



**A Publication of the County of Fairfax, Virginia
Department of Planning & Zoning**

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

SUPERVISOR DISTRICT: Springfield

APR ITEM: 09-III-1FC

NOMINATOR(S): Brian Winterhalter, Cooley Godward Kronish LLP

ACREAGE: 133.7 acres

TAX MAP I.D. NUMBERS: 46-3 ((8)) All; 46-4 ((9)) All; 56-1 ((12)) All

GENERAL LOCATION: South of Lee-Jackson Memorial Highway (Route 50), north of Interstate 66 (I-66), and east of Legato Road

PLANNING AREA(S): II

District(s): Fairfax

Sector: Legato (F5)

Special Area: Fairfax Center Area (Sub-unit J5)

ADOPTED PLAN MAP: Fairfax Center Area

ADOPTED PLAN TEXT: Retail and office mixed-use up to 0.15 floor-area ratio (FAR) (Baseline level), 0.25 FAR (Intermediate level), 0.50 FAR (Overlay level)

For complete Plan text see <http://www.fairfaxcounty.gov/dpz/comprehensiveplan/area3/fairfaxcenter.pdf>
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PROPOSED PLAN AMENDMENT: Retail and office mixed-use up to 0.15 floor-area ratio (FAR) (Baseline level), 0.25 FAR (Intermediate level), 0.65 FAR (Overlay level); Options for retail, office, hotel, residential, and supporting uses up to 0.80 FAR for portion of area, based on bus rapid transit and other conditions, and up to 1.0 FAR for portion of area, based on Metrorail and other conditions.

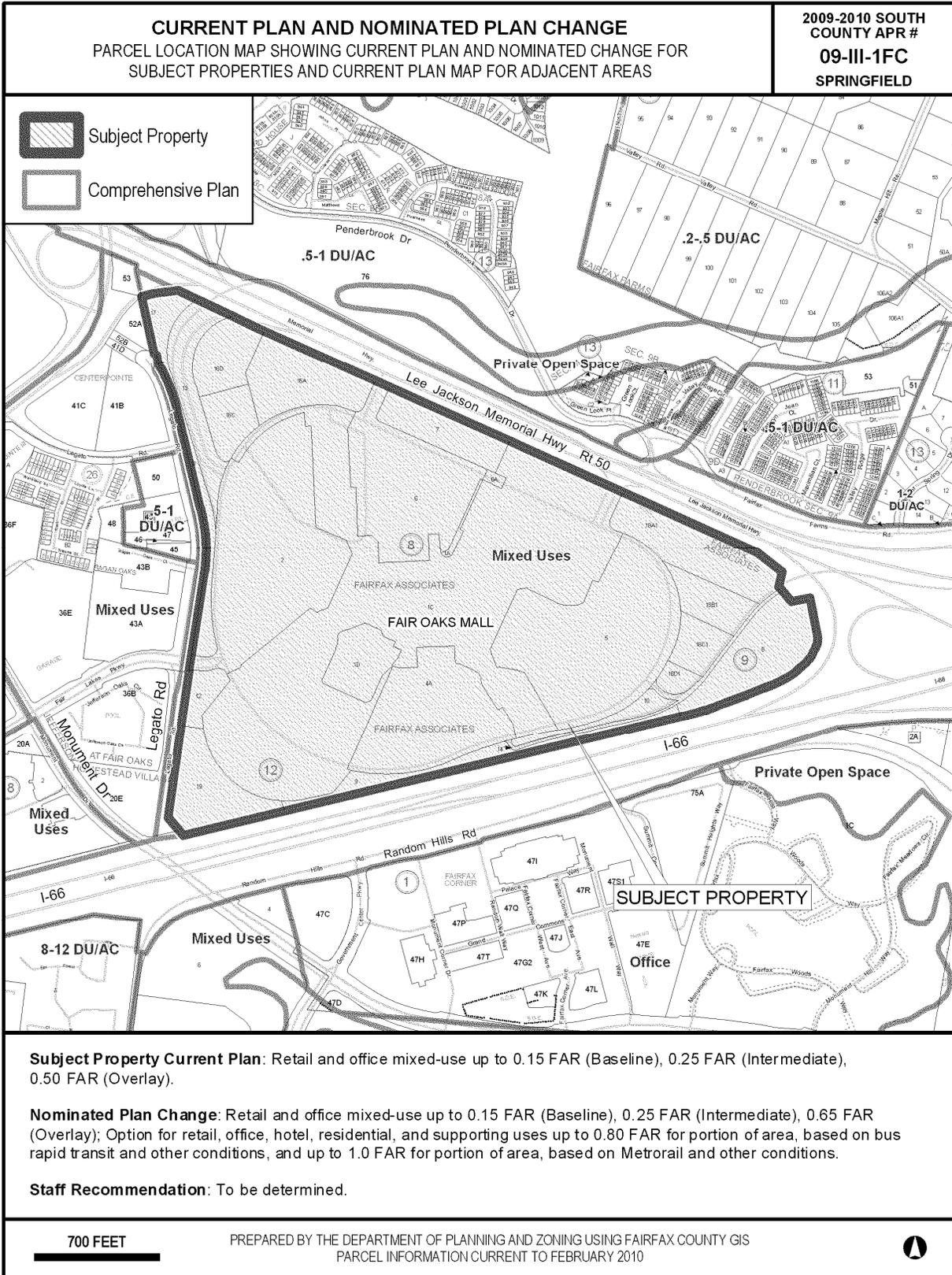
SUMMARY OF STAFF RECOMMENDATION

Approve Nomination as submitted

Approve Staff Alternative

Retain Adopted Plan

Staff recommends an alternative that would accommodate development levels up to 0.65 FAR, 0.80 FAR and 1.0 FAR. See proposed text at the end of this staff report.



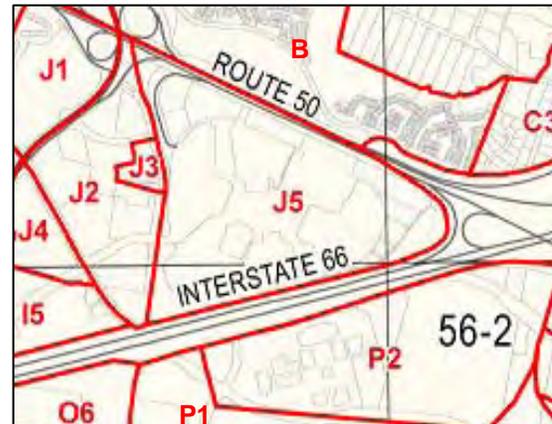
CONTEXT

General Location:

The approximately 133.7-acre subject property of APR nomination 09-III-1FC is located south of Lee-Jackson Memorial Highway (Route 50), north of Interstate 66 (I-66), and east of Legato Road.

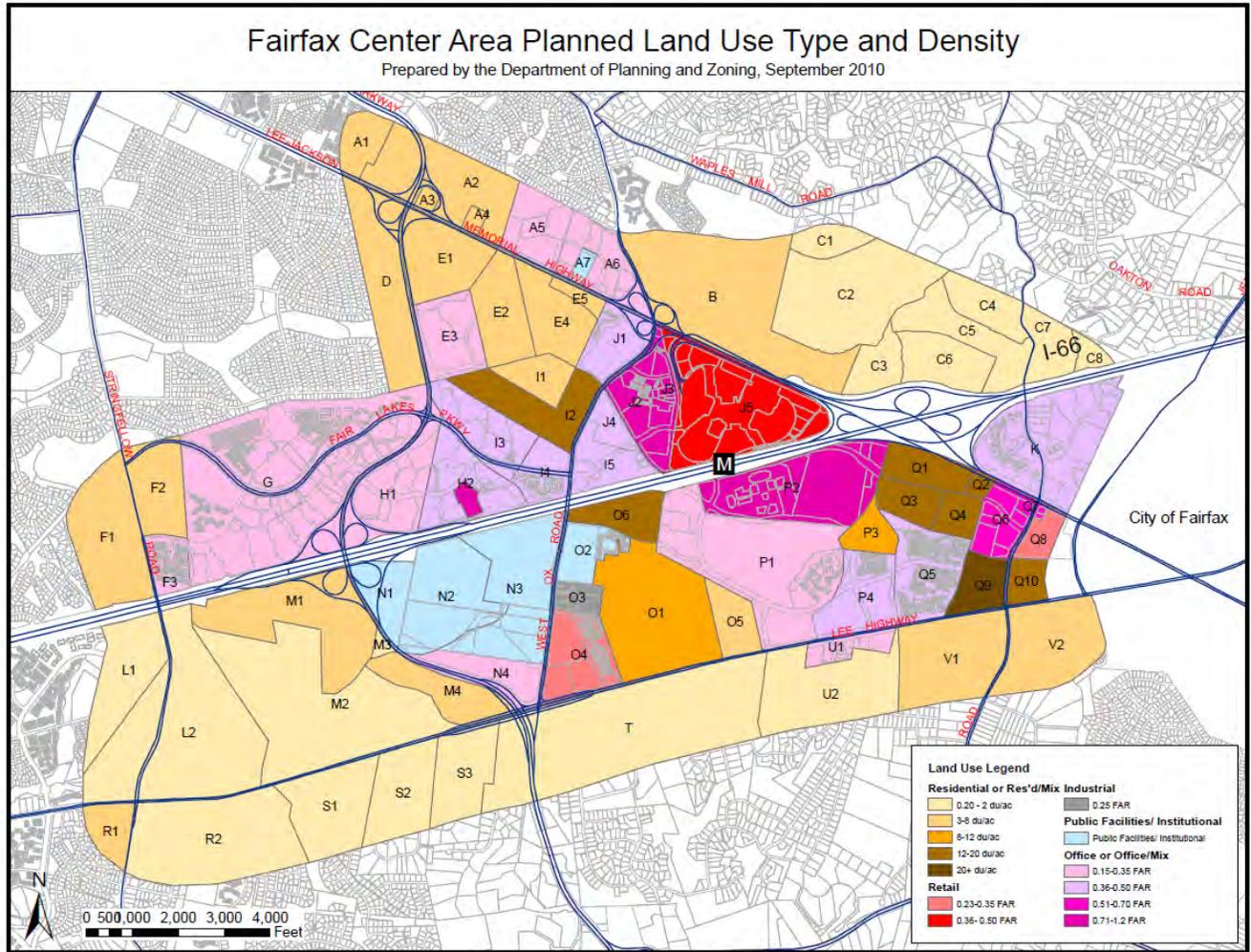
Existing and Planned Land Use and Zoning:

Subject property: The subject property contains the Fair Oaks Mall, a regional mall built in 1981; free-standing office, hotel, and retail uses, which surround the perimeter of the mall, and associated surface and structured parking. The Fair Oaks Mall consists of approximately (app.) 1.6 million square feet (MSF) of retail use on 109.5 acres (See Figure 15 on page 24 of this staff report). The parcels that surround the mall consist of app. 380,000 square feet (SF) of office use; 260,000 SF of hotel use, and 29,000 SF of retail use.



Guidance for the subject area is found in the Fairfax Center Area (FCA) of the Fairfax Planning District. The FCA is identified as a Suburban Center in the Concept for Future Development. The Suburban Center classification emphasizes a mix of uses with the primary focus on employment and higher density residential uses. The subject property is located in Sub-unit J-5 of Land Unit J in the FCA. The land unit is part of the FCA core area, which is planned for high intensity mixed-use to achieve high quality site and architectural design. The illustration on the following page titled “Fairfax Center Area Planned Land Use Type and Density” shows how development potential is allocated in the Fairfax Center Area and how the highest intensities are concentrated on or near Sub-unit J5.

Sub-unit J5 is currently planned for retail and office mixed-use at an intensity of up to 0.15 FAR at the Baseline level, 0.25 FAR at the Intermediate level, and 0.50 FAR at the Overlay level. At the current Overlay level, the Plan would result in approximately 2.9 MSF of retail and office uses on Sub-unit J5. The subject area also is located to the north of a planned future Metrorail station in the I-66 right-of-way along the planned extension of the orange line. The sub-unit is zoned C-7 Regional Retail Commercial District, which allows retail and limited hotel and offices uses at an intensity up to 0.80 FAR. The development potential of the Fair Oaks Mall property is limited to approximately 1.6 MSF by RZ 74-2-008



Adjacent Area:

North and Northeast: North and northeast of the subject area is Route 50 and its intersection with I-66. Route 50 is considered a principal arterial roadway, generally six to seven lanes wide adjacent to the Fair Oaks Mall and divided by a vegetated median. To the north of Route 50 is Land Unit B of the FCA. The land unit extends north towards Waples Mill Road and eastward to the Fairfax Farms low-density residential community. The area contains the Penderbrook residential development and Penderbrook public golf course. The Plan recommends residential use at 6.6 dwelling units per acre (du/ac) at the Overlay level, predicated on a unified development plan for the area, the incorporation of the golf course as an area-wide public amenity and other conditions. The area is zoned as the Planned Development Housing District of PDH-8 and was developed according to the Plan in the late 1980s and the early 1990s.

South and Southeast: Sub-units P1 and P2 of the Fairfax Center Area are located south of the subject area, south of I-66. I-66 is classified as a freeway, generally eight lanes adjacent to the Fair Oaks Mall. Sub-unit P1 contains the Fairfax County Government Center, which is zoned

Planned Development Commercial (PDC) and planned for office/mix at an intensity up to 0.35 FAR and public facilities at the Overlay level. Sub-unit P2 contains the Fairfax Corner development. The sub-unit is planned for residential, retail, office, and hotel uses at an overall intensity up to 0.35 FAR and a 300 room hotel, and zoned PDC. The Comprehensive Plan designates a 32-acre portion as the mixed-use core area of Sub-unit P2, which has an option at the Overlay level for additional development at an intensity of 0.50 to 1.0 FAR with conditions related to affordable dwelling units (ADUs) and workforce dwelling units (WDUs), structured parking, open spaces, and transit, particularly multi-modal connections to the planned Metrorail station, also connecting to the Fair Oaks Mall. The core area currently is developed with office, retail, and residential uses and is approved for development at an intensity of up to 0.97 FAR.

West: Sub-units J2 and J3 are located to the west of the subject area, across Legato Road, classified as a local street. Sub-unit J2 contains the Centerpointe development, which consists of high-rise office uses, townhouses, and multi-family apartment buildings, and is zoned PDC. The sub-unit is planned for office mixed-use at an intensity of up to 1.0 FAR and a 300 room hotel at the Overlay level with two options with the provision of a linear park along the north side of Monument Drive. The first option at the Overlay level recommends office use at an intensity of up to 1.0 FAR with full consolidation of a portion of the sub-unit. The second option recommends multi-family residential use up to 402,000 SF on Tax Map parcel 46-3 ((1)) 36E with ground-floor retail use, structure parking, ADUs, and other design conditions. Sub-unit J3 acknowledges the existing church as a viable use within the context of the Plan and recommends expanding the church to an intensity up to 0.50 FAR, if design, parking, and transition conditions are achieved. The sub-unit is planned for high-quality office use at an intensity of up to 1.0 FAR as an option at the Overlay level, if similar conditions as Sub-unit J2 are met. Sub-unit J3 is zoned C-3.

PLANNING AND ZONING HISTORY

No Comprehensive Plan changes have been proposed for this area since 1994. In August 2008 a Partial Proffer Condition Amendment (PCA) was submitted for the original rezoning of the Fair Oaks Mall property: PCA 74-2-008 proposes to develop approximately 530,000 SF of new office and retail use on the 109.5-acre Fair Oaks Mall property within Sub-unit J5. The resulting intensity would increase up to a 0.48 FAR. The PCA has been deferred indefinitely.

ADOPTED COMPREHENSIVE PLAN TEXT

Fairfax County Comprehensive Plan, 2007 Edition, Area III, Fairfax Center Area, Land Use Plan Recommendations – The Overlay Level, page 3, as amended through 10-9-2010:

“LAND USE

...

The Overlay level is based upon a single core concept. In this concept the core area contains the most intense mixed-use development. The core area includes all of Land Unit J and Sub-unit I5. This core area is located west of the 50/I-66 interchange, south of Route

50, and north of I-66. The core consists of the Fair Oaks Mall and the adjacent office, hotel and commercial uses; residential uses; as well as plazas and open space.”

Fairfax County Comprehensive Plan, 2007 Edition, Area III, Fairfax Center Area, Land Unit J Recommendations, page 73, as amended through 10-9-2010:

“General Development Conditions

As the primary mixed-use development in the area, the J Land Unit area should exemplify the overall planning philosophy of the Fairfax Center Area. The linear park along the north side of Monument Drive and urban plazas must be accommodated in development plans for the area. Development plans should also portray any future building and parking structure phasing that would result in the maximum allowable FAR. The highest quality of site and architectural design is expected for proposed development in this area. In addition, landscaping, lighting, and sign design should be well-integrated. A 24 hour activity cycle is recommended through a mixture of office, retail, hotel, entertainment, and housing opportunities.”

Fairfax County Comprehensive Plan, 2007 Edition, Area III, Fairfax Center Area, Sub-unit J5, Land Unit Recommendations, page 76, as amended through 3-9-2010:

“Sub-unit J5

This sub-unit contains the Fair Oaks regional mall at its center and several office buildings, a multi-screen movie theater, and a hotel around it perimeter. It is planned for mixed-use retail and office use not to exceed .50 FAR overall. The existing character of the site along Route 50 should be preserved.”

LAND UNIT SUMMARY CHART – SUB-UNIT J5

<u>Development Level</u>	<u>Recommended Land Use</u>	<u>Intensity/FAR</u>
Baseline Level	Mixed-use	0.15
Intermediate Level	Mixed-use	0.25
Overlay Level	Mixed-use	0.50

NOMINATED PLAN AMENDMENT

APR nomination 09-III-1FC proposes to increase the Overlay level of the 133.7-acre sub-unit from a maximum of 0.50 FAR up to 0.65 FAR and to add two options for development on a portion of this area based on the provision of a funding agreement for either Bus Rapid Transit (BRT) or Metrorail. The BRT option would increase the intensity of the 109.5-acre Fair Oaks Mall property up to 0.80 FAR, while the Plan recommendation for the remaining parcels (app. 24 acres) would remain at the maximum Overlay intensity of 0.65 FAR. The Metrorail option would increase the intensity of the 109.5-acre Fair Oaks Mall property up to 1.0 FAR, while the

Plan recommendation for the remaining parcels would remain at the maximum Overlay intensity of 0.65 FAR. At the highest proposed development intensity up to 1,400 new dwelling units and about 1 million square feet of office use would be added to the current maximum intensity, in addition to new hotel and retail uses. The following chart compares the quantification for the proposed Plan options:

Current Plan Overlay Level (0.5 FAR)	Proposed Overlay Level (0.65 FAR)	Proposed Plan Option 1 (0.80 FAR on 109.5 acres & 0.65 FAR on 24.4 acres)	Proposed Plan Option 2 (1.0 FAR on 109.5 acres and 0.65 FAR on 24.4 acres)
Total; 2.91 million SF (MSF) Retail use (80%): 2.33 MSF Office use (20%): 583,000 SF	Total: 3.79 MSF Retail use (56%): 2.13 MSF Office use (25%): 936,000 SF Hotel use (14%): 520,000 Residential use (5%): 200,000 (200 high-rise MF units)	Total: 4.5 MSF Retail use (48%): 2.17 MSF Office use (27%): 1.22 MSF Hotel use (12%): 520,000 Residential use (13%): 600,000 (600 high-rise MF units)	Total: 5.46 MSF Retail use (40%): 2.17 MSF Office use (25%): 1.37 MSF Hotel use (12%): 520,000 Residential use (29%): 1.4 MSF (1,400 high-rise MF units)

ANALYSIS

Land Use

As mentioned in the Existing and Planned Land Use section, much of Land Unit J is planned for high intensity mixed-use development. A 24-hour activity cycle is encouraged through a mixture of office, retail, hotel, entertainment, and housing opportunities. The adjacent Sub-unit P2 and areas southwest along Route 50 and Route 29 are planned for and have implemented similar mixed-use development. At a conceptual level, the proposed uses, including retail, residential, office, and hotel uses, and intensities up to a maximum of 1.0 FAR on the Fair Oaks Mall property constitute infill redevelopment and are consistent with the vision for this portion of the Fairfax Center Area.

At the sub-unit level, the APR nomination primarily focuses on the Fair Oaks Mall property, which would be most directly affected by the proposed increase in planned intensity. The nomination proposes to increase the Overlay level of the entire sub-unit up to .65 FAR, with the maximum intensity of the mall property able to increase up to 0.80 FAR and 1.0 FAR. Several of the properties around the perimeter of the mall within the sub-unit, which include office, hotel, and retail uses, are currently developed under the current C-7 zoning district, resulting in an average intensity close to the proposed 0.65 FAR over the 24 acres. As a result, the substantial redevelopment is anticipated to occur on the mall property with the proposed redevelopment levels.

The proposed redevelopment levels on the mall property reflect a recent trend in Fairfax County to promote redevelopment of regional malls into more intense, transit-oriented, mixed-use centers with additional uses planned for the surrounding surface parking lots. As available vacant land for development in Fairfax County diminishes, the ability to redevelop existing uses in designated activity centers that are proximate to transit will help the county achieve several goals. This type of redevelopment supports alternatives to auto-oriented environments, works against suburban sprawl, and creates unique, identifiable places. Two other malls within the

county, Tysons Corner Center and Springfield Mall were recently approved for this type of redevelopment. Unlike the other two malls, this APR nomination is not associated with a concurrent rezoning, suggesting a longer term time frame for implementation.

The proposed development levels may be implemented sequentially with the 0.65 FAR Overlay level and 0.80 FAR BRT option functioning as potential interim stages to the 1.0 FAR Metrorail option. However, the timeframe for these transportation improvements is uncertain. Currently, BRT and Metrorail are being evaluated by the Virginia Department of Transportation (VDOT) along with other improvements in the I-66 corridor. The extension of Metrorail to Centreville is recommended on the county's Transportation Plan. However, neither the BRT nor Metrorail transit option is currently funded nor part of the county's Four Year Transportation Program, VDOT's Six Year Plan, or the National Capital Region's Financially Constrained Long-Range Transportation Plan (CLRP), which identifies all regionally significant transportation projects and programs that are planned in the Washington metropolitan area between 2010 and 2030. The Virginia Department of Rail and Public Transportation (VDRPT) recently released an Interstate-66 Transit/Transit Demand Management (TDM) study in 2010, which recommends a bus priority system along the I-66 corridor as an interim to BRT service. A bus priority system according to DRPT has some, but not all of the elements of BRT, including increased frequency of service, direct pedestrian access to substantial stations, modern vehicles, distinct branding, and advanced technology and information systems.

In recognition that BRT and/or Metrorail may not be funded in the near term, high quality site design and conditions for redevelopment should be established at the 0.65 FAR development level using the adopted Plan recommendations for the Overlay level in the FCA and supplemental conditions. The Overlay level in the adopted Plan recommends the highest intensity for the sub-unit, which corresponds to the provision of certain public amenities and public facilities. The amenities, public facilities, and infrastructure are used to support the intensity of development and mitigate any impact. The levels of public facilities and amenities are expressed as basic, minor, major, and essential elements and are described in the Performance Criteria for FCA. At the Overlay level, all of the elements and performance criteria should be met in addition to county policy for activity centers. Since the 0.80 FAR and 1.0 FAR development levels are proposed to be planned options above the Overlay level, these options should achieve an exceptional quality of development that exceeds the expectations of the Overlay level.

In addition to the adopted Plan guidance for review, the proposed development at the Overlay level and the subsequent levels necessitate supplemental Plan language that specifically relates to the infill proposal within the land unit. The current Plan for the FCA presumes greenfield development conditions, and this guidance should be updated in areas where transit-oriented, mixed-use, infill redevelopment is a viable future possibility. The Plan language should address redevelopment goals and how new uses and increased intensity will transform the character of the existing, auto-oriented, regional shopping mall and outlying parcels into a recognizable and attractive, walkable, urban mixed-use place. Such guidance will facilitate the creation of a

unique and identifiable place with high quality architecture, compact urban form, and a variety of land uses.

A variety of land uses, planned to surround and complement the mall, would contribute to the goal of placemaking. Residents and employees should have their housing, jobs, shopping, and recreational and transit opportunities conveniently and enjoyably located within walking distance. Recognizing that the redevelopment may occur in phases, with the expansion of the mall as the initial phase, the adopted Plan recommendation for office and retail use at an intensity of up to 0.50 FAR should remain, but as an interim condition. The mall building should be able to expand to approximately two million square feet, as proposed. The proposed 0.65 FAR should be added as the Overlay level in order to encourage the next phase of development to include other types of uses, such as residential and hotel uses. Other retail use should be considered as part of ground floors of buildings. At the .65 FAR Overlay level, the majority of the development potential would be utilized by the mall's retail uses. However, as the development builds out to the proposed 1.0 FAR, the proportion of land uses should shift such that the new development would become the majority of the development. In the APR nomination the mall retail use represents approximately 40 percent of the total redevelopment on the mall property at the 1.0 FAR.

The Plan language also should bring together concepts that promote cohesion and connectivity among the existing and future land uses within and surrounding the mall property. This integration should extend the sense of vibrancy internal to the mall to the surrounding land uses and streetscapes. Most importantly, the overall design should avoid the haphazard placement of additional buildings around the mall. As development around the mall builds out to the 1.0 FAR, seamless integration should be achieved through land use and building placement, architecture, orientation, entrance features, and logical circulation patterns. Streetscapes should be active and designed with amenities and animated building façades at a pedestrian scale. Block sizes should also be designed with reasonable lengths to encourage pedestrian usage. Building heights, massing, and articulation should create visual interest and avoid sun shading of the street by taller structures. Parking design should not visually affect the pedestrian-environment with surface lots minimized, if not eliminated, or consolidated into above-ground and under-ground structures. Parking structures should be designed to provide an attractive appearance along existing and new streets, and limited on-street parking should be available to help support ground-floor retail shops.

Visual and physical connections should be made between redevelopment on the mall property and the adjacent land uses within the land unit and the land uses adjacent to the land unit. The edges of the proposed redevelopment on the mall property should welcome residents, employees, shoppers, and first-time visitors into the site and avoid a fortress-like appearance. Entrances to the redevelopment on the mall property should contain gateway features that define the redevelopment and announce its threshold. Logical connections should be made to encourage easy movement into and out of the mall property. It is recognized that the most direct connection across the mall property is generally through the mall. When the transit stations become

operational, the mall should maintain this connection taking into account the operational aspects of the mall and the transit station.

The location of the transit station also should influence the urban form of the redevelopment. It is anticipated that any future Metrorail or BRT station will connect directly into the Fair Oaks Mall property near the southwestern portion of the ring road that encircles the mall, based on land dedications associated with the Fairfax Corner development in Sub-unit P2. Sub-unit J5 would be located almost completely within the ½ mile radius from the proposed station location. As such, redevelopment at increased intensity presents an opportunity to create transit-oriented development with the highest intensity concentrated near the station. A prominent connection from the station to the mall should be developed to promote awareness of transit. The link should be safe and attractive with animated street-level retail uses, cafes, entrances, unique architecture, and other pedestrian amenities, such as benches, landscaping, and browsing areas. A significant plaza or park would be an appropriate as a significant feature of this connection. This plaza or park should contribute to the distinct identity of the place and function as a central gathering place or activity center within the development. If this plaza or park cannot be located at this location, then a similar feature should be located elsewhere on the property to achieve this goal.

The implementation or phasing of these recommendations is another major consideration to be addressed. It has already been mentioned that the expansion of the mall in the initial phase and the addition of other uses during subsequent phases should be accommodated. It is also recognized that the proposed development levels of 0.80 FAR and 1.0 FAR may have a long-term development horizon, which most likely will involve sub-phases, such that the individual redevelopment levels will not be constructed at one time. As a result, a phasing plan should be submitted at each development level. It is critical that a vision of the future for the mall property be defined at the earliest phase of redevelopment. A general circulation plan should illustrate how the site may be designed in the future. A plan would ensure that each development phase works toward achieving the goals of transit-oriented redevelopment. One of the primary aspects of the plan should be a multi-modal evaluation of the circulation into, around, and through the site. The existing mall with its central location and potential for expansion in an initial phase presents a challenge for movement, particularly for pedestrians. The future vision should evaluate where pedestrian pathways will be located, should identify corridors of movement, and should illustrate how connectivity can be improved.

Individual development phases may result in potential sub-divisions of the current parcel configuration and/or dedication of right-of-way. The acreage on the subject area is relatively large and most likely will need to be divided with additional roadways, which may be private. The associated dedication of right-of-way or other land may cause confusion in the future in calculating the planned and effective intensities at the redevelopment options. Therefore, Plan language should reference the maximum square footage of the proposed intensities at the option level, in addition to the intensity. The proposed maximum of 0.80 FAR with the funding of BRT would result in up to 3.8 million square feet on the Fair Oaks Mall property, while the proposed

maximum of 1.0 FAR with the funding of Metrorail would result in up to 4.8 million square feet of development on the mall property.

In summary, the Plan recommendations should offer guidance for the preceding land uses issues that responds to changing markets and design trends and remains relevant over time. The recommendations should be specific enough to achieve the architectural, site design, and implementation goals, while allowing for reasonable flexibility to accommodate a variety of possible future designs. The same approach should be maintained as other elements, such as Transportation, Parks and Recreation, Schools, and Environment, are considered.

Transportation

Existing Conditions and Plans: The collector and local road network in the vicinity of the subject area has been constructed. West Ox Road north of Route 50 has been constructed to four lanes as identified on the Transportation Plan Map. There are four additional major improvements identified on the Transportation Plan Map in the vicinity of the nominated area and they are as follows: 1) the interchange at Waples Mill Road and Route 50; 2) an interchange improvement at Route 50 and I-66; 3) the widening of I-66 to ten lanes with HOV; and, 4) Metrorail within the I-66 corridor and a station located south of and adjacent to the nominated area.

The subject area is predominantly oriented to vehicles with limited pedestrian connectivity. A system of ramps provides the primary vehicular access into the subject area directly from Route 50 and indirectly from I-66 in both the eastbound and westbound directions. The only signalized intersection is located at Fair Lakes Parkway and the Mall Ring Road. This intersection is the main entrance into the mall area from the west, and there is currently no pedestrian accommodation, such as crosswalks, at this intersection. Further, there are minimal pedestrian connections throughout the remainder of the site. The only crosswalk across the Ring Road, the road that generally encircles the Fair Oaks Mall and the Mall property, is located approximately 300 feet north of the Fair Lakes Parkway and Mall Ring Road intersection. A sidewalk exists from this unsignalized crosswalk through the parking area to the mall building. The majority of the 6,900-foot Ring Road does not contain sidewalks. A 300-foot sidewalk section exists on one side of the road front of a hotel on Tax Map 46-3 ((8)) 16C, which is within the subject area, but not part of the identified 109.5-acre Fair Oaks Mall property. The sidewalk leads to a crosswalk across the Route 50 ramps and a trail, which eventually meets the aforementioned unsignalized crosswalk across the Ring Road and Fair Lakes Parkway.

Both the Washington Metropolitan Area Transit Authority (WMATA) and the Fairfax Connector provide bus service to the subject area. The bus routes serve the subject area or nearby the subject area during the morning rush hour (AM peak period) and the afternoon rush hour (PM peak period), and mid-day and evening on 30 minute to one hour intervals (headways), depending on the route. The County has developed a Transit Development Plan (TDP), which is a comprehensive 10-year plan for Fairfax Connector and Metrobus bus service throughout the entire County. The plan recommends increasing the frequency of some headways to 15-20

minutes during peak hours for bus routes that operate near the subject area. Additionally, two new routes are recommended in the TDP, which would run from the Stringfellow Park and Ride lot, with service through the Fair Lakes area, the Fair Oaks Mall, and the Vienna Metro. The routes are intended to replace a private shuttle that currently operates from the Fair Lakes residential area to the Vienna Metrorail station.

VDOT Chapter 527 Analysis: In accordance with Virginia Chapter 527 traffic impact analysis regulations, a traffic impact study for the proposed APR nomination was submitted by the nominator to the Fairfax County Department of Transportation (FCDOT) and the Virginia Department of Transportation (VDOT) for review. The VDOT comments are appended to this staff report as Attachment A. The analysis by the FCDOT can be found in Attachment B. As agreed upon with Fairfax County staff, the Chapter 527 analysis included trip reductions to reflect a decrease in vehicular trips due to synergy between land uses, transit and non-auto trips, retail pass-by, and Transportation Demand Management (TDM) strategies. Retail pass-by occurs when a person is heading from one destination to another and also stops at a retail establishment; therefore, no net trip is created. Several improvements were suggested by the nominator to improve intersection level of service (LOS) and road segment congestion for the proposed density increases of 0.65 FAR, 0.80 FAR with BRT, and 1.0 FAR with Metrorail. County policy defines acceptable level of service as an overall LOS D or better in most areas of the county.

The analysis assumes build-out of the Constrained Long Range Plan (CLRP) transportation network, which includes improvements identified in the county's Transportation Plan Map anticipated to be constructed by 2030. As mentioned in the Land Use section, the Board of Supervisors adopted transportation mode for I-66 is the extension of Metrorail with the last station in Centreville. The extension is shown on the County's Transportation Plan Map, but is not part of the CLRP. A BRT system is not currently identified as an option in the I-66 corridor in the Comprehensive Plan. For the purpose of considering increased development at this site, BRT is defined as operating in the median of I-66 and served by stations with bridge connections to adjacent parcels. BRT is segregated from the public traffic on I-66, operating in an exclusive lane. The stations are similar to Metrorail, and service consists of larger buses such as articulated buses. The system on I-66 would operate from the Vienna Metrorail station (or points east) to at least the county line and probably into Prince William County. A BRT system as considered in this nomination is a higher quality system than the express bus or bus priority system as described in the Virginia Department of Rail and Public Transit's (DRPT) I-66 Transit/TDM study, published in 2010. A bus priority system according to DRPT has some, but not all of the elements of BRT, including increased frequency of service, direct access to substantial stations, modern vehicles, distinct branding, and advanced technology and information systems.

The results of the Chapter 527 analysis indicate that at the proposed 0.65 FAR, two of the nine intersections analyzed in the traffic study would not operate within an acceptable LOS and should be mitigated, possibly including the nominator-proposed measures, such as signal modification. These measures would need to be evaluated as part of a network at the time of the rezoning and approved by VDOT. A link capacity analysis of West Ox Road, Fair Lakes

Parkway, and Monument Drive was performed and demonstrated that the majority of the roadways would not be over capacity at the 0.65 FAR level. Any roads that are over-capacity also would need to be further analyzed to determine if mitigation is necessary during rezoning.

Non-vehicular mitigation measures to reduce the number of vehicular trips and improve multi-modal circulation should be pursued. These measures include implementing a network of sidewalks, improved pedestrian crossings at intersections, and accommodating other transportation modes, such as bicycles, within or adjacent to the road network. Pedestrian crossings of the Ring Road, particularly at the intersection of Fair Lakes Parkway and the Ring Road should be provided or enhanced. As stated in the Land Use section, a multi-modal circulation plan should be established at the earliest phases of redevelopment. The design of the streetscape should encourage walking and biking to reduce vehicular trips. Where pedestrian and bicycle corridors are identified, streetscape design should ensure safe usage for pedestrians, bicyclists, drivers, and transit riders of all ages and abilities.

Redevelopment at an intensity greater than the proposed 0.65 FAR should provide another point of vehicle access that also accommodates pedestrians and bicycles to alleviate the failing conditions for vehicles. The traffic impact study proposes mitigation through an extension of Legato Road, where Legato Road meets the western segment of Legato Road, to connect to the Ring Road as part of the mitigating improvements for development at this level. The study shows that this connection in conjunction with a TDM program and other improvements provides benefit to each intersection analyzed.

At the proposed 0.80 FAR with BRT, three of the nine intersections do not operate at an acceptable LOS before mitigation. However, mitigation measures, such as limited intersection design modification, signal modification, and the Legato Road connection, would help to alleviate the failing conditions. These measures would need to be analyzed during rezoning and supported by VDOT.

Fair Lakes Parkway is shown to be over-capacity at the proposed 0.80 FAR and will need to be addressed with a detailed segment analysis to determine what solutions are possible for this segment of the road. The link analysis reaffirms that another vehicular connection (either the Legato Road extension proposed by the nominator and/or an alternative, such as the Government Center Parkway extension) at the 0.80 FAR is needed.

The intersection LOS for the proposed 1.0 FAR with Metrorail has roughly the same results as the proposed 0.80 FAR with BRT, primarily due to the greater transit reduction assumed for the Metrorail. There is a slightly greater impact, but the effects from the increased density are marginal when compared against the proposed 0.80 FAR. The road mitigation measures would be the same for the 1.0 FAR as the 0.80 FAR, especially with the additional connection, such as the Legato Road extension, into the site.

Parks and Recreation

Existing nearby parks, including Dixie Hill, Random Hills, Carney, Waples Mill Meadow, Ox Hill Battlefield, Fair Ridge, Fair Oaks, and Oak Marr Parks, meet only a portion of the current demand for parkland generated by residential development in the service area of the nomination. In addition to parkland, the recreational facilities in greatest need in the Fairfax Planning District include rectangle fields, adult and youth softball fields, youth baseball fields, basketball courts, playgrounds, a neighborhood skate park and trails. As identified in the adopted Plan for the Fairfax Center Area, “on-site Neighborhood Park facilities should be provided as part of all planned residential development.” (Fairfax Center Area Area-wide Recommendations, Area III, as amended through 10-19-2010, page 41.) The Plan continues, “The mixed-use character of the Fairfax Center Area dictates provision of active recreation facilities to serve...youth and families... and the adult workforce.”

The development proposed for the subject area would affect existing parks and recreational services and facilities. The nomination would generate a potential increase in residents up to approximately 2,730 individuals, increase in the employment population up to approximately 2,960 employees, and increase the number of retail shoppers. The additional residents would need access to park and recreation facilities on site or nearby. Employees should have access to recreational amenities at lunchtime or after work. The impact on parks and recreation levels of service by the nomination should be addressed as stated in Objective 6 of the Parks and Recreation Section of the Policy Plan (Parks and Recreation section, Policy Plan, as amended through 6-20-2005, page 8), the current Plan text for the Fairfax Center Area, and other county policies, which speak to the inclusion of different types and sizes of parks and recreational facilities included on-site within redevelopment.

The integration of publicly accessible urban parks and recreational facilities in the overall development design is critical to providing on-site recreation resources within the nomination area. Urban parks would enhance the desirability of the project, contribute to redevelopment efforts, and contribute to a unique sense of place. A variety of urban parks such as pocket parks, plazas, common greens and recreation-focused urban parks should be integrated into development at any level as per county policy. The parks should vary in function and size and form a network of spaces, connected by a logical and safe circulation plan. Any redevelopment should create these usable open spaces and connectivity, which support an active and interesting pedestrian environment.

Development proposals also should specifically address the severe shortage of athletic fields that serve the area. Planned athletic fields have not been developed as called for in the Area-wide recommendations. A number of tennis courts, multi-use courts and playgrounds have been master planned at parks in the area, but have not been constructed. Oak Marr District Park, which is a heavily used park and includes the Oak Marr RECenter, open to the public since 1988, is in need of upgrading and expansion. Any redevelopment at the proposed option level should contribute to the construction of new athletic fields and/or upgrading existing fields at parks within the service area, the construction of master planned park facilities, and the replacement or

improvement of aging park facilities at nearby parks. The preferred location of the athletic field should be on-site, such as a roof top facility, but an off-site field or financial contribution also should be considered.

Schools

The APR nomination is within the Eagle View Elementary School (ES), Lanier Middle School (MS), and Fairfax High School (HS) boundaries. Student yields from the proposed nomination would impact the capacity at the receiving schools. Currently, Eagle View ES and Lanier MS are over capacity and all three schools are projected to be over capacity for the 2014-15 school year. Table 1 on page 25 of this staff report shows the school capacity and enrollment estimations. Student enrollment projections are done in a five year timeframe, currently through school year 2014-15 and are updated annually. Beyond the six year projection horizon, enrollment projections are not available.

The APR nomination, which proposes to increase the Overlay level up to 0.65 FAR to include residential use and add two options up to 0.80 FAR and 1.0 FAR that increase the amount of residential uses on the Fair Oaks Mall property would yield 17, 52, and 122 additional students, respectively. Table 2 on page 25 shows the calculations based on the current county-wide student yield ratios. At the time of a rezoning application review, the amount of residential use approved and the timing of residential development should be determined based on the most current enrollment projections available. Residential use should mitigate impacts on schools.

Environment

Noise – Transportation generated noise exceeding 75 dBA DNL from I-66 is likely to impact the subject area and may impact the site from Route 50. The transportation-generated noise may adversely impact sensitive uses, such as residential uses. This issue could be avoided based on the location of such noise-sensitive uses. If the sensitive uses are either shielded by other structures or located an adequate distance from the noise sources, then the noise might be adequately mitigated for the nomination. Any redevelopment, including under the current Plan, would likely require further review by staff at the time an application for development is submitted.

Green Building – Any redevelopment would need to satisfactorily address energy conservation, water conservation, and other green building practices, as per county policy. As the nomination is located in a designated activity center, new redevelopment should commit to green building certification through established green building rating systems, such as Leadership in Energy and Environmental Design (LEED) program or other equivalent programs with third party certification. Any expansion or substantial renovations of the existing structure should incorporate green building features to a significant extent. Incorporation of green building features for the existing mall building should be encouraged. For the development levels above the proposed Overlay level increase up to 0.65 FAR, exceptional commitments should be made that exceed county policy.

Stormwater Management

The county has completed the Watershed Management Plan (WMP) for Difficult Run that includes the subject area of the APR nomination. The plan provides details on present and anticipated future conditions at the time of development, greater than three years ago. There are several recommendations to improve stormwater management on the Fair Oaks Mall property. More specifically, the recommendations include the retrofits of the existing ponds: Project DF9141A, Project DF9141B, Project DF9142; and the retrofit of Low Impact Development (LID) measures: Project DF9841 and Project DF9842, as shown on the illustration on page 26 of this staff report.

The APR nomination presents an opportunity to incorporate these and other stormwater measures to improve overall stormwater management on the site to help minimize or eliminate downstream degradation to streams in the area. In general, areas with intense imperviousness such as the existing mall produce the most impacts on stormwater and streams, but they can also present unique opportunities to retrofit with LIDs. Additional detailed concept of broader LID application can be explored as part of the recommendation for the subject area. For the development levels above the proposed Overlay level increase up to 0.65 FAR, exceptional commitments should be made that exceed county policy.

Affordable Housing

The proposed APR nomination with new residents and employees in the area would increase the need for affordable and workforce housing. Any redevelopment with residential use would need to meet county policy recommendation related to the provision of affordable housing in terms of both the requirements of the Affordable Dwelling Ordinance and the Workforce Housing Policy. At the proposed Overlay option of 0.65 FAR, the total percentage of affordable housing, both Affordable Dwelling Units (ADUs) plus Workforce Dwelling Units (WDUs) should not be less than 12% and should meet the provisions of the Zoning Ordinance.

Any redevelopment at the proposed 0.80 FAR and 1.0 FAR levels should exceed the recommendations of the Overlay level. For example, the total percentage of affordable housing, both ADUs plus WDUs, could exceed the county policy of 12% plus applicable bonus density. Further, any new non-residential development at the optional levels also could make a per-square foot financial contribution to the Fairfax County Housing Trust Fund that will be used to create affordable and workforce housing opportunities. The amount and period of time should be determined at the time of rezoning development review.

RECOMMENDATION

Staff recommends an alternative, which incorporates the proposed development levels into the Plan recommendations for Sub-unit J5. The Overlay level would be increased from a maximum intensity of 0.50 FAR to 0.65 FAR overall. Retail, office, residential, and hotel uses at an

intensity of up to 0.65 FAR would be planned for a 109.5-acre mall property, while retail, hotel, and office uses an intensity of up to 0.65 FAR would be planned for the remaining 24 acres of the sub-unit. An interim phase would be available to the mall property for retail and office uses at an intensity of up to 0.50 FAR.

Staff also supports the proposed intensities of up to 0.80 FAR and 1.0 FAR, based on BRT and Metrorail funding, respectively, as options at the Overlay level. The options would foster the transformation of the existing development into a transit-oriented, mixed-use, walkable place. Adopted county policy in the Fairfax Center Area, including the basic, minor, and major development elements and the Performance Criteria, as well as supplemental conditions for redevelopment are recommended to address the impacts of the development. Exceptional commitments that exceed the Overlay level are recommended to achieve these option levels. As an alternative to the nomination, staff recommends that the Comprehensive Plan be modified as shown below. Text proposed to be removed is shown with a ~~strike through~~, and text to be added is shown as underlined.

MODIFY:

Fairfax County Comprehensive Plan, 2007 Edition, Area III, Fairfax Center Area, Sub-unit J5, Land Unit Recommendations, page 76, as amended through 3-9-2010:

“Sub-unit J5

~~This sub-Sub-unit J5 consists of approximately 131 acres and contains the Fair Oaks regional mall at its center and several office buildings and hotels, a multi-screen movie theater, and a hotel around its perimeter. It is planned for mixed use retail and office use not to exceed .50 FAR overall. The existing character of the site along Route 50 should be preserved. A Metrorail station is planned to be constructed along Interstate-66 with a pedestrian connection to the sub-unit. Subject to adoption by the Board of Supervisors, a Bus Rapid Transit (BRT) system may be constructed as an interim or alternative transit mode. The BRT system, if deemed appropriate, would potentially extend westward toward the county line and potentially into Prince William County from the Vienna Metrorail station or points east. BRT is defined as a system operating in the median of I-66 in an exclusive lane, segregated from the public traffic on I-66. The system would be served by stations similar to Metrorail with bridge connections to adjacent parcels. Service would consist of larger buses such as articulated buses. BRT is a higher quality system than the express bus or bus priority system as recommended in the 2010 Virginia Department of Rail and Public Transit’s (DRPT) I-66 Transit/Transit Demand Management (TDM) study.~~

Sub-unit J5 is planned at the Overlay level up to 0.65 FAR overall. The 109.5-acre portion of the sub-unit that contains the Fair Oaks Mall property (“mall property”), as shown on Figure 15, is planned for residential, retail, hotel, and office uses at the Overlay level, which equates to approximately 3.1 million square feet of development. The approximately 24-acre remainder of the sub-unit is planned for retail, hotel and office uses at the Overlay level. As an interim phase in the Overlay level, the mall property is planned

for retail and office uses up to an intensity of 0.50 FAR. Redevelopment at the interim phase should meet the development elements and the performance criteria recommended at the Overlay level.

As options at the Overlay level, development on the mall property may be increased up to 3.8 million square feet (an intensity of up to 0.80 FAR) subject to adoption and funding of a BRT system (“BRT Option”) and increased up to 4.8 million square feet (an intensity of up to 1.0 FAR), subject to funding of the planned extension of Metrorail along I-66 in the vicinity of the mall (“Metrorail Option”). The majority of the development under the Metrorail Option should be concentrated near the planned transit station within approximately ¼ mile of the platform. As redevelopment occurs across the mall property, the cumulative total square feet should not prevent the potential for the most intense development from being located near the station.

While preserving the sub-unit’s role as a regional retail center, redevelopment of the sub-unit and the mall property, in particular, presents an opportunity to transform the auto-oriented, suburban-style character of the sub-unit into an inter-connected, urban-style, transit and pedestrian-friendly place. In order to achieve this goal, the ultimate vision for redevelopment should be defined at the earliest phase of redevelopment through a conceptual circulation plan. The plan should ensure that any redevelopment works toward achieving the ultimate goal of an integrated, transit-oriented development. If redevelopment includes individual development phases, a logical phasing plan should be part of any redevelopment proposal to demonstrate how ultimate development at the greatest planned intensity will achieve Comprehensive Plan goals.

Circulation into, around, and through the mall property, connecting to land uses on the periphery of the mall property and outside the land unit, should be the primary component of conceptual plan. The central location of the mall in the sub-unit and its spoke-like design present a challenge for movement, particularly for pedestrians. The future vision should identify multi-modal corridors of movement and how connections will be improved or enhanced to safely accommodate pedestrians, bicyclists, and transit in the sub-unit. Vehicular and pedestrian conflicts at intersections should be identified, and the needs balanced or prioritized. The design should bring the internal activity and vibrancy of the mall outward to the surrounding streetscapes of the new development by extending mall corridors outward to the new roadways. The circulation pattern should be logical and cohesive and recognize that the most direct connection across the site will occur through the mall building.

The vision should be realized through a synergistic mixture of land uses and a coordinated design. The retail use in the mall may expand up to two million square feet under the Overlay or Overlay Option levels. Initially, the mall’s retail use should comprise the majority of the total development. As redevelopment occurs under the options on the mall property, the land use components should shift such that the mall square footage should become less of the total development, and the new development on the mall property at the

Metrorail Option becomes the majority of the total square feet. Under the Metrorail Option, the residential component should be generally 30 percent of the total development, and the retail use of the mall should be generally 40 percent of the total development.

Residential uses should be designed and located in a manner that reduces the traffic-related noise impact on such uses, as per county policy. Retail uses, exclusive of the mall, should be conveniently located in the ground-floor of buildings in order to serve the residents and employees, animate the street, and promote pedestrian activity. The retail uses also should be located strategically to take advantage of visibility and promote walkability, at such areas as prominent entryways, corridors, or public plazas. Residents, employees, and visitors should have convenient access to urban parks, open space, recreational space, and other services. A network and hierarchy of open spaces and urban parks should be established per county policy.

The building orientation and site layout should contribute to the connectivity internal to the mall property, encourage walkability, and create a pedestrian-scaled environment. Block sizes should be compact with buildings located close to one another and aligned with and oriented to the street. A variety of building heights, massing, and articulation should be provided to create visual interest along the street and minimize sun shading of the street or adjacent parcels by tall structures. Loading areas, blank walls, and rear-facades should be treated in such a way that does not detract from an urban street experience. Redevelopment along the perimeter of the mall property should be inviting and designed to relate to the neighboring uses. Entryways, including the Fair Lakes Parkway and the planned transit station, should contain notable gateway features, such as public art, plazas, landscape features, or interesting architecture to mark the threshold of the development. Signage or other wayfinding devices should be incorporated as gateway features and installed as part of a comprehensive wayfinding plan to facilitate easy movement around the property. The architecture, landscaping, signage, and materials should establish unified design themes at the earliest phase of development.

Improvements to roadways, streetscapes, and intersections may be phased as development builds out. These improvements should enhance non-motorized physical connections and to ensure safe usage for pedestrians, bicyclists, drivers, and transit riders of all ages and abilities. Sidewalks, bicycle lanes, or bicycle signage indicating that the road is shared with bicyclists should be constructed in accordance with the circulation plan as implemented through the phasing plan. Streetscapes should be animated and attractive through the usage of storefront windows with browsing areas, entrances, landscaping, plazas, unique paving materials, outdoor cafes, seating areas, and other street furniture or amenities. Roads that are privately owned and/or maintained should be designed to provide mobility for vehicle, pedestrians, and cyclists. The ability of transit service to operate within the sub-unit should remain.

Parking should be consolidated into structures, under-ground or above ground, and integrated into the streetscape in order to minimize, if not eliminate, surface parking lots.

On-street and underground parking with short-term on-street parking for the retail stores should be given preference over other forms of parking. Structured parking should be located behind buildings or, if visible from the street, screened or treated in a manner that contributes to the visual appeal of the streetscape. If surface lots must be utilized, redesign and consolidation is encouraged to accommodate space for trees and other landscaping features. Creative approaches to reduce the amount of required parking provided, such as shared parking strategies or parking maximums should be considered.

In anticipation of the transit station, the design and circulation on the mall property should promote connectivity throughout the mall property to the transit station. Redevelopment should provide a prominent connection from the station platform to the mall with the highest intensities located near the station platform and this connection. The connection should include street-level retail uses, cafes, or an urban park. A central plaza or park also may be a component of this linkage or located elsewhere on the site. This central feature should contribute to the distinct identity of the place and serve as a main attraction and foundation for a network of urban parks throughout the development. When the BRT or Metrorail station becomes operational, the mall should provide a level of access through the building taking into account the operational aspects of the mall and the transit station. The mall will retain full control over its private property and may continue to enforce its access and other policies and rights.

Non-motorized connections into the sub-unit, across the Ring Road, and to the mall should be enhanced. Crossings of the Ring Road should be improved with pedestrian-activated signals and crosswalks at a minimum. Crosswalk design should alert drivers of the crossing and may include special paving materials and striping. Crossings should be complemented by a designated walkway to the mall building and should be designed with sufficient width to avoid conflict with vehicles. Above the Intermediate level, the pedestrian pathway from Legato Road, where the Legato road meets the western portion of Legato Road, should be improved to increase safety for the pedestrian and potentially accommodate bicyclists with any redevelopment. As an alternative, a new pedestrian connection from Legato Road to the crosswalk where the Route 50 ramps meet the Ring Road may be considered.

In addition, redevelopment above the Intermediate level should accommodate a safe pedestrian crossing from Fair Lakes Parkway, across the Ring Road, and to the mall. An extension of the sidewalks, from Legato Road along both sides of Fair Lakes Parkway is the preferred option. At a minimum, the sidewalk on at least one side of the Parkway should be extended to the Ring Road. However, if the preferred option cannot be immediately accommodated, then an interim option may be explored, involving an improvement to the existing pedestrian connection from Fair Lakes Parkway to the Ring Road, which aligns with the existing sidewalk to the mall. If neither of these options is feasible with development up to an intensity of 0.50 FAR, then another option, which accomplishes the objective of a safe, signalized, pedestrian crossing at a crosswalk in the vicinity of the Fair Lakes Parkway and the Ring Road, may be considered as an interim

improvement. Redevelopment above 0.50 FAR should improve the intersection of Fair Lakes Parkway and the Ring Road to facilitate safe pedestrian movement.

Redevelopment also should consider the impacts on nearby roadways. Fair Lakes Parkway is considered the major western access, and this roadway is anticipated to continue to function as such for all modes of travel in the future. As a result, redevelopment at the earliest phase should study Fair Lakes Parkway from the Ring Road to West Ox Road to improve traffic operations, and pedestrian safety should be balanced with vehicular needs. Furthermore, above the 0.50 FAR, evaluation, including a weave analysis, should be conducted for both right-in and right-out ramps on eastbound Route 50 at Fair Oaks Mall to the westbound and eastbound I-66 on-ramps. This movement should be monitored and potentially mitigated as development exceeds 0.50 FAR and builds-out to the 1.0 FAR. The operations of each Route 50 and Ring Road intersections also should avoid queuing onto Route 50 for any redevelopment.

Redevelopment above the 0.65 FAR should be predicated on at least one new vehicular connection into the sub-unit. In preparation for this connection(s), any redevelopment that interacts with or impedes the landing area of the potential connection(s) should include an evaluation of the feasibility of the extensions of 1) Legato Road to the Ring Road; and 2) Government Center Parkway across I-66 to the Ring Road. The study should consist of the preliminary design and/or conceptual engineering, (as appropriate depending on where and what level of development is proposed), the overall site concept, the interface of development with the extension, the connection into the Ring Road, and the safe accommodation of transit, pedestrians, and bicyclists. The connections should integrate into the circulation plan for the property, and the extension of Government Center Parkway should complement and not interfere with the location of the transit station. The Government Center Parkway extension should be considered a regional and a local improvement and would require both public and private investment. The addition of this improvement to the Fairfax Center Area Road Fund listed improvements should be considered, if the study deems the improvement feasible.

If the Government Center Parkway extension is not feasible, a pedestrian bridge from the mall property to Sub-unit P2 should be considered in the study as a connection for pedestrians across I-66. A pedestrian bridge would not satisfy the need for a new vehicular connection elsewhere, such as Legato Road. The bridge should not interfere with the location of the transit station and should integrate into the circulation plan for the property. The study of the bridge should take into account the timing of the construction of the BRT or the Metrorail station, which may serve a similar purpose and deem the bridge unnecessary. The addition of this improvement to the Fairfax Center Area Road Fund listed improvements should be considered.

In addition to roadway improvements and enhancements to the pedestrian environment, other strategies to reduce vehicular trips should be employed. A Transit Demand Management program should be developed and implemented in order to reduce vehicular

trips with any redevelopment. Overall trip reductions with redevelopment above the Intermediate level must be at least 16%. The overall trip reductions under the BRT Option and the Metrorail Option should be 21% and 30%, respectively. The Virginia Department of Rail and Public Transit has recommended a bus priority system along the I-66 corridor as short-term transit improvement. A TDM measure could include a contribution to the bus priority system or other measures to encourage the use of the bus priority system.

Redevelopment on the mall property also should continue to allow direct local bus access to and through the site to support the existing and planned local bus service that accesses the sub-unit. On-site facilities should be improved by constructing an enhanced transit stop to serve the local bus services. The transit stop should be located as close as possible to existing or future development in a convenient and accessible area. Facilities for the transit riders, such as shelters, real time information displays, bus bays, bicycle racks, or other related improvements, should be provided. The enhanced transit stop should be incorporated into the phasing plan that will be established in the initial phases of redevelopment.

Any redevelopment also should address impacts to other county priorities. Redevelopment should provide affordable and workforce housing through compliance with the Affordable Dwelling Unit Ordinance and other County policies. For proposals that exceed the Overlay levels, any redevelopment should exceed the recommendations of the Overlay level in regards to affordable and workforce housing. For example, the total percentage of affordable housing, both Affordable Dwelling Units plus Workforce Dwelling Units may exceed the county policy of 12% plus applicable bonus density. Furthermore, any new non-residential development at the Overlay option levels should also make a per-square foot financial contribution to the Fairfax County Housing Trust Fund that will be used to create affordable and workforce housing opportunities. The amount and period of time should be determined at the time of rezoning development review. If non-residential floor area is achieved through a bonus for providing affordable and workforce dwelling units, the bonus floor area should not be included when calculating the contribution amount. Ground level retail located in office, hotel, and residential buildings should also not be included when calculating the contribution amount.

Any redevelopment should incorporate green building practices and energy conservation, water conservation, and stormwater management measures in new buildings as per county policy within designated activity centers. New development should commit to county policy on green building, including certification through established green building rating systems, such as Leadership in Energy and Environmental Design program or other equivalent programs with third party certification. Any expansion or substantial renovations of the existing structure should incorporate green building features to a significant extent. Incorporation of green building features for the existing mall building should be encouraged. Redevelopment should reduce impervious surface, achieve better control over stormwater runoff, and minimize or eliminate downstream degradation to the streams in the area. Low Impact Development practices of stormwater management (e.g.,

bioretention facilities; vegetated swales) should be utilized towards this end. Any redevelopment above the 0.65 FAR should include exceptional commitments should be made that exceed the county policy for stormwater management and green building.

Any redevelopment also should address the impacts of the development on surrounding parks, recreation facilities, and schools. A contribution to the construction of new athletic fields and/or upgrading existing fields at parks within the service area, the construction of master planned park facilities, and the replacement or improvement of aging park facilities at nearby parks should be made when the Overlay options are implemented. The impact to schools by the residential uses that are included in the Overlay and the Overlay options should be mitigated at each phase of development.”

MODIFY PLAN FIGURES:

Fairfax County Comprehensive Plan, 2007 Edition, Area III, Fairfax Center Area, Land Unit Summary Chart – Land Unit J, as amended through 10-19-2010, pages 76-77:

LAND UNIT SUMMARY CHART – LAND UNIT J			
<u>Sub-units</u>	<u>Approximate Acreage</u>		
J1	41		
J2	41.5		
J3	3.5		
J4	17		
J5	43 133		
<u>Sub-units</u>	<u>Recommended Land Use</u>	<u>Intensity/ FAR</u>	<u>Density Units/Acre</u>
Baseline Level			
J1, J4	RESIDENTIAL		2
J2	OFFICE; RESIDENTIAL	.25	5
J3	INSTITUTION; OFFICE	.15 .25	
J5	MIXED-USE **	.15	
LAND UNIT SUMMARY CHART – LAND UNIT J (continued)			
Intermediate Level			
J1, J4	OFFICE/MIX	.35	
J2	OFFICE/MIX	.55	
J3	INSTITUTION; OFFICE	.50 * .55	
J5	MIXED-USE **	.25	

Overlay Level		
J1	OFFICE/MIX	.45
J2	OFFICE/MIX; *** HOTEL	1.0 300 Room
J3	OFFICE	1.0
J4	OFFICE/MIX	.50
J5	MIXED-USE **	.50 <u>.65</u>

* See text for J3 conditions for high-intensity institutional or office uses.
 ** See text for the recommended mixture of uses for this sub-unit and additional options.
 *** See text for overlay level recommendations for Tax Map 46-3((1))40, 41B, 41C and 51, as well as for Tax Map 46-3((1))36E.
 Note: Part of these sub-units ~~are~~ is within the Water Supply Protection Overlay District.

NOTE: The Comprehensive Plan Map would not change.

ADD PLAN FIGURE: Fairfax County Comprehensive Plan, 2007 Edition, Area III, as amended through 10-19-2010, Figure 15 Overlay Option Area of Sub-unit J5. Subsequent figures should be renumbered.

FIGURE 15 Overlay Option Area of Sub-unit J5

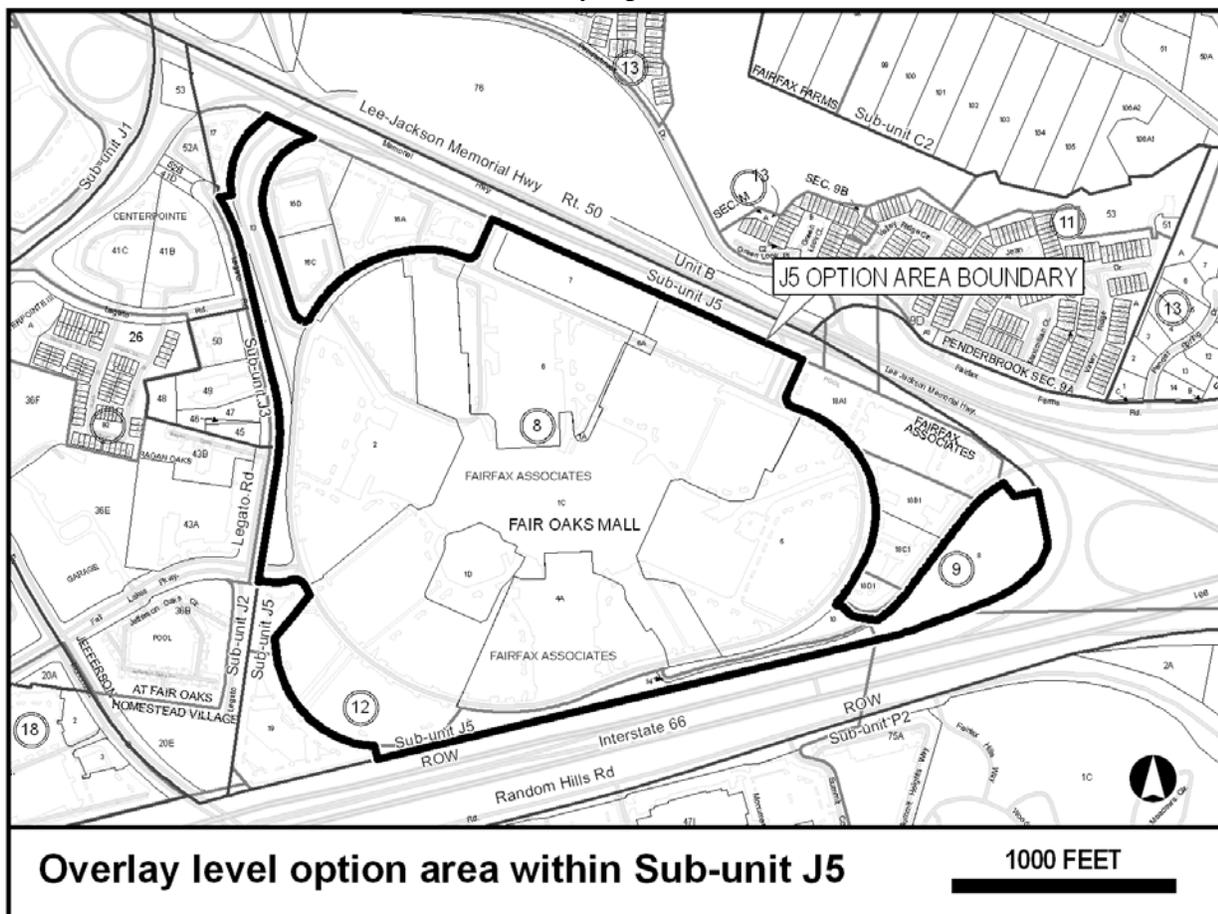


Table 1: School Capacity and Enrollment Table

The chart below shows the existing school capacity, enrollment, and projected five year enrollment.

School	Capacity	Enrollment (9/30/09)	2010-2011 Projected Enrollment	Capacity Balance 2010-2011	2015-16 Projected Enrollment	Capacity Balance 2015-16
Eagle View ES	780	881	966	-186	1214	-434
Lanier MS	1125	1147	1211	-86	1408	-283
Fairfax HS	2416	2355	2366	50	2797	-381

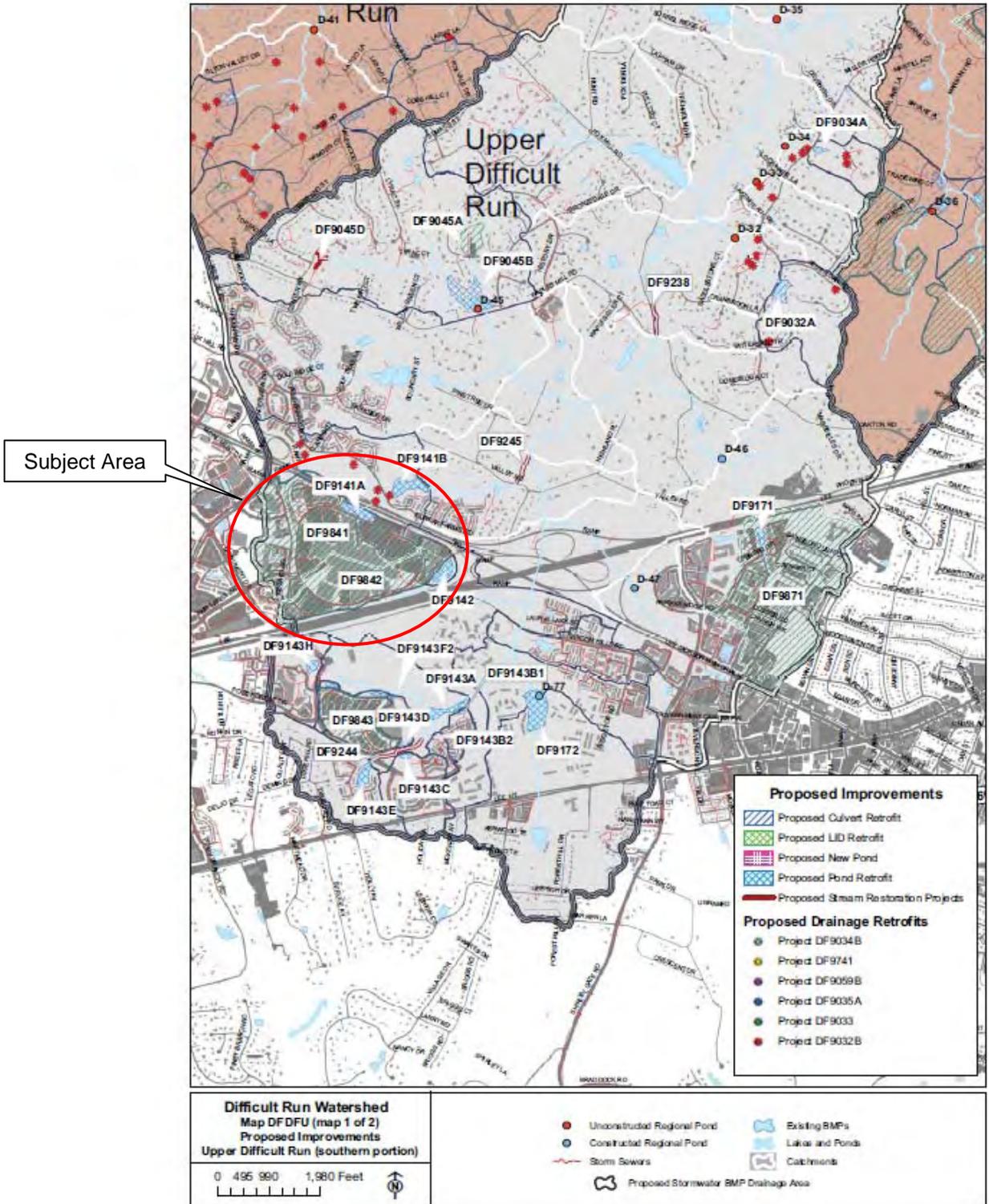
_Capacity and enrollment are based on the FCPS FY 2011-15 CIP and update.

Table 2: Schools Impact Table

Based on the current County-wide student yield ratios, the chart below depicts the number of anticipated students based on the proposed options.

Proposed Plan School Level	Proposed Plan			Proposed Plan Option 1			Proposed Plan Option 2		
	High-rise MF ratio	Units proposed	Student yield	High-rise MF ratio	Units proposed	Student yield	High-rise MF ratio	Units proposed	Student yield
Elementar y	0.047	200	9	0.047	600	28	0.047	1400	66
Middle	0.013	200	3	0.013	600	8	0.013	1400	18
High	0.027	200	5	0.027	600	16	0.027	1400	38
Total			17			52			122

Proposed Improvements within Upper Difficult Run Watershed





COMMONWEALTH of VIRGINIA
DEPARTMENT OF TRANSPORTATION

4975 Alliance Drive
Fairfax, VA 22030

GREGORY A. WHIRLEY
COMMISSIONER

February 10, 2011

Mr. Leonard Wolfenstein
Chief, Planning Section
Fairfax County Department of Transportation
4050 Legato Road, Suite 400
Fairfax, Virginia 22033-2895

Re: South County APR 09-III-1FC – Fair Oaks Mall
Comprehensive Plan Amendment
Fairfax County

Dear Mr. Wolfenstein:

In accordance with the Virginia Traffic Impact Analysis Regulations, 24 VAC 30-155, your proposed comprehensive plan amendment was submitted to the Virginia Department of Transportation (VDOT) for review on November 2, 2010, and received on November 2, 2010.

We have evaluated the plan and prepared comments on the results of our evaluation. The comments present our key findings as well as detailed comments on the future transportation improvements which will be needed to support the current and planned development in the study area.

Our comments are attached to assist the Planning Department, the Planning Commission and the Board of Supervisors in their decision making process regarding the plan. Included is an Executive Summary followed by the findings of the review.

Please arrange to have these comments included in the official public records, and to have both this letter and the VDOT comments placed in the official file for this plan. VDOT will make these documents available to the public through various means, and may post them to the VDOT website.

Please contact me if you have any further questions regarding these comments.

Sincerely
Kevin Nelson
Transportation Engineer

cc: Mr. Michael Garcia

527Info2009-III-1FCapr1SouthCountyFairOaksMall2-10-11LW



COMMONWEALTH of VIRGINIA
DEPARTMENT OF TRANSPORTATION

4975 Alliance Drive
Fairfax, VA 22030

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February 10, 2011

Mr. Leonard Wolfenstein
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4050 Legato Road, Suite 400
Fairfax, Virginia 22033-2895

Re: South County APR 09-III-1FC – Fair Oaks Mall
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Fairfax County

Dear Mr. Wolfenstein:

In accordance with the Virginia Traffic Impact Analysis Regulations, 24 VAC 30-155, your proposed comprehensive plan amendment was submitted to the Virginia Department of Transportation (VDOT) for review on November 2, 2010, and received on November 2, 2010.

Fair Oaks Mall is proposed to be redeveloped with a mixed-use transit-oriented project providing office, hotel, retail, residential, and/or secondary accessory uses. The initial FAR is proposed to be 0.65, with options to increase the density up to 0.80 FAR with bus rapid transit (BRT), and up to 1.0 FAR with rail transit. The purpose of this traffic study is to evaluate the adequacy of the existing and planned transportation network in conjunction with the proposed Area Plan Review (APR) nomination associated with the Fair Oaks Mall (# 09-III-1FC). The site contains 133.9 acres (5,831,691 S.F.) on 25 parcels, including the Fair Oaks Mall and adjacent out parcel properties. The overall site area is currently occupied by a combination of office and retail uses. The existing Fair Oaks Mall is generally located on the south side of U.S. Route 50 (Lee Jackson Memorial Highway), north of Interstate 66, and east of Legato Road.

The following comments are provided regarding the traffic impact analysis:

Accuracy of the Traffic Impact Analysis

1. Traffic counts conducted in 2007 and 2008 are more than a year old and not acceptable for analysis.
2. The text on page 18 incorrectly describes the counts shown in Figure 4-2 as 2010 weekday vehicular traffic. The traffic volumes in the figure are the same as counts conducted in 2007 and 2008.

3. Why is an arbitrary peak hour factor (PHF) of 0.9 is used for the existing level of service analysis when an actual PHF is available from the traffic counts?
[We Keep Virginia Moving](#)

4. The correct title for section 4.4 on page 25 should be “Impact Assessment” and not “Impact Accessment”.
5. Queuing problems have been analyzed but without any discussion on the implication of the queues exceeding the storage.
6. It is not clear how the 2030 trips were redistributed with the potential Legato Road connection over the ramps. It is expected such a connection will have a major impact on the southbound left turn and westbound right turn movements at the intersection of West Ox Road and Legato Road since it will divert the mall traffic from the intersections of Monument Drive with Fair Lakes Parkway and with West Ox Road. Therefore, the connection needs more analysis with an appropriate redistribution of 2030 traffic at the impacted intersections.

Comments on the Recommended Improvements:

7. The study includes recommendations for optimization of signal timings and split phasing at a signalized intersection. Changes to the cycle lengths, offsets, or splits at individual signals would have system wide impacts on the network operation and it may not be a functional solution. The impact of such an action needs to be analyzed for entire corridor or network which is not possible at the comprehensive planning level of analysis. Therefore, any future rezoning/site plan studies within the study area should not preclude any capacity improvements to the street system based on this study.
8. Any improvements or changes to the roadway network will need to meet the access management standards, including the proposed right turn lane deceleration length along with other taper and storage requirements.
9. The study recommends an extension of Legato Road to connect to the Mall Ring Road with an overpass. The County Comprehensive Plan does not show this connection and will have to be amended to show this improvement in the transportation element of the plan for this area.
10. The study recommends development at 0.8 FAR with BRT on I-66. The comprehensive plan language should include any approval will be subject to the bus rapid transit service, bus rapid transit station and adequate on site pedestrian connections being in place.
11. The study recommends development at 1.0 FAR with the Metro rail extension on I-66. The comprehensive plan language should include any approval will be subject to the Metro rail extension, Metro rail station and adequate on site pedestrian connections being in place.

12. The study at the rezoning stage should include weaving analyses on eastbound Route 50 at all of the access points from the mall.

South County APR 09-III-1FC – Fair Oaks Mall

Comprehensive Plan Amendment

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These comments should be addressed with corrected copies of the study provided to VDOT. We can meet to go over these issues at your convenience. Please contact me if you have any further questions regarding these comments.

Sincerely,

Kevin Nelson
Transportation Engineer

cc: Mr. Michael Garcia

527Info2009-III-1FCapr1SouthCountyFairOaksMallComments2-10-11LW



County of Fairfax, Virginia

MEMORANDUM

DATE: March 31, 2011

TO: Meghan Van Dam
Policy and Plan Development Branch, FCDPZ

FROM: Leonard Wolfenstein, Chief
Transportation Planning Section, TPD, FCDOT *L.W.*

SUBJECT: South County APR #09-III-1FC, Fair Oaks Mall

The Fairfax County Department of Transportation (FCDOT) offers the following comments regarding the traffic impact study submitted per the Chapter 527 requirements regarding the proposed changes to the Comprehensive Plan indicated in the subject Area Plan Review (APR) nomination. The Virginia Department of Transportation (VDOT) has transmitted comments which are attached to the final staff report. FCDOT as acknowledged some VDOT comments where appropriate. FCDOT comments are as follows:

Current Comprehensive Plan Guidelines and Background Information

- The collector and local road network in the vicinity of the nominated site has been constructed. West Ox Road north of Route 50 has been constructed to four lanes as identified on the Transportation Plan Map. There are four major improvements identified on the Transportation Plan Map in the vicinity of the nominated area and they are as follows: 1) the interchange at Waples Mill Road and Route 50; 2) an interchange improvement at Route 50 and I-66; 3) the widening of I-66 to ten lanes with HOV; and, 4) Metrorail within the I-66 corridor and a station located south of and adjacent to the nominated area.
- Both the Washington Metropolitan Area Transit Authority (WMATA) and the Fairfax Connector serve the site. WMATA bus routes 1C, 2B, and 2G provide service during the AM and PM peak hours approximately every 30 minutes and every hour during the midday and evening. Fairfax Connector routes 605 and 630 also provide service directly to the site. Route 605 serves the site every hour during the AM and PM peak periods, midday, and evening, while Route 630 only provides service during the midday with one hour headways. Additionally, Fairfax Connector routes 621/22/23 provide service at all times of the day; however, during the AM and PM peak periods the service operates more than a half mile from the site. The County has developed a Transit Development Plan (TDP), which is a comprehensive 10-year plan for bus service (Fairfax Connector and Metrobus) throughout the entire County. The plan recommends increasing the headways for Fairfax Connector routes 622/23, which only operate during the AM and PM peak hours to 15-20 minute headways. Additionally, two new routes are recommended in the

TDP. They are Fairfax Connector routes 624 and 625 and will run from the Stringfellow Park and Ride lot, with service through the Fair Lakes area, and the Fair Oaks Mall (route 624 only), to the Vienna Metro. The routes are intended to replace a private shuttle that currently operates between residences in the Fair Lakes area to the Vienna Metrorail station.

- The Fair Oaks Mall property is served primarily by a system of ramps directly from Route 50 and indirectly from I-66 in both the eastbound and westbound directions. The only at grade intersection is at Fair Lakes Parkway and the Mall Ring Road, which is controlled with a signal and has no crosswalks. There is a crosswalk located at the next partial intersection approximately 250 feet to the west at Legato Road and Fair Lakes Parkway; however, pedestrians depend on vehicles to yield. This can be a dangerous situation as vehicles turning onto Fair Lakes Parkway from the Mall Ring Road, approaching Legato Road, have limited distance to stop for pedestrians. Additionally, vehicles turning on to Fair Lakes Parkway are heading up an incline, which limits site distance for the drivers.
- There is no direct pedestrian crossing with a signal to access the entire sub-unit. There is one crosswalk across the Mall Ring Road, which is approximately 300 feet north of the Fair Lakes Parkway/Mall Ring Road intersection. Sidewalks do not exist on almost the entire Ring Road. The only sidewalk that is present is in front of the hotel (Tax Map 46-3 ((8)) 16C), which Fair Oaks Mall does not own, leading to a trail across the Route 50 westbound and eastbound ramps to the only crosswalk across the Ring Road. The Ring Road is approximately 6,900 feet in circumference while the built sidewalk/trail network is only 800 feet and only on one side of the Ring Road.

Proposed Land Use and Density for Nomination 1FC

Table 1
Current Comprehensive Plan Land Use and Proposed Changes

Land Use	Comp Plan (0.5 FAR)	Proposed 0.65 FAR	0.80 FAR w/ BRT	1.0 FAR w/ Metro
Retail (sq. ft.)	1,750,000	2,134,758	2,166,316	2,170,396
Office (sq. ft.)	945,846	935,841	1,219,841	1,369,841
Residential (units)	0	200	600	1,400
Hotel (rooms)	310	740	740	740

Outparcels: Office 469,841 square feet; Hotel 310 rooms

*At 0.80 FAR and 1.0 FAR, increased density only for Fair Oaks Mall Property

- The table above shows the proposed changes to the Comprehensive Plan for sub-unit J5. The applicant has proposed to increase the overlay level for the entire sub-unit from 0.50 FAR to 0.65 FAR. Increases in density associated with a Bus Rapid Transit (BRT)

system at 0.80 FAR or Metrorail extension at 1.0 FAR are only for the Fair Oaks Mall property.

- BRT, for the 0.80 FAR density, is defined as “assumed to be in the median of I-66 served by stations that provide bridge connections to adjacent parcels. The BRT would be segregated from the public traffic on I-66”.
 - It should be noted that the Board adopted transportation mode for I-66 is Metrorail. Additionally, there is currently no mention of a BRT system as an option in the I-66 corridor in the Comprehensive Plan.

Trip Reductions Assumed for the 1FC Traffic Study

- The first step taken in any transportation study is to perform a trip generation analysis for a proposed land use. This trip generation analysis gives transportation planners and engineers an order of magnitude comparison of the increase in vehicle traffic that can be expected from a proposed development. It is this first cut analysis that begins to define a development’s impact on the transportation network. In order to reduce a development’s incremental and/or overall impact of vehicle trips associated with an increase in density, staff and the traffic consultant may at times negotiate trip reductions from the assumed rates in the ITE manual. For this traffic study, a majority of the trip reductions could be realized at the 0.80 FAR and 1.0 FAR densities as a major mode of transportation would be operating along I-66 with an entrance pavilion to either the BRT station or Metrorail station located on the Fair Oaks Mall property.
- There are several types of trip reductions used in the transportation study: reductions due to synergy between various uses, transit/non-auto, retail pass-by, and Transportation Demand Management (TDM). All of these measures are used to reduce the amount of vehicle traffic, especially Single Occupancy Vehicle (SOV) traffic, on the roadway. Reductions due to synergy can occur when two (or more) different land uses, such as office and residential, are located within close proximity or adjacent to each other. People may live close to where they work and thus not need to drive to work. A person may still own a car but in this instance they have chosen to make the trip to work in some form, usually walking, other than driving alone. Transit/non-auto reductions are decreases in SOV trips due to Metrorail or BRT (if present), bus, walking, biking, or some other form of non-vehicular travel. Retail pass-by is when a person is heading from work to home (or some other origin to their ultimate destination) and they stop by a retail establishment on their way. This trip is not considered a net new trip because this trip would have occurred regardless of the whether the retail establishment was there. However, it should be noted that a mall (even if it is a retail establishment) has a different trip purpose than a CVS or some other small retail store. FCDOT staff accounted for this by lowering the maximum trip reductions for retail uses allowed in the VDOT guidelines. TDM is a set of tools the developer or property owner uses to reduce vehicle trips even further on the road network and includes measures such as incentivizing bus or Metrorail use. The following table is a breakdown of reductions used by proposed development intensity in the traffic study:

Table 2
Trip Reductions by Land Use Type and Density – PM Peak Hour

Land Use	Comp Plan 0.5 FAR	0.65 FAR	0.80 FAR w/ BRT	1.0 FAR w/ Metro
Retail				
Synergy with Residential	0.0%	0.3%	0.8%	2.3%
Transit/non-auto*	0.0%	0.0%	2.5%	5.0%
TDM	0.0%	1.0%	2.6%	5.1%
Pass-by	15.0%	15.0%	15.0%	15.0%
Total	15.0%	16.1%	19.9%	25.0%
Office				
Synergy with Residential	0.0%	1.0%	1.8%	3.2%
Synergy with Hotel	0.0%	4.0%	2.8%	2.4%
Transit/non-auto*	0.0%	2.0%	10.0%	20.5%
TDM	0.0%	8.4%	6.1%	5.2%
Total	0.0%	15.0%	20.0%	30.0%
Hotel				
Synergy with Office	0.0%	10.0%	10.0%	10.0%
Transit/non-auto*	0.0%	0.0%	2.5%	5.0%
TDM	0.0%	6.0%	8.0%	11.7%
Total	0.0%	15.0%	20.1%	25.2%
Residential				
Synergy with Office	0.0%	5.0%	5.0%	5.0%
Synergy with Retail	0.0%	10.0%	10.0%	10.0%
Transit/non-auto	0.0%	2.0%	5.0%	18.0%
TDM	0.0%	4.2%	7.0%	6.1%
Total	0.0%	20.3%	25.0%	35.2%
Total Development Reductions **	10.9%	13.9%	17.9%	24.1%
New Development Reductions	n/a	16.3%	21.3%	29.9%

*At the 0.50 FAR Comp Plan, transit/non-auto reductions were assumed to be in the model results that were provided to the nominator

**Includes all development withing sub-unit J5

Note 1: Do not sum the columns as reductions are taken from whole numbers

Note 2: Synergy reductions are based on VDOT guidelines

Note 3: Reductions apply to new development only, except for retail pass-by, which has been applied to all retail (located on Fair Oaks Mall property) within the sub-unit

- The reductions shown above reflect what was agreed upon prior to the transportation study being submitted to the County except for the TDM reductions. TDM is a program that the developer/land owner submits to the County. There is no standard for TDM reductions and therefore it was stated during the scoping process that the nominator could suggest TDM reductions. FCDOT evaluated these for reasonableness and found that they were generally acceptable for the Comprehensive Plan Amendment.
- While the total percentage of reductions increases as the density increases, the TDM reduction percentages for the office and residential land uses decreases from the 0.80 FAR to 1.0 FAR level, as shown in Table 2 above. The office TDM reduction decreases at each subsequent increase in density. Even though TDM is a mitigation measure suggested by the nominator; reducing TDM goals is generally not appropriate as a greater TDM program can be implemented with higher density, a variety of land uses, and proximity of a mass transit system within a half mile of the entire site. However, it should be noted that a TDM program is negotiated at the time of rezoning and is part of the overall trip reduction.
- For comparison, the trip reduction table for the recently adopted Tysons Corner Plan Amendment is included below. While discussing appropriate trip reductions for the Fair Oaks Mall site, it was important to compare the reductions that were assumed for the Tysons Corner area. The reductions for the Fair Oaks Mall nomination are not conservative but are generally in-line with those assumed for Tysons Corner. In contrast to the Tysons Corner Plan Amendment, the Fair Oaks Mall property (if approved) should focus on overall trip reductions for the site, with guidance provided for residential and office trip reductions. Overall trip reductions are targeted for the Fair Oaks Mall property because of the large influence of the Mall (currently all retail) within the sub-unit.

Table Used in Tysons Corner Plan

**Table 5
TDM Vehicle Trip Reduction Goals
For Commercial and Residential Development**

Development levels in total square feet (with corresponding forecast year)	TDM Vehicle Trip Reduction Goals, (Percentage Reduction from ITE Peak Hour Rates)			
	TOD Locations			Non-TOD Locations (more than 1/2 mile from station)
	0 to 1/8 Mile from Station	1/8 to 1/4 Mile from Station	1/4 to 1/2 Mile from Station	
2010 to 2020	45%	35%	30%	25%
84 million (2030)	55%	45%	40%	35%
96 million (2040)	60%	50%	45%	40%
113 million (2050)	65%	55%	50%	45%

Note: TDM reductions include a reduction in vehicle trips due to transit. See Table 2 for transit modal split goals.

Traffic Impact Analysis Results from the IFC Traffic Study

- Tables 3-9 below outline intersection level of service (LOS), road segment congestion, and total trips for all of the proposed density increases of 0.65 FAR, 0.80 FAR with BRT, and 1.0 FAR with Metrorail. All 2030 values assume build-out of the Constrained Long Range Plan (CLRP) transportation network. Not all of the improvements identified in the County's Transportation Plan Map are in the CLRP. This can be due to a multitude of factors such as growth, need, and even fiscal constraints. However, the local road network within the vicinity of the Fair Oaks Mall site is built out according to the Transportation Plan Map with the exception of an interchange at Route 50 and Waples Mill Road.
- The number bullets under Tables 3, 5, and 7 are suggested improvements from the nominator. The column on the far right shows the intersection level of service at each intersection when all the improvements have been factored into the analysis. An acceptable level of service, as defined by County Policy, is an overall LOS of D or better. Due to road improvement constraints achieving a LOS D at each intersection may be difficult because adding additional lanes or providing additional turn lanes at intersections is often problematic. The improvements identified by the nominator as a mitigation measure would need to be evaluated with a more detailed traffic analysis at rezoning. However, they are meant to show that the intersection, if it is failing or being impacted by the proposed increase in density, can be improved if certain physical and non-physical mitigation measures are implemented. It should be noted that the nominator has suggested TDM as a mitigation measure and has applied it to each intersection in the study. This is appropriate as TDM mitigation would reduce overall trips from the increase in density on the entire road network.

Table 3
2030 Intersection Level of Service (LOS) – With Proposed Density of 0.65 FAR

#	Intersection	2010 Existing	Comp Plan (0.50 FAR)	Proposed 0.65 FAR No Mitigation	Proposed 0.65 FAR With Mitigation
1	Fair Lakes Parkway/ Fair Oaks Mall Ring Road (1)	AM - A PM - C	AM - A PM - C	AM - A PM - D	AM - A PM - C
2	Fair Lakes Parkway/ Legato Road *	AM - A/B PM - B/C	AM - A/B PM - B/C	AM - A/B PM - C/D	AM - A/B PM - C/D
3	Fair Lakes Parkway/ Monument Drive	AM - C PM - C	AM - D PM - C	AM - D PM - D	AM - D PM - D
4	Fair Lakes Parkway/ West Ox Road (2)	AM - C PM - D	AM - D PM - F	AM - D PM - F	AM - D PM - E
5	West Ox Road/ Post Forest Drive	AM - C PM - B	AM - C PM - C	AM - C PM - C	AM - C PM - C
6	West Ox Road/ Monument Drive	AM - C PM - C	AM - F PM - C	AM - F PM - C	AM - F PM - C
7	West Ox Road/ Legato Road	AM - B PM - C	AM - C PM - D	AM - C PM - D	AM - C PM - D
8	Legato Road/ Legato Road *	AM - A PM - A/B	AM - A/B PM - A/C	AM - A/B PM - A/C	AM - A/B PM - A/C
9	West Ox Road/ Route 50 EB Off-Ramp	AM - A PM - A	AM - B PM - A	AM - B PM - A	AM - B PM - A

* Denotes a non-signalized intersection

Recommended Improvements from the Nominator:

- (1) Add a second EB left turn lane
 - (2) Signal Modification
 - (3) TDM Program
- Two of the nine intersections analyzed in the traffic study are not signalized and both operate within an acceptable LOS. The Mall Ring Road/Fair Lakes Parkway, which is the main entry point to the Mall from the west, also operates within an acceptable LOS; however, mitigation has been proposed because the eastbound left turn lane on Fair Lakes Parkway is failing. The future eastbound left turn volume of vehicles at this intersection appears to warrant a second left turn lane. The two intersections that do not operate within an acceptable LOS are Fair Lakes Parkway/West Ox Road in the PM and West Ox Road/Monument Drive in the AM.
 - Fair Lakes Parkway/West Ox Road: This intersection fails in the PM because of the heavy volume of traffic heading eastbound on Fair Lakes Parkway. The nominator has proposed signal modification as a mitigation measure. VDOT

controls almost all of the traffic signals in Fairfax County. VDOT operates the traffic signals in networks where signal cycles are determined to allow for network optimization (as opposed to a single intersection). The feasibility of signal modifications would need to be evaluated as part of a network and not a single intersection. A signal modification may be appropriate at this intersection due to the heavy amount of vehicles heading east but this would need to be determined at rezoning.

- West Ox Road/Monument Drive: This intersection along with the Fair Lakes Parkway/West Ox Road intersection fails under the approved Comprehensive Plan density; however, the difference at this intersection is that according to the traffic study, the proposed density increase marginally impacts the intersection. No improvements are recommended at this intersection other than reducing vehicle traffic associated with the increase in development from the Mall.

Table 4
2030 Link Analysis – Proposed Density of 0.65 FAR with and without Mitigation

Roadway	Segment	AM/PM Peak Hour	2030 Comp Plan V/C Ratio (0.50 FAR)	0.65 FAR V/C Ratio No Mitigation	0.65 FAR V/C Ratio With Mitigation
NB West Ox	South of Fair Lakes Pkwy	AM	0.57	0.58	0.58
SB West Ox	South of Fair Lakes Pkwy	AM	0.35	0.36	0.36
NB West Ox	North of Legato Road	AM	0.63	0.63	0.63
SB West Ox	North of Legato Road	AM	0.57	0.57	0.57
EB Fair Lakes Pkwy	East of West Ox Road	AM	0.81	0.83	0.82
WB Fair Lakes Pkwy	East of West Ox Road	AM	0.33	0.36	0.35
EB Fair Lakes Pkwy	West of Legato Road	AM	0.51	0.55	0.53
WB Fair Lakes Pkwy	West of Legato Road	AM	0.46	0.52	0.51
NB Monument Drive	North of Fair Lakes Pkwy	AM	0.37	0.39	0.39
SB Monumnet Drive	North of Fair Lakes Pkwy	AM	0.71	0.72	0.72
NB Monument Drive	South of Fair Lakes Pkwy	AM	0.43	0.44	0.44
SB Monumnet Drive	South of Fair Lakes Pkwy	AM	1.08	1.09	1.09

Roadway	Segment	AM/PM Peak Hour	2030 Comp Plan V/C Ratio (0.50 FAR)	0.65 FAR V/C Ratio No Mitigation	0.65 FAR V/C Ratio With Mitigation
NB West Ox	South of Fair Lakes Pkwy	PM	0.44	0.46	0.46
SB West Ox	South of Fair Lakes Pkwy	PM	0.80	0.81	0.80
NB West Ox	North of Legato Road	PM	0.60	0.62	0.61
SB West Ox	North of Legato Road	PM	0.74	0.74	0.74
EB Fair Lakes Pkwy	East of West Ox Road	PM	1.00	1.05	1.05
WB Fair Lakes Pkwy	East of West Ox Road	PM	1.05	1.09	1.08
EB Fair Lakes Pkwy	West of Legato Road	PM	0.72	0.84	0.82
WB Fair Lakes Pkwy	West of Legato Road	PM	0.96	1.10	1.06
NB Monument Drive	North of Fair Lakes Pkwy	PM	0.83	0.89	0.87
SB Monumnet Drive	North of Fair Lakes Pkwy	PM	0.43	0.45	0.45
NB Monument Drive	South of Fair Lakes Pkwy	PM	0.87	0.89	0.89
SB Monumnet Drive	South of Fair Lakes Pkwy	PM	0.68	0.70	0.69

- A link capacity analysis was provided for West Ox Road, Fair Lakes Parkway, and Monument Drive. No link capacity analysis was done on Route 50 or I-66 as these are

regional highways, with the majority of the traffic volume originating from and destined to areas other than the Fair Oaks Mall property. A volume to capacity ratio above 1.0 (highlighted in yellow) means that the roads are saturated with vehicles. The link analysis shows that all of the roads with the exception of southbound Monument Drive south of Fair Lakes Parkway in the AM and westbound Fair Lakes Parkway east of West Ox Road in the PM have a v/c ratio less than 1.0 under the current Comprehensive Plan.

Southbound Monument Drive south of Fair Lakes Parkway has a marginal increase in vehicular traffic associated with the proposed density of 0.65 FAR. The heavy volume of traffic south of Fair Lakes Parkway in the AM could be due to new development south of I-66 and possibly vehicles accessing the HOV ramp to I-66 eastbound.

- The Fair Lakes Parkway segment that was analyzed was between West Ox Road and the Mall Ring Road. The eastbound Fair Lakes Parkway segment east of West Ox Road was at capacity under the Comprehensive Plan and is above capacity under the proposed density with and without mitigation. The volume exceeds the capacity by approximately 5%, which should be able to be accommodated within the existing road capacity. The main concern along this segment is that traffic exiting the shopping center along Fair Lakes Parkway from the full access break closest to the Fair Lakes Parkway/West Ox Road intersection may be limited, especially vehicles trying to make left turns out of the site.
- Westbound Fair Lakes Parkway west of Legato Road is approximately 10% over capacity without mitigation in the PM. While some of the volume is due to cut-through traffic, the segment does not appear to be able to handle the increase in proposed development even with mitigation. The segment does have capacity to spill back to the Mall Ring Road; however, this inhibits the use of the Legato Road/Fair Lakes Parkway intersection as well blocks development ingress/egress along Fair Lakes Parkway. Additionally, the queuing analysis submitted with the traffic study shows that there are severe storage problems with the Fair Lakes Parkway westbound left turn and through lanes at Monument Drive. While widening may not be needed (and would be very difficult), a segment analysis needs to be done on Fair Lakes Parkway between Monument Drive and the Mall Ring Road to determine possible solutions to create additional storage capacity and/or enhance the non-motorized network to reduce vehicle traffic through this segment of road.
 - If no viable solutions can be found to alleviate the failing conditions of Fair Lakes Parkway for vehicles, then other non-vehicular mitigation measures should be pursued such as implementing improved pedestrian crossings at intersections or accommodating other transportation modes (i.e. bicycles) within or adjacent to the road network. If the above solutions cannot be implemented then another point of vehicle access accommodating pedestrians and bicycles may be needed at the proposed 0.65 FAR.

Table 5

2030 Intersection Level of Service (LOS) – With Proposed Density of 0.80 FAR (BRT)

#	Intersection	2010 Existing	Comp Plan (0.50 FAR)	Proposed 0.80 FAR No Mitigation	Proposed 0.80 FAR With Mitigation
1	Fair Lakes Parkway/ Fair Oaks Mall Ring Road (1)	AM - A PM - C	AM - A PM - C	AM - B PM - E	AM - B PM - C
2	Fair Lakes Parkway/ Legato Road *	AM - A/B PM - B/C	AM - A/B PM - B/C	AM - B/B PM - C/D	AM - A/B PM - B/D
3	Fair Lakes Parkway/ Monument Drive	AM - C PM - C	AM - D PM - C	AM - D PM - D	AM - D PM - C
4	Fair Lakes Parkway/ West Ox Road (2)	AM - C PM - D	AM - D PM - F	AM - D PM - F	AM - D PM - E
5	West Ox Road/ Post Forest Drive	AM - C PM - B	AM - C PM - C	AM - C PM - C	AM - C PM - C
6	West Ox Road/ Monument Drive	AM - C PM - C	AM - F PM - C	AM - F PM - C	AM - F PM - C
7	West Ox Road/ Legato Road (3)	AM - B PM - C	AM - C PM - D	AM - C PM - D	AM - C PM - D
8	Legato Road/ Legato Road * (4)	AM - A PM - A/B	AM - A/B PM - A/C	AM - A/B PM - A/C	AM - A PM - B
9	West Ox Road/ Route 50 EB Off-Ramp	AM - A PM - A	AM - B PM - A	AM - B PM - A	AM - B PM - A

* Denotes a non-signalized intersection

Recommended Improvements from the Nominator:

- (1) Add a second EB left turn lane
 - (2) Signal Modification
 - (3) Add second SB left turn lane; Change WB approach to 1 left, 1 shared left-through, 2 right turn lanes
 - (4) Legato Road Connection
 - (5) TDM Program
- The Legato Road connection and the TDM Program recommendations provide benefit to each intersection analyzed in the transportation study. The Legato Road connection is specifically noted at the Legato Road/Legato Road intersection as this is where the physical improvement would be constructed.
 - At the proposed 0.80 FAR with BRT three of the nine intersections do not operate at an acceptable LOS before mitigation.
 - The Mall Ring Road/Fair Lakes Parkway operates at an acceptable LOS with dual eastbound left turns on Fair Lakes Parkway and the Legato Road extension. It is

unknown whether the Mall Ring Road/Fair Lakes Parkway intersection would operate acceptably without the Legato Road connection as the results combine all the improvements and show the mitigated LOS at the intersection.

- The Fair Lakes Parkway/West Ox Road intersection has a 10% decrease in the LOS from the current Comprehensive Plan to the proposed 0.80 FAR prior to mitigation. The signal modification as suggested by the nominator changes the LOS from F to an E in the PM peak hour; however, it should be noted, based on the traffic study, that an additional second of delay (with the mitigation) would have caused the intersection to fall to a LOS F. The signal timing adjustment has removed green time (which is the duration the signal stays green for vehicles to proceed) from each left turn movement (except eastbound left turn on Fair Lakes Parkway) and reallocated most of it to the eastbound movement. The proposed mitigation measure, as suggested by the nominator, is not necessarily incorrect, but the actual signal modification would be done by VDOT. This could lead to a LOS that is worse than what is shown in the study based on the coordinated network of all the signals in the area.
- The Legato Road connection alleviates the failing conditions for the southbound left turn movement from West Ox Road to Monument Drive by diverting some vehicles destined to the Mall to the southbound left turn at West Ox Road and Legato Road. However, based on the traffic study, the impact from the proposed increase in density has a marginal impact on the overall LOS at the West Ox Road/Monument Drive intersection prior to this connection.
- The new connection at Legato Road/Legato Road that leads to the Fair Oaks Mall Ring Road requires intersection modifications at the Legato Road/West Ox Road intersection. It would appear that all of the right-of-way currently exists within the existing pavement at Legato Road and West Ox Road to implement the mitigations proposed by the nominator. However, the dual right turn lanes on westbound Legato Road would require some road work as there is a pedestrian refuge island on Legato that separates the right-turn lane from the left and through lanes. Dual right turn lanes would need to accommodate the safe pedestrian crossing of Legato Road as this is the only pedestrian crossing across Route 50 between Waples Mill Road and Fair Ridge Drive (both are at-grade crossings of Route 50). If dual rights are constructed on Legato Road at West Ox Road, then the pedestrian island should be reconstructed because of the width of Legato Road at this intersection.

Table 6
2030 Link Analysis – Proposed Density of 0.80 FAR (BRT) with and without Mitigation

Roadway	Segment	AM/PM Peak Hour	2030 Comp Plan V/C Ratio (0.50 FAR)	0.80 FAR V/C Ratio No Mitigation	0.80 FAR V/C Ratio With Mitigation
NB West Ox	South of Fair Lakes Pkwy	AM	0.57	0.58	0.58
SB West Ox	South of Fair Lakes Pkwy	AM	0.35	0.36	0.36
NB West Ox	North of Legato Road	AM	0.63	0.64	0.64
SB West Ox	North of Legato Road	AM	0.57	0.57	0.57
EB Fair Lakes Pkwy	East of West Ox Road	AM	0.81	0.86	0.85
WB Fair Lakes Pkwy	East of West Ox Road	AM	0.33	0.37	0.37
EB Fair Lakes Pkwy	West of Legato Road	AM	0.51	0.61	0.54
WB Fair Lakes Pkwy	West of Legato Road	AM	0.46	0.56	0.51
NB Monument Drive	North of Fair Lakes Pkwy	AM	0.37	0.40	0.37
SB Monument Drive	North of Fair Lakes Pkwy	AM	0.71	0.74	0.70
NB Monument Drive	South of Fair Lakes Pkwy	AM	0.43	0.45	0.45
SB Monument Drive	South of Fair Lakes Pkwy	AM	1.08	1.09	1.09

Roadway	Segment	AM/PM Peak Hour	2030 Comp Plan V/C Ratio (0.50 FAR)	0.80 FAR V/C Ratio No Mitigation	0.80 FAR V/C Ratio With Mitigation
NB West Ox	South of Fair Lakes Pkwy	PM	0.44	0.46	0.46
SB West Ox	South of Fair Lakes Pkwy	PM	0.80	0.81	0.81
NB West Ox	North of Legato Road	PM	0.60	0.63	0.62
SB West Ox	North of Legato Road	PM	0.74	0.75	0.75
EB Fair Lakes Pkwy	East of West Ox Road	PM	1.00	1.07	1.05
WB Fair Lakes Pkwy	East of West Ox Road	PM	1.05	1.13	1.11
EB Fair Lakes Pkwy	West of Legato Road	PM	0.72	0.86	0.78
WB Fair Lakes Pkwy	West of Legato Road	PM	0.96	1.18	0.99
NB Monument Drive	North of Fair Lakes Pkwy	PM	0.83	0.92	0.78
SB Monument Drive	North of Fair Lakes Pkwy	PM	0.43	0.46	0.41
NB Monument Drive	South of Fair Lakes Pkwy	PM	0.87	0.89	0.89
SB Monument Drive	South of Fair Lakes Pkwy	PM	0.68	0.71	0.70

- Table 6 above shows that Monument Drive in the AM peak hour is above capacity by 9%. The proposed density increase after mitigation has a nominal effect on the southbound segment of Monument Drive meaning a small amount of Fair Oaks Mall generated traffic is heading south on Monument Drive pass Fair Lakes Parkway. This will be reviewed at rezoning but this analysis shows that this link is over capacity due to existing, planned, and background traffic.
- As stated above under the proposed 0.65 FAR, the Fair Lakes Parkway segment east of West Ox Road is over capacity and will need to be addressed with a detailed segment analysis to determine what solutions are possible for this segment of road.
- The westbound Fair Lakes Parkway segment west of Legato Road is over capacity prior to mitigation. The Legato Road connection alleviates this segment of road by providing another point of vehicle ingress/egress to the Fair Oaks Mall property. The link analysis for this segment of road shows that the v/c ratio falls from 1.18 to 0.99 with the mitigation measures in place and reaffirms that another connection at the proposed density of 0.80 FAR is needed.

Table 7
2030 Intersection Level of Service (LOS) – With Proposed Density of 1.0 FAR (Metro)

#	Intersection	2010 Existing	Comp Plan (0.50 FAR)	Proposed 1.0 FAR No Mitigation	Proposed 1.0 FAR With Mitigation
1	Fair Lakes Parkway/ Fair Oaks Mall Ring Road (1)	AM - A PM - C	AM - A PM - C	AM - B PM - E	AM - B PM - C
2	Fair Lakes Parkway/ Legato Road *	AM - A/B PM - B/C	AM - A/B PM - B/C	AM - B/B PM - C/D	AM - A/B PM - B/D
3	Fair Lakes Parkway/ Monument Drive	AM - C PM - C	AM - D PM - C	AM - D PM - D	AM - D PM - C
4	Fair Lakes Parkway/ West Ox Road (2)	AM - C PM - D	AM - D PM - F	AM - D PM - F	AM - D PM - E
5	West Ox Road/ Post Forest Drive	AM - C PM - B	AM - C PM - C	AM - C PM - C	AM - C PM - C
6	West Ox Road/ Monument Drive	AM - C PM - C	AM - F PM - C	AM - F PM - C	AM - F PM - C
7	West Ox Road/ Legato Road (3)	AM - B PM - C	AM - C PM - D	AM - C PM - D	AM - C PM - D
8	Legato Road/ Legato Road * (4)	AM - A PM - A/B	AM - A/B PM - A/C	AM - A/B PM - A/C	AM - A PM - B
9	West Ox Road/ Route 50 EB Off-Ramp	AM - A PM - A	AM - B PM - A	AM - B PM - A	AM - B PM - A

* Denotes a non-signalized intersection

Recommended Improvements from the Nominator:

- (1) Add a second EB left turn lane
 - (2) Signal Modification
 - (3) Add second SB left turn lane; Change WB approach to 1 left, 1 shared left-through, 2 right turn lanes
 - (4) Legato Road Connection
 - (5) TDM Program
- The intersection LOS for the proposed 1.0 FAR with Metrorail has the roughly the same results as the proposed 0.80 FAR with BRT. The intersections under the proposed 1.0 FAR are slightly more impacted but the effects from the increased density are marginal when compared against the proposed 0.80 FAR.
 - The on-road physical mitigation measures proposed by the nominator are the same for 1.0 FAR as they are for the 0.80 FAR.

- The reason the LOS is about the same between the 1.0 FAR and 0.80 FAR densities is that greater transit reductions are taken for the 1.0 FAR with Metrorail. The higher transit reductions are taken for the Metrorail proposed density due to known data in the region from WMATA and the capacity of a Metro train is greater than a bus on a BRT system. The higher trip reductions has an effect on each intersection analyzed because additional vehicles associated with 1.0 FAR are being removed from the road network because of the presence of Metrorail as well as the synergy between the various proposed land uses.

Table 8
2030 Link Analysis – Proposed Density of 1.0 FAR (Metro) with and without Mitigation

Roadway	Segment	AM/PM Peak Hour	2030 Comp Plan V/C Ratio (0.50 FAR)	1.00 FAR V/C Ratio No Mitigation	1.00 FAR V/C Ratio With Mitigation
NB West Ox	South of Fair Lakes Pkwy	AM	0.57	0.59	0.58
SB West Ox	South of Fair Lakes Pkwy	AM	0.35	0.36	0.36
NB West Ox	North of Legato Road	AM	0.63	0.65	0.65
SB West Ox	North of Legato Road	AM	0.57	0.57	0.57
EB Fair Lakes Pkwy	East of West Ox Road	AM	0.81	0.86	0.85
WB Fair Lakes Pkwy	East of West Ox Road	AM	0.33	0.39	0.38
EB Fair Lakes Pkwy	West of Legato Road	AM	0.51	0.62	0.54
WB Fair Lakes Pkwy	West of Legato Road	AM	0.46	0.61	0.55
NB Monument Drive	North of Fair Lakes Pkwy	AM	0.37	0.42	0.38
SB Monumnet Drive	North of Fair Lakes Pkwy	AM	0.71	0.74	0.70
NB Monument Drive	South of Fair Lakes Pkwy	AM	0.43	0.45	0.45
SB Monumnet Drive	South of Fair Lakes Pkwy	AM	1.08	1.10	1.10

Roadway	Segment	AM/PM Peak Hour	2030 Comp Plan V/C Ratio (0.50 FAR)	1.00 FAR V/C Ratio No Mitigation	1.00 FAR V/C Ratio With Mitigation
NB West Ox	South of Fair Lakes Pkwy	PM	0.44	0.46	0.46
SB West Ox	South of Fair Lakes Pkwy	PM	0.80	0.81	0.81
NB West Ox	North of Legato Road	PM	0.60	0.63	0.62
SB West Ox	North of Legato Road	PM	0.74	0.75	0.75
EB Fair Lakes Pkwy	East of West Ox Road	PM	1.00	1.07	1.05
WB Fair Lakes Pkwy	East of West Ox Road	PM	1.05	1.13	1.10
EB Fair Lakes Pkwy	West of Legato Road	PM	0.72	0.88	0.78
WB Fair Lakes Pkwy	West of Legato Road	PM	0.96	1.18	0.97
NB Monument Drive	North of Fair Lakes Pkwy	PM	0.83	0.92	0.78
SB Monumnet Drive	North of Fair Lakes Pkwy	PM	0.43	0.46	0.41
NB Monument Drive	South of Fair Lakes Pkwy	PM	0.87	0.90	0.89
SB Monumnet Drive	South of Fair Lakes Pkwy	PM	0.68	0.71	0.70

- The road segment impacts associated with the 1.0 FAR are roughly the same as those shown in Table 6 under the proposed 0.80 FAR.
- Southbound Monument Drive in the AM south of Fair Lakes Parkway is still above capacity. This may be able to be addressed through a signal adjustment at either the HOV entrance or at the Monument Drive/Government Center Parkway intersection depending on where the backup is occurring.

- The link analysis does show that the Legato Road connection alleviates Fair Lakes Parkway and this connection or a similar connection should be added as a condition to develop at the higher intensity of 0.80 FAR or 1.0 FAR.
- The link v/c ratios appear to be slightly better under the 1.0 FAR than under the 0.80 FAR option. This analysis will need to be looked at again at the time of rezoning as the 1.0 FAR option added more traffic (after reductions were assumed) to the surrounding road network than the 0.80 FAR option. The distribution of trips did not change between the two proposed densities; therefore, there is no reason that the road network should have improved when the trips from the 1.0 FAR were added.
- Even though some of the road segments are over capacity after mitigation measures have been included it is not recommended that any roads be widened as capacity issues could either be addressed at an intersection, additional connections, a more aggressive TDM program, or advancing non-motorized connections in the area. Additionally, intersection improvements to safely accommodate pedestrians including design features to promote walking should be implemented within the Fair Oaks area.

Table 9: Vehicle Trip Generation Estimates for APR 09-III-1FC

Vehicle Trip Generation with No Reductions

Density	AM Peak	PM Peak	Daily	PM Peak Increase # Above 0.50 FAR	PM Peak Increase % Above 0.50 FAR
0.50 FAR Overlay	2,198	5,128	48,977	---	---
0.65 FAR Overlay	2,628	6,030	58,922	902	18%
0.80 FAR w/ BRT	3,129	6,610	63,690	1,482	29%
1.0 FAR w/ Metro	3,670	7,223	69,539	2,095	41%

Vehicle Trip Generation with Reductions

Density	AM Peak	PM Peak	Daily	PM Peak Increase # Above 0.50 FAR	PM Peak Increase % Above 0.50 FAR
0.50 FAR Overlay	2,198	4,569	43,314	---	---
0.65 FAR Overlay	2,559	5,293	51,179	724	16%
0.80 FAR w/ BRT	2,896	5,615	53,356	1,046	23%
1.0 FAR w/ Metro	3,116	5,786	54,680	1,217	27%

- Above are the trip generation estimates for the nomination. Vehicle trip generation estimates for the development are shown with and without assumed trip reductions. This table also helps illustrate the importance of trip reductions and a Transportation Demand Management program to reduce the development's impact on the surrounding road network. For example without reductions this nomination, at the 1.0 FAR, would have generated over 2,000 additional trips in the PM peak hour above the current plan overlay level. This is equivalent to three additional vehicle lanes on Fair Lakes Parkway.

RECOMMENDATIONS

- Non-motorized physical connections (such as sidewalks and trails) need to be constructed within, to, and through the entire sub-unit. The only existing non-motorized entrance to the entire sub-unit is from Legato Road.
 - The Mall Ring Road has virtually no sidewalks, except for about 800 feet, which mainly exists on property Fair Oaks Mall does not own. Objective 4, policy e in the Transportation section of the Policy Plan states that sidewalks should be constructed on both sides of the street. The Mall Ring Road is critical to circulation around the entire sub-unit; however, it is only currently designed to accommodate the automobile, which can make movement around the area difficult and dangerous for pedestrians. Even though the Mall Ring Road is privately owned, it should be designed to meet the County road standards with sidewalks where appropriate to safely and conveniently foster walking to and within the site. On road bicycle lanes or signs indicating the road should be shared with bicyclists on the Mall Ring Road are also appropriate as the circumference of the Ring Road is over a mile in length.
 - Existing access to the sub-unit on foot or by bicycle can be very difficult and can only occur from the west as the east, north, and south sides of the area are surrounded by major regional highways. Improved pedestrian and bicycle access to the site from the west is needed because of these barriers.

Current 0.50 FAR Overlay Level

- The sidewalks on Fair Lakes Parkway that end at Legato should be extended to the east to and across the Mall Ring Road with crosswalks, pedestrian signals, and design features including pavement materials to facilitate safe pedestrian movement from the surrounding residential, retail, and office development to and from the sub-unit. At the very least, the sidewalk on one side of Fair Lakes Parkway should be extended to and across the Ring Road.
 - Provide a safe pedestrian access from the mall to the new crossing at the Fair Lakes Parkway/Mall Ring Road intersection. This should be a designated walkway with sufficient width and not in the parking lot or drive aisle.
- Sidewalks and bicycle lanes (or signs indicating that portions of the Mall Ring Road should be shared with bicyclists) should be constructed on both sides of the Mall Ring Road in a logical manner that facilitates pedestrian/bike movement to and within the site.
- At grade pedestrian access from the west in the vicinity of Legato Road/Legato Road across the Route 50 westbound inbound ramp and Route 50 eastbound outbound ramp where the crosswalks are currently located should be implemented including reasonable options for additional pedestrian/bicycle connections from the west.

- In order to plan for and implement logical connections to and within the Mall, a circulation concept should be submitted at the time of rezoning. The circulation concept should show how circulation patterns work at three different rings within the sub-unit. The first ring should show how circulation from the mall's existing corridors will interact with the new planned corridors that will be established with new development or redevelopment of portions of the mall. The second ring should show the interaction of the new pedestrian circulation corridors with the Mall Ring Road. The third ring should show how the new corridors that tie into the Ring Road will interact with existing and new connections from outside the subunit. Establishing the circulation concept as well as identifying major pedestrian realms to and within the mall will help guide development. Additionally, the circulation concept will help establish a network of streets within the mall to foster greater mobility for all modes of transportation. Any new street or existing street that is intended to be part of the circulation concept should be designed to safely accommodate pedestrians, bicyclists, transit riders, and vehicles where appropriate within the site as well as across the ring road and to connections that lead out of the subunit.
- Under the 0.80 FAR or 1.0 FAR option a vehicular extension or similar connection is recommended from Legato Road to the Fair Oaks Mall and/or from Government Center Parkway across I-66 to the Mall. Both of these extensions including a pedestrian bridge across I-66 should be incorporated into the circulation concept until the study of these connections is done with any development beyond the 0.50 FAR Overlay level. If redevelopment is being proposed in an area under the 0.50 FAR Overlay level that could possibly preclude any of these extensions from being constructed, then the study should be done before such redevelopment is approved.
 - The study of the connections should consist of conceptual engineering, traffic operations and connection to the Mall Ring Road, safe accommodation of transit, pedestrians, and bicyclists, and design and interaction of the extension with future and existing development. Upon conclusion of the study one or both of the Legato Road or Government Center Parkway extensions should be added to the Transportation Plan Map. If based on the study, the Government Center Parkway extension is feasible and added to the Transportation Plan Map then the pedestrian bridge across I-66 should not be constructed as the Government Center Parkway extension would contain facilities for pedestrians.
- A substantial TDM program should be implemented at the 0.50 FAR Overlay level.

Proposed 0.65 Overlay Level

- The Virginia Department of Rail and Public Transit (DRPT) published an I-66 Transit/TDM Study in December 2009 to identify mode choices through transit service and TDM program enhancements to increase mobility within the I-66 corridor. A recommendation from the study was to establish a park and ride station at the County owned surface lot (Tax Map 56-1 ((1)) 47C) within the Fairfax Corner area. The lot would serve a priority bus system that DRPT recommended as a feasible transit option for the I-66 corridor. A bus priority system has elements of BRT that improve the quality

and dependability of transit service, including frequent service, substantial stations, improved reliability, advanced technology and information systems, direct access to stations, modern vehicles, and distinct branding. The bus priority system is not a BRT system because it does not contain all the elements of a BRT system such as an exclusive lane on I-66 that would be solely for a BRT system. The bus priority system would operate in the HOV lane. The study recommends several park and ride locations along the corridor but the intent is that this service could be implemented with minimal or moderate investment in the infrastructure. This system would only be feasible at the Fairfax Corner area if a ramp is constructed on the west side of Monument Drive to complement the ramp on the east side. The bus priority system including the second ramp on Monument Drives does not have any committed funds at this time.

- A similar station was not recommended by DRPT on the Fair Oaks Mall property. The following is a list of potential reasons why a site was not recommended on the Fair Oaks Mall property: 1) The Fairfax Corner property is publicly owned unlike the Mall property. 2) A future commuter parking lot is shown on the Transportation Plan at Fairfax Corner. 3) A commuter parking facility already exists at the Government Center, which is on the same side as Fairfax Corner. 4) Serving an additional station on the Fair Oaks Mall property would reduce travel time savings. Heading east the bus would turn right from the newly constructed ramp as proposed by the Study. This helps with time savings because the bus is not waiting to turn left to serve the Fair Oaks Mall property. 5) A traffic analysis by DRPT could have shown that existing and future traffic conditions at intersections and on roadway links heading to the mall could have greatly impacted the travel time of the buses. This was affirmed by the traffic study submitted by the nominator, which shows road segments are over capacity and certain movements are failing at key intersections.
- Should the Government Center Parkway extension not be added to the Transportation Plan Map after the study is completed then a pedestrian bridge should be constructed from the Fair Oaks Mall property across I-66 to connect to Fairfax Corner. The pedestrian bridge should also be added to the Fairfax Center Area Road Fund. The Fair Oaks Mall should provide land for the touchdown point on the south side of I-66. This should be done at each phase from the 0.50 FAR Overlay level to the 0.65 FAR Overlay level and should be done for the following reasons:
 - It would connect two major destinations in the area.
 - The bridge creates a shorter walking distance between Fair Oaks Mall and development to the south as well as provides a point of access to the Mall from the south.
 - DRPT has recommended a bus priority system along I-66 for a short and medium-term improvement with a bus station to be located at the Board owned property on Fairfax Corner. The pedestrian bridge could facilitate use of the bus priority system by reducing the walking distance from Fair Oaks Mall to the bus station from about a mile (20 minute walk) to approximately 400 feet (1 ½ minute walk). Currently the walk from the Fair Oaks Mall to the Fairfax Corner, pedestrians

must cross the Ring Road north of the Fair Lakes Parkway/Mall Ring Road intersection. The person would then head west on Fair Lakes Parkway, then south on Monument Drive, and finally east on Government Center Parkway.

- The pedestrian bridge should be constructed to avoid the future Metrorail or BRT station as pedestrian connections across I-66 would be built with either the 0.80 FAR or 1.0 FAR. However, since it is unknown when a BRT system or Metrorail extension would be implemented, contributions toward the bridge should occur between the 0.50 FAR and 0.65 FAR Overlay levels.
- Implement a network of complete streets which could include a spoke street network with east-west and north-south connections, with a focus on pedestrians and bicyclists within the Fair Oaks Mall property. This could consolidate many of the curb cuts on the Mall Ring Road to assist with traffic operations.
- The intersection of Fair Lakes Parkway and the Ring Road should be improved to handle the expected increase in vehicle traffic. The nominator has identified that a second eastbound left should be constructed at the Fair Lakes Parkway/Ring Road intersection. This is warranted as traffic could spill back and impede the operations at the Fair Lakes Parkway/Legato Road intersection as well as vehicle ingress/egress from existing developments that have access on Fair Lakes Parkway.
- Fair Lakes Parkway should be studied from West Ox to the Mall Ring Road with the goal of trying to improve traffic operations along this segment of road while safely accommodating pedestrians and bicyclists. The analysis should look at increasing storage capacity at the intersections, modify or close existing development entrances, or other improvements to enhance traffic operations along Fair Lakes Parkway. Fair Lakes Parkway should be evaluated with each increase in density level at the 0.80 FAR and 1.0 FAR.
 - If no viable solutions can be found to alleviate the failing conditions of Fair Lakes Parkway for vehicles, then other non-vehicular mitigation measures should be pursued such as implementing improved pedestrian crossings at intersections or accommodating other transportation modes (i.e. bicycles) within or adjacent to the road network. If the above solutions cannot be implemented then another point of vehicle access accommodating pedestrians and bicycles may be needed at the proposed 0.65 FAR.
- A weave analysis should be conducted by the nominator from the eastern most right-in/right-out ramp on eastbound Route 50 at the Fair Oaks Mall to the westbound and eastbound I-66 on ramps. The right-in/right-out ramp is located approximately 700 feet from the westbound I-66 ramp meaning traffic exiting the Mall to go east on Route 50 or east or west on I-66 has to weave with traffic that wants to head west on I-66 and merge with traffic heading east on Route 50. Given the short distance between the right in-right-out ramp on Route 50 and the westbound I-66 ramp, the need to cross over three lanes of traffic to get to the I-66 eastbound on ramp, the future volume of traffic from the proposed densities, future traffic expected on eastbound Route 50, and future traffic using

the ramp to head west on I-66 from eastbound Route 50 a weave analysis should be performed at all levels of proposed development.

- Based on VDOT's comments this weave analysis should be conducted for both right-in/right-out ramps from the Mall to eastbound Route 50. FCDOT concurs with this recommendation.
- The operations of each Route 50 and Mall Ring Road intersection must avoid queuing onto Route 50 for all proposed density levels.
- Fairfax County's Transit Development Plan (TDP) shows some improved bus service to the site in the future connecting to the Vienna Metrorail station. The Fair Oaks Mall should contribute to the enhancement of this bus service by constructing shelters including bus bays and possibly a mini transit center, if warranted, or other related improvements to accommodate the existing and planned bus service to the site. Additionally, due to the importance of providing public transportation to the site, it is expected that the mall will continue to allow direct bus access to and through the site now and at any of the proposed densities, as well as provide any other physical improvements needed to accommodate the increase in bus service and transit riders on site. This should be done without the expectation of reimbursement from public agencies for service that benefits the site.
- At 0.65 FAR, the Fair Oaks Mall property should achieve an overall trip reduction of at least 16%. Office and residential reductions should achieve a minimum of 15% and 20%, respectively; however, this is provided as a guide. The overall trip reduction of at least 16% should be the minimum benchmark that is achieved. These minimum trip reductions should be met prior to proceeding to any additional development intensity. Interim trip reduction thresholds should be established during the course of rezoning to ensure that the Fair Oaks Mall property can achieve at least the minimum reductions when the property is built out at the proposed density of 0.65 FAR.
- The proposed 0.65 FAR density should not be approved unless an aggressive TDM program is adopted in addition to the recommendations listed above.
 - One TDM component could be the promotion and support of the priority bus system by including incentives for employees and residents to use the service through such measures as identified in the Policy Plan plus others as deemed appropriate to encourage transit use.

Recommendations for the Proposed Densities of 0.80 FAR and 1.0 FAR

- Enhanced pedestrian and bicycle access to the site needs to be continued to be implemented at the 0.80 FAR and 1.0 FAR proposed densities. This also includes accommodating and promoting these modes within the site and continuing to enhance the pedestrian circulation concept and network of complete streets.

- To alleviate the failing conditions at the Fair Lakes Parkway/Mall Ring Road intersection, the nominator has proposed a Legato Road extension to the Mall Ring Road as another point of ingress/egress from the site. The traffic study shows that this vehicle connection or another connection is needed to alleviate the failing conditions at Fair Lakes Parkway and the Mall Ring Road intersection. Subsequently the nominator provided an engineering feasibility analysis for the proposed connection. The proposal is to extend Legato Road where it currently connects with Legato Road that runs parallel to the Mall Ring Road across the Route 50 ramps (flyover), to the south of the existing Hotel, and touch down at grade within the Mall property. This connection or an equivalent connection should be studied at the 0.50 FAR Overlay level.
- The Government Center Parkway extension across I-66 to the Mall Ring Road or a similar connection should also be studied and evaluated in such a way that it does not interfere with the future Metrorail station. This connection would provide another point of vehicular ingress/egress from the Mall as well as possibly alleviating the left turns from westbound Fair Lakes Parkway to southbound Monument Drive. The construction of this bridge would require both public and private investment. This extension would be in lieu of the pedestrian bridge across I-66 as the bridge would have pedestrian and bicycle facilities. If this connection is found to be feasible and needed based on the study at the 0.50 FAR Overlay level then it should be added to the Fairfax Center Area Road Fund.
- Definitely one and possibly two connections are needed for acceptable traffic circulation at the proposed 0.80 FAR or 1.0 FAR proposed densities and thus both the Legato Road and Government Center Parkway extensions mentioned above including other connections that would provide a similar relief to the area should be implemented based on the results of the study at the 0.50 FAR Overlay level
- Bus bays and a kiss and ride area should be incorporated on the Fair Oaks Mall property where the proposed BRT or Metrorail station would be constructed.
- The proposed density of 0.80 FAR with Bus Rapid Transit (BRT) should only be allowed if a BRT system is planned and funded. A BRT system is defined as operating in the median of I-66 and served by stations with bridge connections to adjacent parcels. The BRT would be segregated from general purpose traffic on I-66 meaning it would operate in an exclusive lane. The stations would be similar to Metrorail and service would consist of larger buses such as articulated buses. The system would need to operate from at least the Vienna Metrorail station (or West Falls Church Metrorail station) to the west towards the County line and probably into Prince William County. BRT is not an express bus or bus priority system as defined in DRPT's I-66 Transit/TDM study or other studies.
- The study shows a new right-in/right-out access on the Mall Ring Road at the intersection with Fair Lakes Parkway. This should be reevaluated and possibly removed from consideration. Removing this movement could improve the level of service at the intersection. Additionally, the Fair Lakes Parkway/Mall Ring Road intersection is intended to be a main point of pedestrian and bicycle access to the mall and introducing

another vehicle movement could work against the ease of a pedestrian crossing at this intersection.

- At 0.80 FAR, the Fair Oaks Mall property should achieve an overall trip reduction of at least 21%. Office and residential reductions should achieve a minimum of 20% and 25%, respectively; however, this is provided as a guide. The overall trip reduction of at least 21% should be the minimum benchmark that is achieved. These minimum trip reductions should be met prior to proceeding to any additional development intensity. Interim trip reduction thresholds should be established during the course of rezoning to ensure that the Fair Oaks Mall property can achieve at least the minimum reductions when the property is built out at the proposed density of 0.80 FAR with Bus Rapid Transit operational along the I-66 corridor.
- At 1.0 FAR, the Fair Oaks Mall property should achieve an overall trip reduction of at least 30%. Office and residential reductions should achieve a minimum of 30% and 35%, respectively; however, this is provided as a guide. The overall trip reduction of at least 30% should be the minimum benchmark that is achieved. Interim trip reduction thresholds should be established during the course of rezoning to ensure that the Fair Oaks Mall property can achieve at least the minimum reductions when the property is built out at the proposed density of 1.0 FAR with the Metrorail extension.
- None of the proposed densities of 0.65 FAR, 0.80 FAR, and 1.0 FAR should be approved unless an aggressive TDM program is adopted in addition to the recommendations listed above

General Conclusions

- The residential and office trip reductions are meant to serve as a guide to achieving the overall trip reduction goal. It is critical that the overall trip reduction goal is achieved to minimize the impacts of vehicle trips on the road network resulting from the proposed increase in development.
- It is recommended that any future development of the Fair Oaks Mall property be phased as transportation improvements are identified and constructed. This includes improvements to the roads and intersections (including storage capacity for turning and approaching vehicles) on the road network surrounding the site.
- The circulation concept should be developed and submitted at the time of rezoning for any development beyond the current intermediate level of 0.25 FAR. The concept plan should show how connections from the existing corridors within the mall will interact and relate with the new development and connections from outside the subunit. The concept should also help establish a network of complete streets that is needed to safely move people and vehicles to and within the site.

Please contact Mike Garcia at Michael.Garcia3@fairfaxcounty.gov or 703-877-5673 should you need further information or clarification of these comments.

Meghan Van Dam
March 31, 2011
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cc: Dan Rathbone, FCDOT
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