APR
Area Plans Review

# 2009-2010 South County Area Plans Review Staff Report

## Mount Vernon Supervisor District

Planning Commission Public Hearing
For VDOT 527 Review Items
APR 09-IV-1MV and 09-IV-15MV

November 14, 2013
8:15 PM

Board Auditorium
Fairfax County Government Center
12000 Government Center Parkway
Fairfax, Virginia 22035

This document contains the Staff Report for the 2009-2010 South County APR nominations 09-IV-1MV and 09-IV-15MV, which was subject to Virginia Department of Transportation review of transportation impacts. The nomination is scheduled for Planning Commission Public Hearing on November 14, 2013.

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# STAFF REPORT
# 2009-2010 SOUTH COUNTY AREA PLANS REVIEW

**SUPERVISOR DISTRICT:** MOUNT VERNON **APR ITEM(s):** 09-IV-1MV
09-IV-15MV

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|---|---|
| **NOMINATOR:** | **09-IV-1MV (1MV)**: Patrick Rea, Mount Vernon Council of Civic Associations (MVCCA)<br>**09-IV-15MV (15MV)**: Patrick Rea, MVCCA |
| **ACREAGE:** | **1MV**: 15.3 Acres<br>**15MV**: 2.52 Acres |
| **TAX MAP I.D.:** | **1MV**: 83-2((1))2A,2B,2C, 83-4((1))1<br>**15MV**: 83-3 ((1))67A,69,69A,70, 83-4((1))2 |
| **GENERAL LOCATION:** | **1MV**: North of Richmond Highway, east of Cameron Run Terrace.<br>**15MV**: South of Old Richmond Highway, north of Richmond Highway. |
| **PLANNING AREA:** | IV |
| **District:** | Mount Vernon |
| **Sector:** | Richmond Highway Corridor Area |
| **Special Areas:** | **1MV**: North Gateway Community Business Center (CBC) Sub-unit A-1<br>**15MV**: North Gateway CBC Sub-unit A-2 |
| **ADOPTED PLAN MAP:** | **1MV**: Alternative uses<br>**15MV**: Retail and other |
| **ADOPTED PLAN TEXT:** | **1MV**: Sub-unit A-1 – Retail, office and/or residential uses up to an intensity of .50 Floor Area Ratio (FAR). Option for mixed-use development up to an intensity of 1.0 FAR provided specific conditions are met. Alternative option for high rise residential use at a density up to 30 dwelling units per acre (du/ac) with substantial parcel consolidation and other conditions.<br><br>**15MV**: Sub-unit A-2 – Consolidation of all parcels and redevelopment with neighborhood serving retail use up to an intensity of .25 FAR. Option for full consolidation with Sub-unit A-1 in a unified mixed-use development up to an intensity of 1.0 FAR. |

**NOMINATED PLAN AMENDMENT:** **1MV**: Sub-unit A-1 – Option for mixed-use office (999,232 square feet), hotel (266,462 sf) and retail (66,615 sf) development up to an intensity of 2.0 FAR provided that specific conditions are met.

**15MV**: Sub-unit A-2 – Consolidate with Sub-unit A-1 in a unified mixed use office (197,620 sf), restaurant and retail (21,957 sf) development up to an intensity of 2.0 FAR provided that specific conditions are met.

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**SUMMARY OF STAFF RECOMMENDATION:**
___Approve Nomination As Submitted
_X_Approve Staff Alternative
___ Retain Adopted Plan

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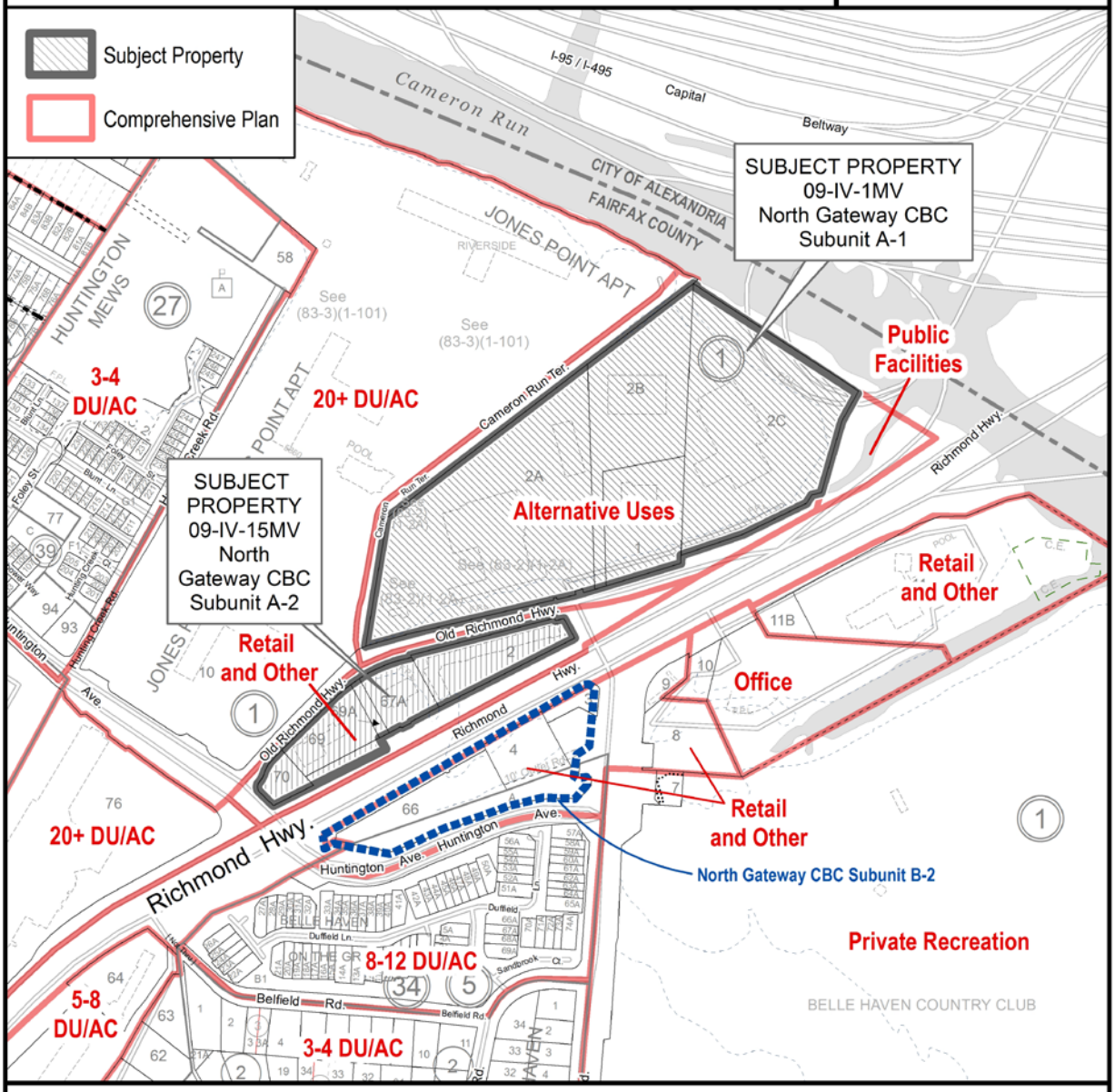
Staff proposes an alternative option for mixed-use redevelopment to include residential, office, hotel, and retail uses at an overall intensity up to 1.65 FAR. Redevelopment would be predicated on a unified development plan with logical consolidation that provides the extension of Fort Hunt Road to Cameron Run Terrace in the initial phase. Staff believes that residential use should be part of any mixed-use development proposal for Sub-units A-1 and A-2. Residential uses would balance peak hour vehicle trips created by the proposed office, hotel and retail components of the site.

**CURRENT PLAN AND NOMINATED PLAN CHANGE**
PARCEL LOCATION MAP SHOWING CURRENT PLAN AND PROPOSED CHANGE FOR SUBJECT PROPERTIES AND CURRENT PLAN MAP FOR ADJACENT AREAS

**2009-2010 SOUTH COUNTY APR #**
**09-IV-1MV, 15MV**
October 31, 2013




**Subject Property Current Plan**: 09-IV-1MV - Subunit A-1 - Retail, office or residential uses up to an intensity of .50 FAR. Option for mixed-use development up to an intensity of 1.0 FAR with conditions. Alternative option for high-rise residential use at a density up to 30 du/ac with conditions. 09-IV-15MV - Subunit A-2 - Consolidation of all parcels, neighborhood serving retail use at an intensity up to .25 FAR. Option for full consolidation with Subunit A-1 in unified mixed-use development at an intensity up to 1.0 FAR with conditions.

Nominated Plan: 09-IV-1MV and 09-IV-15MV – Option for consolidation of Subunits A-1 and A-2 in a unified mixed-use development to include office, hotel uses and retail uses at an intensity up to 2.0 FAR with conditions.

**400 FEET**

PREPARED BY THE DEPARTMENT OF PLANNING AND ZONING USING FAIRFAX COUNTY GIS
PARCEL INFORMATION CURRENT TO OCTOBER 2013

## CONTEXT

### General Location:

2009-2010 South County Area Plans Review (APR) nominations 09-IV-1MV (item 1MV) and 09-15-MV (item 15MV) are within a portion of the North Gateway CBC, along the northwest side of Richmond Highway and the northeast side of Huntington Avenue. The North Gateway CBC is an entry point to Fairfax County from points north including Washington, D.C., the City of Alexandria and the Capital Beltway (I-495).

### Existing and Planned Land Use and Zoning:

***Subject Properties:***

1MV
The subject area for item 1MV contains two auto dealerships, a restaurant, and mid-rise office uses. The area is planned for retail, office, and/or residential uses up to an intensity of .50 FAR, with an option for mixed-use development up to an intensity of 1.0 FAR provided specific conditions are met. These conditions include providing a unified mixed-use development and consolidation of Sub-unit A-1 with Sub-unit A-2. In addition, there is an alternative option for high rise residential use at a density up to 30 du/ac with substantial parcel consolidation and other conditions. The subject area is zoned C-8.

15MV
The subject area for item 15MV contains a bank, motel, neighborhood-serving commercial uses, low-rise office uses, and a vacant building. The site is planned for neighborhood-serving retail use up to an intensity of .25 FAR with consolidation of all parcels. An option for full consolidation with Sub-unit A-1 in a unified mixed-use development up to an intensity of 1.0 FAR is also provided. The subject area is zoned C-8.

***Adjacent Area:***

1MV
**North:** Cameron Run borders the subject area to the north.
**East:** To the east across Richmond Highway are office and other commercial uses in Sub-unit B-1 of the CBC, which is planned for hotel use up to an intensity of .60 FAR, office use up to .50 FAR and neighborhood-serving retail use up to an intensity of .25 FAR, and zoned C-8.
**South:** To the south are office and other commercial uses in Sub-unit A-2 of the CBC, which is planned for neighborhood-serving retail use up to an intensity of .25 FAR with an option for a unified mixed-use development if Sub-units A-1 and A-2 are consolidated, and zoned C-8.
**West:** To the west are the Riverside Park Apartments, planned for mid-rise and high-rise residential uses with a mix of first floor retail, restaurant, and/or office uses at a density of 61 du/ac and overall intensity of 1.6 FAR and zoned R-30.

15MV
**North and West:** Office and other commercial uses in Sub-unit A-1 are located to the north and planned for retail, office, and/or residential uses up to an intensity of .50 FAR and zoned C-8. The Riverside Park high-rise residential development located in Sub-unit A-3 is planned for residential use at a density of 61 du/ac and overall intensity of 1.6 FAR, and zoned R-30.
**East:** Commercial uses are located to the east in Sub-unit B-2 across Richmond Highway, planned for community-serving retail use up to an intensity of .35 FAR. The Plan also recommends an option for Sub-unit B2 at an intensity up to 1.0 FAR if included in a unified development plan with Sub-units A1 and A2 for mixed-used redevelopment, the sub-unit is preserved in its entirety as an open space area and the development potential is transferred to Sub-units A1 and A2. The Sub-unit is zoned C-8.
**South and West:** To the south in Land Unit R of the Huntington Transit Station Area are the Hunting Creek Condominiums planned for residential use at a density of 16-20 du/ac and the Montebello high-rise residential community planned for residential use at a density of 40 du/ac, and zoned R-30 and PDH-40 respectively.

## ADOPTED COMPREHENSIVE PLAN TEXT

Fairfax County Comprehensive Plan, 2013 Edition, Area IV, Mount Vernon Planning District, as amended through 4-9-2013, Richmond Highway Corridor Area, pages 33-34:

"**Sub-unit A-1**
The area along the west side of Richmond Highway between the Capital Beltway and Old Richmond Highway is planned for retail, office and/or residential uses up to .50 FAR. As an option, mixed-use development up to 1.0 FAR may be appropriate if the following conditions are met:

- A mix of uses, which may include office, retail and residential, is provided;
- Substantial and logical parcel consolidation is achieved;
- Pedestrian and vehicular connections are provided;
- Project design and layout provide a high quality development;
- The traffic impact of the proposed development is thoroughly analyzed and mitigated so that Huntington Avenue and Richmond Highway adjacent to the site will operate at levels of service no less than Level of Service D;
- An efficient internal vehicular circulation system is provided. Access points are consolidated, and placed away from existing intersections and operate at levels of service no less than Level of Service D;
- Adequate right-of-way is provided for the adjacent intersection improvements and road widening;
- A pedestrian circulation system which encourages pedestrian traffic within the development, to adjacent developments and to the Huntington Metro Station is provided;
- Adequate measures to mitigate against environmental impact should be provided. The related floodplain and wetland areas should be protected in accordance with Plan objectives, as well as, other applicable guidelines and regulations; and

- Urban design elements, such as public art, pedestrian plazas, cultural/recreation facilities, landscaped open space, streetscaping, landmarks or building designs which will denote this area as a focal point of the North Gateway Community Business Center are included. The urban design recommendations found at the end of this Plan should be used as a guide.

As an alternative option, future redevelopment of Sub-unit A-1 northwest of Old Richmond Highway for residential use up to 30 dwelling units per acre to be compatible with the surrounding high-rise residential uses may be appropriate. Substantial parcel consolidation, minimization of access points, provision of an efficient internal circulation pattern and mitigation of environmental and transportation impacts are required. See land use recommendations for Sub-units A-2 and B-2 for additional options.

**Sub-unit A-2**
The redevelopment of the "island" formed by Richmond Highway and Old Richmond Highway 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.

As an option, if Sub-unit A-2 is fully 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 up to 1.0 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 and access should be provided from Richmond Highway."

**NOMINATED PLAN AMENDMENTS**
The nominations propose an option for nonresidential mixed-use development including office, hotel and retail uses up to an intensity of 2.0 FAR provided that specific conditions are met, such as full consolidation of Sub-units A-1 and A-2 of the CBC, Old Richmond Highway is vacated, and the residual land area created by the vacation is incorporated into the subject area. The nomination also proposes removing the option for redevelopment of Sub-unit A-1 for residential use at a density up to 30 du/ac. The following proposed Comprehensive Plan language was submitted as part of the nominations.

<u>1MV:</u>

Fairfax County Comprehensive Plan, 2013 Edition, Area IV, Mount Vernon Planning District, as amended through 4-9-2013, Richmond Highway Corridor Area, page 33:

**MODIFY:** "<u>Interim land uses for the land units at North Gateway CBC are not appropriate because they may delay achievement of the overall redevelopment goals.</u>

<u>Except where specifically excluded for North Gateway CBC, in cases where desired consolidation with other parcels is not feasible, consider interim land uses</u>

which result in significant public benefits, improvements in circulation or access, parking, landscaping, site design or building design and that provide public benefits which outweigh any adverse effects of the change in use.

**Sub-unit A-1**

The area along the west side of Richmond Highway between the Capital Beltway and Old Richmond Highway is planned for retail, hotel and office ~~and/or residential~~ uses up to .50 FAR. As an option, mixed office, full service hotel and ground level retail uses developed up to 2.0 FAR ~~-use development up to 1.0 FAR~~ may be appropriate if the following conditions are met:

The 2.0 FAR option may be appropriate in the event that Huntington Avenue and Richmond Highway adjacent to the site can be proven to operate at levels of service acceptable to the Virginia Department of Transportation and the County.

- A mix of uses, which may include a full service hotel, visitor center, office, table service restaurants and retail ~~and residential,~~ is provided;
- Substantial and logical parcel consolidation is achieved with Sub-units A-1 and A-2;
- Compatible ~~P~~pedestrian, bicycle and vehicular connections are provided;
- A pedestrian circulation system which encourages pedestrian and bicycle traffic within the development, to adjacent developments and to the Huntington Metro Station is provided;
- Project design and layout provide a high quality development;
- The traffic impact of the proposed development is thoroughly analyzed and mitigated so that Huntington Avenue and Richmond Highway adjacent to the site will operate at levels of service no less than Level of Service D;
- An efficient internal vehicular circulation system is provided;
- Access points are consolidated, and placed away from existing intersections and operate at levels of service no less than Level of Service D;
- A Transportation Demand Management (TDM) including such options as shuttle bus service, vanpools, metro rail subsidies, secured bicycle parking areas, and/or carpool matching services should be implemented;
- Adequate right-of-way is provided for the adjacent intersection improvements and road widenings;
- ~~A pedestrian circulation system which encourages pedestrian traffic within the development, to adjacent developments and to the Huntington Metro Station is provided;~~
- Adequate measures to mitigate against environmental impact should be provided. The related floodplain and wetland areas should be protected in accordance with Plan objectives, as well as, other applicable guidelines and regulations; ~~and~~

- Construction of the portion of the Huntington Trail along Cameron Run that borders this section of the property to match up with the section to be built at A-3;
- Restoration of the resource protection area (RPA) along Cameron Run associated with this sub-unit;
- Urban design elements, such as public art, pedestrian plazas, cultural/recreation facilities, landscaped open space, and streetscaping~~,~~;
- Pedestrian biking/walking paths that connect through the site, to the Huntington Trail and to the Huntington Metro, and;
- ~~l~~Landmarks or building designs which will denote this area as a focal point of the North Gateway Community Business Center are included. The urban design recommendations found at the end of this Plan should be used as a guide~~.;~~
- LEED silver or higher certification should be encouraged.

~~As an alternative option, future redevelopment of Sub-unit A-1 northwest of Old Richmond Highway for residential use up to 30 dwelling units per acre to be compatible with the surrounding high-rise residential uses may be appropriate. Substantial parcel consolidation, minimization of access points, provision of an efficient internal circulation pattern and mitigation of environmental and transportation impacts are required. See land use recommendations for Sub-units A-2 and B-2 for additional options.~~

- See land use recommendations for Sub-unit A-2 for additional options/uses."

15MV:

Fairfax County Comprehensive Plan, 2013 Edition, Area IV, Mount Vernon Planning District, as amended through 4-9-2013, Richmond Highway Corridor Area, pages 33-34:

**MODIFY:** "Interim land uses for the land units at North Gateway CBC are not appropriate because they may delay achievement of the overall redevelopment goals.

Except where specifically excluded for North Gateway CBC, in cases where desired consolidation with other parcels is not feasible, consider interim land uses which result in significant public benefits, improvements in circulation or access, parking, landscaping, site design or building design and that provide public benefits which outweigh any adverse effects of the change in use.

**Sub-unit A-2**

The redevelopment of the "island" formed by Richmond Highway and Old Richmond Highway 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~~, with the Old Mount Vernon Highway being vacated and access provided off of Huntington Avenue.

As an option, if Sub-unit A-2 is ~~fully~~ substantially consolidated and included in a unified mixed~~use~~ office, hotel, table service dining and retail development plan with Sub-unit A-1, then the combined total FAR of both Sub-unit A-1 and Sub-Unit A-2 can obtain an FAR of 2.0. ~~A-2 may be appropriate for mixed-use development up to 1.0 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~~ office, hotel, dining and retail development, Old Richmond Highway should be vacated and access to this consolidated development should be provided from ~~Richmond Highway~~ Huntington Avenue."

## ANALYSIS

### Land Use

The Comprehensive Plan notes the North Gateway CBC is an important entry point to historic Richmond Highway from points north, providing an initial impression for Fairfax County to visitors and residents. The proposed nominations could provide an incentive to redevelop these areas with higher quality development than the existing commercial and office developments and to include urban design features that would improve the area's appearance as a visible gateway into Fairfax County. An increased intensity above what the Plan currently recommends may help incentivize redevelopment in an area well-served by transit and the transportation network. However, factors such as transportation impact and land use mix will influence the recommended intensity.

The adopted Plan includes guidance that Sub-unit B-2 may achieve an intensity of 1.0 FAR with full consolidation of the sub-unit with Sub-units A-1 and A-2, if the intensity of 1.0 FAR is transferred to Sub-units A-1 and A-2 as part of a unified development plan, and that Sub-unit B-2 is preserved as open space. This option will remain in the Plan as changes to Sub-unit B-2 are not within the scope of these APR items.

The nominations propose to remove residential use from the mixture of uses, which would limit future redevelopment options. A fully residential redevelopment scenario as recommended under the current Plan may present a similar challenge. Residential use, if sited and designed properly in a mixed-use concept, may produce a more vibrant and sustainable environment than limiting development to individual uses.

Finally, the nominations propose to add language that states "interim uses are not appropriate for the subject area because they may delay overall redevelopment goals" and "except where specifically excluded for North Gateway CBC, in cases where desired consolidation with other parcels is not feasible, consider interim land uses which result in significant public benefits, improvements in circulation or access, parking, landscaping, site design or building design and that provide public benefits which outweigh any adverse effects of the change in use."

Although the goal to encourage consolidation is understood, the text would limit flexibility in the North Gateway CBC to an extent not present in other CBC's, as one of the adopted Planning Objectives for Richmond Highway recognizes that interim uses may be of value. To ensure that interim uses do not thwart goals such as revitalization, "Guidelines for Interim Improvement of Commercial Establishments," found in Appendix 6 of the Land Use section of the Policy Plan volume of the Comprehensive Plan provides guidance that interim use proposals should provide public benefits, such as circulation or access, parking, landscaping, site design or building design; and that the use should not delay or interfere with the achievement of the long-range objectives of the Comprehensive Plan. In view of this existing policy, staff believes the issue is appropriately addressed and additional restrictions may unintentionally limit desirable development opportunities.

On April 10, 2010, the Mount Vernon APR Task Force (the Task Force) voted to support an alternative to the nominations by recommending that the adopted Plan baseline and optional recommendations for mixed-use development at intensities of .50 FAR and 1.0 FAR respectively, be retained for Tax Map Parcel 83-2((1))2A of Sub-unit A-1. The nominated change for office, hotel and retail mixed-use development on the remainder of Sub-unit A-1 and Sub-unit A-2 was supported. This land use scenario results in an overall intensity of approximately 1.65 FAR on Sub-units A1 and A2. The purpose of the Task Force alternative was to include a residential component in redevelopment of the Sub-units. The development potential of both scenarios is shown in Table 1. Both the Task Force recommendation and the original nominations were assessed for parks, schools and revitalization impacts. Transportation analyses were conducted for the Task Force alternative only (the Fairfax County Department of Transportation comments and Virginia Department of Transportation Chapter 870 Review letter are included in the Appendix). The impacts to these issue areas are described in the following sections.

**TABLE 1: Current and Proposed Plan Development Potential**

| APR Nomination | Current Plan Base (.50 FAR) | Current Plan Option 1 (1.0 FAR) | Task Force Recommendation (2.0 FAR on 11.57 AC and 1.0 FAR on 6.24 AC) | Original Nomination (2.0 FAR on 17.8 AC) |
|---|---|---|---|---|
| 09-IV-1MV (9.05 ac) | Residential: 39 mf du<br>Office: 147,832 sf<br>Retail: 9,855 sf | Residential: 79 mf du<br>Office: 295,664 sf<br>Retail: 19,711 sf | Office: 591,327 sf<br>Retail: 39,422 sf<br>Hotel: 157,687 sf | Office: 999,232 sf<br>Retail: 66,615 sf<br>Hotel: 266,462 sf |
| 09-IV-15MV (2.52 ac) | Retail: 1,372 sf | Residential: 22 mf du<br>Office: 82,328 sf<br>Retail: 5,489 sf | Office: 197,588 sf<br>Retail: 21,954 sf | Office: 197,620 sf<br>Retail: 21,957 sf |
| TM 83-2((1))2A (6.24 ac) | Residential: 27 mf du<br>Office: 101,930<br>Retail: 6,795 | Residential: 54 mf du<br>Office: 203,861<br>Retail: 13,591 | Residential: 245 mf du<br>Retail: 27,181 | — |
| **Total** | **Residential: 67 mf du**<br>**Office: 249,762 sf**<br>**Retail: 18,023 sf** | **Resident: 155 mf du**<br>**Office: 581,853 sf**<br>**Retail: 38,791 sf** | **Residential: 245**<br>**Office: 788,915 sf**<br>**Retail: 88,557 sf**<br>**Hotel: 157,687 sf** | **Office: 1,196,852 sf**<br>**Retail: 88,572 sf**<br>**Hotel: 266,462 sf** |

## Parks

The integration of connected, publicly accessible urban parks in the overall development design of a high density mixed-use environment could enhance the desirability of the project, contribute to revitalization efforts, and activate the area by providing leisure opportunities for residents,

employees, shoppers and hotel guests. The provision of indoor recreation facilities for residents and hotel guests would also be appropriate. The nominations proposed non-residential uses that generate parks needs at a rate of 1 acre per 10,000 employees. The Task Force recommendation reintroduces residential uses into the mixture of uses and the 245 dwelling units proposed would generate 0.65 acres of park land needed (at a rate of 1.5 acres per 1,000 residents) in addition to park land needed by non-residential uses. The addition of residential uses could also alter the character of urban park spaces. Tot lots, playgrounds, dog walking areas, grilling and picnic areas would be needed in addition to plazas and outdoor seating areas for workers.

If the nominations or Task Force alternative are recommended for approval, the following conditions should be applied:

- The impact on parks and recreation should be mitigated per county policies contained in Objective 6 of the Parks and Recreation section of the Policy Plan;
- Integrate well-designed, publicly accessible park spaces to enhance the recreational options and sense of place for mixed-use developments;
- Assure inclusion of Comprehensive Plan language supporting pedestrian connectivity and creation of usable open spaces such as pocket parks, plazas, common greens and recreation-focused urban parks;
- Include references to Appendix 2 of the Parks and Recreation section of the Policy Plan;
- Assure inclusion of Comprehensive Plan language requiring construction of the trail along Cameron Run associated with Sub-unit A-1 as well as all Comprehensive Plan trails;
- Assure inclusion of Comprehensive Plan language requiring restoration of the Resource Protection Area along Cameron Run associated with Sub-unit A-1;
- Provide Comprehensive Plan language for the construction of the on-road bicycle lane on Route 1; and
- Include Plan language supporting the provision of all year active recreation facilities for employees and hotel guests.

**Revitalization**

The North Gateway CBC is within the Richmond Highway Commercial Revitalization District (CRD). Countywide, CRDs are targeted for special business and development incentives designed to revitalize the county's older commercial areas. High quality redevelopment is desirable; however, the removal of the residential use from the recommended uses for items 1MV and 15MV may hinder the achievement of revitalization goals. As market conditions are subject to economic fluctuations, permitting residential use in a mixed use project could provide needed flexibility to achieve revitalization goals.

## Schools

APR items 1MV and 15MV fall within the boundaries of Cameron Elementary School, Twain Middle School, and Edison High School. The capacity and projected enrollments for these schools is shown in the chart below. Student enrollment projections are done on a six year timeframe, currently through school year 2017-18 and are updated annually. At this time, if development occurs within the next five years, Cameron is projected to have a capacity deficit. Twain and Edison are projected to have sufficient capacity. Beyond the six year projection horizon, enrollment projections are not available.

| School | Capacity 2012/2017 | Enrollment (9/30/12) | Projected Enrollment 2013-14 | Capacity Balance 2013-14 | Projected Enrollment 2017-18 | Capacity Balance 2017-18 |
|---|---|---|---|---|---|---|
| Cameron ES | 734/734 | 557 | 614 | 120 | 788 | -54 |
| Twain MS | 1025/1025 | 885 | 868 | 157 | 953 | 72 |
| Edison HS | 2108/2108 | 1683 | 1761 | 347 | 1914 | 194 |

*Capacity based on 2014-2018 CIP (November 2012).*
*Projected Enrollments based on 2012-13 to 2017-18 6-Year Projections (April 2012).*

The Capital Improvement Program (CIP) identifies an unfunded need for a Richmond Highway area elementary school. A recent CIP project was completed for the renovation of Edison High School. The original nominations propose nonresidential uses and remove the current Plan's residential component (200 multifamily dwelling units). This would benefit the schools serving the subject area by removing a potential yield of 21 new students. The Task Force recommendation included an estimated 245 multifamily dwelling units, which would potentially yield 25 students.

## Transportation

The Task Force recommendation required a Virginia Department of Transportation (VDOT) Chapter 870 Traffic Impact Analysis (TIA). Per VDOT regulations, the Fairfax County Department of Transportation (FCDOT) provided this analysis on behalf of the MVCCA. The Task Force recommendation was compared against the current Comprehensive Plan recommendations. Site-related trips created by the Task Force recommended intensity are anticipated to be greater than those created from the current Plan levels of development. The Task Force recommendation would generate approximately 537 additional morning (A.M.) peak hour trips, 411 additional afternoon (P.M.) peak hour trips, and 3,653 additional daily trips, above those anticipated to be generated by the current Plan option. This increase in trips can be mainly attributed to the significant increase in office use, even

though a portion of the trips generated by the office component would be expected to be made via non-auto modes of transportation (transit, rideshare, bike/pedestrian), during off-peak hours (flexible work schedules), or would not to be made at all (alternative work schedules, telecommuting).

The percentage of trips that would utilize transit is dependent upon the proximity of the site to transit stops and stations, and the degree to which the use of public transit is encouraged through a Transportation Demand Management (TDM) program. Based on county data and analysis, the impact analysis assumes a baseline trip-reduction rate of 20% for the office use without a TDM program. This trip-reduction takes into account internal synergy (residential trips generated balancing non-residential trips generated at different times of the day) between land uses, in addition to the non-single occupant vehicle (SOV) trip reduction. Adequate steps should be taken for the proper implementation of a TDM program with a trip reduction goal of 30%. The nomination site is located within ¾ of a mile of the Huntington Metrorail Station. Mitigation measures would reduce the number of new peak hour vehicle trips generated by the site. These include:

- A TDM coordinator;
- A commuter center;
- Incentives for residents and office workers to use transit such as carpools and vanpools;
- Shuttles between the site and Huntington Metrorail Station;
- Bike racks and lockers; and
- Parking Management.

Transportation Impacts

The Comprehensive Plan calls for minimum level of service (LOS) standard of LOS D to be met within this area (Objective 3b, Transportation section of the Policy Plan). Richmond Highway (Route 1), however, is part of the National Highway System (NHS) and would potentially be subject to less flexible LOS requirements. LOS is a qualitative measure of roadway or intersection function with traffic. A number of factors are considered including speed, travel time, traffic interruptions, traffic volume, freedom to maneuver, safety, driving comfort and convenience. The resulting LOS is expressed by a rating of "A" (best) through "F" (worst).

Many of the road segments and intersections evaluated function at a level below LOS D. An assessment of transportation impacts reveals deficiencies on Richmond Highway, Telegraph Road, and Huntington Avenue, as well as at nearby intersections. The three major intersections nearby are Telegraph Road/Huntington Avenue, Richmond Highway/Huntington Avenue and Richmond Highway/Fort Hunt Road. The LOS at each intersection is measured for both the A.M. and P.M. peak hour travel periods. The Telegraph Road/Huntington Avenue intersection operates at LOS F, which means that there is an average delay at this intersection of greater than 80 seconds in the A.M. peak hour and at LOS C (between 20 and 35 seconds of delay) at the intersection, on average, in the P.M. peak hour. The Richmond Highway/Huntington Avenue intersection operates at LOS F in the A.M. peak hour and at LOS E (between 55 and 80 seconds of delay on average) in the P.M. peak hour. Finally, the Richmond Highway/Fort Hunt Road

intersection operates at LOS F in the A.M. peak hour and LOS F at the P.M. peak travel hour. Some of these deficiencies are deemed significant.

To be consistent with other mixed use areas in the county where greater congestion is acceptable, adjusting the LOS standard from LOS D to LOS E (or lower) should be considered and further studied. As noted previously, Richmond Highway is part of the NHS, which may make federal support for a lower LOS standard difficult to obtain. Lowering the LOS standard to LOS E would alleviate the Telegraph Road deficiencies in the P.M. peak hour, but not the A.M. peak hour. Lowering the LOS standard to LOS E would alleviate the Huntington Avenue deficiencies in the A.M. and P.M. peak hours, west of Richmond Highway, but not east of Telegraph Road in the P.M. peak hour.

Availability of right-of-way, compatibility with recent construction projects, and cost factors dictate that adding capacity to these intersections may not be feasible. The need for widening these facilities and other appropriate mitigation strategies, such as enhancing signal timing and phasing should be studied further as part of the upcoming Huntington Affected Area Study. More conservative background growth rates than assumed during the Chapter 870 TIA should also be considered. The following should also be evaluated as "candidate" improvements:

- Grade-separated interchange at Richmond Highway and Huntington Avenue/Fort Hunt Road. Currently the Plan recommends the need for a grade separated interchange to address traffic congestion issues in the corridor. Removing the northbound and southbound Richmond Highway through trips (above ground or below ground) would allow better traffic signal operations for the side-street movements. However, this improvement may be contrary to creating a walkable environment and should be considered in the evaluation.

- Richmond Highway, adjacent to the site, was recently reconstructed as part of the Virginia Mega Projects' Woodrow Wilson Bridge project. Richmond Highway is designated as a Principal Arterial and already constructed to its fully planned six-lane width, south of Huntington Avenue, as recommended in the Comprehensive Plan. While currently built to its planned number of lanes, the existing cross section does not meet the standard established in the Fairfax County Transportation Policy Plan. A 176 foot typical cross-section, established in the plan for Richmond Highway, is the result of a collaborative effort to account for vehicular, bicycle/pedestrian and future transit needs within the corridor. Further review and analysis should be conducted to ascertain the need for additional right-of-way dedication along the frontage of the nominated parcels. Any development of these sites would be expected to accommodate these improvements to Richmond Highway. The need for eight-lanes also should be evaluated.

- Telegraph Road is currently constructed to an eight lane width, completed recently as part of the Virginia Mega Projects' I-95/I-495 Telegraph Road improvement project, which included construction of a grade separated interchange with a series of ramps and fly-overs. Right-of-way constraints, including retaining walls associated with the interchange may

make further expansion difficult, but the merits to expanding to ten lanes should be further evaluated.

- Huntington Avenue is currently constructed to a four-lane width with no plans for widening. Existing land uses and high costs are among the reasons that widening to six lanes may be an issue, but the need for widening should be evaluated.

In addition to complying with relevant recommendations that may be formulated by studying the issues above, development in the subject area should also satisfactorily address:

- The construction of Fort Hunt Road extended with development of this site. The Fairfax County Transportation Plan Map shows Fort Hunt Road being extended from Richmond Highway, through the subject site of 1MV, to Cameron Run Terrace on the northern border of Sub-Unit A-1. Note that the design, alignment, cross-section and width for this planned improvement have yet to be determined.

- Efficient internal circulation with curb cuts minimized and locations of entrances and median breaks arranged to minimize conflicts with traffic on the adjacent arterial roadways. Connectivity within the proposed site, as well as to and from external streets and neighborhoods should be considered.

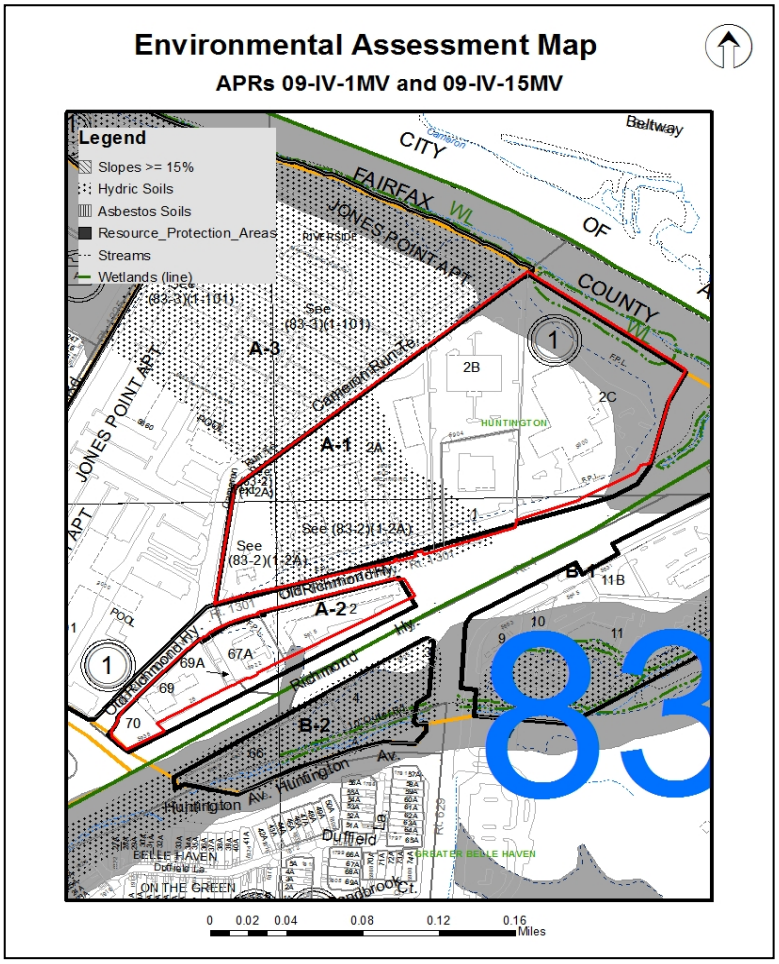
- Accommodation of efficient transit operations within the corridor and vicinity. Currently, this area is served by four (4) bus routes: Metrobus Route 9A; Richmond Highway Express (REX); and Fairfax Connector Routes 101 and 171. The Huntington Metrorail Station is located approximately ¾ mile to the west, on Huntington Avenue. In addition, Richmond Highway is shown as an Enhanced Public Transportation Corridor (EPTC) on the Fairfax County Transportation Plan Map, with future "Metrorail/Monorail/Light Rail Transit (LRT)/ Bus Rapid Transit (BRT)" service along the corridor.

- Accommodation of planned trail improvements shown on the Fairfax County Countywide Trails Plan to include a major paved trail running along the Cameron Run waterway, a major paved trail along Richmond Highway, a minor paved trail and on-road bicycle path along Huntington Avenue, and a minor paved trail along Fort Hunt Road. Pedestrian circulation is important in this area. Efforts should be made to connect internal bicycle/pedestrian facilities with existing and planned County facilities.

If the APR items are approved, redevelopment on the subject area should provide a contribution based on a pro rata share as per the trips generated by their respective uses for road improvements to the area. Also an assessment of potential geometric improvements, contributions for other off-site improvements, or other elements that would reduce the site traffic impacts (such as a TDM Plan) would be specifically identified through follow-up traffic studies required at the rezoning stage in order to meet Fairfax County and VDOT chapter 870 requirements.

**Environment**

**1MV:** As shown in the Environmental Assessment Map, Cameron Run flows along the subject area in an east-west direction to the north of the site. The northeastern boundary of the subject area of item 1MV encompasses Resource Protection Area (RPA), Environmental Quality Corridors (EQC), tidal wetlands and a major floodplain. The property may be subject to a floodplain study and a RPA re-delineation. The environmentally sensitive portion of the site should be restored and protected as part of any redevelopment.




**15MV:** A small area of RPA extends onto the subject property near the center of the property's border with Richmond Highway. The eastern portion of the subject property is located within a 100-year floodplain. Due to the presence of the 100-year floodplain and the low elevation of the property, a floodplain study would be warranted before redevelopment of the subject property.

Tree Cover

Limited tree cover exists on the subject parcels. Any new development should incorporate landscaping to improve water quality and provide shade and screening for the proposed future use of this area.

Stormwater Management

Future development offers opportunities to improve overall water quality in our local streams, the Potomac River and ultimately the Chesapeake Bay through enhanced stormwater management practices. At a minimum, the following guidelines should be followed for any development for which a significant increase in density/intensity is proposed. Development proposals in the area 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 taken to achieve these guidelines.

1. The total volume of runoff released from the site in the post-developed condition 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.

2. Stormwater runoff associated with the development should be controlled such that either (a) the total phosphorous load for the property is no greater than what would be required for new development pursuant to Virginia's Stormwater Regulations/the county's Stormwater Management Ordinance; or (b) an equivalent level of water quality control is provided.

As an alternative to items 1 and 2 above, stormwater management measures may be provided sufficient to attain the Rainwater Management credit(s) of the most current version of the Leadership in Energy and Environmental Design for New Construction or Core and Shell (LEED-NC or LEED-CS) rating system (or equivalent of this/these credit(s)).

As an alternative to the guidelines above, 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.

Sensitive Area Protection

Environmentally-sensitive areas exist along Cameron Run. In general, construction of new and renovation of existing buildings should avoid, minimize, and mitigate potential impacts to RPAs, floodplains, and wetlands. Low Impact Development and other design methods for road corridors, parking areas and buildings to offset the losses and minimize the long-term impacts of the development should be implemented. Reductions in the amount of impervious surfaces on the sites would help to control stormwater runoff.

Noise

Transportation generated noise affects all parcels fronting on Richmond Highway and Old Richmond Highway. Noise studies would provide essential information for future development of noise sensitive uses, such as residential and hotel development which might be proposed for this land area. Such studies would determine the extent of noise impacts and would provide recommendations for appropriate mitigation measures to mitigate interior areas for residential, hotel and office uses, if necessary, and outdoor activity areas.

Green Building Policy

County policy for activity centers currently provides sufficient guidance encouraging green building certification.

## CONCLUSION

The North Gateway CBC is a prominent location on Richmond Highway as an entry point to Fairfax County. Any redevelopment of the subject areas should establish a positive image. The CBC is also within a revitalization district and redevelopment should achieve higher quality development than what exists today, establish better vehicular and pedestrian circulation system, restore the degraded RPA area along Cameron Run, and construct the Cameron Run Trail, which has been desired by the community for many years. The Richmond Highway Corridor is the major transportation artery for local residents and workers and a major route for commuters travelling to and from Washington D.C. and points south, resulting in some of the highest traffic volumes in the region during peak hours of travel. There have also been a significant number of Plan amendments approved in the Huntington area over the last five years. The combination of these recent approvals and the background-through traffic (existing and projected) does pose significant challenges for redeveloping the subject area. A mixed use development that includes residential and non-residential components would be important to help balance peak hour vehicular flows. Therefore, staff recommends an alternative to include residential use as a component of any mixed-use development proposed for Sub-units A-1 and A-2 of the North Gateway CBC and supports the removal of the high density residential use option as a singular use.

## RECOMMENDATION

**MODIFY:** Fairfax County Comprehensive Plan, 2013 Edition, Area IV, Mount Vernon Planning District, amended through 4-9-2013, Richmond Highway Corridor Area, page 31.

Text to be added is shown as underlined and text to be deleted is shown as ~~strikethrough~~.

. . .
**"North Gateway Community Business Center**

Redevelopment in this area is anticipated to occur adjacent to I-495 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. ~~or in the alternative as high rise residential use~~. These planned uses complement the advantageous location near rail transit~~/transportation-oriented location~~ and are compatible with the surrounding character and density."

**MODIFY:** Fairfax County Comprehensive Plan, 2013 Edition, Area IV, Mount Vernon Planning District, Amended through 4-9-2013, Richmond Highway Corridor Area, pages 33-34.

"**Sub-unit A-1**

The area along the northwest side of Richmond Highway between ~~the Capital Beltway and Old Richmond Highway~~ I-495 and northeast of Huntington Avenue is planned for retail, office and/or residential uses up to .50 FAR.

As an option, mixed-use development to include residential, office, hotel and retail uses at an intensity up to 1.~~0~~65 FAR may be appropriate as part of a unified redevelopment with full consolidation of Sub-units A-1 and A-2. If full 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, ~~if~~ the following conditions ~~are~~should be met:

- ~~A mix of uses, which may include office, retail and residential, is provided;~~
- ~~Substantial and logical parcel consolidation is achieved;~~
- ~~Pedestrian and vehicular connections are provided;~~
- ~~Project~~ Urban design ~~and layout provide a high quality development~~ elements incorporating the recommendations found at the end of the Richmond Highway Corridor section, such as complete streets, public art, pedestrian plazas, cultural/recreation facilities, landscaped open space, landmarks or building designs which will denote this area as a focal point of the North Gateway Community Business Center are included;
- 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 that may include parking reductions, providing less parking than required by code is prepared;
- Parking is consolidated into structures and integrated into the streetscape in order to avoid adverse visual impacts to major pedestrian, bicycle, or vehicular corridors. Façade treatment of parking structures should contribute to the visual appeal of the streetscape. Surface parking lots should be avoided or located in the rear of the buildings when necessary;
- ~~The~~ A thorough traffic impact analysis of the proposed development is conducted with appropriate mitigation identified. ~~thoroughly analyzed and mitigated so that Huntington Avenue and Richmond Highway adjacent to the site will operate at levels of service no less than Level of Service D;~~ 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 ~~system~~ is provided~~.~~;

- Old Richmond Highway should be vacated and the extension of Fort Hunt Road from Richmond Highway to Cameron Run Terrace should be constructed with any redevelopment of the subject area as shown on Figure 13;

- Access points ~~are~~ should be consolidated.~~, and placed away from existing intersections and operate at levels of service no less than Level of Service D~~ 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 pedestrian circulation system which encourages pedestrian traffic within the development, to adjacent developments and to the Huntington Metro Station is provided;~~

- ~~Adequate measures to mitigate against environmental impact should be provided. The related floodplain and wetland areas should be protected in accordance with Plan objectives, as well as, other applicable guidelines and regulations; and~~

- ~~Urban design elements, such as public art, pedestrian plazas, cultural/recreation facilities, landscaped open space, streetscaping, landmarks or building designs which will denote this area as a focal point of the North Gateway Community Business Center are included. The urban design recommendations found at the end of this Plan should be used as a guide.~~

- 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;

- 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

- A noise study is prepared to determine the extent of noise impacts and appropriate mitigation measures for interior areas of any residential, hotel and office uses and if necessary, outdoor activity areas.

~~As an alternative option, future redevelopment of Sub-unit A-1 northwest of Old Richmond Highway for residential use at a density up to 30 dwelling units per acre to be compatible with the surrounding high-rise residential uses may be appropriate. Substantial parcel consolidation, minimization of access points, provision of an efficient internal circulation pattern and mitigation of environmental and transportation impacts are required. See land use recommendations for Sub-units A-2 and B-2 for additional options.~~

**Sub-unit A-2**

The redevelopment of the "island" formed by Richmond Highway and Old Richmond Highway 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.

As an option, if Sub-unit A-2 is fully 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.~~0~~65 FAR. If full 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 a 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 and access should be provided from Richmond Highway."

**MODIFY FIGURES:** Figure 2, Fairfax County Comprehensive Plan, 2013 Edition, Area IV, Mount Vernon Planning District, Overview, Amended through 4-9-2013, page 6.

At the intersection of Richmond Highway and Huntington Avenue, replace the symbol and note that refers to the recommendation of a grade separated interchange, with the symbol and note that explains that further study is required to establish preliminary concepts and/or limits of restricted access.

Figure 13, Fairfax County Comprehensive Plan, 2013 Edition, Area IV, Mount Vernon Planning District, Amended through 4-9-2013, Richmond Highway Corridor Area, page 78.

Insert an arrow pointing to Old Richmond Highway with a caption that reads "Vacate Old Richmond Highway". At the intersection of Richmond Highway and Huntington Avenue, replace the symbol and note that refers to the recommendation of a grade separated interchange, with the symbol and note that explains that further study is required to establish preliminary concepts and/or limits of restricted access.

Figure 29, Fairfax County Comprehensive Plan, 2013 Edition, Area IV, Mount Vernon Planning District, Amended through 4-9-2013, MV1-Huntington Community Planning Sector, page 123.

Insert an arrow pointing to Old Richmond Highway with a caption that reads "Vacate Old Richmond Highway". At the intersection of Richmond Highway and Huntington Avenue, replace the symbol and note that refers to the recommendation of a grade separated interchange, with the symbol and note that explains that further study is required to establish preliminary concepts and/or limits of restricted access.

Figure 30, Fairfax County Comprehensive Plan, 2013 Edition, Area IV, Mount Vernon Planning District, Amended through 4-9-2013, MV1-Huntington Community Planning Sector, page 124.

Insert an arrow pointing to Old Richmond Highway with a caption that reads "Vacate Old Richmond Highway". At the intersection of Richmond Highway and Huntington Avenue, replace the symbol and note that refers to the recommendation of a grade separated interchange, with the symbol and note that explains that further study is required to establish preliminary concepts and/or limits of restricted access.

**PLAN MAP:** The Comprehensive Land Use Plan Map will not change.

# APPENDIX:

Fairfax County Department of Transportation

&

Virginia Department of Transportation (VDOT)

Comments on

Chapter 870 Transportation Impact Analysis for

**2009-2010 South County APR Items 09-IV-1MV and 09-IV-15MV**

**DATE:** September 3, 2013

**TO:** Aaron Klibaner
Policy & Plan Development Branch, DPZ

**FROM:** Arpita Chatterjee-A*C
Transportation Planning Section, TPD, DOT

**SUBJECT:** South County APR Nomination Nos. 09-IV-1MV & 09-IV-15MV
North Gateway
Transportation Recommendations

The Department of Transportation has assessed South County Area Plans Review (APR) Nomination Nos. 09-IV-1MV and 09-IV-15MV ("North Gateway"). As part of this assessment, staff has reviewed the results of the supporting Chapter 527 Traffic Impact Analysis (TIA), dated May 14th, 2013. Final transportation-related comments and recommendations are included, herein, for your consideration.

As shown in Figure 1, APR No. 09-IV-1MV covers approximately nine (9) total acres and is located west of Richmond Highway and southeast of Cameron Run Terrace. Part of the North Gateway Community Business Center (CBC) and Richmond Highway Corridor Area, within the Huntington Community Planning Sector and Mount Vernon Planning District, this site is currently planned for residential and non-residential mixed-uses, up to an allowable 0.50 Floor Area Ratio (FAR). A current plan option would allow up to a 1.0 FAR, with consolidation. APR No. 09-IV-1MV proposes to change the land use to a more intense non-residential mix of uses, up to an allowable 2.0 FAR.

APR No. 09-IV-15MV covers approximately 2.5 total acres and is located on the "island" between Old Richmond Highway and Richmond Highway. This site is currently planned for commercial land uses, up to an allowable 0.25 FAR. A current plan option would allow up to a 1.0 FAR, with consolidation. Similar to APR No. 09-IV-1MV, APR No. 09-IV-15MV proposes to change the land use to a more intense non-residential mix of uses, up to an allowable 2.0 FAR.

Table 1 provides a summary of the currently planned and proposed development potentials for the sites represented by APR Nos. 09-IV-1MV and 09-IV-15MV. For the purposes of this memorandum, from this point on, the area covered by these two APR nominations will be referred to as one site (North Gateway).

**FIGURE 1: Study Area and Site Location**

**TABLE 1: Current and Proposed Plan Development Potential**

| APR Nomination | Current Plan Base [1] | Current Plan Option 1 (1.0 FAR) | Proposed Plan Base [2] | Proposed Plan Option (2.0 FAR) |
|---|---|---|---|---|
| 09-IV-1MV (9.05 ac) | Residential: 79 mf du<br>Office: 98,555 sf<br>Retail: 19,711 sf | Residential: 158 mf du<br>Office: 197,109 sf<br>Retail: 39,422 sf | Office: 147,832 sf<br>Retail: 9,856 sf<br>Hotel: 39,422 sf | Office: 591,327 sf<br>Retail: 39,422 sf<br>Hotel: 157,687 sf |
| 09-IV-15MV (2.52 ac) | Retail: 27,443 sf | Residential: 44 mf du<br>Office: 54,886 sf<br>Retail: 10,977 sf | Retail: 27,443 sf | Office: 197,620 sf<br>Retail: 21,957 sf |
| **Total (11.57 ac)** | **Resident: 79 mf du<br>Office: 98,555 sf<br>Retail: 47,154 sf** | **Resident: 202 mf du<br>Office: 251,995 sf<br>Retail: 50,399 sf** | **Office: 147,832 sf<br>Retail: 37,299 sf<br>Hotel: 39,422 sf** | **Office: 788,947 sf<br>Retail: 61,379 sf<br>Hotel: 157,687 sf** |

[1] *APR #09-IV-1MV parcels currently planned at base 0.50 FAR; APR #09-IV15MV parcels at 0.25*
[2] *APR #09-IV-1MV proposes base remain at 0.50 FAR; APR #09-IV-15MV base 0.25*

Zoned C-8 (Highway Commercial), the site is currently developed at an FAR that is slightly less than the current Comprehensive Plan allowable density. Existing land uses include various commercial land uses, including a bank, a motel, a restaurant, an automobile dealership, and a low-rise office building.

The following is an assessment of transportation issues and impacts associated with the proposed land use options, with comments and recommendations provided regarding the subject APR nominations.

***Transportation Overview***

Site Impact/Trip Generation

With the proposed intensification of land uses, site-related trips are anticipated to increase significantly from the existing development and current plan levels. Table 2 provides a summary of estimated trips generated by the site under the current plan option intensity of 1.0 FAR. The site would be anticipated to generate 444 a.m. peak hour trips, 707 p.m. peak hour trips, and 6,649 daily (24-hour) trips. A portion of the trips generated by the office component would be expected to be made via non-auto modes of transportation (transit, rideshare, bike/ped), during off-peak hours (flexible work schedules), or would not to be made at all (alternative work schedules, telecommuting).

Note that trip generation figures provided are based on data from the Institute of Transportation Engineers (ITE) Trip Generation manual, 8th Edition.

**TABLE 2: Site Trip Generation – Current Comprehensive Plan Option (1.0 FAR)**

| | A.m. Peak Hour | | | P.m. Peak Hour | | | |
|---|---|---|---|---|---|---|---|
| | **In** | **Out** | **Total** | **In** | **Out** | **Total** | **Daily** |
| Gross Trips | 398 | 148 | 546 | 342 | 550 | 892 | 8,416 |
| *Reductions* [1] | *71* | *17* | *89* | *20* | *65* | *85* | *679* |
| *Reductions* [2] | *8* | *5* | *13* | *13* | *49* | *62* | *100* |
| Net New Trips | 319 | 126 | 444 | 309 | 436 | 745 | 7,637 |

[1] *TDM/Transit reduction based on Fairfax County data and analysis-inclusive of internal synergy*
[2] *Retail Pass-By reduction based on VDOT 527 requirements*

The percentage of trips that would utilize transit is dependent upon the proximity of the si to transit stops and stations, and the degree to which the use of public transit is encourage through a Transportation Demand Management (TDM) program. Based on county data an analysis, a baseline trip-reduction rate of 20% is assumed for the office use (assuming n TDM program). Note that this trip-reduction takes into account internal synergy betwee land uses, in addition to the non-single occupant vehicle (SOV) trip reduction.

Table 3 provides a summary of estimated trips generated by the site under the proposed pla option intensity of 2.0 FAR, assuming the same 20% baseline trip-reduction (no TDM). Th site would be anticipated to generate 981 a.m. peak hour trips, 1,282 p.m. peak hour trip 11,290 daily trips.

**TABLE 3: Site Trip Generation – Proposed Plan Option (2.0 FAR)**

| | A.m. Peak Hour | | | P.m. Peak Hour | | | |
|---|---|---|---|---|---|---|---|
| | **In** | **Out** | **Total** | **In** | **Out** | **Total** | **Daily** |
| Gross Trips | 991 | 200 | 1,191 | 479 | 1,111 | 1,590 | 13,835 |
| *Reductions* [1] | *172* | *23* | *195* | *33* | *160* | *193* | *1,309* |
| *Reductions* [2] | *9* | *6* | *15* | *56* | *59* | *115* | *1,236* |
| Net New Trips | 810 | 171 | 981 | 390 | 892 | 1,282 | 11,290 |

[1] *TDM/Transit reduction based on Fairfax County data and analysis-inclusive of internal synergy*
[2] *Retail Pass-By reduction based on VDOT 527 requirements*

The nomination would, therefore, generate 537 additional a.m. peak hour trips, 575 additional p.m. peak hour trips, and 4,641 additional daily trips, above what is anticipated to be generated by the land uses allowed under the currently approved Comprehensive Plan option. This increase in trips can be mainly attributed to the significant increase in office use.

Methodology

Traffic conditions were initially assessed for a total of four (4) land use scenarios:

1) 2010 Existing Conditions;

2) 2030 Background Forecast, based on the Current Comprehensive Plan;
3) 2030 Background Forecast, with Subject APRs; and
4) 2030 Background Forecast, with Subject APRs and Recently Approved APRs.

Table 4 provides a summary of trips generated by those recently approved APRs from Scenario 4. While technically part of the current Comprehensive Plan, these APRs were part of the Base Realignment and Closure (BRAC) or South County APR nomination cycles and approved after development of the Council of Governments (COG) land use forecast utilized in development of the background forecast. They were added above and beyond background growth because they were not factored in the associated travel demand modeling effort.

**TABLE 4: Recently Approved BRAC & South County APRs**

| | A.m. Peak Hour | | | P.m. Peak Hour | | | Weekday |
|---|---|---|---|---|---|---|---|
| **Nomination** | **In** | **Out** | **Total** | **In** | **Out** | **Total** | **ADT** |
| 1. 09-IV-2MV | 110 | 14 | 124 | 36 | 129 | 165 | 1,256 |
| 2. 08-IV-3MV(BRAC) | 341 | 190 | 531 | 150 | 281 | 431 | 4,043 |
| 3. 09-IV-3MV | 102 | 97 | 199 | 125 | 97 | 222 | 2,930 |
| 4. 08-IV-4MV(BRAC) | 123 | 225 | 348 | 294 | 240 | 534 | 6,127 |
| 5. 08-IV-9MV (BRAC) | 230 | 185 | 415 | 148 | 221 | 369 | 3,548 |
| 6. 09-IV-27MV | 1,143 | 356 | 1,499 | 582 | 1,330 | 1,912 | 14,974 |
| **Total** | **2,049** | **1,067** | **3,116** | **1,335** | **2,298** | **3,633** | **32,878** |

Transportation Impacts

The Comprehensive Plan calls for minimum level of service (LOS) standard of LOS D to be met within this area (Objective 3b, Transportation Policy Plan). The Plan also indicates, for Transit Oriented Development (TOD) areas, that a lower LOS may be acceptable (Appendix 11 of the Land Use Policy Plan). Richmond Highway (Route 1), however, is part of the National Highway System (NHS) and would potentially carry more-strict, less-flexible LOS requirements.

The NHS is a connected network of approximately 160,000 miles of roadway that are important to the nation's economy, defense, and mobility, serving major population centers, international border crossings, ports, airports, public transportation facilities, and other intermodal transportation facilities and major transportation destinations; meet national defense requirements; and serve interstate and interregional travel. The NHS represents just four percent of America's 6.4 million kilometers of public roads, but NHS carries more than 40 percent of the nation's highway traffic and 70 percent of the truck freight traffic. The NHS provides the vital links to efficiently move people and goods to the desired destinations.

An assessment of transportation impacts reveals deficiencies on Richmond Highway, Telegraph Road, and Huntington Avenue, as well as at key study area intersections. Some of these deficiencies are deemed significant. Volume to capacity (v/c) ratios for certain roadway links were found to far exceed 1.0 and delay at certain intersections and/or intersection approaches were found to approach 400 seconds per vehicle (approaching seven minutes).

Transportation staff recommends that identified impacts/deficiencies be further studied and verified as part of the upcoming Huntington Affected Area Study. "Candidate" improvements are suggested, pending further study.

Transportation staff recommends that identified impacts/deficiencies be further studied and verified as part of the upcoming Huntington Affected Area Study. "Candidate" improvements are suggested, pending further study.

- ***Link Analysis***

For the purpose of this analysis, roadway links, or segments, are gauged by their v/c ratio. A v/c ratio of 1.0 reflects a link with traffic demand equal to capacity, where capacity is based on the LOS D standard. A v/c ratio under 1.0 reflects excess capacity being available. A v/c ratio over 1.0 reflects a shortage of capacity (i.e., congestion).

Note that growth in background traffic (anticipated under current Comprehensive Plan) and recent APR approvals (also current Comprehensive Plan) have been identified as primary causes for increased traffic demand and congestion within the corridors. Further, the background growth assumed as part of this study is now thought to be overly aggressive and will be re-evaluated as part of the Huntington Affected Area Study. Regardless, trips associated with the subject APRs represent only a small portion of future traffic and are not responsible for any significant spikes in congestion.

The following is a brief summary of deficiencies found as part of the link analysis:

- **Richmond Highway (Route 1)**
  - South of Huntington Avenue (NB) exceeds capacity in the a.m. peak hour (1.16 v/c)
- **Telegraph Road (VA Route 241)**
  - North of Huntington Avenue (NB) exceeds capacity in the a.m. peak hour (1.46 v/c)
  - South of Huntington Avenue (NB) exceeds capacity in the a.m. (1.66 v/c) and p.m. peak hours (1.07 v/c)
  - South of Huntington Avenue (SB) exceeds capacity in the p.m. peak hour (1.28 v/c)
- **Huntington Avenue (VA Route 1332)**
  - East of Telegraph Road (WB) exceeds capacity in the a.m. (1.10 v/c) and p.m. peak hours (1.37 v/c)
  - West of Richmond Highway (WB) exceeds capacity in the a.m. peak hour (1.16 v/c)
  - West of Richmond Highway (EB) exceeds capacity in the p.m. peak hour (1.16 v/c)

The link analysis has generally indicated that there may be capacity deficiencies on all three of the roadways being analyzed. Candidate improvements highlighted later in this memo (Mitigation). While not likely a locally preferred approach, the need for widening these facilities should be studied further as part of the Huntington Affected Area Study. In conjunction with this evaluation, Transportation staff should also assess the appropriateness of the background growth rates applied in the subject Chapter 527 study and the potential for lowering of the LOS standard to comply with TOD guidance and policy.

- ***Intersection Analysis***

For the purpose of this analysis, intersections are gauged by level of service and delay per drive. The relationship between LOS and delay is summarized in Table 5.

**TABLE 5: Motor Vehicle LOS Thresholds at Signalized Intersections**

| LOS | Control Delay per Vehicle (seconds per vehicle) |
|---|---|
| **A** | ≤ 10 |
| **B** | > 10-20 |
| **C** | > 20-35 |
| **D** | > 35-55 |
| **E** | > 55-80 |
| **F** | > 80 |

The following is a brief summary of the intersection analysis. Overall intersection LOS is provided, along with individual turning movements that are deficient and are anticipated to carry site trips. These results are also provided in Table 6:

- **Telegraph Road at Huntington Avenue**

  - Overall LOS F (117.8 sec delay) in the a.m. peak hour
    - NB Through-Right LOS F (185.5 sec delay)

  - Overall LOS C (20.7 sec delay) in the p.m. peak hour
    - WB Left LOS F (163.4 sec delay)

**TABLE 6: Intersection LOS Summary for Current Plan with All APRs**

| Intersection | Intersection Control | Critical Movement | Current Plan with All APRs | |
|---|---|---|---|---|
| | | | AM (1) | PM (1) |
| 1. Telegraph Road/Huntington Avenue | Signalized | WBL | D (66.3) | F (163.4) |
| | | WBR | A (0.7) | A (0.7) |
| | | NBTR | F (185.5) | B (10.3) |
| | | SBT | A (2.5) | A (9.9) |
| | | **Overall** | **F (117.8)** | **C (20.7)** |
| 2. Richmond Hwy/Huntington Ave | Signalized | EBL | E (68.3) | D (50.3) |
| | | EBT | D (54.8) | D (48.1) |
| | | EBR | A (7.4) | F (156.2) |
| | | WBL | E (66.9) | F (126.9) |
| | | WBTR | F (174.9) | F (116.0) |
| | | NBL | F (171.4) | F (285.7) |
| | | NBTR | F (155.3) | D (44.0) |
| | | SBL | E (60.8) | C (21.6) |
| | | SBT | B (10.9) | E (58.6) |
| | | SBR | A (3.9) | A (4.4) |
| | | **Overall** | **F (104.2)** | **E (79.3)** |
| 3. Richmond Highway/Fort Hunt Road | Signalized | EBL | F (139.4) | F (312.8) |
| | | EBTR | C (22.2) | B (31.9) |
| | | WBTL | E (71.7) | E (74.2) |
| | | WBR | F (190.1) | F (190.4) |
| | | NBL | F (320.1) | F (108.8) |
| | | NBTR | F (703.5) | F (250.4) |
| | | SBL | F (289.2) | F (159.1) |
| | | SBTR | F (146.6) | F (382.5) |
| | | **Overall** | **F (412.2)** | **F (271.7)** |

(1) Numbers in parentheses indicate average delay per vehicle for signal controlled intersections (seconds)

- **Richmond Highway at Huntington Avenue**
  - Overall LOS F (104.2 sec delay) in the a.m. peak hour
    - NB Left LOS F (171.4 sec delay)
    - NB Through-Right LOS F (155.3 sec delay)
  - Overall LOS E (79.3 sec delay) in the p.m. peak hour
    - NB Left LOS F (285.7 sec delay)
- **Richmond Highway at Fort Hunt Road**
  - Overall LOS F (412.2 sec delay) in the a.m. peak hour

- NB Left LOS F (320.1 sec delay)
- EB Left LOS F (139.4 sec delay)
- SB Through-Right LOS F (146.6 sec delay)

➢ Overall LOS F (271.7 sec delay) in the p.m. peak hour
- NB Left LOS F (108.8 sec delay)
- EB Left LOS F (312.8 sec delay)
- SB Through-Right LOS F (382.5 sec delay)

The intersection analysis has generally indicated that there may be capacity deficiencies at each of the study intersections being analyzed. Candidate improvements highlighted later in this memo (Mitigation). Availability of right-of-way, compatibility with recent construction projects and cost factors dictate that adding capacity to these intersections may not be feasible. Appropriate mitigation should be studied further as part of the Huntington Affected Area Study. The following should also be evaluated:

- enhancements to traffic signal timing and phasing;
- appropriateness of background growth rates applied in the Chapter 527 TIA;
- lower LOS standards to comply with TOD guidance and policy; and
- need for currently planned grade-separated interchange at Richmond Highway and Huntington Avenue.

<u>Mitigation</u>

- ***Transportation Improvements***

Based on the results of the link and intersection analyses reflecting baseline trip generation (no TDM program), a series of potential, or candidate, transportation improvements were developed. It is recommended that the comprehensive plan language mention these candidate improvements, with the understanding that they would be verified through a more comprehensive transportation analysis (i.e., the Huntington Affected Area Study).

Based on the analyses, the candidate transportation improvements include:

- **Grade Separated Interchange at Richmond Highway and Huntington Avenue/Fort Hunt Road**

  Currently part of the Comprehensive Plan, it would appear that this grade separated interchange is needed to address traffic congestion issues in the corridor. Removing the NB and SB Richmond highway through trips (above ground or below ground) would allow better traffic signal operations for the side-street movements.

  The Huntington Affected Area Study should verify that the interchange would, in fact, address the congestion issue. Suitable alternative solutions may also be studied.

- **Roadway Widening – Richmond Highway, Telegraph Road, Huntington Avenue**

  Richmond Highway, adjacent to the site, was recently reconstructed as part of the Virginia MegaProjects' Woodrow Wilson Bridge project. Richmond Highway is already constructed to its fully planned six-lane width, south of Huntington Avenue, as recommended in the Comprehensive Plan. The need for eight-lanes, however, should be evaluated as part of the Huntington Affected Area Study.

  Telegraph Road is currently constructed to an eight lane width, completed recently as part of the Virginia MegaProjects' I-95/I-495 Telegraph Road improvement project, which included construction of a grade separated interchange with a series of ramps and fly-overs. Right-of-way constraints, including retaining walls associated with the interchange, may make further expansion difficult, but the merits to expanding to ten lanes should be further evaluated, none-the-less.

  Huntington Avenue is currently constructed to a four-lane width, with no plans to widen. Existing land uses, high costs, and transportation policy guidelines on TOD development are among the reasons that widening to six lanes may be an issue. Further consideration should be given, however, during the Huntington Affected Area Study.

  In all cases, adjusting the LOS standard from LOS D to LOS E should be considered and further studied. This adjustment could be made to comply with TOD guidance and policy (proximity to Huntington Metrorail). A lower LOS standard would alleviate the deficiency on Richmond Highway. As noted above, Richmond Highway is part of the NHS which may make a lower LOS standard difficult to garner support.

  Lowering the LOS standard to LOS E would alleviate the Telegraph Road deficiencies in the p.m. peak hour, but not the a.m. Lowering the LOS standard to LOS E would alleviate the Huntington Avenue deficiencies in the a.m. peak hour, and in the p.m. peak hour, west of Richmond Highway, but not east of Telegraph Road in the p.m. peak hour.

- **Intersection Expansion**

  - Telegraph Road at Huntington Avenue
    - Exclusive NB right turn lane
    - Third WB left turn lane

    The northbound approach of telegraph Road at Huntington Avenue includes four northbound through lanes (with the right-most a shared through-right turn lane). While an exclusive northbound right turn lane to service trips going to the APR site may help, it would not alleviate the problem and feasibility is in question due to right-of-way constraints (retaining wall).

Background traffic growth is very aggressive, particularly in the Telegraph Road corridor, and will be re-evaluated as part of the Huntington Affected Area Study. Other mitigation strategies will also be evaluated as part of the study.

Dual WB left turn lanes already exist on Huntington Avenue at Telegraph Road. Traffic signal timing could be evaluated to see if additional green time can be provided for the Huntington Avenue approach, but given high volumes on Telegraph Road, this may not be feasible. Triple WB left turn lanes may be warranted, and should be further studied.

- Richmond Highway at Huntington Avenue
  - Third NB left turn lane

Upgraded recently as part of the Woodrow Wilson Bridge project, this intersection has already been expanded significantly with through lanes and turn lanes. There is already dual NB left turn lanes on Richmond Highway with four through lanes (one shared through-right).

The Fairfax County Comprehensive Plan currently includes a grade-separated interchange at this location and by separating the significant NB and SB through trips from those trips that are turning to and from Huntington Avenue, satisfactory operations are likely. This interchange should be further studied to ensure that operations would meet LOS standards. Suitable alternative(s), such as median u-turns and/or superstreet concepts, may also be identified for consideration as part of the Huntington Affected Area Study.

- Richmond Highway at Fort Hunt Road
  - Second EB left turn lane – Site Access
  - Second NB left turn lane
  - Exclusive SB right turn lane

If traffic signal timing cannot be adjusted to improve critical movements to and from the site, consideration should be given to adding a second NB left turn lane and an exclusive SB right turn lane. Site design should also consider additional left turn lane capacity from the site (Fort Hunt Road Extension).

Given the traffic operational issues forecasted for this intersection and its proximity to the intersection or Richmond Highway and Huntington Avenue to the south, the grade separated interchange in the Comprehensive Plan, mentioned above, would likely be inclusive of both intersections and should be studied further to evaluate its effectiveness in addressing the capacity issues at these two intersections.

Due to right-of-way constraints, community concerns, and other reasons, most of these candidate improvements were omitted from the mitigated conditions analysis. For the

purposes of this study, only the dual EB left turn lanes at Richmond Highway and Fort Hunt Road (assumed a site access improvement) were considered under mitigated conditions.

The Huntington Affected Area Study will determine which combination of the above improvements (and/or others to be determined) should become part of the Comprehensive Plan Transportation Plan Map. In addition, the study, in coordination with the Countywide Transit Network Study, will identify high quality transit enhancements to help decrease SOV travel through the area. Broad-based TDM policies and strategies will also be developed.

- ***Transportation Demand Management (TDM)***

The North Gateway project site, while close to the Huntington Avenue Metrorail station, is beyond one-half (1/2) mile walking distance (approximately three-fourths of a mile). The base trip generation analysis, summarized above, assumes a 20 percent baseline trip reduction from ITE for office, with no additional reduction for the retail or hotel. Based on county data and analysis, this reduction accounts for an inherent over-estimation of trips by ITE. This is likely due to higher levels of transit usage, ridesharing, and teleworking with flex schedules, as well as bicycle/pedestrian activity.

With a comprehensive TDM program in place (details to be worked out at rezoning), county data and analysis indicates that the trip reduction for the North Gateway site could be higher. Increasing the non-single occupant vehicle (SOV) trip reduction from 20 percent to 30 percent for the office land use would be more than reasonable. Adjusted trip generation estimates are provided in Table 7 to reflect this higher trip reduction.

The adjusted trip generation estimates indicate that the site would generate 882 a.m. peak hour trips, 1,187 p.m. peak hour trips, and 10,635 daily (24-hour) trips. This represents a reduction of 99 a.m. peak hour trips (10 percent), 95 p.m. peak hour trips (7.5 percent), and 655 daily trips (6 percent) when compared to the baseline trip generation estimates.

**TABLE 7: Trip Generation –Proposed Plan Option at 2.0 FAR (with TDM Program)**

| | A.m. Peak Hour | | | P.m. Peak Hour | | | |
|---|---|---|---|---|---|---|---|
| | **In** | **Out** | **Total** | **In** | **Out** | **Total** | **Daily** |
| Gross Trips | 991 | 200 | 1,191 | 479 | 1,111 | 1,590 | 13,835 |
| *Reductions* [1] | *259* | *35* | *294* | *49* | *239* | *288* | *1,964* |
| *Reductions* [2] | *9* | *6* | *15* | *56* | *59* | *115* | *1,236* |
| Net New Trips | 723 | 159 | 882 | 374 | 813 | 1,187 | 10,635 |

[1] *TDM/Transit reduction based on Fairfax County data and analysis- inclusive of internal synergy reduction*

[2] *Retail Pass-By-reduction based on VDOT 527 requirements*

<u>Mitigated Conditions Analysis</u>

The link and intersection capacity analyses were revised to reflect reduced trip generation from the TDM program and assumed dual EB left turn lanes from the site (Old Richmond Highway/Fort Hunt Road Extension) to Richmond Highway NB. This was the only turn lane mitigation deemed feasible at the time of analysis, but the Huntington Affected Area Study will take a second, more comprehensive look at each intersection (and more). Please see Table 8 for more information.

Based on the revised analysis:

1. the intersection of Telegraph Road and Huntington Avenue is expected to continue to operate beyond capacity, at LOS "F", during a.m. peak hour with an overall delay of 117.8 seconds per vehicle;

2. the intersection of Richmond Highway and Huntington Avenue is projected to operate at an overall LOS "F" during the a.m. peak hour with an overall delay of 104.2 seconds per vehicle; and

3. the intersection of Richmond Highway and Fort Hunt Road would continue to operate at an overall LOS "F" during the a.m. and p.m. peak hour, with an overall delay of 404.4 seconds per vehicle in the a.m.

The implementation of a comprehensive TDM program and roadway mitigation would result in significant reductions in overall peak hour trips. The mitigated intersection capacity analyses, link analyses, however only indicate modest reductions in delays and queues and no improvement in link LOS.

**TABLE 8: Intersection LOS Summary for Current Plan with All APRs (Mitigated)**

| Intersection | Intersection Control | Critical Movement | Mitigation | |
|---|---|---|---|---|
| | | | AM (1) | PM (1) |
| 1. Telegraph Road/Huntington Avenue | Signalized | WBL | E (65.8) | F (156.7) |
| | | WBR | A (0.7) | A (0.7) |
| | | NBTR | F (185.5) | B (10.3) |
| | | SBT | A (2.5) | A (9.9) |
| | | **Overall** | **F (117.8)** | **C (20.1)** |
| 2. Richmond Highway/Huntington Avenue | Signalized | EBL | E (68.3) | D (50.0) |
| | | EBT | D (54.8) | D (48.1) |
| | | EBR | A (7.4) | F (156.2) |
| | | WBL | E (66.9) | F (126.9) |
| | | WBTR | F (174.9) | F (116.0) |
| | | NBL | F (171.4) | F (280.1) |
| | | NBTR | F (155.3) | D (44.0) |
| | | SBL | E (60.8) | B (20.7) |
| | | SBT | B (10.9) | E (53.9) |
| | | SBR | A (3.9) | A (4.7) |
| | | **Overall** | **F (104.2)** | **E (77.4)** |

| | | | | |
|---|---|---|---|---|
| 3. Richmond Highway/Fort Hunt Road | Signalized | EBL | C (33.1) | E (68.9) |
| | | EBTR | C (26.5) | B (14.2) |
| | | WBTL | E (63.3) | E (58.9) |
| | | WBR | F (171.7) | F (129.1) |
| | | NBL | F (263.1) | F (109.1) |
| | | NBTR | F (703.5) | F (250.3) |
| | | SBL | F (289.2) | F (159.1) |
| | | SBTR | F (146.6) | F (382.5) |
| | | **Overall** | **F (404.4)** | **F (241.8)** |

(1) Numbers in parentheses indicate average delay per vehicle for signal controlled intersections (seconds)

***Recommendations***

- **Huntington Affected Area Study & Countywide Transit Network Study**

  The Fairfax County Board of Supervisors authorized the "Huntington Affected Area Study" as part of the Huntington Club APR approval on February 26, 2013. This study will take a more comprehensive look at the transportation network, regional traffic patterns, and multi-modal solutions to better address the traffic problems in this area. The study is currently being scoped and funding for the study has been identified.

  The County's ongoing Countywide Transit Network Study, slated for completion in 2014, will help to identify the appropriate high quality transit modes for the area, station locations, alignments, etc. Study results from the Fairfax County Countywide Transit Network Study and the Huntington Affected Area Study should be integrated in the recommendation of the study and implemented during site planning.

- **Background Traffic**

  Transportation staff recognizes that the trips associated with the subject APR are only a small component of the forecasted congestion within the Huntington area. Growth in background volumes due to land uses currently approved in the Comprehensive Plan is mainly responsible for the significant delays and poor level of service.

- **Grade Separated Interchange at Huntington Avenue and Richmond Highway**

  The Transportation Plan Map recommends a grade separated interchange at this location. The LOS analysis shows an overall failing level of service at the intersections of Richmond Highway and Huntington Avenue and Richmond Highway and Fort Hunt Road. Many individual movements are also failing during both the AM and PM peak hours. The interchange designation, therefore, should be retained in the Comprehensive Plan and right-of-way reserved at the rezoning stage. A comprehensive analysis of the interchange should be included as part of the Huntington Affected Area Study to ensure that congestion levels would be improved and meet standards. Suitable alternative mitigation may be considered and should be studied.

In conjunction with both the Woodrow Wilson Bridge project and VDOT's Route 1 location (centerline) study, alternative interchange concepts were developed and evaluated at this intersection. The viability of an interchange addressing traffic congestion along the Richmond Highway corridor should be evaluated as part of the Huntington Affected Area Study. The subject area will be potentially impacted by development of a grade-separated interchange at Richmond Highway and Huntington Avenue. Adequate right-of-way should be reserved to facilitate the interchange development. The exact limits of dedication and entrance/exit configuration(s) to the subject site would ultimately be determined at the time of rezoning.

Note that this planned interchange has been met with serious opposition from various citizen groups. Staff, therefore, will evaluate alternative traffic mitigation measures in lieu of an interchange as part of the Huntington Affected Area Study. The development process for the site (rezoning) should await the results of the Huntington Affected Area Study (and the Countywide Transit Network Study) so that we have maximized information and knowledge of the area before moving forward.

- **Link Analysis**

The link capacity analyses show substantially degraded traffic conditions in 2030 with the subject APRs. Based on the link volume to capacity analysis, Huntington Avenue would need to be widened from a four to six lane facility in order to maintain acceptable levels of congestion in the AM and PM peak hours of travel. Widening Huntington Avenue to six lanes may help to meet the future traffic demand in this area, but would not be consistent with the transit oriented development (TOD) vision for area. County policy does not recommend widening in TOD areas, but staff recommends the further study, as part of the Huntington Affected Area Study to determine whether widening, or other appropriate alternative measures, would be appropriate.

Similarly, the link analysis found capacity issues on Telegraph Road and Richmond Highway, as well. Given that these facilities are already at their planned maximum capacity, it is also recommended that these be further studied.

- **Intersection Analysis**

Based on the forecasted intersection LOS and delays, a number of geometric intersection enhancements may be appropriate. Most would also be difficult to implement due to right-of-way constraints. Those candidate intersection improvements identified above should be further studied and verified as part of the Huntington Affected Area Study.
Staff does recommend construction of a second eastbound left turn lane at the intersection Richmond Highway and Old Richmond Highway/Fort Hunt Road (future site access). This would improve the LOS for the eastbound left movement from LOS "F" to LOS "C" and would also enhance the overall intersection LOS and delay.

- **Transportation Demand Management (TDM)**

  It is the recommendation of the Transportation staff that adequate steps should be taken for the proper implementation of a TDM program. The nomination site is located with 3/4th miles of the Huntington Metrorail Station. A number of mitigation measures are proposed to reduce the number of new peak hour vehicle trips generated by the site. These include:

  Transportation Demand Management (TDM) program with the following major elements:
  - A TDM coordinator;
  - A commuter center;
  - Incentives for residents and office workers to use transit such as carpools and vanpools;
  - Shuttles between the site and Huntington Metrorail Station;
  - Bike racks and lockers; and
  - Parking Management.

- **Other Potential Mitigation Measures**

  Contribution of other off-site transit/pedestrian/bicycle improvements and coordination with other adjacent properties for future roadway, transit, or pedestrian bicycle connections a bicycle/pedestrian circulation plan that connects the site to existing and proposed facilities, such as Cameron Run Trail and on road bicycle lanes on Richmond Highway and Huntington Avenue.

Additional Notes

Regional traffic could be reduced with the implementation of the Fairfax County Connector peak hour bus service from the Lorton VRE Station to Tyson's corner beginning in March 2013. Vehicles traversing from the south to reach the Beltway may now stop in Lorton and then take the bus to Tyson's corner.

If this APR nomination is approved then North Gateway and other APR nominations in the surrounding cluster should provide a contribution, pro rata share as per the trips generated by their respective development for road improvements in that area. Also an assessment of potential geometric improvements, contributions for other off-site improvements, or other elements that would reduce the site traffic impacts (such as a Transportation Demand Management Plan) would be specifically identified through follow-up traffic studies required at the rezoning stage in order to meet Fairfax County and VDOT chapter 527 requirements.

Comprehensive Plan Guidance and Vision

The Fairfax County Comprehensive Plan calls for redevelopment and revitalization within the Community Business Centers (CBC's) and along major transportation corridors, while maintaining an acceptable land use and transportation balance.

North Gateway Community Business Center is an entry point to Fairfax County and historic Richmond Highway. The Community's vision for this area is a more urban style mixed-use environment where people are more likely to walk, bicycle or use transit to get their destinations than to drive in a car.

The Richmond Highway corridor is designated in the Transportation Plan Map as an Enhanced Public Transportation Corridor, identifying the corridor as a candidate for major public transportation infrastructure, such as Metrorail, light rail, bus rapid transit, and/or high occupancy vehicle (HOV) lanes. The Comprehensive Plan mentions a 176' cross-section to be reserved for an ultimate Richmond Highway which includes six (6) through lanes, a transit way/median, bicycle lanes, trials and landscaping.

An extension of Fort Hunt Road through the site to Cameron Run Terrace should be considered during site planning.

VDOT Review

VDOT has reviewed the traffic impact analysis associated with these APRs. Their comments are attached. Transportation staff recommends addressing the VDOT comments provided as part of the Huntington Affected Area Study.

COMMONWEALTH of VIRGINIA
**DEPARTMENT OF TRANSPORTATION**
4975 Alliance Drive
Fairfax, VA 22030

**Gregory Whirley**
COMMISSIONER

August 8, 2013

Mr Thomas W. Burke, P.E., AICP & Ms. Arpita Chatterjee
Fairfax County Department of Transportation
4050 Legato Road, Suite 400
Fairfax, VA 22033

**RE: North Gateway APR Nomination 09-IV-1MV and 09-IV-15MV**

Dear Mr. Burke and Ms. Chatterjee:

The proposed nominations are to develop a mix of office, retail and hotel land uses at a maximum intensity of 2.0 FAR that would allow for the redevelopment of the site as a non-residential mixed use project to include788,947 SF of general office, 61,379 SF of retail and 157,687 SF of hotel uses. The site is bounded by Richmond Highway (Route 1) to the southeast, Huntington Avenue to the South and Old Richmond Highway to the west.
The purpose of the study is to evaluate the adequacy of the existing and planned transportation network to amend the comprehensive plan land use for the area as well as the transportation plan elements of the comprehensive plan.

Following are VDOT's findings and comments on the study:

1. The majority of the study intersections currently operate at overall acceptable level of service (LOS D or better) during both the AM and PM peak hours under the existing conditions. However, the capacity analysis for 2030 indicates that all study area intersections would operate beyond capacity during the AM and PM peak hours due to the already approved APR nominations as well as the proposed nominations.
2. The Fairfax County comprehensive plan calls for an interchange at the intersection of Richmond Highway and Huntington Avenue and the report mentions an interchange analysis but there is no analysis for any interchange in the study. Suggest that the study evaluate operations at the intersections with the planned interchange to determine if the interchange improvement as well as the other improvements in the current plan will be able to accommodate the future traffic or if any additional highway improvements would be needed and included in the comprehensive plan transportation element. The study should also evaluate the spacing of the interchange with the existing interchange at Route

1 / I-495 /I-95 and potential interchange concepts to provide Comprehensive Plan Guidance and Vision.

3. The link analysis results for 2030 indicate that segments of Telegraph Road, Huntington Avenue and Richmond Highway would operate beyond capacity during the AM and PM peak hours indicative of the need for additional lanes. While the study acknowledges these needs it does not provide any guidance on where and how many lanes will be needed so that the highway network will be able to accommodate the future traffic. Also the number of lanes used in link analysis computations for Telegraph Road are incorrect. Please verify.

4. As mentioned in the study, Huntington area is projected to suffer from significant traffic congestion that will negatively impact the area's access, circulation, travel time and safety. It is recommended that the currently unfunded Huntington Affected Areas Study be expedited to identify and recommend improvements related to movement of traffic through the area so that while the comprehensive plan guidance and vision is framed necessary transportation improvements can be included in the plan to provide future guidance to improve traffic operations.

5. As mentioned previously, the current County comprehensive plan calls for an interchange at the intersection of Richmond Highway and Huntington Avenue. The proposed development is in close proximity of the intersection and therefore the development plans should not preclude an interchange from being built in the future.

6. The existing Comprehensive Plan shows future interchanges at the two intersections of Huntington Avenue with US 1 and with Telegraph Rd. The study reinforces the need for these two future projects, since it clearly demonstrates that these intersections, as well as many of the roadway links adjacent to them, will operate at congested levels once the developments proposed by the current and recently-approved Plan amendments are occupied. The study appears to suggest that these interchanges may not be needed. However, based on the analysis presented in this study, it would appear that the Plan references to these future improvements should be strengthened rather than weakened Furthermore, the potential right-of-way needed for these projects should be recognized and accommodated by development applications submitted in accordance with this amendment.

7. Route 1 within the study area is identified as an enhanced public transit corridor with a 176' cross section to accommodate transit, bike and pedestrian improvements. The proposed development plans should not preclude future improvements to Route 1.

8. Route 1 within the study area is part of the National Highway System and as such the level of service standards for NHS routes will apply to Route 1.

9. One of the proposed mitigation measures includes increasing the transit and TDM trip reductions to mitigate some of the impacts. The study should include an overview discussion of the transit demand needed to achieve the vehicle trip reductions, the transit mitigation measures such as shuttle services to the station needed to be undertaken to provide the necessary transit capacity, and the other transportation demand management measures (paid parking) and improvements which will be needed to support the transit, pedestrian and bike friendly development.

10. The comprehensive plan guidance and vision text should include a comprehensive and systemic monitoring and evaluation program that regularly monitors the level of development, travel demand, effectiveness of the TDM programs and performance of the transit system to evaluate the adequacy of the infrastructure provided/planned. Such monitoring and evaluation should be used to determine the effectiveness of the TDM strategies and infrastructure improvements required and funding plan for the improvements to achieve a balance between land use and transportation. The comprehensive plan guidance and vision text should include the additional mitigation measures identified such as intersection improvements and TDM programs indentified in the study.

11. If and when the proposed land use changes and comprehensive plan amendment are approved, the land use changes should be included in the Council of Government's cooperative land use forecast.

12. The current transportation map for the area is consistent with the State Long Range plans. Any changes to the transportation network adopted as part of this amendment to the comp plan will have to be reviewed for consistency with the state plans as per 2012 chapter 729 requirements.
13. Intersection lane configurations used in the study need to be checked. (Example: intersection # 2 northbound approach future condition has less number of lanes than existing condition, and intersection #3 eliminated southbound right-turn movement in the future. (Figures 4-1 and 4-2))

14. Some of the lane configurations used in Synchro analysis are not consistent with that shown in the figures. Please check and correct. (Example: intersections #1 and #3 southbound lanes in Synchro analysis are not consistent with those shown in Figure 4-1 for existing condition; Intersection #2 lane configurations for 2030 Synchro analysis are not consistent with Figure 4-2.)

15. A scenario for the current plan without the subject nomination should be analyzed in order to examine the impact that the subject nomination would have on roadway network and intersections.

16. The study listed roadway and intersection improvements but did not include them in the analysis except for one of them (adding a turn lane). Therefore, it is not clear if these improvements would be effective in alleviating congestion identified in the study.

17. Construction of site access drives indicated on Page 72 should not be considered as an improvement/mitigation measure.

We would be happy to participate in a meeting to discuss these findings and how they might best be addressed in a revision to this analysis.

It is also our understanding is that this TIA is in association with the comprehensive plan, and a follow-up TIA will be scoped, prepared and submitted to VDOT for review at rezoning stage. For the TIA to be prepared at the rezoning stage, additional intersections should be included in the scope.

Please contact me if you have any questions.

Sincerely,

*Paul J. Kraucunas*

Paul J. Kraucunas, P.E.
Land Development Program Manager