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## Preliminary Plan 4-05116

Application	General Data
<b>Project Name:</b> <b>D'ARCY PARK SOUTH</b>  <b>Location:</b> Southeast quadrants of the intersection of the Capital Beltway and D'Arcy Road.  <b>Applicant/Address:</b> J.P. Squared Development, LLC. 4700 Holly Ridge Road Rockville, MD. 20853	Date Accepted: 04/17/06
	Planning Board Action Limit: 10/01/06
	Plan Acreage: 56.19
	Zone: R-R
	Lots: 0
	Parcels: 3
	Planning Area: 78
	Tier: Developing
	Council District: 06
	Municipality: N/A
	200-Scale Base Map: 204SE08

Purpose of Application	Notice Dates
RESIDENTIAL SUBDIVISION  176 condo apartments and 383 condominium townhouses	Adjoining Property Owners Previous Parties of Record Registered Associations: 02/01/06 (CB-58-2003)
	Sign(s) Posted on Site and Notice of Hearing Mailed: 08/21/06

Staff Recommendation		Staff Reviewer: Tom Lockard	
APPROVAL	APPROVAL WITH CONDITIONS	DISAPPROVAL	DISCUSSION
		X	

THE MARYLAND-NATIONAL CAPITAL  
PARK AND PLANNING COMMISSION

PRINCE GEORGE'S COUNTY PLANNING BOARD

STAFF REPORT

SUBJECT: Preliminary Plan of Subdivision 4-05116  
D'Arcy Park North, Parcels A-C (176 condo apartments & 383 condo townhouses)

OVERVIEW

The subject property comprises 56.19 acres in the R-R Zone and is located on Tax Map 82, Grid C-3 (Parcels 113 and 114). Neither of these parcels has been the subject of a record plat of subdivision. The applicant proposes a residential development of 559 units in a mix of apartments and townhouses to be built in a condominium regime. The property has frontage on I-495 and D'Arcy Road. Access to the development is proposed from an 80-foot-wide public right-of-way connecting to D'Arcy Road. A 100-foot right-of-way acts as a spine road within the development. No connection to I-495 is proposed.

Multifamily and townhouse units would not ordinarily be permitted in the R-R Zone. However, Council Bill CB-37-2005 was adopted by the District Council on July 26, 2005, which amended the Use Table in Section 27-441 of the Zoning Ordinance to allow for townhouse and multifamily development provided the property was an existing sand and gravel mine or Class III fill operation directly adjacent to an interstate highway. The legislation further excused the development from the existing dimensional (bulk) requirements for the R-18 (Multifamily) Zone and R-T (Townhouse) Zone, instead relying on approval of a Detailed Site Plan which would set the lot size, coverage, density, frontage and bedroom percentages. This site has been mined for many years and has an existing, but currently unused, Class III fill permit.

SETTING

The property is located at the southeastern quadrant of the intersection of the Capital Beltway (I-495) and D'Arcy Road. It has been extensively mined for sand and gravel. Abutting to the east and south are residences in the R-R and R-18 Zones and undeveloped land in the I-1 Zone. The Capital Beltway bounds the site to the west and industrial uses are found to the north in the I-1 Zone.

FINDINGS AND REASONS FOR STAFF RECOMMENDATION

1. **Development Data Summary**—The following information relates to the subject preliminary plan application and the proposed development.

	EXISTING	PROPOSED
Zone	R-R	R-R
Use(s)	Vacant	Multifamily & Townhouses
Acreage	56.19	56.19
Lots	0	0
Outlots	0	0
Parcels	2	3

Dwelling Units:

Multifamily	0	176
Townhouses	0	383
Public Safety Mitigation Fee		No

2. **Environmental—**

This site is 56.19 acres in size and is zoned R-R. It is located on the east side of the Capital Beltway (I-95) approximately 600 feet south of D’Arcy Road. Streams, wetlands, and 100-year floodplain occur on this site. The entire site drains into Ritchie Branch, a tributary of Southwest Branch Watershed located in the Patuxent River Basin. According to the “Prince George’s County Soils Survey” the principal soils on this site are in the Aura, Beltsville, Bibb, Chillum, Croom, Fallsington, Galestown, Iuka, Sandy Land, Sassafra, Shrewsbury, and Westphalia series. The site also contains sand and gravel pits from past mining operations. Marlboro clay does not occur in this area. According to information obtained from the Maryland Department of Natural Resources Natural Heritage Program publication titled “Ecologically Significant Areas in Anne Arundel and Prince George’s Counties”, December 1997, rare, threatened, or endangered species do not occur in the vicinity of this property. No designated scenic or historic roads will be affected by the proposed development. The site is adjacent to the Capital Beltway (I-95), which is a source of traffic-generated noise. Based on the most recent Air Installation Compatible Use Zone Study released to the public in August 1998 by the Andrews Air Force Base, aircraft-related noise is significant. This property is located in the Developing Tier as reflected in the adopted General Plan.

**Natural Resources Inventory**

An approved Natural Resources Inventory, NRI/138/05, was submitted with the application. There are streams, wetlands, and 100-year floodplain on the property. The FSD indicates four forest stands totaling 20.74 acres. Stand A is associated with steep slopes on highly erodible soils, Stands B and D have a high invasive plant populations and Stand C is associated with Waters of the U.S.

According to the Countywide Green Infrastructure Plan, none of the property is in or near any Regulated Area, Evaluation Area or Network Gap, although it is clear that locally significant regulated features exist on-site. Based upon this analysis, the only area of significant woodland is associated with Waters of the US, designated as Stand C.

**Streams, Wetlands and Regulated Features**

Streams, wetlands, and 100-year floodplain associated with the Patuxent River Basin occur on the site. These sensitive environmental features are afforded special protection in accordance with Section 24-101(b)10 of the Subdivision Ordinance, which defines the Patuxent River Primary Management Preservation Area (PMA) and Section 24-130(b)(5) of the Subdivision Ordinance, which provides for the protection of streams and the associated buffers comprising the PMA. The plan should provide for the preservation of the stream and its associated buffer to the fullest extent possible. Because of the configuration of the PMA on this site, and the convenient access point, it is possible to develop this site with only minor impacts to the PMA for necessary utilities.

It should be noted that staff generally will not support impacts to sensitive environmental features that are not associated with essential development activities. Essential development includes such features as public utility lines [including sewer and stormwater outfalls], street crossings, and so forth, which are mandated for public health and safety; non-essential activities are those,

such as grading for lots, stormwater management ponds, parking areas, and so forth, which do not relate directly to public health, safety or welfare. If impacts cannot be avoided for essential development activities such as road crossings and the installation of public utilities, then a Letter of Justification is required at the time of preliminary plan submittal.

The Tree Conservation Plan shows four impacts to environmental features, three of which are necessary for the connection to existing water and sewer lines on the south portion of the site. The fourth impact is for a retaining wall, which can be avoided. A Letter of Justification, date stamped as received by the Environmental Planning Section on April 25, 2006, was reviewed. Below is a summary of the proposed PMA impacts.

Impact Number	Justification and Recommendation	Quantity of Impact Proposed
1	This impact is necessary for the connection to an existing water line to provide water service to this portion of the site. The impact has been minimized. Staff supports this impact.	2,580 square feet
2	This impact is necessary for a connection to an existing sewer line to provide sewer service to this portion of the site. This impact is adjacent to the proposed water line (Impact #1). The impact has been minimized to the fullest extent possible. Staff supports this impact.	2,067 square feet
3	This impact is necessary for a connection to an existing sewer line. This impact has been minimized to the fullest extent possible. Staff supports this impact.	1,173 square feet
4	This impact is for the grading of 25% slopes into the PMA to install a 400 foot long retaining wall. This impact is not necessary and can be avoided by relocated the wall so that the associated grading does not encroach the PMA. Staff does not support this impact.	246 square feet.

With regard to Impacts 1-3, no additional information is required. Staff recommends that the Planning Board find that these areas of the PMA have been preserved to the fullest extent possible.

Impact #4 is for grading an area of 25% slopes for the installation of a 400 foot-long retaining wall. As shown on the exhibit submitted with the Letter of Justification, only a small portion of 25% slopes would be disturbed within the PMA for the retaining wall, if the limits of disturbance shown are honored. The text in the letter notes that the proposed retaining wall is to be located four feet from the PMA along it's length in places. This design does not allow sufficient space to construct the 400 foot-long wall (a minimum of 10 feet is necessary on both sides of the wall for construction and maintenance). Currently, a fence exists that delineates the floodplain buffer. This fence should be shown on the TCPI and the proposed development should not encroach into the floodplain easement.

## **Woodland Conservation**

The site is subject to the provisions of the Prince George's County Woodland Conservation Ordinance because it has a previously approved Tree Conservation Plan, TCPII/34/98. A Type I Tree Conservation Plan, TCPI/21/06, has been reviewed. This 56.19-acre site has a Woodland Conservation Threshold (WCT) of 10.82 acres or 20% of the net tract area. The site has 48.97 acres of existing woodland, of which 2.11 acres are in the 100-year floodplain. The TCPI proposes the clearing of 42.74 acres of upland woodland. The woodland conservation requirement has been correctly calculated as 25.03 acres. The plan proposes to meet the requirement by providing 3.07 acres of on-site preservation, 5.01 acres of on-site afforestation/reforestation, and 16.32 acres of off-site mitigation. Additional reforestation opportunities exist within the proposed stormwater management ponds, if permission can be obtained from the stormwater approval agency.

## **Noise**

The Capital Beltway (I-95) and Andrews Air Force Base have been identified as significant nearby noise sources. The noise level for each source exceeds the state noise standards for residential land uses. Noise impacts from both I-95 and Andrews Air Force Base will be substantial. While it is not possible to mitigate the noise impacts from the aircraft overflights in outdoor activity areas, indoor noise impacts must be adequately addressed. The impacts from I-95 on both outdoor activity areas and interior areas must be mitigated. Noise from I-95 must be mitigated to 65 dBA Ldn or less in outdoor activity areas and noise from both sources must be mitigated to bring interior noise levels to 45 dBA Ldn or less.

A Phase I Noise Study, date stamped as received by the Environmental Planning Section on April 25, 2006 has been reviewed. According to the report, the unmitigated 65 dBA Ldn ground level noise contour is estimated to be 1,650 feet from the centerline of I-95. Noise levels associated with the I-95 are estimated to be as high as 75 dBA Ldn and noise from associated with Andrews AFB over flights are estimated to be as high as 71 dBA Ldn. The combined aircraft and highway traffic levels were calculated to be as high as 76 dBA Ldn.

The unmitigated 65 dBA Ldn noise contour is not shown on the preliminary plan or TCPI because the 65 dBA Ldn noise contour is east of the property. An exhibit was included in the submission showing the location of the unmitigated 65 dBA Ldn noise contour. Both plans should be revised to show the unmitigated 65 dBA Ldn contour based on this study.

Given the high levels of noise from multiple sources that will affect this subdivision, noise mitigation measures will be required for this site and the proposed methods must be shown on future plans.

## **Soils**

According to the "Prince George's County Soils Survey" the principal soils on this site are in the Adelphia, Beltsville, Bibb, Croom, Fallsington, Galestown, Sandy Land, Sassafras, Shrewsbury, Westphalia, and Woodstown soil series; however, portions of the site were mined for sand and gravel after the publication of the "Prince George's County Soil Survey". Some of these soils may have developmental limitations.

Due to the unknown nature of the soils and the limitations associated with these areas, a Soils Report addressing the soil structure, soil characteristics and foundation stability is required in order to allow analysis of the site with regard to the required findings of Section 24-131 of the Subdivision Regulations (Unsafe Lands). The study shall at a minimum clearly define the limits of past excavation and indicate all areas where fill has been placed. All fill areas shall include borings, test pits, and logs of the materials found. Borings and test pits in fill areas shall be deep enough to reach undisturbed ground.

### **Water and Sewer Categories**

The water and sewer service categories are W-4 and S-4 in accordance with Council Resolution CR-21-2006 (December 2005 Cycle of Amendments, May 2, 2006), and will therefore be served by public systems.

3. **Community Planning**—The subject property is located in Planning Area 78 /Employment Area 2 in the Sansbury Community and is within the limits of the 1994 Melwood-Westphalia Master Plan. As discussed below, the site is subject to numerous other approved and pending comprehensive planning documents:

### **1994 Melwood-Westphalia Master Plan**

This applications proposing high-density residential use, does not conform to the recommendations of the 1994 master plan for industrial, public park, or low-density residential land uses at this the location. The 1994 SMA map indicates that applications for the E-I-A Zone would conform to the industrial land use recommendations of the 1994 master plan.

### **CB-37-2005**

The development concept for this property is based on the new land use pattern allowed by Council Bill CB-37-2005, which revised Zoning Ordinance Section 27-441(b), Footnote 79 to allow multifamily and townhouse development in the R-R Zone on property with surface mining or Class-3 landfill permits under circumstances that apply to this site. It is understood that the majority of the land in this application has active permits for surface mining or a Class-3 landfill.

### **2005 Westphalia Comprehensive Concept Plan (WCCP) Study**

Recent development activities in the Westphalia area led to a 2005 planning study entitled the Westphalia Comprehensive Concept Plan (WCCP) study. This study evaluated a number of large, ongoing development applications and proposed a coordinated approach to implement the planned community concept advocated by the 1994 master plan, but at a substantially higher density. The subject property is one of the development proposals included in that study.

### **2006 Adopted Westphalia Sector Plan and SMA**

The Westphalia Sector Plan and SMA was adopted by the Planning Board in July 2006 and reflects the planning concepts of the 2005 WCCP study. The adopted sector plan recommends the subject property primarily for high-density residential land use; the small part of application 4-05113 located north of the Little Washington Neighborhood Park is recommended for low- to moderate-density residential land use.

### **Residential Design Principles**

The adopted sector plan contains the following design principles for development in residential areas that apply to the review of these subdivision applications, or to the detailed site plan to be submitted subsequently (pp. 17-18):

### **“Design Principles**

#### **Residential Areas**

- Cluster residences around shared amenities to form distinct neighborhoods with a sense of identity. Clusters should be defined and divided by green spaces.
- Develop neighborhoods to reflect the character of their location within Westphalia with closer areas being compact and more urban and fringe areas being more rural....
- Encourage preservation of woods and fields by allowing smaller lot sizes and permitting usable shared green areas in the immediate neighborhood via cluster or conservation subdivision design techniques.
- Front residences on to, rather than backing them up to, parkways and other roads and onto stream valleys and other green areas that are over 80 feet wide.
- Feature the same quality design and treatments on the exposed façades as on the front façade of highly visible residences on corner lots, and elsewhere.
- Design single-family detached and attached homes and multifamily buildings so the mass of the living space and the front door dominates the front façade with garages hidden or subordinated to the main structure.
- Construct garages so as not to visually dominate the first floor front façade or project beyond the main façade of residential buildings.
- Design most of the buildings in a block to have the appearance of two habitable floors.
- Arrange driveways so that cars are parked to the side or rear of the house or otherwise hidden from the street.
- Provide rear alleys to have access to parking and garages for residences that are placed back-to-back.”

**Comment:** Land use types and quantities are not specified for each site in the adopted sector plan, but calculations were included in the 2005 WCCP Study appendices that reflected development proposals and estimates for undeveloped properties in the study area to determine overall development potential, public facility needs and transportation network demands. The tables and maps in WCCP Appendix V–Land Use Development Estimates, includes the property subject to these applications in land bay “RRR-23” which estimates 1,100 dwelling units (Page 4 of 12 in Appendix V). These applications generally conform to that development concept.

The orientation of lots and buildings toward public streets, with parking located to the rear of side

of buildings, generally conforms to the design concepts of the adopted plan. Building design and architecture issues need to be addressed during review of detailed site plans.

## **Gateways**

The adopted sector plan policies and strategies (p. 17) promote the development of gateways at key intersections into the Westphalia Sector Plan area, including D'Arcy Road at the Capital Beltway on application 4-05113, as follows:

### **"Strategies**

Ensure designated gateways, including main street village gateway areas, are designed to include, but not be limited to, the following design elements that will help define the site and make the place inviting and safe:

- Landmark elements such as entrance signage, artwork, water features, or timepiece.
- Landscape design including both softscape and hardscape.
- Resting and recreation facilities and other amenities, as appropriate."

**Comment:** This issue is not addressed in application 4-05113; it should be addressed during detailed site plan review.

## **2002 General Plan**

The 2002 General Plan locates the property in the Developing Tier. The vision for the Developing Tier is to maintain a pattern of low- to moderate-density suburban residential communities, distinct commercial centers, and employment areas that are increasingly transit serviceable. These applications (there is a companion application, 4-05113 D'Arcy Park South) are not inconsistent with the 2002 General Plan Development Pattern policies for the Developing Tier.

4. **Parks and Recreation**—Staff of Department of Parks and Recreation (DPR) has reviewed the submitted subdivision plans and made the following findings in accordance with Section 24-135(b) of the Subdivision Regulations.

The applicant, his successors, and/or assignees, should provide adequate private recreational facilities on site in accordance with the standards outlined in the *Parks and Recreation Facilities Guidelines*.

The preliminary plan shows several areas for private recreational facilities. The limits of the private recreational facility shall be reviewed by the Urban Design Review Section of DRD for adequacy and property siting through a limited detailed site plan as set forth in the conditions of approval.

5. **Trails**—There is one master plan trail issue identified in the Adopted and Approved Melwood-Westphalia Master Plan that impacts the subject site. A Class II trail is recommended along Presidential Parkway extended (A-66 in 1994 Master Plan, MC-634 in draft Sector Plan). The draft Westphalia Sector Plan has reaffirmed this recommendation. This trail has been completed



along the north\east side of Presidential Parkway where the road has been completed west of Woodyard Road (see photo). Staff recommends that the trail be completed along the east side of this road (MC-634) where it crosses each portion of the subject site, both north and south of D'Arcy Road. Staff supports this trail as indicated on the street section for Road A.



The draft Westphalia Sector Plan also designates D'Arcy Road as a master plan bikeway corridor (see Map 8). Currently, D'Arcy Road is open section with no sidewalks outside the Beltway, although inside the Beltway it has curbs, gutters, and standard sidewalks. Staff recommends that the bikeway be accommodated through the provision of two "Share the Road with a Bike" signs and standard sidewalks along D'Arcy Road. Paved shoulders or wide outside lanes should be considered at the time of road resurfacing or road improvement to safely accommodate bicycle traffic.

#### **Sidewalk Connectivity:**

Due to the density of the subject site and the desire for walkable communities expressed during the Westphalia Charrette, staff recommends the provision of standard sidewalks along both sides of all internal roads. Staff also recommends wide sidewalks along both sides of Road B, as this is the main entrance into the southern portion of the subject site, and connects D'Arcy Road with the master plan trail along MC-634. Staff supports the provision of the six-foot-wide sidewalks along both sides of Road B, as shown in the submitted street section. In keeping with this, staff also recommends sidewalks along D'Arcy Road.

6. **Transportation**—The applicant prepared and submitted to staff, a traffic impact study dated February 10, 2006. However, due to procedural issues pertaining to the applicant's proposed Transportation Facilities Mitigation Plan (TFMP), the study was deemed to be unacceptable to staff, and a revised study using the appropriate methodology was requested. The applicant then provided a May 3, 2006 revised study which was acceptable to staff, and was subsequently sent on referral (on May 10, 2006) to both the County Department of Public Works and Transportation (DPW&T) and the State Highway Administration (SHA).

Subsequent to staff's receipt and acceptance of the May 3, 2006 revised study, there have been additional applications that have obtained preliminary plan approval by the Planning Board, and are now considered background developments. Included among those approved developments is

the Smith Home Farm Preliminary Plan (4-05080), which was approved on July 27, 2006. The Smith Home Farm Preliminary Plan proposes a mixed used development, including over 3,600 residential dwelling units and 170,000 square feet of commercial development. Given the size and proximity of the Smith Home Farm development to the subject property, and the fact that some or all of the intersections within the subject application's study could be affected by traffic from the Smith Home Farms development, the applicant was requested to revise the study yet again, to reflect the impact caused by these approved background developments.

On September 8, 2006, staff received an electronic (PDF) copy of an addendum to the original traffic study. In this addendum, the study analyzed all of the intersections within the study area, but this time including the Smith Home Farm approved subdivision as part of the background development. As of this writing however, comments from SHA and DPW&T (based on this recent addendum) have not been received. The findings and recommendations outlined below are based upon a review of all materials received and analyses conducted by the staff, are consistent with the *Guidelines*.

All of the analyses presented in the traffic impact studies (original and revised) are based on the traffic generated by both the subject application and the D'Arcy Park South (4-05116) preliminary plan application. Both sites have common ownership, and are likely to be heard on the same Planning Board date. The analyses and findings presented in this memorandum are similar for each site.

### Traffic Impact Study

The September 8, traffic impact study identified the following intersections as the ones on which the proposed development would have the most impact:

EXISTING CONDITIONS		
Intersection	AM	PM
	(LOS/CLV)	(LOS/CLV)
Sansbury Road/Ritchie Marlboro Road	C/1203	<b>A/926</b>
Sansbury Road/D'Arcy Road **	B/11.1 secs.	B/11.1 secs.
Westphalia Road/D'Arcy Road **	B/11.8 secs.	<b>B/10.0 secs.</b>
Westphalia Road-Old Marlboro Pike/MD 4	D/1361	F/1837
I-95 @ Ritchie Marlboro Road/ SB Ramps Round-about **	A/6.7 secs.	<b>A/5.8 secs.</b>
I-95 @ Ritchie Marlboro Road/ NB Ramps Round-about **	A/8.0 secs.	<b>A/5.6 secs.</b>
** Unsignalized intersections are analyzed using the Highway Capacity Software. The results show the level-of-service and the intersection delay measured in seconds/vehicle. A level-of-service "E" which is deemed acceptable corresponds to a maximum delay of 50 seconds/vehicle. For signalized intersections, a CLV of 1450 or less is deemed acceptable as per the <i>Guidelines</i> . All results in <b>boldface</b> represent failing levels.		

The traffic study also identified eighteen (18) background developments whose impact would affect some or all of the study intersections. Additionally, a growth rate of 1% per year (between 2005 through 2012) was applied to the existing traffic counts along MD 4. A growth rate of 2% per year was applied to the through traffic along Ritchie-Marlboro Road. A second analysis was done to evaluate the impact of the background developments on existing infrastructure. The analysis revealed the following results:

BACKGROUND CONDITIONS		
Intersection	AM	PM
	(LOS/CLV)	(LOS/CLV)
Sansbury Road/Ritchie Marlboro Road	<b>F/1706</b>	<b>D/1300</b>
Sansbury Road/D'Arcy Road **	C/31.5 secs.	B/67.1 secs.
Westphalia Road/D'Arcy Road **	C/24.7 secs.	<b>C/22.6 secs.</b>
Westphalia Road-Old Marlboro Pike/MD 4	<b>F/2363</b>	F/2540
I-95 @ Ritchie Marlboro Road/ SB Ramps Round-about **	A/7.6 secs.	<b>A/10.6 secs.</b>
I-95 @ Ritchie Marlboro Road/ NB Ramps Round-about **	B/11.8 secs.	<b>C/17.8 secs.</b>

Using the *Guidelines for the Analysis of the Traffic Impact of Development Proposals*, the study has indicated that the proposed developments of both D'Arcy Park North and D'Arcy Park South combined would consist of 344 condominium units and 712 townhouse units. Collectively, these units will be adding 677(134 in; 543 out) AM peak hour trips and 773 (505 in; 271 out) PM peak hour trips at the time of full build-out. An analysis of total traffic conditions was done, whereby the impact of both of the proposed developments was evaluated. The results of that analysis are as follows:

TOTAL CONDITIONS (both developments combined)		
Intersection	AM	PM
	(LOS/CLV)	(LOS/CLV)
Sansbury Road/Ritchie Marlboro Road	<b>F/1868</b>	<b>D/1410</b>
Sansbury Road/D'Arcy Road **	<b>F/999+ secs.</b>	<b>F/999+ secs.</b>
Westphalia Road/D'Arcy Road **	C/40.5 secs.	<b>C/58.8 secs.</b>
Westphalia Road-Old Marlboro Pike/MD 4	<b>F/2441</b>	F/2547
I-95 @ Ritchie Marlboro Road/ SB Ramps Round-about **	A/8.7 secs.	<b>A/34.1 secs.</b>

I-95 @ Ritchie Marlboro Road/ NB Ramps Round-about **	B/12.5 secs.	<b>C/54.3 secs.</b>
D'Arcy North @ Sansbury Road (site access) **	C/21.8 secs.	<b>D/26.4 secs.</b>
D'Arcy North @ D'Arcy Road (site access) **	B/10.9 secs.	<b>B/11.1 secs.</b>
D'Arcy South @ D'Arcy Road (site access) **	B/11.3 secs.	<b>B/11.8 secs.</b>

The results shown in the table above have indicated that there are three (3) intersections that would operate unacceptably under total traffic conditions. To address those inadequacies, the following improvements were proposed in the traffic study:

1. **Sansbury Road/D'Arcy Road intersection (unsignalized)**

Given the failing LOS projected for this intersection under total traffic, the applicant proposes a provision of separate left and right turn lanes for the D'Arcy Road approaches in addition to a realignment of the intersection. Recognizing that with these improvements, the intersection would still operate with delays above the 50-second threshold, the applicant examined the possibility of signalization as well as an "All Way Stop" condition. The study concluded that the implementation of an "All Way Stop" control would result in LOS of B (13.9 secs) during the AM peak hour and B (14.88 secs) during the PM peak hour.

2. **Sansbury Road/Ritchie-Marlboro Road intersection**

The applicant proposes the addition of a third westbound through lane on Ritchie-Marlboro Road. With this improvement in place, the intersection is projected to operate with a LOS/CLV of D/1374 during the AM peak hour, and D/1410 during the PM peak hour

3 **MD 4/Westphalia Road intersection.**

Because this intersection is located within the MD 4 corridor, where the use of mitigation (CR-29-1994) is allowed, the applicant has proffered a Transportation Facilities Mitigation Plan (TFMP) at the intersection to meet the mitigation critical lane criteria. Specifically, the applicant is proposing to provide the following lane configuration:

**Northbound approach (Old Marlboro Pike)**

- Double left turn lanes
- One exclusive through lane
- One exclusive right turn lane

**Southbound approach (Westphalia Road)**

- Double right turn lanes
- One exclusive through lane
- One exclusive left turn lane

**Eastbound Approach (MD 4 from the Beltway)**

- Double left turn lanes
- Three exclusive through lanes
- One exclusive right turn lane

#### **Westbound Approach (MD 4 towards the Beltway)**

- One left turn lane
- Four exclusive through lanes
- One exclusive right turn lane

With these improvements in place, the projected LOS/CLV would be F/1749 during the AM peak hour and F/1778 during the PM peak hour. The traffic study further indicates that the above improvements would mitigate 887% of the site-generated trips added in the AM peak and 10,985% of the PM site-generated peak hour trips. With all of the improvements cited above for the three referenced intersections, the traffic study concluded that the subject property (and the companion D'Arcy Park South application) meets the CLV criteria for a TFMP.

#### **Staff Review and Comments**

Upon review of the applicant's traffic study (including the addendum received on September 8, 2006) staff does not totally concur with its findings and conclusion.

In addition to the planning staff, the May 3, 2006 study was reviewed by two other agencies, the State Highway Administration (SHA) and the Department of Public and Transportation (DPW&T). It is worth noting however, that the supplemental study (addendum), which includes analyses of the affected intersections with the Smith Home Farm development being part of the background developments, was sent out on referral to the agencies on Monday September 11, 2006. It is customary to allow for a 30-day review window when either the SHA or the DPW&T review is being sought. Given the fact that the supplemental study was submitted to staff thirteen (13) days prior to the Planning Board hearing, it appears unlikely that a complete review of the supplemental material by either agency can be accomplished within the compressed timeframe.

The DPW&T did offer comments based on the original traffic study as sent out on referral. In their review of the applicant's (May 10, 2006) traffic study, the DPW&T does not support the proposed condition at the Sansbury Road/D'Arcy Road intersection. In a June 6, 2006 memorandum to staff (*Issayans to Burton*) Mr. Issayans—the county's chief Traffic Engineer—expressed his disapproval for such a condition. Further discussion between staff and DPW&T revealed operational problems as the main reason for the agency's disapproval. Mr. Issayans suggested however, that the geometry of the intersection be reconfigured, in order to enhance sight distance and overall operation. A complete signal warrant analysis was also being required of the applicant. Other comments by DPW&T dealt with operational issues that go beyond the purview of the Planning Department and the Planning Board.

The issues regarding the adequacy of the intersection of MD 4 and Westphalia Road-Old Marlboro Pike are numerous and rather complex. Both the initial traffic study provided by this applicant, as well as the supplemental traffic study indicated that the intersection fails under existing traffic, background traffic and site generated traffic. The applicant has demonstrated that with the provision of specific geometric improvements to the intersection, the intersection could be made to operate adequately, pursuant to the provisions outlined in the mitigation guidelines (CR-29-1994) and Section 24-124(a)(6). One such provision however, is that the any improvement proffered as part of a mitigation package must be

approved by the agency that has jurisdiction for that transportation facility. As of this writing, staff has not received any correspondence from SHA affirming their approval for the geometric improvements cited earlier.

In a related matter, the applicants for the recently approved Smith Home Farm Preliminary Plan of Subdivision (4-05080) are pursuing plans for the funding and construction of a grade-separated interchange to replace the current at-grade intersection of MD 4 and Westphalia Road. This improvement is necessary, since it was the basis on which a finding of adequacy was determined for the Smith Home Farm. While such an interchange would create enough capacity to serve the Smith Home Farm development, it would also create excess capacity that would benefit other developments including the subject property. The funding of such a project can be very costly, and understandably, the developers of said project are pursuing an avenue through which some of the cost can be reimbursed.

One such avenue is called the Surplus Capacity Reimbursement Procedure (SCRCP). Section 24-124(a)(4) and allows for the developer (providing the initial capital) to be reimbursed in part by other developers for the creation of excess capacity. Section 24-124(b) also allows subsequent developers to receive Planning Board approval with a condition to pay a pro-rata share of the MD 4/Westphalia Road interchange, rather than a condition requiring the construction of the interchange. The applicant for the Smith Home Farm has accepted a condition to construct the interchange, and must bond it, obtain permits for it, and schedule it for construction prior to the release of the initial building permit. At that point, the Planning Board would be able to establish a resolution establishing the SCRCP (Surplus Capacity Reimbursement Procedure) for the MD 4/Westphalia Road interchange. In order to ensure compliance with Section 24-124(a)(4), it will be necessary for this to occur prior to other developments paying the pro-rata share and moving into the building permit stage of development. To date, the applicant for the Smith Home Farm has provided no firm timetable for completing the needed bonding so that the SCRCP can be formally established.

### **Transportation Staff Findings**

The application analyzed is two (2) preliminary plans of subdivision for residential development (D'Arcy Park North and D'Arcy Park South combined) consisting of 344 condominium units and 712 townhouse units. Collectively, these units will be adding 677(134 in; 543 out) AM peak hour trips and 773 (505 in; 271 out) PM peak hour trips at the time of full build-out. The traffic generated by the proposed preliminary plans would impact the following intersections:

- Sansbury Road/Ritchie Marlboro Road
- Sansbury Road/D'Arcy Road (unsignalized)
- Westphalia Road/D'Arcy Road (unsignalized)
- Westphalia Road-Old Marlboro Pike/MD 4
- I-95 @ Ritchie Marlboro Road/ SB Ramps Round-about
- I-95 @ Ritchie Marlboro Road/ NB Ramps Round-about

None of the intersections, identified above are programmed for improvement with 100% construction funding within the next six years in the current Maryland Department of Transportation *Consolidated Transportation Program* or the Prince George's County *Capital Improvement Program*.

The subject property is located within the Developing Tier as defined in the *General Plan for Prince George's County*. As such, the subject property is evaluated according to the following standards: **Links and signalized intersections:** Level-of-service (LOS) D, with signalized intersections operating at a

critical lane volume (CLV) of 1,450 or better; **Unsignalized intersections:** The Highway Capacity Manual procedure for unsignalized intersections is not a true test of adequacy but rather an indicator that further operational studies need to be conducted. Vehicle delay in any movement exceeding 50.0 seconds is deemed to be an unacceptable operating condition at unsignalized intersections. In response to such a finding, the Planning Board has generally recommended that the applicant provide a traffic signal warrant study and install the signal (or other less costly warranted traffic controls) if deemed warranted by the appropriate operating agency.

The following intersections, when analyzed with the total future traffic as developed using the *Guidelines*, were not found to be operating at or better than the policy service level defined above:

TOTAL CONDITIONS (both developments combined)		
Intersection	AM	PM
	(LOS/CLV)	(LOS/CLV)
Sansbury Road/Ritchie Marlboro Road	<b>F/1789</b>	<b>D/1416</b>
Sansbury Road/D'Arcy Road (unsignalized)	<b>F/112 secs.</b>	<b>F/91.1 secs.</b>
Westphalia Road-Old Marlboro Pike/MD 4	<b>F/1957</b>	F/2239

The applicant will be required to provide the following improvements to the intersections in consideration of the findings above:

1. **Sansbury Road/D'Arcy Road intersection (unsignalized)**

The applicant shall provide a separate left and right turn lanes for the D'Arcy Road approaches. Since these additional improvements will not lower the delay below 50 seconds in any given movement, and per the requirement of DPW&T, the applicant conduct a traffic signal warrant study.

2. **Sansbury Road/Ritchie Marlboro Road intersection**

The applicant proposes the addition of a third westbound through lane on Ritchie Marlboro Road. With this improvement in place, the intersection is projected to operate with a LOS/CLV of D/1374 during the AM peak hour, and D/1410 during the PM peak hour.

3. **MD 4/Westphalia Road intersection.**

The applicant proposes the following lane configuration:

**Northbound approach (Old Marlboro Pike)**

- Double left turn lanes
- One exclusive through lane

- One exclusive right turn lane

#### **Southbound approach (Westphalia Road)**

- Double right turn lanes
- One exclusive through lane
- One exclusive left turn lane

#### **Eastbound Approach (MD 4 *from* the Beltway)**

- Double left turn lanes
- Three exclusive through lanes
- One exclusive right turn lane

#### **Westbound Approach (MD 4 *towards* the Beltway)**

- One left turn lane
- Four exclusive through lanes
- One exclusive right turn lane

With these improvements in place, the projected LOS/CLV would be F/1749 during the AM peak hour and F/1778 during the PM peak hour. The traffic study further indicates that the above improvements would mitigate 887% of the site-trips added in the AM peak and 10,985% of the PM peak hour trips. Therefore, the proposed mitigation at MD 4 and Westphalia Road meets the requirements of Section 24-124(a)(6)(B)(i) of the Subdivision Ordinance in considering traffic impacts.

While the applicant's proposed TFMP has met the mathematical threshold, as of this writing, staff has not received any comments from SHA approving the proposed TFMP. One of the requirements of a TFMP pursuant to the *Guidelines* is that the review agencies must be given thirty (30) days from the date of circulation to review. The *Guidelines* also require affirmation from the review agencies that the proposed geometric improvements are in accordance with the agencies' standards. Because the TFMP was sent on referral to SHA on September 11, 2006, SHA did not have enough time to respond to staff's request as of the date of this memorandum, and consequently, the applicant's TFMP cannot be considered as being valid at this time. Because the applicant offered no alternative to mitigation at the MD 4/Westphalia Road intersection, staff concludes that **a finding of adequacy cannot be made for this intersection.**

#### **Site Plan Review**

As identified at the time of the Subdivision Review Committee meeting on May 5, 2006, there are a number site plan issues that need to be addressed by the applicant. Staff identified the need to increase the proposed right-of-way (ROW) width for "Road C" to 60 feet rather than the 50 feet being proposed. Given the number of dwellings and the associated traffic (greater than 600 ADT) anticipated, staff will be requiring no less than 60 feet of right-of-way for Road "C" pursuant to the county's *Neighborhood Traffic Management Program* criteria.

The plan shows a potential impact by the proposed Presidential Parkway (A-66) The Adopted Westphalia Sector Plan has proposed modifications to the master plan road network, including a downgrading of the Presidential Parkway to a major collector (MC-634) on a modified alignment. In light of this, the applicant needs to coordinate with DPW&T on an alignment that is compatible with DPW&T's plans to realign MC-634 beyond the limits of this property. On the D'Arcy Park South plan, the portions of Road



A being designated as “To Be Placed In Reservation” need to be changed to “Dedicated to Prince George’s County”.

### Transportation Staff Conclusions

The Transportation Planning Section concludes that adequate access roads will not exist as required by Section 24-124 of the Prince George's County Code.

7. **Schools**—The Historic Preservation and Public Facilities Planning Section has reviewed this preliminary plan for impact of school facilities in accordance with Section 24-122.02 of the Subdivision Regulations and CB-30-2003 and CR-23-2003 and concluded the following.

Impact on Affected Public School Clusters

Affected School Clusters #	Elementary School Cluster 4	Middle School Cluster 2	High School Cluster 2
Dwelling Units	559 sfd	559 sfd	559 sfd
Pupil Yield Factor	0.24	0.06	0.12
Subdivision Enrollment	134.16	33.54	67.08
Actual Enrollment	3965	7218	10839
Completion Enrollment	176	112	223
Cumulative Enrollment	938.64	235.92	472.92
Total Enrollment	5213.80	7599.46	11602
State Rated Capacity	4140	6569	8920
Percent Capacity	125.94%	115.69%	130.07%

Source: Prince George's County Planning Department, M-NCPPC, December 2005

These figures are correct on the day the referral memo was written. They are subject to change under the provisions of CB-30-2003 and CR-23-2003. Other projects that are approved prior to the public hearing on this project will cause changes to these figures. The numbers shown in the resolution will be the ones that apply to this project.

County Council bill CB-31-2003 establishes a school facilities surcharge in the amounts of: \$7,000 per dwelling if a building is located between I- 495 and the District of Columbia; \$7,000 per dwelling if the building is included within a basic plan or conceptual site plan that abuts an existing or planned mass transit rail station site operated by the Washington Metropolitan Area Transit Authority; or \$12,000 per dwelling for all other buildings. Council bill CB-31-2003 allows for these surcharges to be adjusted for inflation and the current amounts are \$7,671 and \$13,151 to be a paid at the time of issuance of each building permit.

The school surcharge may be used for the construction of additional or expanded school facilities and renovations to existing school buildings or other systemic changes.

The Historic Preservation and Public Facilities Planning Section staff finds that this project meets the adequate public facilities policies for school facilities contained in Section 24-122.02, CB-30-2003 and CB-31-2003 and CR-23-2003.

8. **Fire and Rescue**—The Historic Preservation & Public Facilities Planning Section has reviewed this subdivision plan for fire and rescue services in accordance with Section 24-122.01(d) and Section 24-122.01(e)(1)(B)-(E) of the Subdivision Ordinance.

The Prince George's County Planning Department has determined that this preliminary plan is within the required 7-minute response time for the first due fire station Forestville, Company 23, using the *7 Minute Travel Times and Fire Station Locations Map* provided by the Prince George's County Fire Department.

Pursuant to CR-69-2006, Prince George's County Council and the County Executive suspended the provisions of Section 24-122.01(e)(1)(A, B) regarding sworn police and fire and rescue personnel staffing levels.

The Fire Chief has reported that the department has adequate equipment to meet the standards stated in CB-56-2005.

9. **Police Facilities**—The preliminary plan is located in Police District IV. The response standard is 10 minutes for emergency calls and 25 minutes for nonemergency calls. The times are based on a rolling average for the preceding 12 months. The preliminary plan was accepted for processing by the Planning Department on April 17, 2006.

Reporting Cycle	Date	Emergency Calls	Nonemergency
Acceptance Date	01/05/05-02/05/06	10.00	22.00
Cycle 1			
Cycle 2			
Cycle 3			

The response time standards of 10 minutes for emergency calls and 25 minutes for nonemergency calls were met on March 5, 2006. Pursuant to CR-69-2006, the Prince George's County Council and the County Executive suspended the provisions of Section 24-122.01(e)(1)(A, B) regarding sworn police and fire and rescue personnel staffing levels.

The Police Chief has reported that the department has adequate equipment to meet the standards stated in CB-56-2005.

10. **Health Department**—The Environmental Engineering Program has reviewed the preliminary plan of subdivision and has the following comments to offer:

- A. Submit, as soon as possible, a detailed summary of the previous sand and gravel operation (years of operation and extent of excavation/backfill) so this office can determine whether an Environmental Site Assessment and testing will be required prior to preliminary plan approval.
- B. Two unlabeled drums containing liquid on the property must be evaluated and disposed

of in an appropriate manner by a licensed hazardous waste company.

11. **Stormwater Management**—The Department of Environmental Resources (DER), Development Services Division, has determined that on-site stormwater management is required. A Stormwater Management Concept Plan has been submitted but not yet approved. Prior to signature approval of the preliminary plan the applicant should submit copies of the approved stormwater concept plan and letter to the Environmental Planning and Subdivision Sections and indicate the approval date on the preliminary plan. Development must be in accordance with that approved plan to ensure that development of this site does not result in on-site or downstream flooding.
12. **Historic**—Phase I archeological survey was completed for the above-reference property. Four copies of a revised final report, “A Phase I Archaeological Survey of the D’Arcy Road Property Prince George’s County, Maryland Preliminary Plans 4-05113 and 4-05116”, were submitted to staff on April 12, 2006. No archeological sites were identified and no further archeological work is required by the county.

Section 106 review may require archeological survey for state or federal agencies, however. Section 106 of the National Historic Preservation Act requires Federal agencies to take into account the effects of their undertakings on historic properties, to include archeological sites. This review is required when federal monies, federal properties, or federal permits are required for a project.

#### RECOMMENDATION

DISAPPROVAL, due to inadequate transportation facilities.