

THE MARYLAND-NATIONAL CAPITAL
PARK AND PLANNING COMMISSION

PRINCE GEORGE'S COUNTY PLANNING BOARD

STAFF REPORT

SUBJECT: Preliminary Plan of Subdivision 4-01049
Piscataway Estates

OVERVIEW

The subject property consists of 95.3 ∇ acres of land in the R-E Zone. The property is undeveloped fields and woodland, though much of the woodland has been logged, apparently without permit. The site exhibits ample environmental constraints and problems. The property is currently identified as Parcel 173, Tax Map 123, Grid E-4. The applicant proposes to subdivide the property into 80 lots using the lot size averaging technique. Two parcels will also be created for stormwater management and park dedication. Access will be from existing Glissade Drive and Elizabeth Ida Road extended through Mary Catherine Estates.

Conditions of approval referenced in this report are found in the supporting documentation attached to this report. They are not included in the report because staff recommends disapproval of the application based in large part on unresolved environmental issues. This is the second iteration of a preliminary plan application on this property. Staff recommended disapproval of Preliminary Plan 4-01010, and it was subsequently withdrawn, because of unresolved environmental issues. Now, nearing the end of the second review period of the second application, these issues remain unresolved. Staff had hoped that the applicant would request a continuance to the September 6, 2001 Planning Board hearing to attempt to resolve these issues. However, no such request is forthcoming and staff is again compelled to recommend disapproval.

SETTING

The property is located on the northwest side of Piscataway Road, approximately 1,300 feet from the intersection of Accolade Drive and Glissade Drive in the Tippet community. Single-family detached homes are to the east and west in the R-R Zone. Undeveloped land in the R-E Zone are to the north and south.

Further north is the Potomac Airfield, which is a small, private, general aviation airport approximately 3,000 to 4,000 feet to the north. Washington Executive Airport is located more than a mile to the northeast. The property is in an area that is underneath the air traffic/flight pattern for these airfields. There are presently no county regulations that specifically address development of this parcel for residential land use relative to the impact of air traffic in this area. However, low density residential use such as that proposed by this subdivision is considered compatible at this distance for the airfields if adequate notice is given to prospective home purchasers.

The applicant should take notice of the proximity of Potomac Airfield, the location of this property underneath the airport traffic pattern, the possible overflight of low flying aircraft, increased exposure to aircraft noise, and a slightly elevated risk of exposure to small aircraft accidents. The applicant should also be aware of FAA and MAA requirements regarding notice of proposed new construction near public use airports, and should obtain a copy of the consultant study entitled, *Airport Land Use Compatibility and Air*

Safety Study for The Maryland-National Capital Park and Planning Commission, November 1, 2000, by William V. Cheek and Associates

FINDINGS AND REASONS FOR STAFF RECOMMENDATION

1. Environmental Issues and Variation Requests - The Environmental Planning Section recommends disapproval of Piscataway Estates, 4-01049, due to unsafe lands and a Tree Conservation Plan that does not meet the minimum requirements of the Woodland Conservation Ordinance.

This site is subject to the provisions of the Woodland Conservation Ordinance because it is more than 40,000 square feet in size and contains more than 10,000 square feet of woodland. A Tree Conservation Plan is required to satisfy the requirements of the Woodland Conservation Ordinance.

A Letter of Exemption, E-86-99, was issued on December 8, 1999, for a logging operation (Logging Permit, 60019-99 and Forest Harvest Operations Sediment Control Plan, SCD 176-00). A Forest Stand Delineation dated January 2001, based upon field work in October 2000, has been reviewed. The report more than adequately describes the woodlands and condition and location of specimen trees. A field visit conducted by Environmental Planning Section staff on February 9, 2001 verified the description for Stand C and quotes from Page 5 of the FSD: ■As a result of logging activities, a tremendous amount of slash is present, which makes moving through the stand very difficult. Opening of the canopy has resulted in a herbaceous coverage of nearly 100%, and an average of 1,040 shrubs per acre. • The existing condition of the 7.63 acres of woodland along the stream in the center of the property makes it unsuitable as a woodland conservation area. The Forest Stand Delineation meets all requirements of the Woodland Conservation Ordinance.

The Type I Tree Conservation Plan, TCP I/3/01, contains errors and inconsistencies which need to be resolved.

- A. Note 2 of the Conservation Notes is out of date and needs to be replaced with the current language.
- B. The plan shows clearing of woodland within the floodplain, but this is not reflected in the worksheet.
- C. The plan proposes using timbered woodland to meet the requirements which is currently unsuitable for meeting the requirements of the Woodland Conservation Ordinance.
- D. The worksheet indicates 0.63 acres of ■woodland retained not part of requirements. • The Environmental Planning Section has calculated this figure as 0.51 acres.
- E. The lotting pattern does not match the preliminary plan.

- F. The worksheet indicates preservation of 26.83 acres of woodland on-site, but the plan shows only 20.34 acres of on-site preservation, including the 7.63 acres deemed unsuitable.

Given these deficiencies, staff must recommend disapproval of Type I Tree Conservation Plan, TCP I/3/01. Extensive revisions are required before the plan can be considered for approval.

No variation requests were included for at least one storm drain outfall and two road impacts to the minimum 50-foot stream buffer required by Section 24-(b)(6) of the Subdivision Regulations. Variation requests were submitted for several impacts, but the major road impact was left out of the request. Given that this road crossing is important for this subdivision proposal, staff cannot support the preliminary plan in absence of this variation request.

Section 24-131 of the Subdivision Regulations specifically permits the Planning Board to restrict or prohibit the subdivision of land found to be unsafe for development. A field visit conducted by Environmental Planning Section staff on February 9, 2001 discovered significant erosion along the stream in the central portion of the site and topography typically created by slope failure. According to the ■Map Showing Landslide Susceptibility in Prince George's County, Maryland, prepared by the U.S. Geological Survey, there is a ■4m zone of medium to high susceptibility to landsliding due to Marlboro Clay and a ■3c zone of low to medium susceptibility, not associated with Marlboro Clay, above that. The combined effect makes this portion of the site unsafe due to unstable soils, severe slopes, and erosive stream action, and meets the criteria of Section 24-131(a) of the Subdivision Regulations dealing with unsafe lands.

The geotechnical report, *Slope Stability Evaluation and Analysis, Piscataway Estates*, submitted for review indicates the presence of Marlboro Clay and at least one cross-section with a slope stability safety factor of 1.44 [page 9]. The Prince George's County Department of Environmental Resources has an established policy that any safety factor below 1.50 is deemed unsafe.

The 1.50 safety factor line has not been shown on any of the plans submitted for review. It is not possible to evaluate Section 24-131(a)(1) of the Subdivision Regulations. The Department of Environmental Resources has not commented. It is not possible to evaluate Section 24-131(a)(3) of the Subdivision Regulations. Given this failure to adhere to the requirements of Section 24-131 of the Subdivision Regulations, staff cannot support the application.

2. Community Planning - The proposed residential subdivision is consistent with 1993 *Subregion V Master Plan* land use recommendation for Suburban Estate residential land use in the R-E Zone. The 1993 *Subregion V SMA* classified this property in the R-E Zone. Stream valley park and a community park uses are recommended for the western part of this property by the 1993 *Master Plan for Subregion V*. The proposed subdivision includes dedication of this stream valley system.

This site is located in an area that is underneath the air traffic/flight pattern for Potomac Airfield, which is a small, private, general aviation airport approximately 3,000 to 4,000 feet to the north. Washington Executive Airport is located more than a mile to the northeast. The

applicant should be informed again of the possible overflight of low flying aircraft, increased exposure to aircraft noise, and a slightly elevated risk of exposure to small aircraft accidents.

There are presently no county regulations that specifically address development of this parcel for residential land use relative to the impact of air traffic in this area. Subsequent to review of the previous application (4-01010), a proposed *Manual of Regulations for Land Use Around General Aviation Airports, June 2001*, has been prepared by the Planning Department. The Planning Board authorized transmittal of the proposed manual to the District Council and it is anticipated that the Council may consider the proposed regulations later this summer or in the fall as the basis for a legislative proposal to amend the Zoning Ordinance. Regardless, the information and policies contained in the proposed manual, and in the consultant studies that led up to them, provide criteria that can be utilized to help evaluate development proposals in close proximity to airports.

The proposed residential land uses in this subdivision plan conform with the land use safety and compatibility policies of the proposed *Manual of Regulations for Land Use Around General Aviation Airports, June, 2001*, provided adequate purchaser notice is given.

If approved, the subdivision should include a condition requiring notification of prospective purchasers that this property is in an area affected by aircraft overflights as described below.

Noise exposure is another effect of the proximity of the proposed development to airport operations and traffic patterns. The Environmental Planning Section of the Countywide Planning Division should be consulted to determine whether any of the proposed lots close to the airport are affected by noise levels above county standards, and whether additional acoustical buffering should be required for home construction on those lots.

The applicant should be aware of FAA and MAA requirements regarding notice of proposed new construction near public use airports.

3. Parks and Recreation - The preliminary plan includes approximately 9.89 acres of proposed dedication for park purposes, satisfying the requirements for mandatory park dedication of Section 24-134 of the Subdivision Regulations. Dedicated land is subject to several conditions included in the referral from the Department of Parks and Recreation.
4. Trails - The *Adopted and Approved Subregion V Master Plan* recommends a multiuse trail along Tinkers Creek. This planned trail will be accommodated within the land being dedicated to the Department of Parks and Recreation (DPR) as part of the Tinkers Creek Stream Valley Park. This trail will be completed as part of a future DPR CIP project.
5. Transportation - The applicant submitted a traffic study dated March 2001 in support of Preliminary Plan of Subdivision 4-01010, and staff is utilizing the same study in its review of this application. The findings and recommendations outlined below are based upon a review of these materials and analyses conducted by the staff of the Transportation Planning Section, consistent with the *Guidelines for the Analysis of the Traffic Impact of Development Proposals*. The study was referred to both the County Department of Public Works and Transportation (DPW&T) and the State Highway Administration (SHA), and the comments of both agencies are attached.

Summary of Traffic Impacts

The applicant has prepared a traffic impact study in support of the application using new counts taken in mid-December 2000. The traffic impact study prepared and submitted on behalf of the applicant analyzed the following intersections:

MD 223/Mary Catherine Drive
MD 223/Steed Road

With the development of the subject property, the traffic consultant has determined that adequate transportation facilities in the area can be attained. The intersection of MD 223 and Mary Catherine Drive was determined to operate unacceptably as an unsignalized intersection, and the traffic study concludes that either restriping or a traffic signal warrant study (with possible installation of a signal, if warranted) will be needed to address the deficiency. The analysis was based on 75 single-family residences; however, with the use of lot size averaging, the current subdivision plan shows 80 lots, and the transportation staff will make the necessary adjustments to the traffic study.

Staff Analysis of Traffic Study

Existing conditions in the vicinity of the subject property are summarized as follows:

EXISTING TRAFFIC CONDITIONS				
Intersection	Critical Lane Volume (CLV, AM & PM)		Level of Service (LOS, AM & PM)	
MD 223/Steed Road	1031	952	B	A
MD 223/Mary Catherine Drive	22.3*	18.0*	--	--
*In analyzing unsignalized intersections, average vehicle delay for various movements through the intersection is measured in seconds of vehicle delay. The numbers shown indicate the greatest average delay for any movement within the intersection. According to the <i>Guidelines</i> , an average vehicle delay exceeding 50.0 seconds (shown as LOS F by the procedure) indicates inadequate traffic operations.				

Existing conditions indicate no operational problems within the study area.

A review of background development in the area was conducted by the applicant in cooperation with transportation staff, and three significant approved but unbuilt developments were identified in the immediate area. The applicant has assumed a growth in through traffic along MD 223 of 1.4 percent per year. Due to the fact that Steed Road currently functions as a through roadway for the area, staff believes the growth factor should be applied to Steed Road and its turning movements as well, and have modified the analysis results to reflect this. Background traffic conditions are summarized below:

BACKGROUND TRAFFIC CONDITIONS

Intersection	Critical Lane Volume (CLV, AM & PM)		Level of Service (LOS, AM & PM)	
MD 223/Steed Road	1192	1108	C	B
MD 223/Mary Catherine Drive	36.5*	26.4*	--	--
*In analyzing unsignalized intersections, average vehicle delay for various movements through the intersection is measured in seconds of vehicle delay. The numbers shown indicate the greatest average delay for any movement within the intersection. According to the <i>Guidelines</i> , an average vehicle delay exceeding 50.0 seconds (shown as LOS F by the procedure) indicates inadequate traffic operations.				

The proposed development of 80 residential lots would generate 60 AM (12 in, 48 out) and 72 PM (47 in, 25 out) peak hour vehicle trips as determined using *The Guidelines for the Analysis of the Traffic Impact of Development Proposals*. The transportation staff does not agree that the site would add no turning movements at the MD 223/Steed Road intersection; therefore, the staff has analyzed the proposal using the following trip distribution:

MD 223 from the southwest:	30%
MD 223 from the northeast:	45%
Steed Road from the northwest:	25%

Total traffic operations under future conditions without improvements, as analyzed by the transportation staff, are summarized below:

TOTAL TRAFFIC CONDITIONS - NO IMPROVEMENTS				
Intersection	Critical Lane Volume (CLV, AM & PM)		Level of Service (LOS, AM & PM)	
MD 223/Steed Road	1217	1147	C	B
MD 223/Mary Catherine Drive	53.6*	32.2*	--	--
*In analyzing unsignalized intersections, average vehicle delay for various movements through the intersection is measured in seconds of vehicle delay. The numbers shown indicate the greatest average delay for any movement within the intersection. According to the <i>Guidelines</i> , an average vehicle delay exceeding 50.0 seconds (shown as LOS F by the procedure) indicates inadequate traffic operations.				

The traffic generated by the proposed preliminary plan would result in deteriorating the average delay per vehicle on the Mary Catherine Drive approach to the MD 223/Mary Catherine Drive intersection. The Prince George's County Planning Board, in the *Guidelines*, has defined vehicle delay in any movement exceeding 50.0 seconds as an unacceptable operating condition at unsignalized intersections. In response to such a finding, the Planning Board has often imposed a condition to perform a traffic signal warrant study in similar circumstances. While recognizing that staff might request a signal study, the applicant has shown that providing an exclusive left-turn lane along the Mary Catherine Drive approach does resolve the inadequacy. With the additional traffic added due to increasing the number of residences to 80 on the current plan, staff's analysis verifies this finding. Given that signal warrants at this location would

likely be marginal, the transportation planning staff recommends that the modification of the Mary Catherine Drive approach to the intersection be done.

TOTAL TRAFFIC CONDITIONS - WITH IMPROVEMENTS			
Intersection	Critical Lane Volume (CLV, AM & PM)		Level of Service (LOS, AM & PM)
MD 223/Steed Road	1217	1147	C B
MD 223/Mary Catherine Drive	45.6*	28.3*	-- --
*In analyzing unsignalized intersections, average vehicle delay for various movements through the intersection is measured in seconds of vehicle delay. The numbers shown indicate the greatest average delay for any movement within the intersection. According to the <i>Guidelines</i> , an average vehicle delay exceeding 50.0 seconds (shown as LOS F by the procedure) indicates inadequate traffic operations.			

DPW&T and SHA both concur with the study and its recommendations.

Plan Comments

The transportation recommendations in the *Subregion V Master Plan* indicate a master plan arterial facility, A-65, passing about 600 feet east of the subject property at its closest point. Given the location of this facility, the subdivision should be better oriented toward the future facility. In order to better provide future access to the subject property to A-65, a primary residential stub street should be provided for future access. This street to the adjacent Faller Property should be provided in the vicinity of Lot 44A as shown on the current preliminary plan. A stub street connection to the Brevard property to the southwest is also desirable, and should be shown on the plan.

The original submittal proposed a single access point via Glissade Drive, a secondary residential street (50-foot right-of-way, and pavement 26 feet in width, with parking allowed on both sides of the street). This proposal was modified with the current plan, which shows a 60-foot roadway connecting to Old Fort Road North, which then connects to Mary Catherine Drive. This is acceptable; staff would have preferred that this new connection would have been aligned to become the direct route out of the subdivision while retaining the Glissade connection as a secondary and indirect route out of the subdivision. Because of existing street patterns within Mary Catherine Estates, transportation staff is very concerned about adding additional traffic to portions of Glissade Drive and Accolade Drive, and will recommend conditions that will help ensure that the Old Fort Road North connection becomes the primary access into this new neighborhood.

Staff would note that Old Fort Road North appears to be platted as a collector with a right-of-way of 80 feet. This is a remnant of a collector roadway from a prior master plan, but is not on the current master plan. Staff would recommend that this roadway be built as a primary residential roadway.

Based on the preceding findings, the Transportation Planning Section concludes that adequate transportation facilities would exist to serve the proposed subdivision as required under Section

24-124 of the Prince George's County Code if the application is approved with several transportation related conditions outlined in the Transportation Section memorandum.

6. Schools - The Growth Policy and Public Facilities Planning Section has reviewed the subdivision plans for adequacy of public facilities in accordance with Section 24-122.01 and 24-122.02 of the Subdivision Regulations and the *Regulations to Analyze the Development Impact on Public School Facilities* (revised January 2001) (CR-4-1998).

Projected Impact on Affected Public Schools

Affected School Name	D.U. by Type	Pupil Yield Factor	Development Pupil Yield	5-Year Projection	Adjusted Enrollment	Total Projected Enrollment	State Rated Capacity	Projected% Capacity
Clinton Grove Elementary School	80 sfd	0.24	19.20	646	0	665.20	459	144.92%
Gwynn Park Middle School	80 sfd	0.06	4.80	715	718.12	722.92	864	83.67%
Gwynn Park High School	80 sfd	0.12	9.60	1687	1690.24	1699.84	1274	133.43%

Source: Prince George's County Planning Department, M-NCPPC, January 2001

Since the affected **Clinton Grove Elementary and Gwynn Park High Schools** projected percentage of capacities are greater than 105 percent, the Adequate Public Facilities fee is **\$3,360.00** per dwelling unit. The amount of the Adequate Public Facilities fee for schools shall be offset by the School Facilities Surcharge. Any amount not offset shall be paid and divided among the schools at a rate determined by the guidelines.

Section 24-122.02 (a) (4) states that if any affected school's projected percentage of capacity exceeds 130 percent no permits may be issued until (a) capacity exists at or below 130 percent in all affected schools; or (b) four (4) years have elapsed since the time of the approval of the preliminary plan of subdivision.

7. Fire and Rescue - The Growth Policy and Public Facilities Planning Section has reviewed the subdivision plans for adequacy of public fire and rescue facilities.
- The existing fire engine service at Clinton Fire Station, Company 25, located at 9025 Woodyard Road, has a service response time of 7.10 minutes, which is beyond the 5.25 minutes response time guideline.
 - The existing ambulance service at Clinton Fire Station, Company 25, has a service response time of 7.10 minutes, which is beyond the 6.25 minutes response time guideline.

- c. The existing paramedic service at Clinton Fire Station, Company 25, has a service response time of 7.25 minutes, which is within the 7.25 minutes response time guideline for Block A Lots 1-3 , part Lot 4, Lot 47 and Lot 50. All other lots are beyond.

The above findings are in conformance with the *Adopted and Approved Public Safety Master Plan 1990* and the *Guidelines for the Analysis of Development Impact on Fire and Rescue Facilities*. To alleviate the negative impact on fire and rescue services due to the inadequate service discussed, the Fire Department recommends that all residential structures be fully sprinklered in accordance with National Fire Protection Association Standard 13D and all applicable Prince George's County laws.

8. Police Facilities - The proposed development is within the service area for District IV-Oxon Hill. In accordance with Section 24-122.1(c) of the Subdivision Regulations of Prince George's County, existing county police facilities will be adequate to serve the proposed Piscataway Estates development. This police facility will adequately serve the population generated by the proposed subdivision.
9. Health Department - The Health Department noted that several drums were found on the property and required that they be removed. The applicant has submitted a manifest indicating compliance with this requirement. In addition, the Health Department noted the existence of abandoned well and septic systems. These will need to be pumped and backfilled and/or sealed prior to final plat.
10. 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. To ensure that development of this site does not result in on-site or downstream flooding, this concept plan must be approved prior to signature approval of the preliminary plan. Development must be in accordance with this approved plan.
11. Public Utility Easement - The plan includes the required 10-foot-wide public utility easement. This easement will be reflected on the final plat.
12. Flag Lots - The proposal includes flag lots. Flag lots are permitted pursuant to Section 24-138.01 of the Subdivision Regulations. Staff does not support the use of flag lots on this location. Flag lots are permitted when it can be demonstrated that they present a superior layout to that which can be achieved conventionally. The applicant has called the flag lots ■beautiful■ and ■gorgeous,■ but in staff's opinion, they are ■extraneous.■ These flag lots do not create the superior setting envisioned by Section 24-138.01 of the Subdivision Regulations which calls for flag lots to be located and designed to create a court-like setting. These flag lots do not accomplish this. They are simply set in to increase yield. On an environmentally sensitive site such as this, increased yield is not a valid reason for the use of an alternative design approach.
13. Lot Size Averaging - The application proposes the use of Lot Size Averaging. 24-121(a)(12) requires that the Planning Board make the following findings in permitting the use of lot size averaging:

- A. **The subdivision design provides for better access, protects or enhances historic resource or natural features and amenities, or otherwise provides for a better environment than that which could be achieved by the exclusive use of standard lots.** Originally, the plan proposed smaller lots along the central core of the property, encroaching into the environmentally sensitive stream. The plan has been changed to show one-acre lots along the stream. Smaller lots are located adjacent to these lots. This does nothing to enhance the natural features of the site. In fact, one-acre lots along the stream would be required under any development scenario in the R-E Zone. If these lots were twice the size, lot size averaging might be appropriate, because then, they would enhance the natural features of the site rather than encroach upon them.
- B. **The subdivision design provides for an adequate transition between the proposed lot sizes and locations of lots and the lots, or lot size standards, of any adjacent residentially zoned parcels.** This finding is met. Lots along the perimeter of the site are one-acre in size.
- C. **The subdivision design, where applicable, provides for an adequate transition between the proposed natural features of the site and any natural features of adjacent parcels.** As stated in ■A● above, the use of lot size averaging does nothing to enhance the natural features of the site and nothing to provide a transition to adjoining parcels.

RECOMMENDATION

DISAPPROVAL, based on unresolved environmental issues.

STAFF RECOMMEND DISAPPROVAL OF TYPE I TREE CONSERVATION PLAN I/3/01