/south road capacity • Evaluate proposed grid of streets 	<ul style="list-style-type: none"> • Intersection Level of Service • Queue lengths • Intersection delay • Travel speed • Travel time reliability (Auto) • Local Traffic
Provide high-quality, high performance BRT	<ul style="list-style-type: none"> • Estimate transit ridership • Assess BRT performance • Evaluate BRT station locations 	<ul style="list-style-type: none"> • BRT frequency • Travel time reliability (Transit) • Travel speed • Ridership • Safety • Affordability
Improve bicycle and pedestrian connectivity, access, attractiveness, and safety	<ul style="list-style-type: none"> • Evaluate proposed grid of streets • Increase bicycle facilities • Increase pedestrian network connectivity 	<ul style="list-style-type: none"> • Pedestrian crossing times • Corridor crossing opportunities • Miles of pedestrian/bicycle facilities • Network completeness • Access to transit

Multi-Step Modeling Approach

The transportation models used for the analysis include a multi-step review.

- Travel demand forecasting model
- Traffic operations model
- Traffic simulation model

The *travel demand forecasting model* was used to predict changes in travel patterns based on expected future land use changes (including population and jobs), BRT implementation and projected BRT ridership, and to analyze transportation network characteristics by link (including number of lanes, posted speed, area type). These traffic volumes were then compared to each link’s physical capacity to determine the levels of service (LOS)². A *traffic operations model* was used to analyze intersection operations, traffic queues, LOS and intersection capacity. A *traffic simulation model* was used to refine the intersection capacity analysis and resulting LOS and analyze overall corridor level performance, including BRT and automobile speeds and corridor travel times, as well as transit ridership.

Numerous inputs were used to prepare the travel demand forecasting, traffic operations, and traffic simulation models. Data collected included traffic counts at numerous intersections along the corridor, relevant demographics of the area, and transit usage data. Preparing the models involved developing the conceptual street network, conducting an existing conditions analysis, and

² Level of Service (LOS) rated on an A-F scale, based on level of congestion, with LOS A representing free flow conditions and LOS F with unstable, “stop and go” flow.

calibrating the regional and county transportation models. Calibrating the model for the Richmond Highway corridor was done in order for it to replicate current conditions so as to best predict future conditions.

Two land use scenarios for the year 2040 were evaluated as part of the transportation analysis, the current Metropolitan Washington Council of Governments (MWCOG) 2040 cooperative land use forecast (Round 9.0) and the Embark land use alternative that would support BRT, described previously. The year 2040 was used as a reasonable point in time when the full build-out of the land use alternative may be achieved. These 2040 models were used to estimate transit ridership and BRT performance and to identify mitigation needed to address traffic impacts. Both 2040 modeling efforts included the assumed conceptual grids of streets and refinement of the potential BRT station locations.

Mitigation

Capacity and LOS were evaluated with the goal of achieving acceptable results on the transportation network. The adopted Comprehensive Plan sets a goal to achieve a standard of LOS D within the Richmond Highway corridor. Mitigation strategies and measures were developed and tested to determine whether the land use scenario could ultimately achieve an acceptable LOS.

Three general tiers of improvements were tested in an effort to mitigate transportation conditions to an acceptable LOS, including (1) transportation improvements already included in the currently adopted Comprehensive Plan, (2) additional intersection level improvements (lane geometry, signalization), and (3) grids of streets within the CBCs, adjacent to potential BRT stations.

Two examples of planned improvements currently recommended within the adopted Comprehensive Plan include: (1) the existing intersection of Richmond Highway and Kings Highway is planned to be severed. A new connection to the south between South Kings Highway and Richmond Highway is planned to be constructed with the Richmond Highway/Kings Highway intersection improvements; and (2) Fordson Road, on the east side of Richmond Highway, is currently planned to be rerouted and connected to Boswell Avenue to the north, with its existing connection to Richmond Highway, including median opening and traffic signal, removed.

Grid of Streets Network

A new network of streets forming grids was developed for the Penn Daw, Beacon/Groveton, Hybla Valley/Gum Springs, and Woodlawn CBCs. The street grids were devised by examining parcel and land unit configurations, property ownership, best practices for urban-scaled block sizes, intersection spacing, and the location of the potential BRT stations. The proposed street grid network would provide many benefits. The network would create walkable, compact blocks that are scaled for the pedestrian; encourage walking and biking; provide shorter and more direct routes to new uses in the CBCs; facilitate place-making and healthier communities by including parks and open spaces within the network; and provide options for local vehicular trips without using Richmond Highway.

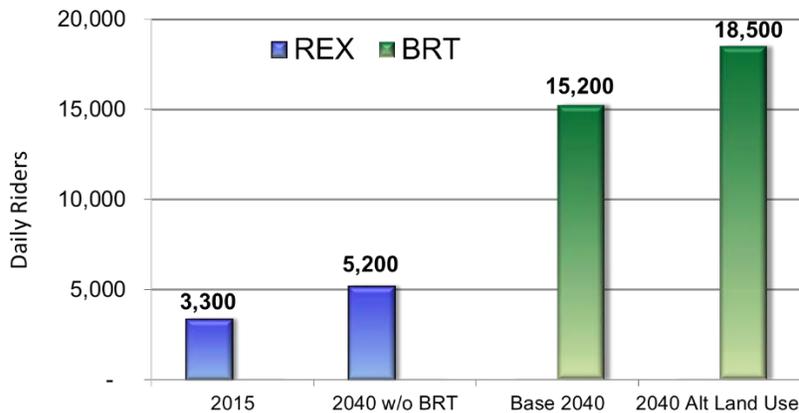
Planning Level Transit Ridership Estimates

General assumptions about the BRT system were made to develop an initial estimate of transit ridership, listed as follows:

- 1) The system would operate with a six-minute headway during peak hours and ten-minute headway during off-peak hours.
- 2) The system would run in a dedicated median guideway on Richmond Highway and mixed-traffic on North Kings Highway.
- 3) An effort would be made to minimize the number of median openings and traffic signals along the Richmond Highway BRT route alignment, as well as to maintain desirable spacing between median openings and traffic signals, to enhance BRT system performance.
- 4) Local bus routes would complement the system.
- 5) The Richmond Highway Express (REX) line would be replaced by the BRT system.
- 6) Shuttle service may be provided from the potential station in the vicinity of Accotink Village to and from employment and/or activity nodes within Fort Belvoir.

Figure 5 summarizes the REX and BRT ridership forecasts under existing (2015) conditions; 2040 MWCOG (Round 9.0) conditions, without the conceptual grid of streets networks or the BRT system; 2040 MWCOG (Round 9.0) conditions, including the grid networks and the BRT system; and lastly, the proposed Embark land use alternative conditions, including the grid networks and the BRT system, from left to right. The analysis estimates a total of approximately 18,500 daily BRT riders would use the transit system under the proposed land use alternative. Refined BRT ridership estimates will be part of the separate BRT project that is anticipated following the adoption of the Plan amendment.

Figure 5. REX and BRT Ridership Forecasts



Disclaimer: The Richmond Highway BRT Project Team will analyze the BRT system in more detail which will include revised traffic and ridership projections, station locations and roadway operations.

Analysis Findings

A majority of the roadway links and intersections were mitigated to the standard of LOS D, consistent with the adopted Comprehensive Plan, and by VDOT for National Highway System (NHS) facilities as Richmond Highway is part of the NHS. In an effort to balance the needs of multiple modes of transportation (not just automobiles) and to help facilitate place-making within the Richmond Highway BRT station areas, a number of roadway links and intersections were

deemed acceptable to operate at a projected LOS E. LOS E has been deemed acceptable in other areas of the county, in agreement with VDOT, on roadways in close proximity, or adjacent, to high quality transit, such as Metrorail. The county intends to pursue a similar agreement with VDOT on an LOS E standard for Richmond Highway and its BRT stations.

As BRT moves into implementation, further study will need to be conducted to refine plans and access management assumptions. For example, the location of the planned Richmond Highway and South Kings Highway connection and alignment with the roadway network and/or future Penn Daw grid of streets, will need to be studied as part of the BRT project implementation. In addition, the planned Fordson Road realignment will need to be evaluated as part of the BRT implementation project. Traffic flow, BRT performance, and bicycle/pedestrian connectivity will be among the factors considered in determining whether these improvement should be implemented, or the existing connection and configuration maintained.

Based on the estimated BRT ridership forecasts, the Embark land use alternative are shown to be supportive of an effective BRT system.

VDOT Chapter 870 Transportation Impact Analysis Submittal

These analysis and findings were submitted to VDOT as a Chapter 870 traffic impact analysis submittal and review. In the interest of addressing the needs of bicyclists, pedestrians, transit users and automobiles, alike, these results, including some roadway links operating at LOS E, have been deemed acceptable by VDOT, as supportive of the evolving multimodal character of, and place-making planned within, the Richmond Highway corridor. VDOT determined that the Chapter 870 traffic impact analysis and submittal was acceptable.

Metrorail Level of Development

The Plan amendment proposes recommendations for additional development potential for the Beacon/Groveton and Hybla Valley/Gum Springs CBCs under a scenario where Metrorail is extended to these areas in the future. This additional development can be considered once a funding agreement to design and build the Metrorail extension has been executed by all funding stakeholders (for example, a Full Funding Grant Agreement). Additionally, before such an increase in development potential is allowed in these areas, an assessment of the general feasibility and transportation-related impacts of the extension of Metrorail, and an identification of options to mitigate impacts will need to be completed. Such an analysis would be completed in conjunction with VDOT.

Heritage Resources and Viewshed

A corridor-wide reconnaissance survey was completed in 2016 to identify properties or buildings that may qualify for listing in the Fairfax County Inventory of Historic Sites. The survey identified several properties for more thorough documentation. Policies regarding these types of sites would be retained in the proposed Plan amendment.

In addition to the survey, a special analysis was undertaken to evaluate the extent of potential impacts of the Embark land use alternative on the viewshed of Woodlawn and Historic Huntley and to mitigate any impacts. Woodlawn, proximate to the Woodlawn CBC, and Historic Huntley, proximate to the Hybla Valley/Gum Springs CBC, are included among thirteen sites considered to

be major contributors to the quality of life in Fairfax County that are established within Historic Overlay Districts. Historic Overlay Districts institute regulations to protect them from surrounding development, above the standard zoning protection, and are intended to better preserve the unique architectural, historic, or archaeological value of these sites. Although the planned redevelopment within the CBCs is not within the limits of the Historic Overlay Districts, and, therefore, is not subject to the additional development restrictions, there is a potential for redevelopment to be visible from these historic homes, and thereby impact the ability to interpret our county's heritage.

The viewshed analysis process included the compilation of data to reasonably predict areas of concern with respect to the viewsheds from these resources. Geographic Information Systems (GIS) topographic data was used to understand the existing terrain. The building massing models of the conceptual development plans for the Hybla Valley and Woodlawn CBCs were aligned with the terrain model. Light Detection and Ranging (LiDAR) data was then introduced to understand existing buildings and tree cover that could potentially break the line of sight between the historic properties and redevelopment. Numerous lines of sight were generated from the historic properties to each building corner included in the massing models. Height of eye was assumed for a person six-feet in height standing on the rear porch at Huntley or standing at a second story window at Woodlawn.

The analysis indicated that future development would not be visible from Woodlawn. Maintenance of the existing tree canopy on the Woodlawn site, as an expressed standard for the Woodlawn Historic Overlay District, prevents any visibility of future development. From Huntley, the analysis showed some potential for new development to be visible in the southern portion of Hybla Valley/Gum Springs CBC and the Woodlawn CBC, although the visibility appeared to be closely in line with the tops of the existing tree canopy.

The ability to mitigate potential impacts to the viewshed from Huntley is largely addressed by the maximum building heights recommended for those areas, as part of the urban design recommendations. Future redevelopment proposals within these particular areas will be expected to provide additional analysis to demonstrate the extent to which the development would be visible from Huntley. Development that may create visibility impacts may be recommended to exclude building materials that would exacerbate impacts to views (e.g. highly reflective materials, building lighting). Such expectations are noted within the proposed CBC recommendations for Hybla Valley/Gum Springs and Woodlawn CBCs.

Trails

As mentioned previously, Huntley Meadows Park is a unique 1,500-acre landholding of the Fairfax County Park Authority that is near the Richmond Highway Corridor comprised of wetland, forest, and meadow habitats, including one that is globally-rare. In all, habitats within the park support hundreds of plant and animal species, several of which are identified as state-rare. The Countywide Trails Plan, as approved by the Board on October 28, 2014, shows trails along the southern and eastern edge of Huntley Meadows. The impact of these trails to rare plants, animals, and habitats, if constructed, was raised as an issue as part of the Plan amendment. This issue should be addressed as part of a subsequent effort.

In addition, a large network of multi-use pathways is proposed to form a “cultural corridor” within and extending from the Woodlawn CBC, much of which is recommended within the adopted Plan. The network would allow visitors to engage more fully with the area’s natural and heritage resources, support tourism activities, and provide a non-vehicular means of transportation to these resources. The network is recommended to consist of a series a multi-use paths within green spaces or along roadways that link the CBC to key destinations including parks, recreational amenities, historic and cultural sites. This network should be refined as part of the anticipated evaluation of the Countywide Trails Plan, in addition to the evaluation of the Huntley Meadows trails.

Parks and Recreation and Public Facilities

A needs assessment for the Embark land use alternative was completed for parks and recreation and public facilities that serve the corridor. Existing parks and recreation facilities are not sufficient to meet the current and future needs of the corridor. The Urban Parks Framework, as adopted in the Policy Plan, would guide decisions about the impact on parks and recreation facilities from planned growth.

The public facilities analysis identified the need for an additional school to serve the future population associated with planned redevelopment. This may be an elementary, secondary, or other type of school, depending on the specific need in the future. A potential school site is proposed in the Hybla Valley/Gum Springs CBC in the analysis; however, if it cannot be accommodated at that location, the school should be located in one of the CBCs served by the BRT system. Public facilities for police, fire and rescue, libraries, sewer and water facilities, are estimated to have sufficient future capacity to support the estimated growth in the corridor by way of existing or planned improvements in the pipeline.

Plan Structure

The adopted Richmond Highway Corridor Plan guidance is currently located in the Area IV volume of the Comprehensive Plan, within the Mount Vernon Planning District. Plan text for other large activity centers in the Comprehensive Plan, including the Tysons Urban Center, Fairfax Center Area, and Reston, are separated from the underlying Planning District guidance into an individual section, making it easier for the reader to locate guidance. This Plan amendment proposes to separate the Richmond Highway Corridor recommendations from the Mount Vernon Planning District section in a similar manner.

Plan guidance that describes heritage resources, public facilities, and assisted housing for the entire Mount Vernon Planning District, including the Richmond Highway Corridor, will remain in the Mount Vernon Planning District section, which is consistent with other activity centers. A reference to where these elements can be found will to be added to the new Richmond Highway Corridor Area section.

CONCLUSION

Plan Amendment 2015-IV-MV1 proposes revisions to the Comprehensive Plan for the Richmond Highway Corridor Area. The recommendations present updated corridor-wide planning goals and objectives, establish an enhanced vision for the CBCs, and include guidance on achieving the countywide goal of implementing an interconnected multimodal transportation system.

A proposed high quality BRT system and, ultimately a Metrorail extension, will reduce reliance on automobiles which in turn can help to lessen vehicular congestion, and offer a reliable transportation option for the thousands of residents, employees, and visitors that travel the corridor. The multimodal transportation network will provide much-needed pedestrian and bicycle infrastructure improvements for users of all ages and abilities. The proposed grid of streets will create accessible and developable blocks and contribute to a high-quality urban environment that is highly walkable.

In addition, the proposed Plan will provide opportunities for a series of coordinated, transit-oriented places that highlight and strengthen the historical and ecological attributes of the corridor. A network of new parks and open spaces, a pedestrian-scaled pattern and design of development, and an appropriate mix of uses would establish a series of vibrant, well-connected places that will strengthen the greater Richmond Highway community. The new built environment within the CBCs will also respect the existing established communities through compatible building height and scale, and allow for connections between existing and new development where it is desirable.

The synergy of land use, transportation and public facilities improvements is intended to continue the county's longstanding commitment to revitalizing the Richmond Highway Corridor. This effort in turn supports Goal 2 of the *Strategic Plan to Facilitate the Economic Success of Fairfax County* which is to "Create Places Where People Want to Be" by crafting new approaches to placemaking, repositioning and branding. Additionally, the creation of a multimodal transportation system aligns with the *One Fairfax* policy to support economic growth and prosperity through sustainable, diverse and accessible mobility solutions.

RECOMMENDATIONS

Summary of Recommendations for the Richmond Highway Corridor

This following section summarizes the proposed Comprehensive Plan recommendations for the Richmond Highway Corridor Area, focusing on the general approach and major concepts. The entirety of the proposed Plan text is available on the web at the project website: <https://www.fairfaxcounty.gov/dpz/embarkrichmondhwy/>.

Guiding Planning Principles

Eight Guiding Planning Principles are proposed that address revitalization; parks and open spaces; multimodal transportation infrastructure; urban design; economic development; residential communities outside of the CBCs; the environment; and heritage and cultural resources.

Corridor-wide Guidelines

The Corridor-wide Guidelines address how the Guiding Planning Principles should be realized during the development review process through specific policies and recommendations. Ten topic areas are covered in the Corridor-wide Guidelines, which are land use; public facilities; housing; environment; heritage resources; parks, recreation and open space; urban design; transportation; urban street network design; and implementation, summarized as follows:

Land Use

The Land Use section expresses in general terms the overall concept for redevelopment along the corridor through options primarily associated with the CBCs. These options recommend higher intensity development levels than the base plan recommendations, which generally comport with existing zoning. The Land Use section provides the maximum corridor-wide planned residential units and nonresidential development potential. The amount of total development along the corridor is not proposed to change significantly from the adopted Plan's maximum level as demonstrated in the analysis section of this staff report; however, a greater proportion of residential use and the redistribution of uses among the CBCs are proposed. Additional development for Metrorail would increase the total development potential along the corridor if supported by the future transportation analysis and other conditions. Flexibility among the types of planned nonresidential uses and institutional uses, is also recommended, as long as the total amount of development potential in the corridor and for each CBC is not exceeded. Finally, the Land Use section describes how uses that contribute to the strip commercial character of the corridor are discouraged.

Public Facilities

The Public Facilities section identifies capacity enhancements or new facilities to accommodate the planned future growth resulting from redevelopment. The most significant change to the Plan includes the need for an additional school. This may be an elementary, secondary, or other type of school, depending on the specific need in the future. The preferred school site is in the Hybla Valley/Gum Springs CBC; however, if it cannot be accommodated at that location, the school should be located in one of the CBCs served by the BRT system.

Housing

The Housing section emphasizes the importance of providing housing for residents with a range of income levels, ages, and abilities in the corridor. This aligns with the county's goal of providing housing affordable to a range of incomes in mixed-use areas served by high quality transit as a way to build vibrant, diverse, and economically successful communities. All projects with a residential component that seek implementation of the redevelopment options are expected to provide affordable housing in accordance with the Affordable Dwelling Unit Ordinance and Guidelines for the Provision of Workforce Housing as described in the Policy Plan. This section also notes that flexibility in the total number of affordable units provided may be considered for projects that meet additional housing needs, such as providing larger units with more bedrooms or more units for residents with the lowest income tiers.

Environment

The Environment section describes how redevelopment along the corridor provides opportunities for significant environmental improvement, including but not limited to uncovering and restoring (daylighting) streams that have been piped; integrating streams and/or bioswales into development designs; providing passive recreational opportunities and enjoyment of nature by establishing publicly-accessible green corridors; and integrating low impact development/green stormwater infrastructure approaches into projects to manage stormwater runoff. Implementation of best practices and innovative environmental strategies is a key aspect of the redevelopment concepts in the CBCs, which are described in greater detail in the CBC section of the staff report.

This section also explains goals for stormwater management and water quality controls for development proposals at or above an intensity of 1.0 FAR or equivalent residential density, or proposals that result in a substantial increase in impervious cover on site. The guidelines would include three options for such development proposals:

1. Approach A, Specific Performance Targets: This option provides specific, quantified performance targets.
2. Approach B, Linkage to Green Building Rating Systems: This approach references the Leadership in Energy and Environmental Design (LEED) Rainwater Management credit, or equivalent based on an alternate rating system. This would provide an opportunity for a development proposal to pursue a stormwater management approach that would also support efforts to satisfy a commitment relating to green building certification.
3. Approach C, Alternative Approaches: This third option would allow for consideration of alternative approaches within development proposals that could optimize stormwater management and/or stream protection/restoration efforts, consistent with applicable adopted watershed management plans.

In addition, recommendations regarding residential and noise-sensitive uses and green building practices are also contained in this section of the proposed Plan guidance.

Heritage Resources

The Heritage Resources section describes a corridor-wide reconnaissance survey that was completed in 2016 to identify properties or buildings that may qualify for listing in the Fairfax County Inventory of Historic Sites. The survey identified several properties for more thorough documentation, and the Plan directs citizens to contact heritage resources staff in the Department of Planning and Zoning for more information about the identified properties and ongoing survey efforts. This section also notes that resources or areas identified for further research are contained in the appropriate Community Planning Sectors in the Mount Vernon Planning District.

Parks, Recreation, and Open Space

The Parks, Recreation, and Open Space section describes the deficiency of existing parkland and recreational facilities and the need for new parks and recreation facilities to serve future residents, employees, and visitors. Full realization of the redevelopment options is anticipated to generate the need for 38 acres of publicly accessible parkland within the Community Business Centers along the length of the corridor. The section describes creative approaches that may be used to accommodate new facilities given the limited land area available to integrate large footprint recreation needs, such as athletic fields. While it is preferable for athletic fields to be provided within redevelopment sites, construction of new facilities in the vicinity of the corridor or enhancements to existing facilities at nearby school and park sites may be considered. This section also recognizes the need for redevelopment proposals to consult the Urban Parks Framework for guidance on the provision of distinct park types in the county's urbanizing areas.

Urban Design

The Urban Design section suggests ways to improve the existing development pattern in the corridor by incorporating best practices with regard to site design, building massing and height, building articulation and facades; as well as public realm elements such as art, signage and wayfinding. Particular attention is given to describing urban design features that prioritize the pedestrian experience in the built environment, such as locating buildings in a manner that would not impede pedestrian circulation; providing variations in facades to create visual interest; encouraging buildings adjacent to the sidewalk to be appropriately scaled to pedestrians; and visually and physically connecting the ground-floor of buildings to the outdoors through some degree of transparency/visibility and access from the public realm. Parking design is also addressed in this section, with a stated preference for underground parking; however, guidance on above-grade structured parking design and on-street parking is provided.

Transportation

The Transportation section contains recommendations focused on creating a multimodal transportation system, which includes public transportation (BRT, local bus service, and ultimately Metrorail), and pedestrian and bicycle facilities. The recommendations specifically include establishing a phased BRT system; using local bus service to connect people to the planned BRT system; providing a high level of service for pedestrians and bicyclists; implementing a grid of streets to support transit-oriented development; reducing the number of curb-cuts and driveway access points on Richmond Highway; encouraging interparcel access; using transportation demand management to reduce single occupant vehicle trips; and performing transportation analyses to ensure a balance between land use and transportation by identifying ways to mitigate anticipated impacts. A number of improvements on the corridor are recommended in the Plan to create an efficient and functional BRT system and maintain an acceptable LOS, including the Richmond Highway/Kings Highway intersection improvements and the planned Fordson Road realignment. The revised Plan notes that these improvements will be refined through the development review process and/or the implementation of the BRT project. The Plan also recommends a future assessment of the feasibility of a Metrorail extension be conducted.

Urban Street Network Design

The Urban Street Network Design section provides guidance on the establishment of a comprehensive multimodal network in the CBCs and SNAs. A grid of streets network is proposed for the Penn Daw, Beacon/Groveton, Hybla Valley/Gum Springs, and Woodlawn CBCs as a means to create pedestrian-scaled walkable and compact blocks that serve to both relieve traffic on Richmond Highway and become a key placemaking feature within these particular CBCs.

A cross-reference table of the county's traditional highway functional classification system and DRPT's Multimodal Street Types is included to show how traditional street types compare with the multimodal street types. Use of the multimodal street types is proposed to support the principles of walkability, context sensitive street design, and transit-oriented development. General recommendations for elements within the streetscape are described to encourage the development of attractive and functional sidewalks, browsing zones, restaurant seating areas, landscaped areas, bicycle facilities, crosswalks, and lighting that contribute to a high quality multimodal environment.

A significant component of Urban Street Network Design section is dedicated to detailed guidance on the multimodal street types that are proposed in the corridor. For each of these street types, the elements in the typical cross-sections are described. The dimensions of the elements within the cross-sections may be flexible to respond to the context of the surrounding area and to consider the relationship to adjacent land uses.

The following specialized multimodal street types are proposed, among other roadway recommendations:

1. Transit Boulevard – Richmond Highway North of Napper Road and South of Napper Road: VDOT is undertaking roadway improvements to Richmond Highway from Jeff Todd Way to Napper Road. The county submitted a preferred cross-section to VDOT in early 2017 per the VDOT project schedule. Upon further analysis and discussion, the location and dimension of utility elements and landscape panel were reconfigured in the section north of Napper Drive. This has resulted in two different recommendations for Richmond Highway: one within the current VDOT project limits south of Napper Road, and one north of the terminus of the VDOT project.
2. Livability Spine: A Livability Spine is recommended in the Penn Daw, Beacon/Groveton, and Woodlawn CBCs. This road type is envisioned to include a linear park on both sides of the road to serve as a key pedestrian corridor and place for people to enjoy outdoor activities. The width of the linear park spaces is anticipated to change to accommodate various activities, depending on adjacent building uses.
3. Ecological Spines, Types 1 and 2: These Ecological Spines are recommended only in the Hybla Valley/Gum Springs CBC and are envisioned to highlight and restore natural features through their placement along existing stream corridors or where channelized streams are proposed to be restored and/or daylighted. Type 1 is characterized by buildings on both sides of the street, and Type 2 is characterized by low-density residential buildings on the side of the street that faces existing neighborhoods, providing important connections to existing residential neighborhoods located along the edges of proposed redevelopment areas.

Implementation

The Plan recommends implementation approaches and mechanisms that are innovative, flexible, and comprehensive. Policies, regulatory tools, and evolving processes are suggested to be used to guide decisions on land use, urban design, urban parks, and infrastructure improvements. The Implementation section addresses several key elements summarized as follows:

Flexibility applies to the adaptive implementation of the concept plans as long as there is general adherence to the conceptual grid of streets, building heights, and other urban design features that contribute to a vibrant mixed-use community, and multimodal transportation needs are addressed.

Phasing of development recognizes that incremental redevelopment must be balanced with the need for infrastructure and public facilities. Priorities that should be addressed in the earliest phases

of site development include appropriate segments of the grid of streets, Livability and Ecological Spine(s), parks and open space network, adherence to the multimodal street types and corresponding cross-section(s), and pedestrian and bicycle access to the BRT stations. The incremental development of the transportation network is also expected.

Interim development is expected to meet certain criteria such as the provision of a pedestrian plan; continuity of streetscape design; siting buildings to conform with street network layout; demonstrating how the proposed development will not preclude future redevelopment of the site of adjacent sites as described in the Plan; and demonstrating how the proposed uses support the multimodal environment, particularly sites located at or near a planned BRT station.

Conceptual *grids of streets* are expected to be refined as part of a subsequent grid of streets analysis, in addition to future development and input from affected properties and stakeholders. Flexibility is expected in implementing the conceptual grid of streets, but, in general, the grid should conform to the street typology and overall vision contained in the Plan. The first development in an area where a grid of streets is proposed should provide for its proportionate share of the grid of streets set the location and features of that portion of the grid of streets. The implementation of the initial segment(s) of the conceptual grid of streets in an area should demonstrate that this grid will not preclude the successful achievement of the overall vision for the street grid.

A *dynamic funding plan* is needed to identify strategies for implementing needed *transportation infrastructure* improvements. It is fully anticipated that major transportation improvements will take many years to design, fund, and build. For improvements that are dependent on the implementation on individual development projects, these projects should contribute their appropriate share of funding and/or in-kind construction so transportation projects keep pace with development. Some improvements, to the extent possible, may be implemented in stages by the private sector as development occurs.

Development proposals should commit to providing the necessary land and/or building space to ensure *public facilities* can be provided in concert with the pace of growth. It also may be necessary for landowners to work through partnerships to meet public facility objectives. Public facilities are expected to be funded from a combination of public and private sources.

Parks and Recreational Facilities include athletic fields and parkland. Collaboration among land owners is encouraged to jointly provide space or land that can accommodate large facility needs. In addition to traditional dedication of land to the Park Authority for field development, provision of publicly accessible and scheduled athletic fields on privately-owned land, including rooftop or indoor facilities, should be considered.

Partnerships are critical to the implement the Plan, and will include public sector, public-private, and private sector cooperation. Each type of partnership will serve a unique function. For instance, public sector partnerships are envisioned to identify and plan for public infrastructure improvements such as the BRT system. Public-private partnerships may be necessary to foster private investment and development. Private sector partnerships can be used to achieve parcel

consolidation and/or coordinated development plans, and to accommodate the land areas for parks, the right-of-way for the street grid network, or public facilities.

Lastly, *maintenance* of the public realm is expected to be a shared public and private sector responsibility. Commitments should be made from developers to maintain publically-accessible parks and open spaces, streetscapes and, where applicable, the Ecological and Livability Spines.

Community Business Centers

Long-standing county policy directs higher density, mixed-use redevelopment into the CBCs. The CBC section expresses the vision for these areas and the underlying ideas that link to the guiding planning principles.

Vision Elements

Building upon the corridor-wide guidelines, the Plan contains seven vision elements that bring together key concepts to shape the character, functionality, and design of the CBCs. While the CBCs have a unique character and identity, redevelopment under the Plan options for all CBCs is expected to reflect these vision elements to the greatest extent possible. The vision elements are summarized below:

- 1) Emphasize and restore ecological resources to strengthen the relationship between people and nature;
- 2) Use legacy infrastructure and historic resources to preserve and promote the historic significance of the area;
- 3) Promote multimodal connectivity within and between the CBCs;
- 4) Encourage transit-oriented development and a grid of streets that support a mix of land uses;
- 5) Transform the visual character of the corridor through excellence in site and building design;
- 6) Support strong and healthy communities through well-defined and active public spaces; and,
- 7) Incorporate smart and sustainable technologies and integrate green infrastructure into new development.

Four of the six CBCs present the greatest opportunities for redevelopment due their size; the ability to create a grid network of walkable blocks; opportunities to protect and restore environmentally sensitive areas; and parcel ownership and configurations. The four CBCs are Penn Daw, Beacon/Groveton, Hybla Valley/Gum Springs, and Woodlawn. The guidance contains proposed concept plans and related recommendations unique to the four CBCs identified as the primary redevelopment areas.

Penn Daw, Beacon/Groveton, Hybla Valley/Gum Springs, and Woodlawn CBCs

Form-based Approach: The Plan proposes a form-based approach in lieu of more traditional FAR approach for the redevelopment options in the Penn Daw, Beacon/Groveton, Hybla Valley/Gum Springs, and Woodlawn CBCs. This approach is intended to provide flexibility in the design of projects. The amount of development potential for any given property or

assemblage of parcels is guided by the conceptual plan, new street grid connectivity, open spaces, building height, and other urban design criteria. The total amount of non-residential square footage and residential units recommended under the redevelopment option are provided for each land unit so the overall development potential of a CBC is not exceeded.

Penn Daw CBC: The Penn Daw CBC is most identifiable as a crossroads where North and South Kings Highways meet Richmond Highway. This CBC's proximity to the Huntington Metrorail Station provides significant opportunities to promote this area as an activity center. This is evident by a number of completed and entitled development projects, including the Grande at Huntington, the Shelby apartments, South Alex, and Novus. Currently, a major barrier to pedestrian access and pedestrian-focused activity in this CBC is the intersection of Richmond Highway and North Kings Highway.

The conceptual plan for the Penn Daw CBC proposes a Central Plaza connecting both sides of the CBC at the potential BRT station, where the connection between North/South Kings Highway and Richmond Highway is intended to be severed. Concurrently, a new road connection between Richmond Highway and South Kings Highway will be constructed to the south, with location and access to be determined with future study, considering traffic flow, BRT performance and bicycle/pedestrian access and connectivity. The land unit on the east side of the CBC, Land Unit E is envisioned to redevelopment around a multimodal grid of streets and include a Livability Spine running parallel to Richmond Highway from Quander Road to Fairview Drive, forming the central organizing feature of the CBC and functioning as a main street. The linear park that is part of the Livability Spine will provide public gathering spaces are opportunities for people to enjoy outdoor activities.

On the east side of the CBC, the tallest buildings are recommended along Richmond Highway at the potential BRT station, up to 15 stories in height. Further away from the BRT stations, building height is expected to taper, with heights up to 12 stories along portions of the Livability Spine. Building heights are envisioned to taper to 4 stories adjacent to existing single-family homes. A large Resource-Based Park is envisioned along the eastern edge of the CBC that is comprised of county-owned properties, including Fairchild property and the Quander property. Non-residential uses up to a total of approximately 915,000 gross square feet (2,663 jobs) and residential uses up to 2,910 dwelling units are planned within this CBC. Land Units E and G as shown in the adopted Plan are recommended to be consolidated into one large land unit, Land Unit E, to provide flexibility in the implementation of the grid network.

Beacon/Groveton CBC: The Beacon/Groveton CBC is envisioned as the town center and focal point or the entire Richmond Highway Corridor. This CBC is planned ultimately to be served by a Metrorail Station. It includes some of the highest elevations in the metropolitan area, affording views of the Washington Monument and Old Town Alexandria. The CBC contained an airfield in the 1920s, and the history of the former airfield is recommended to be reflected in the design features and other elements of proposed parks and public open spaces.

A multimodal grid of streets is planned as the organizing element on the west side of the CBC. Within this grid, a Livability Spine that includes a linear park is envisioned to parallel Richmond Highway from Memorial Street to a new local street located north of Southgate Drive. Two park

spaces are recommended to anchor the northern and southern ends of the Livability Spine. A central Civic Plaza is recommended at the planned BRT station on both sides of the CBC to serve as a signature public space and provide a link to the Livability Spine.

Buildings are recommended to be designed to take advantage of the high elevation and views of the surrounding area. The tallest buildings are recommended on the west side of Richmond Highway at the BRT station, up to 22 stories in height. Building height is envisioned to step down for development further away from the BRT station, to a maximum of 16 stories along portions of the Livability Spine. Heights up to 6 stories are recommended for areas adjacent to existing residential uses. On the east side of the CBC, a height of 4 stories is recommended due to the relatively shallow parcel depth and proximity to existing low-density residential development.

Non-residential uses up to approximately 1.3 million gross square feet (3,560 jobs) and residential uses up to 4,200 dwelling units are planned within this CBC. Land Units A-1 and A-2 are proposed to be consolidated into Land Unit A to provide flexibility in the implementation of the grid and open space network.

Hybla Valley/Gum Springs CBC: The Hybla Valley/Gum Springs CBC contains a rich historical legacy, including the Gum Springs community, where historically significant sites and buildings remain, and remnants of early roadway alignments, such as Fordson Road which follows the original path of Route 1. This CBC contains many valuable environmental features, including stream valleys that connect to Huntley Meadows Park. This is the longest CBC in the corridor and is planned to contain three BRT stations. The central portion of the Hybla Valley/Gum Springs CBC ultimately is planned to be the location of a Metrorail station.

Areas where ecology and legacy converge are unique to this CBC and are recommended to be highlighted as identifying and placemaking features. The use of innovative environmental practices and technologies is also a key recommendation for this area, as there are a number of covered or channelized waterways that could be improved. Practices such as daylighting, or uncovering or restoring waterways to a more natural condition is recommended. The use of bioswales and other stormwater facilities may also be incorporated into the public realm as a means to create enhanced public spaces and streetscapes.

A multimodal grid of streets is planned on the west side of the CBC and connect to streets on the east side of the CBC. The grid and a well-connected open space network are planned as major organizing feature in this CBC. An environmentally-focused green corridor called an Ecological Spine is recommended in the Hybla Valley/Gum Springs CBC. The Ecological Spine is primarily designed to showcase and connect people to naturalized and/or daylighted streams and provide a multi-use path between residential uses.

The tallest buildings are recommended along Richmond Highway and closest to the potential BRT station, up to 8 to 9 stories. A key consideration for the redevelopment of certain land units is visibility of new development from Historic Huntley. The ability to mitigate potential impacts is largely addressed by the building heights in these land units being limited to approximately 60 feet

in height. Buildings are recommended to taper to 3 to 4 stories along the edge of the CBC, adjacent to low-density residential communities.

Non-residential uses up to approximately 2.4 million gross square feet (6,460 jobs) and residential uses up to 3,400 dwelling units are planned within this CBC. Land Units A-2 and A-3 are proposed to be consolidated into Land Unit A-2 to provide flexibility in the implementation of the open spaces envisioned within this land unit. An education campus is recommended in Land Unit C to accommodate the need for a new school facility.

Woodlawn CBC: The Woodlawn CBC is located near regionally and nationally historic sites and destinations, including Mount Vernon, Washington's Grist Mill, the Woodlawn and Pope-Leighey House, Fort Belvoir, and the planned National Museum of the United States Army. In terms of environmental features, Dogue Creek and associated environmental corridors cross the CBC from north to south, and ultimately lead to the Potomac River.

This CBC is envisioned a transit-oriented, mixed-use village and tourist hub. Redevelopment is recommended to meet the retail needs of adjacent communities, while supporting nearby tourist-oriented attractions through lodging, dining, and other visitor facilities. The creation of new ways of accessing the cultural and natural resources is recommended. A central feature is a network of multi-use pathways that lead from these CBC to the attractions. This network is envisioned to form a cultural corridor that allows visitors and residents to engage more fully with the area's natural and heritage resources.

A realigned connection of Sacramento Drive and Cooper Road should be designed to form a Livability Spine that is perpendicular to Richmond Highway, and that provides commercial uses along with park and plaza spaces for visitors and local residents. An Ecological Spine is envisioned along the Resource Protection Area that crosses both sides of the CBC. The Ecological Spine is recommended to provide important environmental benefits and is also envisioned as a linear park space with pedestrian and bicycle facilities along one side of the waterway or bioswale to support opportunities for enjoyment of the outdoors and social interaction.

A multimodal grid of streets is planned on both sides of the CBC, including two new streets paralleling Richmond Highway. The tallest buildings are recommended along Richmond Highway and closest to the potential BRT station, up to 5 to 6 stories. Buildings are recommended to taper to 3 to 4 stories along the edge of the CBC, adjacent to low-density residential communities to be of a compatible scale and height. Redevelopment should provide additional analysis to demonstrate the extent to which buildings heights would be visible from Historic Huntley and Woodlawn.

Non-residential uses up to approximately 786,000 gross square feet (2,281 jobs) and residential uses up to 1,020 dwelling units are planned within this CBC. There are no boundary changes proposed to land units within this CBC.

North Gateway CBC

Planned land uses within the North Gateway CBC are recommended to be retained. The CBC is located outside of a one-half mile radius of a potential BRT station, and therefore geographically is beyond the scope of the land use analysis for the Plan amendment. The proposed new corridor-wide guidance for the Richmond Highway Corridor Area would apply to redevelopment in the North Gateway CBC because of its location along the Richmond Highway corridor.

South County Center CBC

Within the South County Center CBC, the most significant opportunity for reuse and redevelopment would occur at the Original Mount Vernon High School (OMVHS) property, which is located within the CBC on south-side of Richmond Highway. A separate master planning effort is underway for this site; therefore, no land use changes are proposed on this site. This master planning effort is anticipated to result in an authorization of a Plan amendment. The South County Government Center and its associated parking, located on the north-side of Richmond Highway in the CBC, is not proposed for land use changes. The remaining land units are smaller in size and abut stable low density residential neighborhoods. The current Comprehensive Plan recommendations are proposed to be carried forward without land use density or intensity changes.

Suburban Neighborhood Areas in between the CBCs

The SNAs located adjacent to the CBCs are recommended to retain their lower density character, with an emphasis on protecting the stable residential neighborhoods within these areas. Recommendation modifications are primarily limited to editorial changes, such as updating to Tax Map parcel numbers and descriptions of existing uses, and noting which SNAs are proximate to potential BRT stations.

Summary of Recommendations for the Huntington TSA and Accotink Village

While not within the geographic boundary of the Richmond Highway Corridor Area, the Huntington TSA and Accotink Village are anticipated to be served by the BRT system. Editorial updates and references to the BRT system were added to these sections.

Huntington TSA

In terms of a land use density in the Huntington TSA, two separate Plan amendments are under consideration at the time of staff report publication, as described previously. One of the Plan amendments for the Huntington Club property is included in the land use alternative, while the proposed density and mix of uses for the other Plan amendment was not considered, as that amendment was in an early stage of review.

Accotink Village

In Accotink Village, additional land use density above the adopted Comprehensive Plan recommendations is not proposed. A mid-rise residential development with ground-level retail was recently completed under the current redevelopment option, and the remaining development potential under the current Comprehensive Plan is appropriate given the size of the land units and need to provide appropriate buffering to adjacent low density uses.

Proposed Revisions to the Comprehensive Plan

Staff recommends that the Comprehensive Plan, including associated maps and figures be modified on shown on the following pages. Text proposed to be added is shown as underlined and text proposed to be deleted is shown with a ~~strike through~~. Text recommended to be replaced is noted as such.

In addition, staff recommends a global revision to the Area IV volume of the Comprehensive Plan, Mount Vernon, Lower Potomac, and Rose Hill Planning Districts to:

MODIFY: Fairfax County Comprehensive Plan, 2017 Edition, Area IV Volume, amended through March 14, 2017,

All references to “Metro” to be replaced with “Metrorail.”

(1) REVISIONS TO AREA IV VOLUME, RICHMOND HIGHWAY CORRIDOR

REPLACE: Fairfax County Comprehensive Plan, 2017 Edition, Area IV Volume, Mount Vernon Planning District, amended through March 14, 2017, Richmond Highway Corridor Area, pages 24-97 with the pages 30-216 of this staff report.

RICHMOND HIGHWAY CORRIDOR AREA

LOCATION AND CHARACTER

The Richmond Highway Corridor¹ stretches for nearly eight miles from the boundary of the City of Alexandria on the north to Fort Belvoir and Jeff Todd Way/Mount Vernon Memorial Highway on the south, as shown in Figure 1. A portion of the Huntington Transit Station Area (TSA) abuts the Richmond Highway Corridor.

Richmond Highway, generally a north-south oriented transportation route, serves a dual purpose. It functions as a through-commuter roadway connecting the southern part of Fairfax County and counties to the south to the City of Alexandria, Arlington County and Washington, D.C. to the north. It also functions as a “Main Street” that serves the many commercial uses and residential communities located on or near the corridor.

There are six Community Business Centers (CBC) in the Richmond Highway Corridor. From the north to south, they are: North Gateway, Penn Daw, Beacon/Groveton, Hybla Valley/Gum Springs, South County Center, and Woodlawn. In 2017, many of the CBCs were characterized by community shopping centers.

The areas between the CBCs, referred to as Suburban Neighborhood Areas (SNAs), contain a number of smaller scale retail and commercial businesses of various types and sizes, such as gas stations, restaurants, motels, banks, plant nurseries and auto-related businesses. Residential communities along and adjacent to the corridor consist of a variety of housing types, including single-family detached homes, townhomes, garden-style apartments, mid-rise units, and mobile homes.

¹The term *Richmond Highway* and *Richmond Highway Corridor* is used in the Richmond Highway Corridor Area section of the Comprehensive Plan to describe the roadway from the Capital Beltway and the City of Alexandria/Fairfax County boundary to Jeff Todd Way/Mount Vernon Memorial Highway. Richmond Highway Corridor continues to be used to reference a County designated revitalization district and to define the service area of the Southeast Fairfax Development Corporation (SFDC). The *Richmond Highway Corridor Area* includes the Community Business Centers and Suburban Neighborhoods located along Richmond Highway.

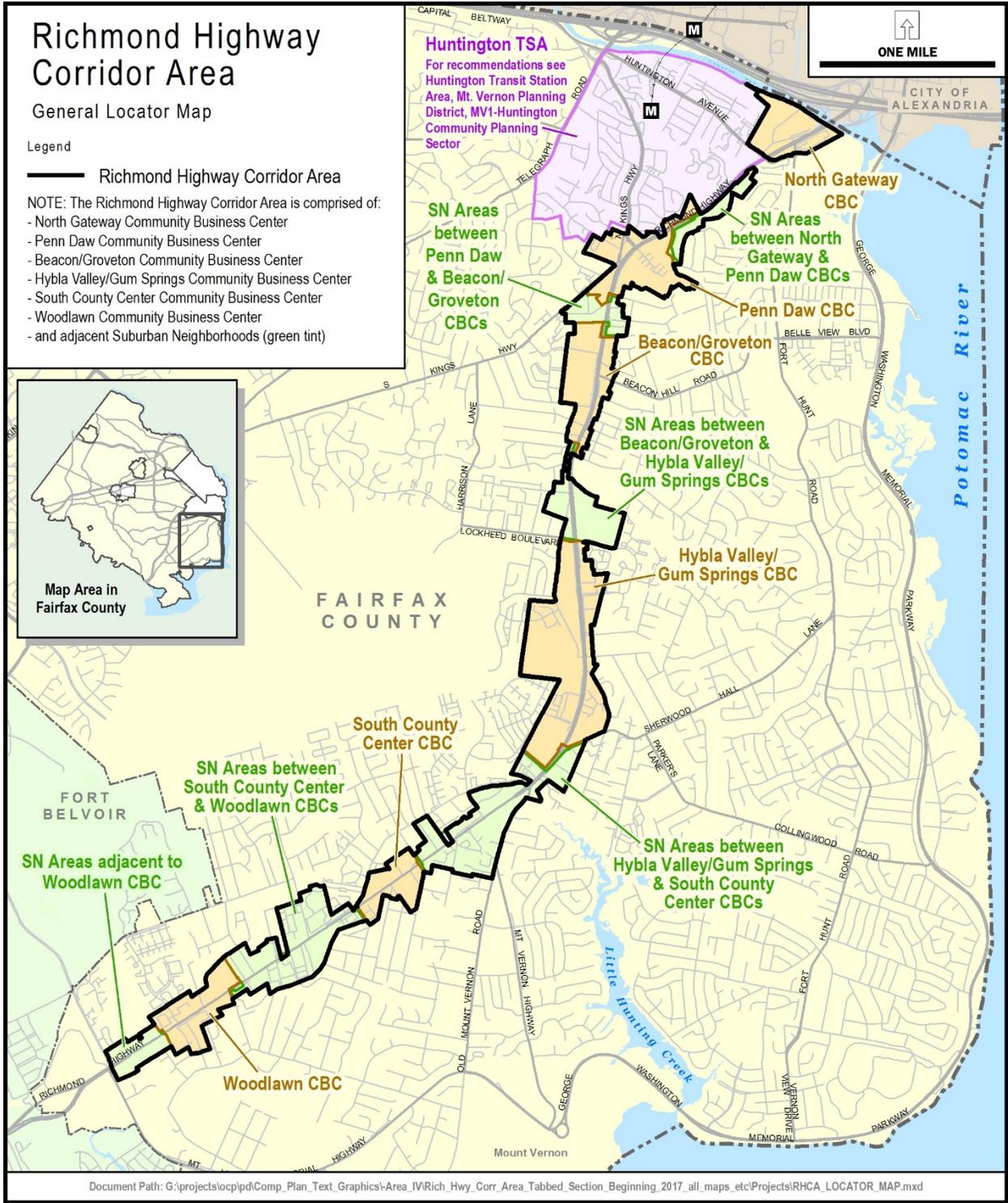


FIGURE 1

There are four stream crossings of Richmond Highway. Cameron Run crosses adjacent to the Capital Beltway and the City of Alexandria through both the Richmond Highway Corridor and the Huntington TSA; Little Hunting Creek crosses just south of the Gum Springs community; the North Fork of Dogue Creek crosses just east of Woodlawn Court; and, the main stem of Dogue Creek crosses Richmond Highway between Sacramento Drive and Jeff Todd Way/Mount Vernon Memorial Highway. The stream crossings provide natural breaks in the otherwise almost entirely developed corridor.

Significant heritage and natural resources are located within or near the corridor, including George Washington's Mount Vernon and Grist Mill, The Pride of Fairfax, Woodlawn and the Pope-Leighey House, Huntley Meadows Park, and Historic Huntley. These resources are important to Fairfax County and represent unique assets and opportunities in the corridor.

HISTORY

Highway Corridor Overlay

In 1978, the Richmond Highway Corridor between the Capital Beltway/Interstate-495 and the City of Alexandria/Fairfax County boundary to Jeff Todd Way/Mount Vernon Memorial Highway was established as a Highway Corridor (HC) zoning overlay district. The highway corridor overlay district imposes additional regulations on certain automobile-oriented, fast-service and quick turn-over uses, including drive-through uses, quick-service food stores and services stations, in an effort to prevent or reduce traffic-related problems such as congestion and accidents within a thousand feet of either side of the centerline of Richmond Highway.

Revitalization Considerations

In 1986, the Board of Supervisors designated the Richmond Highway Corridor as a Commercial Revitalization Area to encourage and facilitate revitalization in the form of quality development and redevelopment projects, particularly those with parcel consolidation.

In 1998, the Board of Supervisors adopted the Commercial Revitalization District (CRD) Zoning Overlay District to further the county's commitment to revitalization. The Zoning Overlay District applies to commercial properties mostly within the CBCs, and provides greater flexibility in the development or redevelopment of those properties. The Board of Supervisors also created a policy supporting the expedited and concurrent processing of development proposals and Comprehensive Plan amendments to generate investment activity in CRDs. The Richmond Highway Corridor is one of the five designated CRDs in Fairfax County.

The Southeast Fairfax Development Corporation (SFDC), a nonprofit economic development organization founded in 1981, is supported by Fairfax County. Its mission is to promote, facilitate and monitor development, redevelopment and revitalization along the Richmond Highway Corridor, and as such, is an active participant in public and private revitalization efforts.

Corridor-wide Comprehensive Planning

A number of corridor-wide planning studies have been undertaken for the Richmond Highway Corridor over the past 20 years. In 1991, the Board of Supervisors adopted the Route 1 Corridor Area study recommendations within the Mount Vernon Planning District portion of the Area IV Plan. In 1999, the Board of Supervisors adopted the Richmond Highway Corridor text as a replacement for the Route 1 Corridor Area text. A number of site-specific amendments have modified recommendations for individual sites along the corridor.

In January 2015, the Virginia Department of Rail and Public Transportation published a study called the *Route 1 Multimodal Alternatives Analysis*. The purpose of the study was to evaluate and recommend multimodal improvements to address the needs of both local and through-travelers. The study area extended from the Huntington Metrorail Station to the Woodbridge Virginia Railway Express Station in Prince William County.

The study's preferred alternative was a four-phased implementation of transportation improvements beginning at the Huntington Metrorail Station. The first two phases recommend a median-running bus rapid transit (BRT) system comprised of nine stations between Huntington and the Accotink/Fort Belvoir area. Richmond Highway is recommended to be a consistent six-lane cross section with continuous bicycle and pedestrian facilities and additional parallel street connections are recommended off of the corridor, where feasible. The Phase I and Phase II termini of the BRT system are recommended to be generally located in Hybla Valley and the Accotink/Fort Belvoir area, respectively. Phase III extends BRT to the Woodbridge Virginia Railway Express Station in Prince William County and would be comprised of additional stations in Fairfax County south of Accotink/Fort Belvoir and in Prince William County. A longer term Phase IV is an extension of the Metrorail Yellow Line from Huntington to Hybla Valley. The study recommended transit-oriented development (TOD) within walking distance of the potential stations in the form of compact, higher-density mixed-use development patterns

In May 2015, the Board of Supervisors authorized a Comprehensive Plan amendment known as Embark Richmond Highway to assess and refine recommendations for Phases I and II and to include policy guidance related to the Phase IV extension of Metrorail. The geographic limits of the Plan amendment extended from Huntington Metrorail Station along North Kings Highway, connecting to Richmond Highway via Shields Avenue, to the Accotink/Fort Belvoir area, as shown in Figure 2. The study also evaluated TOD opportunities within the Penn Daw, Beacon/Groveton, Hybla Valley/Gum Springs and Woodlawn CBCs.

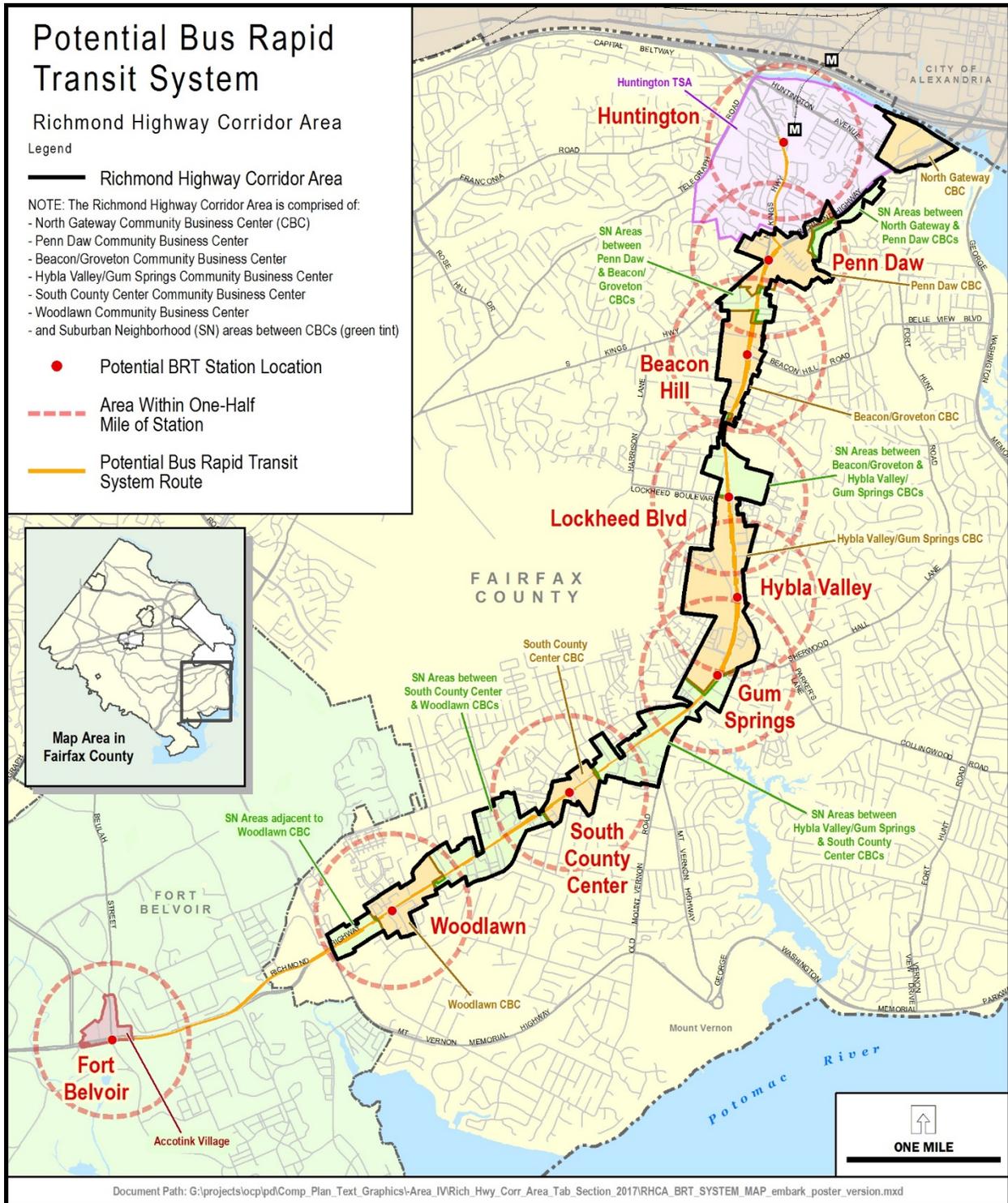


FIGURE 2

A community Advisory Group was appointed, with members representing the Mount Vernon and Lee Districts, SFDC, and one at-large member provided local area expertise. The group offered guidance on staff’s technical work and findings, contributed to development of recommendations,

and engaged other stakeholders to encourage awareness and participation in the Plan amendment process. The greater community participated through public meetings, workshops, and online media.

The planning effort considered revisions to the Comprehensive Plan to foster redevelopment in the CBCs that would be mutually supportive of multimodal transportation improvements, including policy objectives for the Metrorail extension to the Beacon/Groveton and Hybla Valley/Gum Springs CBCs as well as major revisions to the transportation, urban design, environment, and parks and recreation guidance.

CONCEPT FOR FUTURE DEVELOPMENT

There are six CBCs in the Richmond Highway Corridor.. Each CBC is intended to contain a mix of residential and non-residential uses in a compact, pedestrian-friendly urban form and serve as a focal point along the corridor. The SNAs are planned for predominantly residential use, but may also include limited neighborhood-serving retail and other non-residential uses.

A BRT system with nine potential stations is planned to connect the Huntington Metrorail Station to Accotink/Fort Belvoir, with at least one station in each of the following areas: Huntington Transit Station Area (TSA), Penn Daw CBC, Beacon/Groveton CBC, Hybla Valley/Gum Springs CBC, South County Center CBC, Woodlawn CBC, and the Accotink/Fort Belvoir area as shown in Figure 2. The BRT system, including the final number and location of stations, will be determined with the design of the system. The North Gateway CBC would continue to be served by local bus service, with connections to and from the Huntington Metrorail Station and the planned Richmond Highway BRT stations. An extension of Metrorail from the Huntington TSA to Beacon/Groveton and Hybla Valley/Gum Springs CBCs is envisioned to occur after the implementation of the BRT system.

Redevelopment recommendations for land units in the CBCs are provided to advance revitalization and the creation of distinctive urban environments that are economically vibrant and offer attractive opportunities to live, work, recreate and shop. Recommendations for the SNAs maintain the existing predominately residential character and encourage redevelopment where appropriate.

GUIDING PLANNING PRINCIPLES

The following eight planning principles are intended to establish the vision and guide land use decisions for the Richmond Highway Corridor:

- 1.) Promote revitalization along the Richmond Highway Corridor by:
 - a. Encouraging redevelopment of older commercial uses in favor of mixed-use developments in the designated CBCs to support live-work-shop urban environments and that concentrate the highest intensities at the transit stations.
 - b. Supporting safe and attractive pedestrian spaces and increased pedestrian activity.
 - c. Encouraging parcel consolidations of a logical and sufficient size to support

planned redevelopment. The configuration of the consolidations should not preclude adjacent and/or nearby properties from developing as recommended by the Comprehensive Plan. When consolidation cannot be achieved, development proposals should demonstrate how future development can occur on any unconsolidated parcels in conformance with the Comprehensive Plan.

- 2.) Ensure that the health and leisure needs of residents, visitors, and employees are well-provided for in future development plans by:
 - a. Incorporating urban parks and recreational opportunities consistent with the Urban Parks Framework that, in conjunction with development, contribute to placemaking and enhancing quality of life.
 - b. Offsetting impacts to parks from new residential development through in-kind or monetary contributions.
 - c. Enhancing pedestrian and bicycle access to parkland, where appropriate, for recreation and the enjoyment of nature.
 - d. Creating places that encourage walking and biking as part of everyday activities, including shopping, accessing schools, libraries and other public facilities; and, traveling to work.

- 3.) Provide a variety of safe, reliable, effective, and interconnected transportation modes by:
 - a. Supporting a bus rapid transit system primarily in an exclusive right-of-way from the Huntington Metrorail Station to Accotink Village, and a Metrorail extension from the Huntington Metrorail Station to Hybla Valley.
 - b. Encouraging multimodal transportation usage by providing a well-designed and publicly accessible network of complete streets that integrate transit, pedestrian, bicycle and vehicular connections within the CBCs and to adjacent neighborhoods.
 - c. Facilitating transportation modes and strategies other than the use of automobiles, such as walking, biking, public transit and Transportation Demand Management (TDM) techniques to reduce traffic congestion along Richmond Highway.
 - d. Improving traffic circulation and safety by enhancing intersections, consolidating entrances, reducing curb cuts, providing better signage and improving access to uses.
 - e. Encouraging dedication of right-of-way and repurposing existing service drives to accommodate the proposed multimodal cross-section that supports transit riders, pedestrians, bicyclists and motorists of all ages and abilities.

- 4.) Encourage high-quality urban design by:
 - a. Supporting the public realm through excellence in building and site design.

- b. Using common urban design elements along the entire corridor to provide a sense of continuity and cohesion.
- c. Applying a range of street types to promote a walkable, multimodal transportation network.
- d. Achieving mixed-use developments within the CBCs that create a distinct sense of place and take advantage of the unique characteristics of each area.
- e. Providing a sense of orientation and identity through distinctive architecture, landmarks, public art, open spaces and wayfinding to help people understand places within the corridor and navigate the physical environment.
- f. Placing utilities underground for development projects.

5.) Support the economic success of the corridor by:

- a. Improving access to employment, job training, and continuing educational opportunities.
- b. Retaining and enhancing a diversity of job types.
- c. Positioning the corridor to attract the next generation workforce, industries and companies, as well as the retail and service companies needed for a thriving community.
- d. Encouraging the provision of a variety of housing types that are affordable and accessible to residents with a range of income levels, ages and abilities, who are needed for a diversified work force and vibrant community.
- e. Balancing the timing of development with supportive transportation improvements and public facilities.

6.) Maintain the primarily residential nature of stable communities surrounding the CBCs by:

- a. Planning for primarily residential, institutional and open space uses in areas outside and between the CBCs.
- b. Providing a variety of residential housing types within the CBCs to preserve the stability of lower density neighborhoods.
- c. Supporting consolidation of land along Richmond Highway with parcels in the surrounding residential neighborhoods only when this type of consolidation is necessary to provide for site layouts that function in a well-designed, efficient manner to support reasonable and appropriate redevelopment along the corridor and protect unconsolidated parcels.

- d. Establishing effective transitions to stable neighborhoods through compatible land uses, building intensity and scale. Landscaping, public spaces and urban design techniques should be used to assist in reducing impacts. Adequate buffering and screening with year-round vegetation should be provided as appropriate to minimize the visual impact of redevelopment on existing single-family neighborhoods.

7.) Preserve, enhance and restore the environment by:

- a. Minimizing the impact of development on the natural environment, including water quality and the ecological conditions of streams.
- b. Encouraging development approaches that serve to reduce impervious surfaces and achieve improved control over stormwater runoff. Promote the application of context sensitive low impact development (LID)/green stormwater infrastructure practices) in stormwater management (e.g., rain gardens, green roofs, vegetated swales) and the integration of LID practices within landscaping strategies.
- c. Restoring streams and riparian areas where possible and practical.
- d. Incorporating the preservation of existing trees within site design, along with the planting of native trees and other native vegetation.
- e. Encouraging sustainable landscape design (e.g., appropriate placement of native and non-invasive plants, biodegradable mulch, reduced lawn areas, improved soil quality) to create diverse landscapes that enhance air and water quality, improve habitat values and support resource conservation through reduced need for maintenance.

8.) Recognize and accept responsibility for the stewardship of heritage resources by:

- a. Identifying heritage and cultural resources through survey and research.
- b. Protecting heritage and cultural resources by avoiding adverse impacts, or destruction of significant resources.
- c. Undertaking appropriate actions to retain and enhance significant resources through appropriate preservation actions.
- d. Encouraging the use of open space/conservation easements.
- e. Providing incentives and assistance to encourage heritage resource protection and preservation.

- f. Promoting awareness of heritage and cultural resources.

CORRIDOR-WIDE GUIDELINES

The following should be used to guide development in the Richmond Highway Corridor. Site-specific recommendations in the CBCs and SNAs are contained in the sections that follow these Corridor-wide Guidelines. For each of these areas, consistency with all the applicable sections of the Policy Plan, Guiding Planning Principles and Corridor-wide Guidelines should be achieved with development and redevelopment. In some instances, site-specific conditions may differ from and replace the guidelines listed below.

LAND USE

Overall Concept

The CBCs are considered the priority redevelopment areas, as the BRT stations will be located in these places along the corridor. The redevelopment options in the CBCs recommend an amount and type of development appropriate to achieve a high intensity mix of uses within approximately one-quarter to one-half mile of the BRT stations. The SNAs are envisioned to contain primarily residential, institutional and open space uses. Infill development in both the SNAs and CBCs should be of a compatible use, type and intensity in accordance with the guidance provided by the Land Use Element of the Policy Plan, Objectives 8, 9 and 14². Establishing effective transitions from higher to lower intensity development is an important consideration, and may be realized through compatible land uses, tapering of building intensity and scale towards lower density development, appropriate buffering and screening with year-round vegetation, and other means.

Development Potential

Figure 3 contains the corridor-wide development potential inclusive of the redevelopment options. Additional details about the baseline level of development and redevelopment options are contained in the CBC and SNA sections. A transportation analysis should be completed, as deemed appropriate, during the development review process in order for the redevelopment options to be considered prior to the operation of the BRT system. The transportation analysis should meet Fairfax County and state standards, where applicable, determine deficiencies, and identify commitments to mitigate any transportation-related impacts.

The quantification shown in Figure 3 does not include additional development potential for the Beacon/Groveton and Hybla Valley/Gum Springs CBCs under a scenario where Metrorail is extended to these areas in the future. Additional development potential under a Metrorail scenario will be reevaluated in coordination with the execution of a Full Funding Grant Agreement to design and build the Metrorail extension.

² Objective 8 addresses protection of established residential neighborhoods. Neighborhood 9 relates to non-residential development. Objective 14 refers to minimizing undesirable impacts through compatible land uses and other means.

Figure 3: Existing Land Use (2015) and Estimate of Planned Development Potential

Land Use	2015 Existing Land Use	Comprehensive Plan development potential inclusive of redevelopment options ¹
Residential ²	5,000 dwelling units	18,000 dwelling units
Non-residential ³	5.4 million gsf (12,760 jobs)	8.7 million gsf (23,500 jobs)
Office	800,000 gsf (2,700 jobs)	4.0 million gsf (13,300 jobs)
Retail	3.3 million gsf (8,250 jobs)	3.5 million gsf (8,750 jobs)
Industrial	270,000 gsf (600 jobs)	100,000 gsf (220 jobs)
Institutional	325,000 (650 jobs)	320,000 gsf (640 jobs)
Hotel	730,000 gsf (560 jobs)	750,000 gsf (575 jobs)
Total	5,000 dwelling units and 5.4 million gsf (12,760 jobs)	18,000 dwelling units and 8.7 million gsf (23,500 jobs)

Note 1: Development potential, employment estimates, and dwelling units are approximate.

Note 2: The residential development potential does not include potential housing bonuses allowed under the Affordable Dwelling Unit (ADU) Ordinance and the Board of Supervisors’s Workforce Housing Policy (WDU).

Note 3: The Plan recommends flexibility among the types of non-residential land uses as described in the section that follows.

Flexibility Among Non-Residential Uses

The distribution of land uses by square footage was developed for the purposes of testing the transportation analysis. Irrespective of the distribution of non-residential uses shown in Figure 3, the Plan permits flexibility among the various types of non-residential uses, so long as the total non-residential square footage recommended for the entire corridor and to each CBC is not exceeded. This flexibility among types of non-residential uses is supported to the extent that applicants are able to adequately address multimodal transportation needs and urban design recommendations.

The Plan also encourages future opportunities for institutional, cultural, recreational, and governmental uses which enrich community life, improve the provision of public services, and enhance the area’s business competitiveness. Generally, community-serving institutional uses, such as a community center, may be considered in any land unit if the use is of a similar scale and character as other planned uses.

Discouraged Uses

Freestanding uses with drive-through facilities and uses that create high traffic volumes which also contribute to the strip-commercial character of Richmond Highway are strongly discouraged. In some instances, auto-oriented uses with drive-through facilities uses may be acceptable when they are consistent with the desired form and character and are coordinated with adjacent or desired building and site design. The location of such uses should not impede the flow of pedestrian or vehicular traffic, compromise safety, or disrupt the existing and planned interior circulation system of the center and/or building site. In addition, establishments that are not consistent with quality revitalization such as self-storage, pawn shops, and alternative lending institutions are strongly discouraged.

Metrorail Level of Development

The Comprehensive Plan includes recommendations for additional development potential for the Beacon/Groveton and Hybla Valley/Gum Springs CBCs under a scenario where Metrorail is extended to these areas in the future. This additional development under a Metrorail scenario can be considered once a funding agreement to build the Metrorail extension has been executed by all funding stakeholders (for example, a Full Funding Grant Agreement). Additionally, before such an increase in development potential is allowed in these areas, an assessment of the general feasibility and transportation-related impacts of the extension of Metrorail, and an identification of options to mitigate impacts will need to be completed. Such an analysis would be completed in conjunction with the Virginia Department of Transportation.

PUBLIC FACILITIES

The existing public facilities that serve the corridor and those anticipated to accommodate the future growth in the corridor under the redevelopment options are described in the following section. Since growth rates will vary over time, the thresholds referenced below may be reached in different years. Actual growth levels should be monitored, so that infrastructure capacity is phased with new development. Regardless of the rate of growth, commitments of the land for needed facilities and/or identification of additional resources to support the provision of public facilities should be realized in advance of the estimated need to the extent possible. Tables listing existing public facilities are provided in the Overview section of the Mount Vernon Planning District.

Schools

The Richmond Highway Corridor is served by 19 public schools: 13 elementary schools, three middle schools, and three high schools using attendance areas for School Year 2017-18. In 2015, the existing 5,000 dwelling units in the corridor yielded approximately 2,100 students. Under the envisioned Comprehensive Plan buildout, approximately 18,000 dwelling units are recommended, resulting in an increase of approximately 13,000 new dwelling units. Using the 2016 student generation ratio, this could generate approximately 2,200 additional students (1,200 elementary, 400 middle, and 600 high school).

This increase in students results in a need for new facilities to support the increased enrollment. A new elementary school is planned near the South County Government Center. At least one additional new school site should be accommodated, which may be an elementary, secondary, or other type of school depending on the identified need. The preferred school site is in the Hybla Valley/Gum Springs CBC; however, if it cannot be accommodated at that location, the school should be located in one of the CBCs served by the BRT system. This would allow students to take advantage of pedestrian and transit access to the school, allow the school facility to provide optimum service to the community, and would be consistent with the vision of a more urban pattern of development.

Traditionally, public school capacity needs have been addressed through various means including dedication of land, new school construction, additions to existing facilities, interior architectural modifications, use of modular buildings, changes to programs, and/or changes to attendance areas. Additional school capacity could also be addressed through innovative, urban

solutions including the co-location of school facilities, such as vocational training, academy programs and/or adult learning centers, within mixed-use, office or other commercial buildings provided that all access, safety, security and space requirements are met; with parks and other public facilities; or through other creative approaches. Fairfax County Public Schools also may evaluate other possible “in-kind” school impact mitigation strategies. During the development review process, any impact on schools, necessitated by any increased intensity, should be mitigated with provisions by the developer(s) and the county. Traditional and/or innovative measures to mitigate the impacts of new development on school capacity should be considered, provided that the objectives and policies for public schools within the Public Facilities Element of the Policy Plan are followed.

The Fairfax County Public Schools’ Capital Improvement Program (FCPS CIP) contains more detailed information on student membership and facilities data. The FCPS CIP is updated annually with data and contains strategies for addressing schools where capacity is needed through capital projects and other proposed solutions to alleviate a capacity need.

Libraries

The Richmond Highway Corridor is served by John Marshall and Martha Washington Community Libraries and the Sherwood Regional Library. John Marshall Library underwent renovations in 2017-2018 to increase the footprint and add community space. The planned growth in the corridor is not anticipated to generate the need for an additional library.

Fire and Rescue

Emergency services are provided by Penn Daw Fire and Rescue Station 11, Mount Vernon Fire and Rescue Station 9, and Woodlawn Fire and Rescue Station 24. Funding to expand or replace the Penn Daw and Woodlawn Fire and Rescue Stations was approved in 2015. Funding to expand or replace Mount Vernon Fire and Rescue Station is anticipated in 2018. Other than those improvements, there are no identified needs for an additional fire and rescue station.

Police

Funding for a new South County Police Station/Animal Shelter has been approved. The station, along with the existing Mount Vernon Police Station, is anticipated to provide sufficient coverage for the Richmond Highway Corridor.

Wastewater Management

Wastewater is treated at the AlexRenew and Noman M. Cole, Jr., Pollution Control Plant (NMCPCP). The treatment capacity at both facilities is capable of handling the projected sewage flow capacity through 2045. Future road improvements should assess the impact on the sanitary sewer collection system as wastewater flows must be maintained at all times.

Water

Major facilities along the corridor include transmission mains ranging in size from 16 to 30-inches in diameter, the Beacon Hill Water Storage Tank, the Gum Springs Storage and Pumping Facilities, and the Groveton Storage Tank. Fairfax Water identified future necessary system improvements as part of a 2011 update to its System Master Plan. Within the Richmond Highway Corridor, these improvements include:

- Construction of an additional water storage tank at Fairfax Water’s Beacon Hill site.
- Construction of a transmission water main along South Kings Highway corridor from Telegraph Road to the Beacon Hill Water Storage Tank (in design in 2015).
- Improvements to Fairfax Water’s Gum Springs Pump Station, including installation of at least two new pumps.
- Extension of an existing transmission water main from Richmond Highway at Quander Road to Huntington Avenue; and west on Huntington Avenue to Telegraph Road.
- Replacement and oversizing of existing water main along Richmond Highway from Woodlawn to the City of Alexandria limits, concurrent with redevelopment.

Additional transmission requirements to better serve the corridor in the future may be identified as redevelopment occurs.

Telecommunications

New buildings should be designed to accommodate telecommunications facilities and associated equipment on rooftops. Such design should be compatible with the building’s architecture and should conceal antennas and equipment from surrounding properties and roadways by flush mounting, screening antennas, and/or concealing related equipment behind screen walls or building features. Antennas should be a similar color as the building surface to which it is attached. If structures are proposed to include telecommunications facilities and associated equipment on rooftops, a visual impact assessment should be conducted to evaluate any potential impacts that may require mitigation.

Natural Gas

Washington Gas has sufficient infrastructure to serve the envisioned growth in the corridor. All projects requesting natural gas are reviewed on a case-by-case basis to determine if additional construction or relocation of lines is needed.

HOUSING

A key to the success of the Richmond Highway Corridor is ensuring that people with a range of income levels, ages, and abilities can live in the corridor. Affordable housing should be located close to employment opportunities. Furthermore, as an area envisioned to be served by interconnected multimodal transportation options, the Richmond Highway Corridor is well situated to provide a variety of housing opportunities to further the goal of creating vibrant places for a diverse community. Existing assisted housing in the Mount Vernon Planning District is contained in the Mount Vernon District Overview section, District-Wide Recommendations, Housing, Area IV Volume of the Comprehensive Plan.

In addition to providing affordable housing in mixed-use areas, the Policy Plan addresses the need to promote affordable housing opportunities in all parts of the county, particularly in areas where the existing supply is low. All projects with a residential component should provide affordable housing in accordance with the Affordable Dwelling Unit Ordinance and the Guidelines for the Provision of Workforce Housing set forth in the Policy Plan. The Affordable Dwelling Units (ADUs) or Workforce Dwelling Units (WDUs) are preferred to be provided on-site. The units should accommodate a variety of households for people of all ages and abilities. Flexibility

in the total number of affordable units provided may be considered for projects that meet additional housing needs that have been identified by the county. Examples include providing a higher proportion of units in the lowest income tiers or providing units with more bedrooms than would otherwise be expected. Such proposals should be evaluated on a case-by-case basis.

Efforts should be made to preserve market rate housing units that are affordable to households earning below 100 percent of Area Median Income (AMI). Land owners may meet their affordable housing objective by purchasing existing units and preserving their affordability as set forth in the Board of Supervisors' WDU Administrative Policy Guidelines.

ENVIRONMENT

Redevelopment along the Richmond Highway Corridor provides opportunities for significant environmental improvement, especially through the improvement of stormwater management.

Stormwater Management

Goals

Stormwater management plays an important role in protecting water quality and the health of the County's streams. Both development and redevelopment offer opportunities to protect and support the restoration of water resources by correcting deficient situations (e.g., sites that have developed with little or no stormwater controls; outdated stormwater management approaches that need to be updated) in an effort to protect and restore local streams and to reduce the pollutant loads entering the Potomac River and Chesapeake Bay to the extent practicable. This may be accomplished by reducing the total runoff volume and/or significantly delaying its entry into the stream system and by removing pollutants from rainfall runoff. Stormwater quantity and quality controls should be optimized for all development projects consistent with the scale of the projects, with a goal of replicating natural hydrologic conditions and reducing runoff volumes in furtherance of stream protection and/or restoration.

Low Impact Development

Low impact development (LID) practices of stormwater management (also referred to as green stormwater infrastructure) can reduce runoff volumes entering local streams by evapotranspiring water, filtering water through vegetation and/or soil, returning water into the ground, or reusing water. Such techniques can be incorporated within urban areas more easily than detention and retention ponds. LID practices can include, but are not limited to, bioretention or biofiltration facilities (commonly referred to as rain gardens), vegetated swales, porous pavement, vegetated roofs, tree box filters, the preservation or creation of forested/open space areas, and the collection and reuse of stormwater runoff through the use of cisterns, both above ground and below ground.

Ecological Spines

Ecological Spines are an innovative stormwater management approach designed for select locations on the Richmond Highway corridor where piped streams may be daylighted and/or low impact development (LID)/green stormwater infrastructure may be integrated. These Ecological

Spines provide aesthetic benefits and create visual focal points; provide passive recreational opportunities through the establishment of accessible green corridors; provide opportunities to better connect people with nature; augment downstream Environmental Quality Corridors and Resource Protection Areas; and, provide ecological benefits through the establishment or enhancement of riparian buffer areas and the integration of native vegetative restoration efforts, particularly within areas adjacent to streams. Opportunities to integrate LID/green stormwater infrastructure stormwater management concepts (see below) within Ecological Spines should be explored. When integrating daylighted streams into development designs, natural stream buffer areas should be restored to the extent feasible as suggested by the Environmental Quality Corridor policy (see the Environment section of the Policy Plan, Objective 9, Policy a). Buildings proposed near restored stream corridors should not be constructed within areas that would be subject to flooding by 100 year storm events and roads in these areas should be designed to have minimal impact. The Ecological Spine cross-sections shown in the Urban Street Network Design Section should be referenced when designing these environmental features.

Stormwater Design

All proposals should incorporate stormwater management measures that further the above stormwater management goals. Environmentally-friendly stormwater design, with an emphasis on the use of LID practices, should be integral to each project, recognizing that stormwater management measures may be phased as development occurs. Stormwater and site designs should minimize the amount of impervious cover and incorporate runoff reduction strategies such as infiltration, stormwater reuse and retention to improve downstream waters. The use of appropriate native plant materials is encouraged to provide habitat benefits while reducing fertilization, improving the soil, and minimizing maintenance. The use of non-native invasive plant materials is discouraged to avoid detrimental impacts to riparian plant communities and water quality.

The incorporation of stormwater management strategies in parks and other open space areas can support this approach while providing recreational amenities, habitat benefits and educational opportunities (e.g., interpretive exhibits highlighting ways that the strategies benefit water and ecological resources). Stormwater management and selected LID practices should also be incorporated into new and redesigned streets where allowed and practicable; this approach can support recommendations for ecologically-sensitive urban street network designs as identified in the Urban Street Network section and guidance for individual CBCs in the corridor, including the potential for incorporating the daylighting of streams. As approaches to treating stormwater continue to evolve, and as new innovative practices are identified, these evolving measures should be employed in support of stream protection and restoration.

In order to achieve stormwater management goals, stormwater controls should typically treat runoff close to its source. This may be accomplished through onsite controls or through coordination of stormwater management measures among neighboring development sites. Contributions to, or construction of, one or more projects identified in a Board of Supervisors-adopted watershed management plan or projects that would otherwise further county stormwater goals may also be considered.

Any development proposal that result in an intensity of 1.0 FAR (or equivalent residential density) or greater and/or result in a 20 percent or more increase in impervious cover on the site,

should be reviewed on a case-by-case basis for the appropriate optimization of stormwater management and water quality controls, allowing for flexibility in specific approaches to achieve the following guidelines (any one of A, B, or C below):

A. Specific Performance Targets

- Reduction in runoff volume leaving the site equivalent to one inch from impervious surfaces on the site. If this level of runoff volume reduction cannot be attained, a combination of runoff volume reduction and peak flow and velocity reduction should be provided to the extent necessary to protect downstream water resources, even where runoff would be discharged directly into a pipe or constructed channel.
- For redevelopment projects, phosphorus reduction for new impervious areas should meet the most current regulatory requirements, while the phosphorus load from existing impervious area should be reduced by at least 30 percent below predevelopment loads.
- As proposed intensities increase above 1.0 FAR, and/or as proposals incorporate additional increases in impervious cover, commensurate increases in the performance targets described above should be pursued.

B. Linkage to Green Building Rating Systems

- As an alternative to the targets set forth in A, stormwater management measures may be provided that are sufficient to attain the Rainwater Management credit of the most current version of Leadership in Energy and Environmental Design-New Construction (LEED-NC) or Core & Shell (LEED-CS) rating system (or equivalent of this/these credit(s) based on an alternate rating system). Stormwater management practices that are applied toward this outcome should provide runoff reduction/rainfall volume retention, rather than just stormwater treatment, to the maximum extent practicable.

C. Alternative Approaches

- As an alternative to A or B, stormwater management measures and/or downstream improvements may be pursued to optimize site-specific stormwater management and/or stream protection/restoration efforts, consistent with the adopted watershed management plan(s) that is/are applicable to the site. Such efforts should be designed to protect downstream receiving waters by reducing stormwater runoff volumes and peak flows from existing and proposed impervious surfaces to the maximum extent practicable, consistent with watershed plan goals. Consideration may be given to other stormwater runoff-related factors such as downstream flooding, drainage complaints, character and condition of downstream channels, and identified stream impairments.

Residential and Other Noise-Sensitive Uses

Where residential or other noise sensitive uses are proposed near Richmond Highway, such proposals should only be considered with the provision of a noise study during the review of the development, commitments to noise mitigation measures, and, potentially, commitments to the

provision of disclosure statements and a post-development noise study. The noise study during development review should clearly define the noise levels impacting the proposed uses as a measure of DNL dBA; should include noise contours and/or noise impacts at each façade of each affected building with current noise levels and projected noise levels based on a minimum 20-year traffic volume projection for the roadway and for bus rapid transit and/or Metrorail, as may be applicable; and, should identify differing noise levels that may affect building facades at different elevations.

In areas where projected noise impacts at affected building facades will exceed DNL 75 dBA, design strategies should be pursued where feasible, consistent with other design goals, such that exposures of facades for noise-sensitive areas of residences will be minimized. Where such exposures cannot be avoided, and for dwelling units for which outdoor spaces including balconies are projected to be exposed to noise levels that exceed DNL 65 dBA, disclosure statements should be provided to potentially affected residents and users within the impacted uses or units. The disclosure statements should clearly identify the mitigated and unmitigated noise levels for interior space and the noise levels for any affected balconies, in addition to noise mitigation for interior space and outdoor recreational areas. When feasible, post-development noise studies should be conducted to support evaluations of the effectiveness of noise mitigation measures.

Green Building Practices

Objective 13 in the Environment Element of the Policy Plan provides guidance for green building practices and standards. Development and redevelopment should meet applicable green building standards and achieve best practices in accordance with the Policy Plan.

HERITAGE RESOURCES

In 2016, a reconnaissance survey was completed along the Richmond Highway Corridor from Huntington Avenue to Mount Vernon Memorial Highway to identify properties or buildings that may qualify for listing in the Fairfax County Inventory of Historic Sites. The survey identified several properties for more thorough documentation. Heritage resource staff in the Department of Planning and Zoning should be contacted regarding resource identification and ongoing survey efforts as directed by the 1988 Heritage Resource Management Plan and the Comprehensive Plan Policy on Heritage Resources. There is a potential for additional heritage resources to be identified.

Potential resources identified include many single family homes built between 1900 and 1940 that remain unaltered and embody the distinctive characteristics of a type, period, or method of construction. Evaluation of potential resources should provide adequate information to determine if a property qualifies as an identified heritage resource. Resources or areas identified for further research are noted in the appropriate section of the Plan. The Overview section of the Mount Vernon Planning District includes a figure and map of the resources included in the Fairfax County Inventory of Historic Sites, as well as policies related to Heritage Resources.

Viewshed from Historic Sites

A Guiding Planning Principle for development within the Richmond Highway Corridor is the recognition and acceptance of responsibility for the stewardship of heritage resources. One specific application of this principal is consideration for potential impacts to the viewsheds of two notable resources in proximity to the corridor – Woodlawn and Huntley. These homes, constructed

circa 1800 and 1818 respectively, offer unique opportunities to understand and appreciate Fairfax County's heritage. Both of these homes were constructed at higher elevations that offered the original owners expansive views of their landholdings and beyond to the Potomac River. Although the views from each of these homes is quite different from when they were constructed, they remain quite impressive with limited visual intrusion from 20th century development.

Woodlawn and Huntley are included among thirteen areas considered to be major contributors to the quality of life in Fairfax County. These sites have been set within Historic Overlay Districts that establish regulations for surrounding development, above the standard zoning protection, intended to better preserve the unique architectural, historic, or archaeological value of these sites. Although redevelopment envisioned for the Richmond Highway Corridor will not occur within the limits of the Historic Overlay Districts, and, therefore, not be subject to the additional development restrictions, new development in the southern portion of the Hybla Valley/Gum Springs CBC and in Woodlawn CBC may be visible from Huntley, closely in line with the tops of the existing tree canopy, and thereby impact the ability to interpret our county's heritage. Maintenance of the existing tree canopy on the Woodlawn site, as an expressed Standard for the Woodlawn Historic Overlay District, likely prevents any visibility of future development along the corridor from Woodlawn.

The ability to mitigate potential impacts to the viewsheds from Huntley and Woodlawn is largely addressed by the maximum building heights envisioned for those areas of potential impact. Future redevelopment within these targeted areas will be expected to provide additional analysis as part of the entitlement process to demonstrate the extent to which a requested development proposal would be visible. Development that indicates any potential for visibility may be expected to exclude building materials that would exacerbate impacts to views (e.g. highly reflective materials, building lighting). Such expectations are noted within the recommendations for the Hybla Valley/Gum Springs CBC and Woodlawn CBC.

PARKS, RECREATION, AND OPEN SPACE

Parks, recreational facilities, and open space are essential elements to ensure the livability of the communities along the Richmond Highway Corridor. A diverse and accessible park network contributes to the physical, social, and economic health of the community, benefiting residents, workers and visitors alike. Parkland and open space also provide ecological benefits, such as improved air quality, habitat diversity, and enhanced stormwater management.

Current Conditions

In 2017, there were approximately 15 acres of public parkland within the Richmond Highway Corridor, including approximately 3 acres in Vernon Heights Park, which contains a playground and trails, and 12 acres in North Hill Park. A portion of the property on the site of the Original Mount Vernon High School within the South County Center CBC is owned by the Board of Supervisors and leased to the Park Authority. Several other parks are located in close proximity to the corridor and provide open space and recreation options to the residents and workforce. These include recreation centers, a neighborhood dog park, and natural areas. Huntley Meadows Park, located just outside of the corridor, offers more than 1,500 acres of land devoted to natural and cultural resource protection with public access provided on trails within a small portion of the park.

Due to the primarily commercial nature of the CBCs and early development patterns along the corridor, there is a lack of public parkland and recreational opportunities within these areas and the Mount Vernon Planning District as a whole. As a result, the Richmond Highway Corridor and surrounding communities are underserved for parks and recreation facilities and connectivity to and between parks from is poor.

Future Parks, Recreation, and Open Space Needs

As the corridor redevelops and attracts more residents and employees, the need for parks and recreation facilities to serve the growing communities will continue to increase. All residential development projects should offset impacts to parkland and park facilities for which there are adopted service level standards, either through monetary or “in-kind” contributions to serve the corridor.

Development within the CBCs should also address the guidance of the Urban Parks Framework as outlined in Appendix 2 of the Parks and Recreation Element of the Policy Plan to provide publicly accessible park space and recreation opportunities within mixed-use developments. Developments should provide high quality, publicly accessible park space on site in balance with the proposed density to assure a livable community. Diversity among the types of park spaces in the CBCs is encouraged to support a variety of leisure opportunities, including places that foster social interaction and those that provide facilities for sports and recreation activities. Safe and inviting public access supports the usability, visibility and placemaking value of these spaces. Publicly accessible park space should be integral to development and can be publicly owned, privately owned, or provided through public-private partnerships.

The need for athletic fields to serve new development will be determined based on adopted service level standards as identified in Appendix 3 of the Parks and Recreation Section of the Policy Plan. Creative approaches are encouraged to integrate large footprint recreation needs, such as athletic fields. These approaches may include placement of such facilities on rooftops, over stormwater detention facilities, in utility corridors, indoors, and in other alternative locations. The use of field lighting and synthetic turf allows for extended scheduling, increasing capacity through more efficient usage of a facility. Field designs that accommodate multiple sports can reduce the amount of land needed and maximize recreational opportunities. It is preferable that athletic field needs be addressed within development sites; however, construction of new facilities in the vicinity of the corridor may be considered as well. Enhancements to existing facilities at nearby school and park sites that expand capacity provides another means to address increased demand.

Facilities for which adopted standards are not available, such as running tracks, game tables, bocce courts, outdoor fitness equipment, putting greens, and other desirable outdoor recreational opportunities are also encouraged. Publicly accessible indoor facilities, such as multipurpose program areas, indoor gyms, and courts may be provided to meet a portion of the need. Over time, the types of facilities needed and desired may change. Flexibility, adaptability, and imagination is encouraged to allow for innovative recreational facilities and activities.

Full realization of the redevelopment option would be anticipated to generate a need for 38 acres of publicly accessible parkland within the Community Business Centers along the length of

the corridor. This estimate does not include the need generated by additional development that could be realized with Metrorail. For development that is intended to be constructed in phases, public parks and/or recreation facilities are expected to be phased to when the need arises.

The Urban Parks Framework, as outlined in Appendix 2 of the Parks and Recreation Section of the Policy Plan, seeks to ensure that the higher densities envisioned within the county's urbanizing areas, such as Community Business Centers, provide spaces that contribute to a vibrant, livable community. The Urban Parks Framework addresses five distinct types of urban parks to provide a variety of park experiences to serve an urban lifestyle: pocket parks, common greens, civic plazas, recreation-focused urban parks, and linear parks. The urban park types span a continuum of purposes, uses, sizes and features that can flexibly accommodate a broad spectrum of recreational and leisure pursuits. These urban parks are distinct from urban design elements such as streetscape areas, sidewalk cafes, commercial entertainment venues, and retail browsing areas. As the corridor redevelops, the full spectrum of urban parks should be integrated with development to provide for the diverse needs of a community. Special focus should be on including elements that foster physical activity.

URBAN DESIGN

Urban design is used to align the desired scale and character of development with the social, economic and aesthetic values of a community. It guides the physical features that define the arrangement and appearance of building form, open spaces, streets, blocks, and communities. The Richmond Highway area has a rich history with a number of notable historic sites, and the corridor has been evolving since early in the nation's history. Over time, the corridor has developed into an auto-oriented pattern that is challenging for pedestrian circulation with low-density, single-use buildings, large amounts of surface parking, and few public spaces. Redevelopment presents an opportunity to improve upon the current development pattern by establishing an urban form that draws upon the prominence of the corridor's historical legacy; builds strong multimodal connections; creates diverse public spaces that meet the needs of residents and visitors; and integrates the built environment with the area's natural resources.

The following recommendations address site design, building massing and height, articulation and façades, other public realm elements, and parking design.

Site Design

Site design should prioritize the pedestrian realm to create a vibrant urban environment. Typically, buildings should be located close to the sidewalk to allow for active storefronts and other uses that engage pedestrians. The location of buildings or other site features should not interrupt the pedestrian circulation system. Uses such as loading docks, mechanical rooms, utility vaults, and exposed parking decks detract from the public realm and should be located on service drives or placed internally to the building envelope to minimize their negative impacts.

Proposed developments in the CBCs should adhere to an established build-to line for each street type as discussed in the Urban Street Network Design section. The build-to line is a theoretical line on the ground indicating where the façades of buildings should be located. It ensures that the ground floors of all buildings on a block are generally in line with one another at the edge of the streetscape. The build-to line generally applies to the podium (or base) of the

building structure and excludes upper levels, which may be set back further to allow light and air to reach the street. Exceptions to the build-to line may occur where plazas, parks, or spaces for public art are located.

Existing buildings will not necessarily conform to the build-to line established by new development. Thus, new development and redevelopment, especially those that are phased, should incorporate visual and physical linkages to existing buildings to create a high-quality pedestrian realm. New buildings may use landscaping or other architectural features to visually align with existing buildings from the build-to line. Proposed development in the SNAs is encouraged to adhere to the established build-to line to the greatest extent possible.

Building Massing and Height

Sites should be designed to achieve the desired intensity goals while remaining sensitive to the impact on the surrounding context. Buildings should be designed to protect views and to allow for privacy. Building massing should allow for light at the street level and to minimize long periods of shadow on the street, on adjacent buildings, or in open space.

Building heights in this Plan are not measured in feet but rather in stories to provide some flexibility. The ground floor of a mixed use or commercial building should be at least 16-feet in height, with the remaining stories generally not exceeding 12 to 15 feet. Building heights under the redevelopment options in the CBCs are illustrated in Figures 27, 36, 45, and 58. The following are general recommendations regarding building height throughout the corridor:

- Buildings heights should be tallest along Richmond Highway and transition to a lower-scale as they get closer to established residential neighborhoods.
- Buildings may be oriented to maximize their view potential, but their location and orientation should take into consideration uses in the immediate vicinity.
- Buildings should be designed with height variations to provide light and views, privacy, and effective transitions to adjacent uses.

Building Articulation and Facades

Building articulation, or changes in the façade, are achieved through recesses, protrusions, window systems, entries, or balconies, cornices, and different roof forms should be used to visually reduce the scale of a building and avoid monotonous building elevations. Changes in materials, colors, and/or textures which express the ground floor, building podium, and higher elements should be incorporated to create variety and interest. Further, articulation may provide shade, demarcate entries, or act as gateway features to contribute to a vibrant public realm. Building height modulation and variations in the heights of buildings within a block should be incorporated to distinguish uses, to provide variety, and to provide transitions between higher density buildings along Richmond Highway and lower density buildings within the surrounding residential neighborhoods.

The pedestrian experience is influenced significantly by the scale of buildings that are located adjacent to the sidewalk. Buildings should be sited and designed to create a sense of enclosure for

streets and the spaces between buildings. Step-backs can be used to create an appropriate proportion of street width to building height, particularly for tall buildings. When portions of the building above the lower levels are set back from the build-to line, pedestrians only perceive the first few floors of the building podium, and not the full height of the building. Step-backs to reduce the impacts of shadows may be necessary to ensure that sunlight is present in important locations, particularly those related to public open spaces, including Pocket Parks and plazas. Shadow studies (also called sunlight or solar shading analyses) should be utilized to ensure that adjacent buildings and spaces will have adequate light. Step-backs add depth and complexity to the bulk of buildings; they can create interesting exterior spaces on upper floors and opportunities for outdoor patios or terraces.

The scale and level of detail of building façades and frontages should be appropriate to pedestrians. Ground-floor commercial uses should be accessed directly from the adjacent public sidewalk or building zone. The façades of first-floor commercial uses, residential lobbies and common areas should be primarily transparent to activate the sidewalk by providing visibility into the building. Long expanses of blank walls without windows or entrances detract from the pedestrian experience. Such conditions should not occur on any public street-facing façades. If blank façades cannot be avoided, strategies should be employed to mitigate their impact on the public realm. This may include the provision of applied architectural elements, material changes, public art installations, special lighting, or landscaping. Windows should provide building detail and visual interest and not contain opaque, mirrored or translucent glass.

In residential buildings, the degree of transparency in the ground floor may be reduced for private uses, such as living areas. Residential lobbies and other common spaces should exhibit higher transparency and should provide a visual connection to the outside. Ground-floor residences with individual entrances should be grade-separated from the public sidewalk to provide some privacy. The sill of ground floor windows should generally be placed above the eye level of passers-by on adjacent sidewalks. This creates the opportunity for stoops, bays, porches or entries that establish a distinct transition between private residential use and the public realm. When grade separation cannot be achieved, a landscaped building zone should be provided between the residence and the public sidewalk. Stairs or porches should not encroach on the sidewalk; they should be located wholly on private property in the building zone so as to not impact pedestrian movement.

Signage and Wayfinding

Generally, signage should be integrated with building architecture to avoid visual clutter. Building-mounted signs or monument-style ground-mounted signs incorporated within the building zone are encouraged. Pedestrian-scaled signage should be incorporated into all new uses. Pole-mounted signs are discouraged.

Wayfinding is a method of orienting people within their surroundings and enhances their understanding of places. Wayfinding tools such as signs, maps, symbols, or other graphic methods should be incorporated into a project to help people navigate the physical environment and to contribute to the overall identity of an area through use of consistent themes. A coordinated program of public art, signage, and/or other way-finding elements enhances connectivity and orients people who walk, bicycle, and use transit in the area.

Public Art

The identity of the Richmond Highway Corridor should be established in part through the inclusion of public art. Redevelopment projects and public spaces are encouraged to include art in their design as per Policy Plan guidance. Public art can help build authenticity, recall historically significant events in the area, and increase a sense of pride and place. Artwork should create an inviting and attractive environment for residents, employees, and visitors. Art installations should be located in prominent public spaces and be integrated with other urban design features.

Parking Design Recommendations

The proper location of parking is essential to creating an environment that promotes walking. Adequate and convenient parking is also essential for the economic vitality of retail uses. On-street, structured and underground parking should be encouraged for most of the uses. Parking should generally be located internal to developments. Access to parking areas should be designed to minimize conflicts between vehicles and pedestrians by reducing the number of access points and minimizing the width of curb cuts where they intersect with the sidewalk. Vehicular access to parking lots and garages should be limited to local streets or service drives when feasible.

On-Street Parking

On-street parking provides convenient and accessible parking for residential and retail uses while enhancing the pedestrian experience by increasing the safety and comfort of the people using the sidewalk. Where on-street parking is provided, curb cuts for vehicular access should be minimized in order to reduce vehicular conflicts with pedestrians and maximize the number of on-street parking spaces. On-street parking should be parallel to the street. Angled and perpendicular on-street parking is discouraged. Landscaped bulbouts within on-street parking areas at intersections should be used to reduce crosswalk distances for pedestrians.

Structured Parking

Underground parking is the least intrusive form of parking and is the preferred method for providing parking in the Richmond Highway Corridor. However, the provision of underground parking may not always be feasible. Therefore, an above-grade structured parking garage, or podium parking, may be appropriate.

Freestanding parking structures are discouraged as they should be integrated into the building. Where the facades of parking structures are exposed, architectural detailing, lighting, and landscaping should be employed to mitigate negative visual impacts. Exposed parking structures are strongly discouraged along the Livability Spine or adjacent to parks and plazas. Access to parking structures should be attractive and coordinated with the architecture of the building through the use of architectural treatments on doors or similar treatments. Consideration should be given to reducing glare and other potential negative visual impacts from light sources.

Surface Parking Lots

Surface parking lots should be avoided, particularly in front of buildings and along Richmond Highway. Any surface parking lots should be located to the side or rear of the primary use and should contain pedestrian connections to the associated building. Such lots should be intensively landscaped and well-lit. Surface parking lots should provide low walls at the back of the sidewalk or parallel to the adjacent build-to line to enclose and define the pedestrian realm and prevent glare

from headlights into adjacent buildings. They also should be designed to contribute to on-site stormwater management by using elements such as planter areas and permeable paving in the parking stall area. The redesign and consolidation of existing, private, surface parking lots is encouraged.

TRANSPORTATION

Richmond Highway is a regional commuter corridor, serves as a main street for nearby residents and businesses, and is the major element that ties together a culturally vibrant and historic community. The Richmond Highway Corridor is envisioned to evolve into a multimodal corridor served by a fast, high-quality BRT system; a consistent six lane roadway and local bus service; continuous pedestrian and bicycle facilities; and ultimately, Metrorail from Huntington to Hybla Valley. These improvements are important to enhancing access and mobility, while supporting desired new development.

In addition to the Richmond Highway improvements, street grid networks are proposed within the CBCs, around many of the potential BRT station areas to support transit-oriented development (TOD). These grids will provide improved connectivity, alternatives to travel on Richmond Highway, shorter blocks, and more urban, pedestrian-oriented streetscapes. These improvements will make active transportation options appealing and convenient for residents, workers, and visitors, and contribute to the economic health throughout the corridor by facilitating redevelopment and attracting new jobs and housing.

The Guiding Planning Principles section of this Plan provides the general transportation goals for the corridor. The following section contains specific transportation recommendations and policies that elaborate on the corridor-wide goals in greater detail and provides suggested recommendations for achieving them. The section should be used to guide general transportation decisions. In some instances, site-specific transportation recommendations are included in the land use recommendations section for individual land units.

Each Community Planning Sector within the Mount Vernon and Lower Potomac Districts also contains specific transportation recommendations for Richmond Highway and adjacent roadways, which are shown on the maps included in each sector plan. The sector figures show access orientation, circulation plans, interchange impact areas, and generalized locations of proposed roadway and transit improvements.

Public Transportation

Bus Rapid Transit

The BRT system is planned to serve the Richmond Highway Corridor from the Huntington Metrorail Station to Accotink/Fort Belvoir, with stations in the Huntington Transit Station Area (TSA), Penn Daw CBC, Beacon/Groveton CBC, Hybla Valley/Gum Springs CBC, South County Center CBC, Woodlawn CBC and Accotink/Fort Belvoir Accotink as shown in Figure 2. Future phases of the BRT are envisioned to extend to Woodbridge in Prince William County, though additional transportation analysis will be needed.

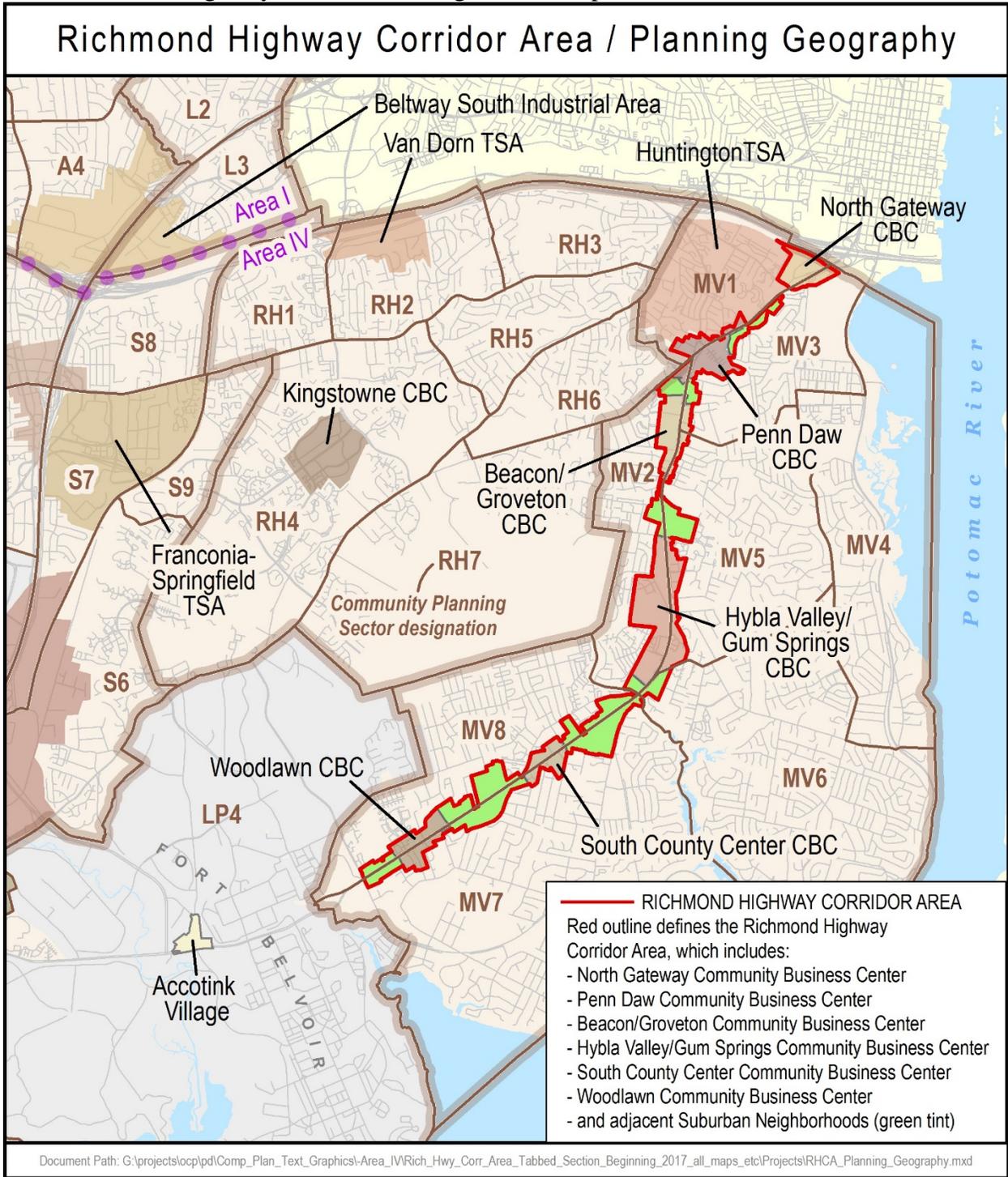
The implementation of a phased BRT system between the Huntington Metrorail Station and Accotink/Fort Belvoir is needed to provide residents increased mobility, reduce vehicle dependency, and accommodate additional transit ridership from redevelopment in the Richmond Highway Corridor. The provision of a BRT system also will encourage denser, mixed-use, walkable development in the CBCs of Penn Daw, Beacon/Groveton, Hybla Valley/Gum Springs, and Woodlawn. BRT service is envisioned to be frequent and reliable, and is expected to include enhancements such as dedicated lanes, busways, traffic signal priority, off-board fare collection, level-boarding platforms, and other station features.

Additional guidance about the sections of the BRT system north of the Penn Daw CBC and south of the Woodlawn Area to Accotink/Fort Belvoir can be found in the MV1 – Huntington Community Planning Sector guidance in the Mount Vernon Planning District and LP4 – Fort Belvoir Community Planning Sector guidance in the Lower Potomac Planning District, respectively.

The following recommendation(s) apply:

- Provide transportation capacity improvements that encourage transit travel to support the envisioned future growth;
- Establish phased BRT service between the Huntington Metrorail Station and Accotink/Fort Belvoir to serve the needs of residents and businesses near Richmond Highway; and,
- Design BRT stations for the comfort and convenience of the transit rider. Paved and covered waiting areas, including amenities such as seating areas and lighting, within the public right-of-way at the stations should be provided.

Figure 4: Richmond Highway Corridor Planning District Map



Local Bus Service

Existing bus service on the Richmond Highway Corridor serves both local riders and people commuting through the area. Modifications to these routes are anticipated with the implementation of the BRT system to provide connections to the system and supplement local routes within the proposed grids of streets where necessary. North Gateway, while not served directly by the BRT,

should be served by local bus service that connects directly to transit facilities, such as the BRT station in Penn Daw and the Huntington Metrorail station.

The following recommendation(s) apply.

- Utilize local bus service to assist in connecting riders to the planned BRT system or to supplement it where necessary.

Metrorail

An extension of the Metrorail Yellow Line from the Huntington Metrorail Station to the Beacon/Groveton and Hybla Valley/Gum Springs CBCs is envisioned as a continuation of the multimodal character of the Richmond Highway Corridor. This extension may occur after the BRT system is in place.

The following recommendation(s) apply.

- Assess the general feasibility and transportation-related impacts of extending the Metrorail Yellow Line from the Huntington Metrorail Station to the Beacon/Groveton and Hybla Valley/Gum Springs CBCs.

Roadway Level of Service

Richmond Highway is designated as a National Highway System (NHS) facility by the Federal Highway Administration (FHWA). The Commonwealth of Virginia requires that intersections along NHS facilities, such as Richmond Highway, achieve an overall LOS of 'D', unless a lesser standard is agreed upon.

Fairfax County is attempting to create places where people live, work and play while meeting the needs of all modes of transportation by creating a series of interconnected, mixed-use nodes with multimodal access and connections to surrounding communities. While it is important to allow vehicles to circulate through, within, and around the corridor in a safe and efficient manner, strategies that reduce vehicular demand should be implemented where possible. Fairfax County, therefore, prefers to allow a lesser LOS standard of 'E' where appropriate along Richmond Highway to help achieve a well-designed and balanced multimodal environment.

The following recommendation(s) apply.

- Generally, maintain an overall Level of Service (LOS) of 'D' for intersections on Richmond Highway, unless a lesser standard of LOS 'E' is agreed upon by Fairfax County and the Virginia Department of Transportation (VDOT).
- Generally, maintain an overall intersection LOS of 'E' for other intersections in proximity of Richmond Highway, but located off the corridor.

Grid of Streets

There are many transportation-related benefits of a grid of streets. Some of the benefits include improved circulation and distribution of traffic, additional walking and cycling routes, enhanced connectivity to places, and more direct access for emergency responders. Maps and details related to the street grids are in the Urban Street Network Design (USND) section and relevant CBC sections of the Plan.

The following recommendation(s) apply.

- Implement a grid pattern of streets in the Penn Daw, Beacon/Groveton, Hybla Valley/Gum Springs, and Woodlawn CBCs to support TOD, as shown on Figures 29, 38, 48, and 61 in the CBC Recommendations section of the Plan.

Richmond Highway Widening

Richmond Highway is one of the primary roads in the Mount Vernon Planning District and serves as the main corridor for residents, businesses and visitors to this community. The right-of-way and road both need to be widened, in many places, to accommodate the planned multimodal facilities.

The following recommendation(s) apply.

- Widen Richmond Highway to accommodate a median-running BRT system guideway with BRT stations from Penn Daw to Accotink/Fort Belvoir.
- Design the roadway as a complete street with six travel lanes, and continuous bicycle and pedestrian facilities on both sides, along the entire length of the Richmond Highway corridor.

Access Management

Richmond Highway currently has many curb cuts and other driveway access points. Reducing the number of these access points could improve safety, improve traffic flow, and lessen conflicts between motorists and pedestrians and cyclists. Improved inter-parcel access will provide connectivity between blocks and reduce the number of trips that need to access Richmond Highway.

The following recommendation(s) apply.

- Reduce the number of curb cuts and other driveway access points on Richmond Highway. Encourage facilities to coordinate access points.
- Discourage, as much as possible, full movement access locations along Richmond Highway except at signalized intersections.
- Realign intersecting streets to eliminate offset and angled intersections with Richmond Highway, where necessary.
- Encourage development proposals to utilize the grid of streets for access, provide adequate multimodal and inter-parcel access, and provide other measures needed to mitigate the traffic impacts.

Pedestrian and Bicycle Facilities

The pedestrian and bicycle networks on Richmond Highway will provide multimodal alternatives to automobile travel and provide important connections to destinations within the corridor and beyond. These networks should be designed, built, maintained, and operated to a high standard in order to attract users, to achieve the transportation goals for the corridor, and to provide residents and visitors with appealing travel options to work, shopping, recreation, or other daily destinations.

Planned bicycle facilities for Richmond Highway are shown in Figures 7 and 8, Transit Boulevard – Richmond Highway, North and South of Napper Road Cross-section(s). These figures

show designs for the planned separated bike lane in the Richmond Highway right-of-way from North Gateway to Accotink/Fort Belvoir. Bicycle facilities are also planned to connect adjacent neighborhoods to Richmond Highway. See the Bicycle Master Plan and CBC Multimodal Network Maps for more details on these facilities. For additional details on appropriate pedestrian and bicycle facility treatments, designs and locations for new CBC grid streets, see descriptions in the Urban Street Network Design and the Multimodal Network Maps in the CBC Recommendations sections.

The following recommendation(s) apply.

- Provide continuous pedestrian and bicycle facilities, within the public right-of-way, on both sides of Richmond Highway from North Gateway to Accotink/Fort Belvoir. Facility design should protect users and provide low-stress conditions appropriate to the planned traffic volume and speed of the roadway.
- Provide adequately marked and signalized crosswalks on Richmond Highway at the future BRT stations and at signalized intersections to encourage pedestrian and bicyclist movement. Outfit controlled crosswalks with pedestrian-controlled signals that meet ADA design standards. Non-signalized pedestrian crossings of Richmond Highway are discouraged.
- Provide safe, secure, and convenient bicycle parking to encourage cycling in the Richmond Highway Corridor. See the Fairfax County Bicycle Parking Guidelines for the quantity and design of bicycle parking facilities.
- Implement and incorporate enhancements to bicycle and pedestrian facilities within the Richmond Highway Corridor as part of roadway and transit improvements to create a continuous network of high-quality multimodal facilities and circulation between modes and to destinations along the corridor.
- Maintain a high level of service for pedestrians and cyclists, which includes, but would not be limited to, meeting Americans with Disabilities Act (ADA) standards, enhanced safety and security measures, the provision of direct pathways to and from BRT stations, and minimized delays at intersections, especially within a quarter mile of the BRT stations.

Transportation Demand Management

Transportation Demand Management (TDM) refers to a variety of strategies aimed at reducing the traffic demand, particularly for single occupant vehicle trips during peak periods, and at expanding the modal choices. Traffic volumes need to be minimized to decrease congestion within the Richmond Highway corridor, to create livable and walkable spaces, and to minimize the effects of traffic on neighboring communities. The result is a more efficient use of the transportation systems. TDM is therefore an important component of this Plan and the promotion of the programs to the various stakeholders within a CBC is critical to its success

A systematic, and integrated program of TDM strategies throughout the Richmond Highway corridor can reduce peak period single occupancy vehicle trips, as well as increase the percentage of travelers using transit and non-vehicular modes of transportation. TDM programs should embrace the latest information technology techniques to encourage teleworking, and provide sufficient information to enable trip makers' to make educated decisions about how, when, and whether to travel.

The objective of a successful TDM program for the Richmond Highway corridor is to reduce the number of single occupant vehicle trips. These reductions are based on Institute of Transportation Engineers' (ITE) peak hour trip generation rates.

The following recommendation(s) apply.

- Reduce peak period single occupancy vehicle trips by 35 percent for office development and 25 percent for residential development. Final TDM goal to be determined based on site specific characteristics at the time of rezoning, or other application, where a TDM commitment is applicable, as deemed acceptable by Fairfax County.
- Ensure that development proposals include the following elements associated with a TDM program in support of the TDM goals for Fairfax County:
 - Measures to achieve the minimum trip reduction goals. Examples of TDM measures to be considered can be found in the Transportation element of the Policy Plan volume of the Comprehensive Plan.
 - An implementation plan with ongoing monitoring actions.
 - Commitments to ensure TDM efforts are successful.
 - A plan to promote TDM programs to the various stakeholders.

Parking Management

To facilitate the achievement of TDM goals and encourage transit use, shared parking for uses which have different peak demand periods, instituting paid parking, or other parking reduction strategies are encouraged. Additionally, shared parking should be explored for similar uses with both existing and new buildings, especially when the existing use is over parked. These parking strategies can increase the cost-effectiveness of providing vehicle parking while reducing vehicle trips.

Appropriately allocated and strategically located parking is critical to the multimodal vision for Richmond Highway. See Parking Design Recommendations in the Urban Design Section of the Corridor-wide Guidelines for more information.

As the Richmond Highway corridor is developed, and the land use and transportation infrastructure matures, parking requirements should be examined to determine if they are adequate for the changing conditions. Rather than supplying parking for each individual use, parking should be treated as a common resource for multiple uses. Implementing this practice will reap many advantages in creating a more walkable and less auto-dominated environment.

The following recommendation(s) apply:

- Encourage parking reductions and other incentives to lower parking, if supported by the parking plan.
- Explore opportunities for shared parking with adjacent properties.
- Consider reduced parking rates for subsequent phases of development, where appropriate.
- Manage parking within the CBCs to avoid spillover parking into adjacent residential areas.

Balancing Land Use and Transportation

A balance between land use and transportation must be achieved for revitalization to be successful. To ensure an adequate transportation system as the plan for the Richmond Highway Corridor is implemented, development should include a transportation analysis during the development review process and commitments to mitigate any impacts, as warranted. At a minimum, development should meet appropriate site specific and/or transportation policy conditions as contained in the Comprehensive Plan. These may include frontage and access improvements and the provision of pedestrian and bicycle facilities.

The following recommendation(s) apply.

- Provide transportation improvements, right-of-way, and commitments to mitigation strategies, as needed.

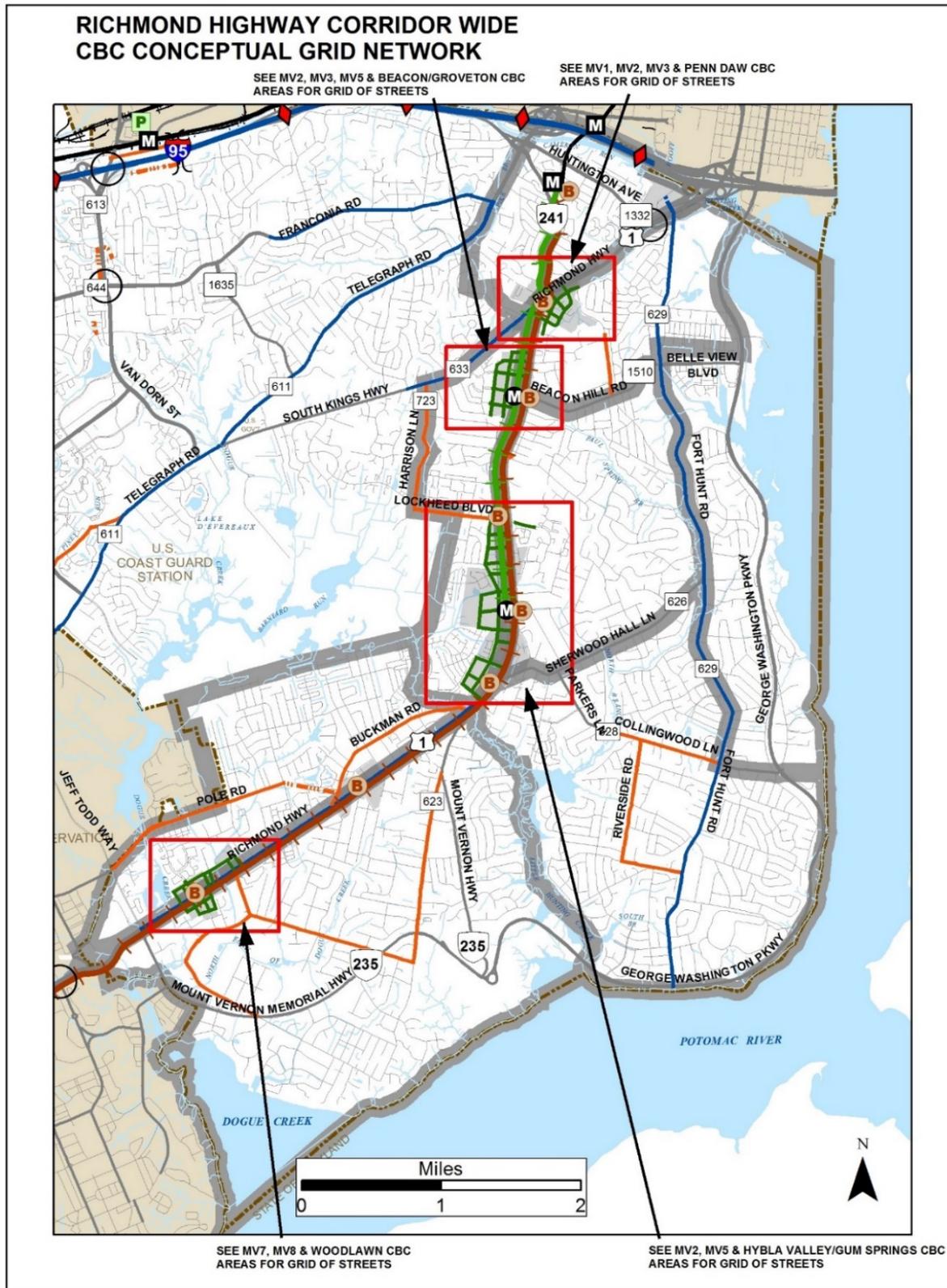
URBAN STREET NETWORK DESIGN

Street Network

The implementation of a comprehensive multimodal network of streets within the CBCs and SNAs is critical to achieving the vision for Richmond Highway as a roadway that serves both through traffic and local needs. Within the Penn Daw, Beacon/Groveton, Hybla Valley/Gum Springs, and Woodlawn CBCs, a new network of urban street grids is intended to facilitate high-quality development and redevelopment. These street grids are roadway patterns that create walkable, compact blocks that are scaled for the pedestrian and facilitate local travel without trips having to access Richmond Highway directly. In some cases, the new streets will function as parallel roads to Richmond Highway, offering greatly enhanced multimodal connectivity within the Corridor. The block sizes formed by the grids will be conducive to development, as well as increase access to new development. The locations of the street grid networks are shown in Figure 5. Multimodal connections will be prioritized along the corridor and across Richmond Highway at signalized intersections to improve internal connectivity within the CBCs and between the surrounding neighborhoods and the CBCs.

It is anticipated that the grids of streets will be implemented as redevelopment occurs. Development proposals within these CBCs should include and implement the planned road improvements as shown in Figures 29 (Penn Daw CBC), 38 (Beacon Groveton CBC), 48 (Hybla Valley/Gum Springs CBC, and 61 (Woodlawn CBC). Additional street segments necessary to maintain acceptable traffic circulation for an individual development should be provided by that development. Alternative grid segments may be considered by the county if the alternative achieves the Plan goals.

Figure 5: Location of each of the CBC grid of streets relative to the Corridor



TRANSPORTATION RECOMMENDATIONS LEGEND

ARTERIAL	COLLECTOR LOCAL	
		WIDEN OR IMPROVE EXISTING ROADWAY
		CONSTRUCT ROADWAY ON NEW LOCATION
	2 4 6 8 10 12	TOTAL NUMBER OF LANES, INCLUDING HOV LANES (COLLECTOR/ LOCAL CROSS SECTIONS TO BE FINALIZED DURING PROCESS OF REVIEWING PLANS FOR PROPOSED DEVELOPMENT)

EXISTING	PROPOSED	
		METRORAIL STATION
		COMMUTER PARKING LOT
		TRANSIT TRANSFER CENTER (NO PARKING)
		COMMUTER RAIL STATION
		BUS RAPID TRANSIT (BRT) STATION
 	 	HIGH OCCUPANCY VEHICLE LANES
   	   	HIGH OCCUPANCY TOLL LANES
		FULL INTERCHANGE IMPROVEMENT (STUDY REQUIRED)
		PARTIAL INTERCHANGE IMPROVEMENT
		PROPOSED HIGHWAY OVERPASS
		PROPOSED HIGHWAY UNDERPASS
		PROPOSED CUL-DE-SAC
		RAIL TRANSIT
		BUS RAPID TRANSIT (BRT)

 PLANNING SECTOR OR DISTRICT OR DEVELOPMENT CENTER

NOTE: IMPROVEMENTS TO ARTERIAL FACILITIES SUBJECT TO COMPLETION OF CORRIDOR STUDIES. SEE DISCUSSION IN AREA PLAN OVERVIEW TEXT. FINAL ALIGNMENTS SUBJECT TO COMPLETION OF APPROPRIATE ENGINEERING STUDIES.

HOV LANES TO BE CONSIDERED IN PROJECT DEVELOPMENT. HOV LANES TO BE PROVIDED IF WARRANTED BASED ON DEMAND FORECASTS AND CORRIDOR STUDY.

Functional Classification of Streets

The Commonwealth of Virginia has embraced the goal of providing a multimodal and intermodal transportation system. To assist in implementing this goal, the Virginia Department of Rail and Public Transportation (DRPT), in collaboration with the Virginia Department of Transportation (VDOT), FCDOT, and other entities, developed Multimodal System Design Guidelines in 2013. The guidelines support the principles of walkability, context sensitive street design, Transit Oriented Development and Traditional Neighborhood Design.

The urban design oriented functional classification system, detailed in the Multimodal System Design Guidelines, is being used for street and highway classification in the Richmond Highway Corridor area. Figure 6 provides a cross-reference between the traditional and urban design oriented classification schemes.

Figure 6 - Cross-Reference between Traditional Highway Functional Classification and Urban Design Oriented Functional Classification Table

Fairfax County Functional Classification (Design Speed)					
Multimodal Types (Design Speed)	Interstate, Freeway, or Expressway (50-70 mph)	Principal Arterial (30-60 mph)	Minor Arterial Type A or B (30-60 mph)	Collector (30-50 mph)	Local Street (20-30 mph)
		Multimodal Through Corridor (35-55 mph)			
		Transit Boulevard (30-35 mph)			
		Boulevard (30-35 mph)			
			Major Avenue (30-35 mph)		
			Avenue (25-30 mph)		
					Local Street (25 mph)

Note: The cross-references shown in the table above are general in nature. Some variations may occur. There are no Multimodal Through Corridors proposed in the Richmond Highway Corridor Area.

Source: Virginia Department of Rail and Public Transportation, Multimodal System Design Guidelines, Chapter 5 Multimodal Corridors, October 2013.

The functional classifications of the street networks specific to each CBC are shown in their respective section in Figures 30 (Penn Daw CBC), 39 (Beacon/Groveton CBC), 49-50 (Hybla Valley/Gum Springs CBC), and 62 (Woodlawn CBC). The functional classification of streets in the Richmond Highway Corridor, inclusive of the CBCs and SNAs, should be updated as warranted by future studies.

The design of streets based on their functional classification includes the roadway and the adjacent streetscape areas so that all transportation modes are accommodated as appropriate. “Complete Streets” provide safe access and movement for pedestrians, bicyclists, motorists and transit riders of all ages and abilities and should be considered in the design of the roadway network and streetscape areas.

General Streetscape Recommendations

Attractive streetscapes create a well-designed edge to a roadway that contribute to an area’s identity and provide a safe, high-quality pedestrian experience. Street cross-sections and traffic mitigation measures planned in the corridor should apply to all streets, public or private. The

streetscape design for roadways within the CBCs will vary by street type and the adjacent land uses, but should incorporate unifying elements. Streetscapes should visually and physically link the entire length of the corridor, and should be attractive environments for browsing, commerce, and casual interaction, particularly within the CBCs.

Streetscapes are typically composed of multiple elements, including: utilities, crosswalks, bicycle lanes, on-street parking, streetlights, trees and landscaping, sidewalks, and furnishings. These elements collectively create a quality and functional multimodal environment. The location of these elements is generally defined within specific streetscape zones and vary by street type. The design of these streetscapes should also consider the environmental opportunities which exist adjacent to the roadways, and within the Ecological Spines. Evaluation of opportunities to daylight streams, enhance riparian buffers, provide additional native landscape materials, using these features as an integral part of the project design.

There are nine street typologies in the Richmond Highway Corridor Area. The nine types fall within the broader categories of Transit Boulevards, Major Avenues, Avenues, and Local Streets. General streetscape guidance on the component parts of each streetscape is provided, followed by information about the typologies and cross-sections for each roadway type.

Definition of Streetscape Zones

Streetscapes are composed typically of a landscape panel, sidewalk and building zone. The *landscape panel*, located along the curb is the designated location for trees, landscaping, traffic signs, lighting, and other amenities such as bus stops, bicycle racks, seating, trash receptacles and refuge strips. Outdoor dining associated with a business should not be located in the landscape panel. The *sidewalk* is reserved for pedestrian movement and should not contain any street furniture, outdoor dining or other amenities. The landscape panel and sidewalk are typically located within the public right-of-way and typically should be privately maintained. The *building zone* is located between the sidewalk and the face of the building and is intended for activities such as window browsing, outdoor seating, and other building-related activities, and some landscaping may be incorporated into these areas. The character of the building zone is largely determined by its adjacent land use.

Streetscape Dimensions

In general, areas with higher pedestrian activity, such as major retail streets and along Transit Boulevards, should have the widest sidewalks, building zones and landscape panels to accommodate increased pedestrian activity. Above all, consistent dimensions within the streetscape of each block should be provided to avoid shifting pedestrian features or building frontages.

Underground Utilities

Utilities, utility boxes, and utility vaults located along the grid of streets within the CBCs should be placed underground, wherever practical, (with the exception of storm drainage in areas where natural channels are possible) to foster a visually appealing and pedestrian-friendly environment. Such infrastructure should be located within building structures, under sidewalks or in the building zone. These facilities should not be located within the landscape panel where conflict with street trees is possible. If underground utility lines are located under sidewalks, above

grade structures and utility cabinets should not be located in the sidewalk where they may impede pedestrian movements. To achieve this goal of undergrounding utilities, detailed site analysis should take place early in the development process to avoid conflicts between utilities and proposed street tree locations. If underground utilities are not practical at the time of redevelopment, redevelopment should provide underground utility conduits and commitments to facilitate future improvements as adjacent development builds-out and utilities are relocated.

Pedestrian Crossings

Pedestrian crossings on Richmond Highway should be highly-visible using pavement markings and other devices to clearly identify pedestrian crossing locations at signalized intersections. Intersections within the CBC grid of streets may be delineated with pavement markings and/or different paving materials as permitted by VDOT.

On-Street Parking

Streetscapes with on-street parallel parking are encouraged to incorporate a small paved area adjacent to the curb known as a refuge strip. The refuge strip will allow passengers to exit parked cars without having to step into planted areas. Trees and fixtures in this zone should be spaced appropriately to allow car doors to swing open without obstruction.

Street Lighting

Street lighting should maintain the overall character and quality of the area, provide adequate lighting levels that ensure public safety without creating glare or light spillage, and conform to LEED light pollution requirements and county ordinances. Lighting should be designed to illuminate the street as well as pedestrian areas. Street lights should be located in a manner that does not conflict with street trees at their projected maturity.

Planting in the Streetscape

Street trees should be planted in an environment that promotes healthy root growth and should be evenly spaced at 25 to 35 feet on-center, whenever possible. Only those varieties of plant materials that require little maintenance, are resistant to disease, and are adapted to extreme urban conditions should be used. In addition to trees, vegetation within planting strips should include supplemental plantings, such as ornamental shrubs, ground cover, flowering plants, and grasses. Design should focus on providing plant species native to Virginia arranged to mimic natural vegetative communities wherever practicable. Where appropriate, special pavement treatments or hardscape elements may be considered to achieve both a root-friendly design and pedestrian walkability across the streetscape. Trees should be planted so that at maturity they do not conflict with buildings or pedestrians and should have acceptable vehicular clearance over roadways at their mature size.

Sidewalk and Streetscape Materials

A variety of sidewalk materials should be considered that complement adjacent building architectural styles and contribute to placemaking in the CBCs, as well as assist in the delineation of streetscape zones. Pavers, concrete scoring techniques, stone, and tiles should be used as a complement to concrete sidewalks.

Street Furniture and Other Elements

Street furniture selections for items such as benches, wayfinding signs, trash receptacles, water fountains, and bike racks, should be generally consistent within each CBC. This may include style, size, finish, and color. Fixed elements, such as light poles, should be aligned within the landscape panel to minimize the disruption of pedestrian flow.

Design Alternatives

While the goal of consistent streetscape design is prioritized, pre-existing site constraints or development phasing may limit the ability of a development to satisfy all streetscape recommendations temporarily or permanently. Some limited variation may be permitted if the proposed alternative meets or exceeds the standards established by this plan. Where flexibility is granted, the streetscape should include, at a minimum, acceptable sidewalk widths and an acceptable amount of street trees between the roadway and the sidewalk. Additional consideration should be given to opportunities to convey runoff overland in natural channels, including restoring/daylighting existing channels which are currently piped, and how best to incorporate those designs into the streetscape.

Street Types and Design

This section identifies the street types in the Richmond Highway Corridor, including an overview of each type's functionality, cross-section, and character. The dimensions of elements within the cross-section for each street type are flexible to respond to particular needs in different locations. Within the Richmond Highway Corridor, cross-sections should be context-sensitive and fit into an urban environment, while addressing operations and capacity needs. Although typical street cross-sections are recommended, final street designs may include some variations in the curb-to-curb width, sidewalk width, or building setback to reflect the changing context of the streets along Richmond Highway and within the CBCs. The general right-of-way widths depicted do not include any necessary turn lanes that may be needed to support development.

Transit Boulevard

Richmond Highway is the only Transit Boulevard in the Corridor and will provide the connecting element between the CBCs. It is the most transit supportive multimodal street type in the corridor, has facilities designed to support transit, and also will accommodate the corridor's vehicular, bicycle and pedestrian traffic.

The concept for the Richmond Highway Transit Boulevard features dedicated transit lanes with adjacent refuge space for pedestrians at stations, a bike facility separated from vehicular traffic, landscape panels with evenly spaced street trees, and sidewalks on both sides of the boulevard. A large building zone is planned to provide space for pedestrians or additional trees and landscaping between the sidewalk and the building. Lighting along the street should be distinctive and designed for all users. Signalized intersections and all transit station locations should include pedestrian crossing devices and markings to clearly delineate the crossing area.

The graphics below (Figures 7 and 8) depict the recommended configuration for Transit Boulevard cross-sections. Note, there are two cross-sections for the Transit Boulevard, one for the portion of the roadway north of Napper Road to the Capital Beltway and the other for the portion of the roadway south of Napper Road and terminating at Jeff Todd Way/Mount Vernon

Memorial Highway.

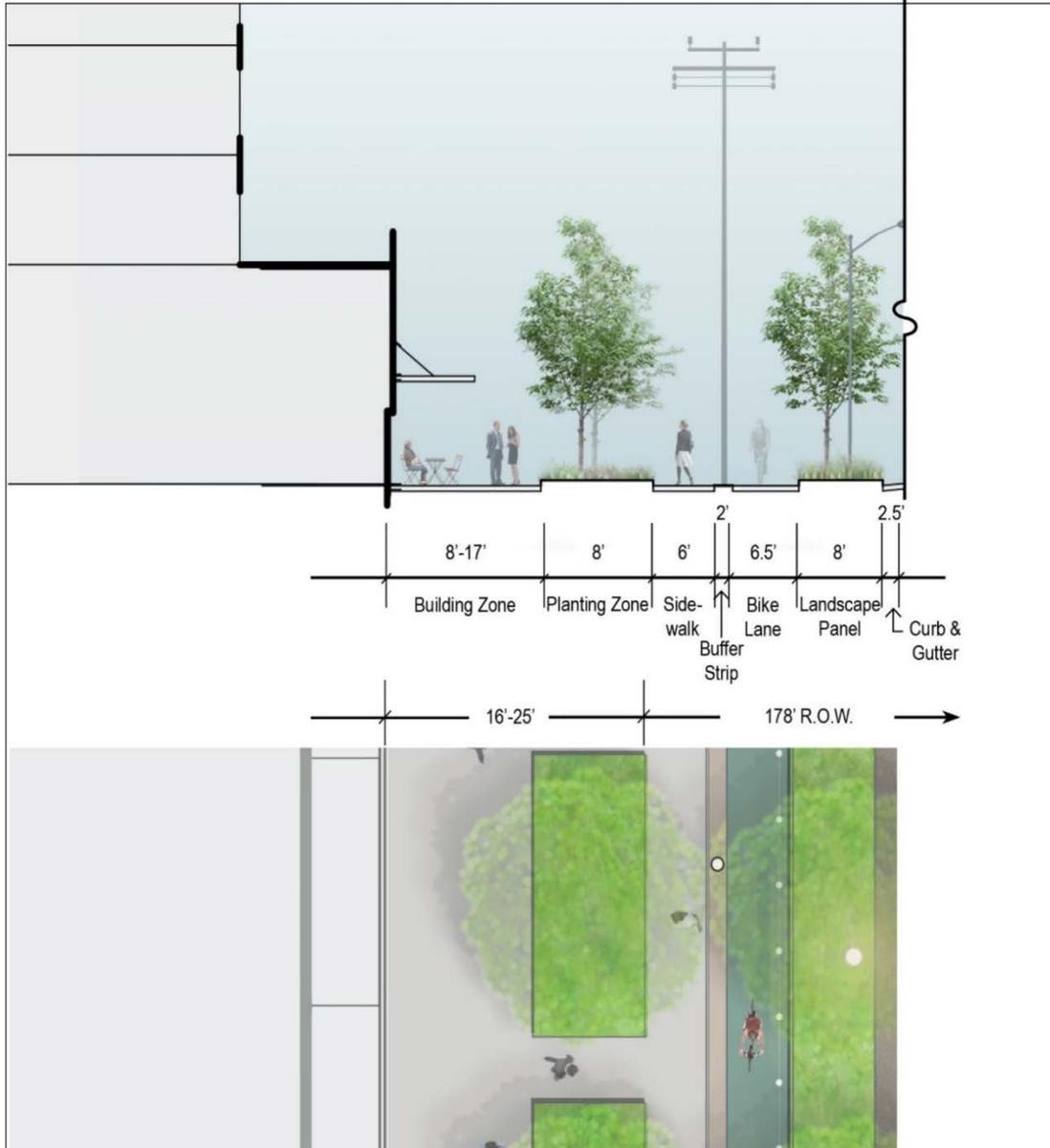
Richmond Highway, north of Napper Road cross-section dimensions:

- Bus Rapid Transit Lane (not shown in figure) – A 58-foot wide space to accommodate a dedicated median-running transit way. Prior to the operation of BRT, the median should be planted with grass or other vegetation.
- Drive Lanes (not shown in figure) – 3 travel lanes per direction (11-foot typical for each lane; however, lane widths may vary based on site characteristics and anticipated traffic volumes and types of vehicles).
- Landscape Panel – An 8-foot minimum landscape panel on both sides of the street. Street trees should be evenly spaced and under-story vegetation should include shrubs and ground cover.
- Cycle Track – A 6.5-foot buffered cycle track per direction. The cycle track may be at the constructed at the grade of the roadway or raised to the level of the sidewalk.
- Utility Strip – A 2-foot utility strip on both sides of the street.
- Sidewalk – A 6-foot sidewalk on both sides of the street. A 1-foot VDOT maintenance buffer behind the sidewalk should be included in the right-of-way.
- Planting Zone – An 8-foot wide planting zone on both sides of the street to accommodate a row of street trees and understory landscaping. Frequent pedestrian connections should be provided between the sidewalk and building zone.
- Building Zone – An 8 to 17-foot wide multi-use zone to accommodate commercial and residential entrances, space for seating and window browsing, or additional landscaping.

Richmond Highway, south of Napper Road cross-section dimensions:

- Bus Rapid Transit Lane (not shown in figure) – A 58-foot wide space to accommodate a dedicated median-running transit way, where applicable.
- Drive Lanes (not shown in figure) – 3 travel lanes per direction (11-foot typical for each lane; however, lane widths may vary based on site characteristics and anticipated traffic volumes).
- Landscape Panel, Inner – A 5.5-foot wide panel located between the curb and the bicycle facility. Structural cells may be required for sufficient root space to support the long term health of street trees.
- Cycle Track – A 6.5-foot buffered cycle track in each direction. The cycle track may be at the constructed at the grade of the roadway or raised to the level of the sidewalk.
- Landscape Panel, Outer – A 4.5-foot wide panel located between the bicycle facility and the sidewalk on both sides of the street.
- Sidewalk – A 6-foot sidewalk on both sides of the street. A 1-foot VDOT maintenance buffer behind the sidewalk should be included in the right-of-way.
- Planting Zone – An 8-foot wide planting zone on both sides of the street to accommodate a row of street trees and understory landscaping. Frequent pedestrian connections should be provided between the sidewalk and building zone.
- Building Zone – An 8 to 17-foot wide multi-use zone to accommodate commercial and residential entrances, space for seating and window browsing, or additional landscaping.

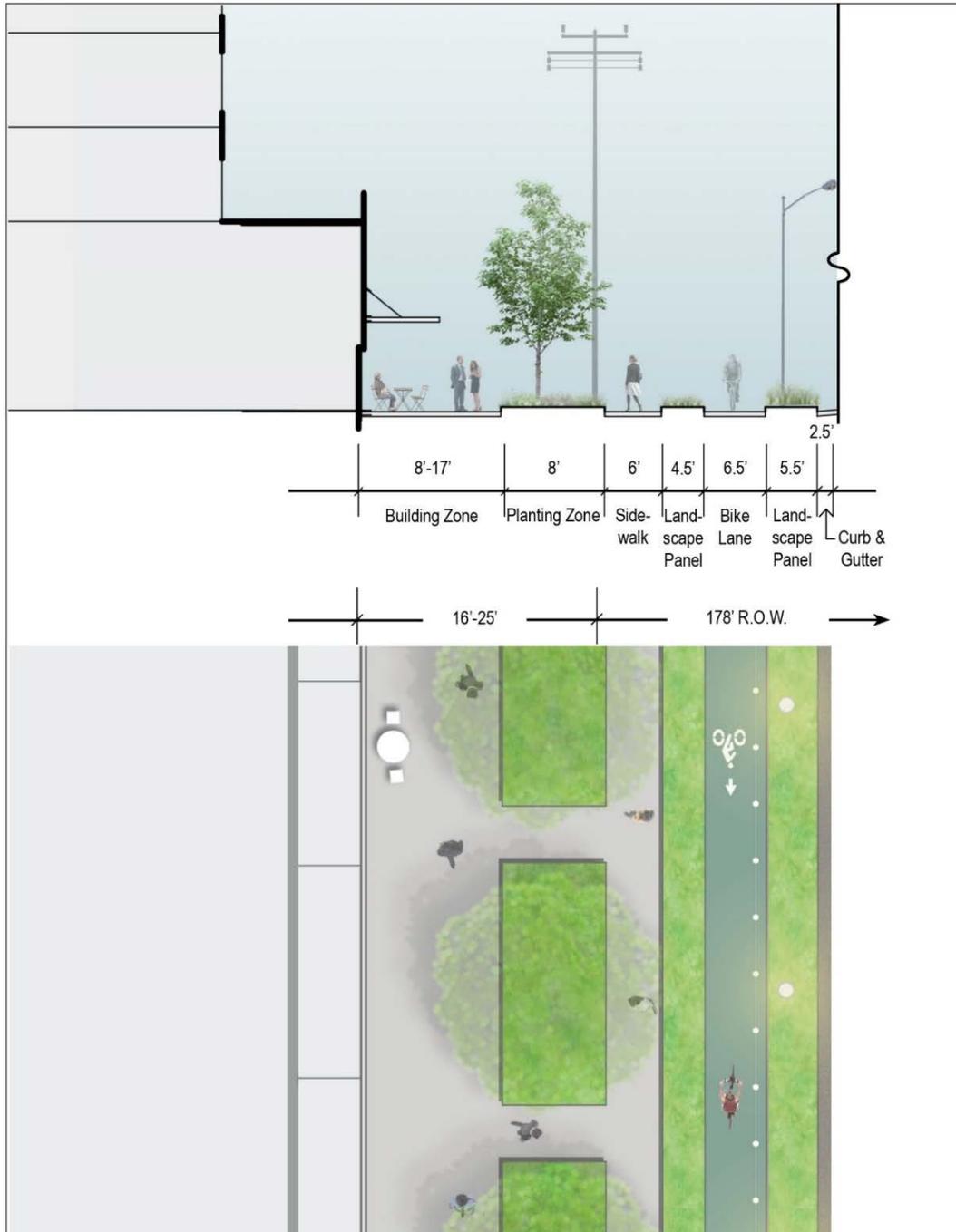
Figure 7 – Transit Boulevard – Richmond Highway, North of Napper Road



Note 1: Typical street cross sections are depicted. Although dimensions are noted, final street design will require accommodation of all applicable road design infrastructure. Additionally, final street designs may vary as necessary to address other design and engineering goals and requirements.

Note 2: VDOT requires a 1-foot maintenance buffer at the back of the sidewalk or shared use path on the edge of the right-of-way.

Figure 8 – Transit Boulevard – Richmond Highway, South of Napper Road



Note 1: Typical street cross sections are depicted. Although dimensions are noted, final street design will require accommodation of all applicable road design infrastructure. Additionally, final street designs may vary as necessary to address other design and engineering goals and requirements.

Note 2: VDOT requires a 1-foot maintenance buffer at the back of the sidewalk or shared use path on the edge of the right-of-way.

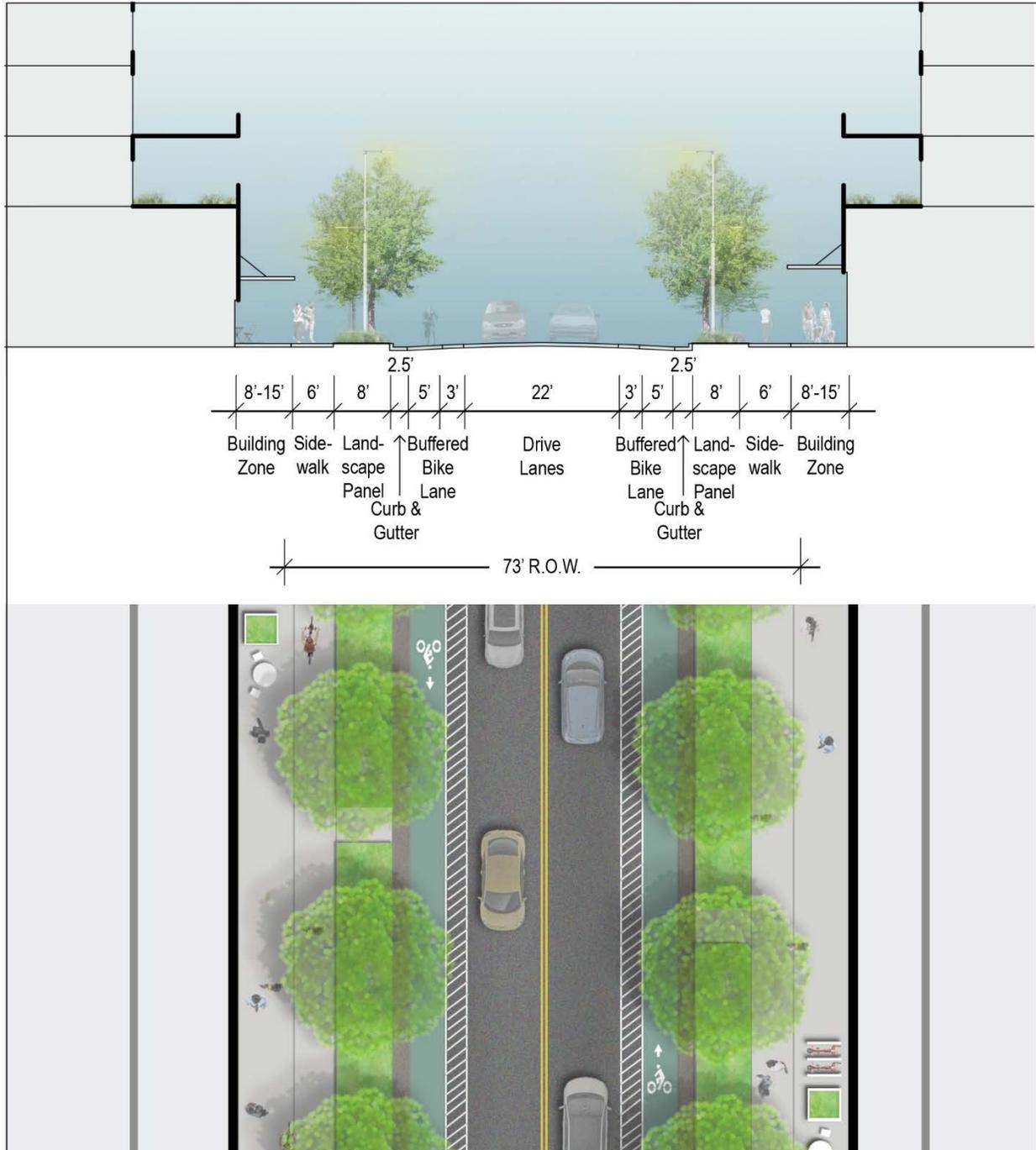
Major Avenue

A Major Avenue (Figure 9) is planned in the Hybla Valley/Gum Springs CBC and will largely function as a parallel facility to Richmond Highway. Major Avenues typically have one to two travel lanes in each direction, a slower design speed than the Transit Boulevard, and may include elements such as pedestrian bulb-outs at intersections, frequent pedestrian crossings, contiguous bike lanes and sidewalks. Medians are not preferred but may be necessary to provide a pedestrian refuge or turn lane(s). The character of the streetscape should generally be determined by the pedestrian activities generated by the adjacent land uses rather than the street classification.

Major Avenue Cross-section dimensions:

- Drive Lanes – 1 to 2 travel lanes per direction. 11-foot typical for each lane; however, lane widths may vary based on site characteristics and anticipated traffic volumes.
- On-Street Parking – Parallel, on-street parking is optional for the Major Avenue. If on-street parking is provided, it should be located between the travel lanes and the bicycle lane.
- Bicycle Lane – A 5-foot on-road dedicated bike lane with a 3-foot buffer.
- Landscape Panel – A minimum of 8-foot wide panel for landscaping and amenity areas. Street trees should be evenly spaced and understory vegetation should include hardy shrubs and ground cover. Street lights should be sited between trees to minimize conflicts with branches. Amenities such as bicycle racks, bus shelters, seating areas, and other furnishings may be located in paved areas between street trees.
- Sidewalk – A 6-foot sidewalk on both sides of the street. A 1-foot VDOT maintenance buffer behind the sidewalk should be included in the right-of-way.
- Building Zone – An 8 to 15-foot wide building zone. When ground-level retail use is provided in a building, the building zone may be used for retail browsing or outdoor dining. Residential uses may have stoops, porches and/or stairs within this zone. Supplemental plantings (to include shade and flowering trees, shrubs, flowering plants, ground cover, and grasses) may also be located in the building zone.

Figure 9 – Major Avenue Street Cross-section with one travel lane in each direction



Note 1: Typical street cross sections are depicted. Although dimensions are noted, final street design will require accommodation of all applicable road design infrastructure. Additionally, final street designs may vary as necessary to address other design and engineering goals and requirements.

Note 2: VDOT requires a 1-foot maintenance buffer at the back of the sidewalk or shared use path on the edge of the right-of-way.

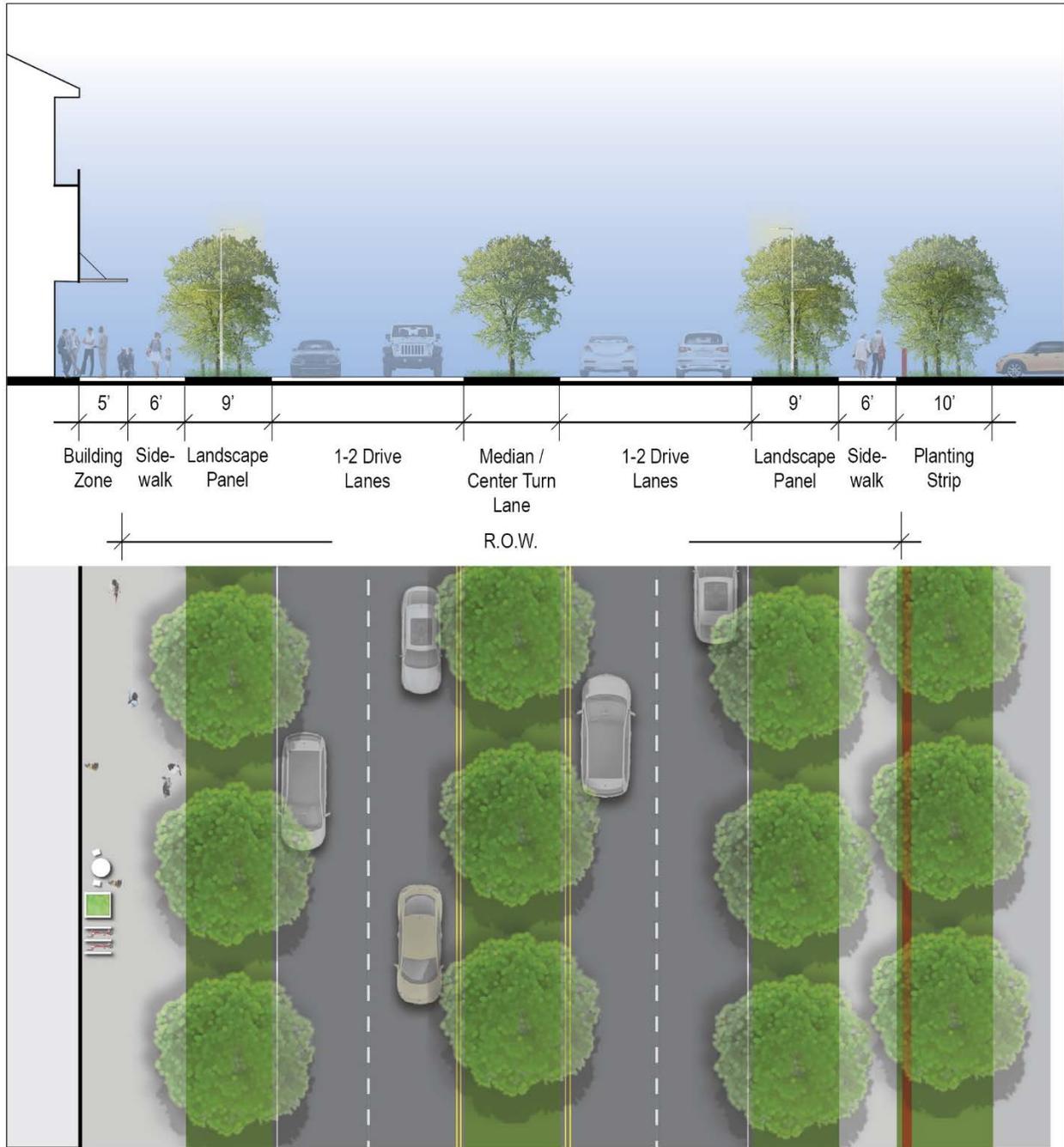
Kings Highway (South of Jamaica Drive) and Mount Vernon Memorial Highway

Kings Highway and Mount Vernon Memorial Highway are Major Avenues (Figure 10) that link collector and local roads to major roadways. They are generally between two and four lanes wide and may carry high volumes of traffic. Kings Highway extends from Telegraph Road north of the Huntington Metro area to another intersection with Telegraph Road near Huntley Meadows Park to the south. Mount Vernon Memorial Highway links Richmond Highway to George Washington's Mount Vernon estate. They are located in the mature areas of the county and include sections based on older design standards that may limit certain streetscape amenities from being fully realized.

Kings Highway and Mount Vernon Memorial Highway (not including the portion of North Kings Highway between the Huntington Metrorail Station and Jamaica Drive) Cross-section dimensions:

- Drive Lanes – 1 to 2 travel lanes per direction. 11-foot typical for each lane; however, lane widths may vary based on site characteristics and anticipated traffic volumes. A 2.5-foot wide curb and gutter should be located between the travel lanes and the landscape panel.
- Landscape Panel – A minimum of 9-foot wide panel for landscaping and amenity areas. Street trees should be evenly spaced and understory vegetation should include hardy shrubs and ground cover. Street lights should be sited between trees to minimize conflicts with branches. Amenities such as bicycle racks, bus shelters, seating areas, and other furnishings may be located in paved areas between street trees.
- Sidewalk – A 6-foot sidewalk on both sides of the street. A 1-foot VDOT maintenance buffer should be included in the right-of-way.
- Building Zone – A 5-foot wide zone when a building is adjacent to the street. When ground-level retail use is provided in a building, the building zone may be used for retail browsing or outdoor dining. Residential uses may have stoops, porches and/or stairs within this zone. Supplemental plantings (to include shade and flowering trees, shrubs, flowering plants, ground cover, and grasses) may also be located in the building zone.
- Planting Strip – A 10-foot wide strip for landscaping when surface parking is adjacent to the street. Street trees should be evenly spaced and understory vegetation should include hardy shrubs and ground cover. A low, masonry wall is encouraged to be placed adjacent to the sidewalk to help buffer pedestrians from parked vehicles.

Figure 10 – King Highway and Mount Vernon Memorial Highway Cross-section



Note 1: Typical street cross sections are depicted. Although dimensions are noted, final street design will require accommodation of all applicable road design infrastructure. Additionally, final street designs may vary as necessary to address other design and engineering goals and requirements.

Note 2: VDOT requires a 1-foot maintenance buffer at the back of the sidewalk or shared use path on the edge of the right-of-way.

North Kings Highway (Huntington Metrorail Station to Jamaica Drive)

North Kings Highway, between the Huntington Metrorail Station and Jamaica Drive, is a four-lane roadway with left turn lanes and narrow sidewalks. Land uses along this portion of Kings Highway are mostly single- or multi-family residential uses, with some neighborhood-serving commercial, and Mount Eagle Elementary School. Building setbacks are minimal and there is limited available right-of-way outside of the curb. There is high pedestrian activity due to the proximity of the Huntington Metrorail station and the elementary school. Steep hills north of the station, near the Huntington Club condominiums, make cycling and walking challenging along this section of roadway. The planned BRT system is anticipated to run on North Kings Highway from the Huntington Metrorail station to Richmond Highway. Despite the limited right-of-way on North Kings Highway, some pedestrian improvements are possible that could enhance pedestrian safety and comfort, reduce the speed of vehicles, and encourage drivers and pedestrians to be more alert. Pedestrian improvements may include, but not be limited to elements such as:

- Street lights: pedestrian-scaled streets lights could be installed between the sidewalk and the roadway curb on both sides of the highway.
- Sidewalks: existing sidewalks could be widened to incorporate the grass strip between the curb and the existing sidewalk to provide more room for people to walk side-by-side and to pass each other. New sidewalks will enhance the appearance of the corridor by replacing old concrete with a new, consistent surface.
- Landscaping and other VDOT approved barriers: landscaping, decorative bollards, or other barriers that are acceptable to VDOT could be installed between the sidewalk and the curb to provide a level of security for pedestrians by placing elements between them and moving vehicles. Such measures encourage drivers to be more alert by better defining the edges of the roadway. This treatment may be particularly beneficial along roadway curves and at intersections.
- Medians: concrete or planted medians could be used to reduce the speed of moving vehicles and provide visual cues to drivers to slow down. Medians may also reduce the distance pedestrians must cross at one time by providing a refuge space. While it may not be possible to have a continuous center medians the entire portion of North Kings Highway, there may be locations that are appropriate for small medians and/or pedestrian refuges.
- Enhanced crosswalks and pedestrian signals: high-visibility crosswalks could be installed at certain intersection crossings where there is significant pedestrian activity. High-Intensity Activated Crosswalk (HAWK) Beacon traffic control devices or other mid-block crossing facilities may be appropriate in certain instances.
- Wayfinding signage: pedestrian wayfinding signage could be installed to provide directional information regarding important destinations such as the Metrorail Station, BRT, major streets, parks, schools, heritage resources, neighborhoods, and retail establishments.

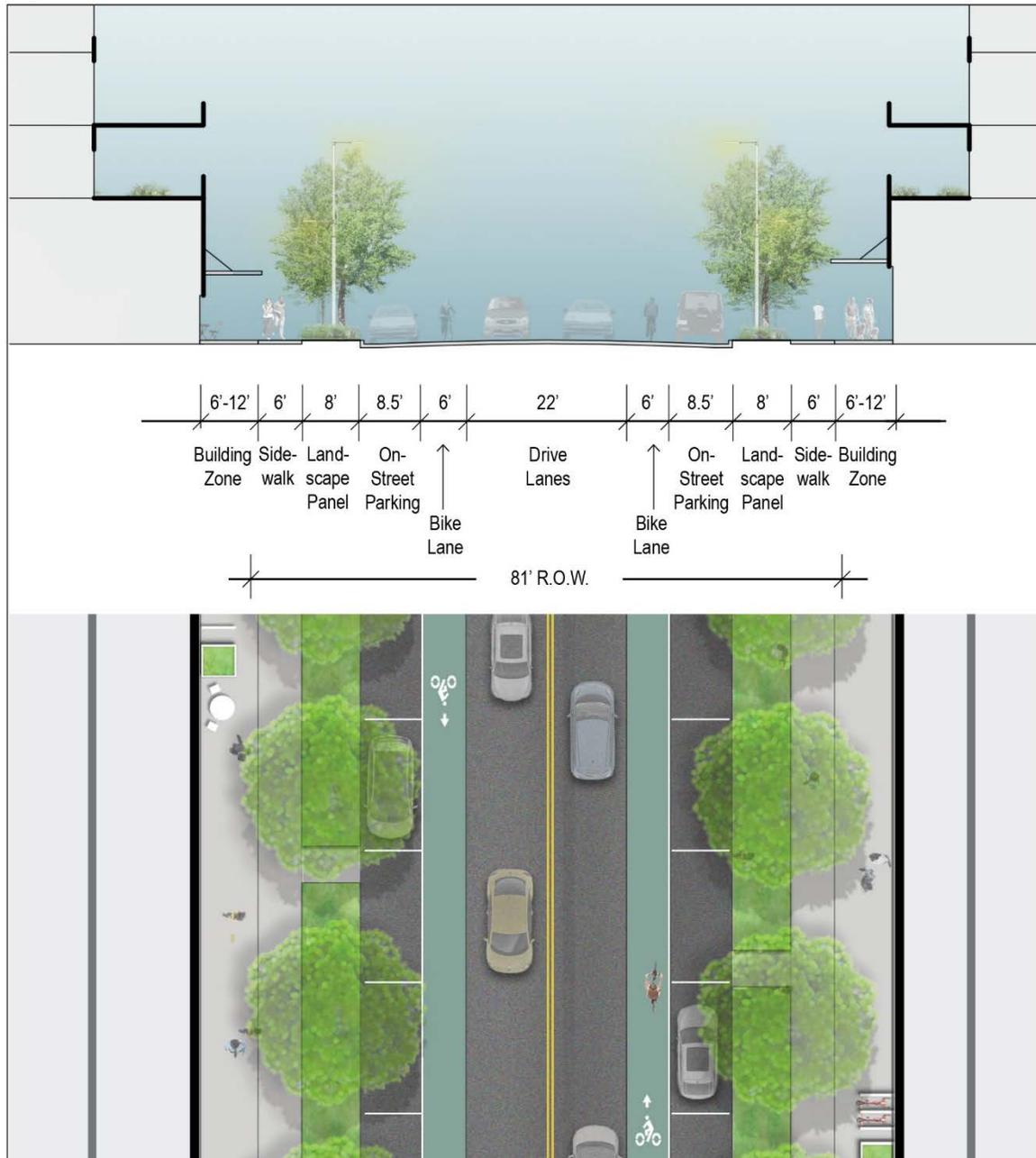
Avenues

Avenues (Figure 11) will connect slower speed local streets to higher speed facilities like the Transit Boulevard. Avenue streets typically have one to two travel lanes in each direction. They have slower design speeds than Boulevards and may include elements such as pedestrian bulb-outs at intersections, frequent pedestrian crossings, parallel on-street parking, contiguous bike lanes and sidewalks to maximize walkability. Medians are not preferred but may be necessary to provide a pedestrian refuge or turn lane(s). The character of the streetscape should generally be determined by the pedestrian activities generated by the adjacent land uses rather than the street classification.

Avenue Cross-section dimensions:

- Drive Lanes – 1 to 2 travel lanes per direction or 1 travel lane per direction with a center turn lane. 11 foot typical for each lane; however, lane widths may vary based on site characteristics and anticipated traffic volumes.
- Bicycle Lane – A 6-foot on-road dedicated bike lane.
- On-Street Parking – 8.5-foot wide parallel, on-street parking lane in each direction. The width of the parking lane includes a 2.5-foot wide curb and gutter.
- Landscape Panel – A minimum of 8-foot wide panel for landscaping and amenity areas. Street trees should be evenly spaced and understory vegetation should include hardy shrubs and ground cover. Street lights should be sited between trees to minimize conflicts with branches. Amenities such as bicycle racks, bus shelters, seating areas, and other furnishings may be located in paved areas between street trees.
- Sidewalk – A 6-foot sidewalk on both sides of the street. A 1-foot VDOT maintenance buffer should be included in the right-of-way.
- Building Zone – A 6-12 foot-wide building zone. When ground-level retail use is provided in a building, the building zone may be used for retail browsing or outdoor dining. Residential uses may have stoops, porches and/or stairs within this zone. Supplemental plantings (to include shade and flowering trees, shrubs, flowering plants, ground cover, and grasses) may also be located in the building zone.

Figure 11 – Avenue Cross-section with one travel lane in each direction



Note 1: Typical street cross sections are depicted. Although dimensions are noted, final street design will require accommodation of all applicable road design infrastructure. Additionally, final street designs may vary as necessary to address other design and engineering goals and requirements.

Note 2: VDOT requires a 1-foot maintenance buffer at the back of the sidewalk or shared use path on the edge of the right-of-way.

Livability Spine (Avenue)

Livability Spines (Figure 12) are planned for the Penn Daw, Beacon/Groveton, and Woodlawn CBCs. A Livability Spine is a specialized type of Avenue that will function as a pedestrian corridor and as a place for people to enjoy outdoor activities. The Livability Spine includes a Pedestrian Zone on each side of the roadway that is comprised of a building zone, a Linear Park space, a pedestrian facility, and a landscape panel. The Pedestrian Zone on the side of the Livability Spine in closest proximity to the BRT station should include a walkway that is wide enough to accommodate both pedestrians and cyclists for recreational purposes. Walkway surfaces should be constructed from high-quality, bike and pedestrian-friendly materials, and have well-defined edges. The Pedestrian Zone on the side of the Livability Spine that is furthest from the BRT station should include a sidewalk intended for pedestrian traffic only. Elements within the Pedestrian Zone may have variable dimensions (within the specified ranges) to allow for flexibility in the design in response to adjacent building uses and the desired features and activities within the Linear Park. When facility dimensions change between blocks or developments, appropriate transitions should be incorporated. The minimum widths of the Pedestrian Zone elements are provided in the cross-section description. Roundabouts may be considered to serve as a focal point and help slow the flow of traffic.

Livability Spine Cross-section dimensions:

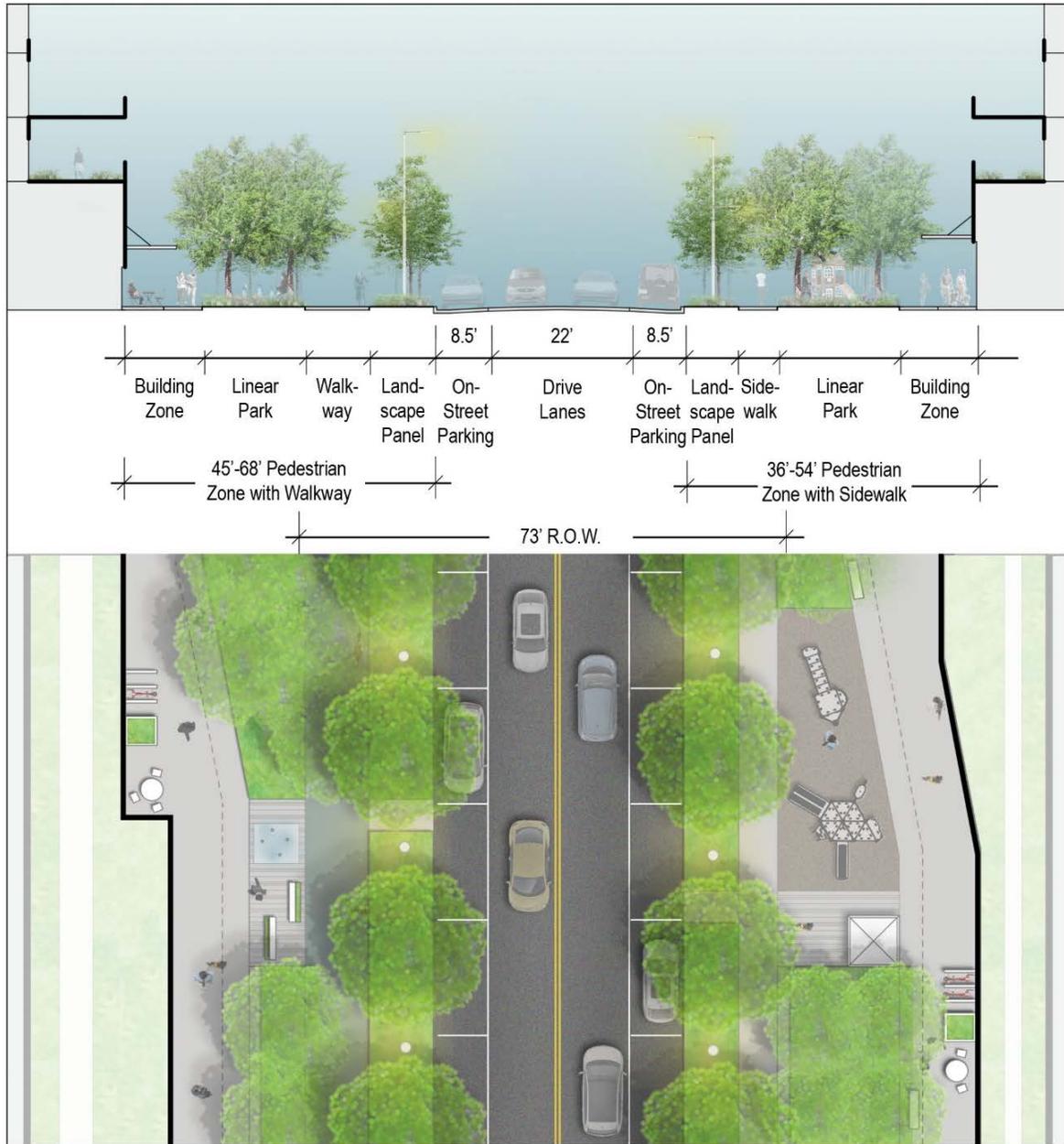
- Drive Lanes – 1 to 2 travel lanes per direction or 1 travel lane per direction with a center turn lane (11 foot typical for each lane; however, lane widths may vary based on site characteristics and anticipated traffic volumes).
- On-Street Parking – 8.5-foot wide parallel, on-street parking lane in each direction. The width of the parking lane includes a 2.5-foot wide curb and gutter.
- Pedestrian Zone with Walkway – Located on the side of the Livability Spine closest to the BRT station, a 45 to 68-foot wide zone that includes a landscape panel, walkway, Linear Park, and building zone.
 - Landscape Panel – A minimum of 8-foot wide panel for landscaping. Street trees should be evenly spaced and understory vegetation should include hardy shrubs and ground cover. Street lights should be sited between trees to minimize conflicts with branches. Amenities such as bicycle racks, bus shelters, seating areas, and other furnishings may be located in paved areas between street trees.
 - Walkway – A minimum of a 10-foot wide facility designed to serve for both pedestrian and bicycle access. Walkway surfaces should be constructed from high-quality, bike and pedestrian-friendly materials, and have well-defined edges. A 1-foot VDOT maintenance buffer should be included in the right-of-way.
 - Linear Park – A 15 to 30-foot wide Linear Park. This area is designated for programmed activity areas such as playgrounds, plazas, kiosks, and social gathering spaces.
 - Building Zone – A 12 to 20-foot building zone including space for building access and amenities as well as a through lane for pedestrians that is a minimum of 6-foot wide. When ground-level retail use is provided in a building, the

building zone may be used for retail browsing or outdoor dining. Residential uses may have stoops, porches and/or stairs within this zone. Supplemental plantings (to include shade and flowering trees, shrubs, flowering plants, ground cover, and grasses) may also be located in the building zone. In all cases, a 6-foot wide pedestrian route must be maintained between the building zone and the Linear Park.

- Pedestrian Zone with Sidewalk – 36 to 54-foot wide zone that includes a Landscape Panel, sidewalk, Linear Park, and building zone.
 - Landscape Panel – A minimum of 8-foot wide panel for landscaping. Street trees should be evenly spaced and understory vegetation should include hardy shrubs and ground cover. Street lights should be sited between trees to minimize conflicts with branches. Amenities such as bicycle racks, bus shelters, seating areas, and other furnishings may be located in paved areas between street trees.
 - Sidewalk – A 6-foot sidewalk adjacent to the landscape panel. Walkway surfaces should be constructed from high-quality, pedestrian-friendly materials, and have well-defined edges. A 1-foot VDOT maintenance buffer should be included in the right-of-way.
 - Linear Park – A 10 to 20-foot wide Linear Park. This area is designated for programmed activity areas such as playgrounds, plazas, kiosks, and social gathering spaces.
 - Building Zone – A 12 to 20-foot building zone including space for building access and amenities as well as a through lane for pedestrians that is a minimum of 6-foot wide. When ground-level retail use is provided in a building, the building zone may be used for retail browsing or outdoor dining. Residential uses may have stoops, porches and/or stairs within this zone. Supplemental plantings (to include shade and flowering trees, shrubs, flowering plants, ground cover, and grasses) may also be located in the building zone. In all cases, a 6-foot wide pedestrian route must be maintained between the building zone and the Linear Park.

The cross-section for the Livability Spine depicts the landscape panels and adjacent pedestrian facilities within the public right-of-way. Alternately, the landscape panels and adjacent pedestrian facilities may be creatively incorporated into the Linear Park space, outside of the right-of-way, as a means to foster innovative design of the Linear Park. Flexibility in the width and location of the landscape panels, sidewalk, pedestrian/bicycle walkway, and overall right-of-way may be considered in such circumstances. Under this scenario where the sidewalk/walkway and the landscape panel in the Pedestrian Zone are creatively integrated into the Linear Park and are not included in public right-of-way, these features may be considered to provide publicly accessible urban park space. Perpetual maintenance of all facilities within the Pedestrian Zone should be provided by the property owner.

Figure 12 – Livability Spine Cross-section



Note 1: Typical street cross sections are depicted. Although dimensions are noted, final street design will require accommodation of all applicable road design infrastructure. Additionally, final street designs may vary as necessary to address other design and engineering goals and requirements.

Note 2: VDOT requires a 1-foot maintenance buffer at the back of the sidewalk or shared use path on the edge of the right-of-way.

Note 3: Flexibility in the width and location of the landscape panels, sidewalks and walkways may be considered in circumstances where it is desired for these facilities to be creatively incorporated into the Linear Park space. If this option is pursued, these facilities should not be located within the right-of-way and should be privately maintained. See Plan text for additional information.

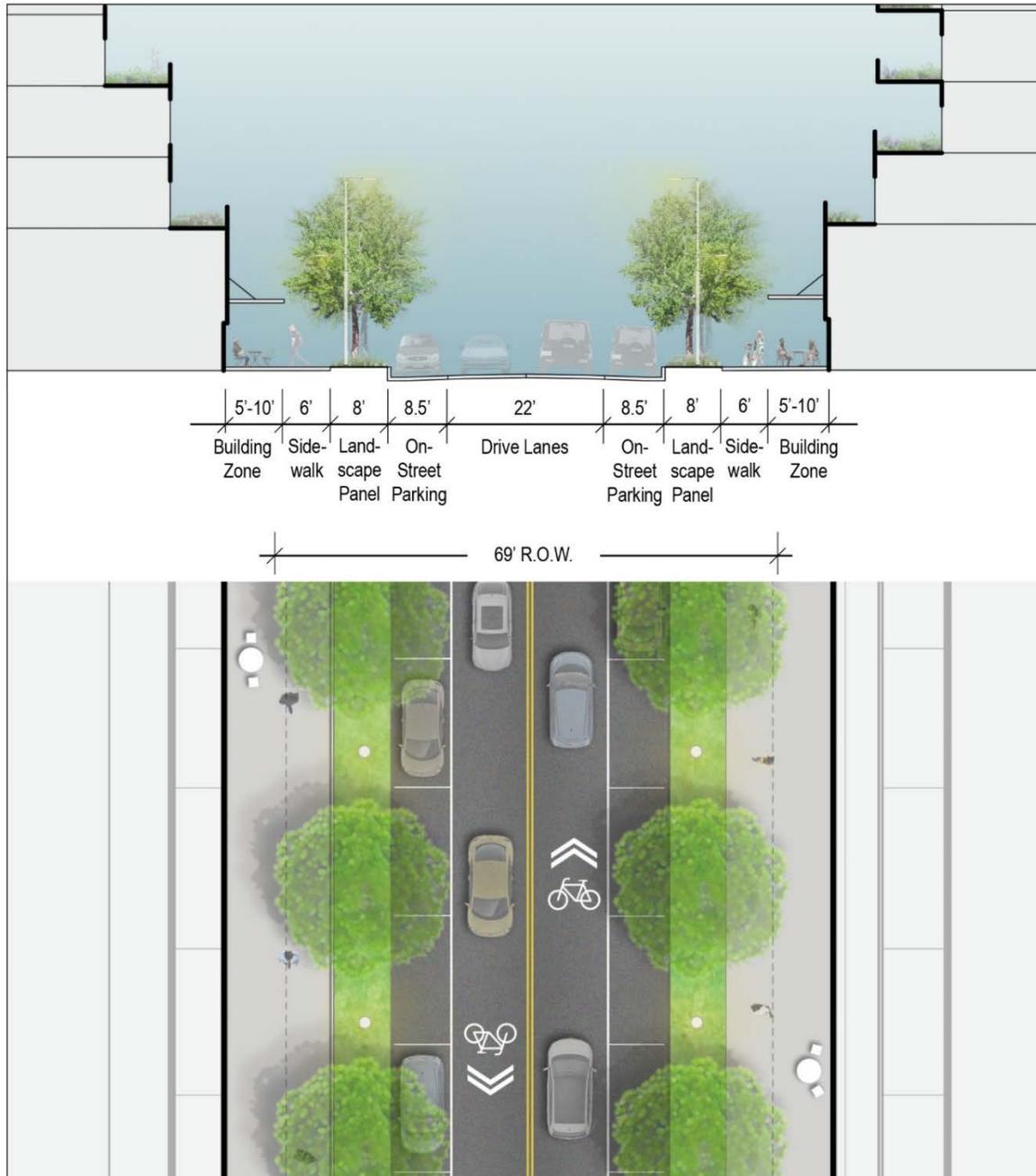
Local Streets

Local Streets (Figure 13) will generally have the lowest traffic volumes and slowest moving traffic. Local Street cross-sections are narrow, with one lane in either direction, and are flanked by parallel, on-street parking on both sides of the road, wherever feasible. Due to low vehicle speeds, bicycles may be accommodated in the travel lane rather than in a dedicated bicycle lane. Measures to slow traffic such as raised mid-block pedestrian crossings, small traffic rotaries, and sidewalk bulb-outs at intersections may be appropriate.

Local Street cross-section dimensions:

- Drive Lane – one travel lane per direction (11 foot typical for each lane; however, lane widths may vary based on site characteristics and anticipated traffic volumes).
- On-Street Parking – 8.5-foot wide parallel, on-street parking lane in each direction. The width of the parking lane includes a 2.5-foot wide curb and gutter.
- Landscape Panel – A minimum 8-foot wide panel for landscaping and amenity areas. Street trees should be evenly spaced and understory vegetation should include hardy shrubs and ground cover. Street lights should be sited between trees to minimize conflicts with branches. Amenities such as bicycle racks, bus shelters, seating areas, and other furnishings may be located in paved areas between street trees.
- Sidewalk – 6-foot sidewalk on both sides of the street. A 1-foot VDOT maintenance buffer should be included in the right-of-way.
- Building Zone – A 5 to 10-foot building zone. When ground-level retail use is provided in a building, the building zone may be used for retail browsing or outdoor dining. Residential uses may have stoops, porches and/or stairs within this zone. Supplemental plantings (to include shade and flowering trees, shrubs, flowering plants, ground cover, and grasses) may also be located in the building zone.

Figure 13 – Local Street Cross-section



Note 1: Typical street cross sections are depicted. Although dimensions are noted, final street design will require accommodation of all applicable road design infrastructure. Additionally, final street designs may vary as necessary to address other design and engineering goals and requirements.

Note 2: VDOT requires a 1-foot maintenance buffer at the back of the sidewalk or shared use path on the edge of the right-of-way.

Ecological Spines Type 1 and Type 2 (Local)

The Ecological Spines have four distinct cross sections. Types 1 and 2 are part of the street network while Types 3 and 4 include only pedestrian facilities and green spaces. Information about Ecological Spines Types 3 and 4 is contained in the CBC recommendations section.

The Ecological Spine street type is a distinct local street unique to the Hybla Valley/Gum Springs CBC. These streets are envisioned to celebrate and reinvigorate the natural features within the CBC; they are anticipated to incorporate existing stream corridors into their designs, especially in areas where streams are proposed to be restored and/or day-lighted as part of redevelopment. Ecological Spines are generally residential in character with predominately passive recreational opportunities. They should be designed to mimic natural systems by providing off-line stormwater treatment that compliments the day-lighted/naturalized stream corridor. If day-lighting is not possible, off-line stormwater features should be utilized that feed the piped system but mimic natural landscape features such as wetland cells, wet meadows and infiltration facilities where soils and topography allow.

Type 1 (Figure 14) is characterized by buildings located on both sides of the street. Type 2 is anticipated to have low-density residential buildings on the side of the street that faces existing communities. Type 2 (Figure 15) Ecological Spines provide the opportunity for pedestrian connections to existing residential neighborhoods along the edges of proposed redevelopment areas. Both street types are planned to incorporate a wide bioswale/water channel designed to be lightly programmed with passive recreation opportunities such as boardwalks, gathering areas, trails, and similar uses along the edges of the waterway. Periodic pedestrian bridges may span these waterways to provide pedestrian access to both sides of the waterway. The vehicular travel portion of the Ecological Spine is narrow, with one lane in either direction and no on-street parking. A shared use path with connections into the existing neighborhoods is envisioned, where feasible. The following recommendations are provided to achieve the streetscape character of Ecological Spines, Types 1 and 2:

Ecological Spine Type 1 Cross-section dimensions (as shown from left to right):

- Building Zone – A 6 to 10-foot wide building zone. When ground-level retail use is provided in a building, the building zone may be used for retail browsing or outdoor dining. Residential uses may have stoops, porches and/or stairs within this zone. Supplemental plantings (to include shade and flowering trees, shrubs, flowering plants, ground cover, and grasses) may also be located in the building zone.
- Sidewalk – A 6-foot sidewalk adjacent to the building zone.
- Bioswale/Water Channel - A 44 to 64 foot wide linear green including a waterway where possible. The bioswale/water channel and green space is envisioned to be lightly programmed with passive recreation opportunities such as boardwalks, gathering areas, trails, and similar uses on the edges of the waterway, which would not be adversely impacted by periodic flooding, in the flood-prone areas. The planting palette should consist of plant species native to Virginia and arranged to mimic natural communities. Non-native invasive species should not be planted.
- Shared Use Path – A 10-foot shared use path is proposed for one side of the facility. A 1-foot VDOT maintenance buffer should be included in the right-of-way.

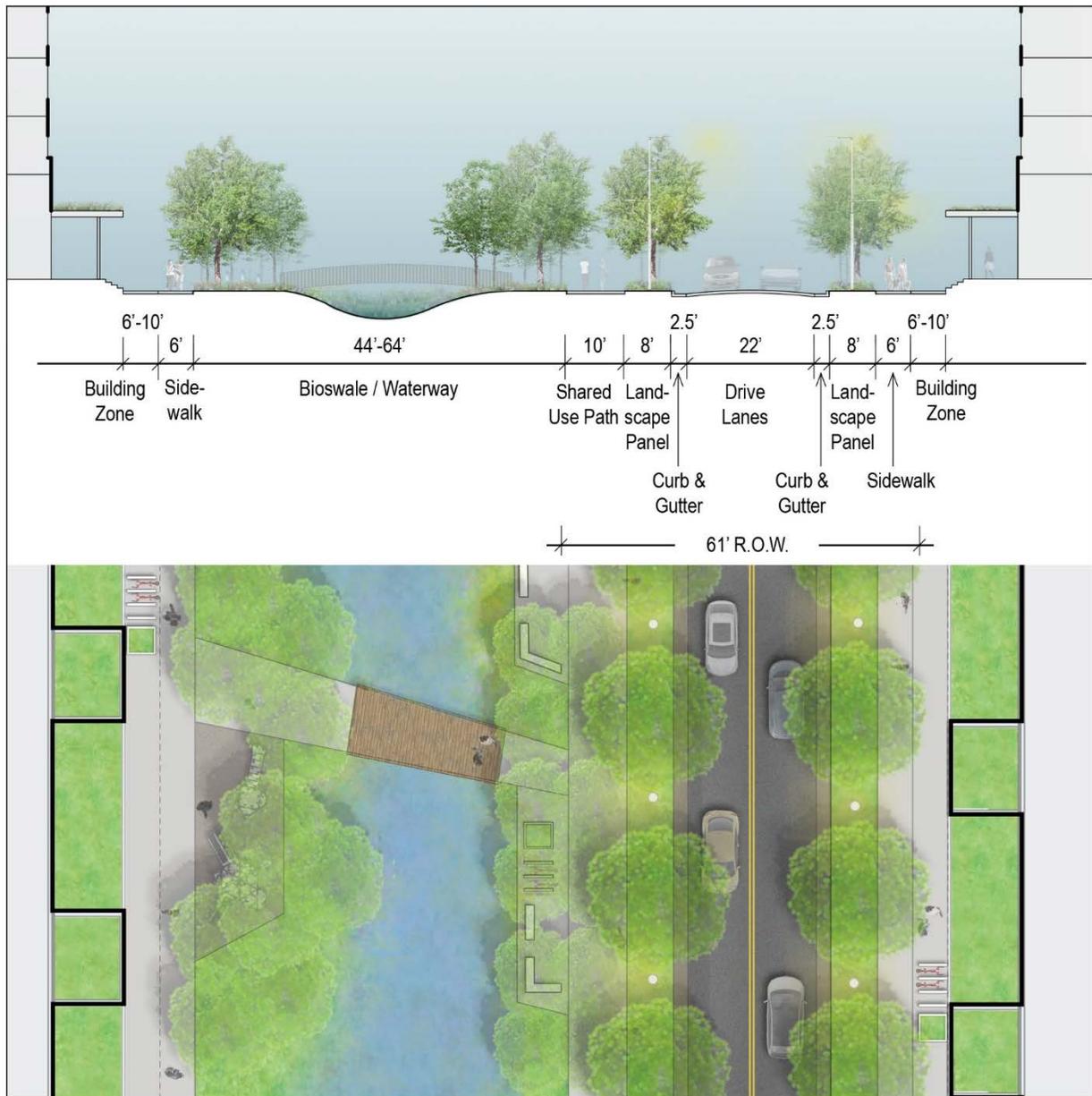
- Landscape Panel – A minimum of 8-foot wide panel for landscaping and amenity areas. Street trees should be evenly spaced and understory vegetation should include hardy shrubs and ground cover. Street lights should be sited between trees to minimize conflicts with branches. Amenities such as bicycle racks, bus shelters, seating areas, and other furnishings may be located in paved areas between street trees.
- Curb and gutter - A 2.5-foot curb and gutter.
- Drive Lane - one travel lane per direction (11 foot typical for each lane; however, lane widths may vary based on site characteristics and anticipated traffic volumes).
- Curb and gutter - A 2.5-foot curb and gutter.
- Landscape Panel – A minimum of 8-foot wide panel for landscaping and amenity areas. Street trees should be evenly spaced and understory vegetation should include hardy shrubs and ground cover. Street lights should be sited between trees to minimize conflicts with branches. Amenities such as bicycle racks, bus shelters, seating areas, and other furnishings may be located in paved areas between street trees.
- Sidewalk – A 6-foot sidewalk adjacent to the building zone. A 1-foot VDOT maintenance buffer should be included in the right-of-way.
- Building Zone – A 6 to 10-foot wide building zone. When ground-level retail use is provided in a building, the building zone may be used for retail browsing or outdoor dining. Residential uses may have stoops, porches and/or stairs within this zone. Supplemental plantings (to include shade and flowering trees, shrubs, flowering plants, ground cover, and grasses) may also be located in the building zone.

Ecological Spine Type 2 Cross-section dimensions (as shown from left to right):

- Building Zone – A 6 to 10-foot wide building zone. When ground-level retail use is provided in a building, the building zone may be used for retail browsing or outdoor dining. Residential uses may have stoops, porches and/or stairs within this zone. Supplemental plantings (to include shade and flowering trees, shrubs, flowering plants, ground cover, and grasses) may also be located in the building zone.
- Sidewalk – A 6-foot sidewalk adjacent to the building zone. A 1-foot VDOT maintenance buffer should be included in the right-of-way.
- Landscape Panel – A minimum of 8-foot wide panel for landscaping and amenity areas. Street trees should be evenly spaced and understory vegetation should include hardy shrubs and ground cover. Street lights should be sited between trees to minimize conflicts with branches. Amenities such as bicycle racks, bus shelters, seating areas, and other furnishings may be located in paved areas between street trees.
- Drive Lane - one travel lane per direction. (12 foot minimum for each lane where there is no curb and gutter; however, lane widths may vary based on the need for curb and gutter, site characteristics and anticipated traffic volumes).
- Landscape Panel – A minimum of 8-foot wide panel for landscaping and amenity areas. Street trees should be evenly spaced and understory vegetation should include hardy shrubs and ground cover. Street lights should be sited between trees to minimize conflicts with branches. Amenities such as bicycle racks, bus shelters,

seating areas, and other furnishings may be located in paved areas between street trees.

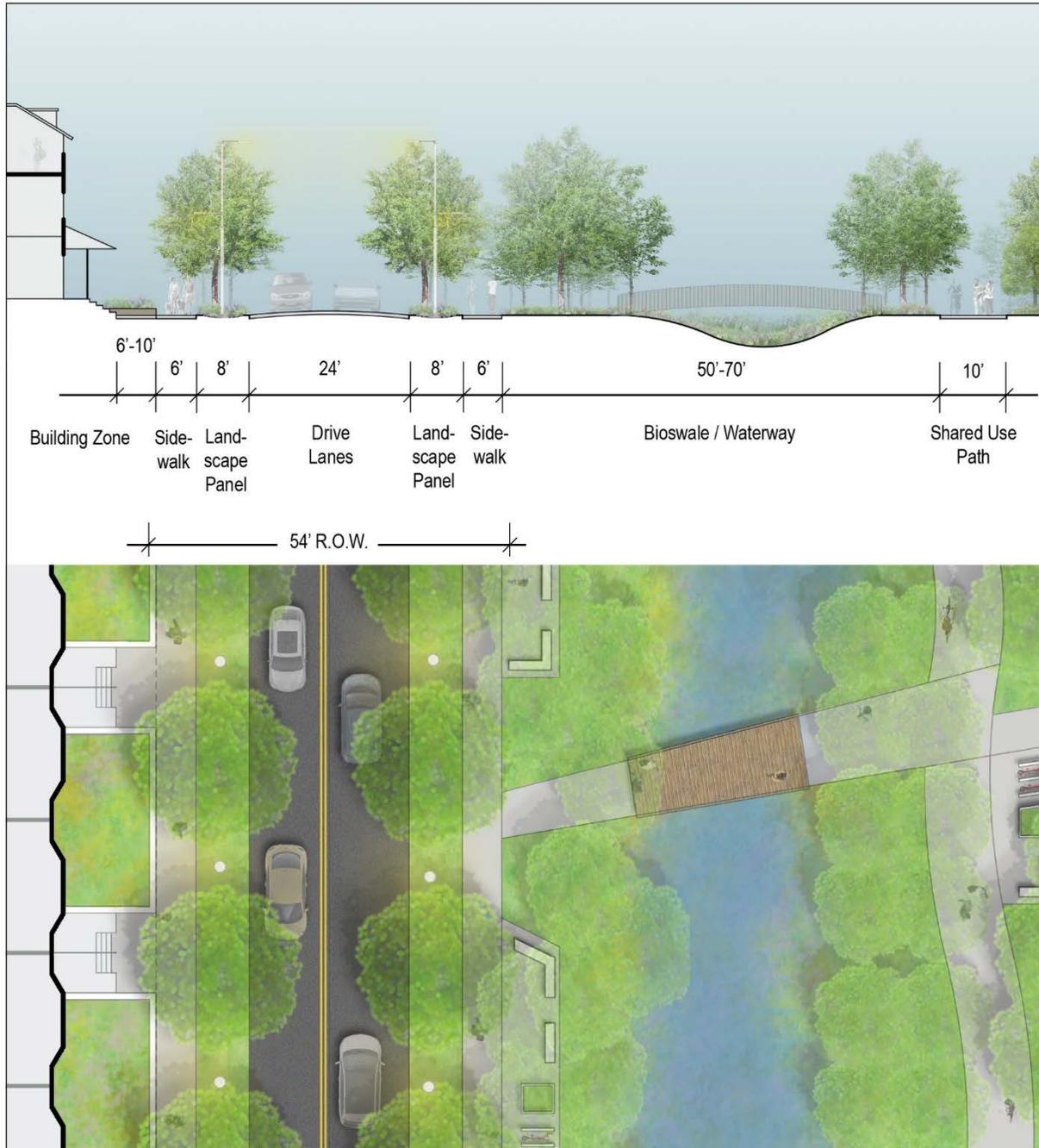
Figure 14– Ecological Spine Type 1 Cross-section



Note 1: Typical street cross sections are depicted. Although dimensions are noted, final street design will require accommodation of all applicable road design infrastructure. Additionally, final street designs may vary as necessary to address other design and engineering goals and requirements.

Note 2: VDOT requires a 1-foot maintenance buffer at the back of the sidewalk or shared use path on the edge of the right-of-way.

Figure 15 – Ecological Spine Type 2 Cross-section



Note 1: Typical street cross sections are depicted. Although dimensions are noted, final street design will require accommodation of all applicable road design infrastructure. Additionally, final street designs may vary as necessary to address other design and engineering goals and requirements.

Note 2: VDOT requires a 1-foot maintenance buffer at the back of the sidewalk or shared use path on the edge of the right-of-way.

- Sidewalk – A 6-foot sidewalk adjacent to the landscape panel. A 1-foot VDOT maintenance buffer should be included in the right-of-way.
- Bioswale/Water Channel - A 50 to 70 foot wide linear green including a waterway where possible. The bioswale/water channel and green space is envisioned to be lightly programmed with passive recreation opportunities such as boardwalks, gathering areas, trails, and similar uses on the edges of the waterway, which would not be adversely impacted by periodic flooding, in the flood-prone areas. The planting palette should consist of plant species native to Virginia and arranged to mimic natural communities. Non-native invasive species should not be planted.
- Shared Use Path – A 10-foot shared use path is proposed for one side of the bioswale/water channel.

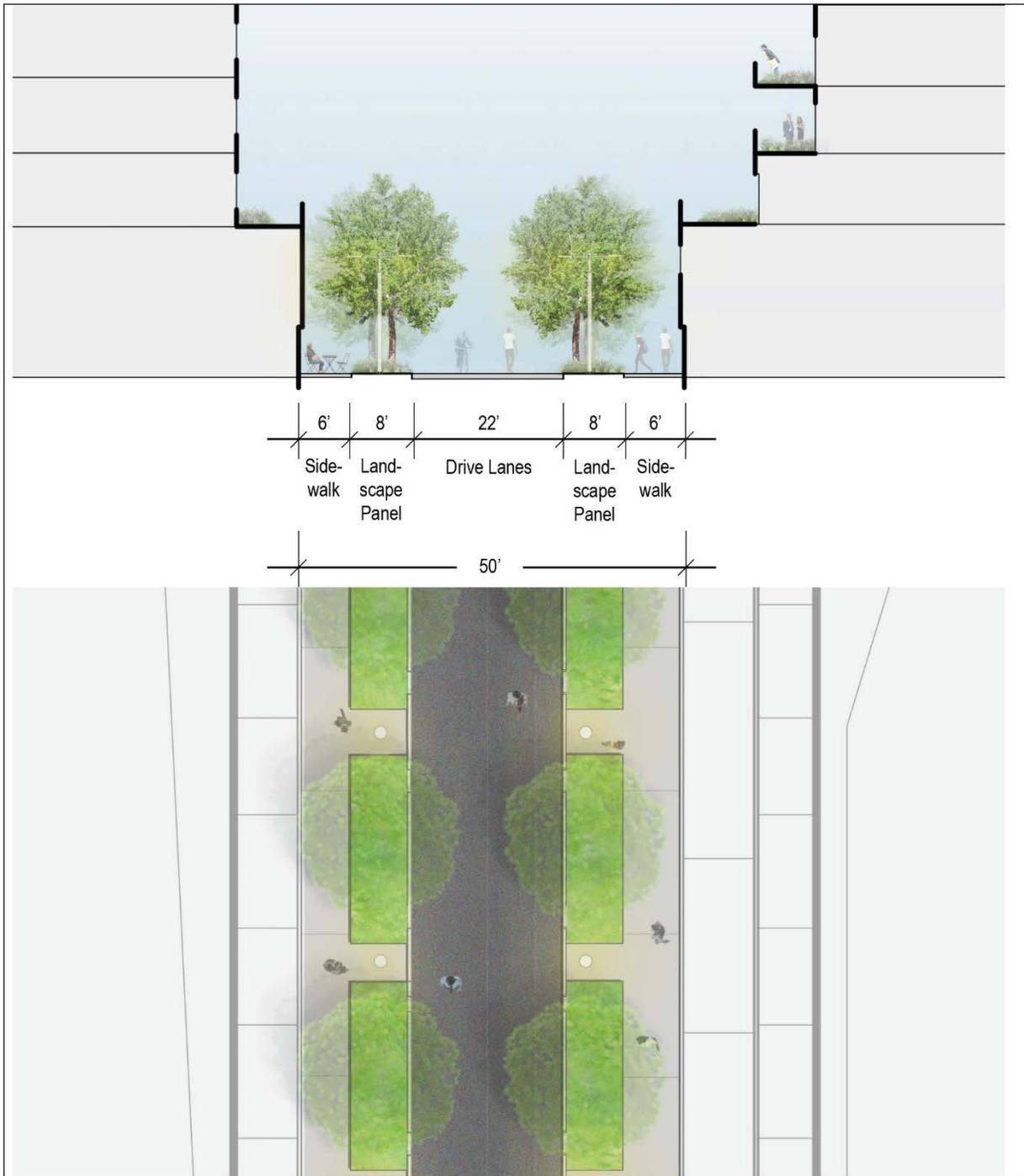
Shared Lane/Alley (Private)

The Shared Lane/Alley (Figure 16) is a private street to be located within proposed developments where needed for pedestrian access and utilitarian purposes. It may be used to provide access into parking garages and loading areas as well as for emergency vehicles. Shared Lanes may be incorporated as part of the pedestrian and bicycle network. They should include certain features of public streets such as landscape panels and sidewalks. The following recommendations are provided to achieve the streetscape character of Shared Lane/Alleys:

Shared Lane/Alley Cross-section dimensions:

- Drive Lane – 22 feet which may be used to accommodate vehicles, pedestrians, cyclists, and/or emergency vehicles, as needed.
- Landscape Panel – A minimum of 8-foot wide panel for landscaping. Street trees should be evenly spaced and understory vegetation should include hardy shrubs and ground cover. Street lights should be sited between trees to minimize conflicts with branches.
- Sidewalk – A 6-foot sidewalk adjacent to the building.

Figure 16 – Shared Lane/Alley Cross-section



Note 1: Typical street cross sections are depicted. Although dimensions are noted, final street design will require accommodation of all applicable road design infrastructure. Additionally, final street designs may vary as necessary to address other design and engineering goals and requirements.

IMPLEMENTATION

Achieving the vision for the Richmond Highway Corridor will necessitate an implementation approach that is innovative, flexible and comprehensive. Policies, regulatory tools and processes need to be identified and adapted as appropriate to facilitate the desired results. Partnerships and cooperation among stakeholders will be essential to realizing the vision. Successful implementation will require a commitment to the overall vision, including the guiding planning principles, the corridor-wide and CBC policies, and the specific vision for the individual CBCs, including the grid of streets, the open space network, and the urban design guidance.

The following elements, among potentially others, will be part of a successful implementation plan: policy and Plan guidance; regulatory tools; design standards and the ability to allow for flexibility within those standards; funding mechanisms; the ability to evolve processes with time and new information, the identification of funding mechanisms; Such elements will be used to guide decisions on land use, transportation, urban design, urban parks and other infrastructure improvements. Implementation of the Comprehensive Plan will occur primarily through the rezoning process, in which a determination will be made as to whether a development proposal is in conformance with the Plan's recommendations and whether its impacts are being adequately addressed through such things as commitments to high quality design and other Plan objectives, and through in-kind and monetary contributions such as those made toward transportation and/or public facility improvements needed to support new development.

Additional county and state policies and regulations may also guide decisions related to development along the corridor. These regulations need to be reviewed and updated as necessary for the vision to be implemented. For example, a full partnership with VDOT and VDRPT will be required to implement the multimodal environment that the Plan envisions in lieu of traditional design standards.

Flexibility

The CBC concept plans are an illustrative guide to how each of the CBCs may develop and are not meant to prescribe the exact form or appearance of future development proposals. There is flexibility in the implementation of these concept plans, provided there is general adherence to the function of the conceptual grid of streets, the open space network, building heights, total development intensity, and the activation of streets with retail and other ground-floor uses. A form-based approach has been used in the redevelopment options for certain Land Units in the CBCs that provides flexibility in the form, placement, and use of buildings. Under this approach, the total planned redevelopment potential and proportion of residential/non-residential land uses are further refined through the application of the urban design, open space, and streetscape recommendations.

The Plan also provides flexibility to exchange square footage among planned non-residential uses provided that a vibrant mixed-use community is achieved, the multimodal transportation needs are addressed, and certain non-residential uses are sited per the guidance in the Plan. There is also flexibility in the Plan to substitute planned non-residential uses for community serving

institutional uses under certain conditions. See the Flexibility Among Non-Residential Uses section in the Corridor-wide Guidelines for additional guidance.

Finally, the Plan provides flexibility in the implementation of some of the innovative concepts, such as the Livability Spines and the Ecological Spines. For example, the various components of the Livability Spine have flexible dimensions and, depending on the design, some components of the streetscape may be counted towards the urban parks requirement. How these issues are addressed will be evaluated during the review of specific development proposals.

Phasing

Development along the corridor will likely occur incrementally over a number of years. This incremental development is anticipated for the corridor as a whole, as well as for larger individual development projects. Incremental redevelopment must be balanced with the need for infrastructure and public facilities to support the development. This includes the transportation infrastructure, parks and recreational facilities, schools, and other public facilities needed to successfully support an increased population and employment base. Development applications must be reviewed in a manner that ensures appropriate phasing to the provision of these public improvements. Each phase of redevelopment will need to advance the goals and the vision in the Plan, and the construction of and/or commitment to the public facilities appropriate for each phase of development.

The first development project within a CBC that seeks to implement the redevelopment option should establish a sound framework for redevelopment of the whole CBC. Priorities that should be addressed in the earliest phases of site development planning include appropriate segments of roadway network (the grid of streets, Livability Spine and Ecological Spine), as well as appropriate pieces of the parks and open space network; adherence to the street types and corresponding cross-section(s); and pedestrian and bicycle access to the BRT stations.

The overall multimodal transportation network also will be implemented incrementally. This includes the phased implementation of BRT and Metrorail, as well as other improvements that increase the capacity of the transportation system, help enhance the efficiency of the existing transportation system, or assist in reducing the demand on the transportation system. Such phased improvements may include the implementation of the grid of streets, inclusion of Intelligent Transportation Systems (ITS) technologies along the transportation network, implementation of Transportation Demand Management (TDM) measures, implementation of the widening of Richmond Highway, and the provision of pedestrian and bicycle improvements.

Interim Development Conditions

There are three scenarios that may be considered as interim development. Interim development can refer to a project that is constructed in phases and the temporary conditions that are created because the development plan is not fully realized. It also can refer to developments, generally those smaller in scale and potentially for a limited duration, that do not strictly conform to the vision in the Plan. Finally, it can refer to temporary placemaking efforts that can contribute to the vitality of the area on a short term basis. Interim conditions that enhance the urban character

and contribute to placemaking in the CBCs are encouraged for the portions of a project that will not be built until the later phases. Examples include pop-up parks, green space, interim recreational facilities, or low intensity temporary uses. It may also be acceptable to maintain existing uses as long as they do not preclude the achievement of other priorities, such as the street grid. Interim development conditions within the CBCs will need to carefully consider the pedestrian experience in an evolving urban environment and ensure that any adverse impacts associated with an interim state of redevelopment are mitigated as appropriate. Phased developments should demonstrate through plans and supporting graphics how interim conditions will meet Plan objectives. Any interim development should give particular consideration to the following, as applicable to the situation:

- Providing a pedestrian plan to determine which pedestrian-oriented facilities (parks, retail streets, and transit) will require interim connections and streetscape improvements;
- Providing streetscape improvements that conform to Plan guidelines and that result in continuity of the streetscape design;
- Designing buildings for the ultimate grid of streets by siting them to conform with the configuration of the street network, providing façade articulation to each building face and treatments to ensure compatible transitions, and incorporating appropriately scaled entrances;
- Demonstrating how interim parking facilities will adhere to parking design and phasing goals;
- Showing how interim stormwater facilities can be creatively incorporated and can address impacts of interim development conditions;
- Providing temporary landscaping improvements to enhance the aesthetics and functionality of spaces that are in transition;
- Demonstrating how the proposed development will not preclude future redevelopment of the site or adjacent sites in conformance with the Plan;
- Demonstrating how the proposed uses support the multimodal environment, particularly if the site is located at or near a planned BRT station; and,
- Ensuring that construction sites provide a contiguous, safe pedestrian path during construction, particularly along Richmond Highway and to BRT/transit facilities. Coordination with adjacent properties, including those under construction, should occur to ensure seamless pedestrian paths are provided. Construction sites should be appropriately lighted and visually screened.

Additional guidance on interim conditions can be found in the *Guidelines for Interim Improvement of Commercial Establishments*, Appendix 6 of the Land Use element of the Policy Plan for interim development that does not strictly conform to long-term recommendations.

Refined Grid of Streets

The Richmond Highway Corridor currently consists of a mix of small parcels fronting the roadway and larger retail superblocks with a relatively small number of connecting streets. A grid of streets with smaller block sizes will make for a connected and more walkable Richmond Highway Corridor. A conceptual grid of streets for the corridor is shown in Figure 5. These street grids will be refined as part of a future analysis of the street grids by FCDOT. It will be further

refined by future development, more detailed analyses, and input from affected properties and other stakeholders. Implementation of the grid of streets should take the following into consideration:

- Continuity, within the grid of streets, should be maximized;
- Intersections that are skewed, off-set intersections, awkward dog legs, and intersections with more than four legs, should be avoided;
- Safe and convenient pedestrian access to transit stations should be provided;
- Any block longer than 600 feet within the CBC grids should contain a mid-block pedestrian connection; and,
- Where possible, even spacing between intersections should be maintained.

There is flexibility in implementing the conceptual grid of streets in terms of exact street location, layout and design details, but, in general, the grid should conform to the street types and overall conceptual grid vision contained in the Plan. The first development to advance within an area should provide for its proportionate share of the grid of streets as it affects their property and will generally set the specific location and features of that portion of the grid of streets. The implementation of the initial segment(s) of the conceptual grid of streets in an area should demonstrate that this grid will not preclude the successful achievement of the overall vision for the street grid through later phases of development.

Transportation Infrastructure

A longstanding planning concept in the Comprehensive Plan is linking development to the provision of the infrastructure needed to support it. Development should be supported by transportation improvements that better connect Richmond Highway locally and to the rest of the region. A dynamic plan that connects private redevelopment with the associated public improvements is critical to ensuring the transformation of the Richmond Highway Corridor.

Realizing the vision for the corridor is expected to take years. In addition, major transportation improvements can take many years to design, fund, and build. Planning and sequencing of transportation infrastructure will need to consider actual and projected growth of different land uses, based on entitlements, the pace of development, and short- and long-range market forecasts. While some transportation improvements will be implemented through government-led efforts, others are dependent on private development and will only be implemented as development occurs.

Transportation improvements should be appropriately phased with development. Exclusive of BRT, new development should contribute its appropriate share of funding and/or in-kind construction so that transportation projects keep pace with development. Some improvements, to the extent possible, may be implemented in stages by the private sector as development occurs.

The implementation of public infrastructure improvements will require creative and innovative funding and management tools to adequately address the needs of the area. Federal, state, regional, and county funding sources should all be pursued for these transportation improvements; however, a combination of public and private sector funding will be needed to fund these improvements. A detailed examination of funding options is needed before a preferred

funding approach and strategy is selected. The feasibility of various financial tools should be assessed, and the mechanisms for financing specific portions of the funding plan must be identified.

A dynamic funding plan for transportation improvements is essential to identify strategies for implementing transportation infrastructure improvements. Such a funding plan should address existing transportation needs, support redevelopment, and address transportation-related impacts from development along the corridor.

Public Facilities

In the Richmond Highway Corridor where most of the land is privately owned and already developed, locating new public facilities cannot rely on the public's ability to purchase land and construct such facilities. It will, therefore, be critical that land for free-standing uses or spaces within buildings for co-located uses be provided within private development. Rezoning proposals should commit to provide the necessary land and/or building space to ensure locations are available for the facilities to be constructed in concert with the pace of growth. In addition to facilitating public facility objectives through zoning actions, it may be necessary for landowners throughout the Richmond Highway Corridor to work collaboratively and creatively through partnerships to meet public facility objectives.

Public facility and infrastructure analyses should be performed in conjunction with any development applications. Commitments should be provided for needed improvements and for the mitigation of impacts identified in the public facility and infrastructure analyses, as well as for improvements and mitigation measures identified in the Areawide recommendations. Public facilities will be funded from a combination of public and private sources.

Parks and Recreational Facilities

The integration of urban park spaces within the Community Business Centers, as guided by the Urban Parks Framework in the Policy Plan, will address a large portion of the day-to-day desires of future residents and employees for outdoor leisure and recreation opportunities. Recreational facility needs generated by new developments will be calculated based on the benchmark facilities of playgrounds and basketball courts. Other types of sport courts, such as bocce ball, handball, pickleball, volleyball, tennis, and half courts may be provided to meet the projected court need. In addition, facilities for which adopted standards are not available, such as running facilities, game tables, and outdoor fitness equipment, may also be provided as they will provide outdoor recreational opportunities that are desirable in an urban area. Publicly accessible indoor facilities, such as multipurpose program areas, indoor gyms, and courts may also be provided to meet a portion of the need.

Achieving the number of athletic fields needed to serve the anticipated population along the Richmond Highway Corridor will be challenged by the limited availability of undeveloped land. New development is expected to offset impacts to parkland and recreational facility needs. Redevelopment applications should proactively seek creative opportunities to address the additional demand for athletic fields generated by new development. Contribution of land that can

accommodate athletic fields and/or the physical construction of such facilities is encouraged. It is preferred that new athletic fields be constructed within the Community Business Centers, as a component of new development. This will establish the facility where it will directly benefit the users that the field is intended to serve and where many can walk or bike to the field. Collaboration among land owners is encouraged to jointly provide space or land that can accommodate large facility needs. In addition to traditional dedication of land to the Park Authority for field development, provision of publicly accessible and scheduled athletic fields on privately-owned land, including rooftop or indoor facilities, should be considered. Collocation of athletic facilities within easement corridors or above stormwater management facilities may also be considered.

Opportunities may also be considered to construct new or improve existing facilities on Park Authority-owned land or public school sites in the vicinity of the corridor. Provision of land outside of the CBCs that can be developed to meet the athletic field need may also be considered as a means of offsetting a development's impacts to parks. Forging new park-provider partnerships must be seriously considered.

Once land is identified that can address the athletic field need, opportunities that maximize the service capacity of the athletic field should be explored. Use of synthetic turf and field lighting can significantly increase the amount of play time possible compared to natural turf fields. Designing athletic fields to accommodate multiple sports will maximize the flexibility to address changing demand for different field sports. When possible, opportunities for shared parking to serve athletic fields should be considered, minimizing the development footprint necessary to accommodate athletic field development.

Green Development

The Plan contains an extensive array of environmental objectives, the achievement of which may, in a number of instances, necessitate overcoming various economic and technical challenges. The county should actively explore potential mechanisms and strategies that may facilitate and incentivize the attainment of these objectives.

Partnerships

Dedicated leadership and involvement from community participants, state and federal agencies, and the private and non-profit sectors working together with the county will be essential to the corridor's transformation. The process and involvement from all stakeholders must be transparent, focused and thorough.

Public sector partnerships among county, state, and federal agencies will be critical in identifying and investing in the necessary public infrastructure improvements. Public infrastructure investments, such as parks or a BRT transit system, improve the development climate of an area and make it more attractive for private investment. Fairfax County can and should reinforce and leverage private sector investments that achieve the vision for the Richmond Highway corridor.

Public-private partnerships, which entail using public resources to foster private investment and development activity that may not otherwise occur, is another possible approach for implementing the Plan. These partnerships have proven to be a successful mechanism to help the county advance certain infrastructure projects and development objectives. By using public investments strategically, Fairfax County can reinforce and leverage private sector investments to achieve the vision for the corridor.

Private sector cooperation among landowners along the corridor will be a key component to implementation. An aspect of cooperation among landowners includes parcel consolidation and/or coordinated development plans. The Plan encourages redevelopment to consolidate parcels of a logical and sufficient size to support redevelopment. In certain cases as recommended in the land unit guidance, substantial parcel consolidation should be achieved. The consolidation of parcels for redevelopment will offer the greatest amount of flexibility in terms of site design and layout, and coordinated development plans will offer an alternative when consolidation is not possible. These private partnerships should ensure that new development can support the dedication of land or space for parks, active fields, and open space; rights-of-way to implement the grid of streets; and public facilities, such as a school; and to provide for the programming and activation of public spaces.

Coordinated Development

Coordinated development plans may be used in lieu of, or in addition to, substantial consolidation of parcels. Consideration should be given to site design, building locations, urban design, open space amenities and signage, inter-parcel access where appropriate, roadway realignment or improvements, and parking facilities. Coordinated development proposals will need to ensure that projects function in a compatible, well-designed, efficient manner; are consistent with the land use guidance and development potential of the CBC or SNA; are compatible with the development on adjacent properties; reflect coordinated phasing of improvements as needed (for example, frontage improvements); are consistent with the overall intent of the land use concept to achieve the desired form and mix of uses; and do not preclude adjacent parcels from developing in conformance with the Plan.

Maintenance

Maintenance of the public realm is expected to be a shared public and private sector responsibility. Commitments should be made from developers to maintain publically-accessible parks and open spaces, streetscapes and, where applicable, the Ecological and Livability Spines. Commitments for the private maintenance of streetscapes should include the entire streetscape to the curb line including the public right-of-way. An agreement will likely be required for maintenance for the portion of the streetscape located within public right-of-way.

COMMUNITY BUSINESS CENTERS

OVERVIEW

Six Community Business Centers (CBCs) are designated along the Richmond Highway Corridor; from north to south, these are North Gateway, Penn Daw, Beacon/Groveton, Hybla Valley/Gum Springs, South County, and Woodlawn. The following guidance establishes the overall vision for the CBCs. Vision elements are more fully developed within specific concept plans for four of the six CBCs - Penn Daw, Beacon/Groveton, Hybla Valley/Gum Springs, and Woodlawn. North Gateway and South County CBCs are subject to separate planning endeavors.

The concept plans for Penn Daw, Beacon/Groveton, Hybla Valley/Gum Springs, and Woodlawn CBCs recognize this transit-oriented development potential and the influence of the planned transportation improvements. It is anticipated that redevelopment will be the primary mechanism through which the vision will be realized. The concept plans represent one method to achieve that vision. Flexibility in the implementation of the concept plans is appropriate and encouraged, as long as the intent and framework of the vision is achieved.

Overall Vision

The vision for the Richmond Highway Corridor's CBCs honors the historical legacy and resources of the corridor and the area's unique ecological features in a manner that is designed to achieve a series of coordinated, transit-oriented activity nodes. Past transportation infrastructure, such as historic roadway alignments and former airport sites, has shaped development patterns along the corridor, while the area's historic structures, buildings, events, and neighborhoods have contributed to its character. Numerous historical sites are located within or in proximity to the Richmond Highway Corridor. Notable sites include Woodlawn and Pope-Leighey House (which was relocated to Woodlawn), Historic Huntley, the Original Mount Vernon High School, and the Pride of Fairfax. Abundant streams, tributaries, wetlands, and natural areas are located in the area and cut across Richmond Highway, connecting the corridor to the Potomac River and the Chesapeake Bay. The vision unites the historical resources and ecological attributes of the corridor by establishing a cohesive series of vibrant, well-connected places that embrace the corridor's legacy, celebrate its environmental features, and strengthen the greater Richmond Highway community.

Overall Vision Elements and Strategies

The Vision Elements, as listed and described below, integrate the Guiding Planning Principles for the corridor with more specific guidance for the CBCs. In general, each Vision Element includes strategies for implementation. Later sections address each of the four CBCs individually.

1. **Emphasize, protect and restore existing ecological resources and natural spaces to strengthen the relationship between people and nature.** Some streams, wetlands and waterways within the CBCs have been altered or otherwise disturbed over time. Channelizing and piping these waterways adversely affects environmental health, reduces

wildlife habitat and limits opportunities for residents to engage with and benefit from the ecosystems provided by these natural elements. These practices also impact the ability of waterways to manage weather events and natural disasters. Preserving and enhancing the area’s ecological systems and connecting people to them by adding amenities will provide opportunities for improved environmental and public health benefits while fostering a sense of place.

A key concept for realizing this element of the vision are green corridors, that, where possible, combine a stream channel and/or other innovative stormwater facilities with a roadway and/or multi-use path and are referred to as Ecological Spines (Figure 17). Ecological Spines are planned in the Hybla Valley and Woodlawn CBCs where existing streams and rivers are present. Within the Ecological Spine, these streams and rivers (some of which have been piped or channelized) should be daylighted and/or improved into more natural areas and green space amenities with sidewalks and trails for pedestrian mobility and recreation. Ecological Spines are intended to serve as a natural green space amenity that anchors and connects to other parks, green spaces and streetscapes within the CBC and to surrounding neighborhoods. Some portions of the Ecological Spines may provide for low-volume vehicular travel in addition to bicycle and pedestrian travel, as shown in the Urban Street Network Design (USND) section. The goal is to improve and protect these stream valleys while incorporating them into the design of the open space in these CBCs for the enjoyment of those who live, work or shop in the CBC.

Figure 17 Example of the Ecological Spine Concept



2. **Use legacy infrastructure and historic resources to preserve and promote the historic significance of the area.** Historic or legacy features such as old roads and trail alignments, structures, parcel geometries, and airport runways, offer opportunities to define each CBC’s identity and strengthen its sense of place. Incorporating references to these features, whether existing or demolished, in projects, and in particular within their public spaces, will offer opportunities to provide a narrative of the area’s rich past. Redevelopment should occur in a manner that recognizes the legacy of historic buildings and sites, events, neighborhoods, and infrastructure along the corridor, including the preservation of

important viewsheds from Woodlawn and Historic Huntley.

- Promote multimodal connectivity within and between the CBCs to improve access and provide transportation choices.** The planned multimodal transportation network will form the framework for a functional, urban environment that increases access and improves mobility within the CBCs, while also linking the CBCs to surrounding communities and to the rest of the county. A fundamental component of the framework is the additional means for pedestrians and cyclists to traverse the corridor. Walking, bicycling, and enhanced access to public transit will increasingly become an option for daily transportation needs, such as commuting to work and school, and for traveling to recreational activities. Pedestrian and bicycle facilities should seamlessly connect within the grid system, including at the intersections of different street types.

Along Richmond Highway, street design elements, including separated bicycle lanes, wide sidewalks, landscaped areas, and crosswalks, should take on a more urban character to unify development on both sides of the roadway and encourage a walkable and bike-friendly environment. Continuous pedestrian and bicycle facilities should be provided that connect the transit stations on Richmond Highway to grids of streets in the CBCs and facilitate movement safely and comfortably along and across the corridor. Refer to the Fairfax County Bicycle Master Plan and the Urban Street Network Design (USND) section of the Plan for bicycle facility guidelines, street cross-sections, and road design characteristics, respectively.

- Encourage transit-oriented development (TOD) and a grid of streets that support a mix of land uses.** A higher intensity mix of housing and non-residential uses, within a single building or within a short walking distance of one another and proximate to a transit station, will decrease the number and distance of vehicular trips and will encourage people to walk, bike or take transit. A diverse range of residential, commercial and institutional uses within the CBCs will reduce reliance on driving as the only means to travel in order to fulfill daily needs by locating goods, services, housing, and jobs in close proximity. The highest intensity and most diverse mix of uses should occur in the blocks immediately adjacent to the Bus Rapid Transit (BRT) stations. Development should decrease in intensity and height when adjacent to existing neighborhoods.

Focusing redevelopment and new infrastructure within the CBCs will protect, preserve and enhance the surrounding established communities by managing growth in targeted areas, while minimizing infrastructure demands. Each development should construct their portion of the grid network. Parcels should be consolidated and development coordinated as necessary to achieve the vision including the grid of streets and open space network.

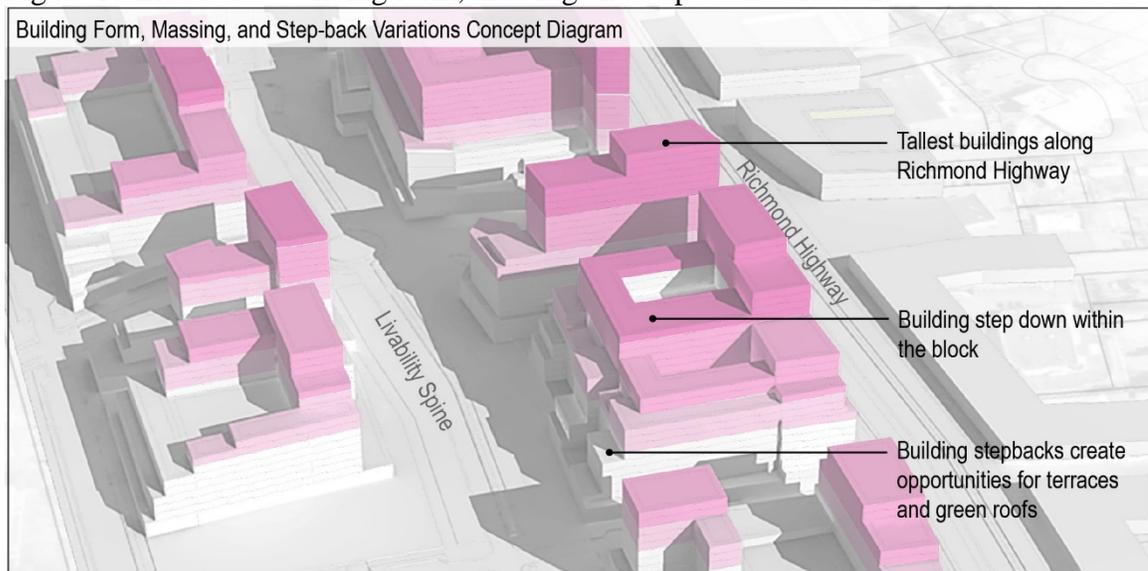
- Transform the visual character of Richmond Highway through excellence in site and building design to build a sense of place.** A visually cohesive corridor will be created through adherence to urban design guidance that informs how sites, including their public spaces and buildings, relate to Richmond Highway. The guidelines provide strategies that should be used to establish a strong identity and character that can be clearly recognized by residents and visitors. Organizing parking, providing high-quality streetscapes with minimal curb-cuts, and establishing a consistent building-to-street relationship will result

in sites that relate well to one another in a walkable environment.

Buildings and urban plazas should be located around the transit stations and frame the adjacent blocks with consistent ground-floor building facades to form focal points along the corridor. Buildings should adhere to established build-to lines, while above the first floor, structures are encouraged to incorporate setbacks that result in modulating rooflines and foster distinctive building architecture. Dramatic changes in topography along the corridor offer opportunities to maximize views from buildings to significant points of interest and natural areas. Viewsheds and topographic changes should be considered as design opportunities during redevelopment.

Building heights should be varied to create an interesting, dynamic environment that will allow a mix of light and shadow to permeate down to the street; and the use of building step-backs provides the opportunity for the creation of rooftop terraces. Buildings should have varied rooflines and not all buildings in a block or CBC should be of a similar height. Buildings should step down in height from Richmond Highway to form effective transitions to adjacent uses. Figure 18 shows an example of how building forms should vary in height to create terraces and modulated roof lines, and how building step-backs above the ground-floor can create interesting architectural designs.

Figure 18 Illustrative building form, massing and step-back variations



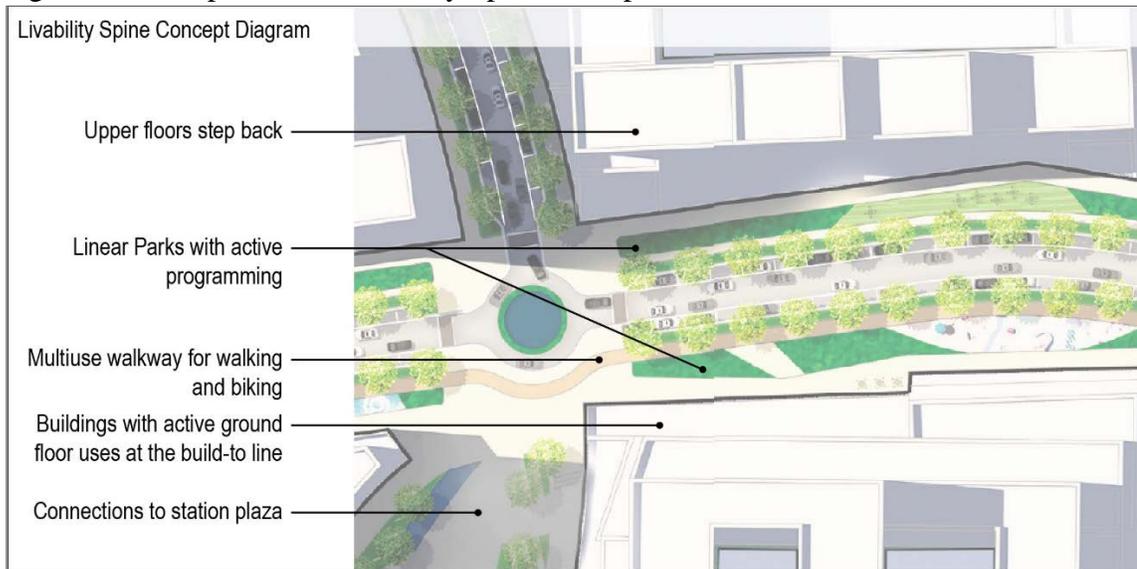
- 6. Support strong and healthy communities through well-defined and active public spaces.** A network of urban parks is an integral component of the CBCs and part of a corridor-wide system of coordinated park spaces. The network should consist of a range of open spaces that include parks, plazas, and recreational amenities. This network will create opportunities for community building by connecting people through shared spaces and activities, by linking people to environmental resources, and by recognizing the shared historical legacy of the area. The design of public open spaces should consider the needs of users on the site and how these spaces fit into the corridor-wide needs for urban park space. These spaces should be inherently flexible, connect with surrounding

neighborhoods, incorporate active and passive recreational amenities, and provide space for the programming of a variety of activities that encourage social interaction.

The Open Space Plan for each CBC and the Urban Parks Framework should be used to guide decisions about parks during implementation. For planned open spaces that extend across multiple properties such as the Livability Spine, developments should be coordinated with adjacent properties to form a cohesive space.

A key concept for realizing this element of the vision are the “Livability Spines,” that combine local streets with pedestrian and bike facilities and parks, plazas and open space. The Livability Spine is a primary organizing feature and is the center of activity for the Penn Daw, Beacon/Groveton, and Woodlawn CBCs. The Livability Spine incorporates a Linear Park consisting of a mix of large plaza and green spaces along both sides of the roadway. On one side of the Livability Spine, the Linear Park is envisioned to be incorporated into a Pedestrian Zone that also includes a multi-use walkway. The intent of the Pedestrian Zone is to allow for flexibility in the implementation of the Linear Park and walkways so that the desired design can be achieved. An option exists to creatively integrate the walkway into the design of the Linear Park, rather than as a separate pedestrian element, as discussed under *Street Types and Designs*. Retail and other uses that activate the pedestrian realm should be located on the ground-floors of buildings facing the Livability Spine and may include outdoor dining and other amenities within the building zone. Figure 19 illustrates the Livability Spine.

Figure 19 Example of the Livability Spine concept



Ground-floor uses that foster pedestrian activity should complement parks, streetscapes on certain streets including Richmond Highway and the Livability Spine, and civic spaces within the CBCs. Uses that encourage pedestrian activity on the street include retail, restaurants, residential building amenities, and sometimes office uses depending on how they are presented on the street. These uses should be complemented with building entrances, storefront windows, canopies, signage, landscaping, and streetscape furnishings.

Most streets associated with ground-floor retail uses should have on-street parking to benefit businesses, encourage pedestrian activity, and increase the comfort of pedestrians by using parked cars to buffer those on the sidewalk from moving vehicles. Ground-floor uses located on plazas and linear green spaces should help build a sense of community while providing lively places for recreation and civic engagement. Figure 20 illustrates a plaza concept that integrates green spaces, hardscape features, and ground-floor retail uses.

Figure 20 Rendering of a plaza concept that shows the interplay of active ground-floor uses and open spaces



7. **Act as stewards of the corridor’s future legacy by incorporating smart and sustainable technologies and by integrating green infrastructure into new developments.** The Richmond Highway corridor is envisioned to become a place of invention and innovation that features the latest smart technologies, sustainable building practices, and green infrastructure. Using these technologies and practices to support place-making efforts and to integrate green infrastructure both across a project site and within buildings will improve the long-term ecological health of these areas and foster more livable, sustainable communities.

Projects should meet or exceed the county’s policy for green buildings to promote environmental responsibility and build upon the corridor’s ecological theme. Intelligent transportation systems, new parking technologies, low-impact development techniques for stormwater management, and green building techniques, such as sustainable power generation and green roofs are examples of the types of infrastructure that should be incorporated into new CBC developments, wherever feasible. Ecological Spines are another innovative design elements that should be incorporated to achieve the county’s policy.

Emphasizing Form Instead of Floor Area Ratio (FAR): Redevelopment Options for Penn Daw, Beacon/Groveton, Hybla Valley/Gum Springs, and Woodlawn CBCs

The Plan uses a form-based approach to guide the desired redevelopment options in four of the six CBCs -- Penn Daw, Beacon/Groveton, Hybla Valley/Gum Springs and Woodlawn. A form-based planning approach is intended to provide flexibility in the design of a project, while ensuring that the project contributes to the vision of the community. The emphasis on form focuses on building form, urban design, and height in order to define the development potential of properties within these CBCs in lieu of the use of more traditional FAR limitations.

The amount of development potential allocated to any given property or assemblage should be guided by recommendations on the new street connections, open space, parking requirements, building height, and other urban design criteria. The total number of dwelling units and amount of non-residential square footage allowed under the redevelopment option also is provided for each land unit so that the overall development potential of a CBC is not exceeded. In some cases, the baseline level of development is stated in terms of the FAR or dwelling units per acre.

RECOMMENDATIONS

The following sections provide guidance for each CBC. Consistency with the CBC recommendations in conjunction with all the applicable sections of the Policy Plan, the Guiding Planning Principles, Corridor-wide Guidelines, and CBC Vision Elements should be consulted in the review of all development proposals within the CBCs. In some areas, site-specific recommendations may differ from and supersede the Guiding Planning Principles and Corridor-wide Guidelines. As noted in the Land Use Section under Corridor-wide Guidelines, under the redevelopment option, flexibility among non-residential uses is appropriate provided the overall vision of a vibrant mixed-use community is achieved and multimodal transportation needs are addressed.

The guidance for Penn Daw, Beacon/Groveton, Hybla Valley/Gum Springs, and Woodlawn CBCs states how the design themes and form-based approach should be implemented for these areas, while also presenting site-specific recommendations. Construction of (or a commitment to) the open spaces, parks, a mix of residential and non-residential uses, and the grid of streets is expected to be phased appropriately. Recommendations are organized into five sections:

- the conceptual plan
- the open space network
- the multimodal network
- area road improvements
- individual land unit recommendations

Where the Comprehensive Plan envisions a substantial change in land use that is expected in conjunction with redevelopment, but proposed uses do not strictly conform to the recommendations of the Comprehensive Plan, the Guidelines for Interim Improvement of Commercial Establishments found in Appendix 6 of the Land Use element of the Policy Plan may be considered.

NORTH GATEWAY COMMUNITY BUSINESS CENTER

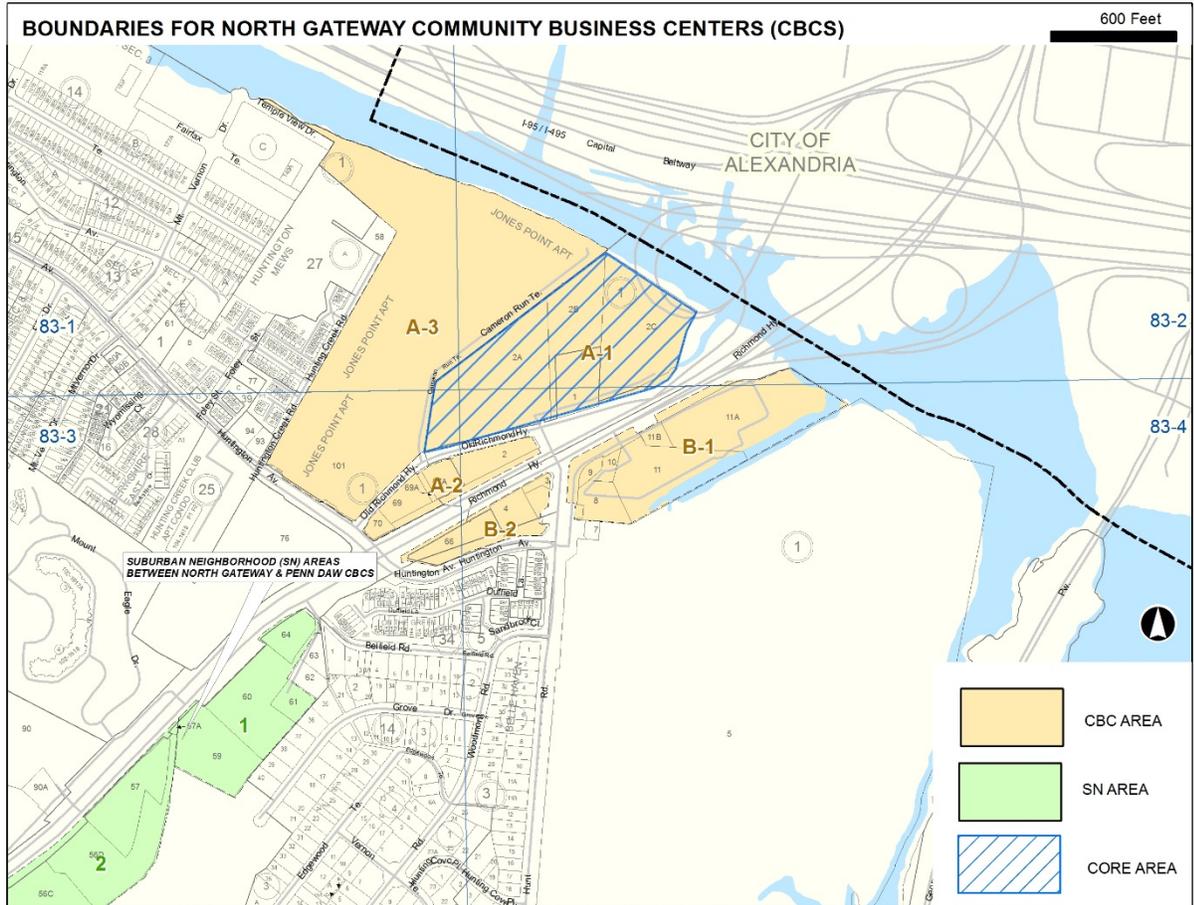
This CBC is characterized by the Riverside high-rise residential buildings, auto dealerships, gas stations, hotels/motels and mid-rise office buildings. Its proximity to the Capital Beltway, Huntington Metrorail Station and Fort Hunt Road makes this portion of the Richmond Highway Corridor a major transportation-oriented center and presents opportunities for well-designed, transit-accessible redevelopment.

Environmentally-sensitive areas exist along Cameron Run and in the shallow lots along the east side of Richmond Highway. As development occurs, adequate measures should be provided to mitigate environmental impacts and restore degraded areas to more natural conditions.

The North Gateway Community Business Center serves as an entry point to historic Richmond Highway from points north including the Nation's Capital, the City of Alexandria and the Capital Beltway, providing an initial impression of Fairfax County, not only to visitors but to those who live in other parts of the county. Improving the identity and appearance of the area using urban design principles and revitalization strategies are especially important. An attractive and efficient mix of land uses improves the image, economic viability and circulation along the Richmond Highway Corridor. Figure 21 indicates the geographic location of land units in the North Gateway CBC, shown in yellow, and the Suburban Neighborhood Areas between the CBCs, shown in green.

Redevelopment is anticipated to occur adjacent to the Capital Beltway primarily at the location of the auto dealerships. This area is planned to redevelop as a mixed-use project including residential, office, hotel and retail uses. These planned uses complement the advantageous location near rail and planned bus rapid transit and are compatible with the surrounding character and density.

Figure 21 indicates the geographic location of land units in the North Gateway CBC, shown in yellow, and the Suburban Neighborhood Areas between the CBCs, shown in green.



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Due to the prominent location, high quality urban design is especially important in any redevelopment that occurs. Quality building materials, patterns and architectural design, which are compatible and complementary to surrounding uses, especially Huntington Gateway, are desirable. Landscaping should be used to soften the vertical built environment.

LAND UNIT RECOMMENDATIONS

Development Potential

Figure 22 contains an estimate of the maximum development potential, inclusive of the redevelopment options, for the North Gateway CBC. Additional details about the base plan and redevelopment options are contained in CBC land unit descriptions that follow. As noted in the Land Use Section under Corridor-wide Guidelines, flexibility among non-residential uses is appropriate provided the overall vision of a vibrant mixed-use community is achieved and multimodal transportation needs are addressed.

It is expected that development will occur in phases. As such, phased development will need to advance the goals and the vision in the Plan, as described in the Implementation Section.

Development applications must be reviewed in a manner that ensures appropriate phasing to the provision of public improvements. The construction of and/or commitment to the public facilities is expected to be provided appropriately with each phase of development.

Figure 22: North Gateway CBC Maximum Development Potential under Redevelopment Options

Land Use	Comprehensive Plan development potential inclusive of redevelopment options ¹	
	Number of Dwelling units or jobs	Approximate Gross Square feet
Residential ²	2,025 dwelling units	N.A.
Non-residential	3,650 jobs	1.35 million gsf
Office	3,047 jobs	915,000 gsf
Retail	383 jobs	153,000 gsf
Hotel	220 jobs	286,000 gsf
Total	2,025 dwelling units and 3,650 jobs	

Note 1: Development potential, employment estimates, and dwelling units are approximate. Conversion factors: residential - 1000 sf/dwelling unit; office - 300 gsf/job; retail - 400 gsf/job.

Note 2: The residential development potential does not include potential housing bonuses allowed under the Affordable Dwelling Unit (ADU) Ordinance and the Board of Supervisors Workforce Housing Policy (WDU).

Sub-unit A-1

The sub-unit comprises the area located on the west side of Richmond Highway between I-495 and Huntington Avenue.

Base Plan

The sub-unit is planned for retail, office and/or residential uses up to .50 FAR.

Redevelopment Option

Sub-units A-1 and A-2 may be appropriate for redevelopment at a higher intensity as recommended by the optional level of development when area-wide transportation issues can be addressed. The Plan for the mixture of uses and higher intensity should be evaluated following the completion of transportation studies for the Huntington area and the Richmond Highway Corridor, when mitigation strategies are identified.

As an option, mixed-use development to include residential, office, hotel and retail uses at an intensity up to 1.65 FAR may be appropriate as part of a unified redevelopment with substantial consolidation of sub-units A-1 and A-2. If substantial consolidation is not achievable, an alternative may be pursued that logically consolidates parcels in Sub-unit A-1 and/or Sub-unit A-2 in order to provide the extension of Fort Hunt Road to Cameron Run Terrace in the initial phase. Further, a master plan for redevelopment of both Sub-units should be prepared to demonstrate how the future integration of unconsolidated parcels can be achieved.

In either option, the following conditions should be met:

- Recommendations found in the Parks, Recreation and Open Space, Urban Design and Urban Street Network Design sections are incorporated. For example, public art, pedestrian plazas, cultural/recreation facilities, landscaped open space, landmarks and/or building design should denote this area as a focal point of the North Gateway Community Business Center;
- A pedestrian circulation system is provided. Circulation should encourage pedestrian traffic within the development, and to and from adjacent developments, the Huntington Metrorail Station, and existing and planned pedestrian and bicycle routes, such as the Cameron Run Trail and other planned facilities. Streetscaping that includes elements such as space for outdoor dining, pedestrian sidewalks, landscaping, crosswalks, bicycle facilities, on-street parking, lighting, and/or transit accommodations, should be incorporated in the internal transportation network within the development. Adequate, well-positioned and safe pedestrian crossings across Richmond Highway and Huntington Avenue, with ramps, pavement markings and pedestrian countdown signals, should also be provided;
- A parking management program is prepared that may include parking reductions, providing less parking than required by code;
- Parking is consolidated into structures and follows the Parking Design Recommendations contained in the Urban Design section.
- A thorough traffic impact analysis of the proposed development is conducted with appropriate mitigation identified. Grade separated interchanges, new or extended roadways, roadway widening, and/or intersection turn lane improvements should be considered to assist in alleviating traffic congestion through the immediate area;
- An efficient, pedestrian friendly, internal grid design for vehicular circulation is provided;
- Old Richmond Highway is vacated between Cameron Run Terrace and Richmond Highway, and the extension of Fort Hunt Road from Richmond Highway to Cameron Run Terrace is constructed with any redevelopment of the subject area as shown on Figure 29;
- Access points are consolidated. Adequate storage capacity at the site access points should be provided to accommodate anticipated turn lane demands, into and out of the site;
- Adequate right-of-way is provided for the planned, grade-separated interchange at Richmond Highway and Huntington Avenue/Fort Hunt Road or for suitable, at-grade alternative mitigation developed through further study, and for any adjacent intersection, bicycle/pedestrian improvements, and/or road widenings to be defined through further study;
- Any proposed site design is coordinated with existing and planned transit in the area with bus shelters;
- A substantial Transportation Demand Management (TDM) program should be implemented as a component of the transportation mitigation. The TDM program should consider, but is not limited to, the following elements:

- A TDM trip reduction goal of 30 percent should be sought for the office component of the site;
 - A TDM coordinator;
 - A commuter center/kiosk;
 - Incentives for residents and office workers to use alternative modes, such as transit, carpools, vanpools, bicycles and walking and to participate in flexible work schedules, alternative work schedules and teleworking;
 - Provision of, or funding for, long-term shuttle service and/or enhanced transit connections between the site, other area development, and the Huntington Metrorail Station; and
 - Covered and secure bicycle storage facilities and shower/locker facilities.
- A contribution for area-wide transportation improvements, including roadway and other multi-modal improvements that are generally proportional to the share of trips generated by the proposed development is provided at each improvement location. The contribution at each improvement location should be calculated based on a comparison of site generated trips versus regional/through trips;
 - A linear park along the shoreline of Cameron Run that includes wayside areas with benches and construction of a portion of the proposed Cameron Run trail is provided;
 - The Cameron Run floodplain is re-vegetated and the Resource Protection Area restored to the maximum extent possible;
 - The amount of impervious surfaces is reduced to the maximum extent possible; if this is not achievable, there is no net increase in impervious surfaces;
 - Applicable stormwater management measures are incorporated as described in the Environment section under Corridor-Wide Guidelines.
 - The total volume of stormwater runoff released from the site post-development for the 2-year, 24-hour storm should be at least 25% less than the total volume of runoff released in the existing condition for the same storm;
 - Stormwater runoff is controlled such that either (a) the total phosphorus load for the property is no greater than what would be required for new development pursuant to Virginia's Stormwater Regulations and the county's Stormwater Management Ordinance; or (b) an equivalent level of water quality control is provided;
 - As an alternative to the previous two bullets, stormwater management measures may be provided sufficient to attain the Rainwater Management credit(s) of the most current version of LEED-New Construction or LEED-Core and Shell rating system;
 - As an alternative to the previous three bullets, stormwater management measures/and or downstream improvements may be pursued to optimize site-specific stormwater management and/or stream protection/restoration efforts, consistent with the adopted watershed management plan(s) that is/are applicable to the site. Such efforts should be designed to protect downstream receiving waters by reducing stormwater runoff

volumes and peak flows from existing and proposed impervious surfaces to the maximum extent practicable, consistent with watershed plan goals; and

Sub-unit A-2

The sub-unit comprises the "island" formed by Richmond Highway and Old Richmond Highway.

Base Plan

Redevelopment would enhance the "gateway" character of this area and should be encouraged. Consolidation of all parcels within this "island" and redevelopment of this area with neighborhood-serving retail use up to .25 FAR is recommended. Building orientation should be to Richmond Highway but access should be to Old Richmond Highway.

Redevelopment Option

As an option, if Sub-unit A-2 is substantially consolidated and included in a unified mixed-use development plan with Sub-unit A-1, then Sub-unit A-2 may be appropriate for mixed-use development at an intensity up to 1.65 FAR. If substantial consolidation with Sub-unit A-1 is not achievable, an alternative option for logical consolidation of Sub-unit A-2 with at least Tax Map Parcel 83-2((1))2A is recommended for mixed-use development to include residential, office, hotel and retail uses at a lower intensity than the maximum of 1.65 FAR. In addition to meeting the same conditions stated in the land use recommendation for Sub-unit A-1, as part of this mixed-use development, Old Richmond Highway should be vacated between Cameron Run Terrace and Richmond Highway and access should be provided from Sub-unit A-1.

Sub-unit A-3

The sub-unit comprises the Riverside Apartments complex, located on the north side of Huntington Avenue between Cameron Run Terrace and Hunting Creek Road.

Base Plan

The sub-unit is planned for mid-rise and high-rise residential use with up to 40,000 square feet of a mix of first floor retail, restaurant use and/or office use with structured parking at a density up to 61 dwelling units per acre and an overall FAR of 1.60. The site is almost entirely covered by impervious surfaces, includes outdated stormwater management facilities, little to no useable open space for residents, and minimal landscaping. Any redevelopment of the site should be designed to substantially re-vegetate the Cameron Run floodplain, providing additional open space and park land to serve the recreational needs of residents and the surrounding community, and provide stormwater management facilities that address long standing water quantity and quality issues associated with the site and its impacts to Cameron Run and neighboring properties. Any proposed redevelopment should be subject to the following conditions:

- Provision of substantial, useable, additional open space areas and urban park amenities for residents and a Linear Park along the shoreline of Cameron Run that includes wayside areas with benches;
- Re-vegetation of the Cameron Run floodplain to the maximum extent possible;
- The proposed trail that appears on the county Trails Plan Map should be constructed within the Linear Park. It is not necessary for the trail to be constructed directly along Cameron Run; this is particularly relevant should flood controls (e.g., a levee) impact the area shown on the Trails Map. The trail should provide a link to the planned trail east of the site, and linkages to the existing Huntington Park and any new park that may

be constructed by the Park Authority on land dedicated by the abutting property to the west;

- Provision of stormwater quantity and quality control measures that are substantially more extensive than minimum requirements, with the goal of reducing the total runoff volume if appropriate. The emphasis should be on low impact development (LID) techniques and best management practices (BMPs) that evapotranspire water, filter water through vegetation and/or soil, and return water in to the ground or reuse it and should include such features as rooftop landscaping on the proposed parking structures. Stormwater management measures that are sufficient to attain the stormwater design-quantity control credit if appropriate and the stormwater design-quality control credit of the most current version of the Leadership in Energy and Environmental Design for New Construction (LEED-NC) or Leadership in Energy and Environmental Design for Core and Shell (LEED-CS) rating system (or third party equivalent of these credits) should be provided. If this goal is demonstrated not to be achievable, all measures should be implemented to the extent possible in support of this goal;
- No freestanding retail and/or restaurant uses;
- Provision of high quality architecture in mid-rise structures;
- Provision of structured parking, incidental surface parking shall be allowed consistent with urban design guidelines;
- Provision of pedestrian oriented site design which should include buildings oriented to internal streets and mitigation of visual impacts of structured parking, internal streets, walkways, trails, sidewalks and street crossings should connect buildings and open spaces, and amenities such as street trees, benches, bus shelters, adequate lighting and various paving textures;
- Provision of integrated pedestrian linkages to nearby streets should be provided and bicycle systems with features such as covered and secure bicycle storage facilities;
- Provision of a coordinated circulation system that will accommodate vehicular and pedestrian access among sub-units A-1, A-2 and A-3 of the North Gateway Community Business Center;
- Building design should accommodate telecommunications antennas and equipment cabinets in a way that is compatible with the building's architecture, and conceals the antennas and equipment from surrounding properties and roadways by flush mounting or screening antennas and concealing related equipment behind screen walls or building features;

Sub-unit B-1

The sub-unit comprises the area northwest of Belle Haven Country Club along Richmond Highway from the Beltway to Fort Hunt Road and developed with several commercial uses.

Base Plan

The most northern portion of this sub-unit is planned for hotel use up to .60 FAR with a maximum of 8 stories. Office use up to .50 FAR with a maximum of 8 stories is planned for Parcels 83-4((1))10 and 11. The remainder of this sub-unit is planned for neighborhood-serving

retail use up to .25 FAR. This recommendation reflects current uses which should be retained. Future highway improvements may impact the accessibility of this sub-unit.

Sub-unit B-2

The sub-unit comprises the triangle-shaped area bounded by Richmond Highway on the northwest, Fort Hunt Road on the east and Huntington Avenue on the south.

Base Plan

The sub-unit is planned for community-serving retail use up to .35 FAR. Complete consolidation of these parcels is encouraged for a coordinated development. Screening and buffering should be provided along Huntington Avenue to mitigate any impacts on the townhouse community located across Huntington Avenue. Right-of-way needed for interchange improvements at Huntington Avenue, Richmond Highway and Fort Hunt Road should be dedicated. In the event that highway improvements impact part or all of this land unit, this is an appropriate location for a gateway park or identifying features. In addition, impacts on sensitive environmental features located here should be mitigated.

Redevelopment Option

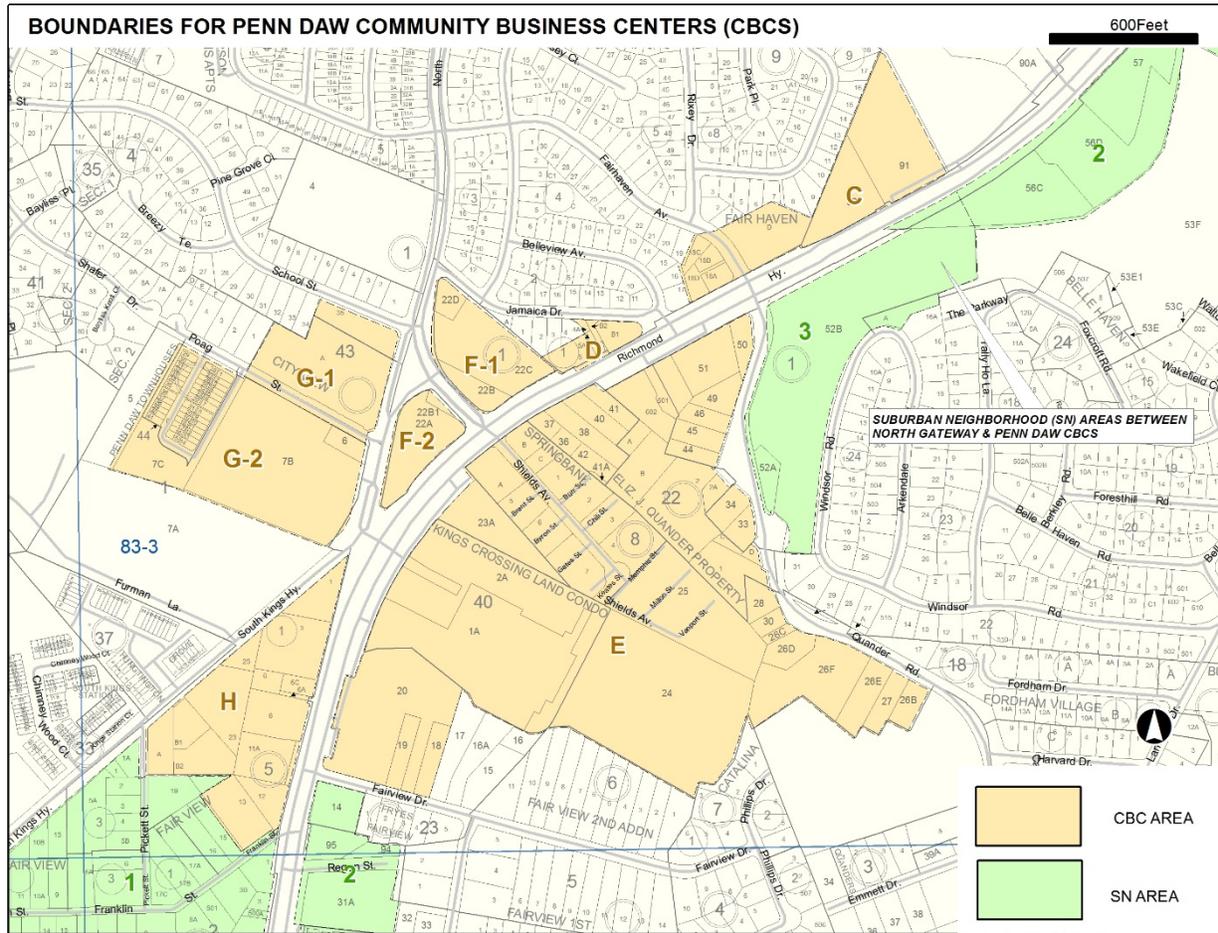
As an option, if Sub-unit B-2 is fully consolidated and included in a unified development plan with Sub-units A-1 and A-2, then Sub-unit B-2 may be appropriate for mixed use development up to 1.0 FAR provided that it is preserved in its entirety as an open space area and the development potential is transferred to Sub-units A-1 and A-2.

PENN DAW COMMUNITY BUSINESS CENTER

The Penn Daw CBC encompasses an important crossroads where North and South Kings Highways meets Richmond Highway. This crossroads area, along with Penn Daw's proximity to the Huntington Metrorail Station, makes it a significant activity center for retailers and other businesses. However, the intersection of Richmond Highway and North Kings Highway presents challenges for visibility and accessibility, and hinders pedestrian activity. Major existing and approved uses in the Penn Daw CBC include the Kings Crossing retail center, the South Alex mixed-use development, other neighborhood and community-serving retail establishments, multi-family residential buildings, and townhouses. Stable residential neighborhoods about the CBC, Mount Eagle Elementary School, Quander Road School, and West Potomac High School serve the area. Opportunities exist on the east side of Richmond Highway, as well as in the area between South Kings Highway and Richmond Highway, for additional mixed-use development.

A portion of the CBC located on the east side of Richmond Highway, Tax Map Parcel 83-3 ((1)) 24, often referred to as the Fairchild property, contains steep slopes, a stream valley, and other environmentally sensitive features that need protection, restoration, and enhancement. Figure 23 shows the geographic location of land units within the Penn Daw CBC.

Figure 23 indicates the geographic location of land units in the Penn Daw CBC, shown in yellow, and the Suburban Neighborhood Areas between the CBCs, shown in green.



CONCEPTUAL PLAN

As shown in the Conceptual Plan (Figure 24), the vision for the Penn Daw CBC calls for the transformation of the crossroads area into a high intensity TOD node and a transportation gateway. A BRT station is planned in the vicinity of the intersection of Richmond Highway and Kings Highway; from there, the BRT is planned to connect to the Huntington Metrorail station via North Kings Highway. The intersection of Kings Highway and Richmond Highway should be redesigned to improve safety and access. This redesign creates an opportunity for new multimodal connections and new public spaces to link the east and west sides of the CBC for transit riders, cyclists, and those walking through the area. A series of Civic Plazas, created from the vacated right-of-way and small portions of the adjoining properties in Land Units H and F, should connect to station entrance plazas and mixed-use developments in both the western and eastern land units of the CBC using crosswalks and other high-quality pedestrian facilities.

A pedestrian connection from the central Civic Plaza should extend to the eastern station entrance plaza and along a new roadway that terminates at the Fairchild property along the eastern edge of the CBC. This property is anticipated to become a passive park space with trails and other

amenities. Pedestrian access to the park is planned at several locations including from the planned streets in the CBC that terminate at the park. At these locations, public art or other gateway features should be used both as a visual terminus of the street and as an entrance feature into the park.

The eastern land unit, Land Unit E, is envisioned to redevelop around a multimodal grid of streets that will enhance circulation within the CBC, create developable and walkable-sized blocks, and connect to adjacent existing roadways. Intersections in the new grid of streets should be spaced so that blocks are pedestrian-scaled at walkable distances. Mid-block pedestrian connections within the grid of streets are recommended where large blocks may make walking inconvenient. Block sizes should be designed to accommodate large-format retailers where appropriate; however, opportunities for pedestrian connections that break up large blocks should be incorporated into proposed developments.

The Conceptual Plan should be used as a guide for development proposals. There is flexibility in how the Conceptual Plan can be implemented provided there is general adherence to the grid of streets, in particular the Livability Spine, the open space network, the location of station-area plazas, and the placement of ground-floor non-residential uses.

Figure 24 shows the conceptual plan for the Penn Daw CBC



A Livability Spine, extending parallel to Richmond Highway generally from Quander Road to the north and one block north of Fairview Drive to the south, will form the central organizing feature of the CBC and will function as Penn Daw’s “main street” with small scale, local commercial activity intended to augment non-residential uses on Richmond Highway and Kings Highway. The Livability Spine will serve as the primary connection and pedestrian corridor through the eastern side of the CBC; its Linear Park component will serve as the main public gathering place for people to enjoy outdoor activities. See the Open Space Network section for additional information about the design and types of activities planned for the Livability Spine. Figure 25 is a visualization of the character envisioned for the Livability Spine.

Figure 25 describes the character of the Livability Spine for the Penn Daw CBC



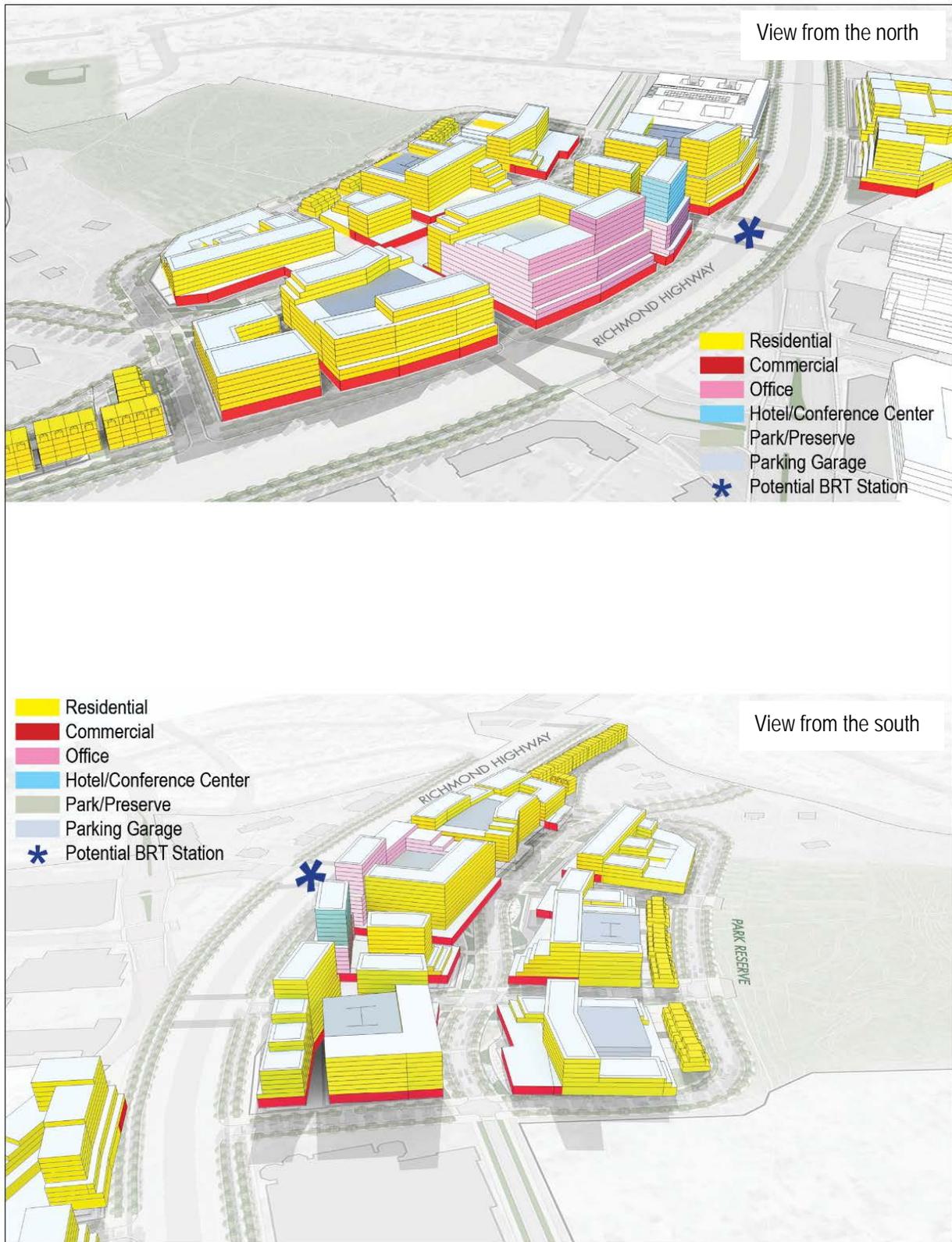
Land Unit E is planned to contain a diverse mix of residential, community-serving retail, office, and hotel uses in close proximity to one other. Planned residential uses should include multi-family units as well as townhomes. Non-residential uses are envisioned on the ground-floor of buildings. Uses that will activate the pedestrian environment should be located in buildings that face Richmond Highway, the Livability Spine, and the Avenue that connects the BRT station to the Livability Spine. Garage entrances or loading areas should not front on the Livability Spine.

The ground floors of buildings should generally be designed with higher ceiling heights to allow for maximum flexibility in accommodating non-residential uses. The ground floors of buildings should adhere to the recommended build-to line, with the exception of buildings along

the Livability Spine where facades are encouraged to vary from one another in an effort to create interesting outdoor spaces. Floors above the ground-floor should step back to create terraces with outdoor spaces and to create an interesting interplay of sunlight and shadows on the street below while avoiding wind tunnels and a canyon effect that can result from a continuous wall of buildings. The building step-backs and terracing also provide opportunities to integrate green infrastructure, such as stormwater collection and green roofs, into buildings.

Figure 26 shows the proposed land uses and building forms based on the redevelopment options. Buildings should be the tallest along Richmond Highway, particularly in the areas immediately adjacent to the BRT station, and then taper down in height for the buildings located farther from the station. Non-residential uses should be located on the ground-floor of buildings within the blocks adjacent to Richmond Highway as well as along both sides of the Livability Spine. Residential uses should be primarily located above the ground-floor, but may also be a ground-floor use where a building abuts existing residential uses. Office and hotel uses are planned in the general vicinity of the BRT station.

Figure 26 indicates the building form and massing for the Penn Daw CBC

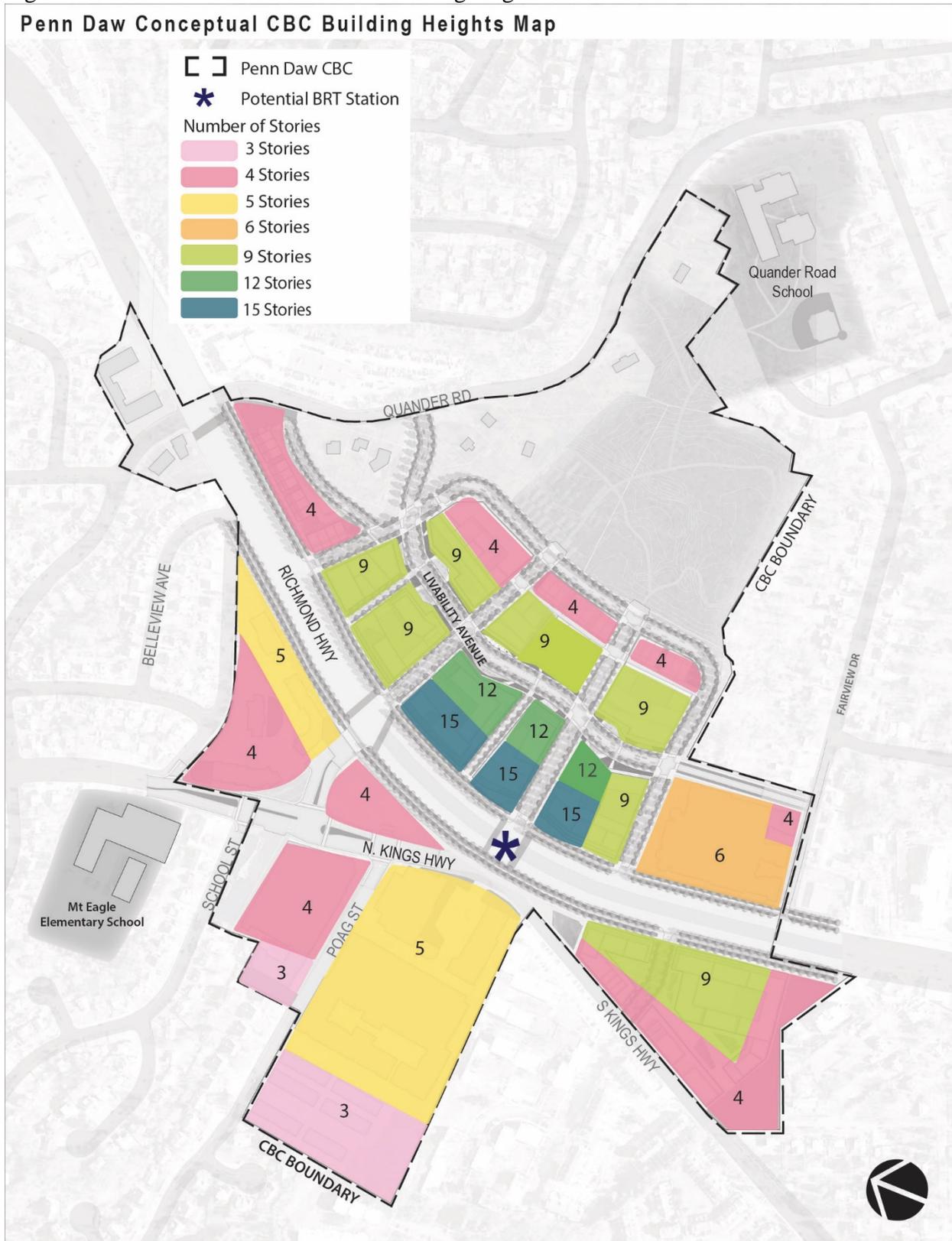


BUILDING HEIGHTS

Figure 27 illustrates the recommended building heights in the Penn Daw CBC. Building height is one of the key elements to determine the amount of development potential that is achievable in each land unit. Building heights should not be homogenous within a development. Consult Vision Element 5 and the building height recommendations contained within the Urban Design section of the Corridor-wide Guidelines for further information.

On the east side of the CBC, the tallest buildings are recommended along Richmond Highway up to a maximum of 15 stories in height closest to the potential BRT station. Moving further away from the BRT station, heights should step down. Buildings along the Livability Spine are envisioned up to 12 stories in height, tapering to 4 stories in height where these buildings abut the planned park or single-family homes. On the west side of the CBC, existing uses include the Shelby Apartments, located at North Kings Highway and Poag Street, which is predominately 4 stories in height. The approved South Alex development immediately adjacent to the Shelby is proposed at a maximum height of 5 stories and tapers to 3-story townhomes to the rear of the site. The southern triangular portion of the CBC, situated between Richmond Highway and South Kings Highway, is envisioned at up to 9 stories in height along Richmond Highway, with heights tapering to 4 stories along South Kings Highway and adjacent to existing residential development.

Figure 27 illustrates the recommended building heights in the Penn Daw CBC



OPEN SPACE NETWORK

The Penn Daw CBC will be served by a variety of urban park spaces, following the guidance of the Urban Parks Framework in the Policy Plan. While each development is expected to address its urban park needs, there are several park spaces that are integral to the Conceptual Plan that should guide the provision of urban park space within the CBC.

A combination of Civic Plaza spaces are envisioned in the immediate vicinity of the BRT station, providing ease of access to public transportation as well as an entry feature into the Penn Daw CBC. The central Civic Plaza, located south of the potential BRT station between Richmond and Kings Highway, will serve to physically connect communities across the CBC through an enhanced pedestrian experience while establishing a visual identifier for the CBC. Largely envisioned to be constructed of hardscape surfaces, the Civic Plazas should include features that complement the identity of the CBC as an urban TOD node, including public art and placemaking elements. Hardscape patterns should define pedestrian routes and help to articulate ideas about area history and ecology. Interactive features that encourage engagement within the space and those that support multiple purposes are encouraged. Seating areas for respite and social interaction are vital, as is landscaping that provides visual interest and shade.

The Livability Spine should function as the heart of daily life for residents of the Penn Daw CBC and is envisioned to have continuous Pedestrian Zones that include publicly accessible urban park space on both sides of the street. The Pedestrian Zone is comprised of a combination of landscaped and hardscaped areas designed to provide everyday access to recreation and outdoor spaces. The Pedestrian Zone includes four components: a building zone, a Linear Park, walkways, and a landscape panel. Minimum dimensions for each component of the Pedestrian Zones are provided in the Urban Street Network Design; however each component has flexible dimensions to encourage creativity in the design and programming of the entire space between the roadway and the building. The walkway on the western side of the roadway closest to the potential BRT station should accommodate pedestrians and cyclists in a recreational atmosphere. Walkway surfaces should be constructed from high-quality, bike and pedestrian-friendly materials, and have well-defined edges. The landscape panel should provide space for shade trees and landscaping to effectively buffer pedestrians and cyclists from the roadway. The building zone may be used as an extension of the walkway or for outdoor dining, browsing, or other building functions.

Within the Linear Park portion of the Pedestrian Zone, a variety of features and amenities will serve everyday needs for activity and community building, such as outdoor fitness areas, fenced dog parks, water features, playgrounds, and shade and seating options. The development of programmable areas for elements such as yoga plazas, tai chi, and various sports courts, accompanied by a commitment to program community usage of these areas, is encouraged. Play features and design elements that build upon narratives about the area's ecology and history are encouraged to enhance the CBC's sense of place.

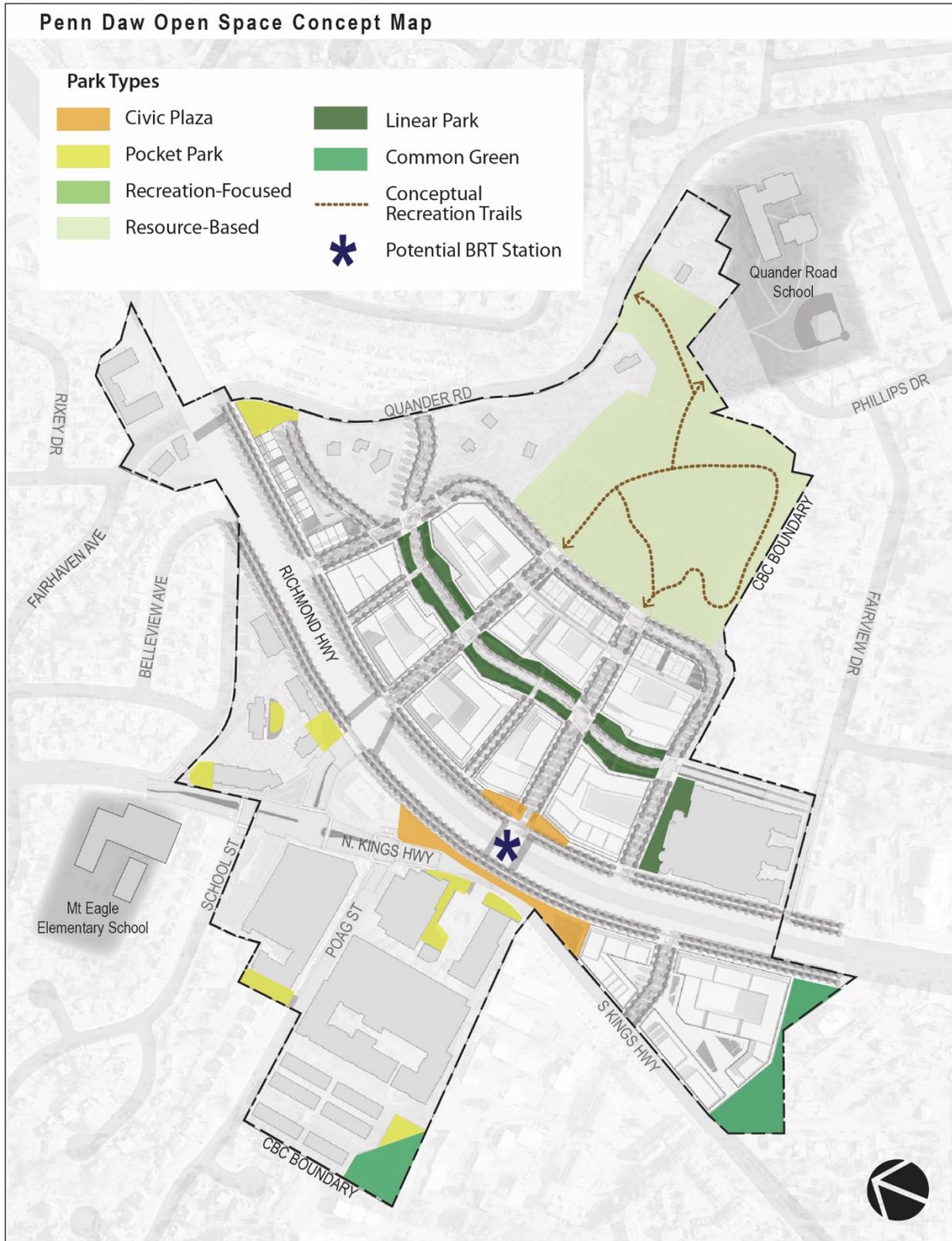
Properties should provide for their portion of the Livability Spine and plan for its programming. Individual development programs are encouraged to expand upon the range of features included within the Linear Park. The Livability Spine may be expanded by the provision of adjacent indoor and rooftop facilities provided that there is clear, public access. If development

proceeds incrementally, later development should align with previously approved components of the Livability Spine.

The county-owned properties, including the Fairchild property and the Quander property, [Tax Map Parcels 83-3 ((1)) 24 and 26F] along the eastern edge of the CBC should be preserved and developed as public park space and include ecological enhancements. These properties provide a unique resource within an urban area, offering connections to a more naturalized and passive recreation space adjacent to the built environment. As a visual terminus of the Avenue extending from the BRT station, the Fairchild property should directly tie development to ecological resources and natural areas. Development of pedestrian connections across the park should provide opportunities for passive recreation and connectivity to the Penn Daw CBC and the BRT while being respectful of the area's topography.

Development within the Penn Daw CBC will generate the need for additional athletic fields to serve residents and employees. Development projects that generate the need for less than a full athletic field are encouraged to consolidate their efforts in seeking creative solutions to address this need, preferably within the CBC. Connectivity to the Quander Road School and nearby Mount Eagle Elementary School should be enhanced to expand the availability of active recreation opportunities accessible from the Penn Daw CBC. Figure 28 is a visualization of the conceptual open space network and primary urban park goals for the Penn Daw CBC.

Figure 28: Open Space Concept Map for the Penn Daw CBC



MULTIMODAL TRANSPORTATION IMPROVEMENTS

Penn Daw is primarily served by three roadways: Richmond Highway, North Kings Highway and South Kings Highway. One BRT station is planned within the Penn Daw CBC with the northern terminus of the BRT system at the Huntington Metrorail Station entrance on North Kings Highway. Several planned road improvements are not dependent on the redevelopment in the Penn Daw CBC area such as the improvements at the North Kings Highway/South Kings Highway and Shield Avenue intersections. These improvements are likely to move forward through publicly-led efforts and future capital improvement programs. See Figure 29 North Gateway and Penn Daw Community Business Centers Map for location of planned road improvements. The following is a list of improvements for the Penn Daw CBC:

- Implement a new, multimodal grid of streets on the east side of Richmond Highway generally bounded by Quander Road to the north, Fairview Drive to the south, and the county-owned property and existing residential development to the east.
- Sever the connection of North Kings and South Kings Highway with Richmond Highway and concurrently provide a new road connection to the south to connect Richmond Highway and South Kings Highway. The location of the new road, to be determined with future study, should include community discussions and coordination. North Kings Highway and South Kings Highway should remain connected to retain their north and south through movements.
- Realign and reconfigure the intersection of North Kings Highway and Shields Avenue/School Street intersection to a perpendicular, three-way intersection to enhance traffic flow within the CBC.
- Provide pedestrian connections at the BRT station and the signalized intersection at Shields Avenue to facilitate pedestrian movement to and from either side of Richmond Highway.

For more information on the specific cross-sections and road design characteristics of the multimodal network, see the Urban Street Network Design (USND) section of this Plan. Specific types of bicycle facilities are planned for each roadway based on the street type and adjacent land uses. The location and type of streets and the bicycle and pedestrian facilities within the planned grid of streets is depicted in Figure 30, Penn Daw Multimodal Network Concept Map. Also, refer to the Fairfax County Bicycle Master Plan for additional bicycle facility guidelines.

Figure 29 illustrates the Planned Road Improvements for the Penn Daw CBC

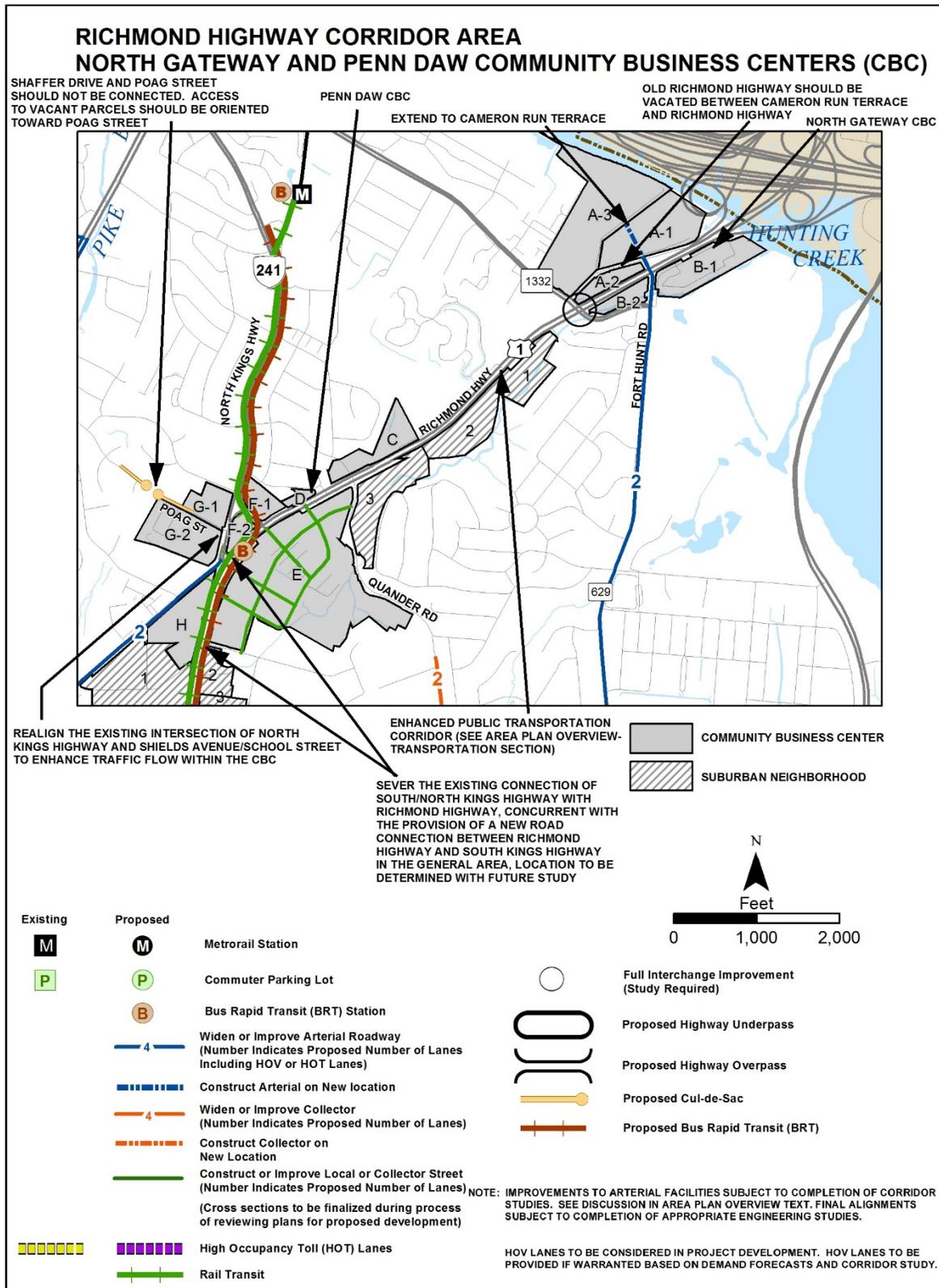
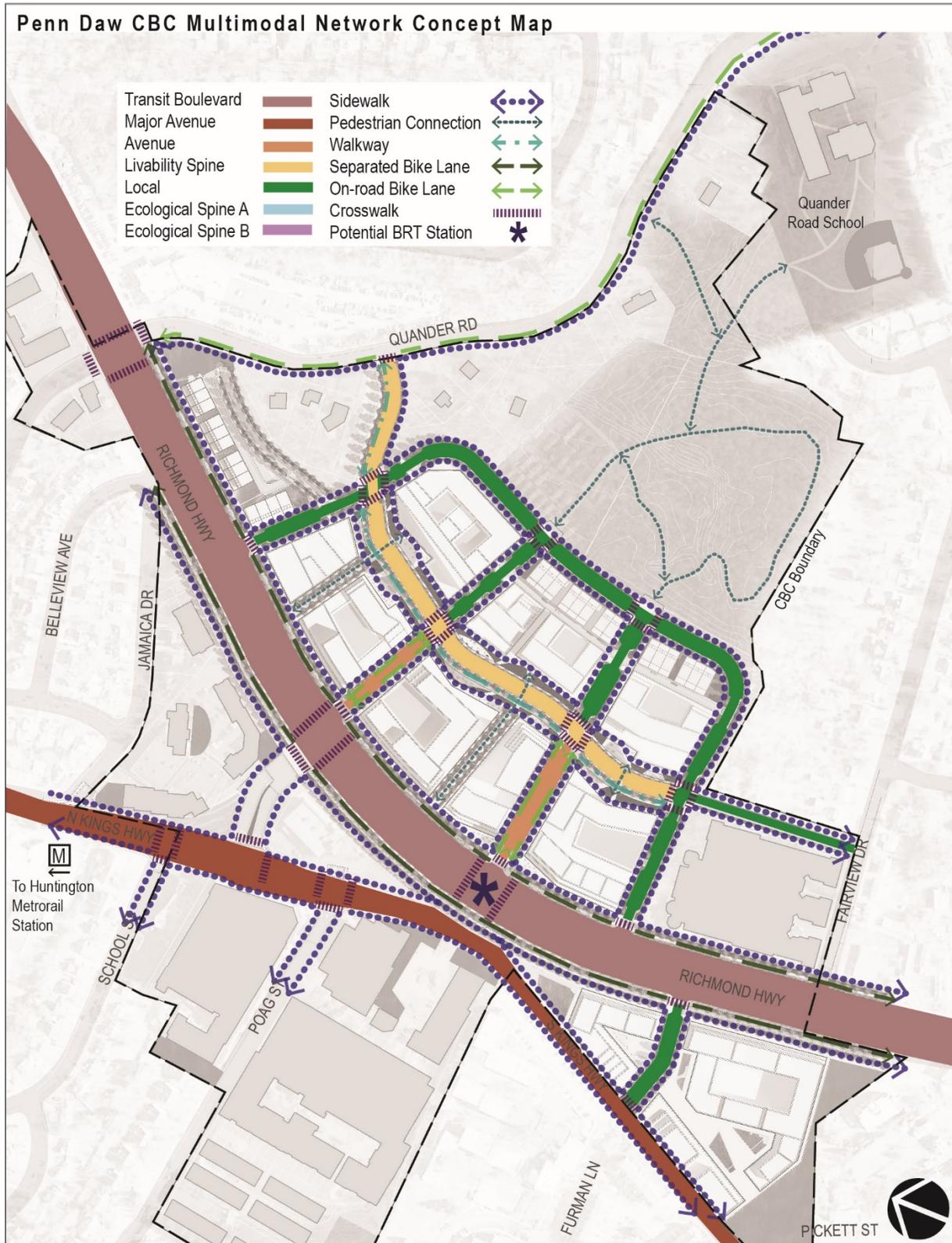


Figure 30 illustrates the multimodal network concept for the Penn Daw CBC



LAND UNIT RECOMMENDATIONS

Development Potential

Figure 31 contains an estimate of the maximum development potential, inclusive of the redevelopment options, for the Penn Daw CBC. Additional details about the base plan and redevelopment options are contained in CBC land unit descriptions that follow. As noted in the Land Use Section under Corridor-wide Guidelines, flexibility among non-residential uses is appropriate provided the overall vision of a vibrant mixed-use community is achieved and multimodal transportation needs are addressed. Construction or commitments to the grid of streets, open spaces, parks and a mix of residential and non-residential uses, as applicable to each CBC, is expected to be phased with developments.

It is expected that development will occur in phases. As such, phased development will need to advance the goals and the vision in the Plan, as described in the Implementation Section. Development applications must be reviewed in a manner that ensures appropriate phasing to the provision of public improvements. The construction of and/or commitment to the public facilities is expected to be provided appropriately with each phase of development.

Figure 31: Penn Daw CBC Maximum Development Potential under Redevelopment Options

Land Use	Comprehensive Plan development potential inclusive of redevelopment options ¹	
	Number of Dwelling Units or Jobs	Approximate Gross Square Feet (gsf)
Residential ²	2,910 dwelling units	N.A.
Non-residential	2,663 jobs	915,000 gsf
Office	1,500 jobs	450,000 gsf
Retail	1,163 jobs	465,000 gsf
Total	2,910 dwelling units and 2,663 jobs	

Note 1: Development potential, employment estimates, and dwelling units are approximate. Conversion factors: office - 300 gsf/job; retail - 400 gsf/job.

Note 2: The residential development potential does not include potential housing bonuses allowed under the Affordable Dwelling Unit (ADU) Ordinance and the Board of Supervisors Workforce Housing Policy (WDU).

Land Unit C

This approximately 7-acre sub-unit includes the commercially-zoned lots fronting on the west side of Richmond Highway south of Belle Haven Towers between Richmond Highway and the Fairhaven neighborhood.

Base Plan

The sub-unit is planned for office use up to approximately 150,000 gross square feet and a maximum height of 50 feet. Buildings should be oriented toward Richmond Highway with parking

in the rear. Substantial consolidation of lots, combined access points, and an efficient internal circulation pattern should be provided.

Land Unit D

This approximately one-acre land unit comprises the parcels fronting on the west side of Richmond Highway between Jamaica Drive and Sub-unit F-1.

Base Plan

This land unit is planned for low-rise office use up to approximately 15,000 gross square feet.

Redevelopment Option

Mixed-use development to include midrise multifamily residential use with ground-floor retail and/or office uses may be appropriate with consolidation of Sub-unit F-1. See Subunit F-1 for detailed recommendations.

Land Unit E (formerly Land Units E and G)

This approximately 53-acre land unit is the largest in the Penn Daw CBC, comprising the land area east of Richmond Highway from Quander Road to Fairview Drive.

Base Plan

As delineated on the Comprehensive Land Use Plan Map, properties fronting on the east side of Richmond Highway to include Tax Map Parcels 83-3((1))23A and 83-3((8))A and parcels between Quander Road and Shields Avenue are planned for neighborhood-serving office and/or retail uses up to 0.50 FAR with a maximum height of 50 feet. The Penn Daw Trailer Park is planned and developed as a mobile home park at a density of 5-8 dwelling units per acre. Any redevelopment of the mobile homes should comply with the county's voluntary relocation guidelines. Properties located along the south side of Quander Road between Richmond Highway and Quander Road School are planned for residential use at 3-4 dwelling units per acre.

The area south of Shields Avenue to Fairview Drive is planned for community-serving retail use up to 0.50 FAR. Tax Map parcels 83-3((1))24 and 83-3((1))26F are owned by the county and planned as a public park. Where past storm water management practices have degraded these slopes and streams, current bioengineering approaches should be followed to restore them to more natural conditions and functions. The remainder of Land Unit E is planned for retail use at an intensity up to 0.50 FAR.

Redevelopment Option

Residential use at a density of 5-8 dwelling units per acre may be appropriate with complete parcel consolidation of the properties along Quander Road. The homes should be clustered to minimize impacts on steep slopes in the area. Vehicular access points should be consolidated and/or limited in order to reduce congestion within the Richmond Highway and Quander Road corridors and their intersections.

The remainder of Land Unit E is envisioned to be the focal point of the Penn Daw CBC and is recommended for up to 1,600 dwelling units and 700,000 square feet of non-residential uses to

create a mixed use environment. Development proposals should reflect a single integrated project or a project that allows for future coordination with other projects and should meet the following conditions in addition to the general CBC and corridor-wide guidance:

- Substantial consolidation of parcels should be achieved. Where consolidation of parcels is not achieved, existing uses should be integrated into the site design by providing interparcel vehicular and pedestrian access. Redevelopment on a portion of the land unit should not preclude the remainder of the land unit from redeveloping under the plan's redevelopment option in the future;
- Consolidated access for redevelopment along Quander Road should be provided to reduce congestion near the Richmond Highway/Quander Road intersection.

Midrise multifamily residential redevelopment up to approximately 375 dwelling units with ground-floor retail use or amenity space is planned and approved for the area south of Shields Avenue to Fairview Drive should achieve full consolidation of Tax Map Parcels 83-3((1))18, 19 and 20,. A public street should be accommodated, including the dedication of right-of way, to connect Fairview Drive to Tax Map Parcel 83-3((40))1A. The street **is** intended to link to the Penn Daw CBC grid of streets that will be created with the future redevelopment of parcels 83-3((40))1A and 83-3 ((40)) 2A.

Sub-unit F-1

This approximately 3-acre sub-unit comprises the land area north of Shields Avenue, between North Kings Highway and Richmond Highway, including Tax Map Parcels 83-3((1))22B pt, 22C and 22D

Base Plan

This sub-unit is planned for retail use up to approximately 65,000 gross square feet and building heights of 50 feet. Consolidation of contiguous lots is desirable. Existing landscaping, which serves as a buffer to the adjacent residential neighborhood should be maintained. In any development proposal, sidewalks should be provided to facilitate pedestrian access and circulation. Vehicular access should be provided only at one point each on Richmond Highway and North Kings Highway.

Redevelopment Option

As an option, mixed-use development to include a maximum of 360 mid-rise multifamily residential units and 40,000 square feet of ground-floor retail, office, or other non-residential uses is planned and approved on this sub-unit with consolidation with Land Unit D.

Sub-unit F-2

This approximately 2-acre sub-unit comprises Tax Map Parcels 83-3((1))22A and 22B1 between Richmond Highway and North Kings Highway, south of Shields Avenue.

Base Plan

The sub-unit is planned for retail use up to approximately 30,000 gross square feet. Efforts should be made to coordinate the site design with any redevelopment plans on Sub-units G-1 and G-2 to maximize visibility and aesthetic relationships. Safe and convenient vehicular, bicycle, and pedestrian access and connections between Land Unit E and Sub-Units F-2, G-1 and G-2 should be provided.

Land Unit G (formerly Land Unit H)

The land unit is divided into Sub-units G-1 and G-2. In total, land unit G is approximately 16-acres in size.

Sub-unit -G-1

Base Plan

This approximately 5-acre sub-unit between School and Poag Streets along the west-side of North Kings Highway is planned for retail, low-rise office and/or compatible institutional uses up to approximately 50,000 gross square feet.

Redevelopment Option

The sub-unit has been developed through an option for residential use with ground-floor non-residential use, for a total of up to approximately 250,000 gross square feet of development, with the following conditions:

- The existing, community-serving retail center on School Street should be retained provided that functional and aesthetic coordination of design is demonstrated.
- A minor realignment of North/South Kings Highway should be considered. The improvement should be designed to minimize impacts to the Kings Garden Apartments in the vicinity of the existing connection of Richmond Highway; to enhance traffic flow on North/South Kings Highway; and, to create a pedestrian refuge for improved crossing of Richmond Highway and North/South Kings Highway. Dedication of right-of-way would be needed for this realignment to occur. If deemed appropriate, this realignment should take place concurrent with the severing of the Richmond Highway connection;
- The intersection of North Kings Highway with Shields Avenue/School Street should be improved concurrently with redevelopment to facilitate realignment of the intersection. If complete consolidation is not achieved in Sub-unit G-1, individual properties should work cooperatively during redevelopment to achieve this realignment;
- Design and/or construction of other planned transportation improvements, on-site and off-site, should be provided. A financial contribution may be provided towards facilitating implementation of off-site planned transportation improvements, as deemed appropriate;
- No new vehicular access should be provided to School Street;
- Traffic and safety concerns on School Street are addressed with traffic-calming and/or anti-mitigation to limit cut-through measures, where warranted; and,
- Shaffer Drive and Poag Street should not be connected.

Sub-unit G-2

Base Plan

This approximately 11-acre sub-unit located south of Poag Street along North Kings Highway is planned for retail use up to 170,000 gross square feet.

Redevelopment Option

The majority of the sub-unit has been approved under an option for a mix of predominately residential use and ground-floor retail use for 441 multifamily and single-family attached units and approximately 45,000 square feet of commercial use.

The following conditions should be met with redevelopment:

- Design should be coordinated throughout Sub-units G-1 and G-2, especially if redevelopment is phased;
- A minor realignment of North/South Kings Highway should be considered. The improvement should be designed to minimize impacts to the Kings Garden Apartments in the vicinity of the existing connection of Richmond Highway; to enhance traffic flow on North/South Kings Highway; and, to create a pedestrian refuge for improved crossing of Richmond Highway and North/South Kings Highway. Dedication of right-of-way would be needed for this realignment to occur. If deemed appropriate, this realignment should take place concurrent with the severing of the Richmond Highway connection;
- Design and/or construction of other planned transportation improvements, on-site and off-site, should be provided. A financial contribution may be provided towards facilitating implementation of off-site planned transportation improvements, as deemed appropriate.
- In the interim period prior to severing the connection between North/South Kings Highway and Richmond Highway, the entrance to Penn Daw Plaza south of Poag Street, which is currently offset, should be realigned with the existing connection to Richmond Highway. This realignment, along with an internal network of well-connected streets, is intended to improve access to the site and provide adequate circulation to more evenly distribute trips with Poag Street.
- Shaffer Drive and Poag Street should not be connected.

Land Unit H (formerly Land Unit I)

This land unit comprises the approximately 10-acre triangle-shaped land area between South Kings Highway and Richmond Highway.

Base Plan

This approximately 10-acre triangle-shaped land unit is planned for approximately 215,000 gross square feet of retail and office or office mixed-use up development. Full service restaurants with table service are especially encouraged.

Redevelopment Option

This land unit is planned for residential use up to 420 dwelling units.

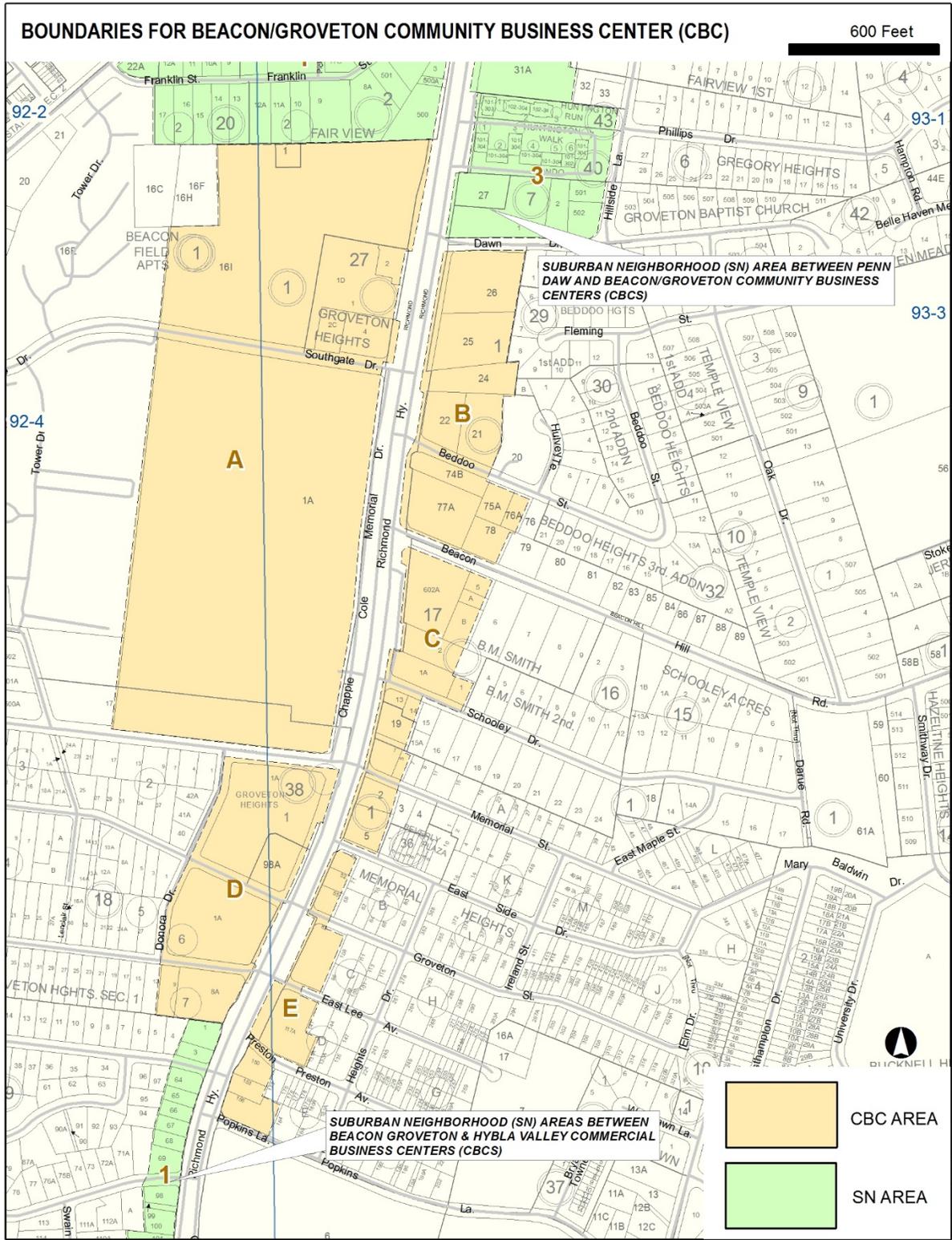
BEACON/GROVETON COMMUNITY BUSINESS CENTER

Topography has played a central role in the evolution of the Beacon/Groveton CBC. Beacon Hill is one of the highest points in the metropolitan area, affording views of the Washington Monument, Old Town Alexandria and surrounding natural features. Because of its elevation, the area was developed as an airfield in the 1920s. Beacon Field Airport operated for over 30 years, serving as a regional airport for airmail deliveries and a training facility for pilots during World War II. Taking advantage of elevation, it is also the location of two large water towers.

Since the 1960s, the area has developed as an important commercial node, with Beacon Center being one of the largest shopping centers in the area. Additional retail uses are located north of Beacon Center on the west side of Richmond Highway. These large retail centers provide the greatest opportunity for redevelopment, design and appearance enhancements, and access and circulation improvements along the corridor. Strip-retail uses are prevalent on the east side of Richmond Highway where commercially-zoned lots are shallow and abut stable residential neighborhoods. The Beacon at Groveton, the first urban, mixed-use residential project on the Corridor, is located at the intersection of Richmond Highway and Memorial Street. There is a small amount of office use in the Metrocall building at the corner of Groveton Street and Richmond Highway.

This CBC is planned to be served by BRT and, ultimately, by a Metrorail Station. Figure 32 shows the geographic location of land units within the Beacon/Groveton CBC. The redevelopment option for Land Unit A that is depicted on the Conceptual Plan corresponds to the BRT level of development that would precede the ultimate Metrorail level. However, within the text there are general land use recommendations for additional density in Land Unit A that may be implemented with the Metrorail extension to Beacon/Groveton. The Metrorail level of development may be considered once a Full Funding Grant Agreement or a comparable funding agreement to design and build the Metrorail extension has been executed by all funding stakeholders. Prior to any implementation of Metrorail levels of development, a corridor-wide transportation analysis assuming these Metrorail levels of development should be completed.

Figure 32 indicates the geographic location of land units in the Beacon/Groveton CBC, shown in yellow, and the Suburban Neighborhood Areas between the CBCs, shown in green.



CONCEPTUAL PLAN

The Beacon/Groveton CBC is envisioned as the town center and focal point for the Richmond Highway corridor, taking advantage of planned transit infrastructure. As the town center, the CBC should become the most urban and densely developed of all of the CBCs on the corridor, and should contain the tallest buildings. A BRT station is planned in the vicinity of the intersection of Richmond Highway and Beacon Hill Drive, which should be connected to a signature central Civic Plaza fronting on Richmond Highway in Land Unit A.

The Conceptual Plan, shown in Figure 33, should be used as a guide for development proposals. There is flexibility in how the Conceptual Plan can be implemented provided there is general adherence to the grid of streets, in particular the Livability Spine, the open space network, the location of station-area plazas, and the placement of ground-floor non-residential uses.

The western land units (Land Units A and D) are envisioned to redevelop around a multimodal grid of streets that will enhance circulation within the CBC, create developable and walkable-sized blocks and connect to adjacent existing roadways. Intersections in the new grid of streets should be spaced so that blocks are pedestrian-scaled at walkable distances. Mid-block pedestrian connections within the grid of streets are recommended where large blocks may make walking inconvenient. Block sizes should be designed to accommodate large-format retailers where appropriate.

A Livability Spine, generally extending parallel to Richmond Highway from Memorial Street to intersect with Richmond Highway, will form the central organizing feature of the new grid of streets and will serve as the main focus of pedestrian-oriented commercial activity. The Livability Spine will serve as the primary connection and pedestrian corridor through the western side of the CBC, and its Linear Park component will serve as the main public gathering place for people to enjoy outdoor activities. See the Beacon/Groveton Open Space Network section for additional information about the design and types of activities planned for the Livability Spine.

The Conceptual Plan identifies three major open spaces that should connect to the Livability Spine, including a central Civic Plaza adjacent to the BRT station and two significant park spaces anchoring the ends of the Livability Spine. The central Civic Plaza on the west side and a smaller Civic Plaza opposite the BRT Station in the eastern land unit of the CBC should contain consistent design elements. This pair of Civic Plazas should create attractive gathering spaces for pedestrians accessing the BRT station from both the east and west. Figure 34 is a visualization of the character envisioned for the central Civic Plaza located west of the BRT station. The park at the southern end should link to the existing Lenclair Park to the west. At the northern end, the park should be located in the vicinity of the water towers. All public open spaces in the CBC should incorporate the legacy theme by creatively integrating references to elements such as the former airfield into the design features and character of these spaces.

Figure 33 shows the Conceptual Plan for the Beacon/Groveton CBC



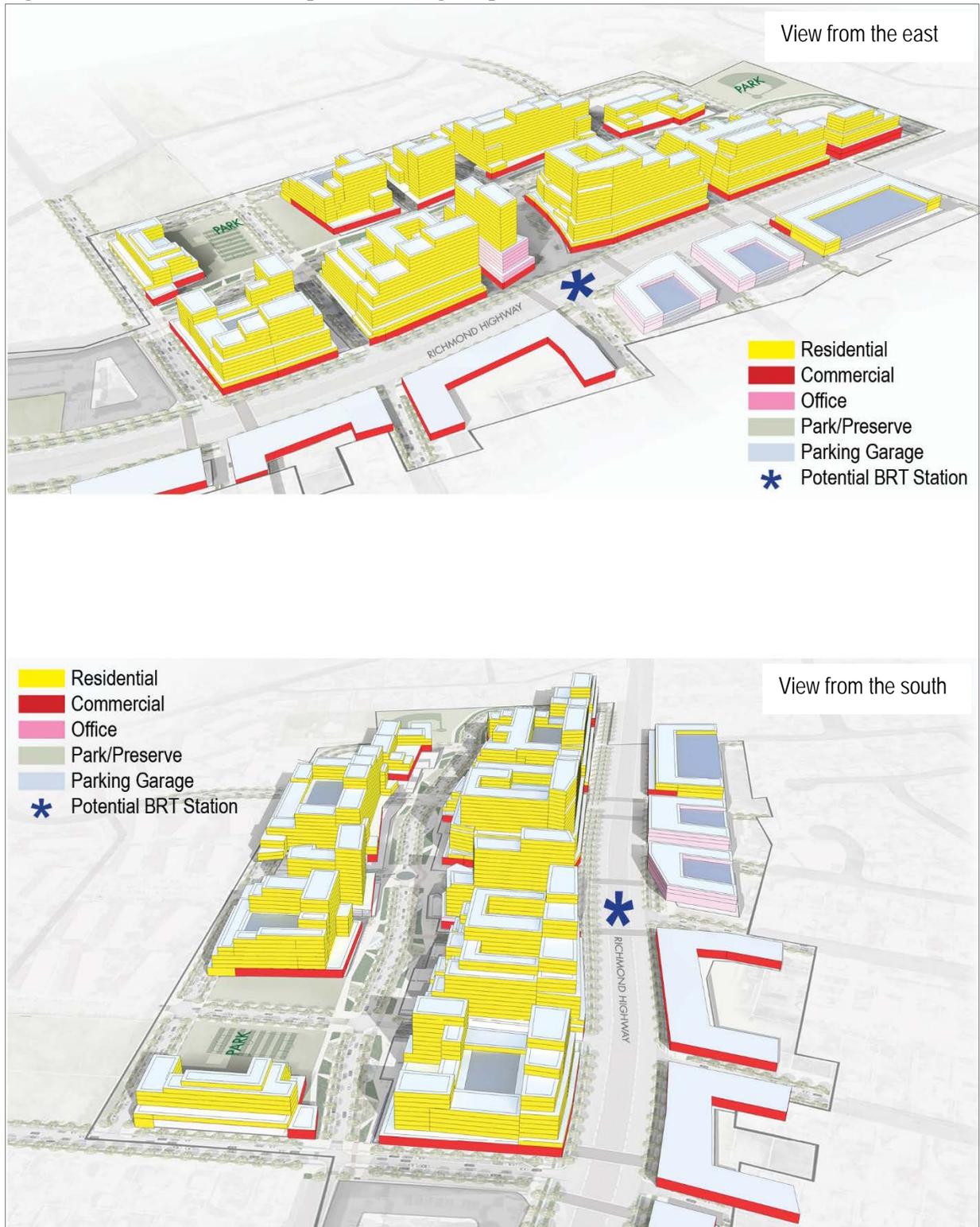
Figure 34 illustrates the conceptual central Civic Plaza for the Beacon Groveton CBC



Figure 35 illustrates how land uses may be organized and generally distributed within the CBC. Most buildings should be designed to be mixed-use. Non-residential uses should be located on the ground-floor of buildings within the blocks adjacent to Richmond Highway, as well as along both sides of the Livability Spine. Residential uses should be primarily located above the ground-floor, but may also be a ground-floor use where a residential building abuts existing residential uses. Office use should be planned in the general vicinity of the BRT station. Buildings facing the Livability Spine should have retail or other activity-generating uses on the ground-floor level so as to create a lively pedestrian environment. Non-residential uses should have their entrances and any associated outdoor spaces open on to the Livability Spine. No garage entrances or loading areas should front on the Livability Spine.

Architectural designs should creatively address building scale through massing, terracing and the modulation of facades that creates an interesting play of light and shadow on adjoining streets, while mitigating impacts to adjacent neighborhoods. In addition to land uses, Figure 34 also shows how building massing is envisioned. Buildings should have a consistent ground-floor plane next to the building zone but should step back above the ground-floor to prevent shadows and a canyon-like effect on adjacent streets. Building rooflines should not be uniform in a single building or within a block. Terraces, green roofs, and other roof top amenities should be provided to maximize outdoor recreational opportunities for residents and workers; to provide environmental benefits, such as stormwater collection and heat island reduction; and, to enhance the views from the upper stories of buildings.

Figure 35 illustrates the conceptual building shapes for the Beacon Groveton CBC



BUILDING HEIGHTS

Figure 36 illustrates the recommended building heights in the Beacon/Groveton CBC. Building height is one of the key elements to determine the amount of development potential that is achievable in each land unit. Building heights should not be homogenous within a development. Consult Vision Element 5 and the building height recommendations contained within the Urban Design section of the Corridor-wide Guidelines for further information.

Buildings should be designed to take advantage of Beacon/Groveton's high elevation and views of the surrounding area. The tallest buildings are planned along Richmond Highway and closest to the BRT station. From those locations, buildings should taper in height and scale to create better transitions to adjacent residential neighborhoods.

On the west side of the CBC along Richmond Highway and closest to the potential BRT station, the tallest buildings are recommended at a maximum height of 22 stories. Moving further away from the potential BRT station, building heights should step down to create compatible massing on both sides of the Livability Spine. Buildings along the Livability Spine are envisioned to be up to 16 stories in height, tapering to 6 stories in height adjacent to existing residential uses. On the east side of the CBC, a height of 4 stories is recommended due to the relatively shallow parcel depth and proximity to adjacent existing low-density residential development.

OPEN SPACE NETWORK

The Beacon/Groveton CBC should be served by a variety of urban park space, in alignment with the guidance of the Urban Parks Framework. While each development is expected to address the urban park need generated by the proposed development, there are several park spaces that are integral to the Conceptual Plan that should be provided to support the vision for the CBC.

Within the context of the overall Richmond Highway corridor, the Beacon/Groveton CBC is envisioned as the town center, serving as a community-building core for the corridor. The CBC features a central Civic Plaza located across from the BRT Station on the west side of Richmond Highway that should connect seamlessly with the BRT station in a manner that will welcome visitors into this signature public space. It should also be designed to link with the Livability Spine. Activated and supported by planned adjacent retail uses, the central Civic Plaza should be able to support large community events such as festivals, farmers markets, and outdoor performances. Signature features such as public art and water features should complement the theme of the Beacon/Groveton CBC and support placemaking by including opportunities to capitalize on the area's aviation history as well the views afforded by the high elevation. Hardscape surfaces should support the high volume of pedestrian movements anticipated with large community events and include patterns that help define pedestrian routes. A variety of seating options, lighting, and wayfinding, as well as restrooms should be included. Landscaping should provide visual accents as well as opportunities for shade.

Planned transportation improvements indicate an interim local roadway may be required through the area of the central Civic Plaza. If this occurs, the design should address the ability to achieve the ultimate vision for central Civic Plaza once this interim roadway connection is no longer necessary.

The Livability Spine should function as the heart of daily life for residents of the Beacon/Groveton CBC and is envisioned to have continuous Pedestrian Zones on both sides of the street. The Pedestrian Zone is comprised of a combination of landscaped and hardscaped areas designed to provide everyday access to recreation and outdoor spaces. The Pedestrian Zone includes four components: a building zone, a Linear Park, walkways, and a landscape panel. The walkway on the eastern side of the roadway, closest to the potential BRT station, should accommodate pedestrians and cyclists in a recreational atmosphere. Walkway surfaces should be constructed from high-quality, bike and pedestrian-friendly materials, and have well-defined edges. The landscape panel should provide space for shade trees and landscaping to effectively buffer pedestrians and cyclists from the roadway. The building zone may be used as an extension of the walkway or for outdoor dining, browsing, or other building functions.

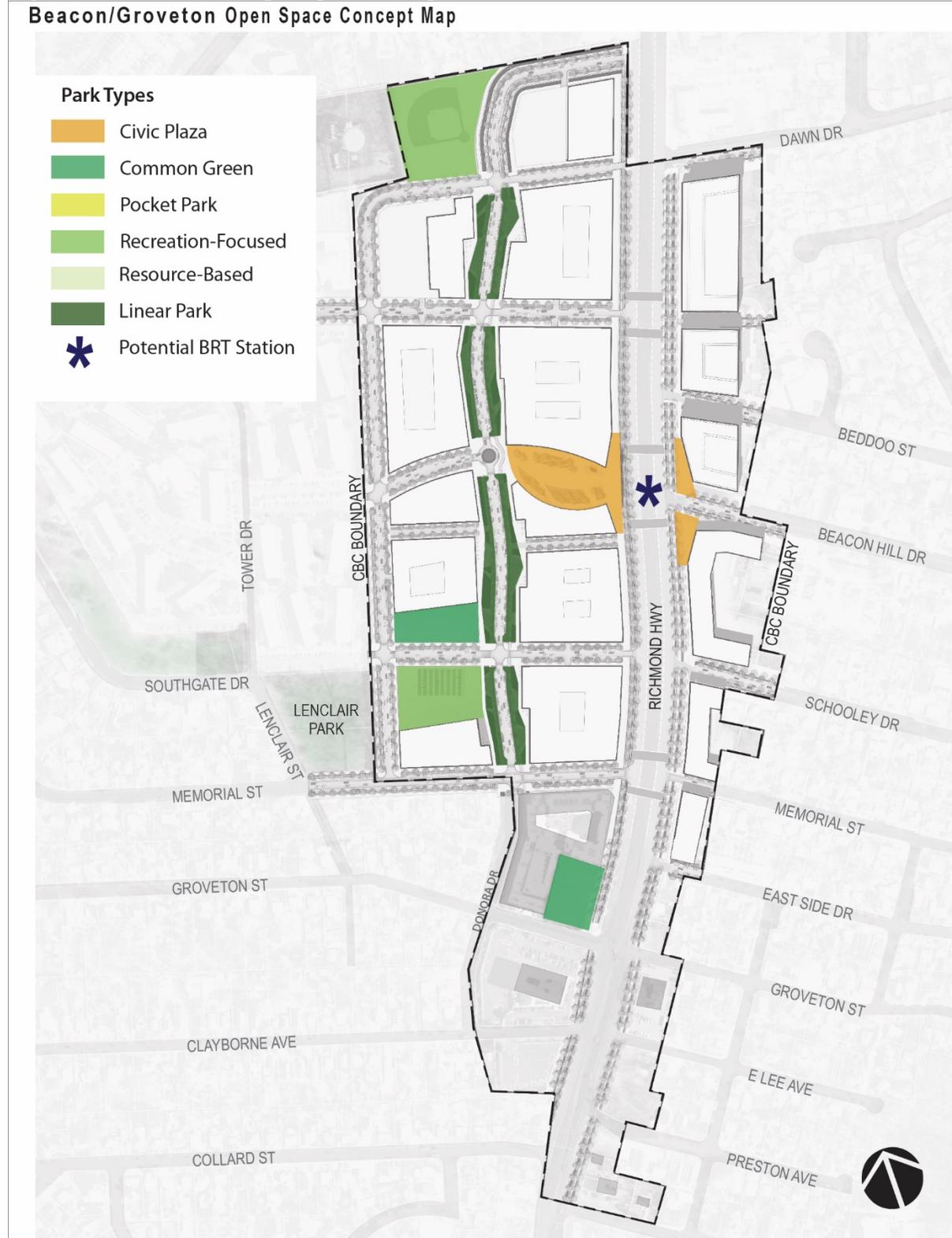
Within the Linear Park portion of the Pedestrian Zones, a variety of features and amenities will serve everyday needs for activity and community building, such as outdoor fitness areas, fenced dog parks, water features, playgrounds, and shade and seating options. The development of programmable areas for elements such as yoga plazas, tai chi, and various sports courts, accompanied by a commitment to program community usage in these areas, is encouraged. Play features and design elements that build upon narratives about the area's ecology and history are encouraged to enhance the CBC's sense of place.

Properties should provide for their portion of the Livability Spine and plan for its programming. Individual development programs are encouraged to expand upon the range of features within the Linear Park. Minimum dimensions for each component of the Pedestrian Zones are provided in the Urban Street Network Design; however each component has flexible dimensions to encourage creativity in the design and programming of the entire space between the roadway and the building. The Livability Spine may be expanded by the provision of adjacent indoor and rooftop facilities provided that there is clear, public access. If development proceeds incrementally, later development should align with previously approved components of the Livability Spine.

Developments within the Beacon/Groveton CBC should capitalize on the adjacency of Lenclair Park, expanding on the recreational opportunities available to residents and workers, while enhancing non-motorized connectivity for communities to the north to the Beacon/Groveton CBC and future BRT station.

Development within the Beacon/Groveton CBC will generate additional need for athletic fields to serve future residents and employees. The Conceptual Plan for the Beacon/Groveton CBC envisions two areas for athletic fields and active recreation. Developments that generate the need for less than a full athletic field are encouraged to consolidate their efforts in seeking creative solutions to address this need. Figure 37 is a visualization of the conceptual open space network and primary urban park goals for the Beacon/Groveton CBC.

Figure 37 illustrates the open space concept for the Beacon Groveton CBC



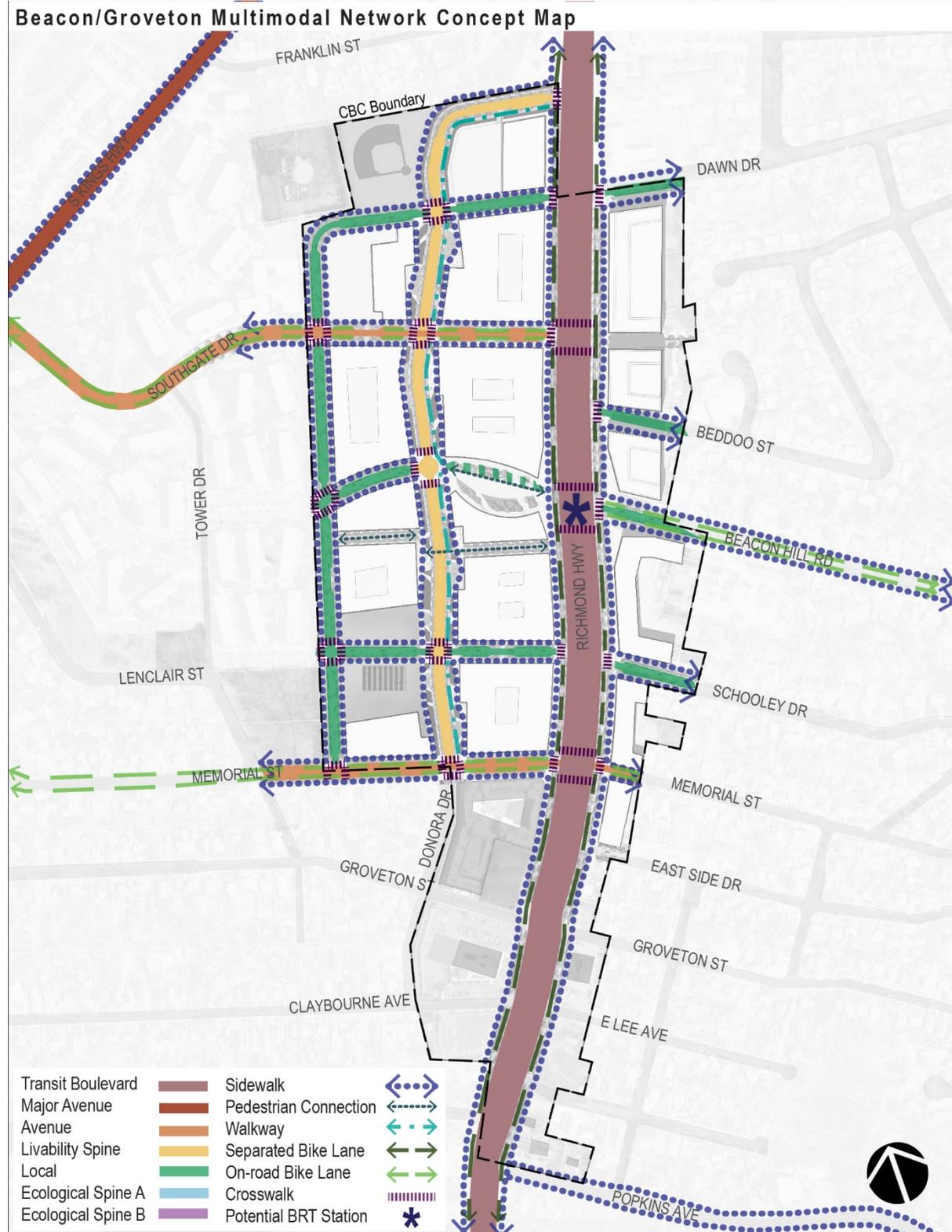
MULTIMODAL TRANSPORTATION IMPROVEMENTS

The Beacon/Groveton CBC is primarily served by Richmond Highway, Beacon Hill Road, Memorial Street, and Southgate Drive. Existing roads on the eastside of Richmond Highway from Dawn Drive south to Popkins Lane have mostly been constructed with perpendicular intersections and could serve as additional connections and complement the grid of streets recommended below. The general location for the proposed BRT station for this CBC is at the intersection of Richmond Highway and Beacon Hill Road. See Figure 38 Beacon/Groveton CBC Map for recommendations to this and other nearby roadways. The following is a list of recommended improvements for the Beacon Groveton CBC:

- Implement a new multimodal grid of streets network west of Richmond Highway generally bounded by the edge of the commercial development on the north, Memorial Street to the south and existing multifamily residential to the west.
- Construct the Livability Spine, generally parallel to Richmond Highway on the west side, from Memorial Street to intersect with Richmond Highway.
- Maintain an interim local roadway at the main entrance (where the future BRT station location) to western portion of the CBC via an interim local roadway; however, when redevelopment occurs, this local road should be reconstructed as a pedestrian plaza.
- Connect new streets within the proposed grid to existing roads, including Southgate Drive, Memorial Street, and Donora Drive.
- Realign Popkins Lane to Collard Street at Richmond Highway.
- Provide crosswalks at the BRT station and any signalized intersections to enhance pedestrian movement to and from either side of Richmond Highway.
- Provide pedestrian connections from within the CBC grid that connect to Richmond Highway and the BRT station as well as to existing pedestrian facilities in adjoining neighborhoods, parks and open spaces.

The location and type of street, bicycle and pedestrian facility within the planned grid of streets is depicted in Figure 39, Beacon/Groveton Multimodal Network Concept Map. Specific types of bicycle facilities are planned for each roadway based on the street type and adjacent land uses. For more information on the specific cross-sections and road design characteristics of the multimodal network, see the Urban Street Network Design (USND) section of this Plan, as well as the Fairfax County Bicycle Master Plan for bicycle facility guidelines.

Figure 39, Beacon/Groveton Multimodal Network Concept Map



LAND UNIT RECOMMENDATIONS

Development Potential

Figure 40 contains the estimated maximum development potential inclusive of the redevelopment options for the Beacon/Groveton CBC. The estimate does not include additional development potential under a scenario where Metrorail is extended to this area in the future. Additional development potential associated with a Metrorail station will be reevaluated in coordination with the execution of a funding agreement to design and build the Metrorail extension. Prior to any implementation of Metrorail levels of development, a corridor-wide transportation analysis assuming these Metrorail levels of development should be completed.

Additional details about the baseline and redevelopment options are contained in CBC land unit descriptions that follow. As noted in the Land Use Section under Corridor-wide Guidelines, flexibility among non-residential uses may be appropriate provided the overall vision of a vibrant mixed-use community is achieved and multimodal transportation needs are addressed.

It is expected that development will occur in phases. As such, phased development will need to advance the goals and the vision in the Plan, as described in the Implementation Section. Development applications must be reviewed in a manner that ensures appropriate phasing to the provision of public improvements. The construction of and/or commitment to the public facilities is expected to be provided appropriately with each phase of development.

Figure 40: Beacon/Groveton CBC Maximum Development Potential under Redevelopment Options

Land Use	Comprehensive Plan development potential inclusive of redevelopment options ¹	
	Dwelling Units or Jobs	Approximate Gross Square Feet (gsf)
Residential ²	4,200 dwelling units	N.A.
Non-residential	3,560 jobs	1.3 million gsf
Office	1,590 jobs	480,000 gsf
Retail	1,970 jobs	790,000 gsf
Total	4,200 dwelling units and 3,560 jobs	

Note 1: Development potential, employment estimates, and dwelling units are approximate. Conversion factors: residential - 1000 sf/dwelling unit; office - 300 gsf/job; retail - 400 gsf/job.

Note 2: The residential development potential does not include potential housing bonuses allowed under the Affordable Dwelling Unit (ADU) Ordinance and the Board of Supervisors Workforce Housing Policy (WDU).

Land Unit A (formerly Sub-units A-1 and A-2)

This approximately 49-acre land unit comprises the land area north and south of Southgate Boulevard, west of Richmond Highway.

Base Plan

This land unit is planned for retail and/or office uses up to approximately 1.1 million gross square feet.

Redevelopment Option

Mixed-use development is recommended, consisting of up to approximately 3,500 dwelling units and 720,000 square feet of nonresidential uses. Substantial consolidation of parcels should be achieved. Where consolidation of parcels is not achieved, redevelopment proposals should be evaluated in the context of the existing and future development of the land unit. For example, residual parcels should be integrated into the site design by providing interparcel vehicular and pedestrian access, as appropriate. In addition, redevelopment on a portion of the land unit should not preclude the remainder of the land unit from redeveloping under the plan option in the future. If a Full Funding Grant Agreement for the Metrorail extension is executed and a corridor-wide transportation analysis is completed, this area may be appropriate for a mix of uses up to a total of approximately 6 million square feet of development.

Land Unit B

This 10-acre land unit includes lots fronting on the east side of Richmond Highway from Dawn Drive to Beacon Hill Road and from Richmond Highway along Beacon Hill Road including Tax Map 93-1((1))78.

Base Plan

This land unit is planned for office, and/or retail uses up to approximately 220,000 gross square feet with building heights up to 50 feet, and/or residential use at a density of 8-12 dwelling units per acre, with the exception of Tax Map Parcels 93-1((1))75A, 76A and 78 which are planned for townhouse-style office use at an intensity of up to 0.35 FAR to transition to the stable residential neighborhood. An effective buffering and screening treatment is to be provided and maintained between the office use and the adjacent residential area.

Redevelopment Option

Mixed-use development up to approximately 110 dwelling units and 150,000 gross square feet of non-residential use may be appropriate with reasonable consolidation of the parcels between Bedoo Street and Dawn Drive, and a coordinated development plan is submitted.

Land Unit C

This land unit comprises approximately 6 acres of land generally fronting on the east side of Richmond Highway between Beacon Hill Road and East Side Drive.

Base Plan

The land unit is planned for non-residential uses up to approximately 130,000 gross square feet with maximum building heights of 50 feet. The development plan and architectural design should achieve consolidated access, should provide and maintain aesthetically pleasing and effective screening and buffering to adjacent residential properties, and should include stormwater management measures addressed in the Stormwater Management section under Corridor-wide Guidelines.

Land Unit D

The land units comprises approximately 10 acres of land between Richmond Highway and Donora Drive, extending from Memorial Street south to midway between Clayborne Avenue and Collard Street, and has been designated the Groveton Redevelopment Area.

Base Plan

The land unit is appropriate for redevelopment to medium intensity office use up to approximately 305,000 gross square feet of development. This development should be attractive, well-landscaped and be made compatible with adjacent residential uses through attractive building design, site planning and architectural treatments as well as effective landscaping and buffering. Building height should be compatible with the adjacent community. In order to mitigate impacts on the community, there should be a decrease in building height from Richmond Highway to the west.

Redevelopment Option

Tax Map Parcels 93-1((38))(1)1A and 93-1((1))98A have been approved and partially developed through an option for residential mixed-use development for 290 residential units and 70,000 square feet of non-residential use. If the land approved for non-residential development is dedicated as parkland, the development potential may be transferred to another land unit within the Beacon/Groveton CBC.

Land Unit E

This land unit comprises approximately 4-acres of land generally fronting on the east side of Richmond Highway from East Side Street to Popkins Lane.

Base Plan

The land unit is planned for townhouse-style office and/or retail use up to approximately 50,000 gross square feet. With any development proposal, the commercially-zoned lots along Richmond Highway between Groveton Street and East Lee Avenue or East Lee Avenue and Preston Avenue or Preston Avenue and Popkins Lane should be consolidated; parking and compatibility with the adjacent residential neighborhood are addressed in accordance with the Urban Design section under Corridor-wide Guidelines and the Guiding Planning Principles.

Redevelopment Option

Tax Map Parcel 93-1((18))(D)117A located between East Lee Avenue and Preston Lane, is planned for and developed with 6,000 square feet of office and/or retail use to include eating establishments and fast food restaurants without drive thru facilities and with maximum building height of approximately two stories. Buildings and parking should be oriented to encourage pedestrian traffic; compatibility with the adjacent residential neighborhood is achieved; and, stormwater management is addressed. Limited parking may be considered along the property frontage provided the preceding conditions are addressed and all other applicable Richmond Highway Streetscape elements are met.

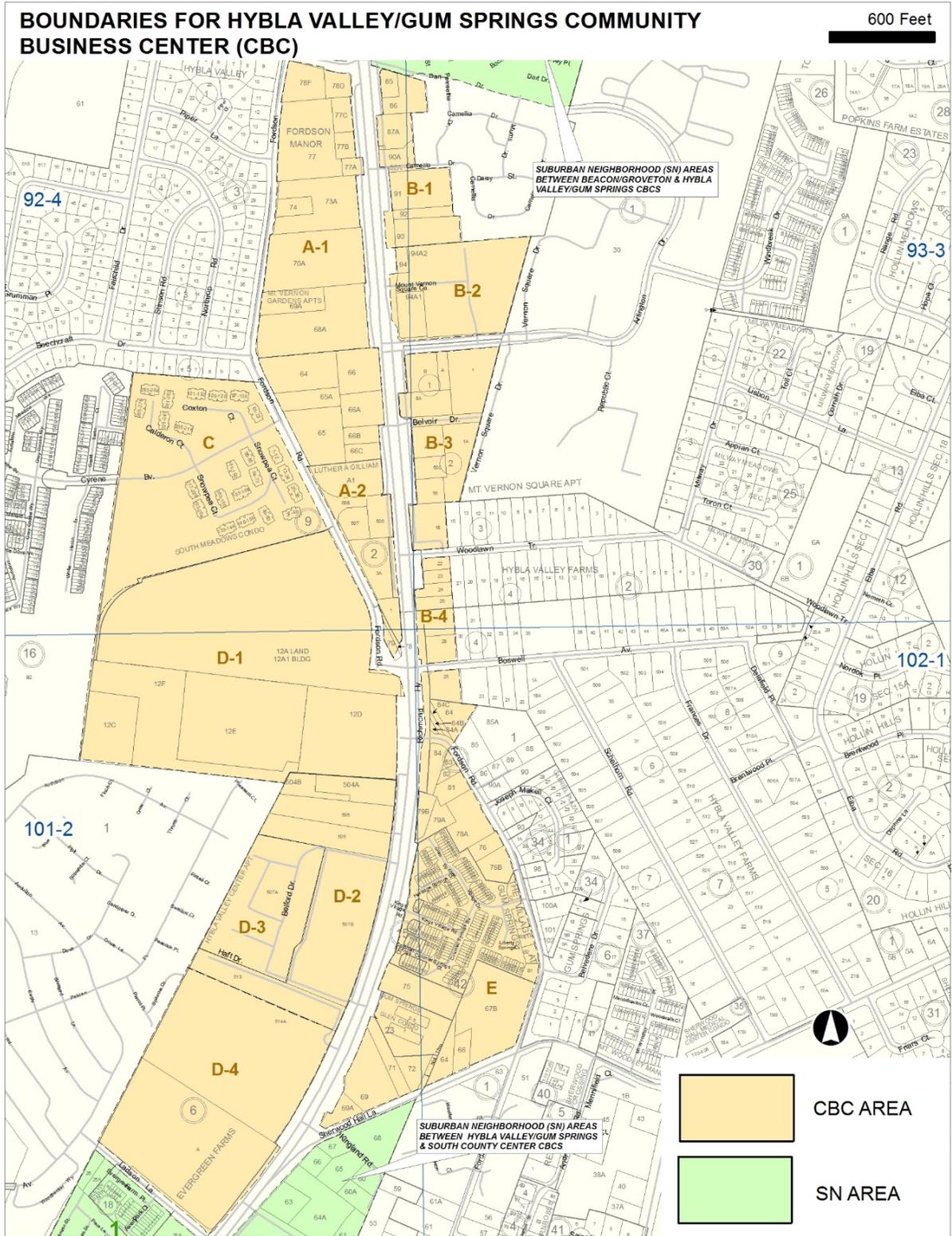
HYBLA VALLEY/GUM SPRINGS COMMUNITY BUSINESS CENTER

The Hybla Valley and Gum Springs communities have rich heritages that includes both existing historical sites, historic or cultural remnants of the past, and major ecological resources. Of special significance, Gum Springs was founded in the 19th century as a Free Black community where noteworthy sites and buildings include the Pride of Fairfax Masonic Lodge, Bethlehem Baptist Church and a former baptismal site. Other memorable uses dating from the early twentieth century through the 1950s were located in Hybla Valley including the Mount Vernon Drive-in Theatre and the George Washington Air Junction, an airport used for naval flight training during World War II. Additionally, there are remnants of early roadway alignments still in use today such as Fordson Road, which follows the original path of Route 1 and, prior to that, the alignment of the former Potomac Path.

Along with its rich historical legacy, the area has many important environmental features, including stream valleys (some piped or channelized) that cross the area and connect to Huntley Meadows Park, a 1,500-acre wetland park owned by Fairfax County Park Authority.

At over 1.25 miles in length, Hybla Valley/Gum Springs is the longest CBC on the Richmond Highway Corridor. Its center is the Mount Vernon Plaza and the South Valley Shopping Center, which have over 550,000 square feet of retail space. Buildings in these shopping centers are set back from the highway with large expanses of surface parking along the frontage. North and east of the two centers are areas of strip-commercial uses including auto dealerships, gas stations, convenience stores, fast food restaurants and auto repair establishments. Figure 41 indicates the geographic location of land units in the Hybla Valley/Gum Springs CBC, shown in yellow, and the Suburban Neighborhood Areas on either side of the CBC, shown in green.

Figure 41 indicates the geographic location of land units in the Hybla Valley/Gum Springs CBC, shown in yellow, and the Suburban Neighborhood Areas between the CBCs, shown in green



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CONCEPTUAL PLAN

The vision for the Hybla Valley/Gum Springs CBC is to create a dynamic mixed-use transit-oriented activity center that integrates innovative environmental practices and technologies with the area's historical legacy. This CBC is envisioned to become known as an area where cutting edge environmental practices, design, and technologies are routinely applied, and where sustainability is showcased. The convergence of ecology and legacy of the area is particularly strong in this CBC resulting in opportunities to build upon these assets during redevelopment. Figure 42 highlights sites of historical interest (represented in yellow) and existing stream valleys (represented in blue) in the Hybla Valley/Gum Springs CBC, and demarcates where these resources converge (represented as circles).

Within the context of the overall Richmond Highway corridor, the Hybla Valley/Gum Springs CBC is envisioned to contribute a unique focus on the environment through the waterways that cross the CBC and its proximity to Huntley Meadows Park. Historic development patterns in the CBC have had the effect of subjugating the natural flow of water, either by channelizing it or by containing it within underground structures. A primary focus of the design of the public realm within the CBC should be to embrace the importance of water in the area's ecology and to reconnect people to nature and the water. Covered or channelized waterways should be uncovered and restored to a condition that allows for the more natural flow of water, while providing stormwater, habitat and other environmental benefits. This is a process known as daylighting. Bioswales and other stormwater facilities may also be incorporated into the public realm as a way to create enhanced public spaces and streetscapes.

Redevelopment within the CBC should greatly improve the area by combining housing, shopping, entertainment, dining, and employment opportunities in an environmentally conscious manner. The highest intensities of development should be focused around each of the three proposed BRT stations to form three distinct but interconnected TOD nodes. Each node is planned to consist of medium to high-density development, a mix of uses, and open spaces. In creating these nodes, buildings and open spaces should be designed to frame each of the BRT stations. Nodes should include a diverse range of residential and non-residential uses including office, hotel, and ground floor retail. Multifamily housing comprises the majority to the uses planned outside of the TOD nodes. However, at the western edge of Land Unit D-1, an educational campus is planned. This site should be designed as an urban-format school that maximizes the amount of available land in a multi-story, compact building. Figure 43 illustrates the Conceptual Plan for the Hybla Valley/Gum Springs CBC.

The Conceptual Plan should be used as a guide for development proposals. There is flexibility in how the Conceptual Plan can be implemented provided there is general adherence to the grid of streets, in particular the Ecological Spine, the open space network, the location of station-area plazas, and the placement of ground-floor non-residential uses.

Figure 42 shows the historic sites and ecological features within and adjacent to the Hybla Valley/Gum Springs CBC

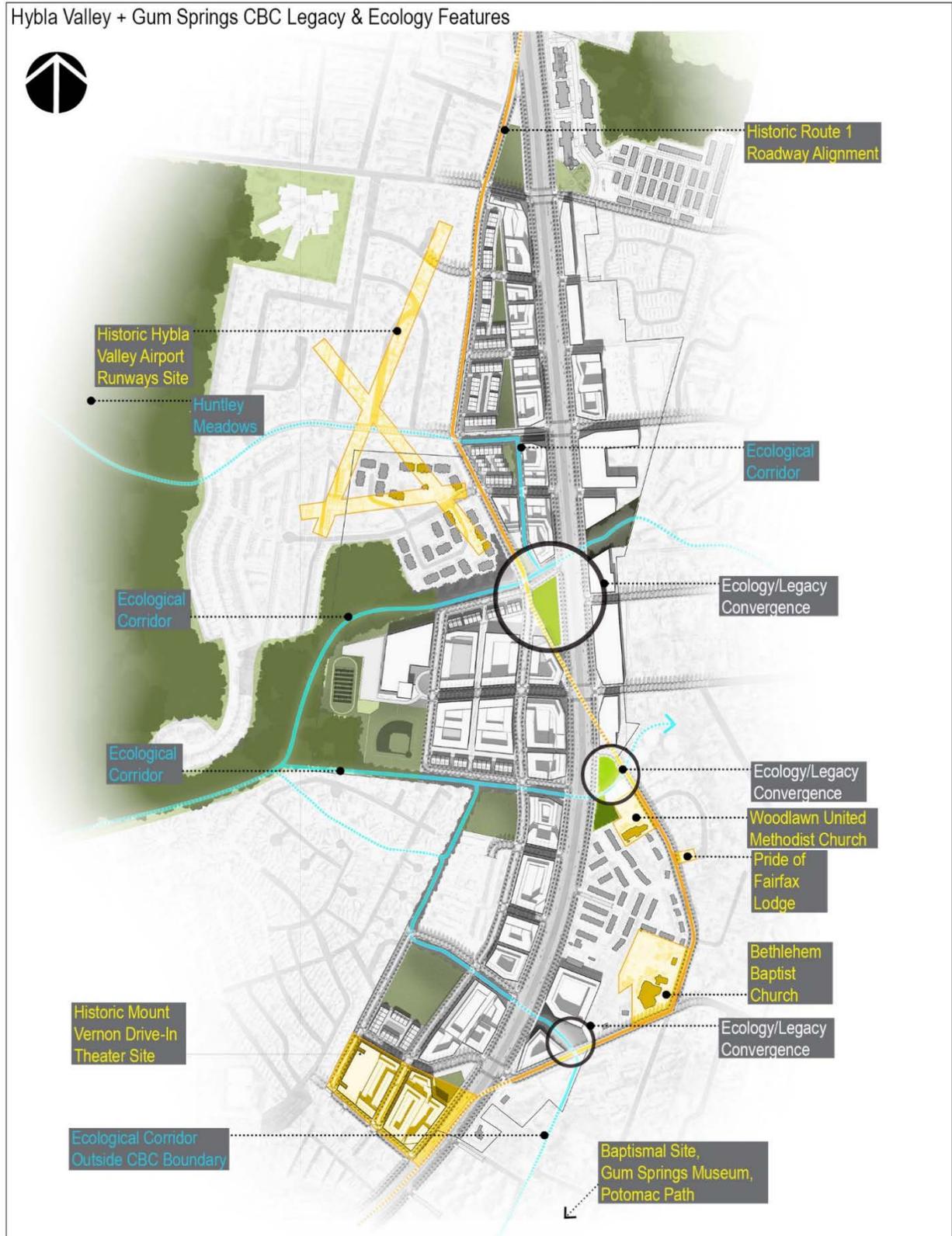


Figure 43 shows the conceptual plan for the Hybla Valley/Gum Springs CBC
Hybla Valley/Gum Springs CBC Conceptual Plan



Redevelopment should enhance multimodal connectivity within the CBC as well as to surrounding areas and to the three planned BRT and future Metrorail stations. A grid of streets should be created to organize circulation within the western portion of the CBC and to connect to streets on the east side of the CBC. The grid should form rectilinear and developable-sized blocks. It is envisioned to be multimodal and should provide for the needs of motorists, bicyclists and pedestrians on all streets. There are different types of bicycle facilities for each roadway based on the street type and adjacent land uses, all of which should form a connected network that provides access to existing and planned bicycle facilities, potential BRT stations, and local bus service. Pedestrian facilities should connect within the CBC, to the potential BRT stations, local bus service, and to existing pedestrian facilities in adjoining neighborhoods, parks and open spaces. Intersections in the new grid of streets should be spaced so that blocks are pedestrian-scaled at walkable distances. Pedestrian crosswalks at the potential BRT station locations and at signalized intersections should permit pedestrian movement to and from either side of Richmond Highway. Mid-block pedestrian connections, including pass-throughs and roadway crossings are recommended on large blocks. Refer to the Multimodal Transportation Improvements section for the location and type of street improvements, and bicycle and pedestrian facility recommendations.

In addition to the grid, a well-connected open space network is planned as a major organizing feature of the CBC. There are four major types of open space envisioned for the CBC, including environmentally-focused green corridors, termed Ecological Spines; Civic Plazas; Recreation-focused Parks; and, Common Greens. Collectively, these open spaces should incorporate the legacy theme by creatively integrating references to elements such as the former airfield and the history of Gum Springs into the design features and character of these spaces.

The Ecological Spine concept is an innovative design approach intended to allow multiple functions within the open space and road network. Ecological Spines celebrate waterways by naturalizing and/or daylighting streams; they provide green space in an environmentally-focused setting for peoples' enjoyment and passive recreation; they act as pedestrian and bicycle connections to unite neighborhoods both within and outside of the CBC; and, they provide environmental benefits for stormwater collection and treatment, and habitat enhancement. Detailed information on the design of the Ecological Spines is in the Open Space Network and the Urban Street Network Design sections.

Civic plazas are envisioned in the land units on either side of each potential BRT station to provide attractive and safe gathering spaces for pedestrians accessing a BRT station from the east or west. The rhythm of buildings alternating with plazas along Richmond Highway is envisioned to create a memorable feature when traversing the CBC. On the west side of the central BRT station, a larger Civic Plaza is envisioned to be the central gathering space of the CBC and is a primary location where the themes of legacy and ecology converge. Figure 44 is a visualization of the character envisioned for the central Civic Plaza. At the southern end of the CBC, west of Richmond Highway, a Recreation-focused Park and Common Green are planned in the vicinity of the former site of the drive-in theatre. Additional recreational amenities are envisioned to be located in conjunction with a planned educational campus in the western edge of Land Unit D-1.

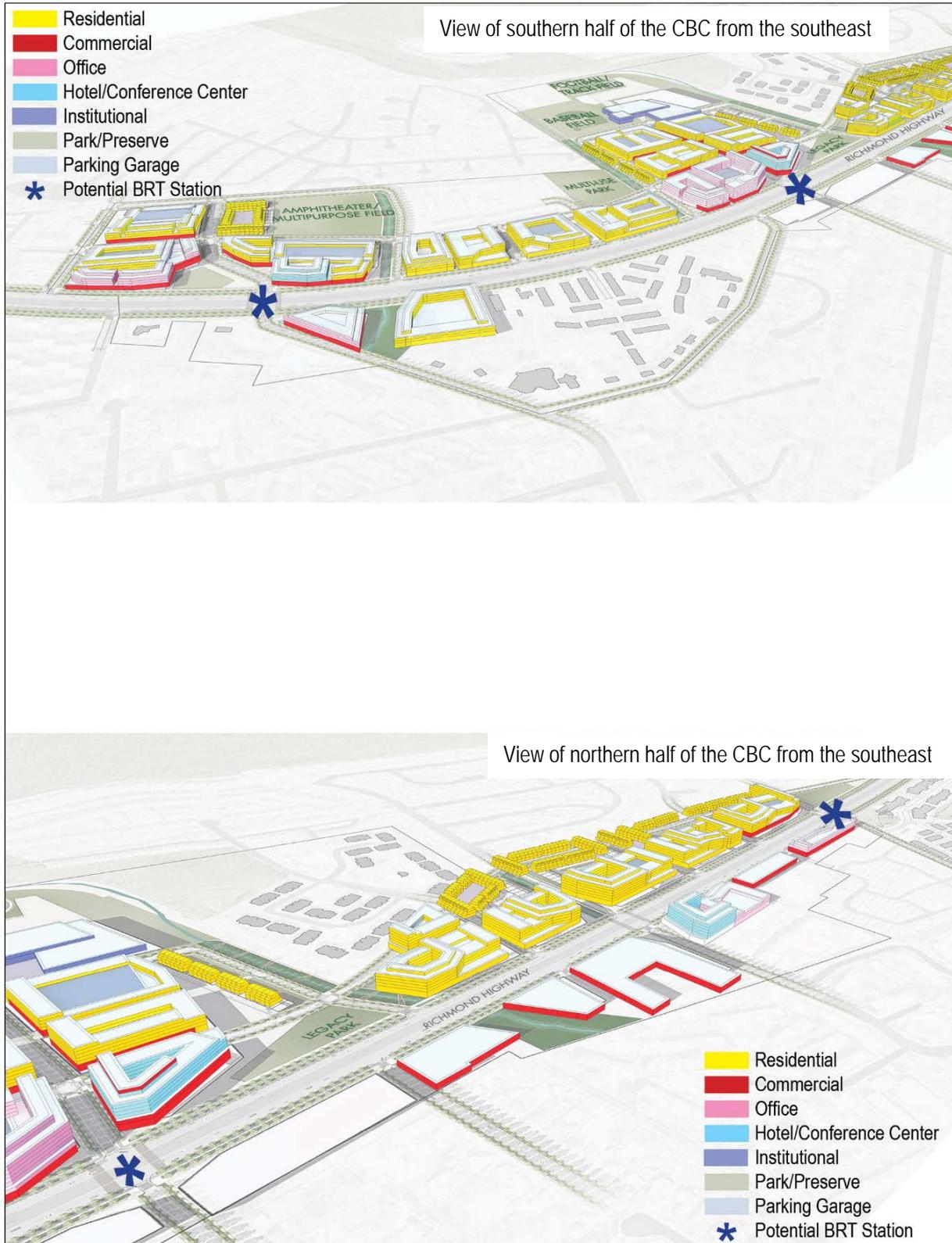
Figure 44 describes the character and features envisioned for the Legacy Plaza



Most buildings should be designed to be mixed-use. Retail uses should be located on the ground floors of buildings within certain blocks adjacent to Richmond Highway as well as through the majority of Land Unit D-1 as shown on the conceptual plan. Office and hotel uses should be planned in the general vicinity of the BRT stations. These non-residential uses should have their entrances and any associated outdoor spaces open onto plazas, the streets leading from the BRT stations, Richmond Highway and along the new north-south Major Avenue. New housing may comprise entire blocks or may be located above ground-floor retail. Lower density residential uses, such as townhomes or stacked townhomes, are envisioned to provide a compatible transition to existing neighborhoods. A proposed new school/recreation campus is located in the western portion of Land Unit D-1.

Architectural designs should creatively address building scale through massing, terracing and variation of facades. Such designs should result in an interesting play of light and shadow on adjoining streets, while mitigating impacts to adjacent neighborhoods. Buildings should have a consistent ground-floor plane next to the building zone but are strongly encouraged to step back above the ground-floor to prevent shadows and a canyon-like effect on adjacent streets. Building rooflines should not be uniform across a block. Terraces, green roofs, and other roof top amenities are encouraged to maximize outdoor recreational opportunities for residents and workers; to provide environmental benefits, such as stormwater collection and heat island reduction; and to enhance the views from the upper stories of buildings. Figure 45 illustrates how building massing is envisioned and how land uses should be organized primarily within the Hybla Valley portion of the CBC.

Figure 45 indicates the building form, massing, and planned uses for the Hybla Valley/Gum Springs CBC



BUILDING HEIGHTS

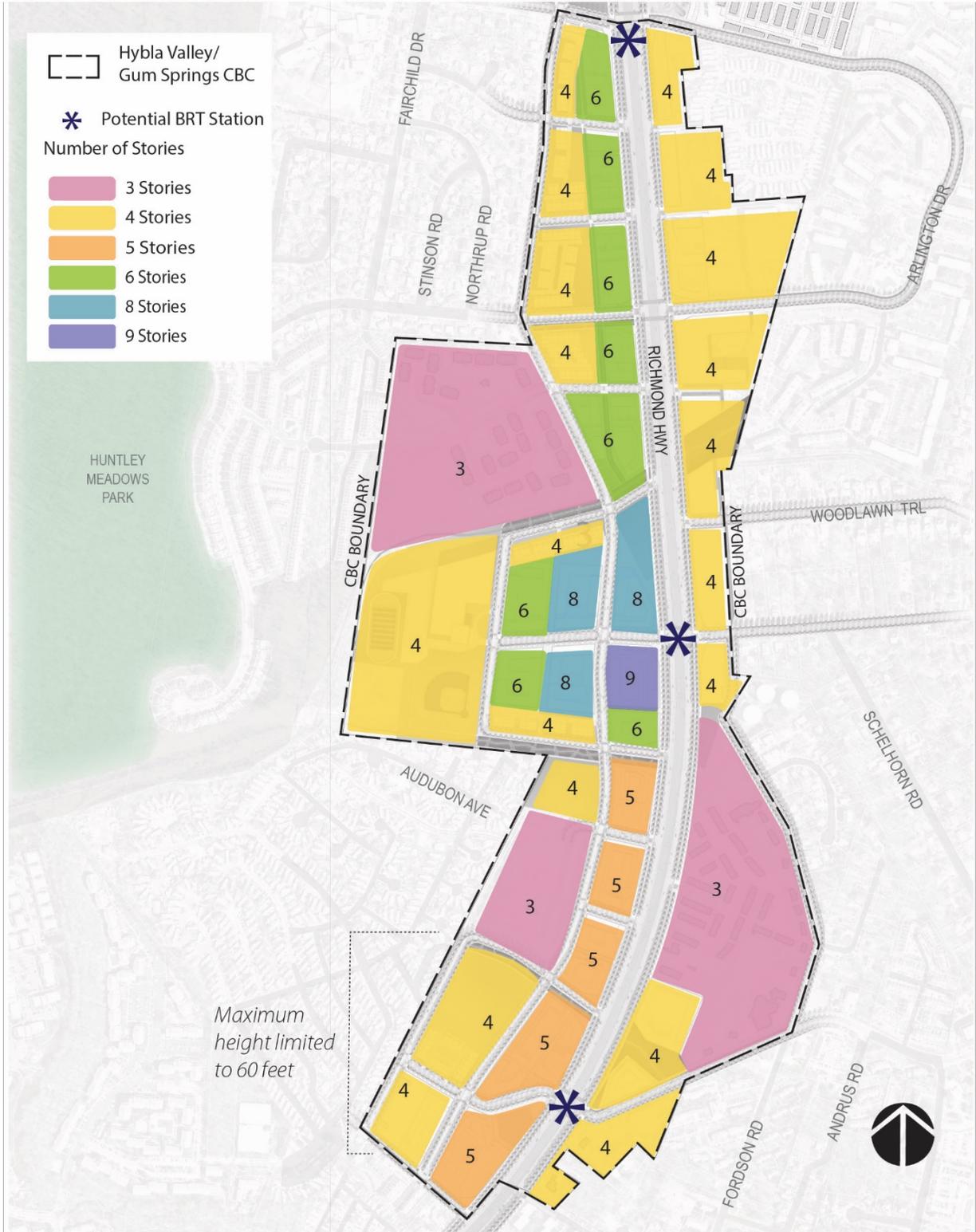
Figure 46 illustrates the recommended building heights in the Hybla Valley/Gum Springs CBC. Building height is one of the key elements to determine the amount of development potential that is achievable in each land unit. Building heights should not be homogenous within a development. Consult Vision Element 5 and the building height recommendations contained within the Urban Design section of the Corridor-wide Guidelines for further information.

Taller buildings are anticipated along Richmond Highway and closest to potential BRT stations. As structures approach the north-south Major Avenue (extension of Fordson Road) and surrounding existing communities, buildings should taper down in height. A key consideration in the planning for redevelopment in Land Unit D-4 is the potential for new development to be visible from Historic Huntley, negatively impacting the value of this historic resource.

The ability to mitigate potential impacts to the viewshed from Historic Huntley is largely addressed by the maximum building heights envisioned for the land unit of noted concern. As such, buildings in D-4 should be limited to 60-feet in height. Future redevelopment within this targeted land unit will need to provide additional analysis, as part of the entitlement process, to demonstrate the extent to which the building heights of the development proposal would be visible from Historic Huntley. Development that indicates any potential for visibility may be expected to exclude building materials that would exacerbate impacts to views (e.g. highly reflective materials, building lighting).

Figure 46 indicates the proposed recommended building heights for the Hybla Valley/Gum Springs CBC

Hybla Valley - Gum Springs Conceptual CBC Building Heights Map

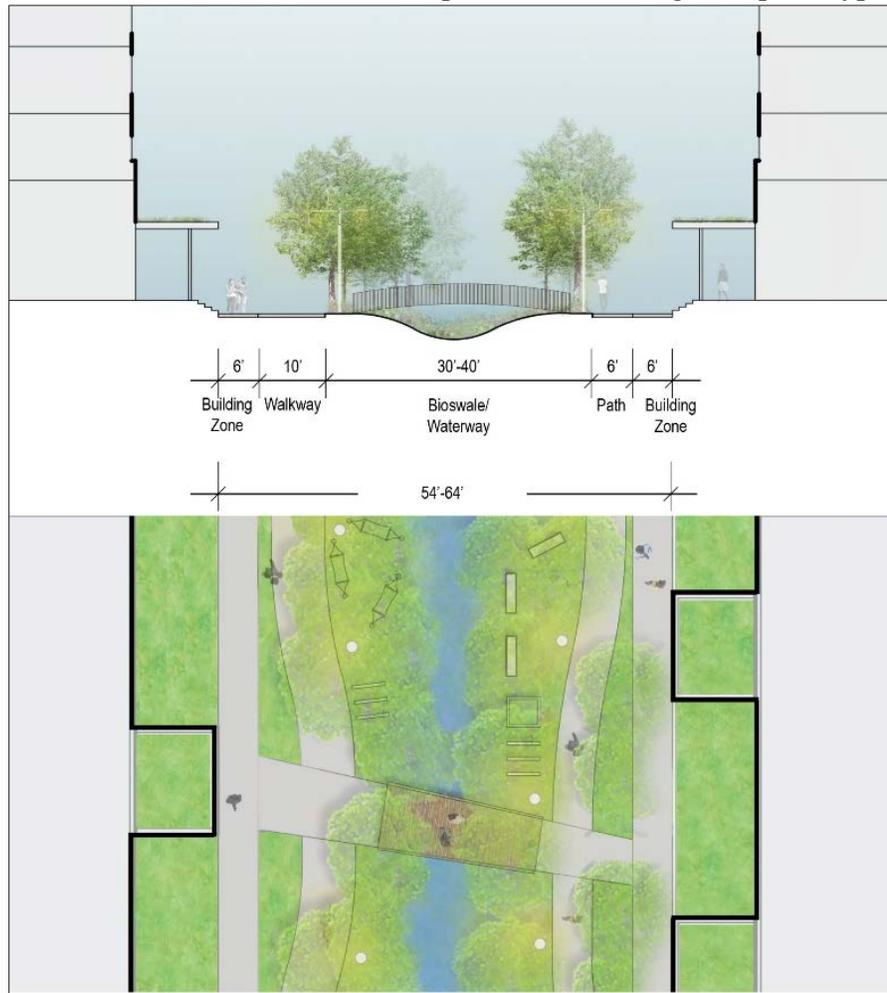


OPEN SPACE NETWORK

The Hybla Valley/Gum Springs CBC will be served by a variety of urban park spaces, following the guidance of the Urban Parks Framework. While each development is expected to address the urban park need generated by the proposed development, there are several park spaces that are integral to the Conceptual Plan that should guide the provision of urban park space within the CBC.

Within the context of the overall Richmond Highway corridor, the Hybla Valley/Gum Springs CBC is envisioned to contribute a unique focus on the environment through the waterways that transect the CBC and its proximity to Huntley Meadows Park, a 1,500-acre wetland park owned by Fairfax County Park Authority. Historic development patterns have sought to subjugate the natural flow of water, either channelizing it or containing it within underground structures. A primary focus of the urban park spaces within the Hybla Valley/Gum Springs CBC is to reconnect with the more natural flow of water, embracing the importance of water in the Richmond Highway Corridor's ecology. Key to the Conceptual Plan for the CBC is the orientation of a series of Ecological Spines that connect daily life with the area's natural systems. Three different types of Ecological Spines are envisioned for the CBC; two of the ecological spines are planned to have roadways associated with them and are further detailed in the Urban Street Network Design section. Ecological Spine Type 3 is primarily designed as a waterway and multi-use path located between residential uses, and does not include a roadway. Figure 47 shows the conceptual design of features within Ecological Spine Type 3.

Figure 47 describes the cross-section and plan for the Ecological Spine Type 3



From a functional standpoint, the Ecological Spines will serve to convey water flow and should be designed to enhance water quality with buffers of native plants to help filter run off. The Ecological Spines also are envisioned as Linear Parks that act as primary spaces for daily outdoor life in the CBC. Supported by parallel pedestrian and bicycle facilities, the Ecological Spines are intended to foster connectivity across the CBC. Bridges should be provided to cross the Ecological Spines to link adjacent communities together. The design of the Ecological Spines should also support daily opportunities for relaxation, activity, and enjoyment of the outdoors for the future residents and workforce. The Ecological Spines should offer a variety of seating and opportunities for social interaction. Elements that promote active recreation within a small footprint are encouraged, such as small play structures, fitness equipment, and bocce courts. Features that serve multiple functions, such as sculptural blocks that can be used for climbing or serve as seating, should be considered to maximize the use of these spaces. Programmed spaces should be designed to respect the natural hydrology of the Ecological Spine and serve to enhance the relationship between users and natural features to the extent feasible in an urban context. Each Ecological Spine should be envisioned as one continuous space, available to serve the entire community, and individual developments along the Ecological Spines should contribute to the creation of its proportionate segment of the

Spine. They should be designed to mimic natural systems by providing off-line stormwater treatment that complements the day-lighted/naturalized stream corridor. If daylighting is not possible, off-line stormwater features should be utilized that feed the piped system but mimic natural landscape features such as wetland cells, wet meadows and infiltration facilities where soils and topography allow.

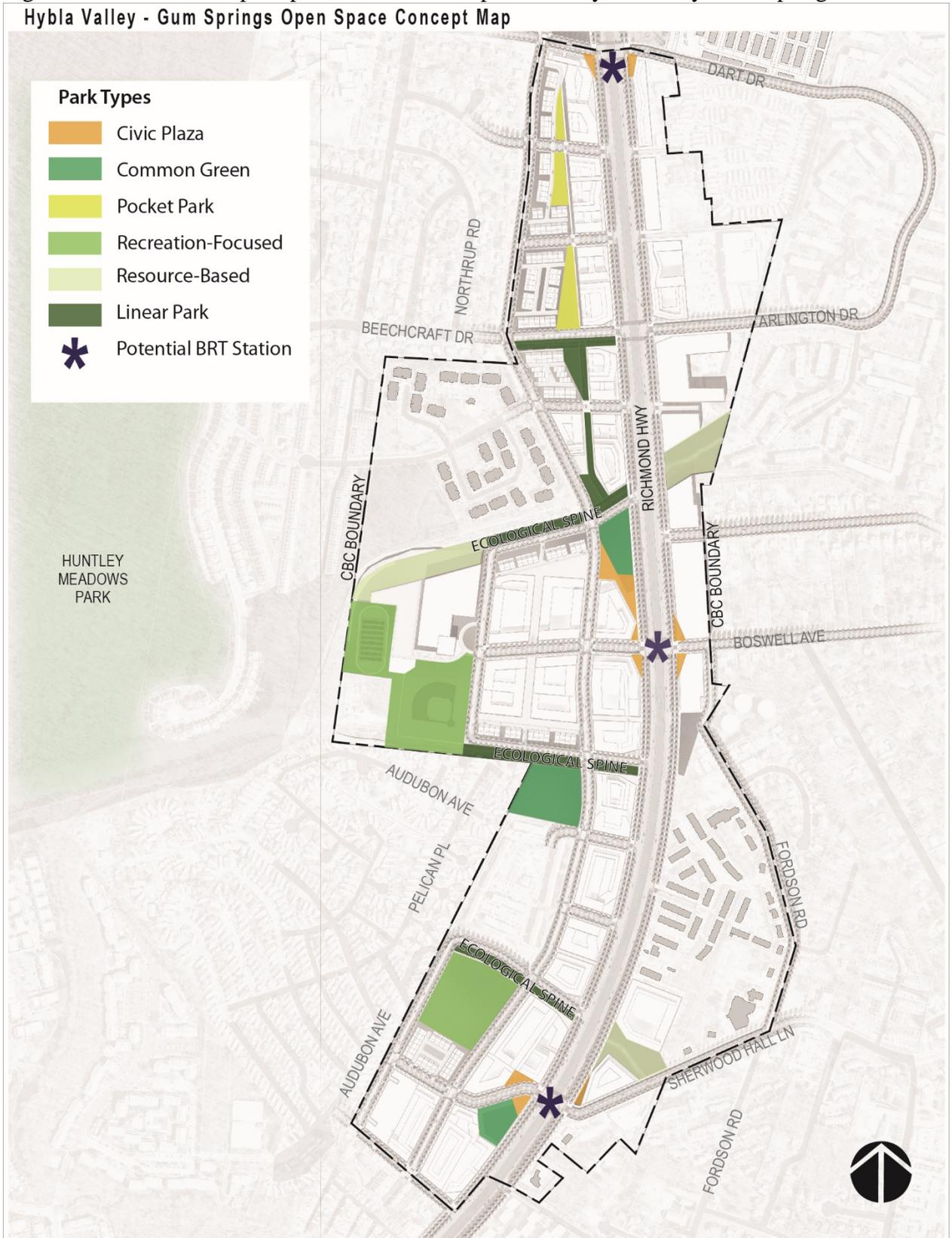
Civic Plaza spaces should be provided within the Hybla Valley/Gum Springs CBC in proximity to each of the three potential BRT stations. Their design should clearly welcome visitors to the CBC and establish a coordinated placemaking vision for the entire CBC. Hardscape surfaces should define the pedestrian flow, supported by unified wayfinding signage. A variety of seating options and lighting should support the function of each BRT station and encourage activity in these key locations. The Civic Plaza located centrally within the CBC should be of a size to support larger community events. Complemented by the adjacent Common Green, this central location should support events such as art exhibits, craft shows of local artisans, or small concerts. The design of the plaza should acknowledge the current alignment of Fordson Road as the location of the original alignment of Richmond Highway. Elements that represent the history of the Gum Springs Community and the former George Washington Air Junction merit inclusion in the support of the legacy theme. Proximity of the Ecological Spine to the central Civic Plaza presents an opportunity to also focus on the theme of ecology. Opportunity exists to celebrate these themes of legacy and ecology at the southeastern corner of the existing Richmond Highway/Fordson Road intersection.

Supportive of the goal for community building, an amphitheater is envisioned for the southern end of the Hybla Valley/Gum Springs CBC, in the vicinity of the former Mount Vernon Drive-In Theater. This feature may be collocated with active recreation space and easily accessible from the BRT station. In addition to these primary spaces, a series of Pocket Parks should be incorporated into development within the CBC to complement the larger urban parks and plazas.

Future development within the Hybla Valley/Gum Springs CBC should capitalize on the adjacency of nearby existing parkland, expanding on the ability for residents to connect to natural areas outside of the CBC. North Hill Park, located generally at the northeast corner of Richmond Highway and Dart Drive will be developed as a passive park with trails and a picnic area in a wooded setting. Pedestrian connections into Huntley Meadows Park are limited to the main entrance on Lockheed Boulevard and a secondary entrance from South Kings Highway; however, opportunities exist for thematic connections to the park, which provides habitat for several rare plant and animal species.

Development within the Hybla Valley/Gum Springs CBC will generate additional need for recreation facilities, including athletic fields, to serve future residents and workforce. To the extent possible, these facilities should be located within the Hybla Valley CBC. The Conceptual Plan envisions several areas able to support athletic fields and active recreation. Developments that generate the need for less than a full athletic field are encouraged to consolidate their efforts in seeking creative solutions to address this need. Figure 48 is a visualization of the conceptual open space network for the Hybla Valley/Gum Springs CBC.

Figure 48 indicates the open space network concept for the Hybla Valley/Gum Springs CBC
Hybla Valley - Gum Springs Open Space Concept Map



MULTIMODAL TRANSPORTATION IMPROVEMENTS

The Hybla Valley/Gum Springs CBC will be primarily served by Richmond Highway and a proposed north-south Major Avenue that would extend from a realigned Fordson Road on the west side of the CBC to parallel Richmond Highway. Three potential BRT stations on Richmond Highway are proposed for this CBC, which are generally planned at the intersections of Lockheed Boulevard and Dart Drive, Boswell Avenue, and Sherwood Hall Lane. In the longer term, an extension of Metrorail is planned to terminate in this CBC with a single station. See Figure 49, Hybla Valley/Gum Springs CBC Road Improvements Map for planned road improvements in the CBC area and other nearby roadways, as noted below:

- Implement a multimodal grid of streets to create and organize circulation within the western portion of the CBC and to connect to streets on the east side of the CBC.
- Realign and extend Fordson Road on the west-side of Richmond Highway to Ladson Lane to form a new Major Avenue that parallels Richmond Highway.
- Extend Beechcraft Road to Richmond Highway to align with Arlington Drive and form a new four-way intersection at Richmond Highway.
- Extend Boswell Avenue and Sherwood Hall Lane across Richmond Highway through the west side of the CBC to improve connectivity to planned BRT stations.
- Connect new streets within the CBC to existing roadways, including Lockheed Boulevard, Piper Lane, Cyrene Boulevard, and Ladson Lane.
- Provide potential, new Fordson Road connection, or realignment, on the east side of Richmond Highway, to Boswell Avenue, with option to consolidate traffic signals on Richmond Highway, pending future study.
- Connect bicycle and pedestrian facilities within the CBC to the potential BRT stations, local bus stops, and to existing facilities in adjoining neighborhoods, parks and open spaces.
- Implement one of two alternative alignments recommended for the southern portion of the street grid on the western side of the CBC as shown on the Conceptual Plan. The final alignment will be dependent upon redevelopment proposals and functional roadway standards.

For more information on the specific cross-sections and road design characteristics of the multimodal network, see the USND section of this Plan. Also, refer to the Fairfax County Bicycle Master Plan for bicycle facility guidelines. The location and type of street, bicycle and pedestrian facilities within the planned grid of streets is depicted in Figures 50-51, Hybla Valley/Gum Springs Multimodal Network Concept Maps.

Figure 49 describes the transportation improvements for the Hybla Valley/Gum Springs CBC

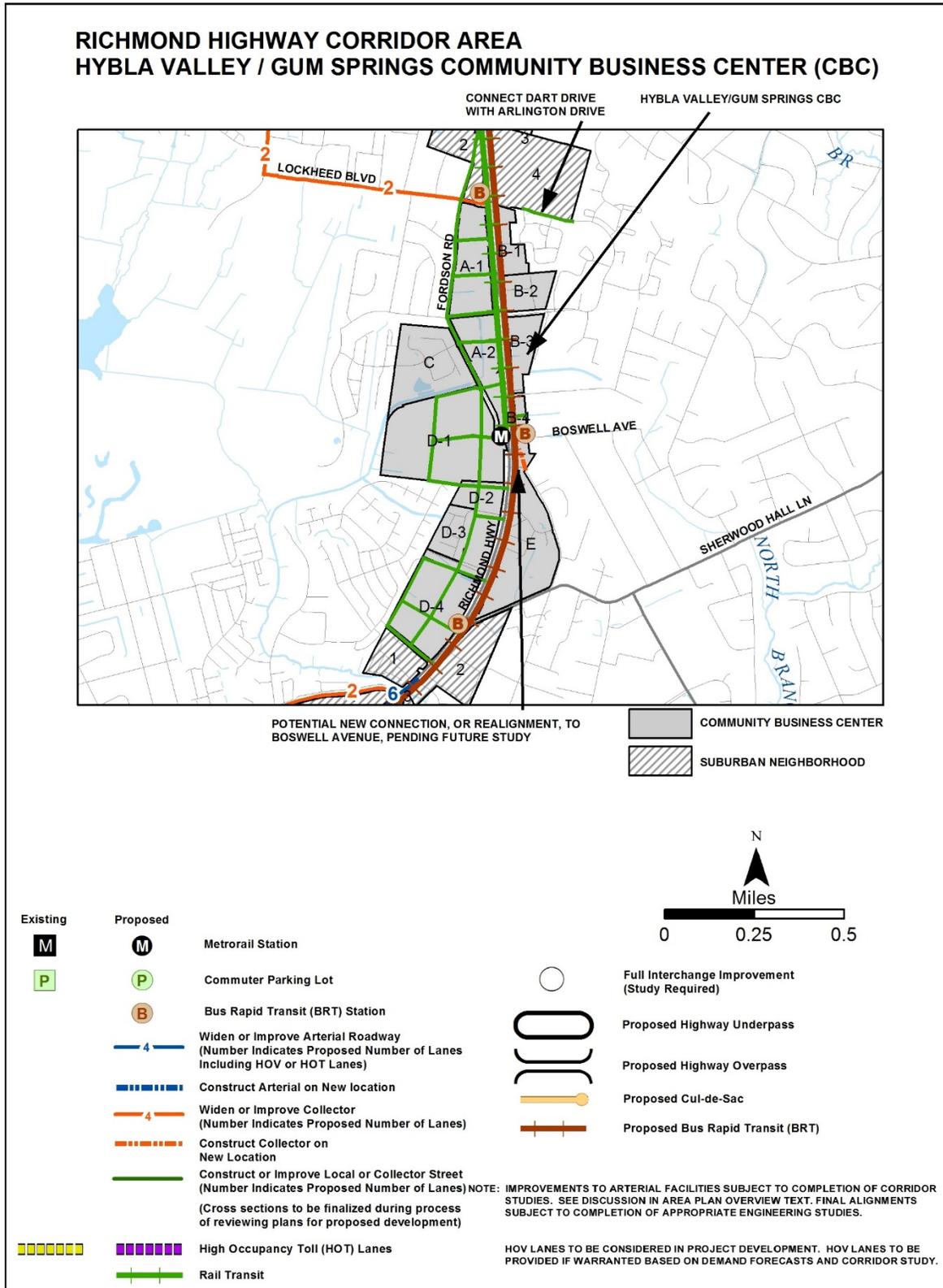


Figure 50 describes the multimodal network concept for the northern portion of Hybla Valley/Gum Springs CBC

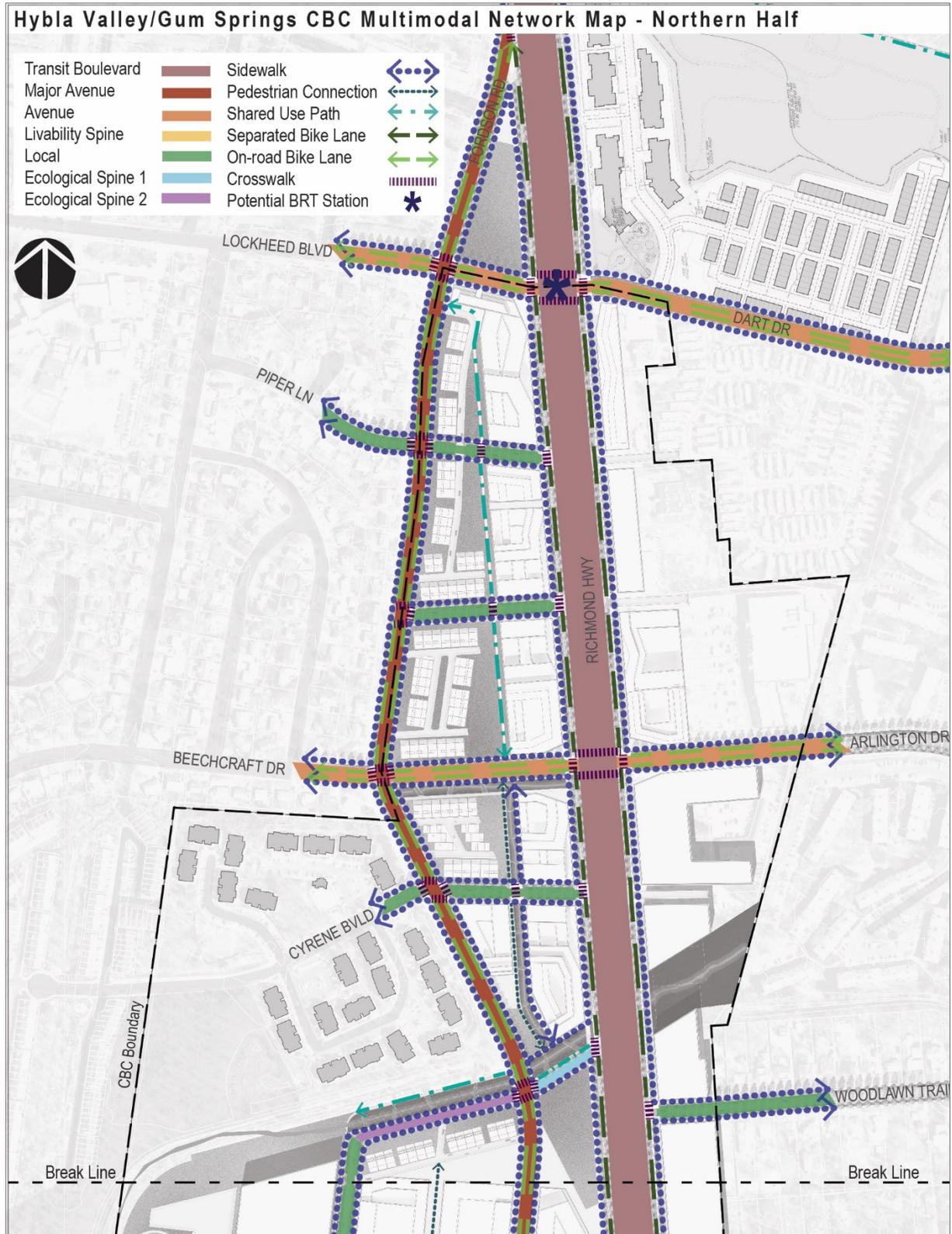
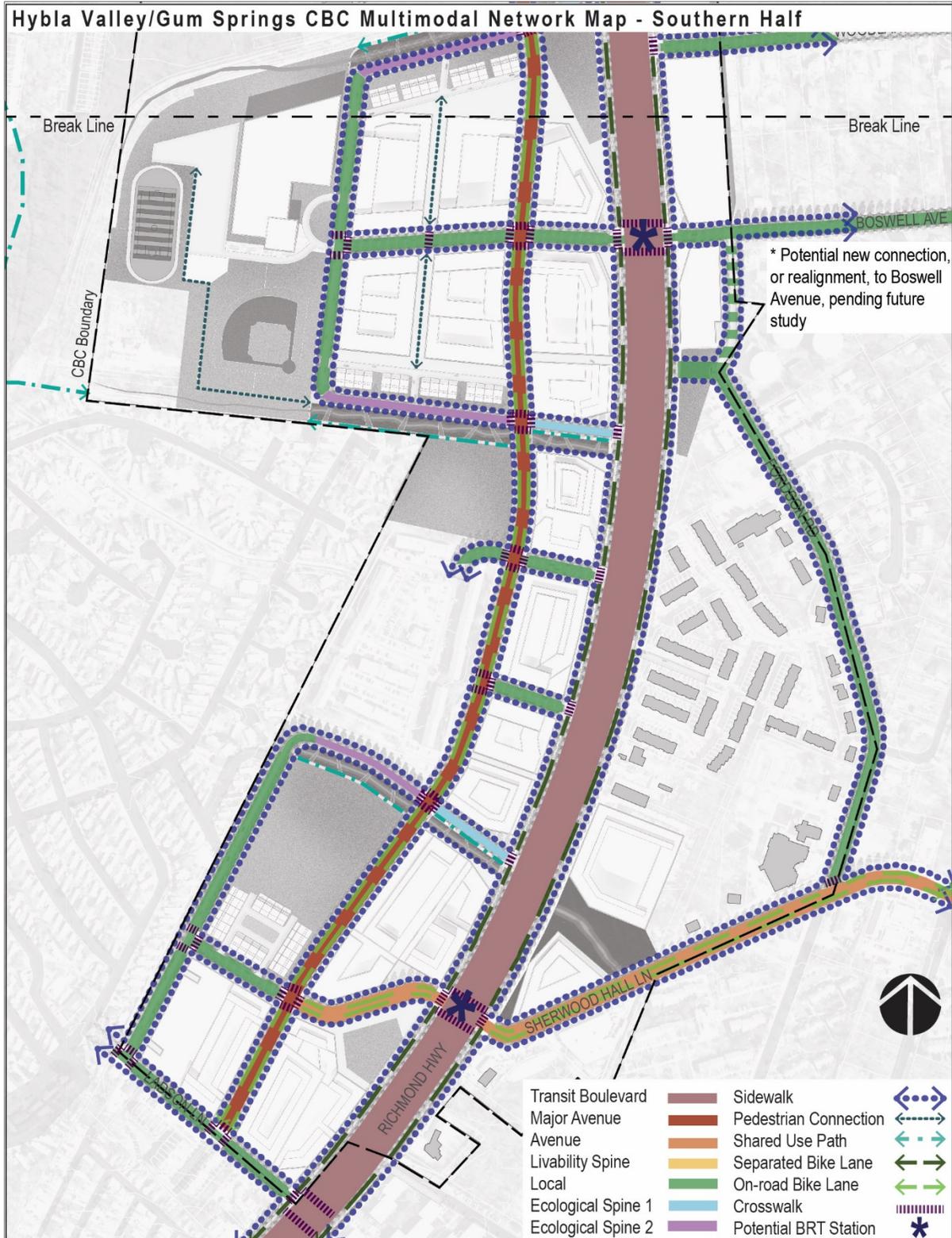


Figure 51 describes the multimodal network concept for the southern portion of Hybla Valley/Gum Springs CBC



LAND UNIT RECOMMENDATIONS

Development Potential

Figure 52 contains the estimated maximum development potential inclusive of the redevelopment options for the Hybla Valley/Gum Springs CBC. The estimate does not include additional development potential under a scenario where Metrorail is extended to this area in the future. Additional development potential associated with a Metrorail station will be reevaluated in coordination with the execution of a funding agreement to design and build the Metrorail extension. Prior to any implementation of Metrorail levels of development, a corridor-wide transportation analysis assuming these Metrorail levels of development should be completed.

Additional details about the baseline and redevelopment options are contained in the CBC land unit descriptions that follow. As noted in the Land Use section under Corridor-wide Guidelines, flexibility among non-residential uses may be appropriate provided the overall vision of a vibrant mixed-use community is achieved and multimodal transportation needs are addressed.

It is expected that development will occur in phases. As such, phased development will need to advance the goals and the vision in the Plan, as described in the Implementation Section. Development applications must be reviewed in a manner that ensures appropriate phasing to the provision of public improvements. The construction of and/or commitment to the public facilities is expected to be provided appropriately with each phase of development.

Figure 52: Hybla Valley/Gum Springs CBC Maximum Development Potential under Redevelopment Options

Land Use	Comprehensive Plan development potential inclusive of redevelopment options ¹	
	Dwelling units or jobs	Approximate Gross Square Feet (SF)
Residential ²	3,400 dwelling units	N.A.
Non-residential	6,460 jobs	2.4 million gsf
Office	3,080 jobs	925,000 gsf
Retail	3,000 jobs	1,200,000 gsf
Hotel	100 jobs	130,000 gsf
Institutional	280 jobs	140,000 gsf
Total	3,400 dwelling units and 6,460 jobs	

Note 1: Development potential, employment estimates, and dwelling units are approximate. Conversion factors: residential – 1,000 sf/dwelling unit; office - 300 gsf/job; retail - 400 gsf/job; hotel – 1,300 gsf/job; institutional – 500 gsf/job

Note 2: The residential development potential does not include potential housing bonuses allowed under the Affordable Dwelling Unit (ADU) Ordinance and the Board of

Supervisors Workforce Housing Policy (WDU).

Sub-unit A-1

This approximately 19-acre area is bounded by Lockheed Boulevard to the north, Fordson Road to the west and Richmond Highway to the east.

Base Plan

Sub-unit A-1 is planned for office and/or retail uses up to approximately 415,000 gross square feet. Parcel consolidation and building orientation toward Richmond Highway or Lockheed Boulevard is encouraged with any development proposal. Development near Fordson Road and the Hybla Valley community should be well-screened and buffered from existing uses.

Redevelopment Option

As an option, residential use up to approximately 500 units may be appropriate on Sub-unit A-1.

Sub-unit A-2

This approximately 14-acre area is located northwest of the intersection of Fordson Road/Boswell Avenue and Richmond Highway.

Base Plan

This sub-unit planned for retail use up to approximately 305,000 gross square feet. Building orientation toward Richmond Highway and parcel consolidation is encouraged.

Redevelopment Option

As an option, residential use up to approximately 300 units may be appropriate on Sub-Unit A-2.

Sub-unit B-1

This approximately 7-acre area is located on the east side of Richmond Highway, adjacent to the Woodley Hills Estate Mobile Home Park.

Base Plan

This Sub-unit is planned for office and retail uses up to approximately 105,000 gross square feet.

Redevelopment Option

As an option, if substantial parcel consolidation is achieved, non-residential uses up to approximately 150,000 gross square feet may be appropriate.

Sub-unit B-2

This approximately 9-acre area is located on the northeast corner of Richmond Highway and Arlington Drive.

Base Plan

This sub-unit is planned for office or hotel use up to approximately 200,000 square feet.

Redevelopment Option

As an option, non-residential uses up to approximately 260,000 gross square feet may be appropriate, provided the following conditions are met:

- Parcels in this sub-unit are consolidated to facilitate a unified and coordinated development; and,
- Every effort is made to provide additional alternative access, other than from Arlington Drive.

If this area develops as a shopping center, a free-standing drive-through bank may be appropriate, provided the drive-through use meets the recommendations contained in the Land Use section, under Corridor-wide guidelines.

Sub-unit B-3

This approximately 9-acre area is located along the east side of Richmond Highway, south of Arlington Drive.

Base Plan

Sub-unit B-3 is planned for retail use up to approximately 200,000 gross square feet with a maximum building height of approximately 5 stories. Substantial consolidation of lots and access points is encouraged.

Sub-unit B-4

This approximately 3-acre area includes all contiguous commercially-zoned property on the east side of Richmond Highway, between Woodlawn Trail and Boswell Avenue.

Base Plan

This Sub-unit is planned for townhouse-style or well-designed retail and office uses up to approximately 60,000 gross square feet with maximum building heights of approximately 4 stories. Substantial consolidation should be achieved to create a unified, coordinated development. Special attention should be given to mitigation of commercial development impacts on the adjacent Hybla Valley Farms subdivision through effective screening and other transition techniques. Access should be consolidated and oriented to Richmond Highway.

Land Unit C

This approximately 25-acre area is located adjacent to the Mount Vernon Plaza Shopping Center along the west side of Fordson Road.

Base Plan

This land unit is planned for residential use at 8-12 dwelling units per acre.

Redevelopment Option

As an option, residential use up to 15 dwelling units per acre may be appropriate if it can be demonstrated that such development is of sufficiently high quality to be an appropriate and compatible use adjacent to the stable Hybla Valley residential community. In order to accomplish that, development should meet the following conditions:

- The riparian buffer areas in the Resource Protection Area/Environmental Quality Corridor along the southern boundary of the land unit should be planted with native vegetation and restoration of the stream should be encouraged;
- Townhouses, at the lower end of the planned density range, buffered by a 60-foot landscaped strip, instead of the required 25-foot strip along the northern edge of the property, are the most dense type of development to occur next to the Hybla Valley subdivision;
- Garden apartments are restricted to the central and southern portions of the tract;
- Quality of construction and appearance of the development are compatible with the Hybla Valley subdivision;
- A drainage study is undertaken and any proposed development ensures that the contribution of stormwater runoff from the site to stream degradation downstream of the site will be reduced substantially because of the high water table in the area, noting that the application of Low Impact Development (LID) practices should be considered toward this end; and,
- Adequate recreational space should be supplied within the project boundaries to serve the needs of the residents.

Sub-unit D-1

This approximately 46-acre area includes Mount Vernon Plaza and South Valley Shopping Center, located on the west side of Richmond Highway at Fordson Road.

Base Plan

This sub-unit is developed with retail shopping centers and is planned for retail use up to approximately 1 million gross square feet.

Redevelopment Option

As an option, this sub-unit is planned for mixed-use redevelopment up to approximately 900 dwelling units and 1.1 million gross square feet of nonresidential uses. Full parcel consolidation should be achieved except for the Virginia Power substation located on Tax Map Parcel 101-2((1))12C. Non-residential uses should be located near the BRT station and within the ground-floor of residential buildings, as appropriate. A variety of non-residential uses should be provided to support a diverse employment base.

Sub-unit D-2

This approximately 17-acre area is located on the west side of Richmond Highway and includes the Mount Vernon Crossroads and Hybla Valley Center shopping centers.

Base Plan

Sub-unit D-2 is planned for retail use up to approximately 370,000 gross square feet.

Redevelopment Option

As an option, this sub-unit is appropriate for predominately residential mixed-use development comprised of approximately 500 dwelling units and up to 100,000 gross square feet of non-residential use.

Sub-unit D-3

This approximately 8-acre area contains the Murraygate Apartments.

Base Plan

This sub-unit is planned for residential use at 16-20 dwelling units per acre.

Sub-unit D-4

This approximately 26-acre sub-unit on the west side of Richmond Highway contains the Wal-Mart and Costco centers.

Base Plan

This sub-unit is planned for retail use up to approximately 565,000 gross square feet.

Redevelopment Option

As an option, this sub-unit is appropriate for mixed-use development up to approximately 200 dwelling units and 340,000 gross square feet of nonresidential use.

Land Unit E

This approximately 31-acre sub-unit, bounded by Richmond Highway to the west, Fordson Road to the east, and Sherwood Hall Lane to the south, contains the Village at Gum Springs townhouse community, developed at 12-16 dwelling units per acre, and the Gum Springs Center, a neighborhood serving retail center.

Base Plan

Existing and proposed land uses within the Gum Springs Conservation Area should develop in accordance with the Gum Springs Neighborhood Improvement Program and Conservation Plan, adopted by the Board of Supervisors on April 30, 1979, and amended on April 16, 1990.

Redevelopment should be done in accordance with the Gum Springs Redevelopment Plan, adopted by the Board of Supervisors on April 16, 1990. The heritage resources within the historic community of Gum Springs should be protected in all development proposals.

The Gum Springs Redevelopment Plan area is planned for residential development at 5-8 dwelling units per acre and for office and commercial uses along the Richmond Highway frontage. Residential development at 16-20 dwelling units per acre and a reconfiguration of the strip commercial areas into areas of office and/or retail uses may be appropriate, if the following land use and transportation conditions are met:

- Substantial consolidation of the land area to include the frontage along Richmond Highway is achieved, and a coordinated redevelopment as a well-integrated, high-quality, planned development of residential and community-serving office and/or retail commercial uses is provided;
- Residential development should consist of a mix of townhouses, apartments and single-family detached units with landscape treatments used along Richmond Highway to buffer residential units from noise and visual impacts; single-family detached houses should be located along the Fordson Road frontage and should be compatible with and provide a transition to the single-family detached neighborhood to the east. These houses should be effectively protected from any adverse impacts generated by adjacent higher intensity residential or commercial development through a combination of architectural and landscaping treatments;
- A minimum 12.5% of the total number of units proposed should meet the standards for affordable housing, as determined by the Department of Housing and Community Development;
- With new development is sensitive to the existing institutional and residential uses, which have long-standing ties to the Gum Springs Community, effective measures should be taken to protect these institutional uses from any adverse impacts generated by adjacent higher intensity residential, office or retail development through a combination of architectural and landscaping techniques;
- Office and retail development is architecturally compatible with adjacent residential uses, fronts on Richmond Highway, and is oriented to community needs and services. Commercial development should be located north and south of Gum Springs Village. A mix of office development up to 0.35 FAR and retail development up to 0.25 FAR is appropriate. Townhouse-style office development not to exceed 40 feet in height is recommended. Retail development shall also not exceed 40-feet in height. Auto-oriented uses that contribute to strip commercial-type development are not appropriate;
- Pedestrian connections to the adjacent neighborhoods are provided as part of a continuous, coherent urban design treatment. Streetscape improvements along Richmond Highway should be in general conformance with the design standards outlined in the urban design recommendations found at the end of this Plan. Usable open space to serve the residents should be provided in conjunction with any multifamily residential development; and

- Mitigation is provided for noise impacts, drainage, and poor soil conditions and existing vegetation is incorporated in the project design.

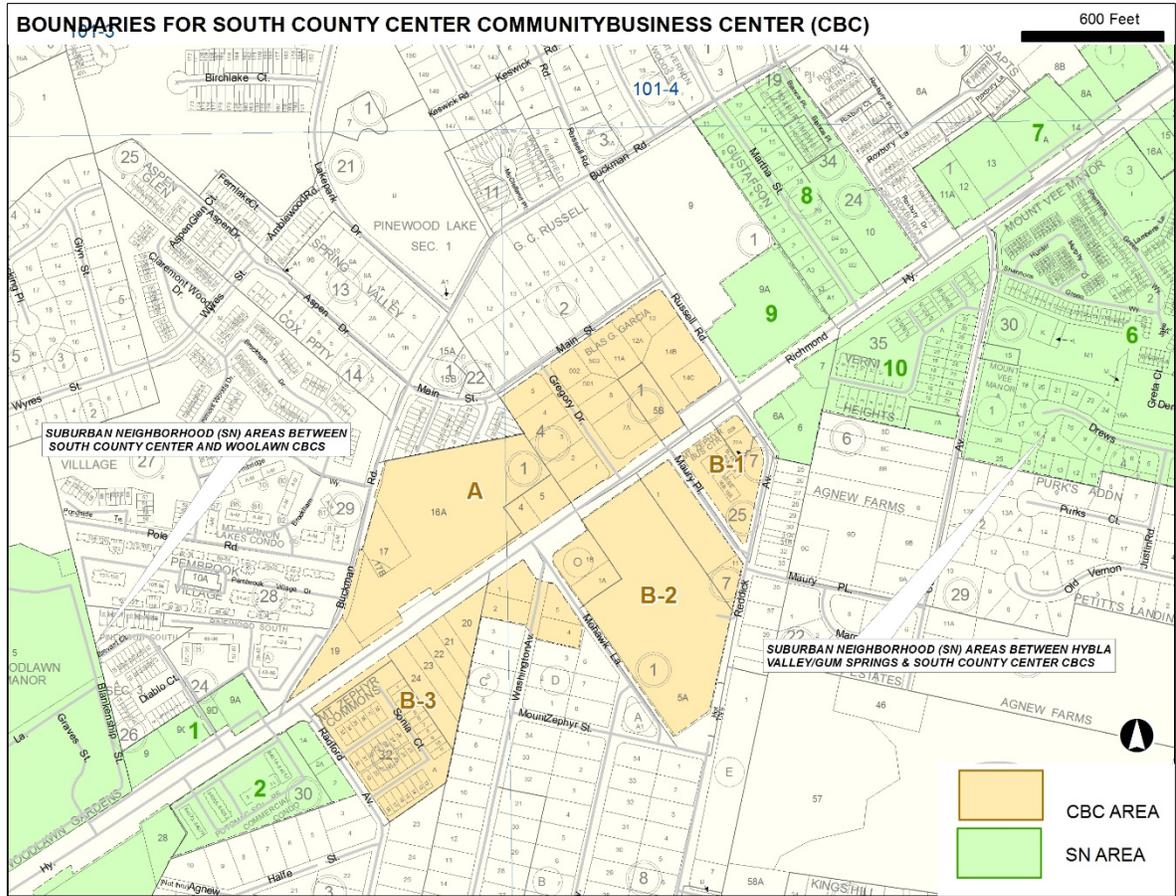
Future development in the Gum Springs Redevelopment Area should be based upon the following transportation considerations:

- Intersection improvements along Richmond Highway, in the vicinity of the redevelopment area and between the redevelopment area and the shopping centers on the west side of Richmond Highway, are planned to enhance traffic safety and flow and includes the potential, new Fordson Road connection, or realignment, on the east side of Richmond Highway, to Boswell Avenue, with option to consolidate traffic signals on Richmond Highway, pending future study;
- Provision of safe pedestrian access from the redevelopment area to the west side of Richmond Highway;
- Provision of left/right turn and through lanes at the Sherwood Hall intersection with Richmond Highway is recommended. The exact intersection design will be determined during future design studies along the corridor;
- Consolidation of access points to the property along the Richmond Highway frontage;
- Provision for interparcel access connecting the various sections of the redevelopment area;
- Provision on Richmond Highway for an additional northbound lane from Sherwood Hall Lane to Boswell Avenue for right turns, deceleration/acceleration, and future widening; and
- Provision for continuous sidewalks and bicycle lanes along the Richmond Highway frontage.

SOUTH COUNTY COMMUNITY BUSINESS CENTER

The South County Center is the focal point of this CBC. The center provides space for the Community Health Center, the General District Court, the Juvenile Domestic Court and other service providers. Diverse land uses are located within the CBC and in addition to the South County Government Center, includes residential neighborhoods with retail and office uses located close by. Figure 53 indicates the geographic location of this CBC.

Figure 53 indicates the geographic location of land units in the South County CBC, shown in yellow, and the Suburban Neighborhood Areas between the CBCs, shown in green



LAND UNIT RECOMMENDATIONS

Development Potential

Figure 54 contains the estimated maximum development potential inclusive of the redevelopment options for the South County CBC. Additional details about the baseline and redevelopment options are contained in the CBC land unit descriptions that follow. As noted in the Land Use section under Corridor-wide Guidelines, flexibility among non-residential uses may be appropriate provided the overall vision of a vibrant mixed-use community is achieved and multimodal transportation needs are addressed.

Figure 54: South County CBC Maximum Development Potential under Redevelopment Options

Land Use	Comprehensive Plan development potential inclusive of redevelopment options ¹	
	Dwelling units or jobs	Approximate Gross Square Feet (gsf)
Residential ²	201 dwelling units	N/A
Non-residential	2,174 jobs	764,000 gsf
Office	1,432 jobs	430,000 gsf
Retail	379 jobs	152,000 gsf
Institutional	363 jobs	182,000 gsf
Total	201 dwelling units and 2,174 jobs	

Note 1: Development potential, employment estimates, and dwelling units are approximate. Conversion factors: residential – 1,000 sf/dwelling unit; office - 300 gsf/job; retail - 400 gsf/job; hotel – 1,300 gsf/job; institutional – 500 gsf/job

Note 2: The residential development potential does not include potential housing bonuses allowed under the Affordable Dwelling Unit (ADU) Ordinance and the Board of Supervisors Workforce Housing Policy (WDU).

Land Unit A

This land unit comprises the approximately 21-acre area bordered by Russell Road, Main Street, Buckman Road and Richmond Highway.

Base Plan

The land unit is planned for office and/or retail and/or mixed use up to approximately 610,000 square feet.

Sub-unit B-1

This 2-acre sub-unit comprises the Mount Zephyr Business Center.

Base Plan

The sub-unit is planned for office and/or retail use up to approximately 35,000 gross square feet with maximum building heights of 40 feet.

Sub-unit B-2

This 12-acre sub-unit comprises the Original Mount Vernon High School site, located on the east side of Richmond Highway between Maury Place and Mohawk Lane.

Base Plan

The Original Mount Vernon High School site should be retained in county ownership and preserved as a local historic site. The site is eligible for listing in the National Register of Historic Places. The building is planned for public facilities use, primarily for educational use. The campus includes a main building that is surrounded by, and attached to, smaller structures. Ancillary institutional uses to support non-profit services may be appropriate in the peripheral buildings. Existing county owned open space at the rear of the property should be retained as publicly accessible park space, subject to Board of Supervisor' approval.

Tax Map Parcels 101-4 ((8))(O)1A and 1B, which are located at the northeast corner of Richmond Highway and Mohawk Street adjacent to the Original Mount Vernon High School are planned for institutional use. Uses may include a community recreation center and performing and visual arts center.

Any design and development plan should be compatible with the historic nature of the Original Mount Vernon High School. These uses are consistent with the Richmond Highway revitalization goals and present an opportunity for a community activity center and adaptive reuse of the site.

Redevelopment Option

The Original Mount Vernon High School and site may be appropriate for reuse and redevelopment. The mix of uses and intensities should be examined through a concurrent Comprehensive Plan amendment and zoning application.

Sub-unit B-3

This 10-acre sub-unit includes properties located on the east side of Richmond Highway between Mohawk Lane and Radford Avenue.

Base Plan

The sub-unit is planned for residential use at 5-8 dwelling units per acre. Substantial lot consolidation should be achieved and a landscaped open space buffer should be provided adjacent to the existing residential community.

Redevelopment Option

As an option, the area from Mohawk Lane to and including Tax Map 101-3((1))20 may be appropriate for retail and/or office use at 0.35 FAR in order to create a gateway into the Mount Zephyr community. The design of the retail and/or office use should be compatible in scale and appearance with the residential neighborhood.

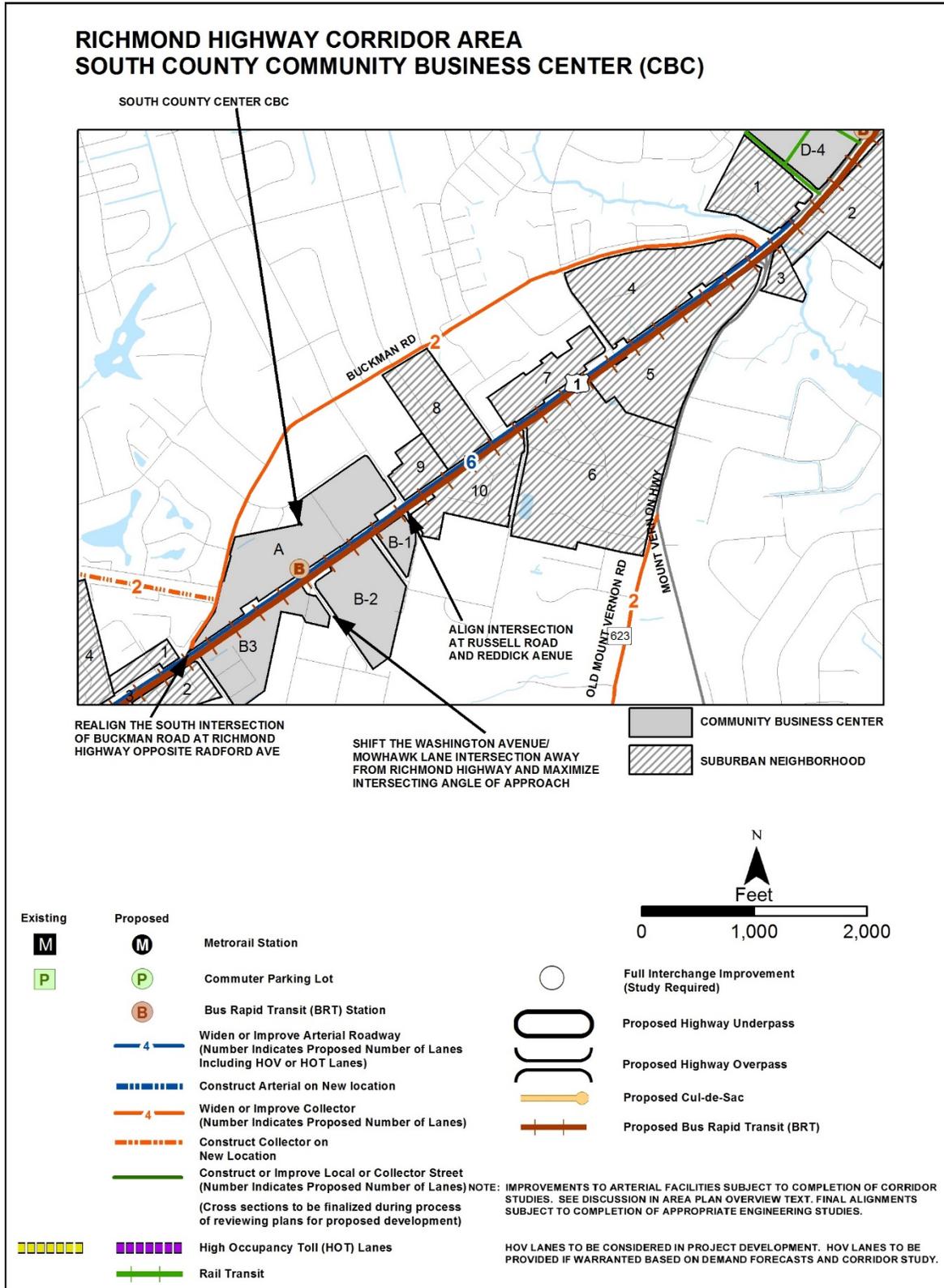
- Nonresidential uses should be oriented to Richmond Highway and Mohawk Lane and building heights should be tapered down toward the existing single-family area;

- Land use design techniques should be incorporated to minimize impact on adjacent residential neighborhoods from building heights, noise, light and any other adverse impacts associated with the development;
- Effort should be made to preserve specimen trees.

Transportation

Transportation recommendations for the South County CBC are shown on Figure X. In some instances, site-specific transportation recommendations are included in the land use recommendations section. The figure shows access orientation, circulation plans, interchange impact areas and generalized locations of proposed transit facilities. The recommendations contained in the Area Plan text and maps, the Policy Plan and Transportation Plan map, policies and requirements in the Public Facilities Manual, the Zoning Ordinance, and other standards will be utilized in the evaluation of development proposals.

Figure X illustrates the Planned Road Improvements for the South County CBC

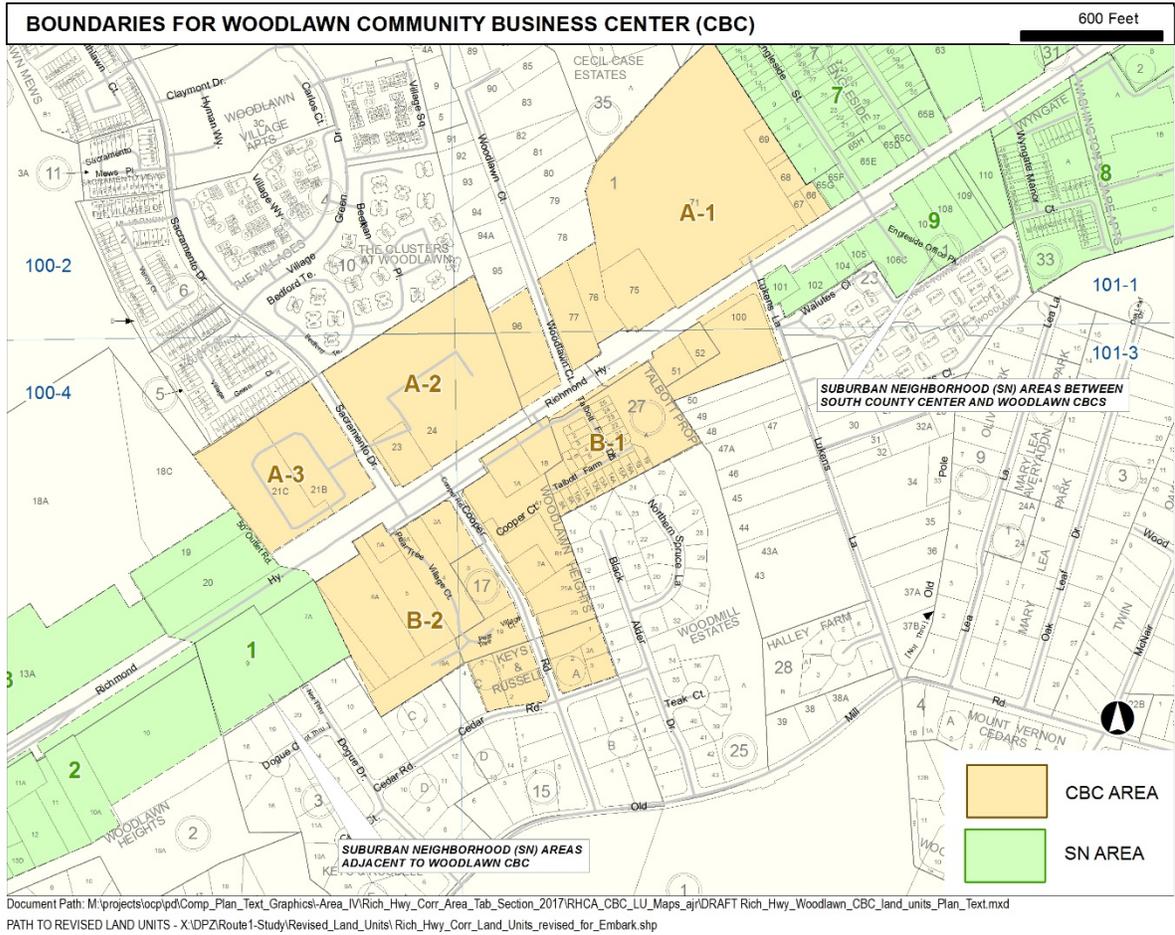


WOODLAWN COMMUNITY BUSINESS CENTER

The Woodlawn CBC is located near an abundance of historical sites and regionally important destinations, including Mount Vernon, Washington's Grist Mill, the Woodlawn and Pope-Leighey House, the Mount Vernon Country Club, Fort Belvoir and the planned National Museum of the United States Army. This area of Richmond Highway is also distinguished by its environmental assets and proximity to the Potomac River. Dogue Creek and associated environmental corridors traverse the area from north to south and ultimately lead to the Potomac River.

The Woodlawn CBC contains three major shopping centers located on the northwest side of Richmond Highway: Woodlawn Shopping Center, Engleside Plaza and Sacramento Center. On the southeast side of Richmond Highway there are strip commercial uses, including fast food restaurants, auto repair establishments and converted residences. Two small shopping centers - Cooper Center and Pear Tree Village - located on the southeast side of Richmond Highway, offer a well-designed collection of locally-oriented retail and service businesses. Figure 55 indicates the geographic location of land units in the Woodlawn CBC.

Figure 55 indicates the geographic location of land units in the Woodlawn CBC, shown in yellow, and the Suburban Neighborhood Areas between the CBCs, shown in green



CONCEPTUAL PLAN

The Woodlawn CBC is envisioned to provide a transit-oriented, mixed-use village and tourist hub around a potential BRT station at the intersection of a realigned Sacramento Drive and Cooper Road at Richmond Highway. Due to the planned BRT station and the CBC’s close proximity to Fort Belvoir, it should provide a mix of mid-rise office, residential, and other commercial developments. Redevelopment within the Woodlawn CBC should continue to meet the needs of the adjacent communities, while supporting the nearby tourist-oriented attractions through lodging, dining and other visitor facilities, and by providing a variety of ways to access recreational and cultural amenities. One possible means for providing residents and visitors with a new way of accessing the cultural and natural resources would be to create a network of multi-use pathways that lead from the CBC to these attractions via foot or bicycle. This network of pathways could form a cultural corridor that allows visitors to engage more fully with the area’s natural and heritage resources. Figure 56 shows the historic sites and ecological features near the CBC and illustrates how they could possibly be connected in the future through multi-use paths. These paths form a cultural corridor that connects the CBC to these assets.

Redevelopment should enhance multimodal connectivity within the CBC as well as to surrounding areas and to the planned BRT station. A multimodal grid of streets is planned to connect both sides of the CBC and organizes circulation and development within the CBC. The grid should form rectilinear and developable-sized blocks. It is envisioned to be multimodal and should provide for the needs of motorists, bicyclists and pedestrians on all streets. There are different types of bicycle facilities for each roadway based on the street type and adjacent land uses, all of which should form a connected network that provides access to existing and planned bicycle facilities, potential BRT stations, and local bus service. Pedestrian facilities should connect within the CBC, to the potential BRT stations, local bus service, and to existing pedestrian facilities in adjoining neighborhoods, parks and open spaces. Intersections in the new grid of streets should be spaced so that blocks are pedestrian-scaled at walkable distances. Pedestrian crosswalks at the potential BRT station locations and at signalized intersections should permit pedestrian movement to and from either side of Richmond Highway. Mid-block pedestrian connections, including pass-throughs and roadway crossings are recommended on large blocks. Refer to the Multimodal Transportation Improvements section for the location and type of street improvements, and bicycle and pedestrian facility recommendations. Figure 57 illustrates the conceptual plan for the Woodlawn CBC.

The Conceptual Plan should be used as a guide for development proposals. There is flexibility in how the Conceptual Plan can be implemented provided there is general adherence to the grid of streets, in particular the Livability and Ecological Spines, the open space network, the location of station-area plazas, and the placement of ground-floor non-residential uses.

Figure 56 illustrates the conceptual trails network connecting community and historic assets to the Woodlawn CBC



Figure 57 indicates the conceptual plan for the Woodlawn CBC



The realigned Sacramento Drive connection with Cooper Road should be designed to form a Livability Spine running perpendicular to Richmond Highway. The Livability Spine will be the center of activity in the CBC and should be lined with retail, restaurants, and other commercial uses along with park and plaza spaces to provide amenities for both visitors and local residents. Figure 58 is a visualization of the character envisioned for the Livability Spine near the BRT station. The hotel with conference center is envisioned to be located in the vicinity of the BRT station and the Livability Spine to serve visitors, including large groups and conference events.

Figure 58 describes the character envisioned for the Livability Spine at the BRT Station



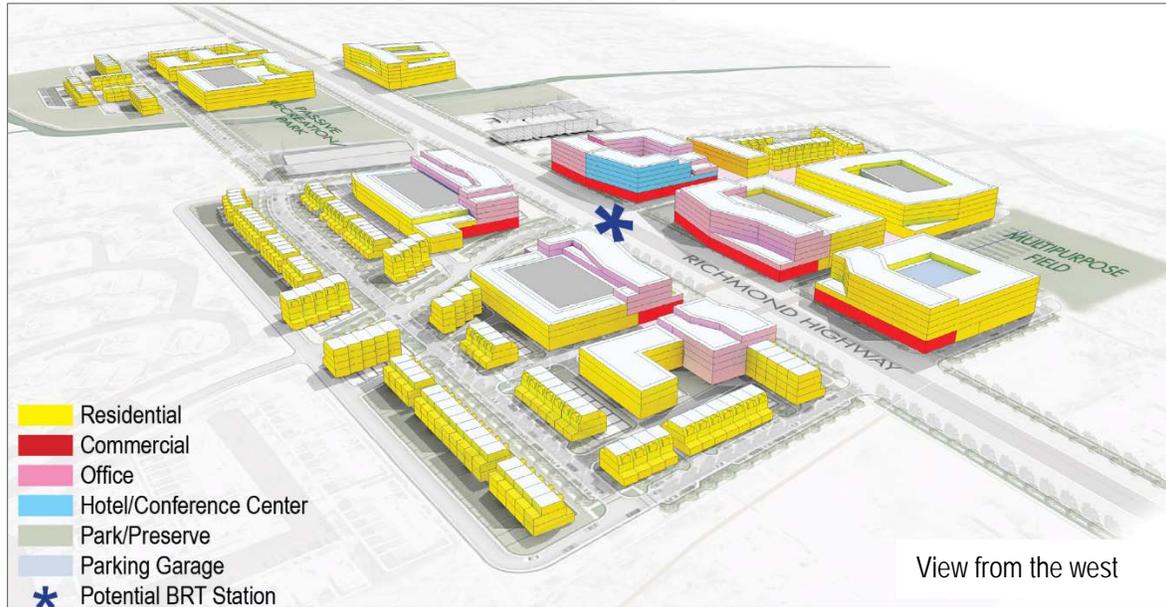
In addition to the grid of streets, open spaces should comprise a major feature of the CBC. Open spaces consisting of Civic Plazas, Resource-based Parks, Ecological Spine type 4, Pocket Parks, and a Recreation-based Park should provide physical organization for redevelopment as well as new amenities for the community. Civic Plazas should be provided on both the north and south side of Richmond Highway directly across from the proposed the BRT station to provide attractive gathering spaces for pedestrians accessing the station from either side of Richmond Highway. Resource-based Parks may be considered in select portions of Resource Protection Areas (RPAs) within the Woodlawn CBC, including along Dogue Creek if designed to ensure environmentally sensitive resources are protected. The RPA located in the northern half of the Woodlawn CBC should include an Ecological Spine and if feasible, a below-grade pedestrian crossing of Richmond Highway to provide access to the Resource-based Park space for the surrounding neighborhoods. The Ecological Spine through the Resource-based Park provides several functions: it celebrates waterways by naturalizing

channelized streams; it forms pedestrian and bicycle connections to unite neighborhoods, parks, and historic sites; and, it provides environmental benefits for stormwater collection and habitat restoration. Detailed information on the design of the Ecological Spine is in the Open Space Network. A Recreation-based Park should be located near the Resource Protection Area (RPA) that borders the southern edge of the CBC and connects to Pole Road Park.

Buildings along Richmond Highway should be mixed-use. Retail uses should be located on the ground-floor of buildings within certain blocks adjacent to Richmond Highway as well as along the Livability Spine. Office, hotel and conference center uses should be located in the general vicinity of the BRT station. Office space may be desired to support defense and health uses at Fort Belvoir. New housing should be a predominate use and may comprise entire blocks within the CBC or may be located above ground-floor retail. Lower density residential uses, such as townhomes or stacked townhomes, are envisioned along the edges of the CBC to provide a compatible transition to existing neighborhoods.

Architectural designs should creatively address building scale through massing. Buildings should have a consistent ground-floor plane next to the building zone. Building rooflines should not be uniform across a block. Non-residential uses should have their entrances and any associated outdoor spaces open on to plazas, Richmond Highway and the Livability Spine. Terraces, green roofs, and other roof top amenities are encouraged in order to maximize outdoor recreational opportunities for residents and workers; to provide environmental benefits, such as stormwater collection and heat island reduction; and, to enhance the views from the upper stories of buildings. Figure 59 illustrates how building massing is envisioned and how land uses should be organized.

Figure 59 indicates the building form, massing, and planned uses for the Woodlawn CBC



BUILDING HEIGHTS

Building height is one of the key elements to determine the amount of development potential that is achievable in each land unit. Figure 60 illustrates the recommended building heights in the Woodlawn CBC. Building heights in the same block should vary. Consult the entirety of Vision Element 5 and the building height recommendations contained within the Urban Design section, Corridor-wide Guidelines, for further information.

Overall development should be less intense and have lower-scaled buildings in the Woodlawn CBC as compared to other CBCs in the Richmond Highway corridor. However, building form should generally follow a similar pattern as other CBCs where the tallest buildings are located on Richmond Highway. Buildings that are up to 6 stories in height are recommended on Richmond Highway and locations closest to the BRT station. Buildings abutting existing residential communities should be of a compatible scale and height, tapering to approximately 3-4 stories in height. An existing 2-story hotel and 4-story townhouse development are retained.

As part of the entitlement process, future redevelopment within the Woodlawn CBC will need to provide additional analysis to demonstrate the extent to which the building heights of the development proposal would be visible from Historic Huntley and Woodlawn. Development that indicates any potential for visibility may be expected to exclude building materials that would exacerbate impacts to views (e.g. highly reflective materials, building lighting).

Figure 60 indicates the proposed recommended building heights for the Woodlawn CBC



OPEN SPACE NETWORK

The Woodlawn CBC is planned to be served by a variety of urban park spaces, following the guidance of the Urban Parks Framework. While each development is expected to address the urban park need generated by its development, there are several park spaces that are integral to the Conceptual Plan that should guide the provision of urban park space within the CBC. Within the context of the overall Richmond Highway corridor, the Woodlawn CBC is the southern entrance to the corridor; as such, public spaces should be designed to welcome and orient visitors to the legacy of the corridor.

The Conceptual Plan for the Woodlawn CBC includes Civic Plaza spaces adjacent to the potential BRT station. In addition to supporting the function of the transit station, Civic Plazas should provide clear routes of pedestrian access and orientation for tourists, residents, and workers. Wayfinding signage, a variety of seating options, and lighting should encourage activity in these key locations and support the function of the BRT system. Design should include creative opportunities for interpretation of the area's history and ecology. Landscaping should provide visual interest throughout the year as well as shade for pedestrians.

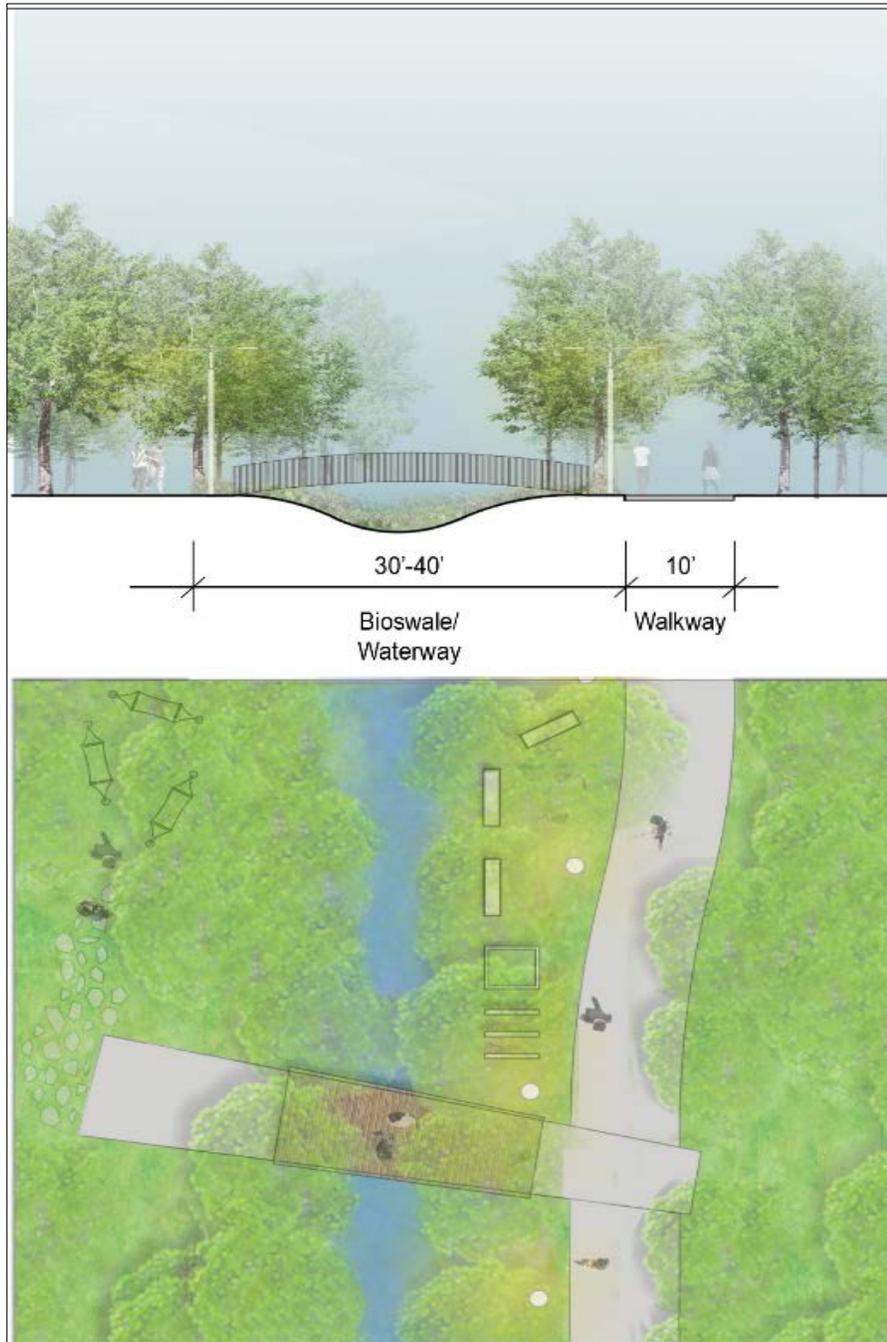
The Linear Park spaces of the Livability Spine are continuous corridors of publicly accessible urban park space that will provide access to recreation and outdoor spaces. A variety of spaces and features should serve everyday needs for activity and community building such as outdoor fitness areas, sport courts, fenced dog parks, playgrounds, and a variety of seating options. It is encouraged that development of programmable areas, such as yoga plazas, tai chi spaces and sport courts, be accompanied by a commitment to program community use of those areas. Play features and design elements that reflect ties to the area's ecology and history are encouraged. Developments should contribute to the creation of a proportionate segment of the Livability Spine. Individual developments should expand upon the range of features within the overall Linear Park. Elements of the Linear Park may also be augmented through the provision of publicly accessible indoor and rooftop facilities.

The Woodlawn CBC is bisected by Dogue Creek, a significant tributary of the Potomac River. Development patterns that occurred prior to enactment of the Chesapeake Bay Preservation Ordinance retained only minimal buffers along this watercourse. Opportunities should be explored to restore the RPA and increase buffer widths, emphasizing native plantings. Redevelopment options are encouraged that include consolidation of land area along Dogue Creek, permitting the Chesapeake Bay Resource Protection Areas to be developed as an Ecological Spine Type 4 as conceptualized in Figure 61.

From a functional standpoint, an Ecological Spine should serve to convey water flows and be designed to enhance water quality with buffers of native plants to help filter run-off. The Ecological Spine, however, is also envisioned as a Linear Park space for daily outdoor life and passive recreation in the Woodlawn CBC. Pedestrian and bicycle facilities should be provided along one side of the waterway. Selective bridge crossings may be provided, allowing the trail to engage both sides of the stream, in response to adjacent development patterns. Design of the Ecological Spine should also support daily opportunities for relaxation, activity, and enjoyment of the outdoors for the future residents and visitors. In context with adjacent uses, the Ecological Spine should offer a variety of seating and opportunities for social

interaction. The width of the Resource Protection Area in the Woodlawn CBC allows for a naturalized development of this space. All programmed spaces should be designed to respect the hydrology of the Ecological Spine, the requirements of the Chesapeake Bay Preservation Ordinance, and draw upon the theme of valuing ecology. Although individual developments will contribute incrementally to the Ecological Spine, this Linear Park should be envisioned as one continuous space, available to serve the entire community. Individual development programs should seek to expand on the variety of spaces and features offered.

Figure 61 describes the cross-section and plan for the Ecological Spine Type 4



Future development within the Woodlawn CBC should capitalize on the adjacency of existing parkland, expanding on the ability of residents to connect to natural areas and passive recreation opportunities. Pole Road Park, located southwest of the CBC, offers the potential for views of nature and wildlife. A Pocket Park is shown at the southwestern corner of the CBC, adjacent to Pole Road Park, which is owned by the Fairfax County Park Authority. This Pocket Park provides an opportunity to connect visually and thematically with this wetland park. Creation of an overlook with seating and interpretive features would be appropriate in

this location. Opportunities to extend pedestrian connections to this Pole Road Park that respect and preserve the area's sensitive hydrology should be considered, facilitating pedestrian access from the Woodlawn CBC and adjacent communities, providing additional opportunities for passive recreation, connection with nature and resource interpretation. Careful engineering and design will be required to support connectivity without degradation of sensitive hydrology and habitats, such as elevated walkways and railings to prevent encroachment beyond designated pathways.

Development within the Woodlawn CBC will generate additional need for athletic fields to serve future residents and workforce. The Conceptual Plan for the Woodlawn CBC envisions an area able to support athletic fields and active recreation. Developments that generate the need for less than a full athletic field are encouraged to consolidate their efforts in seeking creative solutions to address this need. Figure 62 is a visualization of the conceptual open space network for the Woodlawn CBC.

Figure 62 shows the Woodlawn Open Space Concept Map



MULTIMODAL TRANSPORTATION IMPROVEMENTS

The Woodlawn CBC is primarily served by Richmond Highway. A BRT station on Richmond Highway is proposed for this CBC at the intersection of Sacramento Drive and Cooper Road. See Figure 63 Woodlawn Community Business Center Road Improvements Map for planned improvements in the CBC area and other nearby roadways. The following is a list of improvements for the Woodlawn CBC:

- Implement a new multimodal grid of streets on both sides of Richmond Highway, including two new streets paralleling Richmond Highway that would provide additional connectivity within the CBC and offer alternative routes.
- Connect new streets within the CBC to existing roadways, including Lukens Lane, Cooper Road, and Sacramento Drive.
- Realign Sacramento Drive to Cooper Road to form a single intersection crossing Richmond Highway.
- Extend Lukens Lane across Richmond Highway to the west side of the CBC to improve connectivity.
- Connect bicycle and pedestrian facilities within the CBC, to the potential BRT station, local bus stops, and to existing facilities in adjoining neighborhoods, parks and open spaces.

For more information on the specific cross-sections and road design characteristics of the multimodal network, see the USND section of this Plan. Also, refer to the Fairfax County Bicycle Master Plan for bicycle facility guidelines. The location and type of street, bicycle and pedestrian facilities within the planned grid of streets is depicted in Figure 64, Woodlawn Multimodal Network Concept Map.

Woodlawn Cultural Corridor

A large network of multi-use pathways should form a cultural corridor that allows visitors to engage more fully with the area's natural and heritage resources. This network would support tourism activities and provide a non-vehicular means of transportation to these resources. Starting within the CBC and extending beyond its boundaries, the network should consist of a series of multi-use paths within green spaces or along roadways that link the CBC to key destinations including parks, recreational amenities, historic and cultural sites.

Figure 63 illustrates the Planned Road Improvements for the Woodlawn CBC

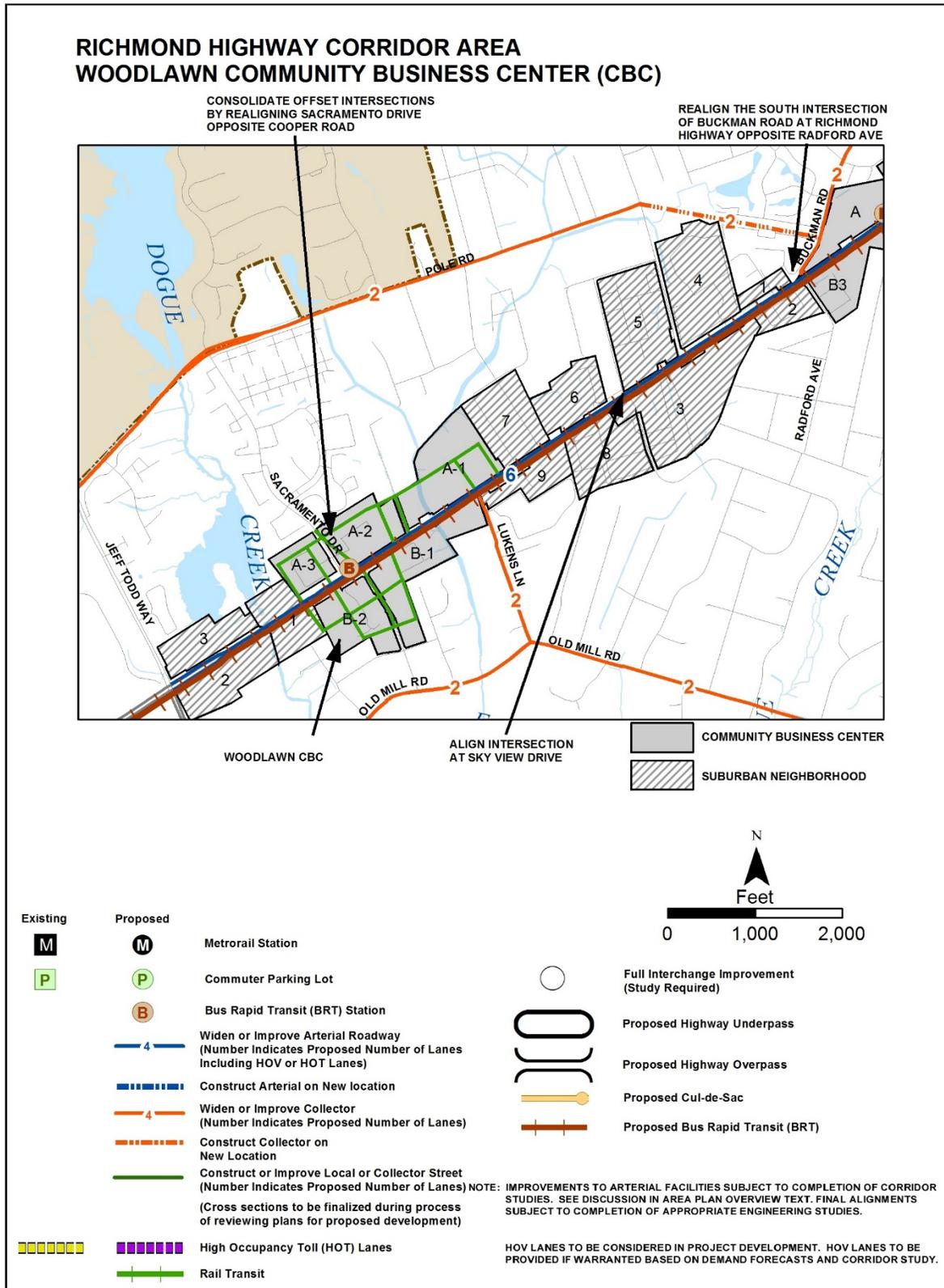
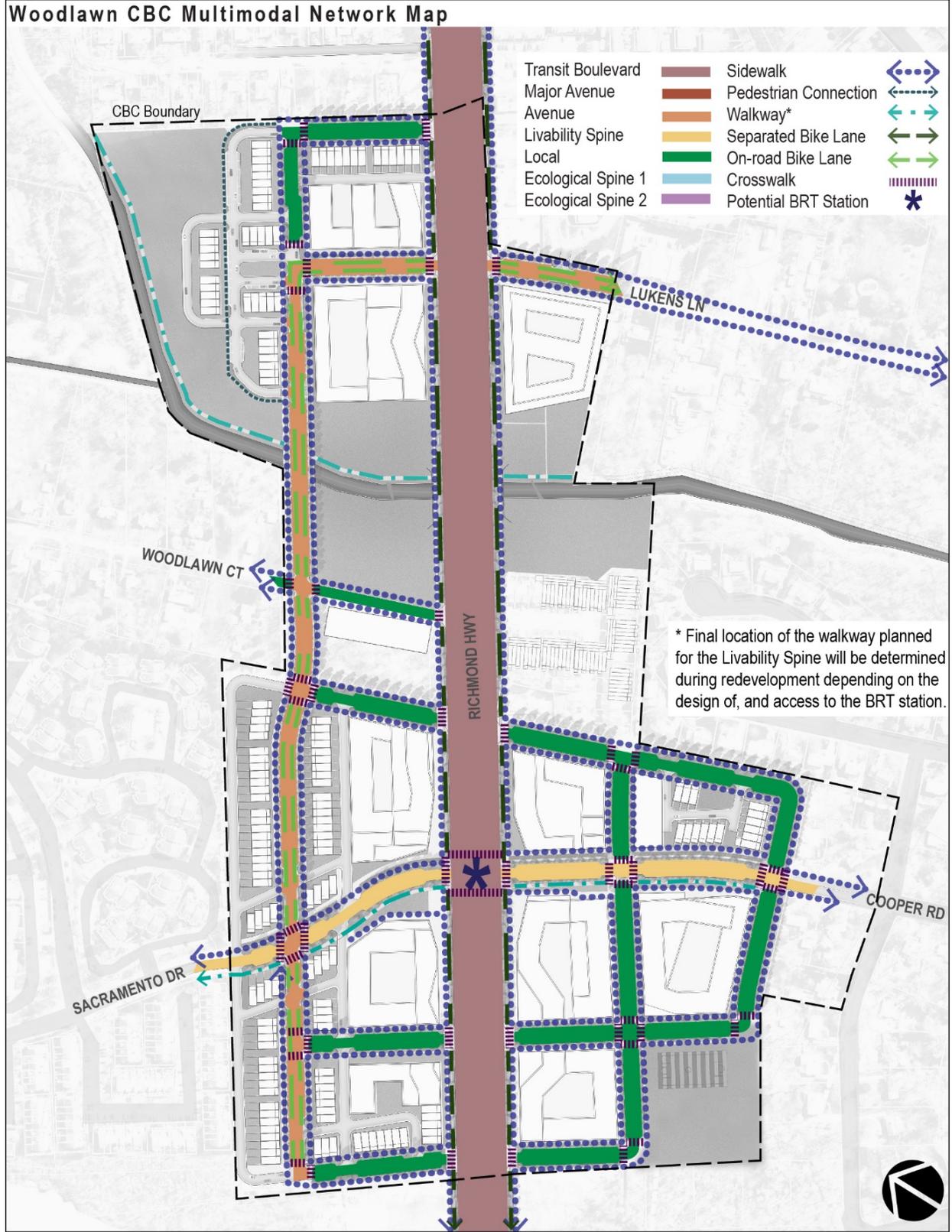


Figure 64 describes the multimodal network for the Woodlawn CBC



LAND UNIT RECOMMENDATIONS

Development Potential

Figure 65 contains the estimated maximum development potential inclusive of the redevelopment options for the Woodlawn CBC. Additional details about the baseline and redevelopment options are contained in the CBC land unit descriptions that follow. As noted in the Land Use section under Corridor-wide Guidelines, flexibility among non-residential uses may be appropriate provided the overall vision of a vibrant mixed-use community is achieved and multimodal transportation needs are addressed. Construction or commitment to the grid of streets, open spaces, parks, and a mix of residential and non-residential uses, as applicable to each CBC, is expected to be phased with development.

It is expected that development will occur in phases. As such, phased development will need to advance the goals and the vision in the Plan, as described in the Implementation Section. Development applications must be reviewed in a manner that ensures appropriate phasing to the provision of public improvements. The construction of and/or commitment to the public facilities is expected to be provided appropriately with each phase of development.

Figure 65: Woodlawn CBC Maximum Development Potential under Redevelopment Options

Land Use	Comprehensive Plan development potential inclusive of redevelopment options ¹	
	Dwelling Units or Jobs	Approximate Gross Square Feet (gsf)
Residential ²	1,020 dwelling units	N/A
Non-residential	2,281 jobs	786,000 gsf
Office	1,767 jobs	530,000 gsf
Retail	456 jobs	182,250 gsf
Hotel	58 jobs	75,000 gsf
Total	1,020 dwelling units and 2,281 jobs	

Note 1: Development potential, employment estimates, and dwelling units are approximate. Conversion factors: residential – 1,000 sf/dwelling unit; office - 300 gsf/job; retail - 400 gsf/job; hotel – 1,300 gsf/job

Note 2: The residential development potential does not include potential housing bonuses allowed under the Affordable Dwelling Unit (ADU) Ordinance and the Board of Supervisors Workforce Housing Policy (WDU).

Sub-unit A-1

This approximately 19-acre area primarily consists of the Engleside Plaza Shopping Center and other strip commercial uses located on the west side of Richmond Highway north of Woodlawn Court.

Base Plan

This sub-unit is planned for community-serving retail use up to approximately 290,000 gross square feet.

Redevelopment Option

As an option, with substantial consolidation, Sub-unit A-2 planned for primarily residential mixed-use redevelopment up to approximately 180 dwelling units and 30,000 square feet non-residential uses.

Sub-unit A-2

This approximately 11-acre sub-unit primarily consists of the Woodlawn Shopping Center and other strip commercial uses located on the west side of Richmond Highway south of Woodlawn Court.

Base Plan

This sub-unit is planned for community-serving retail use up to approximately 170,000 gross square feet.

Redevelopment Option

As an option, with substantial consolidation, this sub-unit presents an opportunity for mixed-use redevelopment up to approximately 210 dwelling units and 170,000 gross square feet of nonresidential use.

Sub-unit A-3

This approximately 7-acre sub-unit is located at the southwest corner of Richmond Highway and Sacramento Drive.

Base Plan

The Sacramento Center shopping center is planned for community-serving retail use up to approximately 150,000 gross square feet. An efficient internal vehicular circulation system should be provided to include consolidation of access points away from the existing intersection to the extent possible. A pedestrian and bicycle circulation system which encourages pedestrian and bicycle use within the development and to adjacent developments should also be provided.

Redevelopment Option

As an option, with substantial consolidation, this sub-unit presents an opportunity for mixed-use redevelopment up to 35 dwelling units and 270,000 gross square feet of nonresidential use.

Sub-unit B-1

This approximately 16-acre sub-unit is located along the east side of Richmond Highway between Lukens Lane and Cooper Road to Cedar Road.

Base Plan

This sub-unit is planned for office and neighborhood-serving retail uses up to approximately 240,000 gross square feet. Open space should be preserved around the environmental quality corridor surrounding Dogue Creek as shown on the Plan map. Buildings should be oriented toward Richmond Highway tapering down in height toward adjacent

residential areas preferably with parking located to the rear which is well-screened and buffered from adjacent residential uses.

Tax Map Parcels 110-1((15))(A)2 and 3 are currently developed with single-family dwelling units and may be retained as residential uses at 2-3 dwelling units per acre consistent with adjacent residential properties.

Redevelopment option

As an option, a portion of Sub-unit B-1, Tax Map Parcels 110-1((27))ALL, 101-3((1))100, 110-1((1))51 and 52 located along Richmond Highway, may be appropriate for residential use at 4-5 du/ac. Parcels 110-1((27)) ALL, which are located west of Dogue Creek, have been developed without consolidation with the other parcels under this option. However, full consolidation of the parcels located east of Dogue Creek would be required to exercise this alternative on Parcels 100, 51 and 52. Further, if this alternative is exercised on parcels east or west of Dogue Creek, the following conditions should be met:

- preservation and restoration of the environmental quality corridor surrounding Dogue Creek as open space;
- dedication of needed right-of-way for planned roadway improvements is provided;
- access is provided at a median break and coordinated with the planned roadway improvements; and,
- an efficient internal circulation system is provided.

As an option for the entirety of Sub-unit B-1, the 16-acre sub-unit is planned for mixed-use redevelopment up to approximately 250 dwelling units and 260,000 gross square feet of nonresidential use.

Sub-unit B-2

This approximately 12-acre sub-unit is located along the east side of Richmond Highway south of Cooper Road.

Base Plan

Tax Map Parcels 109-2((2))3, 3A, 4, 4A, 5A; 110-1((17))3, 19 and 19A are planned for neighborhood retail use at 0.35 FAR. Parcels 110-1((15))1, 2, and 3 are planned for neighborhood office use at 0.35 FAR. Parcels 109-2((2))5 and 6A are planned for residential use at 16-20 dwelling units per acre.

Redevelopment options

As an option, a portion of Sub-unit B-2 (Tax Map Parcels 110-1((15))1, 2, 3) may develop as office use up to 0.50 FAR, if full consolidation can be achieved. Access should be oriented to Cooper Road, and substantial buffering should be provided to the adjacent residential uses.

Tax Map Parcels 109-2((2))5 and 6A may be developed for hotel use. Parking areas should be well-screened and buffered from adjacent residential planned uses. Impacts on the adjacent environmental quality corridor should be mitigated.

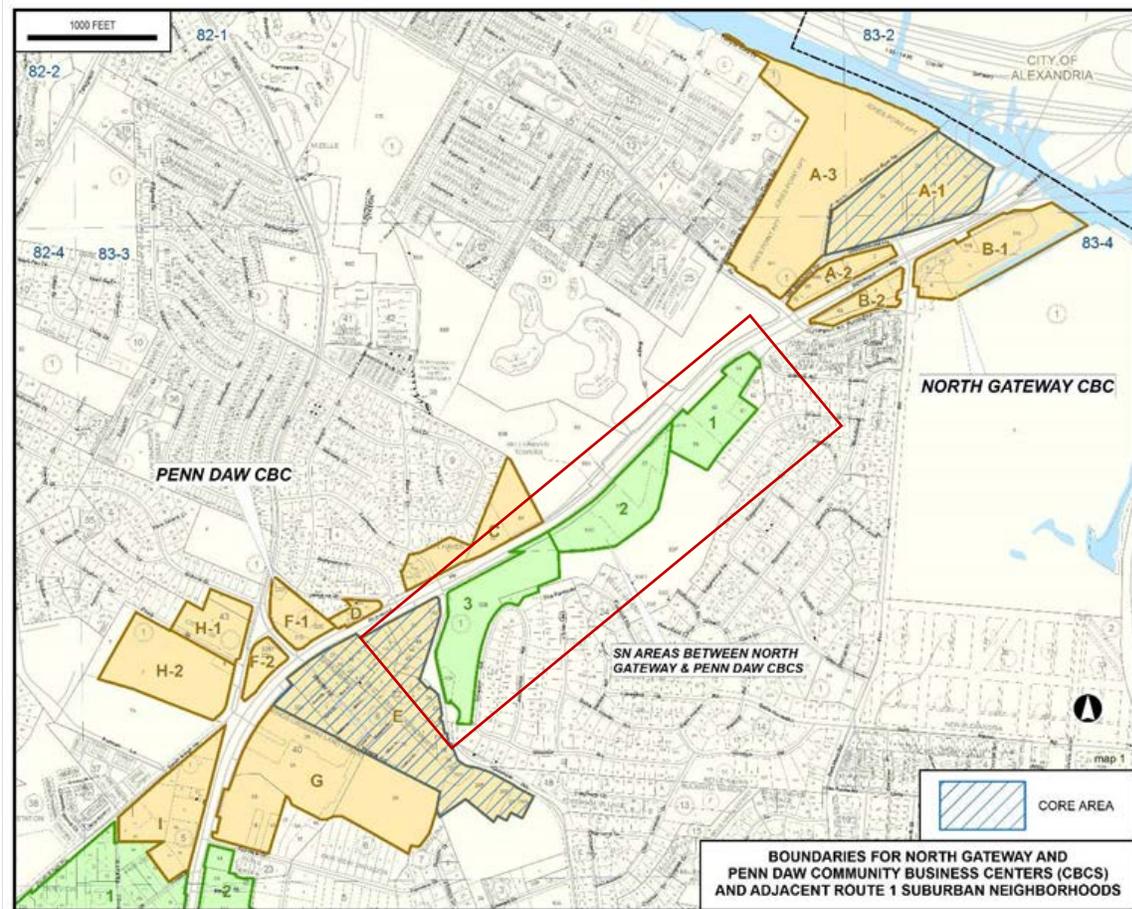
If Tax Map Parcels 109-2((2))3A, 3, 4A, 4, 5, 5A, 6A, 19A, 110-1((17))3, and 19 are substantially consolidated, an office, retail and/or hotel project at an overall intensity of up to 0.65 FAR may be appropriate.

As an option for the entirety of Sub-unit B-2, the approximately 12-acre area is planned for primarily residential mixed-use redevelopment up to approximately 350 dwelling units and 160,000 gross square feet of nonresidential use.

SUBURBAN NEIGHBORHOOD AREAS

The Suburban Neighborhood Areas (SNAs) contain primarily residential communities, smaller scale retail and commercial businesses, and open spaces located in between the Community Business Centers (CBCs). As redevelopment occurs in the Richmond Highway Corridor Area, projects should demonstrate compatible and effective transitions from the high intensity CBCs to the lower intensity SNAs; provide appropriately scaled and logical multimodal connections between the CBCs and SNAs; and ensure the character of new development and redevelopment in the SNAs is complementary to the adjacent CBCs and SNAs, where applicable. In addition to the recommendations above, the Guiding Planning Principles and Corridor-wide Guidelines should be consulted in the review of all development proposals in the SNAs. In some cases, site-specific recommendations may differ from and supersede these recommendations.

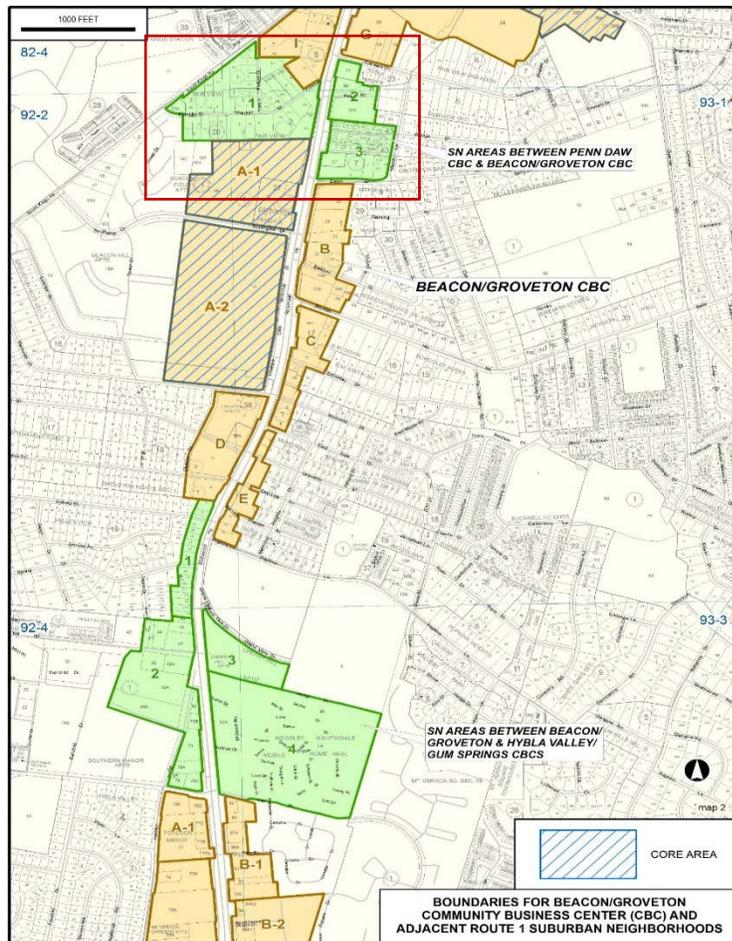
Areas Between North Gateway and Penn Daw Community Business Centers (Refer to Figure X)



1. The area along the east side of Richmond Highway at the intersection with Belfield Road is planned for residential use at 5-8 dwelling units per acre, with an option for a public park. Consolidation is encouraged and effective screening and buffering should be provided between any proposed development and the adjacent neighborhood and other uses. Access points should also be consolidated and no access point should be closer than 200 feet to Belfield Road.

2. The lots located along Richmond Highway midway between Belfield Road and Quander Road (Tax Map Parcels 83-3((1))57, 57A, 56C and 56D) are planned for residential use at 5-8 dwelling units per acre with an option for a public park. Design of the project should leave the majority of the steep slopes undisturbed.
3. The site located at the northeast corner of Richmond Highway and Quander Road (Tax Map Parcel 83-3((1))52B) is planned for residential use at 5-8 dwelling units per acre to provide a transition from Richmond Highway to the stable, low density residential neighborhood to the southeast. The site is currently used for a car dealership. Residential project design should include clustered units with steep slopes left undisturbed. No more than one entrance point onto Richmond Highway that is no closer than 200 feet to Quander Road, and no more than two entrances on Quander Road, no closer than 200 feet to Richmond Highway should be provided. These latter provisions are intended to preclude congestion near the Richmond Highway/Quander Road intersection because of the importance of that road for carrying school traffic to and from West Potomac High School and Metro-related traffic to and from Huntington, as well as the residential traffic generated on these sites. As an option, this area is planned as a public park.

Areas Between Penn Daw and Beacon/Groveton Community Business Centers (Refer to Figure X)



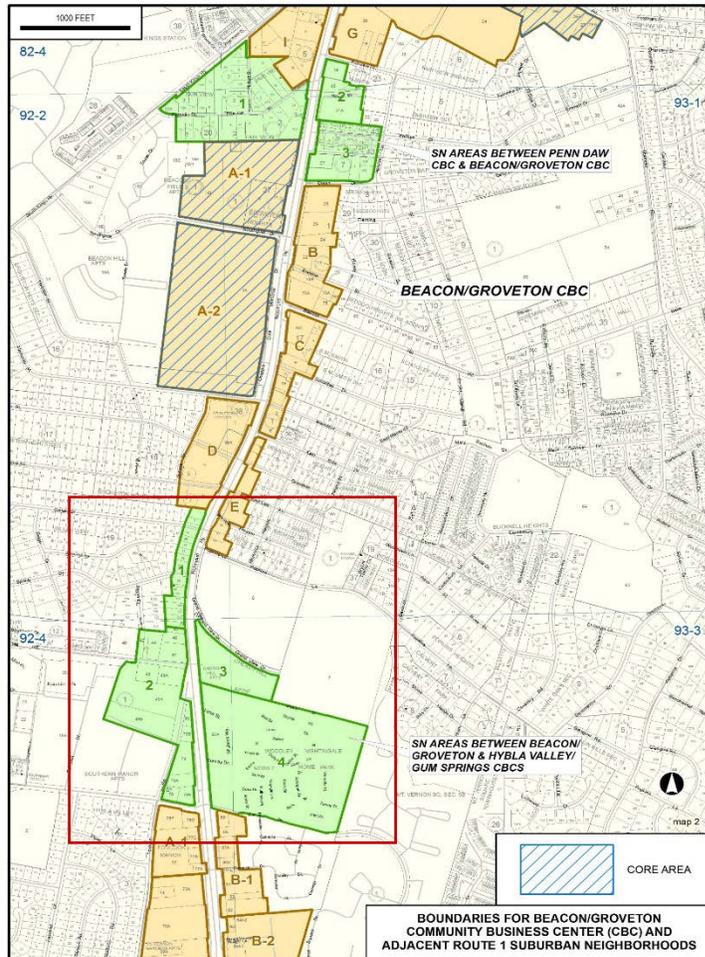
1. The area located between Richmond Highway and South Kings Highway, south of Penn Daw

CBC Land Unit H, and north of Beacon Mall includes commercial and residential uses. The area is planned for residential use at 4-5 dwelling units per acre and 8-12 dwelling units per acre as shown on the Comprehensive Plan map.

2. Lots fronting on the east side of Richmond Highway between Fairview Drive and the Alexandria Motel along Regan Street are planned for residential use at 16-20 dwelling units per acre, with substantial parcel consolidation. Elderly housing is encouraged. Landscape materials should provide effective buffering and screening to the residential community to the east.
3. This area located on the east side of Richmond Highway is bounded by Dawn Drive to the south and Hillside Lane to the east. It includes the Huntington Run and Huntington Walk Condominium Complexes, as well as the Groveton Baptist Church. The condominium complexes are planned for residential use at 16-20 dwelling units per acre. Should the Groveton Baptist Church be redeveloped for residential use, a density of 8-12 du/ac may be appropriate if:
 - Complete consolidation of Tax Map Parcels 93-1((7))1, 2, 501, 502 and 93-1((1))27 is achieved; and
 - Substantial buffering and screening is provided adjacent to the existing residential neighborhoods.

This area may also be appropriate for low-rise office use at an intensity up to 0.50 FAR.

Areas Beacon/Groveton and Hybla Valley/Gum Springs Community Business Centers (Refer to Figure X)



1. Parcels fronting on the west side of Richmond Highway from north of Collard Street to Tax Map Parcel 92-2((19))105 located south of Spring Drive are planned for residential use at 2-3 dwelling units per acre. These shallow lots may be further impacted by roadway widening which will severely constrain potential redevelopment. Existing vegetation should be preserved on these parcels to the extent possible.
2. This area fronts on the west side of Richmond Highway from is south of Spring Street to Lockheed Boulevard, and includes the Meadow Woods Apartments, Public Storage, the Nazarene Church, and retail uses. With substantial parcel consolidation, this area is planned for residential use at 8-12 dwelling units per acre with compatibility-scaled townhouse-style retail and/or office components to an intensity up to 0.35 FAR. As an option, housing for the elderly, or self-storage, at an intensity not to exceed 0.50 FAR, may be appropriate for Tax Map Parcels 92-4((1))48 and 49A. These parcels have been developed with a self-storage facility. The following conditions should be met in any development proposal:
 - Disturbance to steep slopes and environmental features in this area is minimized;

- No access points are provided onto Richmond Highway;
- Effective screening and buffering is provided and maintained to the adjacent residential neighborhoods; and
- An efficient internal circulation pattern including pedestrian travelways is provided.

A potential Bus Rapid Transit (BRT) Station is recommended to be located in the vicinity of this area. Refer to the introductory sections and Transportation section of the Richmond Highway Corridor Plan for more details.

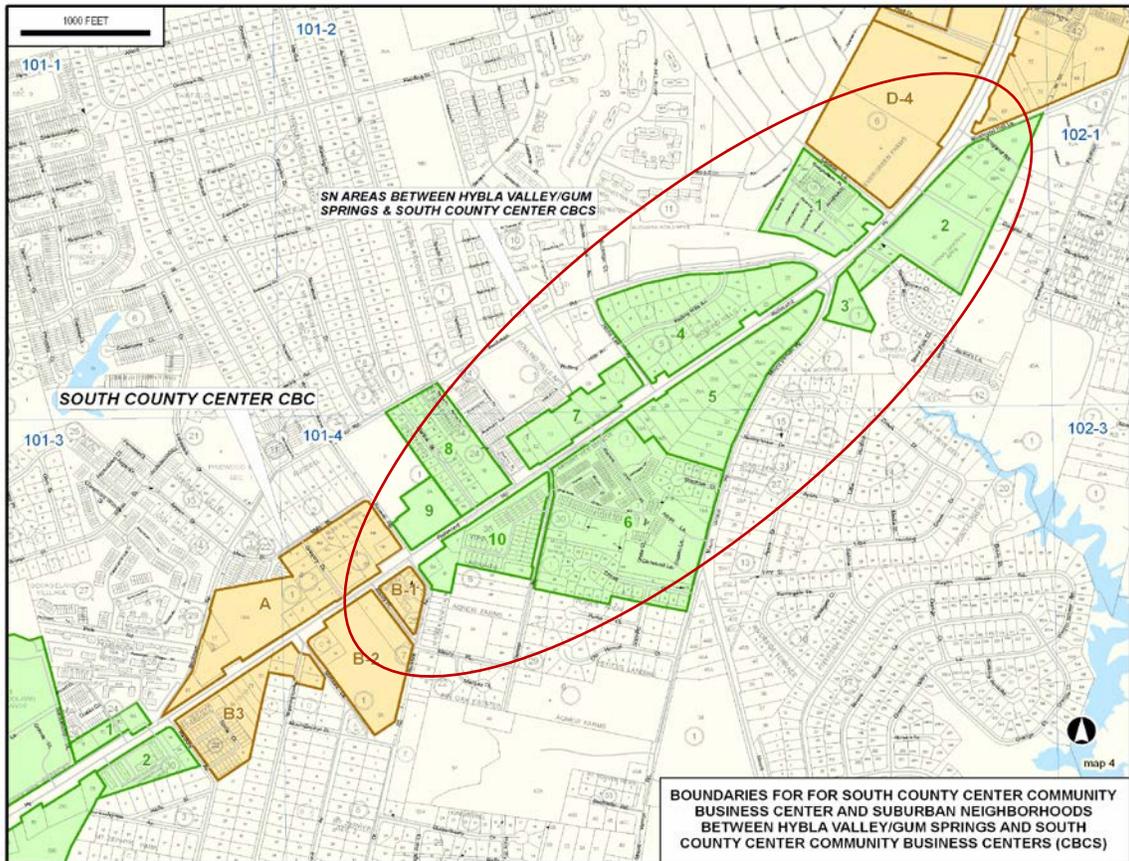
3. This area is located on the east side of Richmond Highway, across from its intersection with Holly Hill Road and contains the Cherry Arms Apartments. This apartments are planned for and developed as residential use at 16-20 dwelling units per acre.
4. The North Hill, a part of the former Woodley Nightingale Redevelopment Area (approximately 33 acres) located on the eastern side of Richmond Highway north of the Hybla Valley/Gum Springs Community Business Center and the Woodley Hills Estates Mobile Home Park, is planned for public park for passive recreational use. As an option, the site may be appropriate for up to 279 workforce and affordable multifamily units, which may include affordable independent living units, and up to 196 townhomes with limited community serving uses and the retention of a significant, contiguous portion of approximately 11 acres of the site for a publicly accessible park. Any development should be supported by a geotechnical study that shows how slopes and problem soils will be addressed. In addition, the following conditions should be met:
 - The residential development should be oriented to Richmond Highway and Dart Drive.
 - Buildings facing Richmond Highway should provide pedestrian entrances and direct access to the Richmond Highway frontage to the extent feasible in consideration of site constraints, topography and/or the safety and welfare of residents. If parking structures are planned in the ground floor of buildings, appropriate screening of parking should be achieved in order to avoid adverse impacts to the public realm.
 - The walkability and multi-modal connectivity of the redevelopment should be enhanced through the addition of sidewalks, streetscape and bicycle facilities. Adequate right-of-way and streetscape improvements should be provided in line with the design guidance for the corridor, including secondary streets such as Dart Drive. Development should dedicate 89 feet from the centerline of Richmond Highway for planned transportation improvements. The right-of-way dedication along Dart Drive should be extended to the east property line to accommodate a future multimodal connection to Arlington Drive.
 - On-site bicycle and pedestrian circulation should be provided and connect to off-site bicycle, pedestrian and transit facilities.
 - Several points of physical access should be made to connect the public park with the planned community and the existing surrounding neighborhoods.
 - Planned development of the property should include clean-up and restoration efforts focused on the portion of the site to remain as a public park so that it is safe for park

visitors.

- Residential development should provide vehicular access and parking to serve the public park and should provide an ADA accessible route from the parking into the park.
- In addition to the public park, one or more well-designed, publicly accessible community gathering areas should be included to create a sense of place and provide recreational opportunities for residents and visitors, per the guidance of the Urban Parks Framework. The southwest corner of the property is well-suited for a Civic Plaza that would serve as a community gathering space for future residents and those waiting for a bus. Active recreation facilities should be provided onsite to meet the needs of future residents.

A potential Bus Rapid Transit (BRT) Station is recommended to be located in the vicinity of this area. Refer to the introductory sections and Transportation section of the Richmond Highway Corridor Plan for more details.

Areas Between Hybla Valley/Gum Springs and South County Center Community Business Centers (Refer to Figure X)



1. The area bounded by Ladson Lane on the north, Richmond Highway on the east, Audubon Mobile Home Park on the west and Little Hunting Creek on the south is planned for residential use at a density of 5-8 dwelling units per acre with an option for 8-12 dwelling units per acre.

Substantial parcel consolidation should be accomplished to allow for a well-designed project. Access points should be consolidated and oriented toward Ladson Lane. Tax Map Parcel 101-2((6))25 is the current location of Harmony Place Trailer Park, much of which has been developed in the Little Hunting Creek flood plain. Mobile homes currently located in the flood plain should be relocated into any areas planned for a mobile home park. Any redevelopment of this area is encouraged to comply with the county's voluntary relocation guidelines. The environmental quality corridor located on Tax Map Parcel 101-2((6))25 should be preserved for open space.

2. The area on the east side of Richmond Highway from Sherwood Hall Lane to Little Hunting Creek is located within the Gum Springs Community. Adequate measures to mitigate against undue environmental impact should be provided. Streams and flood plains with their existing vegetation located on the property should be preserved. Where past practices have degraded these streams, bioengineering approaches should be followed to restore them to more natural conditions and functions. A potential Bus Rapid Transit (BRT) Station is recommended to be located in the vicinity of this area. Refer to the introductory sections and Transportation section of the Richmond Highway Corridor Plan for more details.
3. The property located on the east side of Richmond Highway south of Little Hunting Creek near Mount Vernon Highway (Tax Map Parcel 101-2((1))37) is planned as open space to protect the integrity of the environmental quality corridor.
4. The area fronting on the west side of Richmond Highway south of its intersection with Buckman Road to Janna Lee Avenue is planned for townhouse-style office and neighborhood-serving retail use up to 0.25 FAR to provide a transition to the adjacent single-family neighborhoods. The remainder of the land unit is planned for residential use at 2-3 dwelling units per acre. As an option, a mix of predominantly residential use up to 25 dwelling units per acre with 50,000 – 80,000 square feet of use consisting of office and ground floor retail may be appropriate if the area is redeveloped in accordance with Appendix 8 of the Land Use section of the Policy Plan "Guidelines for Neighborhood Redevelopment," and all of the following conditions are met:

Phasing and Land Use:

- The nonresidential component of the project is constructed and completed with the first phase of the development to ensure its compatible integration. A minimum of 70,000 square feet of commercial space comprised of a minimum of 60,000 square feet of office use and a minimum of 10,000 square feet of retail use is desired. Retail uses should be located on the ground floor of office buildings. Freestanding retail uses are discouraged.

Design:

- Complete parcel consolidation is desired. If total consolidation is not achieved, the development plan should demonstrate how the unconsolidated parcels could be integrated within the project at a later date, and buffered from the development in the interim.
- High quality, pedestrian-oriented architectural and landscape design, open spaces, and other elements contained in the Urban Design, Urban Street Network Design, and other applicable sections of the corridor-wide Plan guidance are incorporated.

- Buildings provide appropriate transition in scale and mass from Richmond Highway towards existing adjacent residential areas along Buckman Road and Janna Lee Avenue.
- A mix of unit and building types including mid-rise structures are provided to create open space.
- Landscaping is employed to offset the effect of parking lots, driveways and pavement areas adjacent to the commercial and residential structures.
- All stacked townhouses and multifamily units are designed such that they include doors, windows, and recessed balconies in the front and rear elevations to ensure an attractive “front door” appearance from all sides. Commercial buildings designed to provide an attractive appearance on all sides. Building materials of the highest quality should be used.

Environment:

- Potential noise impacts are addressed in accordance the Environment section under Corridor-wide Guidelines for the Richmond Highway Corridor Area and the Policy Plan.
- Trees determined to be of value by the Urban Forester are preserved if feasible.

Parks and Recreation:

- The existing park and recreation deficiencies are offset through provision of neighborhood park land through a dedication to the Park Authority of 2.5 to 4 acres, if provided on-site, or 3 to 4 acres, if provided off-site. As a substitute, funds may be dedicated to the Park Authority for off-site land acquisition and/or facilities. Appropriate neighborhood park recreation facilities should also be provided. In addition, urban park features should be integrated within the site, such as plazas, gathering spaces, special landscaping, street furniture, and pedestrian amenities.

Transportation and Pedestrian Circulation:

- Capacity issues associated with the Buckman Road/Mt. Vernon Highway/Richmond Highway intersection are resolved with the dedication of right-of-way for corridor and intersection improvements. Richmond Highway should be improved to a six-lane divided highway through this area consistent with the corridor, with a median for bus rapid transit.
- Primary access is provided via Janna Lee Avenue and Buckman Road. Vehicular access from Richmond Highway is limited to one right turn in and one right turn out access point only with a possibility of a pickup/drop off area along the highway frontage.
- Janna Lee Avenue between Richmond Highway and Buckman Road is improved and modifications of the Janna Lee/Richmond Highway intersection are made to achieve efficient circulation patterns.

- Continuous pedestrian and bicycle facilities consistent with corridor-wide transportation recommendations are provided along Richmond Highway, Janna Lee Avenue and Buckman Road. Hard surface material that enhances the corridor's urban character should be used. Within the site, trails and sidewalks are provided to create a pedestrian friendly environment and to connect the site with transit services along the Richmond Highway corridor and surrounding areas.
- An effective Transportation Demand Management (TDM) program applicable to residential and nonresidential uses that utilizes a combination of measures as deemed appropriate by the Department of Transportation is provided. These measures may include shuttle services, transit subsidies, vanpool or carpool matching services and bus shelters as well as telework office space with advanced telecommunication systems. The program should be monitored periodically.

As a second option, development of residential use at a density of 20 to 30 dwelling units per acre may be appropriate if the area is redeveloped in accordance with Appendix 8 of the Land Use section of the Policy Plan "Guidelines for Neighborhood Redevelopment," and the following conditions are met. Redevelopment would consist of approximately 275 to 350 multifamily residential units and 150 to 225 townhome units, but flexibility in unit type mix may be appropriate to achieve Comprehensive Plan objectives. Accessory office and/or accessory retail use may be appropriate on the ground floor of one or more of the multifamily buildings. Construction of the residential units may be phased.

Design:

- Complete parcel consolidation is desired. If total consolidation is not achieved, the development plan should demonstrate how the unconsolidated Tax Maps could be integrated within the project at a later date, and buffered from the development in the interim.
- High quality, pedestrian-oriented architectural and landscape design, open spaces, and other elements contained in the Urban Design, Urban Street Network Design, and other applicable sections of the corridor-wide Plan guidance are incorporated.
- Buildings provide appropriate transition in scale and mass from Richmond Highway towards existing adjacent residential areas along Buckman Road and Janna Lee Avenue.
- Landscaping is employed to offset the effect of parking lots, driveways and pavement areas adjacent to the residential structures.
- All buildings are designed to provide an attractive appearance on all sides. Blank walls should be avoided. High quality building materials should be used.

Environment:

- Potential noise impacts are addressed in accordance the Environment section under Corridor-wide Guidelines and the Policy Plan.

- Trees determined to be of value by the Urban Forester are preserved to the maximum extent possible. Preservation of existing trees within proposed open space areas is encouraged.
- Low Impact Development (LID) practices should be incorporated to the maximum extent possible. Other applicable stormwater management measures contained in the Environment section under Corridor-wide Guidelines should be incorporated.
- Contributions toward the restoration of Little Hunting Creek should be provided.

Parks and Recreation:

- Well-designed, publicly accessible urban parks should be integrated to enhance the recreational options and sense of place for the development, consistent with the Urban Park Framework, as modified by the Fairfax County Park Authority. Contributions to offset off-site public park facility service level impacts should be made commensurate with the impact of development approved.

Transportation and Pedestrian Circulation:

- Development should provide for the improvement of Richmond Highway as depicted in the Transportation and Urban Street Network Design sections, and associated improvements to address projected traffic congestion and relieve capacity issues at the Buckman Road/Mt. Vernon Highway/Richmond Highway intersection.
 - Janna Lee Avenue between Richmond Highway and Buckman Road is improved.
 - Continuous pedestrian and bicycle facilities consistent with corridor-wide transportation recommendations are provided along Richmond Highway, Janna Lee Avenue and Buckman Road. Hard surface material that enhances the corridor's urban character should be used. Within the site, trails and sidewalks are provided to create a pedestrian friendly environment and to connect the site with transit services along the Richmond Highway corridor and surrounding areas.
5. This area extends south from the intersection of Richmond Highway and Mount Vernon Highway, and includes all the parcels bounded by these two highways, up to and including Tax Map Parcels 101-4((1))16A, 16B and 20 which are planned for residential use at 5-8 dwelling units per acre. If substantial consolidation of these parcels is achieved, residential use at 8-12 dwelling units per acre may be appropriate to provide a transition to the adjacent single-family dwellings. Density should be tapered from Richmond Highway to Mount Vernon Highway and development along Mount Vernon Highway should be limited to single-family detached houses at 2-3 dwelling units per acre. Access points should be consolidated. Effective screening and buffering should be employed to provide a visual barrier between the existing residences and planned units as well as along Mount Vernon Highway. Existing retail, commercial uses on Tax Map Parcels 101-2((1))34, 34A,35A1, and 35A2 are appropriate to be retained up to 0.30 FAR. Tax Map Parcel 101-2((1))36 is appropriate for retail use up to .035 FAR.
 6. The area bounded by Richmond Highway, Mount Vernon Highway, Central Avenue, and located north of Purks Court is planned for residential use at 2-3 and 8-12 dwelling units per acre, as shown on the Plan map.

This land unit may be appropriate for a mix of single-family detached homes and townhouses with an option for a medical care facility for the elderly. Residential use at 2-3 dwelling units per acre should be developed adjacent to the existing single-family neighborhoods on Central Avenue and Mount Vernon Highway. The area adjacent to Richmond Highway may be appropriate for townhouse development at 8-12 dwelling units per acre, with an option for a medical care facility for the elderly, provided that:

- A unified development plan is submitted;
 - Structures are clustered away from Richmond Highway on Tax Map Parcel 101-2((1))34A to retain some of the existing open space along Richmond Highway;
 - Sufficient and suitable screening and buffering are provided and maintained along Richmond Highway and adjacent residential lots;
 - The medical care facility is limited to a maximum of 90 living units. If the medical care facility is not built, the balance of the development on this portion of the site may also develop in townhouse use; and
 - Access to the single-family detached development is limited to Mount Vernon Highway and Old Mount Vernon Road, while access to the townhouse development and medical care facility is from Central Avenue and Richmond Highway.
7. The area bounded by Richmond Highway and Janna Lee Avenue, and south Roxbury Lane and the Roxbury of Mount Vernon townhouse community is planned for a mix of predominantly residential use at a density of 8-12 dwelling units per acre and community-serving commercial uses up to 0.50 FAR with substantial parcel consolidation. Access points should be consolidated. Screening should be employed to provide a visual barrier between the existing residences and planned units and along Richmond Highway.

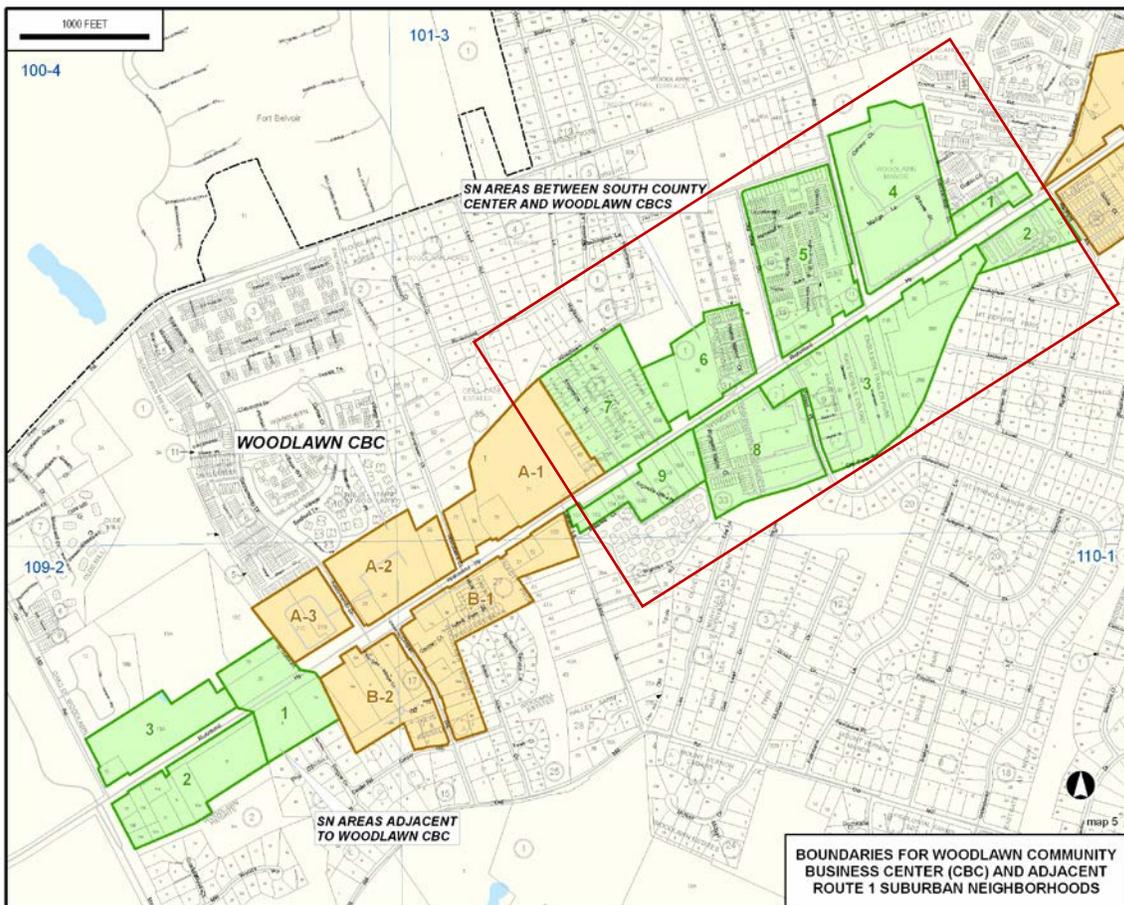
A landscape contractor's offices and/or a plant nursery, may be appropriate for the parcels located east of Roxbury Drive [Tax Map Parcels 101-4((1))11A and 12] if the proposed development meets the development conditions listed above and the following conditions:

- Provide and maintain substantial vegetated buffers and screening adjacent to parcels planned or developed for residential use;
 - Assure compatible building scale and height with the residential development;
 - Buildings are oriented toward Richmond Highway and away from parcels planned or developed for residential use and should be compatible with a residential context; and
 - Outdoor storage of heavy construction equipment and construction vehicles is prohibited.
8. This area is bounded by Richmond Highway, the Roxbury of Mount Vernon Townhouses, Buckman Road, and a shopping center. If consolidation of contiguous parcels fronting

Richmond Highway is achieved on Martha Street, a residential density of 12-16 dwelling units per acre may be developed.

9. Tax Map Parcel 101-4((1))9A is developed as a shopping center and is planned for retail use up to 0.50 FAR.
10. The area is bounded by Richmond Highway, Central Avenue and Reddick Avenue, and includes the parcels along Mary Evelyn Way. These parcels are planned for residential use at 5-8 dwelling units per acre with the following conditions:
 - Consolidation of parcels is achieved;
 - Access points are consolidated;
 - A well-integrated development plan with an efficient internal circulation pattern is provided; and
 - Effective screening and buffering are provided to the existing adjacent

Areas Between South County Center and Woodlawn Community Business Centers (Refer to Figure X)



1. This area is located between the southern end of Buckman Road and Blankenship Street and is planned for retail and/or office use up to 0.35 FAR.
2. This area is bounded by Richmond Highway, Radford Avenue, New Hope Housing, Inc. and is located north of Halfe Street. It is primarily planned for and developed with the Potomac Square Shops & Offices, or office and/or retail use up to 0.35 FAR with building heights up to 40 feet.
3. This area is bounded by Richmond Highway, Potomac Square Shops & Offices and Forest Place, and includes the Engleside Trailer Park and Ray's Mobile Colony. This area is planned for residential use at 5-8 dwelling units per acre. Residential uses should be designed to provide for a transition to the adjacent single-family residential neighborhood by providing the required buffering, fencing, and/or screening to adjacent neighborhoods. Any redevelopment of this area is encouraged to comply with the county's voluntary relocation guidelines. No access should be provided to any proposed development from the Mount Zephyr or Mount Vernon Manor communities.

If substantial consolidation is achieved, this area may be appropriate for a mixed-use development using an urban/town center design concept with residential, office and retail uses. Based on the size of the land area, approximately 75 percent of the total development is planned for residential use at a density of 16-20 du/ac, with 25 percent of the development planned for retail and office uses at an intensity of 0.50 FAR.

In addition, the following conditions should be met:

- The proposed "urban/town center" concept's site design should enable the creation of a cohesive and walkable environment.
- High-quality architecture should be provided.
- Buildings should be oriented to internal/external streets and sidewalks, and sufficient open space should be interspersed with retail, residential, and office uses to provide usable public gathering areas.
- Building tapering, vegetative buffering and screening, with fencing along the yards of adjacent single-family residences, should be provided as needed on the periphery to create a transition to the surrounding areas. Lighting and sound from any development should be designed so that it is not intrusive to adjacent residential development.
- Multifamily use may be appropriate if designed as townhouse-style structures. These structures may include ground floor retail and office uses.
- Any freestanding office or residential building is encouraged to meet at least U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) Silver standards or other comparable programs with third party certification. Retail users are encouraged to meet applicable LEED standards, or other comparable programs, in design and construction to promote sustainable development. The impervious nature of hard surfaces should be offset through approaches such as providing vegetated planting strips in surface parking lots.

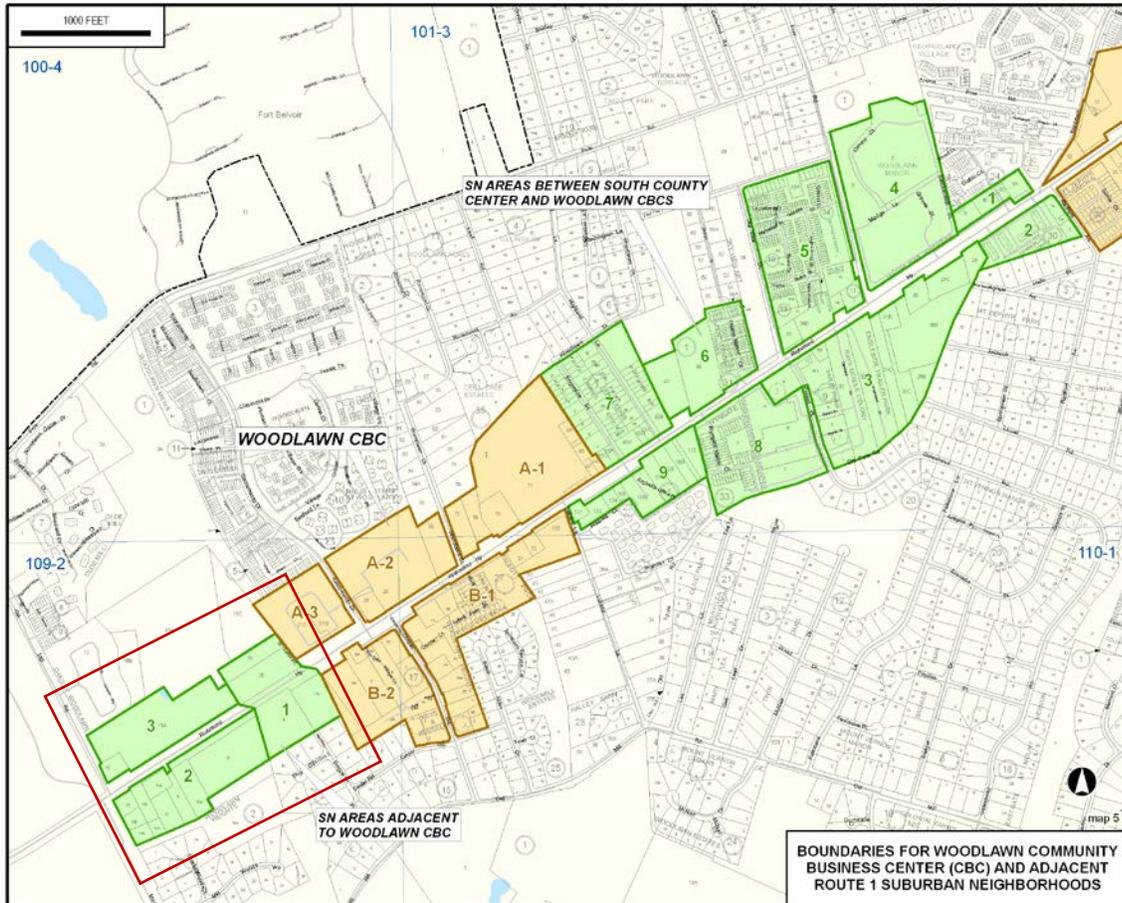
- Multi-story office buildings should include ground-floor retail use and other services where possible. To the extent possible, the new retail uses should be located in places that would encourage public usage, activate the town center, and reduce vehicular traffic. Such new retail uses should also be distributed throughout the site in the ground floors of the residential buildings and at prominent entrance points to the town center.
 - The residential units should be distributed in buildings across the site in a manner that is well-integrated into the town center. The residential uses also should have convenient access to open space, community-serving retail uses, and other services.
 - Usable open spaces such as Pocket Parks, plazas, Common Greens and Recreation-focused urban parks should be integrated into the development with supporting pedestrian connectivity.
 - Internal roadways, trails, sidewalks, and street crossings should connect buildings and open spaces. Streetscape treatments should include trees, landscaping, sidewalks, bicycle facilities, street furniture, and various paving textures, to the extent possible.
 - The impact on parks and recreation levels of service should be offset per Objective 6 of the Parks and Recreation Section of the Policy Plan through the provision of on-site urban park amenities, parkland dedication, provision of active recreation facilities and/or improvements to existing nearby parks.
 - Transportation improvements should be provided that ensure that the impact of the proposed development is mitigated so that there is no overall degradation of the transportation network in the vicinity of the site.
 - Bus transit stops and accompanying shelters should be provided along Richmond Highway.
4. This area is bounded by Richmond Highway, Blankenship Street, Frye Road and Colony Court. These parcels are planned for residential use at 16-20 dwelling units per acre. As an option, the area is planned for mixed-use development up to 0.50 FAR with consolidation of Tax Map Parcels 101-3((1))8 and 101-3((1))5. The mixed-use development should consist of predominantly residential use with retail and/or office uses oriented to Richmond Highway.
5. The area bounded by Richmond Highway, Frye Road, Sky View Drive, and Manor Drive is planned for community-serving retail use up to 0.35 FAR and residential use at 2-3 dwelling units per acre, as shown on the Comprehensive Land Use Plan map.

As an option, residential use at 14-16 dwelling units per acre may be considered if some of the commercially zoned parcels along Richmond Highway are included in the consolidation, subject to the following conditions:

- Substantial consolidation should be achieved including at least 75 percent of the residentially zoned area. Development at the option level should be considered only if it is in conformance with the guidelines for neighborhood redevelopment contained in Appendix 8 of the Land Use section of the Policy Plan;

- Residual parcels not included in the initial rezoning under this option may be appropriate for residential use up to 8 dwelling units per acre provided that units are fully integrated and compatible with development, either approved or constructed, under the initial rezoning in terms of unit type, design and architecture;
 - Single-family detached units should be located at the northern end of the area across from the single-family detached community along Manor Drive;
 - Effective buffering and screening should be provided by the residential development to screen it from nonresidential uses and Richmond Highway. The screening should consist of barriers comprised of brick, masonry, and/or wood;
 - Access should be provided from both Sky View Drive and Frye Road, and these two roadways should be interconnected with the internal street system for the residential development. There should be no access to Richmond Highway.
6. This area which includes the Knights of Columbus, the U.S. Post Office site, and the Mount Vernon Townes, is generally located between Towne Manor Court and Highland Lane. These parcels are planned for community-serving retail/office use up to 0.25 FAR or residential use at 12-16 dwelling units per acre without parcel consolidation. Effective buffering and screening to adjacent residential development, high quality design, and efficient circulation patterns should be provided as part of any development plan.
 7. This area bounded by Richmond Highway, Engleside Plaza, Woodlawn Street, and the Knights of Columbus is planned for neighborhood-serving retail and/or neighborhood-serving office use that is residential in character up to 0.25 FAR for lots fronting Richmond Highway, with the remainder planned for residential use at 2-3 dwelling units per acre. As an option, the residential portion may be appropriate for use at 5-8 du/ac if Policy Plan guidelines regarding neighborhood consolidation are met. In any development proposal, substantial parcel consolidation is encouraged. Access points should be minimized and effective screening and buffering should be provided to the single-family residences located to the north.
 8. This area is bounded by Richmond Highway and Forest Place, and includes the Wyngate Manor townhomes and Washington Square apartments. It is and planned for residential use at 5-8 dwelling units per acre. As an option, retail and/or office uses up to 0.35 FAR may be appropriate
 9. This area is located between the Virginia Power substation to Lukens Lane, and is planned for residential use at 5-8 dwelling units per acre, retail and/or office use up to 0.35 FAR.

Areas South of Woodlawn Community Business Center (Refer to Figure X)



1. Tax Map Parcels 109-2((2))7A and 9 and Tax Map Parcels 109-2((1))19 and 20 on both sides of Richmond Highway are predominantly floodplain and planned for open space.
2. Tax Map Parcel 109-2((2))10 to Mount Vernon Memorial Highway, including Tax Map Parcels 109-2((2))10A-13D, are planned for tourist-oriented retail shops such as crafts, antiques, and collectibles up to 0.35 FAR. Development proposals should be consistent and compatible with those approved uses within the Woodlawn Historic Overlay District. The environmental quality corridor located in this area should be preserved as open space.

As an option and with substantial parcel consolidation, this area is planned for a well-designed hotel/conference center up to 0.50 FAR to serve Fort Belvoir and this tourist-related area. If this option is exercised, the following conditions should be met:

- Screening, landscaping and buffering should be provided in excess of that required in the Zoning Ordinance;

- Design, architecture and building materials and heights should be compatible with the Woodlawn Historic Overlay District Ordinance and approved by the Architectural Review Board;
 - No access should be provided on Mount Vernon Memorial Highway;
 - Traffic and environmental impacts should be mitigated;
 - Internal pedestrian, bicycle and vehicular circulation should be well-designed and efficient to promote greater pedestrian/bicycle usage; and
 - Urban design elements, such as public art, pedestrian plazas, streetscaping, cultural/recreation facilities, landscaped open space, landmarks or building designs may be appropriate to highlight the area's adjacency to important historic landmarks .
3. Tax Map Parcels 109-2((1))15 and 13A at the intersection of Richmond Highway and Jeff Todd Way are planned for office, retail or hotel/conference center at an intensity up to 0.50 FAR. Development proposals should be consistent and compatible with those approved uses within the Woodlawn Historic Overlay District. The environmental quality corridor located in this area should be preserved as open space.

(2) REVISIONS TO AREA IV, MOUNT VERNON PLANNING DISTRICT

MODIFY: Fairfax County Comprehensive Plan, 2017 Edition, Area IV Volume, Mount Vernon Planning District, amended through March 14, 2017, page 1:

~~“Commercial activity is located primarily along an approximately eight mile a seven and one half mile stretch of the Richmond Highway Corridor between the City of Alexandria boundary and Woodlawn. The commercial component of Mount Vernon is mainly local-serving retail located in a number of community and neighborhood shopping centers and in strip commercial areas along Richmond Highway. Shopping centers are often set back from the highway with large parking areas which front on Richmond Highway. These large expanses of parking areas are generally characterized by the absence of streetscape and urban design features along the Richmond Highway Corridor.”~~

MODIFY: Fairfax County Comprehensive Plan, 2017 Edition, Area IV Volume, Mount Vernon Planning District, amended through March 14, 2017, page 4:

- ~~“Encourage transit ridership by encouraging appropriate economic development and redevelopment around the Huntington Metrorail Station and potential Bus Rapid Transit (BRT) stations.”~~

MODIFY: Fairfax County Comprehensive Plan, 2017 Edition, Area IV Volume, Mount Vernon Planning District, amended through March 14, 2017, pages 4-8:

~~“Travel within and through the Mount Vernon Planning District is affected by land uses and transportation facilities in adjacent districts, as well as throughout the Northern Virginia region. Therefore, the transportation network affecting the District is comprised of several elements, many of which relate to more extensive countywide facilities, services and policies. The arterial and major collector roadways affecting the District are shown on Figure 2. Other countywide transportation elements are also depicted.~~

~~Within the discussion for each sector of the Planning District, a sector map depicting the Transportation Plan recommendations in that sector is provided. More detail is provided on these sector maps than on the planning district map. The additional detail may relate to more local transportation issues that are difficult to present at the planning district scale. In some cases, such as interchange areas, a portion of the sector map has been enlarged so that the transportation recommendations are clearly identified. These enlargements of the sectors may also include guidance regarding the provision of access to selected land areas.~~

~~Recommendations for Richmond Highway and North Kings Highway, including existing and planned elements of their cross sections, can be found in the Richmond Highway Corridor section of the Area IV Plan.~~

~~—————**Transportation Goals for the Richmond Highway Corridor**~~

The following goals are intended to guide general transportation decisions in the Richmond Highway Corridor:

- ~~Richmond Highway needs extensive improvements to accomplish the goals of (1) providing improved traffic circulation and increased traffic safety during both peak and non-peak hours; (2) maximizing the use of existing highway facilities to move people and goods more efficiently; (3) implementing a firm policy concerning service roads along Richmond Highway, with clear design standards for their development; (4) promoting the increased usage of ridesharing and public transportation to reduce reliance on automobiles; and (5) minimizing the impact of highway widenings, new roadway alignments, and new development projects on adjacent residential communities and the ecology of the district.~~

The following changes are recommended for accomplishment within the next twenty years. The changes are listed in order of their importance. Priorities for implementation should be consistent with the importance of the improvement, ease of accomplishment, and availability of funds.

- ~~Access to/from the City of Alexandria—Widen Richmond Highway to six travel lanes plus acceleration/deceleration lanes from Fort Hunt Road to Franklin Street in Alexandria, in order to alleviate the present bottleneck into and out of Alexandria. This improvement is essential to the long-term benefit of other proposals for widening Richmond Highway, improving Fort Hunt Road, and implementing rail or bus rapid transit south of this point.~~
- ~~Service Roads—Develop and implement a Service Road Design Plan and Map for Richmond Highway between the Capital Beltway and the Occoquan River. Permit interparcel access distant from Richmond Highway, as substitute where a service road is not needed to complete an existing system, or would generate traffic problems. In developing the Service Road Design Plan, consider the desirability of one-way versus two-way service roads. Develop a Service Road Design Plan which provides for construction of the remaining section of service road where needed to serve commercial and residential development and elimination of perpendicular curb cuts to reduce marginal friction for through traffic, construction of slip ramps between intersections, signalization, and turn prohibitions. Construct service roads which intersect cross streets as far back from the main roadway on Richmond Highway as practical, connecting directly with Richmond Highway at intersections. Until such a Service Road Design Plan is adopted, all development or redevelopment of properties fronting on Richmond Highway should provide or should dedicate land for a service road, with appropriate setback of the service road from the main roadway at signalized intersections.~~
- ~~Public Transportation—Establish regular bus service along Richmond Highway between the Huntington Metro station and the Lorton commuter rail station, to serve the needs of residents and businesses in the vicinity of Richmond Highway. Provide paved, pull-off bus loading areas separate from the travel way, and paved and covered waiting areas within the public right of way along the length of Richmond Highway. Evaluate the long-term feasibility of using the median along Richmond Highway for development of a people mover, rail or bus rapid transit system.~~
- ~~Richmond Highway Widening and Access—Widen to six travel lanes from the Buckman Road/Mount Vernon Highway intersection to the Prince William County line. Limit access to the Richmond Highway main roadway between the Capital Beltway and the Occoquan River to signalized intersections, grade-separated interchanges, and slip ramps from service roads to the maximum extent possible. Where necessary, realign intersecting streets to eliminate offset and angled intersections with Richmond Highway.~~

- ~~Pedestrian/Bicyclist Services—Provide trails within the public right of way along the length of Richmond Highway. Provide sidewalk access to the Richmond Highway main roadway between the Capital Beltway and the Occoquan River, where needed, to serve adjacent residential and commercial development. Provide adequately marked and appropriately controlled crosswalks to encourage pedestrian/bicyclist movement and assure pedestrian/bicyclist safety.~~
- ~~Traffic Signalization—Connect all traffic signals to a centrally controlled and performance monitored computer system. Minimize the addition of new traffic signals at any intersection currently without signals and encourage other alternatives for handling access to the main roadway on Richmond Highway. When new traffic signals are installed, consider the consolidation of existing traffic signals. Prohibit left hand turns onto and off of unprotected Richmond Highway intersections.~~
- ~~Interchanges—Construct grade separated interchanges to accommodate major turning movements onto and off of Richmond Highway only where such interchanges will not adversely impact on adjacent commercial or residential development and/or historic areas. Consider such interchanges, when constructed, on a north/south priority after the Fairfax County Parkway interchange is constructed.~~
- ~~Funding Mechanism—In order to pay for the transportation improvements needed to support new development and redevelopment, create an impact fee, contribution formula, a special tax district or other mechanism to assess fees on any new commercial and residential projects along the Richmond Highway Corridor that involve an increase in density from present levels. South of Fort Belvoir, the creation of any funding mechanism should be coordinated with, or folded into, any Lorton Area Funding Plan being considered or adopted for that area. Develop standard formulas based upon formulas used elsewhere in Fairfax County.”~~

REPLACE: Fairfax County Comprehensive Plan, 2017 Edition, Area IV Volume, Mount Vernon Planning District, amended through March 14, 2017, page 9:

**FIGURE 3
MOUNT VERNON PLANNING DISTRICT
AFFORDABLE HOUSING
(Occupied or Under Construction, as of September 2017)**

Location	Planning Sector	Number of Units	Type of Ownership and Program
<u>Rental Projects</u>			
The Atrium, Holly Hill Road	MV2	37	Public Housing
Audubon Apts., Audubon Avenue	MV2	45	Public Housing
Colchester Towne, Audubon Avenue	MV2	32*	24 Fairfax County Rental 8 Public Housing
Holly Acres	MV2	2	Fairfax County Rental
Lafayette Apartments	MV2	340	Private/Non-Federally Assisted
Mondloch Place, Lockheed Boulevard	MV2	20	Emergency Housing
Mondloch House Shelter, Lockheed Boulevard	MV2	8 beds	Emergency Housing (replacement)
Mount Vernon Gardens, Fordson Road	MV2	26	Private Rental
Murraygate Village, Belford Drive	MV2	200	Fairfax County Rental/Section 236/Tax Credit
Tavenner Lane Property, Tavenner Lane	MV2	24	12 Public Housing and 12 Fairfax County Rental/Tax Credit
Belle View Condominiums, Belle View Avenue	MV4	40*	Public Housing
Belle View/Hartwood, Belle View Boulevard	MV4	18 beds	Private/Section 202/8
Beacon Hill Group Home, Beacon Hill Road	MV5	8 beds	Group Home
Woodley Hills Estate, Richmond Highway	MV5	115	Fairfax County Rental/Mobile Home Park
Hunting Creek, Jackies Lane	MV6	35	Private/Section 8
Mount Vernon House, Tis Well Drive	MV6	130	Private/Federally Assisted (elderly)
Creekside Village	MV7	55	Private/Federally Assisted

**FIGURE 3
MOUNT VERNON PLANNING DISTRICT
AFFORDABLE HOUSING
(Occupied or Under Construction, as of September 2017)**

Location	Planning Sector	Number of Units	Type of Ownership and Program
Spring Gardens, Richmond Highway	MV6	208	Private/Section 221-d-3
West Ford I, II & III	MV6	105	Public Housing
Belvoir Plaza, Richmond Highway	MV7	45	Private Rental/Mixed Financing
Mount Vernon Apts., Russell Road	MV8	37	Private/FCRHA Bond Financing
Buckman Road Apts., Buckman Road (aka Stony Brook Apartments)	MV8	145	Private/Section 236
Creekside Village (formerly Janna Condominiums)	MV8	196	Private/Section 236
Old Mill Gardens, Old Mill Road	MV8	47	Public Housing
<u>Homeownership</u>		*89	Moderate Income Direct Sales (MIDS) Units, First Time Home Buyer Direct Sales (FTHB-DS) Units, or for-sale Affordable Dwelling Units (ADUs)
The Shelby	MV1	28	15 ADUs, 13 Workforce Dwelling Units (WDUs)
The Parker	MV1	54	WDUs
Courts at Huntington Station	MV1	3	ADUs
Gum Springs Glen	MV6	60	ADUs (elderly)

*Scattered Units

(Continued)

MODIFY: Fairfax County Comprehensive Plan, 2017 Edition, Area IV Volume, Mount Vernon Planning District, amended through March 14, 2017, District-wide Recommendations, Heritage Resources, page 17:

“Large portions of the Mount Vernon Planning District have not been surveyed to determine the presence or absence of heritage resources. It is important that these areas be examined before they are developed and appropriate action taken to record, preserve and/or recover the significant resources. Beginning in 2015 and concluding in 2016, a reconnaissance survey was conducted along the Richmond Highway Corridor and in the Community Business Centers from Huntington Avenue to Mount Vernon Memorial Highway to determine if there were any properties or buildings that may qualify for listing in the Fairfax County Inventory of Historic Sites. Potential resources identified include many single-family homes built between 1900 and 1940 that remain unaltered and embody the distinctive characteristics of a type, period, or method of construction.

Other heritage resources including those protected by Historic Overlay Districts, or listed in the National or Virginia Landmarks Register, may be identified in the text and recommendations section.”

REPLACE: Fairfax County Comprehensive Plan, 2017 Edition, Area IV Volume, Mount Vernon Planning District, amended through March 14, 2017, Figure 7, page 22:

**MOUNT VERNON PLANNING DISTRICT
EXISTING PUBLIC PARKS
(As of 11/22/2017)**

	LOCAL	DISTRICT	COUNTYWIDE	RESOURCE-BASED	REGIONAL
MV1	<ul style="list-style-type: none"> • Farrington • Huntington • Jefferson Manor • Mount Eagle 				
MV2	<ul style="list-style-type: none"> • Creighton Square • Groveton Heights • Hybla Valley • Lenclair 			<ul style="list-style-type: none"> • Huntley Meadows 	
MV3	<ul style="list-style-type: none"> • Belle Haven 			<ul style="list-style-type: none"> • Fort Willard 	<ul style="list-style-type: none"> • George Washington Memorial Parkway
MV4	<ul style="list-style-type: none"> • Collingwood • Gilbert S. McCutcheon • Westgrove 				<ul style="list-style-type: none"> • George Washington Memorial Parkway
MV5	<ul style="list-style-type: none"> • Bucknell Manor • Hollin Meadows • North Hill • White Oaks 		<ul style="list-style-type: none"> • Mount Vernon RECenter 	<ul style="list-style-type: none"> • Paul Springs Stream Valley 	
MV6	<ul style="list-style-type: none"> • Carl Sandberg School Site • Fort Hunt • Hollin Hall • John Beyers • Kirk • Stephen Foster School Site • Stratford Landing 	<ul style="list-style-type: none"> • Martin Luther King, Jr. 		<ul style="list-style-type: none"> • Paul Springs Stream Valley • Little Hunting Creek 	<ul style="list-style-type: none"> • George Washington Memorial Parkway • Fort Hunt
MV7	<ul style="list-style-type: none"> • Mount Vernon Manor • Mount Zephyr • Old Mount Vernon School Site • Vernon Heights • Washington Mill • Woodley Hills 		<ul style="list-style-type: none"> • George Washington RECenter • Grist Mill 	<ul style="list-style-type: none"> • Dogue Creek Stream Valley • Little Hunting Creek 	<ul style="list-style-type: none"> • George Washington Memorial Parkway • George Washington's Distillery • Mount Vernon Estates and Gardens • Woodlawn Plantation
MV8	<ul style="list-style-type: none"> • Pole Road • Muddy Hole Farm • Mount Vernon Woods • Woodlawn 			<ul style="list-style-type: none"> • Huntley Meadows 	<ul style="list-style-type: none"> • Woodlawn Plantation

MODIFY: Fairfax County Comprehensive Plan, 2017 Edition, Area IV Volume, Mount Vernon Planning District, MV1 Huntington Community Planning Sector, amended through March 14, 2017, pages 99-133:

“CHARACTER

The majority of the Huntington Community Planning Sector comprises the Huntington Transit Station Area (TSA). The planning sector is generally bounded by the Capital Beltway/Interstate 95/495 (I-95/I-495), Telegraph Road, Furman Lane, South Kings Highway, and Richmond Highway (Route 1) as shown in Figure 21.

The TSA is divided into land units with specific recommendations made for each land unit. The area closest to the Metrorail station, where there is the greatest opportunity for transit-oriented redevelopment, is designated as a Transit Development Area. The boundaries of the Huntington TSA and the Transit Development Area are outlined on the area maps in Figure 22. The Huntington Community Planning Sector also contains portions of the North Gateway and Penn Daw Community Business Centers (CBCs) located on the west side of Richmond Highway. Plan recommendations for these CBCs can be found in the Area IV Volume of the Comprehensive Plan Richmond Highway Corridor section of the Mount Vernon Planning District text, following the Overview section Area, Area IV Volume of the Comprehensive Plan.

The Huntington Metrorail Station is located south of the City of Alexandria ~~in the triangle of land bounded by~~ between Huntington Avenue, ~~Richmond Highway~~ and North Kings Highway (Route 241). The station lies near the center of a developed area which consists primarily of residential uses. Residential development ranges from single-family detached units and duplexes in stable neighborhoods to high-rise apartments and condominiums. There are also clusters of local retail development located at major intersections

CONCEPT FOR FUTURE DEVELOPMENT

~~The Huntington Transit Station Area (TSA) is recommended by the~~ Concept for Future Development recommends the Huntington TSA as one of several mixed-use centers that are located around the fourteen Metrorail stations in Fairfax County. They are shown as part of the Adopted Regional System for Metrorail. These Metrorail stations provide the opportunity for non-automobile dependent development to occur in a manner that is compatible with the existing nearby land uses. As recommended in the Concept, the intention of this designation is to capitalize on the opportunity to provide transit-focused housing and employment locations, while still maintaining the viability of existing, nearby land uses.

A Bus Rapid Transit (BRT) system with the potential for nine stations is planned to connect Huntington Metrorail Station to Fort Belvoir. The BRT station in the Huntington area is generally planned in Land Unit E as shown in Figure X. The BRT system is envisioned to eventually connect to Woodbridge in Prince William County, which would include additional stations in Fairfax County. An additional transportation analysis will need to be completed for this extension. Additional details about the BRT system are contained in the Richmond Highway Corridor Area, Area IV Volume of the Comprehensive Plan

The Transit Development Area is a smaller area within the TSA ~~located within a 5 to 7 minute walk of the transit station~~, and planned for higher-density, mixed-use development. ~~This concept of the Transit Development Area is appropriate for the Huntington Metro Station Area in particular. Within the Transit Station Area, most~~ Most of the redevelopable land is located within a 5 to 7 minute walking distance from the Huntington Metrorail Station, which corresponds to the

Transit Development Area boundary. New development should be channeled into land units within ~~this the~~ Transit Development Area and away from the bordering stable neighborhoods. If new development is allowed to spread throughout the Transit Station Area, the stability of older residential neighborhoods will be threatened and affordable housing ~~in close proximity~~ to the Metrorail station may be lost. Traffic congestion would be likely to increase if development is encouraged farther away from the station.

RECOMMENDATIONS

Land Use

The purpose of the planning recommendations is to guide and direct development in the Huntington Transit Station Area by recognizing the opportunities and constraints. The area ~~impacted by these recommendations~~ is divided into land units as presented in Figure 22. The land use recommendations are based upon the concept of concentrating development to a limited area nearest to the Metrorail station and preserving the existing stable neighborhoods around the station.”

...

Transit Development Area Conditions and Recommendations

An area determined to be appropriate for higher intensity, mixed-use development within the Huntington Transit Station Area is identified as the "Transit Development Area." As illustrated in Figure 22, the Transit Development Area is comprised of several land units which offer the most viable opportunities for development and redevelopment. The concentration of development in the Transit Development Area recognizes the well-founded criterion that the greatest impact of a mass transportation facility occurs in areas within a 5 to 7 minute walk of the station. Development within this convenient walking distance would generate a substantial number of walk-on BRT and Metrorail riders, while development beyond this distance would generate less ridership and more vehicle trips, thereby exacerbating road congestion in the vicinity of the Metrorail station. In ~~suburban~~ locations such as the Huntington Transit Development Area, mixed-use development with a predominance of residential uses is ~~highly~~ appropriate. The residential component will contribute most of the Metrorail and BRT commuters, while the nonresidential use will encourage off-peak and reverse ridership, provide a variety of activities and enhance the economics of land development.

The Transit Development Area provides a strong visual and functional focus due to its central location on a topographically prominent site in the Transit Station Area. Development in this area will enhance the character of the community, increase patronage for existing local business, and lead to reinvestment in the surrounding neighborhoods. The area will become a place where county residents can live, work and shop without excessive dependence upon the automobile, thus realizing some of the county's key policy objectives.

Special planning and development guidelines for the Transit Development Area ensure that this area effectively serves the multiple activities associated with a major commuter environment. ~~These activities within the Transit Development Area represent a variety of relationships including the pedestrian/vehicular system, spatial organization of land use activities, building height, orientation and massing, and streetscape and pedestrian spaces, as well as design and amenity programs.~~ Successful development of transit stations which

integrate new development into the existing fabric of the community is dependent upon implementation of an urban design framework.

As shown on Figure 22, the Huntington Transit Development Area is comprised of several land units ~~which offer the most viable opportunities for development and redevelopment within a 5 to 7 minute walk of the station.~~ The Transit Development Area includes the original Washington Metropolitan Area Transit Authority (WMATA) property (Land Units E and F), the Huntington Club Condominiums (Land Unit I), the Huntington Station Shopping Center and garden apartments (Land Unit L), and an area on the north side of Huntington Avenue (Land Units C, D and G). The recommended land use plan for the Transit Development Area is illustrated on Figure 23.

~~The 60-acre WMATA property on which the station is built is the most accessible property from the station and has a strong potential for development along North Kings Highway. The Metrorail station is built on a portion of Land Unit E. The portion of Land Unit F along Fort Drive and Richmond Highway is developed with townhouse and multifamily units. Zoning approval for office and additional residential uses has been granted on the residual portion of Land Unit F located closer to the parking areas. The WMATA property Land Unit E is bounded on the east by the older, stable Huntington neighborhood and Land Unit F is bounded on the east by high-rise residential projects. The Fairhaven neighborhood serves as a boundary to development on the south side of the WMATA property Land Unit F.~~

On the west side of North Kings Highway in Land Unit L, across from the area of potential WMATA development, the Huntington Station Shopping Center has a direct visual and functional link with the WMATA property the Metrorail Station and potential BRT station. Its age, size (five acres) and consolidated ownership make the shopping center a good site for Metro transit-related development. The entire block in which the shopping center is located is included within the Transit Development Area to facilitate the redevelopment of the shopping center and create a logical limit to new development.

North of the Huntington Station Shopping Center is a block of older duplex houses that are directly across from the station facilities. Redevelopment in Jefferson Manor is not recommended outside of Land Unit L (see Figure 23) to limit the impact upon the Jefferson Manor neighborhood and nearby subdivisions. To the west of the WMATA property is the 19-acre Huntington Club Condominiums. Due to its location immediately adjacent to the Huntington Metrorail Station and planned BRT station, this site presents an opportunity for redevelopment. West of the Huntington Club Condominiums, Fort Lyon Heights is a stable residential neighborhood which serves as a boundary to the Transit Development Area. On the north side of Huntington Avenue, across from the station, is an area of partially undeveloped land which is appropriate for Metro transit-related development. Land Units C, D and G are within a five minute walk of the station and are bounded by the Huntington community on the east, Cameron Run on the north, and an office building on the west.

Base and maximum levels of development have been identified for the Transit Development Area. The base level of development is that which represents what is permitted by current zoning ~~as a matter of right.~~ Development within the base level may not be subject to the conditions listed in this Plan, nor may additional development regulations or incentives be applicable.

Development in the Transit Development Area may exceed the base level up to the indicated maximum level if the conditions of the Plan are met, including satisfaction of the development criteria listed below which apply to all sites in the Transit Development Area:

1. Development in accordance with the Urban Design Concept Plan for the Transit Development Area as illustrated in Figures 24, 25 and 26.
2. ~~Proffer of~~ Commitment to a development plan that provides high quality site design, streetscaping, urban design and development amenities.
- ...
9. Consolidation of vehicular access points to minimize interference with commuter access to the Metrorail and BRT stations.
- ...

(Land Units E and F) ~~The WMATA Property~~

The 60-acre ~~WMATA~~ property is occupied by the Huntington Metrorail Station and associated parking facilities, townhouse and multifamily uses, and Mount Eagle Park. A potential BRT station is generally planned in this area as shown in Figure X. ~~There is also a privately owned parcel associated with the WMATA property; Parcel 83-1((7))1A is a .34-acre lot along North Kings Highway planned for office use.~~

The portion of Land Unit E ~~which is~~ occupied by the Metrorail station, the parking garage, and the parking lot along Huntington Avenue is planned for public facilities. Air rights development over the station and the parking facilities may have long-term potential. For the 35-acre area south of the station, the following mix of uses is recommended within the maximum levels shown:

- 250,000 gross square feet of office space;
- 30,000 gross square feet of retail space;
- 600 dwelling units; and
- 200-room hotel with conference facilities or 250 additional dwelling units.

In addition, the following uses should be incorporated into this development:

- The existing 900+ space ~~Metro~~-surface parking lot should be reconfigured into an on-site underground or above-ground facility up to six stories. Adequate buffering and landscaping around the parking structure should be provided adjacent to nearby neighborhoods;
- ~~To support the development, a portion of the property 9 to 12 acres of the WMATA property should be~~ was dedicated to Fairfax County for Mount Eagle Park in order to provide needed park facilities in this high density area and to buffer Metrorail-related development from the existing community. ~~The development of both passive and active recreation facilities is suggested; and~~

The development of the WMATA property should be in accordance with the urban design concept plan shown in Figures 24, 25 and 26. The commercial uses, including the optional hotel, should be clustered around a public plaza near the Metrorail station and planned BRT station and North Kings Highway. Residential use should be located east and south of this cluster to provide a transition to surrounding residential development. As shown in Figure 26, Mount Eagle Park and/or open space should be accessible to, and provide buffering for,

the Huntington community, the high-rise residential projects located east of the WMATA property, and the Fairhaven community.

...

Land Unit I

Land Unit I is planned for 16-20 dwelling units per acre and is presently predominantly developed with the Huntington Club Condominiums. This land unit presents an opportunity for redevelopment due to its location within the Transit Development Area, adjacent to the Huntington Metrorail Station and planned BRT station.

...

Land Unit L

...

Proximity to the Huntington Metrorail ~~Station~~ and planned BRT stations encourages the implementation of safe, attractive, and logical pedestrian and bicycle connections to adjacent residential streets and the ~~metro~~-stations. The redevelopment of Land Unit L should provide a pedestrian-oriented urban plaza or other similar type of public space. Well-designed and strategically located public spaces along with other features such as high quality streetscapes and architectural design elements should enhance the character of the community and foster a unique identity.

...

Transportation

Proximity of Land ~~Bay~~ Unit L to the Huntington Metrorail ~~Station~~ and planned BRT stations should be maximized by creating safe, attractive, and logical pedestrian and bicycle connections to adjacent residential streets and the ~~Metro~~-transit stations. Enhanced pedestrian connectivity from the site to the Metrorail and planned BRT station is essential to the redevelopment of this site. A well-designed east-west connection should provide direct pedestrian and bicycle access between the site and ~~the Metro station~~ stations. A pedestrian circulation plan is also recommended.

The number of vehicular access points along North Kings Highway should be minimized to enhance pedestrian and bicycle accessibility, reduce interruptions to traffic flow, and improve safety. The main vehicular access to the site on North Kings Highway should be reconfigured to align with the Huntington Metro Access Road. Vehicular access is not recommended on Farmington Drive and Monticello Road. Limiting vehicular access to ingress only is the preferred approach on Fort Drive. Consultation with the Fairfax County Department of Transportation (FCDOT), Virginia Department of Transportation (VDOT), and other appropriate agencies will be required to determine whether limited access on Fort Drive is feasible. Recommendations for North Kings Highway, including existing and planned elements of its cross section, can be found in the Richmond Highway Corridor-wide Guidelines section of the Richmond Highway Corridor section of the Area IV Plan.

In accordance with the Guidelines for Transit Oriented Development, a lower standard for level of delay of Level of Service (LOS) E may be acceptable as a result of redevelopment. If the necessary transportation improvements are found to be in conflict with pedestrian and bicycle access recommendations found in the Guidelines for Transit Oriented Development, improvements, measures and/or monetary contributions to a fund enabling the application of techniques to reduce vehicle trips by an appropriate amount in and around the area should be made.

...

Land Unit M (Jefferson Manor Conservation Area)

Located between Telegraph Road and North Kings Highway is the Jefferson Manor Conservation Area, a stable neighborhood of primarily duplex units that is planned for 8-12 dwelling units per acre. Pedestrian facilities within this neighborhood should be improved to provide better access to the Metro~~rail station~~and planned BRT stations. Non-local "cut-through" traffic on Farmington Drive should be discouraged.

...

Transportation

Transportation recommendations for this sector are shown in Figures 29, 30, 31 and 32. In some instances, site-specific transportation recommendations are included in the land use recommendations section. The figures show access orientation, circulation plans, interchange impact areas and generalized locations of proposed transit facilities. The recommendations contained in the Area Plan text and maps, the Policy Plan and Transportation Plan map, policies and requirements in the Public Facilities Manual, the Zoning Ordinance, and other standards will be utilized in the evaluation of development proposals.

Design plans for improvement of Telegraph Road south of Franconia Road should reflect the historic, environmentally sensitive, and stable single-family nature of this corridor. Environmental issues such as marine clay soils, should be considered carefully in any plan for widening Telegraph Road. These sensitive areas should be left undisturbed to the extent possible during any construction.

Because of these environmental concerns and development patterns and due to the need for access for existing residents from the large number of driveways, cul de sacs and feeder streets, a maximum width of three lanes should be the primary consideration for any improvement of the section of Telegraph Road between Franconia Road and South Kings Highway. The use of Telegraph Road as an alternative to through traffic on I-95 and Richmond Highway should be discouraged.

Recommendations for Richmond Highway and North Kings Highway, including existing and planned elements of their cross sections, can be found in the Richmond Highway Corridor section of the Area IV Plan.

Pedestrian Circulation

Improvements in pedestrian circulation are needed throughout the Transit Station Area to facilitate access to the Metro~~rail station~~and planned BRT stations and proposed new development. Such improvements can also ~~improve~~ enhance the appearance of the area and create a sense of identity and organization throughout the community.

Public plazas, or other public spaces such as courtyards or atriums, should be provided on the WMATA property and at the Huntington Station Shopping Center site when it is redeveloped. Such public spaces on these two sites would serve several purposes:

- Provide an organized means of circulation between the Metro~~rail station~~, planned BRT station, and buildings constructed on the sites;
- Serve as focal points for community activities related to new development and the

Metrorail and planned BRT stations;

- Provide a "front door" for the Metrorail and planned station-BRT stations and adjacent development that can be easily identified;
- Enhance the overall image of this area and create a special identity for the Metrorail and planned BRT station areas; and
- Provide a strong physical and visual relationship between the Huntington Station Shopping Center, the original WMATA property development, ~~and~~ the Metrorail station and the planned BRT station.

For the entire Transit Station Area, a pedestrian circulation system is proposed to provide an interconnected system of walkways linking pedestrians to their destinations. This system provides new pedestrian routes, improves existing pedestrian facilities, and provides special physical treatments to enhance the pedestrian experience. The elements of this system are presented in Figure 33. In order to meet functional needs of commuters and make the walk to the Metrorail and planned BRT stations more pleasant, a streetscape program should be developed and implemented for the segments of Huntington Avenue and North Kings Highway that lie within the Transit Station Area as well as for the streets defining the boundary of the Transit Development Area west of North Kings Highway. Special treatment along both sides of these streets include street trees, pedestrian level lighting, special paving, coordinated graphics and street furniture. Sidewalks have been recently constructed on both sides of Huntington Avenue and the programmed improvements to North Kings Highway will include sidewalks on both sides of the road. Streetscape design should be retrofitted into the existing rights-of-way and augment the existing and programmed sidewalks rather than require their replacement. Developers should be encouraged to provide this streetscape treatment as part of their new development.

Throughout the Transit Station Area, new sidewalks and sidewalk improvements should be constructed to facilitate access between the Metrorail station and planned BRT station, new development and existing neighborhoods.

A circuit trail is recommended ~~for the WMATA property as shown in Figure 23~~ to provide Metrorail station and planned BRT station access to the adjacent existing development without intruding upon the proposed new development. This trail should incorporate the pathway between Montebello and the Metrorail station and planned BRT station, the proposed sidewalk on the north side of Fort Drive, and the public space around which the mixed-use development will be clustered. In addition to the existing connection to Montebello, new connections should be provided to the Belle Haven apartments, Biscayne Drive and Blaine Drive. ...

Heritage Resources

The Browne Academy "Greystone" building at 5917 Telegraph Road and Tax Map ~~8-24((1))32- 82-4 ((1)) 32~~ should be evaluated for inclusion in the Fairfax County Inventory of Historic Sites. Single family dwellings built prior to 1940 should also be evaluated for potential inclusion in the Inventory if they are unaltered and embody the distinctive characteristics of a type, period, and/or method of construction.

Trails and Bicycle Facilities

Trails planned for this sector are delineated on the 1":4,000' Countywide Trails Plan Map which is referenced as Figure 2 in the Transportation element of the Policy Plan and is available from the Department of Transportation. Trails in this sector are an integral part of the overall

county system. While some of the segments have already been constructed, the Countywide Trails Plan Map portrays the ultimate system for the sector and the county at large. In addition, the map specifies a classification for each segment, which represents the desired ultimate function and surface type of the trail. Specific construction requirements are detailed in the Public Facilities Manual.

Bicycle Facilities for this sector are delineated on the 1":4000' Fairfax Countywide Bicycle Network Map which is referenced as Figure 3 in the Transportation element of the Policy Plan and is available from the Department of Transportation."

MODIFY: Fairfax County Comprehensive Plan, 2013 Edition, Area IV, Mount Vernon Planning District, amended through March 14, 2017, MV2-Hybla Valley Community Planning Sector, Transportation Recommendations, pages 138-142:

“Transportation

Transportation recommendations for this sector are shown in Figures ~~36, 37 and 38~~ X, X, and X. In some instances, site-specific transportation recommendations are included in the land use recommendations section. The figures show access orientation, circulation plans, interchange impact areas and generalized locations of proposed transit facilities. The recommendations contained in the Area Plan text and maps, the Policy Plan and Transportation Plan map, policies and requirements in the Public Facilities Manual, the Zoning Ordinance, and other standards will be utilized in the evaluation of development proposals.

Heritage Resources

Remaining undeveloped areas as well as early and mid 20th century and more dispersed neighborhoods remain in this sector and could contain significant heritage resources. These resources should be preserved. Franklin Street in the Fairview subdivision has a number of 1920s single family dwellings that should be evaluated for potential inclusion in the Inventory of Historic Sites. Other older neighborhoods in the area should also be evaluated for potential inclusion in the Inventory of Historic Sites. Any development or ground disturbance in this sector, both on private and public land, should be preceded by heritage resource studies, and alternatives should be explored for the avoidance, preservation or recovery of significant heritage resources that are found. In those areas where significant heritage resources have been recorded, an effort should be made to preserve them. If preservation is not feasible, then, in accordance with countywide objectives and policies as cited in the Heritage Resources section of the Policy Plan, the threatened resource should be thoroughly recorded and in the case of archaeological resources, the artifacts recovered.

...

Trails and Bicycle Facilities

Trails planned for this sector are delineated on the 1” : 4,000’ Countywide Trails Plan Map which is referenced as Figure 2 in the Transportation element of the Policy Plan and is available from the Department of Transportation. Trails in this sector are an integral part of the overall county system. While some of the segments have already been constructed, the Countywide Trails Plan Map portrays the ultimate system for the sector and the county at large. In addition, the map specifies a classification for each segment, which represents the desired ultimate function and surface type of the trail. Specific construction requirements are detailed in the Public Facilities Manual.

Bicycle Facilities for this sector are delineated on the 1” : 4000’ Fairfax Countywide Bicycle Network Map which is referenced as Figure 3 in the Transportation element of the Policy Plan and is available from the Department of Transportation.”

MODIFY: Fairfax County Comprehensive Plan, 2013 Edition, Area IV, Mount Vernon Planning District, amended through March 14, 2017, MV3-Belle Haven Community Planning Sector, Transportation Recommendations, pages 145-151:

“Transportation

Transportation recommendations for this sector are shown in Figures 41, 42, 43 and 44. In some instances, site specific transportation recommendations are included in the land use recommendations section. The figures show access orientation, circulation plans, interchange impact areas and generalized locations of proposed transit facilities. The recommendations contained in the Area Plan text and maps, the Policy Plan and Transportation Plan map, policies and Figure 44: MV3-Belle Haven Community Planning Sector, Interchange Recommendations requirements in the Public Facilities Manual, the Zoning Ordinance, and other standards will be utilized in the evaluation of development proposals.

...

Trails and Bicycle Facilities

Trails planned for this sector are delineated on the 1": 4,000' Countywide Trails Plan Map which is referenced as Figure 2 in the Transportation element of the Policy Plan and is available from the Department of Transportation. Trails in this sector are an integral part of the overall county system. While some of the segments have already been constructed, the Countywide Trails Plan Map portrays the ultimate system for the sector and the county at large. In addition, the map specifies a classification for each segment, which represents the desired ultimate function and surface type of the trail. Specific construction requirements are detailed in the Public Facilities Manual.

Bicycle Facilities for this sector are delineated on the 1":4000' Fairfax Countywide Bicycle Network Map which is referenced as Figure 3 in the Transportation element of the Policy Plan and is available from the Department of Transportation.

MODIFY: Fairfax County Comprehensive Plan, 2013 Edition, Area IV, Mount Vernon Planning District, amended through March 14, 2017, MV5 Groveton Community Planning Sector, Transportation Recommendations, pages 160-163:

“Transportation

Transportation recommendations for this sector are shown in Figure ~~50XX~~. In some instances, site specific transportation recommendations are included in the land use recommendations section. The figures show access orientation, circulation plans, interchange impact areas and generalized locations of proposed transit facilities. The recommendations contained in the Area Plan text and maps, the Policy Plan and Transportation Plan map, policies and requirements in the Public Facilities Manual, the Zoning Ordinance, and other standards will be utilized in the evaluation of development proposals.

Heritage Resources

The early and mid 20th century and more dispersed neighborhoods and open spaces in this sector may contain significant heritage resources. In particular is Gum Springs, 19th century Free Black community. The Pride of Fairfax, a Masonic Lodge and Community Landmark for Gum Springs, is located at Tax Map Parcel 102-1 ((1)) 98. It should be evaluated for potential inclusion in the Inventory of Historic Sites. Additional survey work Survey work should be undertaken to locate and preserve significant heritage resources. Additionally, preservation of the Hollin Hills subdivision, listed in The National Register of Historic Places, is encouraged.

Any development or ground disturbance in this sector, both on private and public land, should be preceded by heritage resource studies, and alternatives should be explored for the avoidance, preservation or recovery of significant heritage resources that are found. In those areas where significant heritage resources have been recorded, an effort should be made to preserve them. If preservation is not feasible, then, in accordance with countywide objectives and policies as cited in the Heritage Resources section of the Policy Plan, the threatened resource should be thoroughly recorded and in the case of archaeological resources, the artifacts recovered.

...

Trails and Bicycle Facilities

Trails planned for this sector are delineated in the 1” : 4,000’ Countywide Trails Plan Map which is referenced as Figure 2 in the Transportation element of the Policy Plan and is available from the Department of Transportation. Trails in this sector are an integral part of the overall county system. While some of the segments have already been constructed, the Countywide Trails Plan Map portrays the ultimate system for the sector and the county at large. In addition, the map specifies a classification for each segment, which represents the desired ultimate function and surface type of the trail. Specific construction requirements are detailed in the Public Facilities Manual.

Bicycle Facilities for this sector are delineated on the 1” : 4000’ Fairfax Countywide Bicycle Network Map which is referenced as Figure 3 in the Transportation element of the Policy Plan and is available from the Department of Transportation.

A pedestrian trail should be in the general area of the Boswell Avenue right of way between Parcels 102-1((7)) (4)53, 54 and 55 on the north side, Parcel 102-1((7)) (9)501 on the south and Parcels 102-1((19)) (2)20 and 21 to the east. It should be aligned with the end of the paved street of Boswell Avenue and the portion of Woodlawn Trail connected to Elba Road. Trail

improvements should be environmentally sensitive to the wildlife sanctuary and woodland being preserved by the Hollin Hills Community Association and be in harmony with the natural character of the area.

That part of the proposed east west trail along Paul Spring Road should be constructed so that the existing trees are preserved.

MODIFY: Fairfax County Comprehensive Plan, 2013 Edition, Area IV, Mount Vernon Planning District, amended through March 14, 2017, MV6 Fort Hunt Community Planning Sector, Transportation Recommendations, pages 169-171:

“Transportation

Transportation recommendations for this sector are shown on Figure 53XX. In some instances, site specific transportation recommendations are included in the land use recommendations section. The figures show access orientation, circulation plans, interchange impact areas and generalized locations of proposed transit facilities. The recommendations contained in the Area Plan text and maps, the Policy Plan and Transportation Plan map, policies and requirements in the Public Facilities Manual, the Zoning Ordinance, and other standards will be utilized in the evaluation of development proposals.

....

Trails and Bicycle Facilities

Trails planned for this sector are delineated on the 1”: 4,000’ Countywide Trails Plan Map which is referenced as Figure 2 in the Transportation element of the Policy Plan and is available from the Department of Transportation. Trails in this sector are an integral part of the overall county system. While some of the segments have already been constructed, the Countywide Trails Plan Map portrays the ultimate system for the sector and the county at large. In addition, the map specifies a classification for each segment, which represents the desired ultimate function and surface type of the trail. Specific construction requirements are detailed in the Public Facilities Manual.

Bicycle Facilities for this sector are delineated on the 1”:4000’ Fairfax Countywide Bicycle Network Map which is referenced as Figure 3 in the Transportation element of the Policy Plan and is available from the Department of Transportation.

MODIFY: Fairfax County Comprehensive Plan, 2013 Edition, Area IV, Mount Vernon Planning District, amended through March 14, 2017, MV7 Mount Vernon Community Planning Sector, Transportation Recommendations, pages 176-178:

“Transportation

Transportation recommendations for this sector are shown on Figure 56XX. In some instances, site specific transportation recommendations are included in the land use recommendations section. The figures show access orientation, circulation plans, interchange impact areas and generalized locations of proposed transit facilities. The recommendations contained in the Area Plan text and maps, the Policy Plan and Transportation Plan map, policies and requirements in the Public Facilities Manual, the Zoning Ordinance, and other standards will be utilized in the evaluation of development proposals.

Heritage Resources

...

The historic Indian Hamlet of Namassingakent may be located just north of Dogue Creek or along the Potomac River. This site should be identified, evaluated, and preserved, as appropriate.

Single family dwellings built prior to 1940 should be evaluated for potential inclusion in the Inventory of Historic Sites if they are unaltered and embody the distinctive characteristics of a type, period or method of construction.

Any development or ground disturbance in this sector, both on private and public land, should be preceded by heritage resource studies, and alternatives should be explored for the avoidance, preservation or recovery of significant heritage resources that are found. In those areas where significant heritage resources have been recorded, an effort should be made to preserve them. If preservation is not feasible, then, in accordance with countywide objectives and policies as cited in the Heritage Resources section of the Policy Plan, the threatened resource should be thoroughly recorded and in the case of archaeological resources, the artifacts recovered.

...

Trails and Bicycle Facilities

Trails planned for this sector are delineated on the 1”: 4,000’ Countywide Trails Plan Map which is referenced as Figure 2 in the Transportation element of the Policy Plan and is available from the Department of Transportation. Trails in this sector are an integral part of the overall county system. While some of the segments have already been constructed, the Countywide Trails Plan Map portrays the ultimate system for the sector and the county at large. In addition, the map specifies a classification for each segment, which represents the desired ultimate function and surface type of the trail. Specific construction requirements are detailed in the Public Facilities Manual.

Bicycle Facilities for this sector are delineated on the 1”:4000’ ~~Fairfax Countywide~~ Bicycle Network Map which is referenced as Figure 3 in the Transportation element of the Policy Plan and is available from the Department of Transportation.

A large network of multi-use pathways should form a cultural corridor within the planning sector that allows visitors to engage more fully with the area’s natural and heritage resources. The network should consist of a series a multi-use paths within green spaces or along roadways that link the Woodlawn CBC to key destinations including parks, recreational amenities, historic and

cultural sites. Additional guidance regarding the cultural corridor can be found in the Woodlawn Community Business Center in the Richmond Highway Corridor recommendations.”

MODIFY: Fairfax County Comprehensive Plan, 2013 Edition, Area IV, Mount Vernon Planning District, amended through March 14, 2017, MV8 Woodlawn Community Planning Sector, Transportation Recommendations, pages 183-185:

“Transportation

Transportation recommendations for this sector are shown on Figure 59XX. In some instances, site specific transportation recommendations are included in the land use recommendations section. The figures show access orientation, circulation plans, interchange impact areas and generalized locations of proposed transit facilities. The recommendations contained in the Area Plan text and maps, the Policy Plan and Transportation Plan map, policies and requirements in the Public Facilities Manual, the Zoning Ordinance, and other standards will be utilized in the evaluation of development proposals.

...

Trails and Bicycle Facilities

Trails planned for this sector are delineated on the 1”: 4,000’ Countywide Trails Plan Map which is referenced as Figure 2 in the Transportation element of the Policy Plan and is available from the Department of Transportation. Trails in this sector are an integral part of the overall county system. While some of the segments have already been constructed, the Countywide Trails Plan Map depicts the desired eventual system for the sector and the county at large. The map also shows trail classifications which correspond to the desired ultimate function and surface type of the trail. Specific construction requirements are detailed in the Public Facilities Manual.

Bicycle Facilities for this sector are delineated in the 1”:4000’ ~~Fairfax Countywide~~ Bicycle Network Map which is referenced as Figure 3 in the Transportation element of the Policy Plan and is available from the Department of Transportation.

A large network of multi-use pathways should form a cultural corridor within the planning sector that allows visitors to engage more fully with the area’s natural and heritage resources. The network should consist of a series a multi-use paths within green spaces or along roadways that link the Woodlawn CBC to key destinations including parks, recreational amenities, historic and cultural sites. Additional guidance regarding the cultural corridor can be found in the Woodlawn Community Business Center in the Richmond Highway Corridor recommendations.”

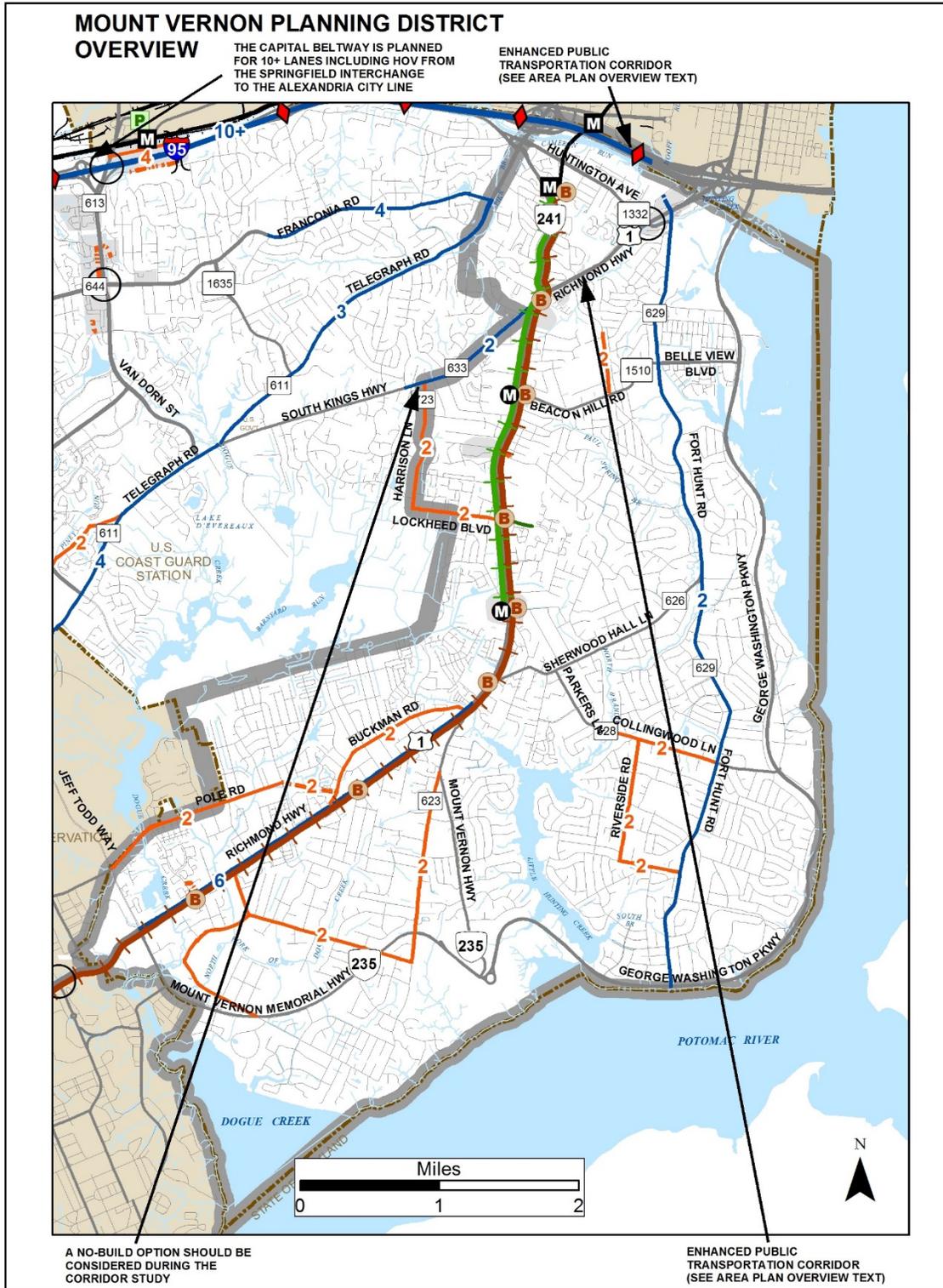
MODIFY FIGURES:

Summary of Proposed Transportation Figure Modifications:

Page	Figure	Figure Title	Proposed Change
Mount Vernon Planning District (Amended through March 14, 2017)			
6	2	Countywide Transportation Recommendations, Mt. Vernon Planning District, Overview	To reflect the completed portions of the Richmond Highway widening, show BRT and Metrorail, update the legend, and make editorial changes.
127	29	MV1 – Huntington Community Planning Sector, Transportation Recommendations	To reflect the completed portions of the Richmond Highway widening, show BRT, update the legend, and make editorial changes.
128	30	MV1 – Huntington Community Planning Sector, Access Recommendations	To reflect the completed portions of the Richmond Highway widening, update the legend, and make editorial changes.
129	31	MV1 – Huntington Community Planning Sector, Access Recommendations	To reflect the completed portions of the Richmond Highway widening, show BRT, update the legend, and make editorial changes.
130	32	MV1 – Huntington Community Planning Sector, Interchange Recommendations	To reflect the completed portions of the Richmond Highway widening, show BRT and Metrorail, update the legend, and make editorial changes.
139	36	MV2 – Hybla Valley Community Planning Sector, Transportation Recommendations	To reflect the completed portions of the Richmond Highway widening, show BRT and Metrorail, update the legend, and make editorial changes.
140	37	MV2 – Hybla Valley Community Planning Sector, Access Recommendations	To reflect the completed portions of the Richmond Highway widening, show BRT, update the legend, and make editorial changes.
141	38	MV2 – Hybla Valley Community Planning Sector, Interchange Recommendations	To reflect the completed portions of the Richmond Highway widening, show BRT and Metrorail, update the legend, and make editorial changes.
147	41	MV3 – Belle Haven Community Planning Sector, Transportation Recommendations	To reflect the completed portions of the Richmond Highway widening, show BRT and Metrorail, update the legend, and make editorial changes.
148	42	MV3 – Belle Haven Community Planning Sector, Access Recommendations	To reflect the completed portions of the Richmond Highway widening, update the legend, and make editorial changes.
149	43	MV3 – Belle Haven Community Planning Sector, Access Recommendations	To reflect the completed portions of the Richmond Highway widening, show BRT, update the legend, and make editorial changes.
150	44	MV3 – Belle Haven Community Planning Sector, Interchange Recommendations	To reflect the completed portions of the Richmond Highway widening, show BRT and Metrorail, update the legend, and make editorial changes.
156	47	MV4 – Wellington Community Planning Sector, Transportation Recommendations	To reflect the completed portions of the Richmond Highway widening, show BRT and Metrorail, update the legend, and make editorial changes.
162	50	MV5 – Groveton Community Planning Sector, Transportation Recommendations	To reflect the completed portions of the Richmond Highway widening, show BRT and Metrorail, update the legend, and make editorial changes.

170	53	MV6 – Fort Hunt Community Planning Sector, Transportation Recommendations	To reflect the completed portions of the Richmond Highway widening, show BRT and Metrorail, update the legend, and make editorial changes.
177	56	MV7 – Mount Vernon Community Planning Sector, Transportation Recommendations	To reflect the completed portions of the Richmond Highway widening, show BRT, update the legend, and make editorial changes.
184	59	MV8 – Woodlawn Community Planning Sector, Transportation Recommendations	To reflect the completed portions of the Richmond Highway widening, show BRT, update the legend, and make editorial changes.

MODIFY: Fairfax County Comprehensive Plan, 2017 Edition, Area IV Volume, Mount Vernon Planning District, amended through 3-14- 2017, Overview, Figure 2, page 6:



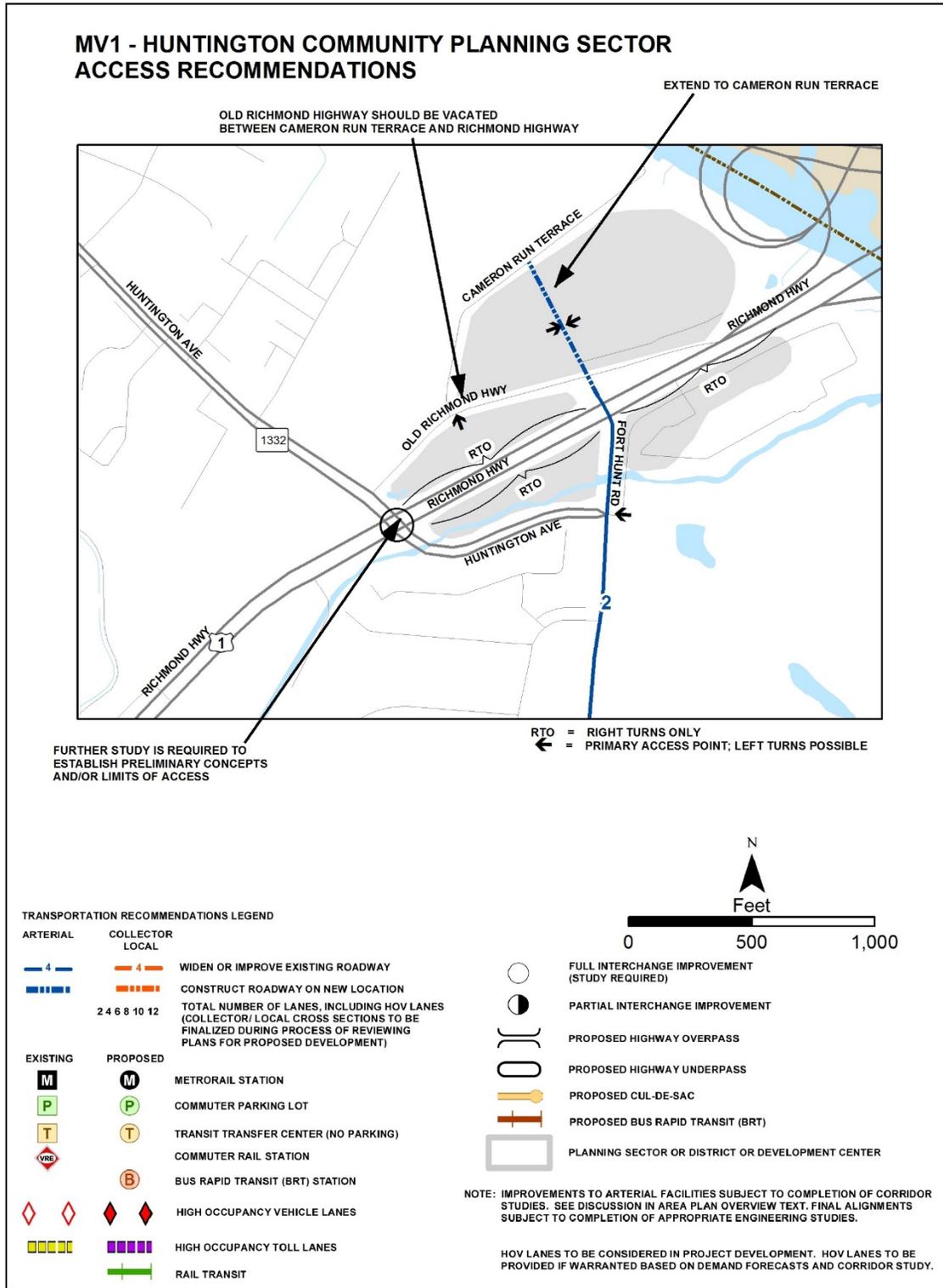
TRANSPORTATION RECOMMENDATIONS LEGEND

ARTERIAL		COLLECTOR LOCAL		
		WIDEN OR IMPROVE EXISTING ROADWAY		
		CONSTRUCT ROADWAY ON NEW LOCATION		
	2 4 6 8 10 12	TOTAL NUMBER OF LANES, INCLUDING HOV LANES (COLLECTOR/ LOCAL CROSS SECTIONS TO BE FINALIZED DURING PROCESS OF REVIEWING PLANS FOR PROPOSED DEVELOPMENT)		
EXISTING		PROPOSED		
		METRORAIL STATION		
		COMMUTER PARKING LOT		
		TRANSIT TRANSFER CENTER (NO PARKING)		
		COMMUTER RAIL STATION		
		BUS RAPID TRANSIT (BRT) STATION		
		HIGH OCCUPANCY VEHICLE LANES		
		HIGH OCCUPANCY TOLL LANES		
		FULL INTERCHANGE IMPROVEMENT (STUDY REQUIRED)		
		PARTIAL INTERCHANGE IMPROVEMENT		
		PROPOSED HIGHWAY OVERPASS		
		PROPOSED HIGHWAY UNDERPASS		
		PROPOSED CUL-DE-SAC		
		RAIL TRANSIT		
		BUS RAPID TRANSIT (BRT)		
	PLANNING SECTOR OR DISTRICT OR DEVELOPMENT CENTER			

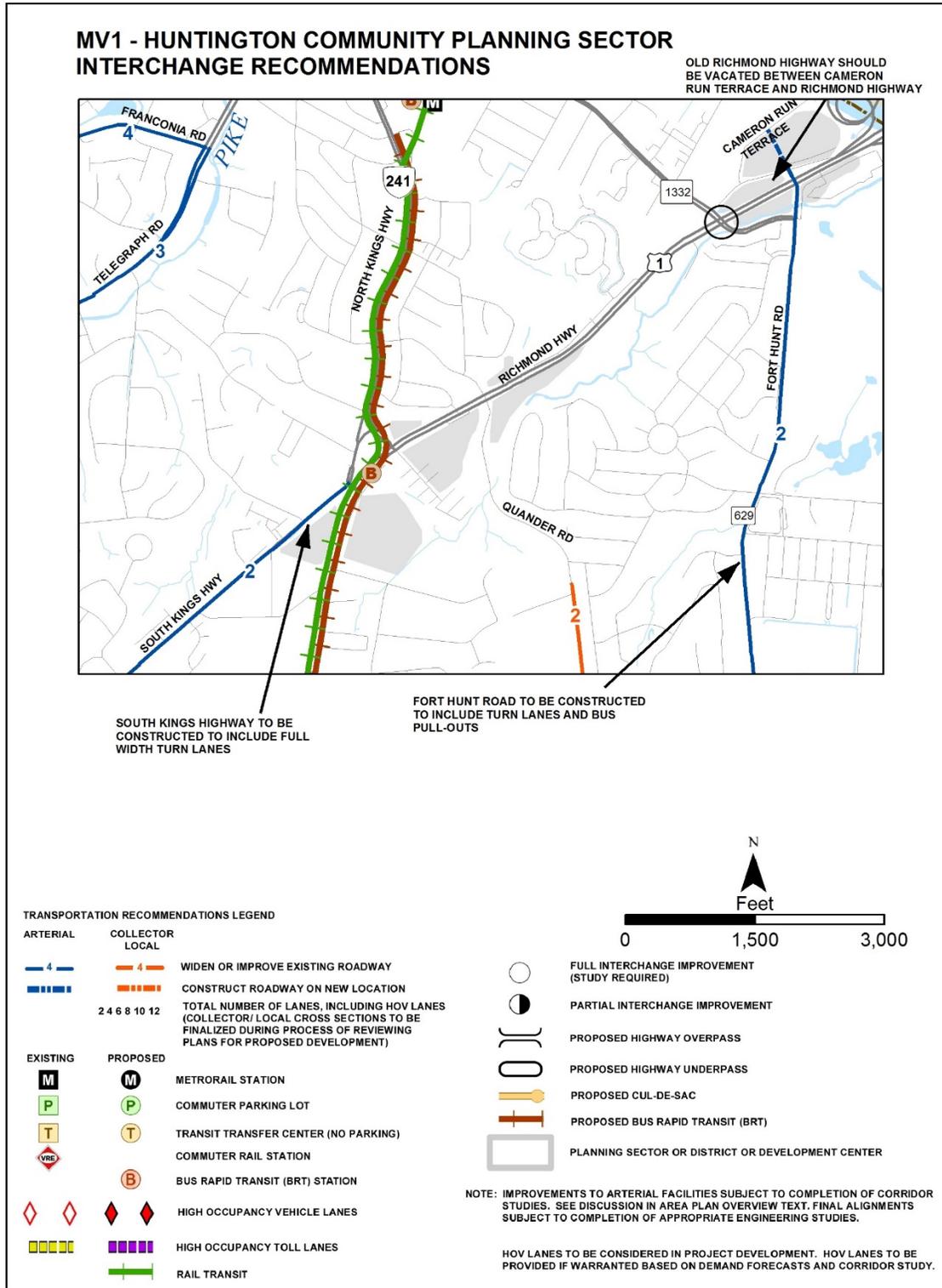
NOTE: IMPROVEMENTS TO ARTERIAL FACILITIES SUBJECT TO COMPLETION OF CORRIDOR STUDIES. SEE DISCUSSION IN AREA PLAN OVERVIEW TEXT. FINAL ALIGNMENTS SUBJECT TO COMPLETION OF APPROPRIATE ENGINEERING STUDIES.

HOV LANES TO BE CONSIDERED IN PROJECT DEVELOPMENT. HOV LANES TO BE PROVIDED IF WARRANTED BASED ON DEMAND FORECASTS AND CORRIDOR STUDY.

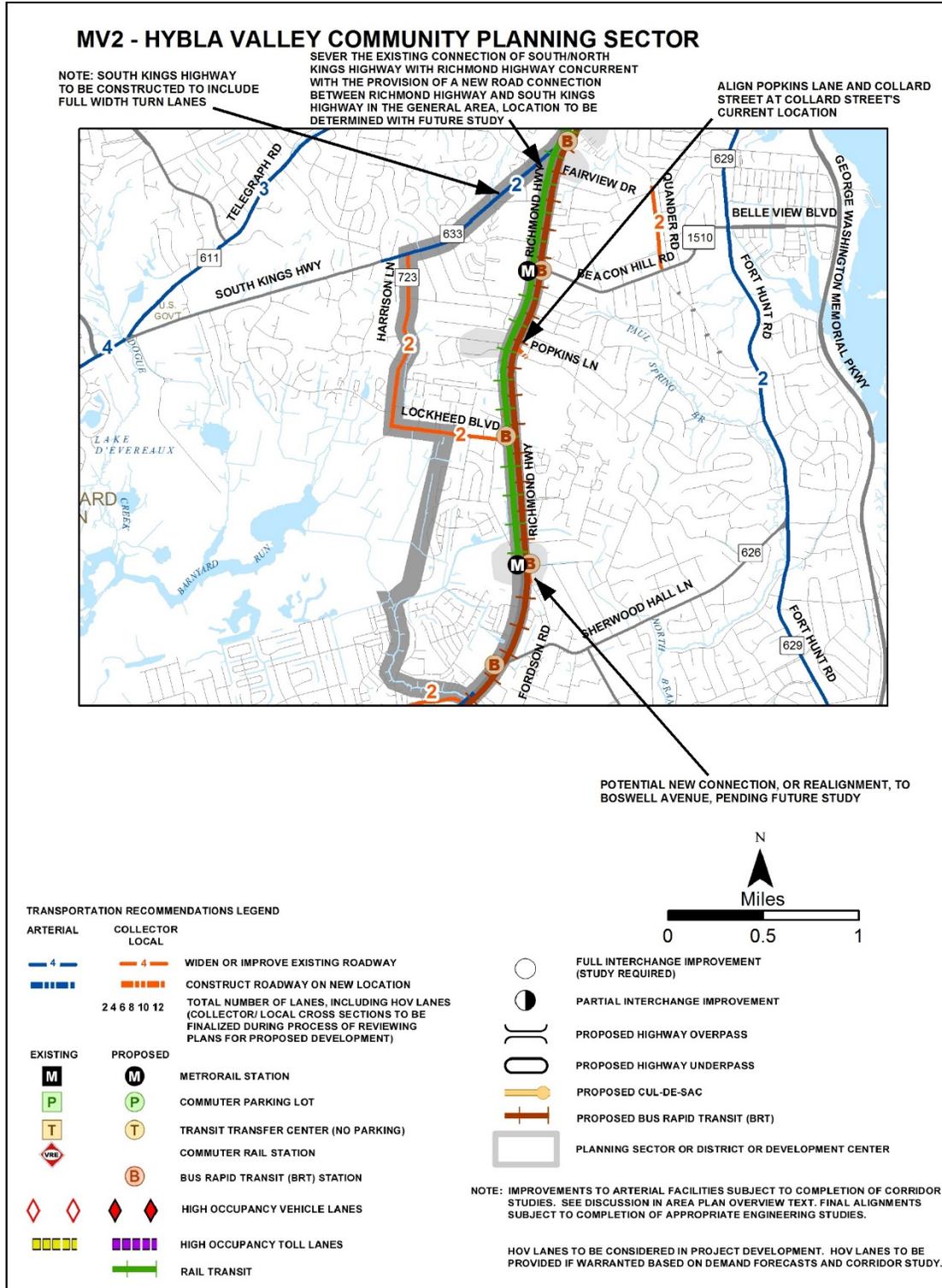
MODIFY: Fairfax County Comprehensive Plan, 2017 Edition, Area IV Volume, Mount Vernon Planning District, amended through 3-14-2017, MV1-Huntington Community Planning Sector, Figure 30, page 128:



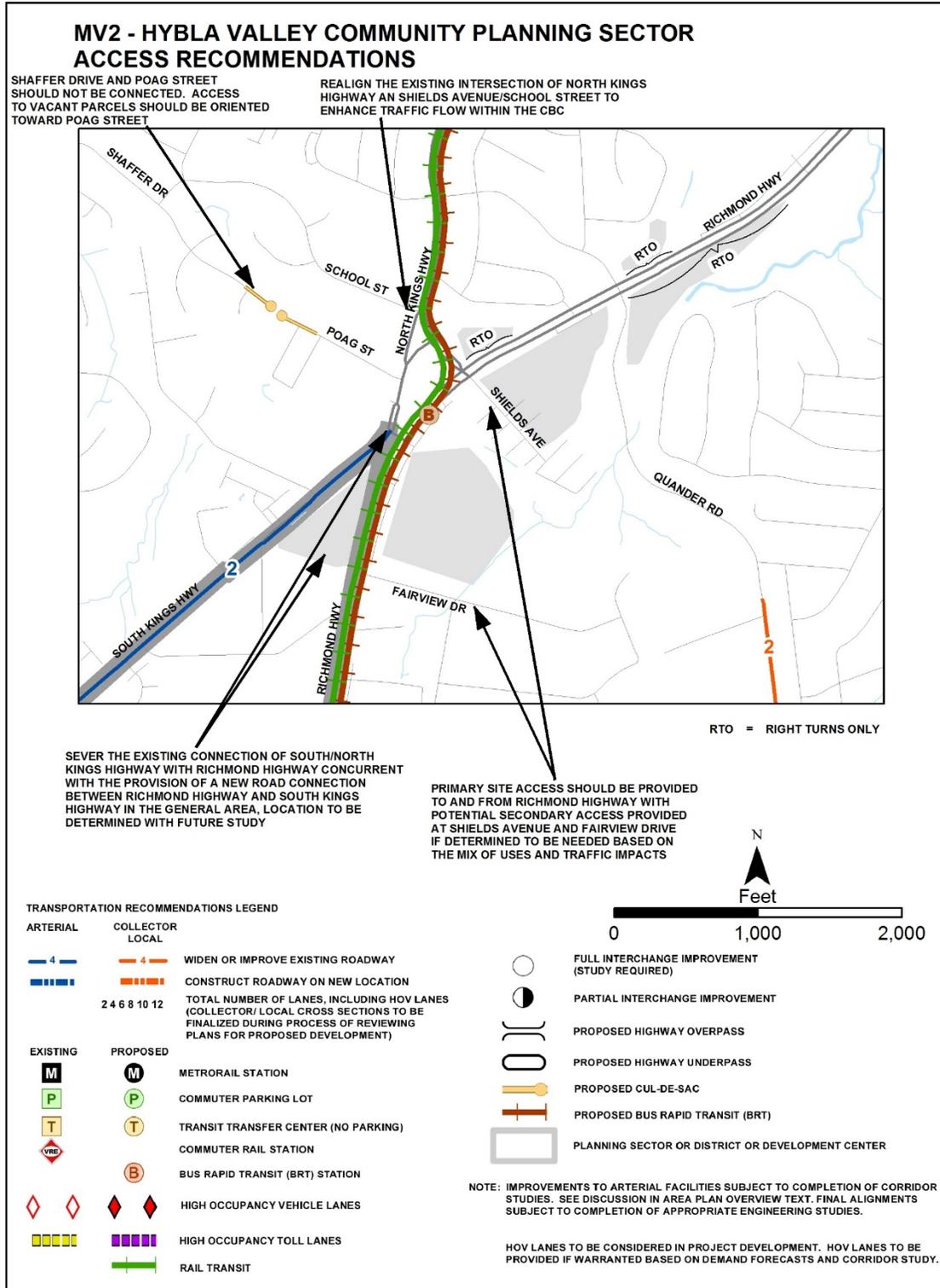
MODIFY: Fairfax County Comprehensive Plan, 2017 Edition, Area IV Volume, Mount Vernon Planning District, amended through 3-14-2017, MV1-Huntington Community Planning Sector, Figure 32, page 130:



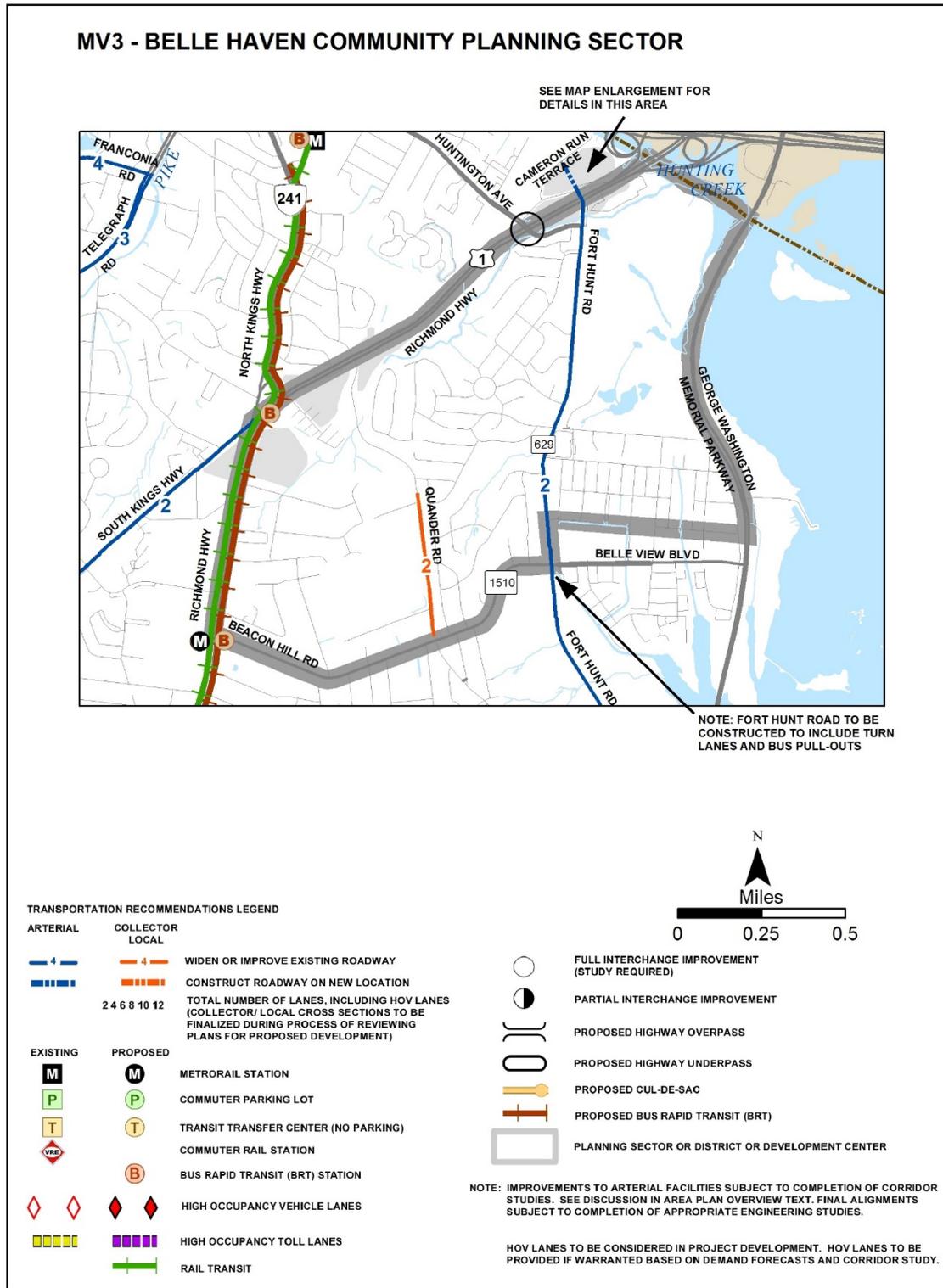
MODIFY: Fairfax County Comprehensive Plan, 2017 Edition, Area IV Volume, Mount Vernon Planning District, amended through 3-14-2017, MV2-Hybla Valley Community Planning Sector, Figure 36, page 139:



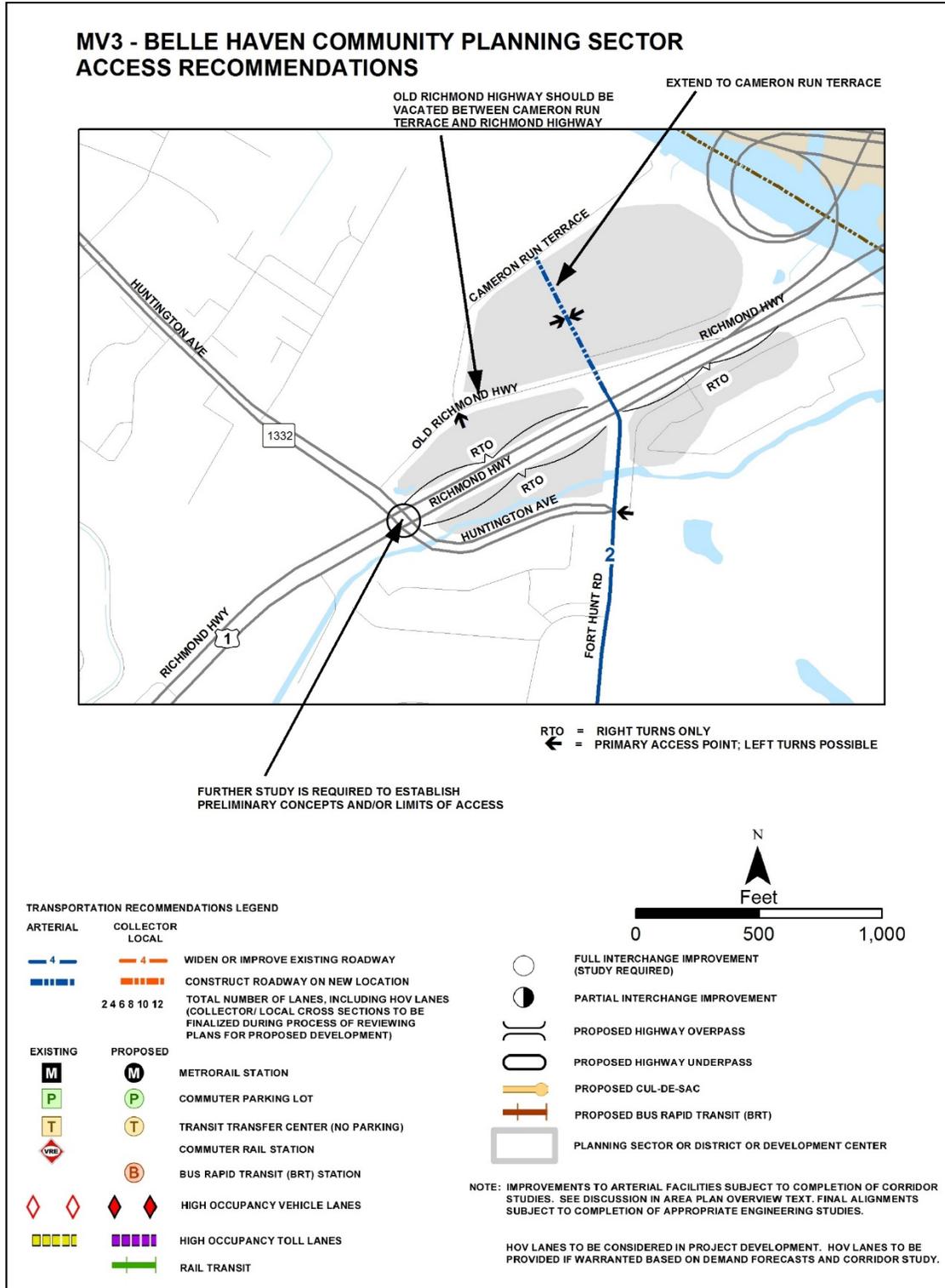
MODIFY: Fairfax County Comprehensive Plan, 2017 Edition, Area IV Volume, Mount Vernon Planning District, amended through 3-14-2017, MV2-Hybla Valley Community Planning Sector, Figure 38, page 141:



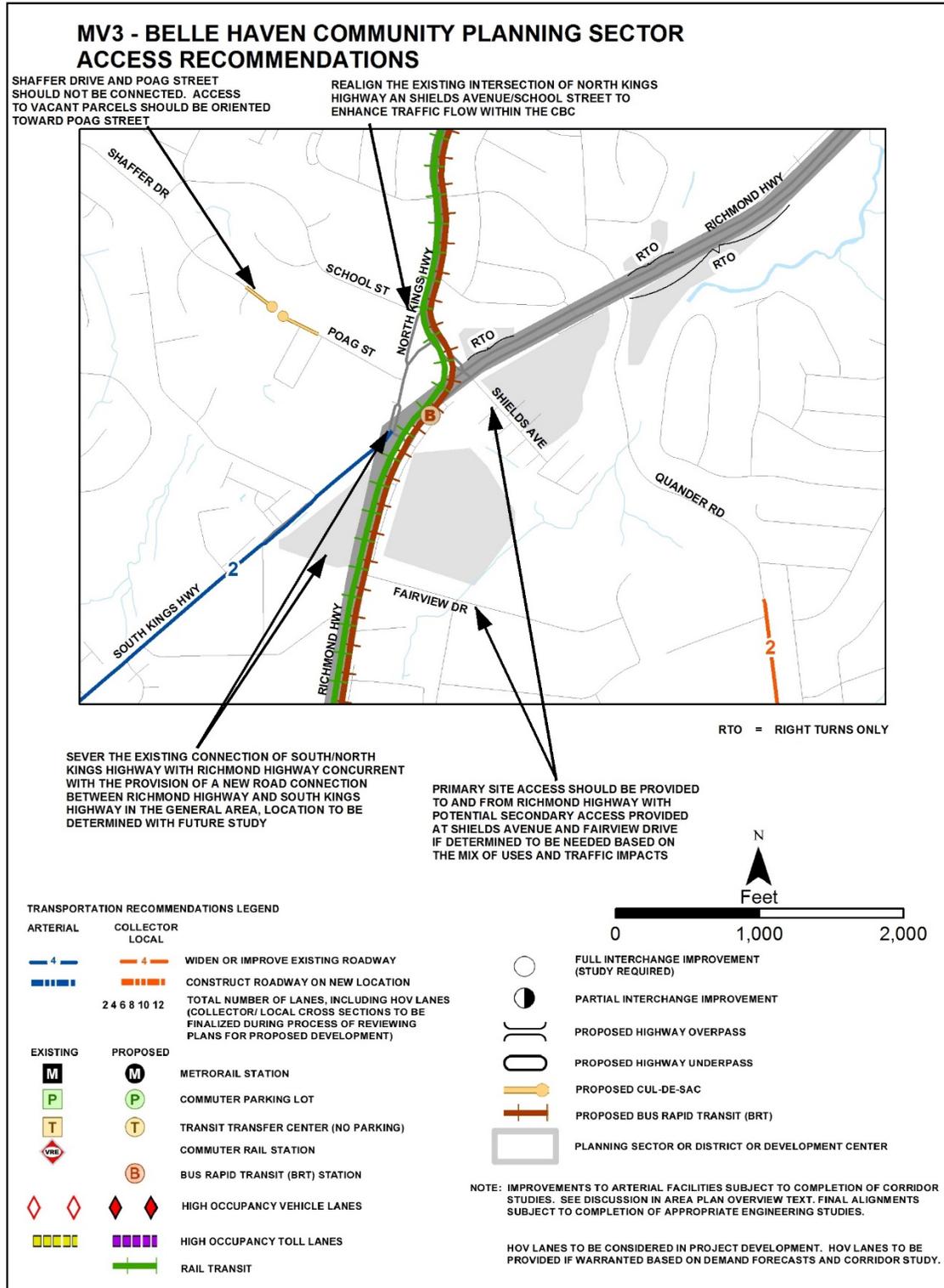
MODIFY: Fairfax County Comprehensive Plan, 2017 Edition, Area IV Volume, Mount Vernon Planning District, amended through 3-14-2017, MV3-Belle Haven Community Planning Sector, Figure 41, page 147:



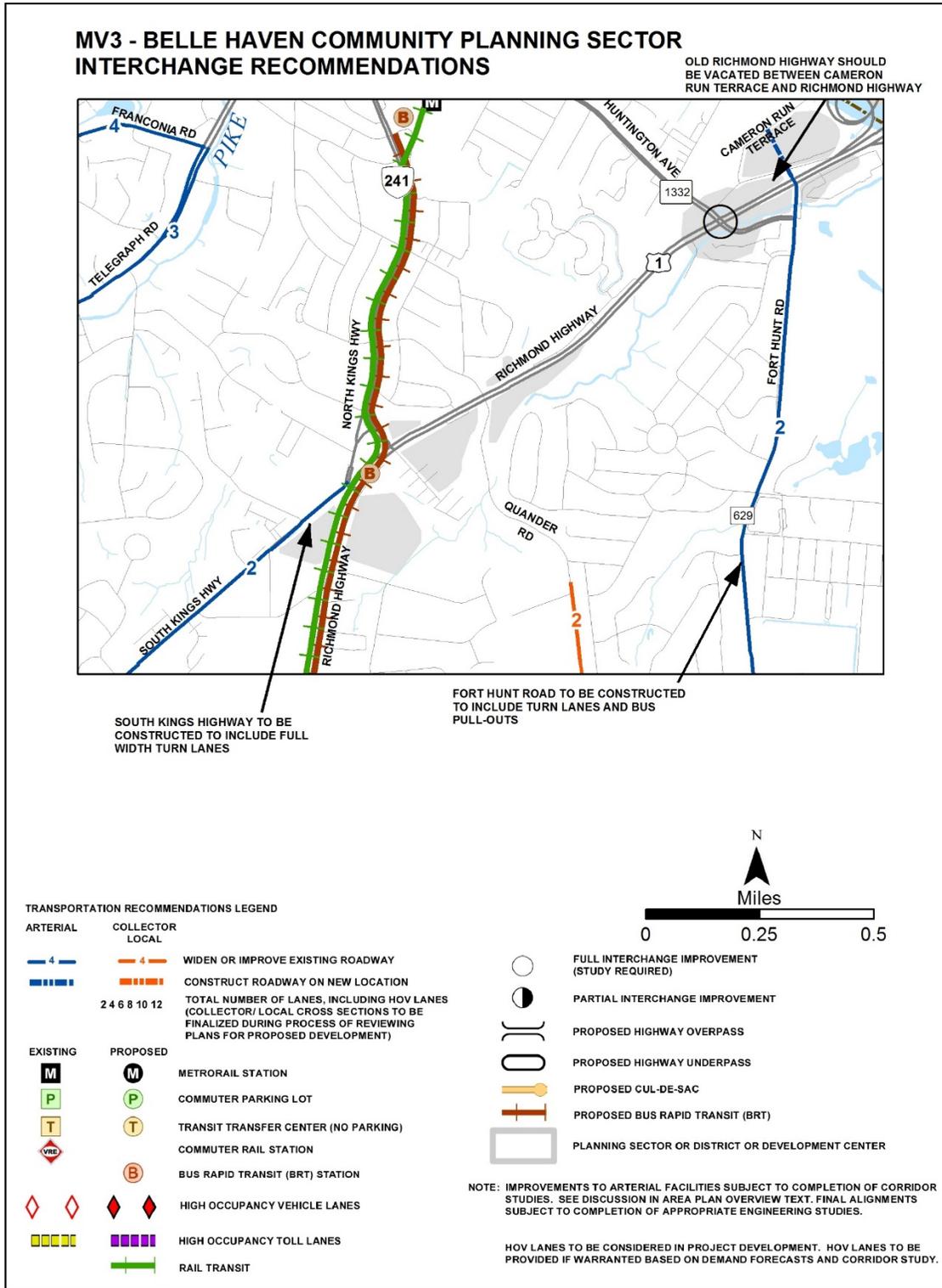
MODIFY: Fairfax County Comprehensive Plan, 2017 Edition, Area IV Volume, Mount Vernon Planning District, amended through 3-14-2017, MV3-Belle Haven Community Planning Sector, Figure 42, page 148:



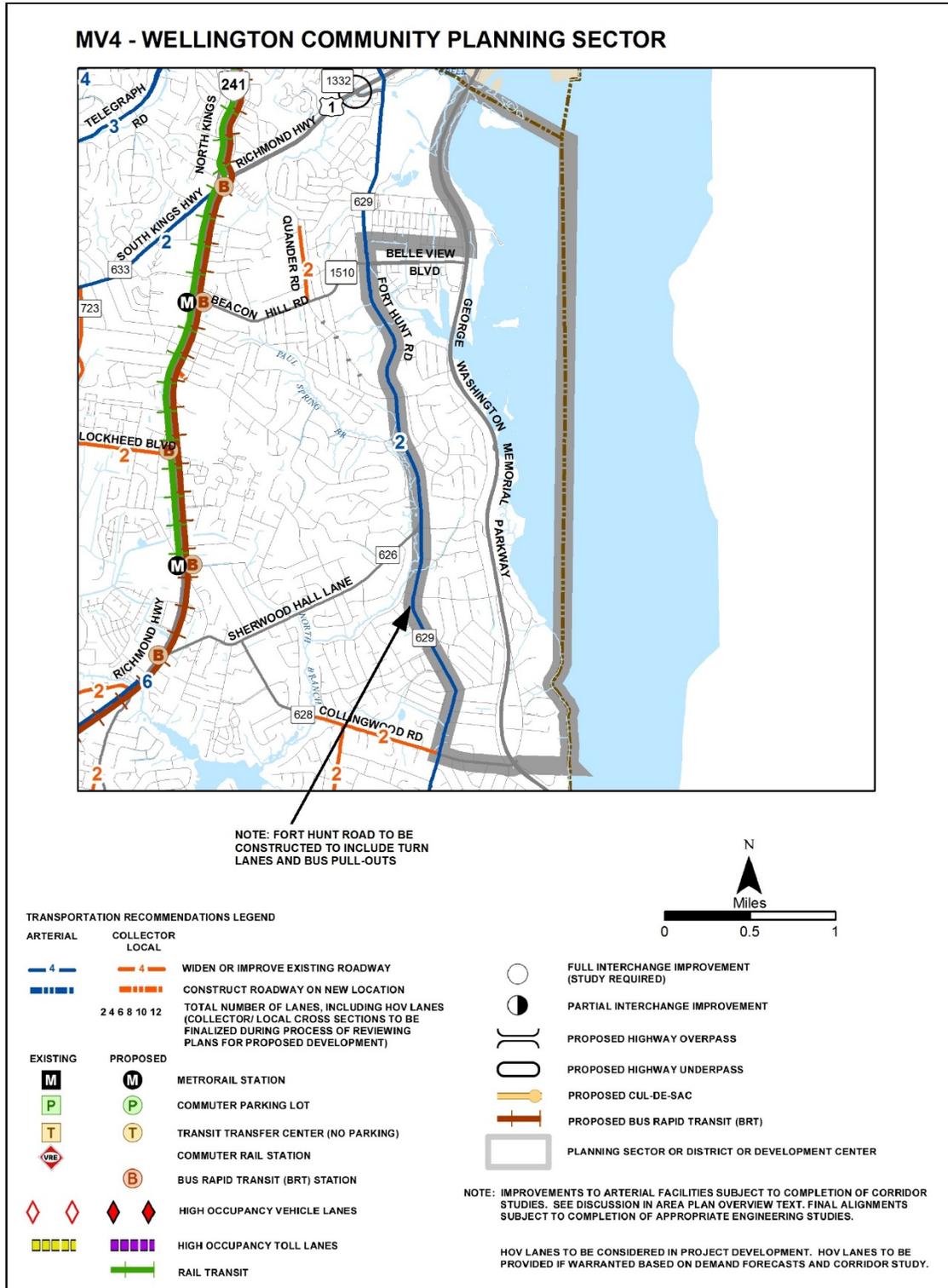
MODIFY: Fairfax County Comprehensive Plan, 2017 Edition, Area IV Volume, Mount Vernon Planning District, amended through 3-14-2017, MV3-Belle Haven Community Planning Sector, Figure 43, page 149:



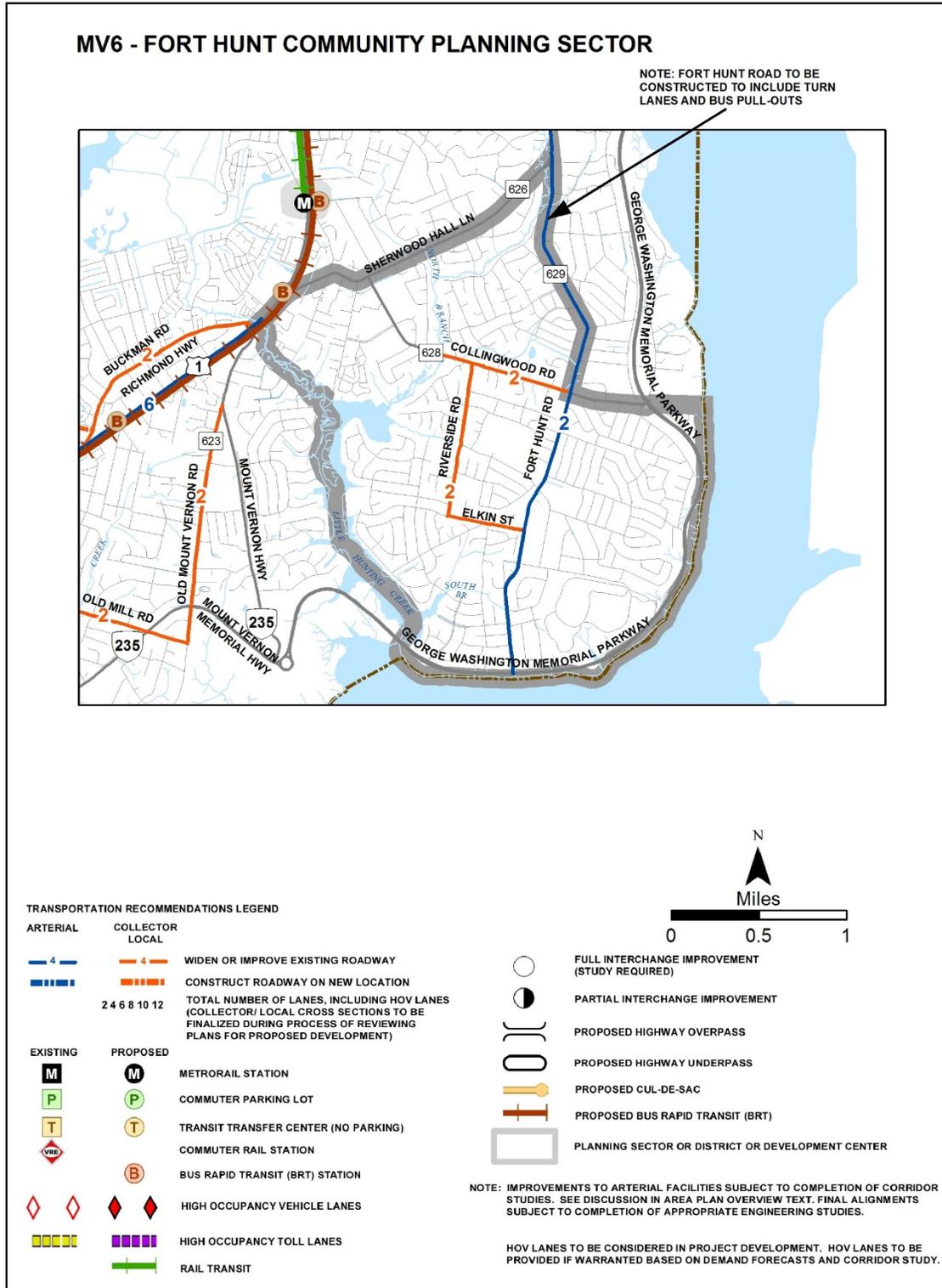
MODIFY: Fairfax County Comprehensive Plan, 2017 Edition, Area IV Volume, Mount Vernon Planning District, amended through 3-14-2017, MV3-Belle Haven Community Planning Sector, Figure 44, page 150:



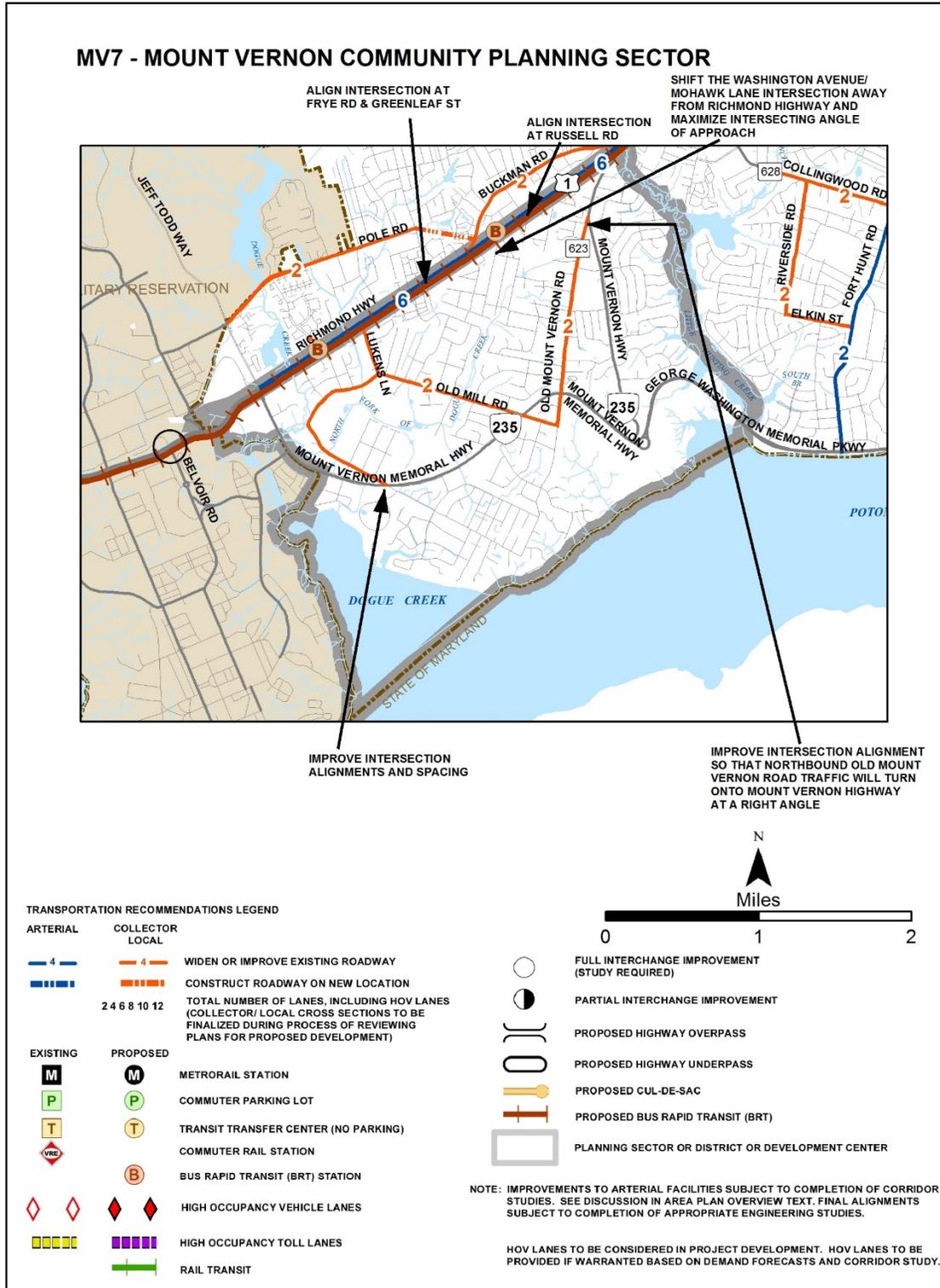
MODIFY: Fairfax County Comprehensive Plan, 2017 Edition, Area IV Volume, Mount Vernon Planning District, amended through 3-14-2017, MV4-Wellington Community Planning Sector, Figure 47, page 156:



MODIFY: Fairfax County Comprehensive Plan, 2017 Edition, Area IV Volume, Mount Vernon Planning District, amended through 3-14-2017, MV6-Fort Hunt Community Planning Sector, Figure 53, page 170:



MODIFY: Fairfax County Comprehensive Plan, 2017 Edition, Area IV Volume, Mount Vernon Planning District, amended through 3-14-2017, MV7-Mount Vernon Community Planning Sector, Figure 56, page 177:



(3) REVISIONS TO AREA IV, LOWER POTOMAC PLANNING DISTRICT

MODIFY: Fairfax County Comprehensive Plan, 2017 Edition, Area IV Volume, Lower Potomac Planning District, amended through March 14, 2017, pages 3-8:

“MAJOR OBJECTIVES

Planning objectives in the Lower Potomac Planning District are:

...

- Encourage pedestrian, transit, bicycle, access and connectivity to and within retail and mixed-use areas;

...

Urban Design Objectives for the Route 1 Corridor

Five urban design objectives are identified for the Route 1 Corridor in the Lower Potomac Planning District to implement the overall goal of improving the visual image and efficiency ~~of the Route 1 Corridor~~. In addition, corresponding urban design guidelines are found after the Plan text on the Fort Belvoir (LP4) Community Planning Sector. These objectives are intended to:

...

- Improve Access and Functional Amenities - Visually improve bicycle, pedestrian and vehicular traffic systems to enhance intersections, reduce curb cuts, and provide better signage and access to commercial facilities and adjacent, non-commercial uses.

...

DISTRICT-WIDE RECOMMENDATIONS

Transportation

...

~~Transportation Goals for the Richmond Highway Corridor~~ The Richmond Highway Corridor

The Comprehensive Plan defines the Richmond Highway Corridor as the portion of the roadway from the Capital Beltway and the City of Alexandria/Fairfax County boundary to Jeff Todd Way/Mount Vernon Memorial Highway. Information and recommendations for the Richmond Highway Corridor are found in the Area IV Volume of the Comprehensive Plan, Richmond Highway Corridor Area.

The following goals are intended to guide transportation decisions in the Lower Potomac Planning District:

- Bus Rapid Transit (BRT) - Plan for an eventual extension of the Richmond Highway BRT from the Accotink Village/Fort Belvoir area to Woodbridge. Land uses, BRT system alignments, and right-of-way needs and treatments will require further study and analysis.
- Traffic Signalization - Minimize the unnecessary addition of new traffic signals along Richmond Highway, and consider consolidating existing closely spaced signals, where appropriate.

- Interchanges - Construct grade-separated interchanges to accommodate major turning movements onto and off of Richmond Highway only where such interchanges will not adversely impact on adjacent commercial or residential development and/or historic areas. Consider such interchanges, when constructed, on a north/south priority after the Fairfax County Parkway interchange is constructed.
- Funding Mechanism - Provide adequate funding for transportation improvements through a combination of public and private sector funding to cover the costs of transportation improvements to serve this area

The following goals are intended to guide general transportation decisions in the Richmond Highway Corridor

- ~~Richmond Highway needs extensive improvements to accomplish the goals of (1) providing improved traffic circulation and increased traffic safety during both peak and non-peak hours; (2) maximizing the use of existing highway facilities to move people and goods more efficiently; (3) implementing a firm policy concerning service roads along Richmond Highway, with clear design standards for their development; (4) promoting the increased usage of ridesharing and public transportation to reduce reliance on automobiles; and (5) minimizing the impact of highway widenings, new roadway alignments, and new development projects on adjacent residential communities and the ecology of the district.~~

~~The following changes are recommended for accomplishment within the next twenty years. The changes are listed in order of their importance. Priorities for implementation should be consistent with the importance of the improvement, ease of accomplishment, and availability of funds.~~

- ~~Access to/from the City of Alexandria - Widen Richmond Highway to six travel lanes plus acceleration/deceleration lanes from Fort Hunt Road to Franklin Street in Alexandria, in order to alleviate the present bottleneck into and out of Alexandria. This improvement is essential to the long-term benefit of other proposals for widening Richmond Highway, improving Fort Hunt Road, and implementing rail or bus rapid transit south of this point.~~
- ~~Service Roads - Develop and implement a Service Road Design Plan and Map for Richmond Highway between the Capital Beltway and the Occoquan River. Permit interparcel access distant from Richmond Highway, as substitute where a service road is not needed to complete an existing system, or would generate traffic problems. In developing the Service Road Design Plan, consider the desirability of one-way versus two-way service roads. Develop a Service Road Design Plan which provides for construction of the remaining section of service road where needed to serve commercial and residential development and elimination of perpendicular curb cuts to reduce marginal friction for through traffic, construction of slip ramps between intersections, signalization, and turn prohibitions. Construct service roads which intersect cross streets as far back from the main roadway on Richmond Highway as practical, connecting directly with Richmond Highway at intersections. Until such a Service Road Design Plan is adopted, all development or redevelopment of properties fronting on Richmond Highway should provide or should dedicate land for a service road, with~~

~~appropriate setback of the service road from the main roadway at signalized intersections.~~

- ~~• **Public Transportation** — Establish regular bus service along Richmond Highway between the Huntington Metro station and the Lorton commuter rail station, to serve the needs of residents and businesses in the vicinity of Richmond Highway. Provide paved, pull-off bus loading areas separate from the travel way, and paved and covered waiting areas within the public right of way along the length of Richmond Highway. Evaluate the long term feasibility of using the median along Richmond Highway for development of a rail or bus rapid transit system.~~
- ~~• **Richmond Highway Widening and Access** — Widen to six travel lanes from the Buckman Road/Mount Vernon Memorial Highway intersection to the Prince William County line. Limit access to the Richmond Highway main roadway between the Capital Beltway and the Occoquan River to signalized intersections, grade separated interchanges, and slip ramps from service roads to the maximum extent possible. Where necessary, realign intersecting streets to eliminate offset and angled intersections with Richmond Highway.~~
- ~~• **Pedestrian/Bicyclist Services** — Provide trails within the public right of way along the length of Richmond Highway. Provide sidewalk access to the Richmond Highway main roadway between the Capital Beltway and the Occoquan River, where needed, to serve adjacent residential and commercial development. Provide adequately marked and appropriately controlled crosswalks to encourage pedestrian/bicyclist movement and assure pedestrian/ bicyclist safety.~~
- **Traffic Signalization** — Connect all traffic signals to a centrally controlled and performance monitored computer system. Minimize the addition of new traffic signals at any intersection currently without signals and encourage other alternatives for handling access to the main roadway on Richmond Highway. When new traffic signals are installed, consider the consolidation of existing traffic signals. Prohibit left hand turns onto and off of unprotected Richmond Highway intersections.
- **Interchanges** — Construct grade separated interchanges to accommodate major turning movements onto and off of Richmond Highway only where such interchanges will not adversely impact on adjacent commercial or residential development and/or historic areas. Consider such interchanges, when constructed, on a north/south priority after the Fairfax County Parkway interchange is constructed.
- ~~• **Funding Mechanism** — In order to pay for the transportation improvements needed to support new development and redevelopment, create an impact fee, contribution formula, a special tax district or other mechanism to assess fees on any new commercial and residential projects along the Richmond Highway Corridor that involve an increase in density from present levels. South of Fort Belvoir, the creation of any funding mechanism should be coordinated with, or folded into, any Lorton Area Funding Plan being considered or adopted for that area. Develop standard formulas based upon formulas used elsewhere in Fairfax County.”~~

MODIFY: Fairfax County Comprehensive Plan, 2017 Edition, Area IV Volume, Lower Potomac Planning District, amended through March 14, 2017, Figure 3, page 9:

~~“NOTE: Assisted Housing within the Fairfax Center Area is included in that section of the Area III Plan.”~~

REPLACE: Fairfax County Comprehensive Plan, 2017 Edition, Area IV Volume, Lower Potomac Planning District, amended through 3-14- 2017, Figure 7, page 20:

“LOWER POTOMAC PLANNING DISTRICT
EXISTING PUBLIC PARKS
(As of 11/22/2017)

	LOCAL	DISTRICT	COUNTYWIDE	RESOURCE- BASED	REGIONAL
LP1			. Laurel Hill		. Occoquan Regional
LP2	. Lower Potomac . Lorton . Pohick Estates . Southgate	. Mason Neck West		. Accotink Stream Valley . Old Colchester . Pohick Stream Valley	
LP3		. Mason Neck West		. Old Colchester	. Gunston Hall . Mason Neck Natural Wildlife Refuge . Mason Neck State . Meadowood Recreation Area . Pohick Bay Regional . Potomac Shoreline Regional
LP4	. McNaughton Fields”				

MODIFY: Fairfax County Comprehensive Plan, 2017 Edition, Area IV Volume, Lower Potomac Planning District, amended through March 14, 2017, LP2-Lorton-South Route 1 Community Planning Sector, Major Objectives, pages 64-65:

“Transportation

- Implement bus and rail transit services, including a bus rapid transit (BRT) system on Richmond Highway, and non-motorized facilities which reduce the reliance of employees and residents on the automobile;

MODIFY: Fairfax County Comprehensive Plan, 2017 Edition, Area IV Volume, Lower Potomac Planning District, amended through March 14, 2017, LP2-Lorton-South Route 1 Community Planning Sector, Recommended Land Use Plan, pages 64-65:

“Gateway’ Uses

The Lorton-South Route 1 area is a southern "gateway" to the Nation's Capital, Fairfax County and the community. Therefore, any development within the I-95 corridor along its southern entrance to Fairfax County and along Richmond Highway and I-95 from the Occoquan River to Fort Belvoir is envisioned to contribute to an attractive "Gateway to Fairfax County and to the National Capital Area." Areas of particular attention include the Richmond Highway BRT system, Richmond Highway and I-95 from the Occoquan River to Fort Belvoir; the I-95/Lorton Road interchange area; the Richmond Highway/I-95 interchange area; and the Richmond Highway/Gunston Road intersection. All future development should be located, designed, accessed, buffered, and screened, where necessary to help further the attainment of the county's "gateway" concept. Well-designed private and public development should be encouraged."

MODIFY: Fairfax County Comprehensive Plan, 2017 Edition, Area IV Volume, Lower Potomac Planning District, amended through March 14, 2017, LP2-Lorton-South Route 1 Community Planning Sector, Land Use Recommendations, Land Unit D, page 83:

“• Structure height is consistent with the treeline to reduce visual ~~intrusion~~ intrusion on the adjacent residential community and to avoid impacting the viewshed of Pohick Church.

...

• The TDM program should reduce peak hour trips to a level that is 20 percent below that which office development at a 0.5 FAR would generate, based on Institute of Transportation Engineers (ITE) trip generation rates. This trip reduction target should be achieved with each phase of development to be determined at the time of rezoning. Coordination with any existing TDM program and existing shuttle bus service in the area is encouraged. Specifically, the development should provide shuttle service to the Joe Alexander Transportation Center, the planned Richmond Highway BRT, and/or the Lorton Virginia Railway Express (VRE) Station or other destinations in the nearby area, such as Fort Belvoir.

ADD: Fairfax County Comprehensive Plan, 2017 Edition, Area IV Volume, Lower Potomac Planning District, amended through March 14, 2017, LP2-Lorton-South Route 1 Community Planning Sector, Land Use Recommendations, Land Unit E, page 84:

“A portion of Sub-unit E2 and all of Sub-unit E3 are located in the Pohick Church Historic Overlay District and any development should conform to all applicable recommendations identified in Sub-unit G1.

An effective and safe transportation system that meets local and regional needs should be implemented to include a bus rapid transit (BRT) system on Richmond Highway. A coordinated transportation system should employ strategies to increase transit ridership, increase auto occupancy, distribute peak period traffic volumes, and increase pedestrian and bicycle travel.”

ADD: Fairfax County Comprehensive Plan, 2017 Edition, Area IV Volume, Lower Potomac Planning District, amended through March 14, 2017, LP2-Lorton-South Route 1 Community Planning Sector, Land Use Recommendations, Land Unit F, page 92:

“Strip development, free-standing retail uses, and/or automobile-oriented uses should not be allowed.

An effective and safe transportation system that meets local and regional needs should be implemented to include a bus rapid transit (BRT) system on Richmond Highway. A coordinated transportation system should employ strategies to increase transit ridership, increase auto occupancy, distribute peak period traffic volumes, and increase pedestrian and bicycle travel.”

ADD: Fairfax County Comprehensive Plan, 2017 Edition, Area IV Volume, Lower Potomac Planning District, amended through March 14, 2017, LP2-Lorton-South Route 1 Community Planning Sector, Land Use Recommendations, Land Unit G, page 94:

“Land Unit G is generally bounded by Richmond Highway to the north and west; Old Colchester Road, Fort Belvoir and the Northern Virginia Regional Park Authority property to the east; and Gunston Road to the south (see Figure 31). A large portion of the area is occupied by the Noman M. Cole, Jr. Pollution Control Plant site and its expansion site. Other uses include scattered retail development, single-family detached homes and a developing townhouse project.

An effective and safe transportation system that meets local and regional needs should be implemented to include a bus rapid transit (BRT) system on Richmond Highway. A coordinated transportation system should employ strategies to increase transit ridership, increase auto occupancy, distribute peak period traffic volumes, and increase pedestrian and bicycle travel.”

ADD: Fairfax County Comprehensive Plan, 2017 Edition, Area IV Volume, Lower Potomac Planning District, amended through March 14, 2017, LP2-Lorton-South Route 1 Community Planning Sector, Land Use Recommendations, Land Unit H, page 98:

“Land Unit H is generally located on the east side of Richmond Highway between Gunston Road and Furnace Road (see Figure 32). The area is characterized by low density residential use. A private debris landfill is located on the south side of Gunston Road and east of Richmond Highway.

An effective and safe transportation system that meets local and regional needs should be implemented to include a bus rapid transit (BRT) system on Richmond Highway. A coordinated transportation system should employ strategies to increase transit ridership, increase auto occupancy, distribute peak period traffic volumes, and increase pedestrian and bicycle travel.”

MODIFY: Fairfax County Comprehensive Plan, 2017 Edition, Area IV Volume, Lower Potomac Planning District, amended through March 14, 2017, LP2-Lorton-South Route 1 Community Planning Sector, Transportation Recommendations, page 103:

“As a result of this regional impact, traditional methods of financing these transportation improvements ~~will~~ may be inadequate. The financial environment, market demand and the ~~“non-phasable single phase, up-front”~~ nature of some of the improvements (i.e., the underpass of the railroad) mandate the need for transportation phasing and financing studies to identify the specific transportation improvements needed; to define the area(s) which will benefit from such improvements, to assign and allocate specific values to these benefits and to each beneficiary; and to determine a fair and equitable method for payment of funds in accordance with appropriate phasing of development. It is recognized that transportation improvements and strategies identified in these studies need to be implemented in such a way as to ensure that transportation needs created by new development are met during all phases of development.

It is recognized that some transportation improvements, such as the I-95 interchange improvements and the Richmond Highway BRT system, ~~will need to~~ may be provided by the public sector, combined private interests, or jointly by public-private efforts. Private development alone probably cannot provide all of the funds necessary to pay for these key improvements. Therefore, public funds will be necessary along with a system for equitably sharing a portion of the total costs among the appropriate property owners. It is further recognized that it is in the interests of the private sector and the public sector to hasten the implementation of the planned transportation improvements. The private and public sectors should actively participate in providing the transportation improvements through cooperative private or private and public efforts. High priority should be assigned to these key improvements by both public and private sectors in order to facilitate the realization of the Lorton “Town Center.”

MODIFY: Fairfax County Comprehensive Plan, 2017 Edition, Area IV Volume, Lower Potomac Planning District, amended through March 14, 2017, LP4- Fort Belvoir Community Planning Sector, Transportation, page 123:

~~“The Transportation Plan Map recommends widening a BRT system on Richmond Highway, to six lanes, adding a transitway on Richmond Highway, and including bicycle/pedestrian amenities. Coordination with Fairfax County and the Virginia Department of Transportation (VDOT) is needed to ensure that adequate right of way is provided to implement projects associated with the widening and other improvements, including placement of utilities. Redevelopment of the study area should accommodate transit operations. Safe and logical access and connectivity should be considered if transit service is expanded in the future.~~

MODIFY: Fairfax County Comprehensive Plan, 2017 Edition, Area IV Volume, Lower Potomac Planning District, amended through March 14, 2017, LP4- Fort Belvoir Community Planning Sector, Transportation Recommendations, page 124:

~~“The two Transit Transfer Centers shown in Figures ~~42~~ 43 and 44 are not site specific. Rather, they are meant to take advantage of the rail service between the fort and the Springfield Transportation Hub that Fort Belvoir is planning to establish over the existing military railroad, and should, to the extent it is possible, be integrated with the future Richmond Highway BRT system. The Board of Supervisors should enter into agreements with the fort to establish the transit centers when the rail service is initiated.”~~

MODIFY: Fairfax County Comprehensive Plan, 2017 Edition, Area IV Volume, Lower Potomac Planning District, amended through March 14, 2017, Route 1 Corridor Urban Design Guidelines, page 131:

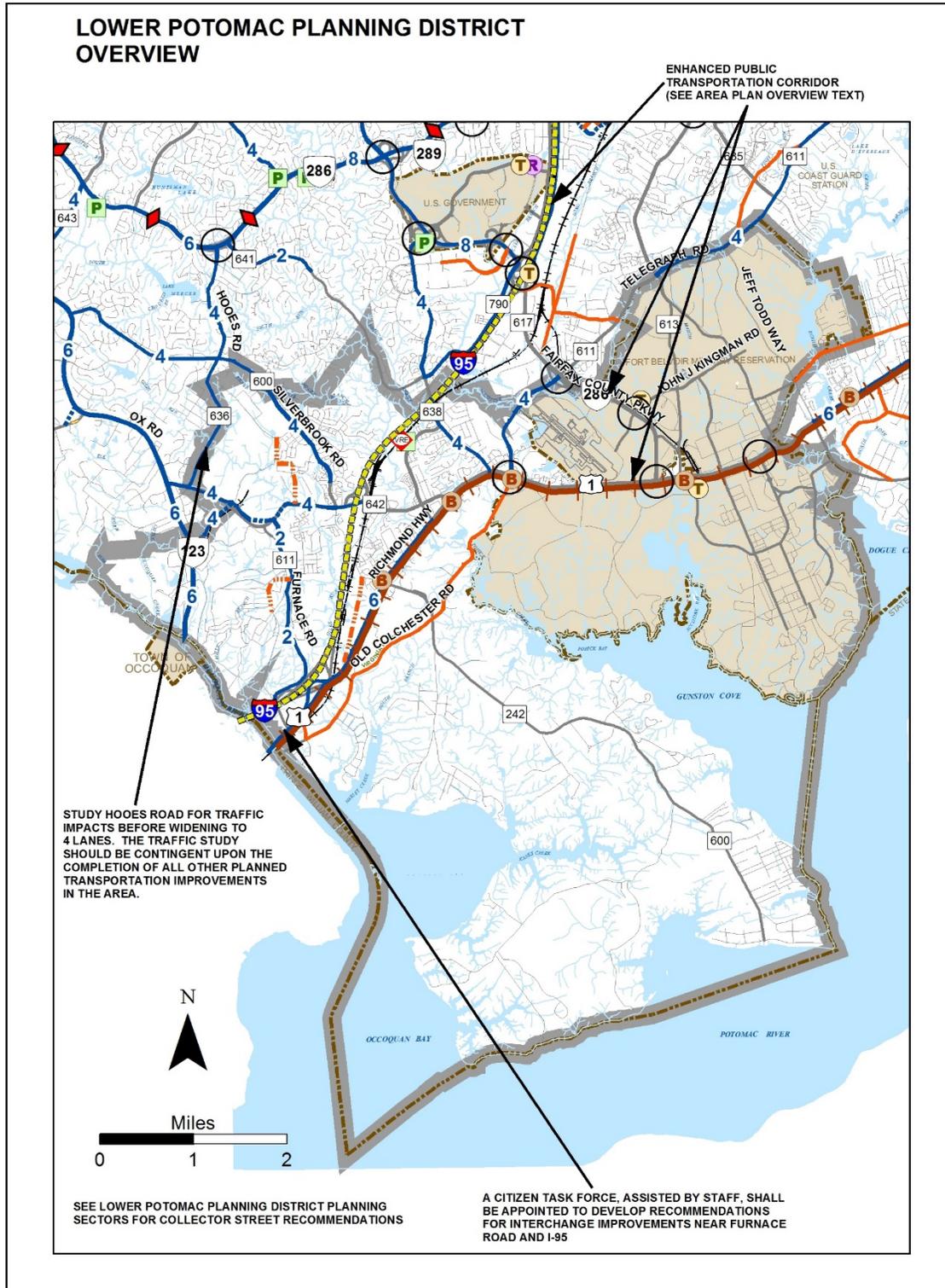
“The following performance criteria are guidelines for the evaluation of development plans within the Route 1 Corridor. Acceptable prescriptive examples that may satisfy these performance criteria have been drafted as a dynamic report with Route 1 Urban Design Guidelines for approval and amendment by the Fairfax County Board of Supervisors from time to time. Regarding urban design guidelines in proximity to future bus rapid transit (BRT) station areas, refer to the Richmond Highway Corridor recommendations in the Area IV volume of the Comprehensive Plan.”

MODIFY FIGURES:

Summary Table of Proposed Transportation Figure Modifications:

Page	Figure	Figure Title	Proposed Change
Lower Potomac Planning District (as amended through March 14, 2017)			
6	2	Countywide Transportation Recommendations, Lower Potomac Planning District, Overview	To reflect the completed portions of the Richmond Highway widening, show BRT, update the legend, and make editorial changes.
33	13	LP1 – Laurel Hill Community Planning Sector, Transportation Recommendations	To reflect the completed portions of the Richmond Highway widening, show BRT, update the legend, and make editorial changes.
101	33	LP2 – Lorton-South Route 1 Community Planning Sector, Transportation Recommendations	To reflect the completed portions of the Richmond Highway widening, show BRT, update the legend, and make editorial changes.
102	34	LP2 – Lorton-South Route 1 Community Planning Sector, Interchange Recommendations	To reflect the completed portions of the Richmond Highway widening, show BRT, update the legend, and make editorial changes.
112	37	LP3 – Mason Neck Community Planning Sector	To show BRT and update the legend.
125	42	LP4 – Fort Belvoir Community Planning Sector, Transportation Recommendations	To reflect the completed portions of the Richmond Highway widening, show BRT, update the legend, and make editorial changes.
126	43	LP4 – Fort Belvoir Community Planning Sector, Interchange Recommendations	To reflect the completed portions of the Richmond Highway widening, show BRT, update the legend, and make editorial changes.
127	44	LP4 – Fort Belvoir Community Planning Sector, Transit Facility Recommendations	To reflect the completed portions of the Richmond Highway widening, show BRT, update the legend, and make editorial changes.

MODIFY: Fairfax County Comprehensive Plan, 2017 Edition, Area IV Volume, Lower Potomac Planning District, amended through 3-14-2017, Overview, Figure 2, page 6:



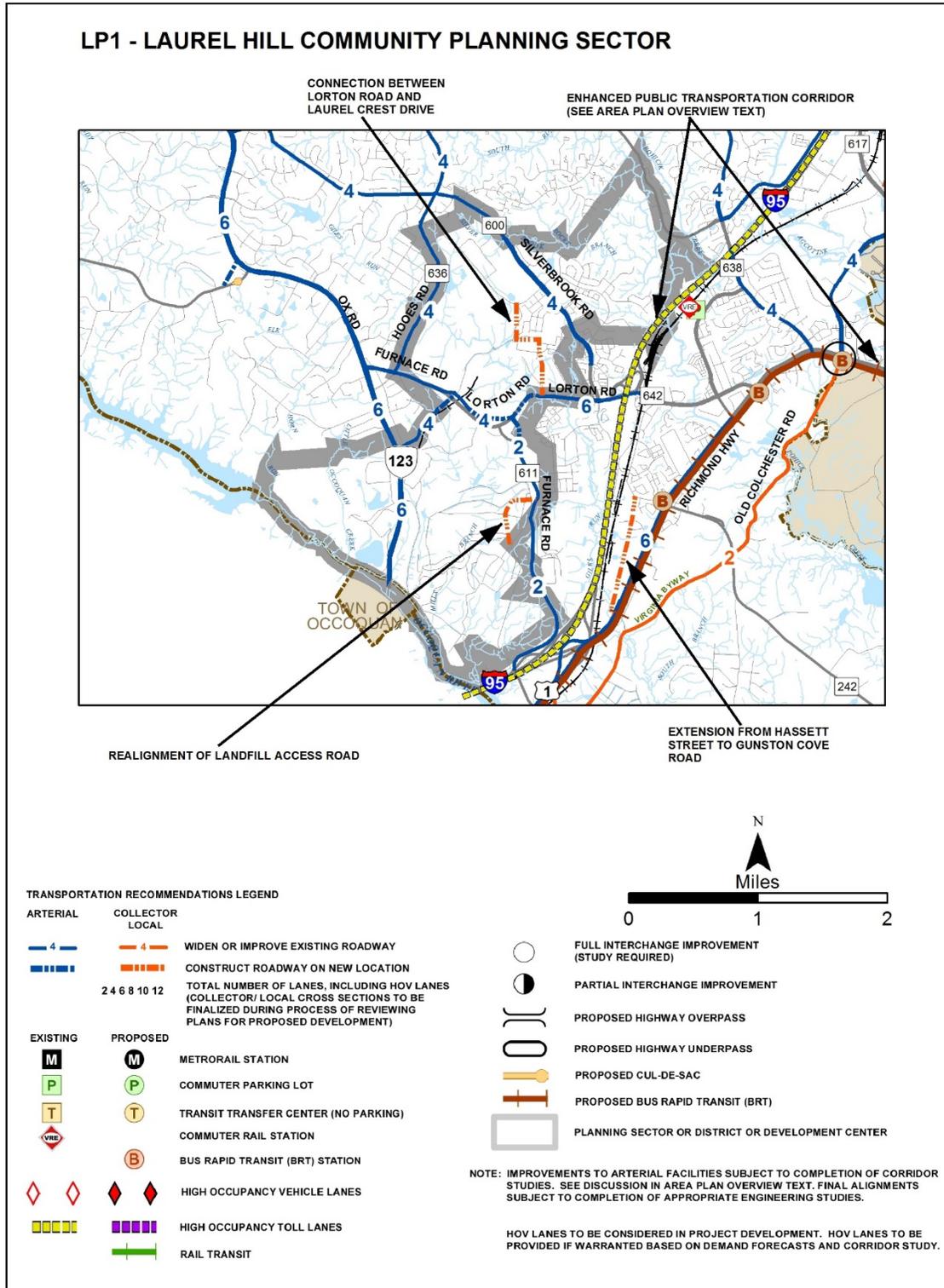
TRANSPORTATION RECOMMENDATIONS LEGEND

ARTERIAL	COLLECTOR LOCAL	
		WIDEN OR IMPROVE EXISTING ROADWAY
		CONSTRUCT ROADWAY ON NEW LOCATION
	2 4 6 8 10 12	TOTAL NUMBER OF LANES, INCLUDING HOV LANES (COLLECTOR/ LOCAL CROSS SECTIONS TO BE FINALIZED DURING PROCESS OF REVIEWING PLANS FOR PROPOSED DEVELOPMENT)
EXISTING	PROPOSED	
		METRORAIL STATION
		COMMUTER PARKING LOT
		TRANSIT TRANSFER CENTER (NO PARKING)
		COMMUTER RAIL STATION
		BUS RAPID TRANSIT (BRT) STATION
 	 	HIGH OCCUPANCY VEHICLE LANES
   	   	HIGH OCCUPANCY TOLL LANES
		FULL INTERCHANGE IMPROVEMENT (STUDY REQUIRED)
		PARTIAL INTERCHANGE IMPROVEMENT
		PROPOSED HIGHWAY OVERPASS
		PROPOSED HIGHWAY UNDERPASS
		PROPOSED CUL-DE-SAC
		RAIL TRANSIT
		BUS RAPID TRANSIT (BRT)
		PLANNING SECTOR OR DISTRICT OR DEVELOPMENT CENTER

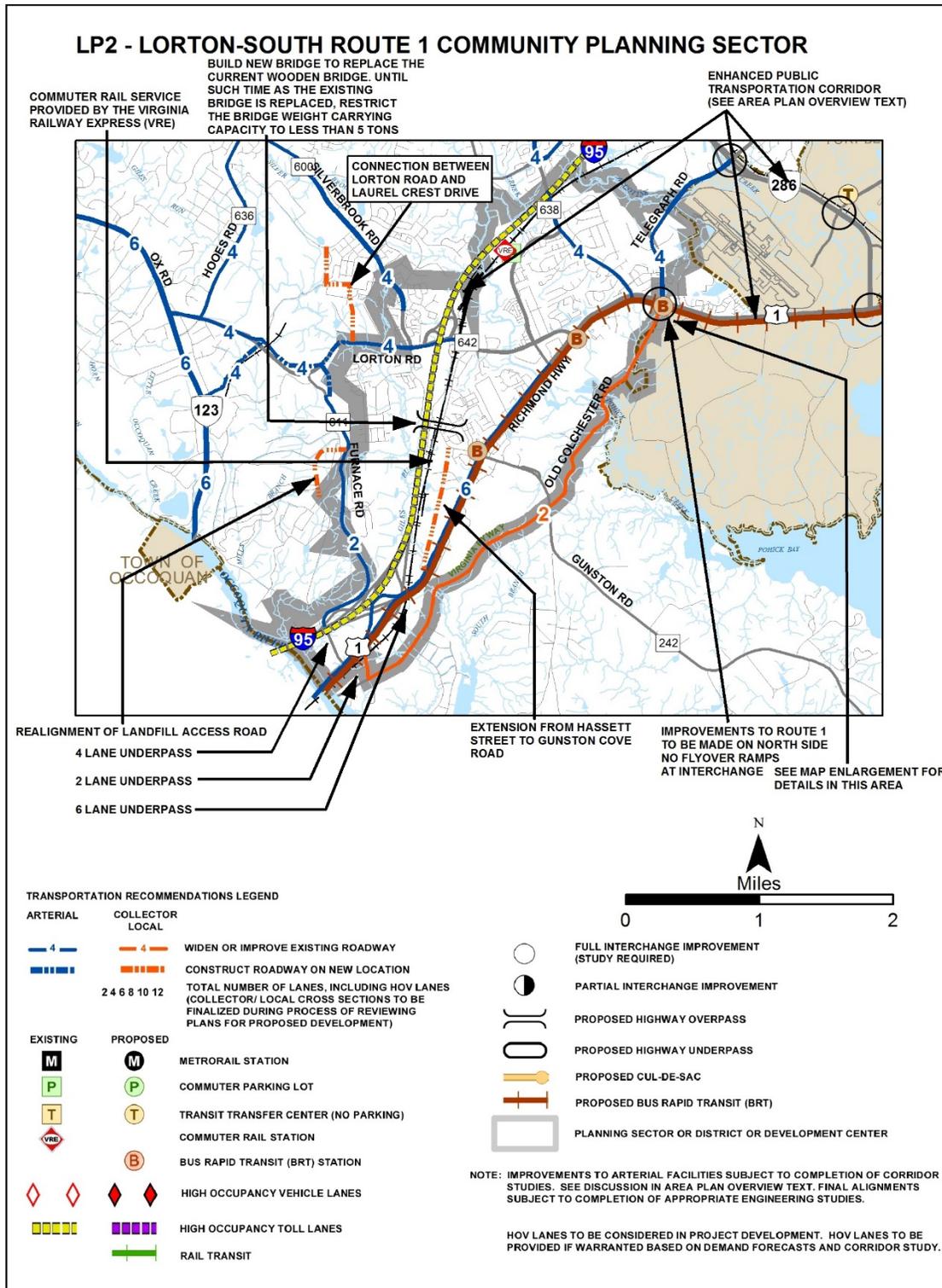
NOTE: IMPROVEMENTS TO ARTERIAL FACILITIES SUBJECT TO COMPLETION OF CORRIDOR STUDIES. SEE DISCUSSION IN AREA PLAN OVERVIEW TEXT. FINAL ALIGNMENTS SUBJECT TO COMPLETION OF APPROPRIATE ENGINEERING STUDIES.

HOV LANES TO BE CONSIDERED IN PROJECT DEVELOPMENT. HOV LANES TO BE PROVIDED IF WARRANTED BASED ON DEMAND FORECASTS AND CORRIDOR STUDY.

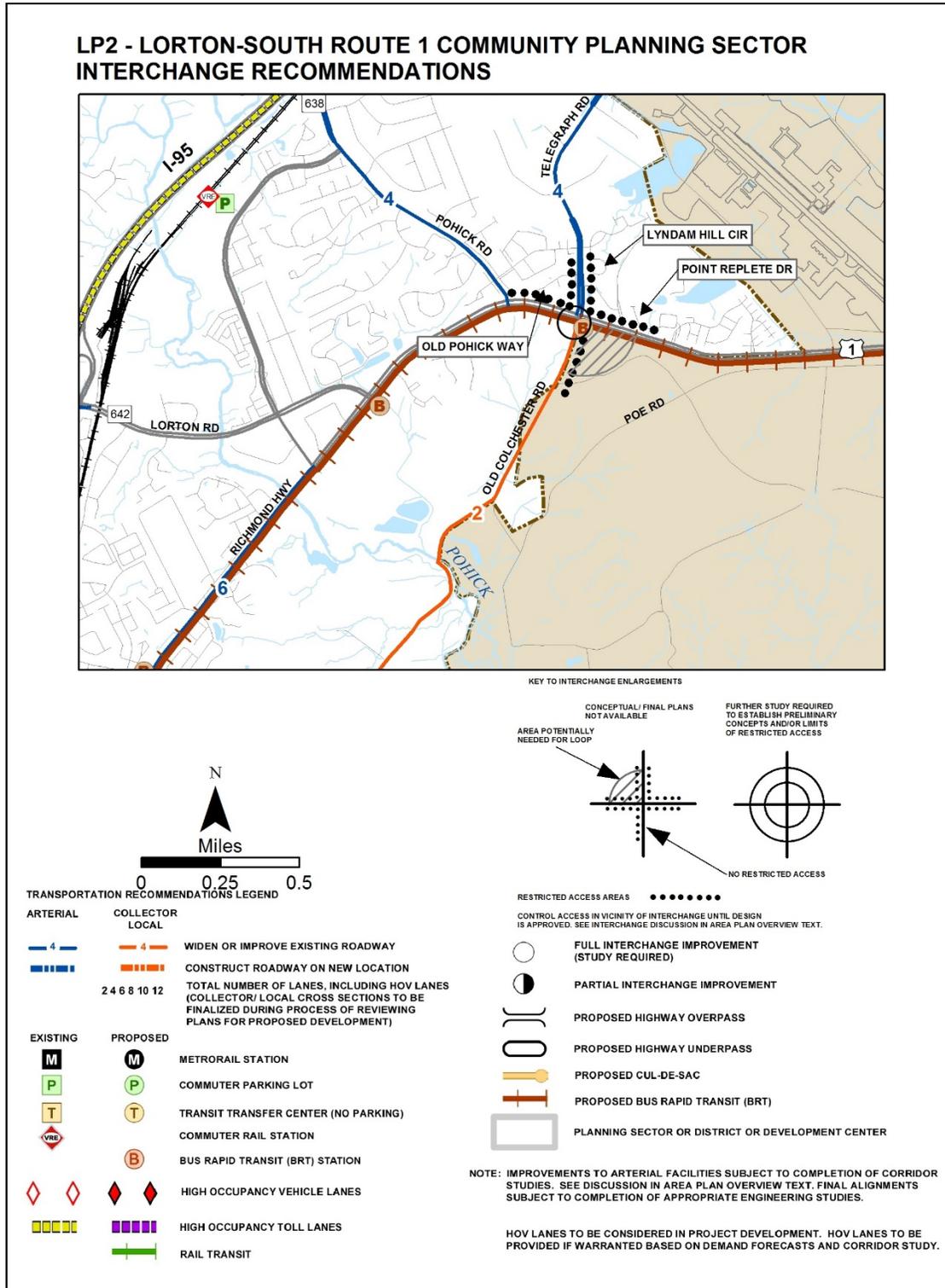
MODIFY: Fairfax County Comprehensive Plan, 2017 Edition, Area IV Volume, Lower Potomac Planning District, amended through 3-14-2017, LP1-Laurel Hill Community Planning Sector, Figure 13, page 33:



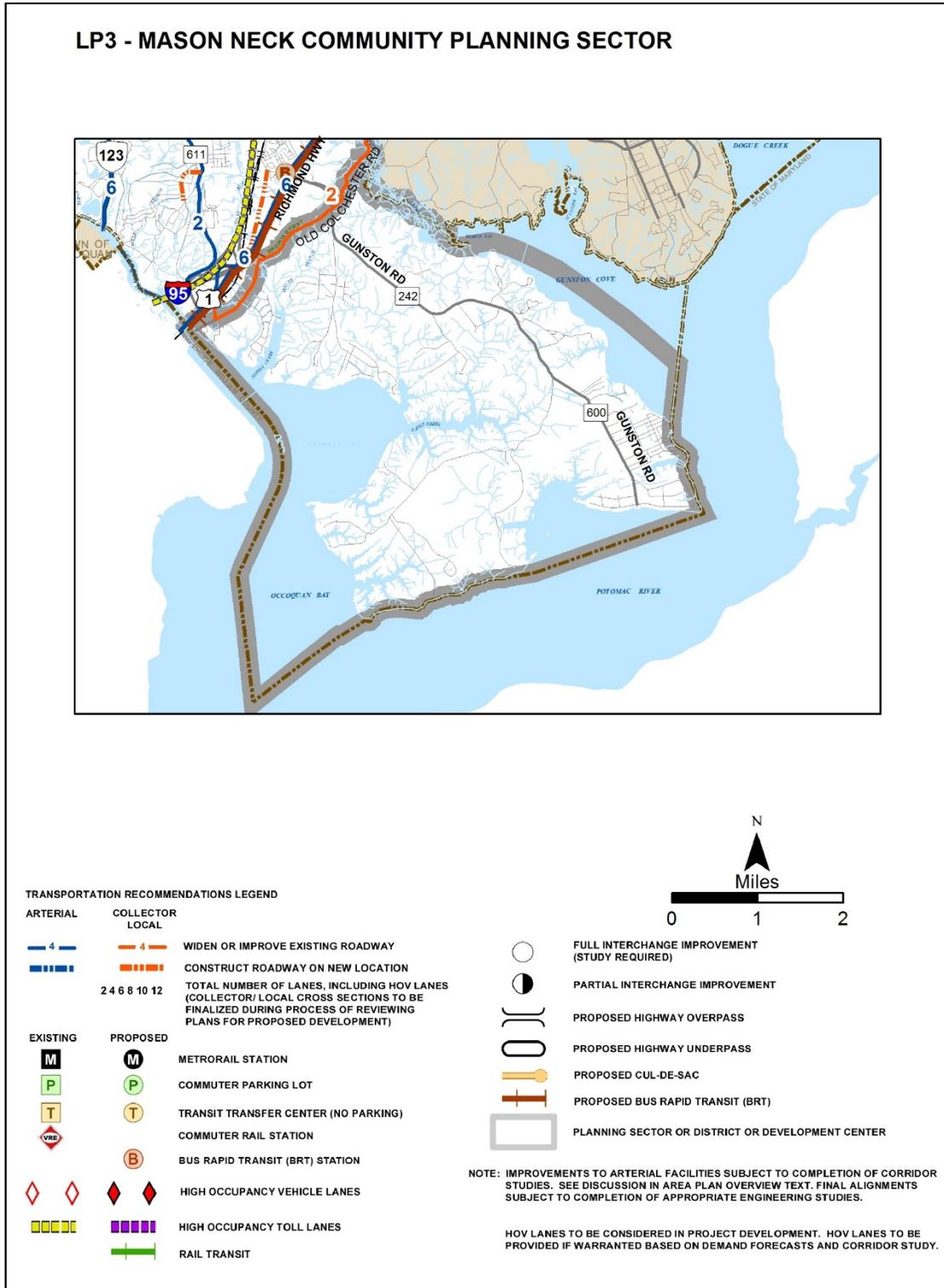
MODIFY: Fairfax County Comprehensive Plan, 2017 Edition, Area IV Volume, Lower Potomac Planning District, amended through 3-14-2017, LP2-Lorton South Route 1 Community Planning Sector, Figure 33, page 101:



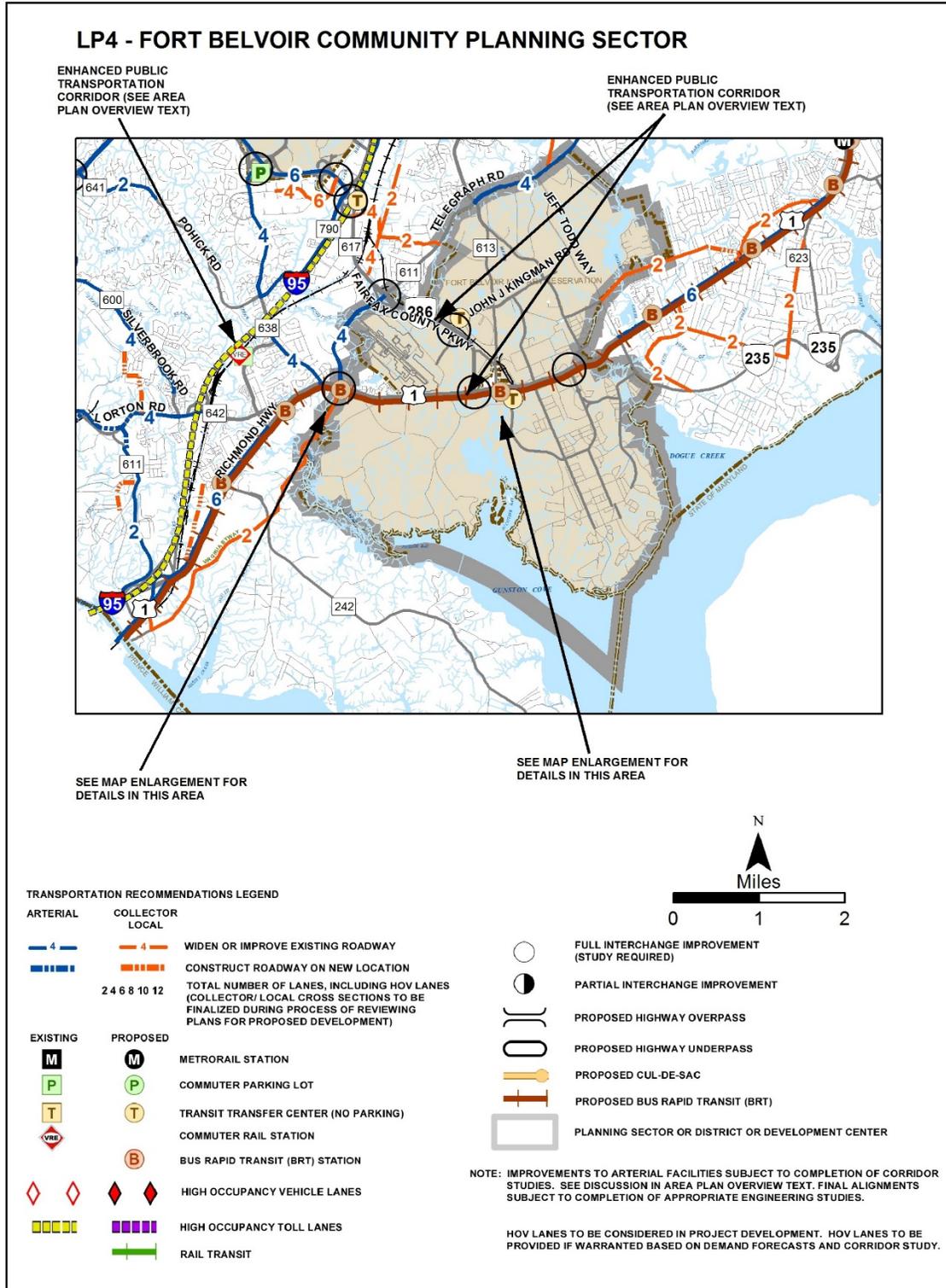
MODIFY: Fairfax County Comprehensive Plan, 2017 Edition, Area IV Volume, Lower Potomac Planning District, amended through 3-14-2017, LP2-Lorton South Route 1 Community Planning Sector, Figure 34, page 102:



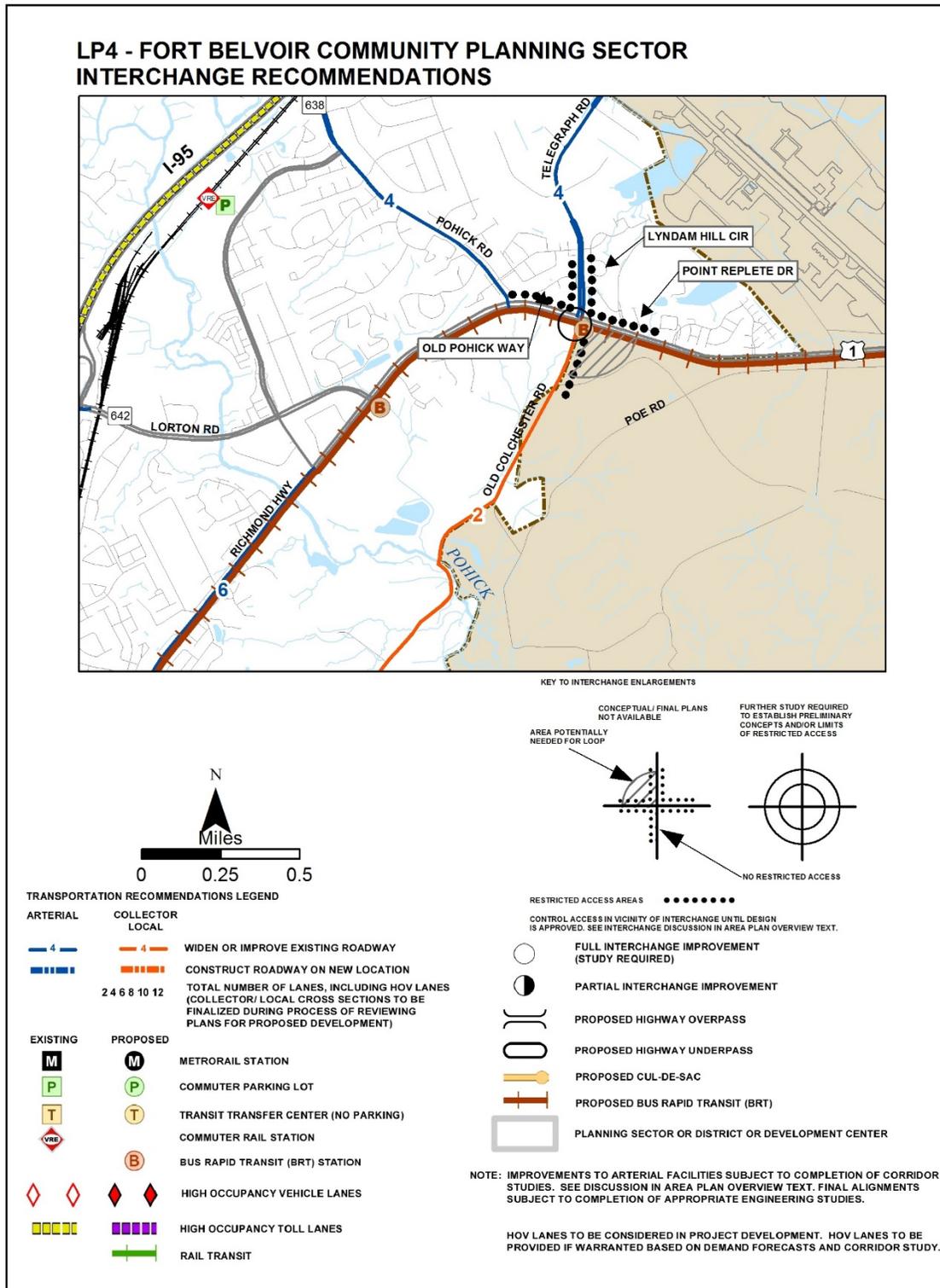
MODIFY: Fairfax County Comprehensive Plan, 2017 Edition, Area IV Volume, Lower Potomac Planning District, amended through 3-14-2017, LP3-Laurel Hill Community Planning Sector, Figure 37, page 112:



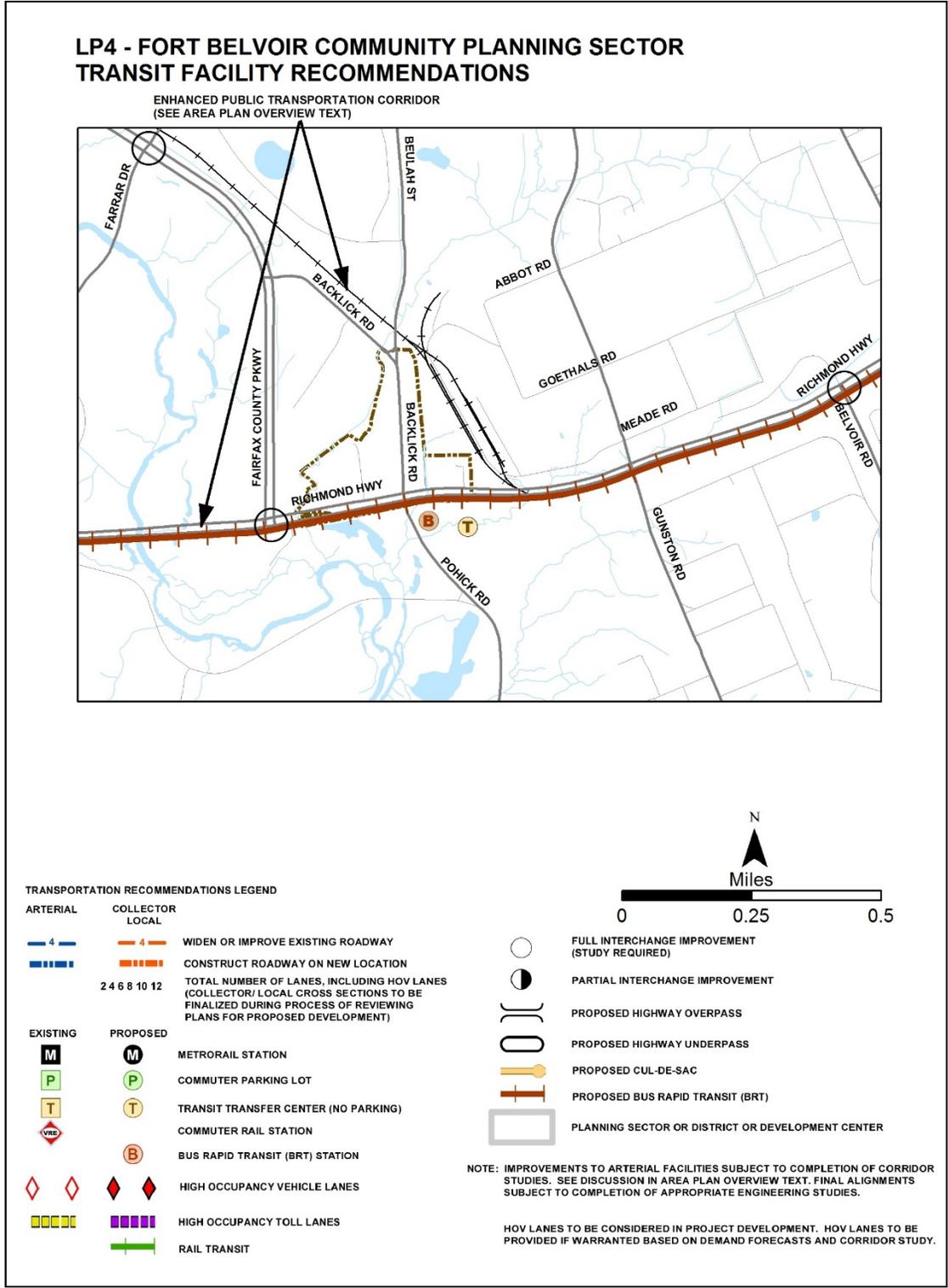
MODIFY: Fairfax County Comprehensive Plan, 2017 Edition, Area IV Volume, Lower Potomac Planning District, amended through 3-14-2017, LP4-Fort Belvoir Community Planning Sector, Figure 42, page 125:



MODIFY: Fairfax County Comprehensive Plan, 2017 Edition, Area IV Volume, Lower Potomac Planning District, amended through 3-14-2017, LP4-Fort Belvoir Community Planning Sector, Figure 43, page 126:



MODIFY: Fairfax County Comprehensive Plan, 2017 Edition, Area IV Volume, Lower Potomac Planning District, amended through 3-14-2017, LP4-Fort Belvoir Community Planning Sector, Figure 42, page 125:



(4) REVISIONS TO AREA IV, ROSE HILL PLANNING DISTRICT

REPLACE: Fairfax County Comprehensive Plan, 2017 Edition, Area IV Volume, Rose Hill Planning District, amended through 3-14- 2017, Overview, Figure 7, page 14:

“ROSE HILL PLANNING DISTRICT
EXISTING PUBLIC PARKS
(As of 11/22/2017)

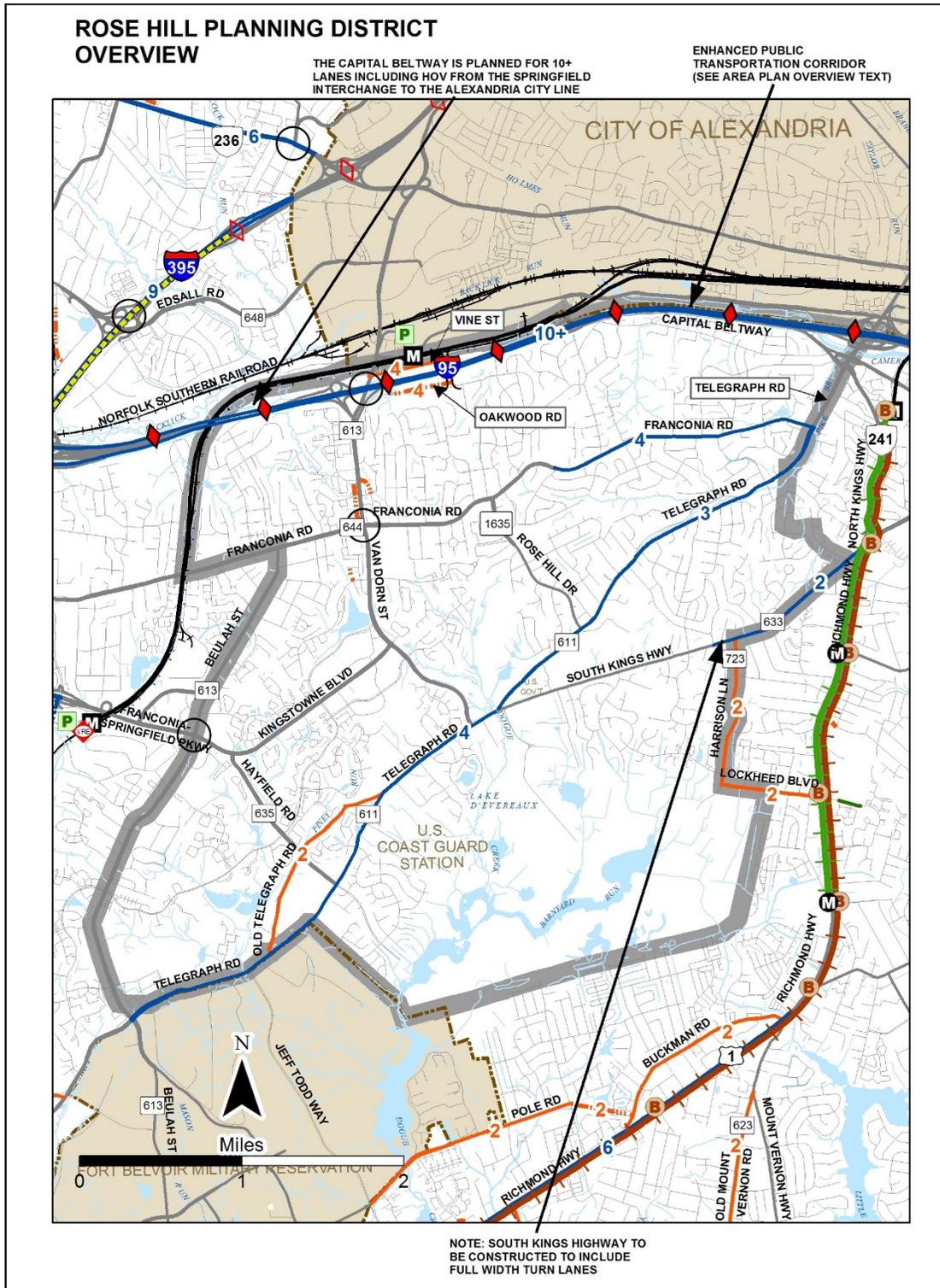
	LOCAL	DISTRICT	COUNTYWIDE	RESOURCE- BASED	REGIONAL
RH1	. Franconia Forest			. Indian Run Stream Valley	
RH2	. Bush Hill . Mark Twain				
RH3	. Burgundy . Clermont . Heritage Hill . Loftridge				
RH4	. Banks . Beulah . Kingstowne . Manchester Lakes . Tara Village	. Greendale Golf Course		. Dogue Creek Stream Valley	
RH5	. Ridgeview . Wilton Woods School Site				
RH6	. Virginia Hills School Site		. Lee District RECenter		
RH7	. Hayfield Park . South Kings Forest . Stoneybrooke . Wickford			. Historic Huntley . Huntley Meadows”	

MODIFY FIGURES:

Summary Table of Proposed Transportation Figure Modifications:

Page	Figure	Figure Title	Proposed Change
Rose Hill Planning District (as amended through March 14, 2017)			
4	2	Countywide Transportation Recommendations, Rose Hill Planning District, Overview	To reflect the completed portions of the Richmond Highway widening, show BRT and Metrorail, and update the legend.
52	23	RH3 – Burgundy Community Planning Sector, Transportation Recommendations	To show BRT and Metrorail, and update the legend.
79	31	RH5 – Wilton Woods Community Planning Sector, Transportation Recommendations	To reflect the completed portions of the Richmond Highway widening, show BRT and Metrorail, and update the legend.
86	34	RH 6 – Mount Comfort Community Planning Sector, Transportation Recommendations	To reflect the completed portions of the Richmond Highway widening, show BRT and Metrorail, and update the legend.
93	37	RH 7 – Huntley Meadows Community Planning Sector, Transportation Recommendations	To reflect the completed portions of the Richmond Highway widening, show BRT and Metrorail, and update the legend.

MODIFY: Fairfax County Comprehensive Plan, 2017 Edition, Area IV Volume, Rose Hill Planning District, amended through 3-14-2017, Overview, Figure 2, page 4:



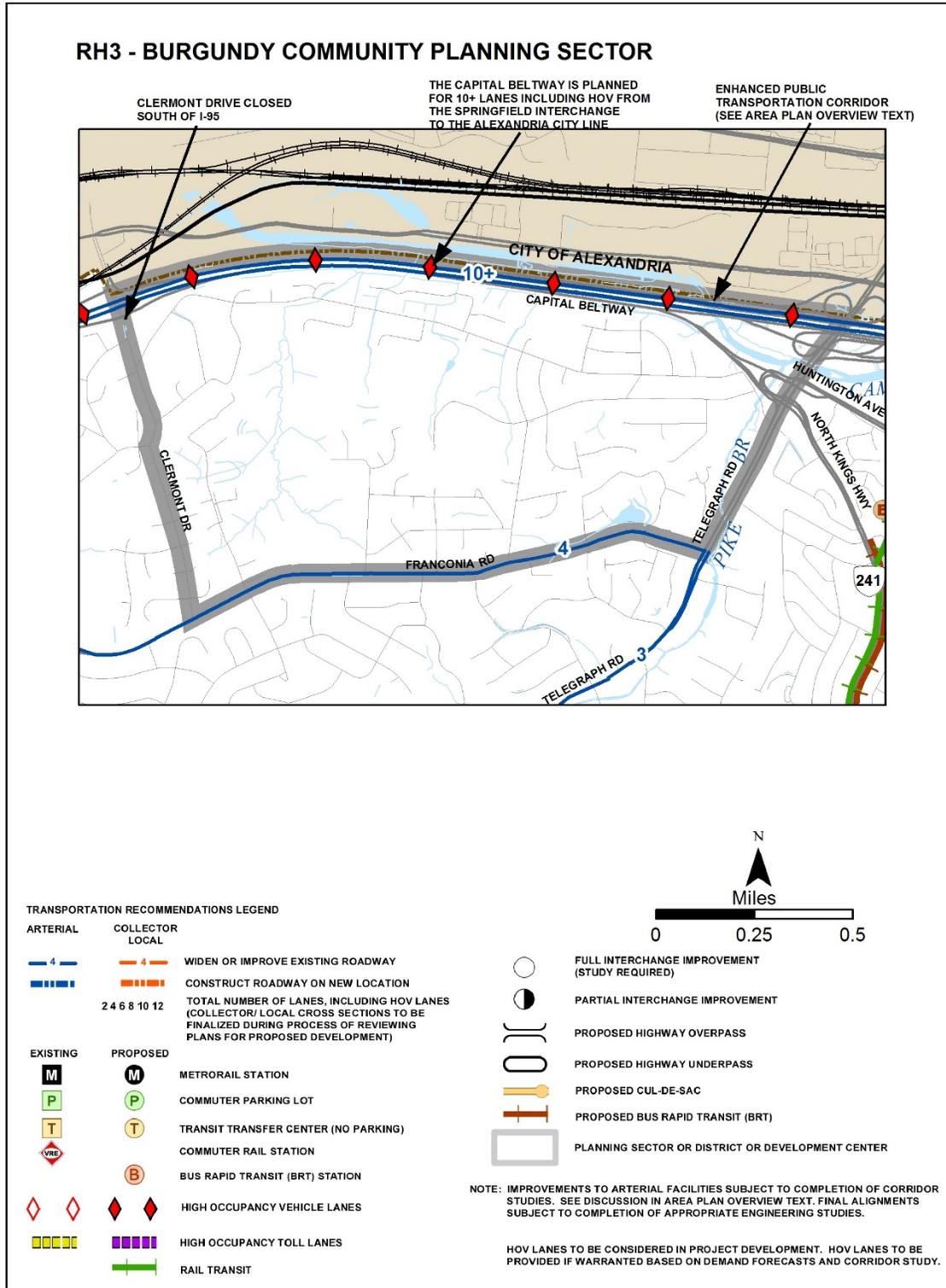
TRANSPORTATION RECOMMENDATIONS LEGEND

ARTERIAL	COLLECTOR LOCAL	
		WIDEN OR IMPROVE EXISTING ROADWAY
		CONSTRUCT ROADWAY ON NEW LOCATION
	2 4 6 8 10 12	TOTAL NUMBER OF LANES, INCLUDING HOV LANES (COLLECTOR/ LOCAL CROSS SECTIONS TO BE FINALIZED DURING PROCESS OF REVIEWING PLANS FOR PROPOSED DEVELOPMENT)
EXISTING	PROPOSED	
		METRORAIL STATION
		COMMUTER PARKING LOT
		TRANSIT TRANSFER CENTER (NO PARKING)
		COMMUTER RAIL STATION
		BUS RAPID TRANSIT (BRT) STATION
 	 	HIGH OCCUPANCY VEHICLE LANES
		HIGH OCCUPANCY TOLL LANES
		FULL INTERCHANGE IMPROVEMENT (STUDY REQUIRED)
		PARTIAL INTERCHANGE IMPROVEMENT
		PROPOSED HIGHWAY OVERPASS
		PROPOSED HIGHWAY UNDERPASS
		PROPOSED CUL-DE-SAC
		RAIL TRANSIT
		BUS RAPID TRANSIT (BRT)
		PLANNING SECTOR OR DISTRICT OR DEVELOPMENT CENTER

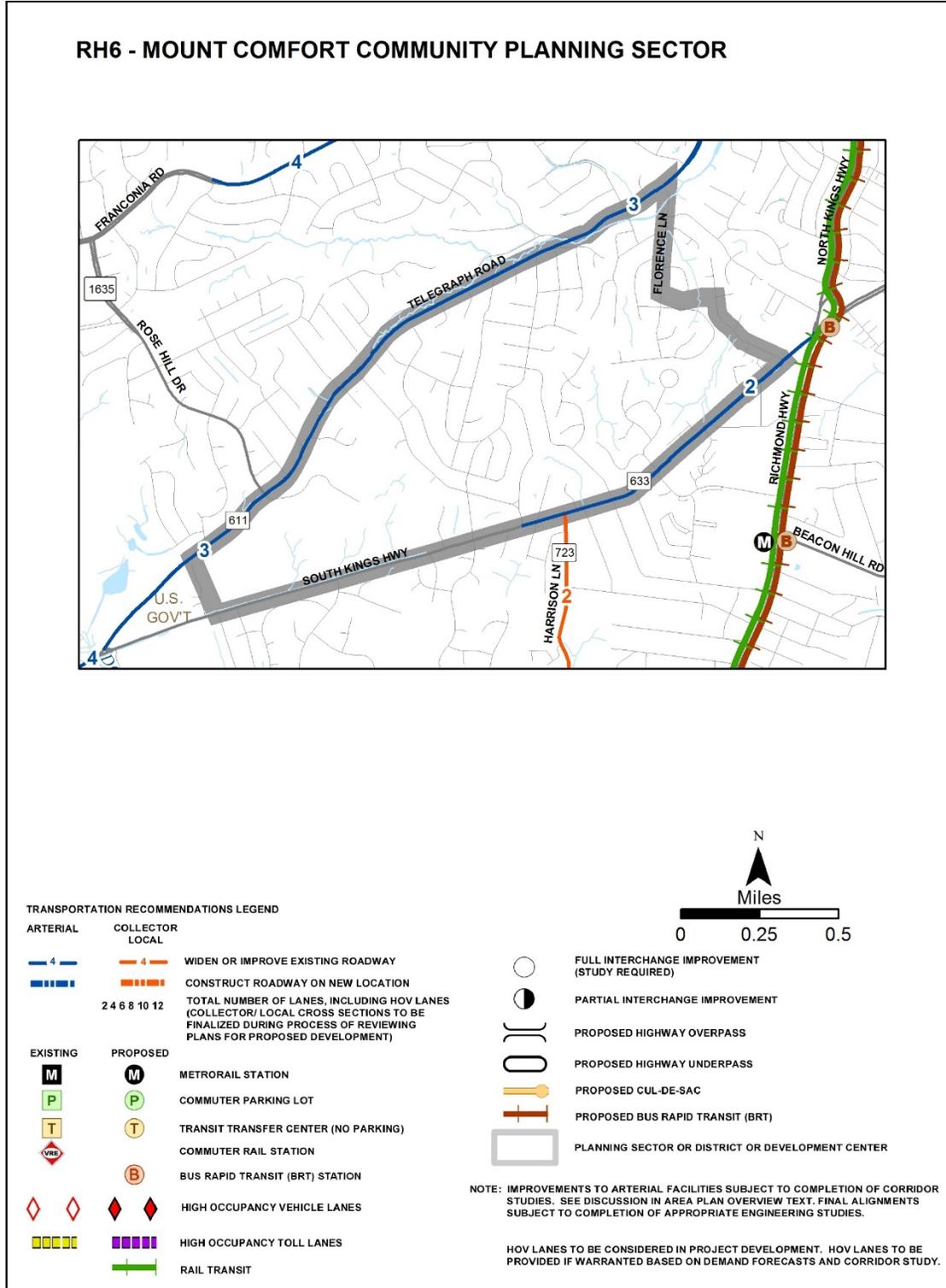
NOTE: IMPROVEMENTS TO ARTERIAL FACILITIES SUBJECT TO COMPLETION OF CORRIDOR STUDIES. SEE DISCUSSION IN AREA PLAN OVERVIEW TEXT. FINAL ALIGNMENTS SUBJECT TO COMPLETION OF APPROPRIATE ENGINEERING STUDIES.

HOV LANES TO BE CONSIDERED IN PROJECT DEVELOPMENT. HOV LANES TO BE PROVIDED IF WARRANTED BASED ON DEMAND FORECASTS AND CORRIDOR STUDY.

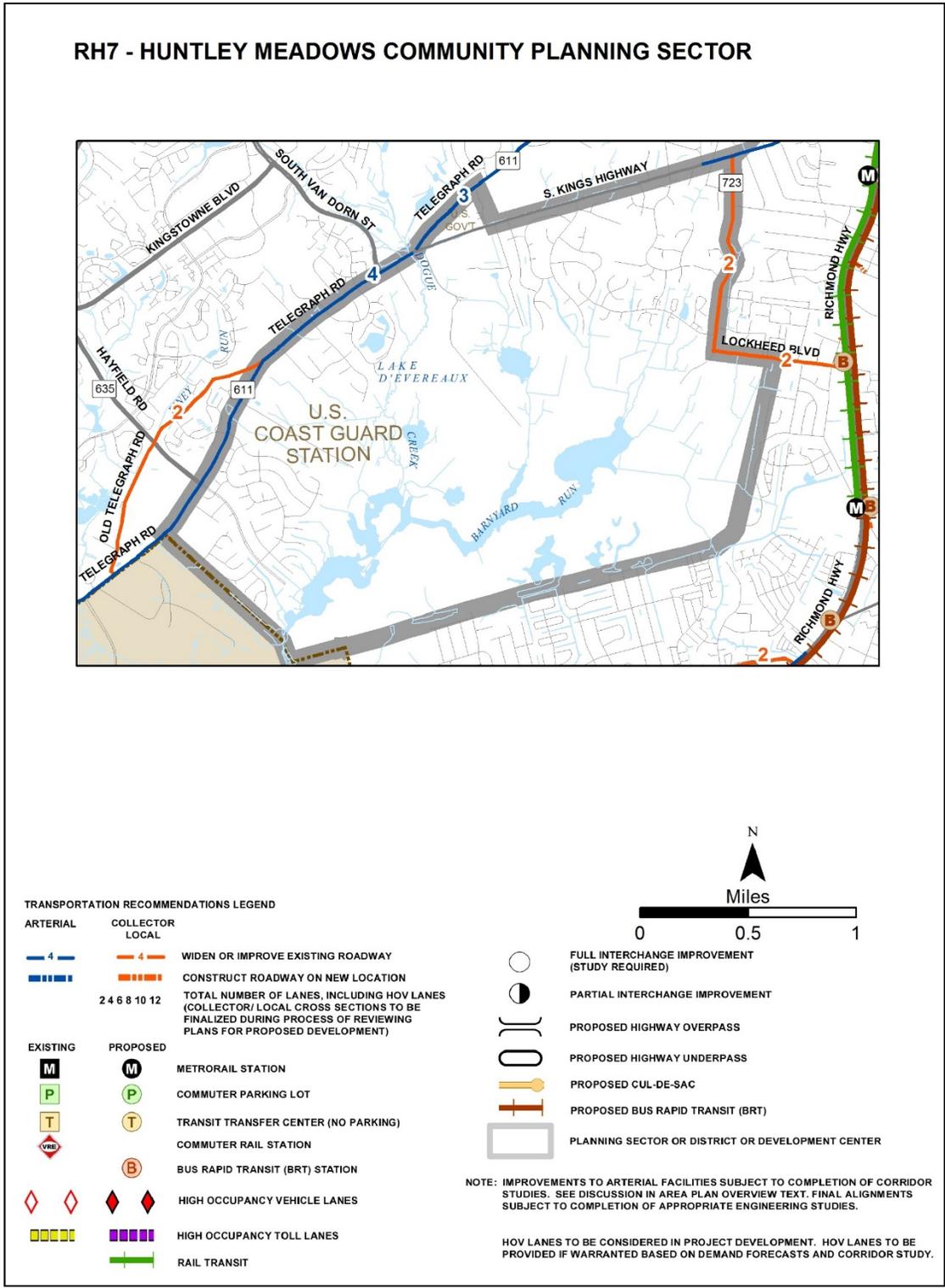
MODIFY: Fairfax County Comprehensive Plan, 2017 Edition, Area IV Volume, Rose Hill Planning District, amended through 3-14-2017, RH3-Burgundy Community Planning Sector, Figure 23, page 52:



MODIFY: Fairfax County Comprehensive Plan, 2017 Edition, Area IV Volume, Rose Hill Planning District, amended through 3-14-2017, RH6-Mount Comfort Community Planning Sector, Figure 34, page 86:



MODIFY: Fairfax County Comprehensive Plan, 2017 Edition, Area IV Volume, Rose Hill Planning District, amended through 3-14-2017, RH7-Huntley Meadows Community Planning Sector, Figure 37, page 93:



**(5) REVISIONS TO AREAS VOLUMES I, II, III, IV, OVERVIEW SECTIONS:
CONCEPT FOR FUTURE DEVELOPMENT**

MODIFY: Fairfax County Comprehensive Plan, 2017 Edition, Areas I, II, III, and IV, Area Plan Overview, as amended through March 14, 2017, Introduction, Concept for Future Development, Summary: Land Classification System, page 6:

“Community Business Centers:

Historically older community-serving commercial areas that emerged along major roadways, Community Business Centers (CBCs) are areas where redevelopment should encourage a mix of uses focused around a core area of higher intensity, such as a town center or main street in a pedestrian-oriented setting. Transitions in intensity and compatible land uses should protect surrounding stable residential neighborhoods.

- Appropriate revitalization and selected redevelopment advance the goal of sustaining the economic vitality in older commercial centers and adjacent neighborhoods. Revitalization efforts should also seek reinvestment in these communities and aim to foster a sense of place. There may be a particular need to address aging infrastructure.
- CBC’s should emphasize design that advances pedestrian amenities and circulation.
- ~~Given limited transportation infrastructure, a balance of retail, residential and office uses should optimize the~~ The generally older road networks should be optimized through a balance of retail, residential, and office uses supported by transit to that provide access to CBCs. Where appropriate, a mix of uses is encouraged to create a more vibrant environment throughout the day.”

(6) REVISIONS TO COMPREHENSIVE PLAN GLOSSARY

ADD: Fairfax County Comprehensive Plan, 2017 Edition, Glossary, as amended through March 14, 2017, page 2:

“**BUS RAPID TRANSIT:** A flexible, rubber-tired, rapid-transit mode that mostly operates in a dedicated right-of-way with at-grade intersections. Limited sections are in mixed traffic. BRT is an integrated system of facilities, services, and amenities that collectively improves the speed, reliability, and identify of bus transit. Distinguishing features may include:

- Distinctive and clearly designated stops/stations with unique passenger amenities at regularly spaced stations;
- Standard or extended sized buses with distinct appearance, high quality passenger comfort, low floor or high platform, and multiple doors for easy and fast boarding/alighting at stops/stations;
- Frequent service headways throughout the day;
- Off-board fare collection
- Well organized movement of buses along the line, including optimized signal timing and intersection treatments, dispatching at stops; and
- Passenger information controlled by various Intelligent Transportation Systems (ITS) measures to provide reliability.”

MODIFY: Fairfax County Comprehensive Plan, 2017 Edition, Glossary, as amended through March 14, 2017, page 15:

“**TRANSIT-ORIENTED DEVELOPMENT (TOD):** Transit-oriented development (TOD) in Fairfax County is defined as compact, pedestrian- and biking-friendly, mixed-use development containing medium to high density residential, office and retail uses within walking distance of certain rail and bus rapid transit stations identified in the Area Plans. Well-planned TOD should incorporate good design principles and an appropriate mix of uses to build a healthy, multi-generational community around rail transit stations to and promote transit usage and while ~~create~~ creating vibrant neighborhood centers at these locations. TOD should create a high quality public realm that includes attractive streetscape and a network of public spaces that integrate open and natural spaces within the built environments and work to conserve and protect natural resources.”

(7) REVISIONS TO POLICY PLAN, TRANSPORTATION ELEMENT

MODIFY: Fairfax County Comprehensive Plan, 2017 Edition, Policy Plan, Transportation Element, Appendix 2 Types of Transit Services and Facilities, as amended through March 14, 2017, page 26:

~~“Bus rapid transit (BRT) is a limited stop service developed in the 1990s that relies on technology to help speed up the service. It combines the quality of rail transit and the flexibility of buses. Bus Rapid Transit can operate on exclusive rights of way, within high occupancy vehicle (HOV) lanes, on expressways, or on ordinary streets. A BRT typically combines intelligent transportation system (ITS), technology applications, signal priority for transit, cleaner and quieter vehicles, rapid and convenient fare collection, and integration with land use policy. is a flexible, rubber-tired, rapid-transit mode that mostly operates in a dedicated right-of-way with at-grade intersections. Limited sections are in mixed traffic. BRT is an integrated system of facilities, services, and amenities that collectively improves the speed, reliability, and identify of bus transit. Distinguishing features may include:~~

- Distinctive and clearly designated stops/stations with unique passenger amenities at regularly spaced stations;
- Standard or extended sized buses with distinct appearance, high quality passenger comfort, low floor or high platform, and multiple doors for easy and fast boarding/alighting at stops/stations;
- Frequent service headways throughout the day;
- Off-board fare collection
- Well organized movement of buses along the line, including optimized signal timing and intersection treatments, dispatching at stops; and
- Passenger information controlled by various Intelligent Transportation Systems (ITS) measures to provide reliability.”

MODIFY: Fairfax County Comprehensive Plan, 2013 Edition, Policy Plan, Transportation Element, Appendix 4 Roadway Right-of-way Requirements, amended through March 14, 2017, page 35:

“Roads in Revitalization Areas

The right-of-way requirements outlined in the previous figures (Figure 5 and Figure 6) are generally applicable for improvements in a typical suburban setting. The county is comprised of diverse communities and development patterns, some of which have more urban features, higher land use densities, and more pedestrian activities and transit services. To preserve communities’ characteristics and support economic vitality, this Plan allows flexibility and variation in right-of-way requirements for the planned arterial improvements. The planning and design of individual roadways need to fit with the surrounding land use and community while enhancing mobility and safety for all road users.

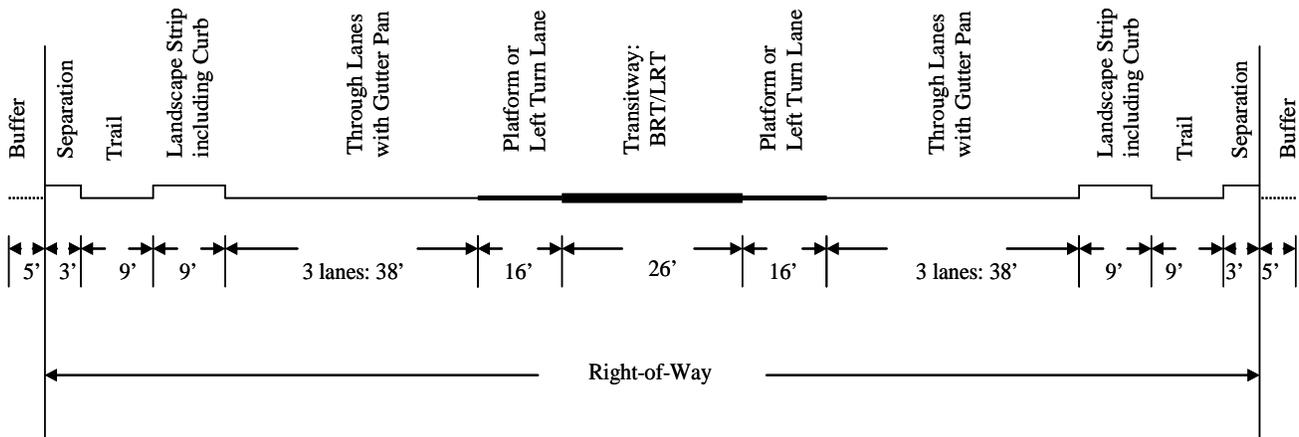
The county has designated several Revitalization Districts and Areas to encourage economic development in the older commercial and residential areas. Special incentives and policies are provided for these areas, such as flexibility within certain zoning regulations and urban design measures. The Plan emphasizes that road improvement policies within the Revitalization Districts and Areas be in concert with the adopted land use, urban design and economic and administrative policies formulated to foster a sense of place and to support successful revitalization. ~~Figure 7 serves as a guideline for such variation and flexibility.~~ It is important to

recognize that land use, transit, and travel patterns differ between these areas. Area Plans of the Comprehensive Plan provide specific guidelines for right-of-way requirements and cross sections in the Revitalization Districts and Areas.”

DELETE: Fairfax County Comprehensive Plan, 2013 Edition, Policy Plan, Transportation Element, Appendix 4 Roadway Right-of-way Requirements, amended through March 14, 2017, Figure 7, Richmond Highway Cross Section Including At-Grade Transitway in Center, page 35:

FIGURE 7

Richmond Highway Cross Section
Including At-Grade Transitway in Center
(Measurement in Feet)



(8) REVISIONS TO COMPREHENSIVE LAND USE PLAN MAP:

MODIFY: Fairfax County Comprehensive Land Use Plan Map, amended through June 21, 2016 to include Plan Amendment Number 2013-32:

- 1.) Tax Map Parcels 83-3((1))24 and 83-3((1))26F to be revised from planned for retail and other and residential use at 3-4 du/ac to public park.
- 2.) Modify transit station symbology to match the proposed Transportation Plan Map.

(9) REVISIONS TO COUNTYWIDE TRANSPORTATION PLAN MAP:

MODIFY: Fairfax County Transportation Plan Map, amended through June 21, 2016 to include Plan Amendment Number 2013-32:

- 1.) Bus Rapid Transit (BRT) map symbol created and added to reflect the potential BRT stations along North Kings Highway from the Huntington Metrorail station and along Richmond Highway from the Penn Daw area to the Occoquan River;
- 2.) BRT route alignment map symbol created and added to reflect the proposed BRT alignment along North Kings Highway from the Huntington Metrorail station and along Richmond Highway from the Penn Daw area to the Occoquan River;
- 3.) Existing and proposed rail stations on Richmond Highway changed to reflect either existing and proposed Metrorail stations;
- 4.) Added proposed Metrorail map symbols at Beacon/Groveton and Hybla Valley/Gum Springs;
- 5.) Removed generic rail station map symbols previously located on Richmond Highway

(10) REVISIONS TO COUNTYWIDE BICYCLE NETWORK PLAN MAP:

MODIFY: Fairfax County Bicycle Network Plan Map, as adopted by the Board of Supervisors, October 28, 2014:

- 1.) Modify designation of Richmond Highway generally from its intersection with North Kings Highway to Accotink Village from Policy Road to Bike Lane.

FOLLOW-ON RECOMMENDATIONS

Staff also recommends several follow-on efforts to be completed after the Plan adoption. These include a refined grid of streets transportation analysis; preparation of a more detailed urban design guidelines document to supplement the Plan guidance; an assessment and/or refinement of the trails identified within the Woodlawn area and Huntley Meadows; and a review of affordable

housing guidance using Richmond Highway as a pilot to suggest possible subsequent countywide Policy Plan amendments. Following the completion of these efforts, additional study should be undertaken to evaluate the effect of Metrorail on areas within one-half mile of the potential stations in the Beacon/Groveton and Hybla Valley/Gum Springs areas.