

**MEMORANDUM**

DATE: July 7, 2006

TO: Montgomery County Planning Board

VIA: Rose Krasnow, Chief *RK*
Catherine Conlon, Supervisor
Development Review Division

FROM: Richard Weaver, Planner Coordinator (301) 495-4544 *RAW*
Development Review Division

REVIEW TYPE: Preliminary plan review

APPLYING FOR: Preliminary plan of subdivision for 773 one family residential lots
(463 detached, 310 attached, including 116 MPDU's)

PROJECT NAME: Indian Spring

CASE #: 12006051

REVIEW BASIS: Chapter 50, the Montgomery County Subdivision Regulations

ZONE: R-90 and R-200

LOCATION: Located on the east side of Layhill Road (MD 182) approximately
100 feet north of Randolph Road.

MASTER PLAN: Kensington-Wheaton

APPLICANT: Winchester Homes

ENGINEER: Loiederman, Soltesz Associates

ATTORNEY: Lerch, Early and Brewer

HEARING DATE: July 20, 2006

**STAFF RECOMMENDATION: Approval, Subject to the Following Conditions:**

- 1) Approval under this preliminary plan is limited to a maximum of 773 one family residential units (a maximum of 463 one family detached and 310 one family attached, including 15% MPDU's).

- 2) Per the Transportation Planning memorandum dated July 7, 2006 the applicant shall:
 - a. Obtain and dedicate sufficient right-of-way from Parcel E, for 35 feet from the centerline of the Indian Spring access road (shown on Entrance Road Concept Plan, dated November 2004) at Layhill Road, and construct an eastbound lane and two westbound approach lanes at the intersection with Layhill Road, as required by SHA.
 - b. Construct external Indian Spring Access Road to environmental primary residential street standards with 26-foot-wide paving, a sidewalk on the north side, and minor storm water management structures within the available right-of-way, as required by DPWT, from Layhill Road to station 20+00 (approximately) east of Layhill Road. The road shall be open to traffic prior to the issuance of the 150th building permit.
 - c. Construct internal Indian Spring Access Road (Street "A", within the subject site) as a primary residential roadway with a 70-foot-wide right-of-way, 36-foot-wide paving, and sidewalks on both sides, as required by DPWT, from station 20+00 to the end of Indian Spring Access Road at the community square. The road shall be open to traffic prior to issuance of the 150th building permit.
 - d. Construct Tivoli Lake Boulevard extended (south of Street "K" at its southern end to the existing road) as an environmental primary residential roadway with a 70-foot right-of-way, 26-foot-wide paving and a shared use path on the west side. The road shall be open to traffic prior to the issuance of the 580th building permit.
 - e. Construct internal Tivoli Lake Boulevard (within the subject site), between Street "K" at its southern end and the community square, as a primary residential roadway with a 70-foot-wide right-of-way, 36-foot-wide paving, and sidewalks on both sides. The road shall be open to traffic prior to the issuance of the 580th building permit.
 - f. Design and construct a traffic signal system at the intersection of Layhill Road and Indian Spring Access Road if required by State Highway Administration. Conduct a traffic signal warrant analysis for this location and submit it to SHA when the proposed development reaches 75% completion (at 580th unit occupancy).
 - g. Provide a street connection at Foggy Glen Drive to the internal street running north of the community square. This road should also be named Foggy Glen Drive. The road shall be open to traffic prior to issuance of the 650th building permit.
 - h. Dedicate for a secondary residential street stub-out for Alderton Road. If MCPS acts upon a reserved school site at this location, the applicant shall construct Alderton Road perpendicular to the Indian Spring Access Road as a secondary residential street. Coordinate with the Layhill View preliminary plan application (1-20061080) for alignment and construction.
- 3) The applicant shall provide connection to sidewalks adjacent and abutting the site, and adequate space for sidewalks as determined at site plan.

- 4) The applicant shall provide the following right-of-way dedications, and show them on the record plat(s):
 - a. Dedicate 60 feet of right-of-way from the centerline of Layhill Road for a total 120-foot right-of-way width.
 - b. Dedicate Indian Spring Access Road as a 70 foot right-of-way from station 20+00 to the square and dedicate the maximum width available from station 20+00 to Layhill Road.
 - c. Dedicate Tivoli Lake Boulevard extended (south of Street "K" at its southern end) as an environmental primary residential roadway with a 70-foot right-of-way.
 - d. Dedicate internal Tivoli Lake Boulevard (within the subject site), between Street "K" at its southern end and the community square, as a primary residential roadway with a 70-foot-wide right-of-way.
- 5) The applicant shall enter into an agreement with the State Highway Administration (SHA) to transfer a pro-rata share of the project cost for a grade separated intersection of Georgia Avenue (MD 97) and Randolph Road (SHA contract MO8545171), to satisfy LATR and as required by SHA to mitigate the traffic impact of the proposed development. A total amount of \$2,139,000 (based on a pro-rata share of 773 units. Unit count may be adjusted at site plan) shall be transferred in three separate payments of:
 - a. \$713,000 prior to recordation of the first plat.
 - b. \$713,000 prior to release of the 150th building permit.
 - c. \$713,000 prior to release of the 350th building permit.
- 6) Construct the Northwest Branch Trail through the site as an eight-foot-wide paved path within a 35-foot wide right-of-way dedicated to the Maryland-National Capital Park and Planning Commission (M-NCPPC). Final alignment to be established at site plan. This improvement shall be open to foot traffic prior to issuance of the 650th building permit.
- 7) Applicant to provide a natural surface trail connection from the community to the master planned natural surface trail system on the east side of Northwest Branch. Trail to include necessary boardwalk and bridge across Northwest Branch. Location of trail and bridge to be acceptable to M-NCPPC staff. Trail and bridge to be constructed to park standards and specifications within existing and dedicated parkland to allow adequate public access to the trail. This improvement shall be open to foot traffic prior to issuance of the 650th building permit.
- 8) Provide on site one bicycle rack or locker for every 20 automobile parking spaces within the site, not to exceed a total of 20 bicycle racks or lockers. Coordinate with Transportation Planning staff to determine their location and type of bike facilities at the time of Site Plan.
- 9) Provide connections to sidewalks adjacent and abutting the site. Provide adequate space for sidewalks to be determined at site plan.
- 10) Satisfy all requirements of DPWT (memos dated June 20, 2006 and February 10, 2006 and SHA (memos dated February 28, 2006 and June 23, 2006) unless otherwise noted above. The February 10, 2006 letter from DPWT offers conditional approval for this preliminary plan only if Tivoli Lake Boulevard is extended on to the site according to the master plan.

- 11) Specific locations of sewer lines and stormwater management outfalls in M-NCPPC parkland to be field located and determined at site plan and to be reviewed by M-NCPPC staff, including parks staff.
- 12) Record Plat shall reflect all areas under Homeowners Association and stormwater management parcels.
- 13) Record plat to place lots within identified school site in reservation for a period not to exceed 36 months from the date of mailing of the preliminary plan opinion.
- 14) The final design for the crossing of Tivoli Lake Boulevard through the environmental buffer will be reviewed as part of the site plan. At a minimum, the site plan design shall include an arched culvert over Bel Pre Creek that restricts the road to no more than two lanes and a sidewalk on one side. The culvert will be designed to provide wildlife passage on both sides of the stream.
- 15) At the site plan stage, the stormwater management concept shall be revised so that Stormwater Management Facility #1 provides water quality controls for offsite drainage. Such controls will be reviewed and approved by DPS and M-NCPPC.
- 16) Record plat to reflect a Category I easement over all areas of forest retention, forest planting, and environmental buffers, and park dedication areas.
- 17) Prior to the transfer of deed(s) to M-NCPPC for any parkland that will be used for forest mitigation banking, the applicant must satisfy the planting and maintenance requirements for the forest bank area.
- 18) Compliance with the conditions of approval of the preliminary forest conservation plan. Conditions include, but are not limited to, the following:
 - a. Final forest conservation plan will include, but is not limited to, the following items:
 - ii. Permanent markers (such as fences or signs) that clearly identify the boundaries of forest retention, forest planting, and environmental buffers.
 - iii. Plan to control invasive plants to minimize their adverse impacts on forest planting areas.
 - iv. Tree protection plan for individual trees 24 inches and greater in diameter at breast height that are located outside a forest stand.
 - v. Final grading for lots that are adjacent to environmental buffer areas. Any proposed grading within environmental buffers in the rear of these lots must be reviewed and approved by M-NCPPC at site plan and must include mitigation through forest planting in and adjacent to the affected environmental buffers at a denser rate than the minimum required by the forest conservation law.
 - vi. Restoration plan for environmental buffer areas that currently have golf course features and where the existing entrance road crosses the buffer.
 - vii. Plan for stream channel restoration, wetlands creation, and any other proposed grading within the environmental buffers as part of converting the golf course to a natural area. Such measures must be submitted for review and approval by M-NCPPC, DPS, and DEP as part of the site plan review process.

- b. In administering the onsite areas approved for use as a forest bank, the applicant shall offer credits to offsite private development projects for at least one year after the financial security for the forest planting has been set up.
- 19) Record plat to reference the Common Open Space Covenant recorded at Liber 28045 Folio 578 ("Covenant"). Applicant shall provide verification to Commission staff prior to release of final building permit that Applicant's recorded HOA Documents incorporate by reference the Covenant.
- 20) Compliance with the conditions of approval of the MCDPS stormwater management approval dated June 27, 2006, including review and approval of a final stormwater management concept prior to site plan approval.
- 21) No clearing, grading or recording of plats prior to signature set approval.
- 22) Final approval of the number and location of dwelling units, on-site parking, site circulation, sidewalks, and bike paths will be determined at site plan.
- 23) Final number of MPDU's as per condition #1 above, to be determined at the time of site plan.
- 24) This preliminary plan will remain valid for one hundred and nine (109) months or nine (9) years from the approval date, which is the date of mailing of the Planning Board Opinion. Records plats for this project must be recorded according to the staging sequence as follows:

Stage 1 - All land within Phase I, as shown on the approved preliminary plan, shall be recorded within 37 months of the approval date.

Stage II – All land within Phase II, as shown on the approved preliminary plan, shall be recorded within 73 months of the approval date.

Stage III – All land within Phase III, as shown on the approved preliminary plan, shall be recorded within 109 months of the approval date.

Prior to the dates prescribed above a final record plat must be recorded for the lots and open space parcels identified in each phase of development or a request for an extension must be filed in a timely manner with the Planning Board.

- 25) The Adequate Public Facility (APF) review for the preliminary plan will remain valid for twelve years (12) or one hundred and forty-five (145) months from the date of mailing of the Planning Board opinion.
- 26) Other necessary easements.

SITE DESCRIPTION

The subject property is an unrecorded parcels of land located east of Layhill Road in the Kensington-Wheaton Master Plan area (Attachment 1). The property contains the existing Indian Spring Country Club and golf course. The site is surrounded by existing

residential uses and stream valleys. To the north are numerous neighborhoods containing predominantly one-family detached dwelling units. To the west, the neighborhoods are a mixture of one-family attached and detached units. The Northwest Branch stream valley forms the eastern boundary of the property with existing one-family detached subdivisions beyond, and to the south across the Bel Pre Creek stream valley, the Tivoli Lake neighborhood contains a mixture of attached and detached one-family residential uses. The property is approximately 1.7 miles to the Glenmont METRO station.

The 308.4-acre site lies within the Northwest Branch watershed (Use Classification IV¹). The mainstem of Northwest Branch lies along the east property boundary in M-NCPPC parkland, and Bel Pre Creek, a major tributary of Northwest Branch, lies within the site along the southern property boundary. Five smaller tributary streams are also located within the site. Northwest Branch Stream Valley Park surrounds the property to the south and east.

The majority of the land cover on the site is associated with the country club and golf course uses that have existed since the 1950's. The country club facilities include the clubhouse, parking lots, maintenance building and area, tennis courts, driving range, swimming pool, and golf course. About 10 percent of the site (31.7 acres) is covered in forest, most of which is associated with stream valleys.

There are 99.5 acres of environmental buffers onsite. Half of the buffer area is floodplain, all of which is in golf course use. Much of the upland topography on the site is rolling, with some areas of steep slopes along parts of wooded stream valleys adjacent to the flat floodplains of Northwest Branch and Bel Pre Creek.

PREVIOUS PLANNING BOARD REVIEW

The Planning Board has reviewed two previous applications for the Indian Spring Property including a pre-preliminary plan and a preliminary plan. The previous preliminary plan (1-04108) application was a request for 545 lots with an 18 hole golf course and associated clubhouse. To accomplish this, the applicant requested that a portion of the redeveloped golf course remain in the stream valley buffer. The applicant and staff worked extensively to devise a mitigation package that would offset the impacts to the stream buffers, however, staff was unable to recommend approval of the concept and the Board ultimately denied the application on May 26, 2005 because of unacceptable encroachment into the stream buffer. The current application before the Planning Board is an entirely new application

¹ Use IV waters is the state use designation for Maryland streams which have the second highest water quality standards.

PROJECT DESCRIPTION

The current proposal (Attachment 2) submitted by the applicant, Winchester Homes ("Applicant"), includes 773 one-family dwelling units which would be developed using the optional method standards in the R-200 zone by providing moderately priced dwelling units (MPDUs). The application is at maximum density and achieves a 22% density bonus with the provision of 15% of the units as MPDU's. The plan includes 463 one-family detached dwelling units and 310 townhouses, including 116 on-site MPDUs.

The application proposes access to and through the site at three locations: 1) the extension of Tivoli Lake Boulevard from the south; 2) the existing access road from Layhill Road to the west; and 3) Foggy Glen Road to the north. A fourth, future access point will be Alderton Road to the north of the property. Alderton Road is currently discontinuous and will require future dedication and construction by others to complete the road from the Indian Spring property north to Bonifant Road. The extension of Tivoli Lake Boulevard and the Layhill access road are recommended to be built to primary road standards as part of this application.

The proposed project attempts to mix the location of the 310 townhouse units and 463 single family detached dwellings throughout the site, however, in staff's opinion, the townhouse units could be more dispersed throughout the project, and not so concentrated along the primary streets. The MPDU's will all be townhouse units and staff believes they are well dispersed within the sticks of attached units.

The project will be developed in three phases; the first phase is located in the western portion of the property and will be the first section to commence construction. The second phase is in the southern section of the property and the third phase is in the northeastern portion of the site. Given the size of the project, the applicant has requested a staged validity period that extends out nine years and is based on the phasing sequence established on the preliminary plan. Staff supports the request for an extended validity period and has provided a condition that details the staging sequence. *See a full discussion of phasing later in this report.*

Phase I may include a school site discussed later in this report. The school site would be located in the northwest portion of the property and will contain approximately 10.0 acres. The school site would front on the Indian Spring access road leading out to Layhill Road. This road, as the applicant has confirmed, will be one of the first roads constructed or improved into the site and will provide the most direct access for Phase I and the school. The applicant intends to move forward with Phase I development as the initial phase regardless of whether the school site is purchased or not.

COMPLIANCE WITH KENSINGTON-WHEATON MASTER PLAN

The 1989 Kensington –Wheaton Master Plan contains specific language on the Indian Spring property and identifies this property as one of the “critical parcels and areas.” On page 51, it states:

“The total size of these three parcels is 305.28 acres in the R-200 and R-90 zones. There are currently no indications that this large tract is likely to redevelop.

The recommendation is to confirm the existing R-200 and R-90 zoning. This tract should be the subject of a special study should this facility ever become available for redevelopment. Any redevelopment of this tract should provide Class I bicycle and pedestrian access to the nearby trails. A primary road will be needed to provide traffic access to the arterial roads.” (See the Transportation chapter for a more detailed discussion of this requirement.)

In the Transportation chapter on page 98 the Plan states:

“*Indian Spring Access Road* (P-13) provides access to the Indian Spring Country Club. If and when redeveloped with another use, the Country Club should be provided with access from Layhill Road and Randolph Road. Access from Layhill Road should be provided by reconstructing the existing access road to the typical primary residential street standard. Access from East Randolph Road should be provided by extending the primary street named Tivoli Lake Boulevard. The internal street network of any such development should be continuous but designed with the idea of preventing a cut-through traffic movement between Layhill Road and Randolph Road.”

Community-Based Planning staff believes that the proposed subdivision application, with a connection to the existing Tivoli Lake Boulevard, is consistent with the goals and objectives of the Master Plan. For critical parcels and areas, the Plan’s objective is to “ensure that zoning and land use recommendation for sites which have a potential for future development are consistent with the goals of land use stabilization and compatibility with nearby existing development.” The proposal is an infill development on a large parcel of land pursuant to existing zoning. It is compatible with the adjoining residential areas in terms of use, density, and scale while it meets much higher environmental standards than the adjoining residential subdivision of the past.

Regarding the Master Plan recommendation of a special study for this parcel, staff believes that the analysis performed by the staffs from the M-NCPPC, the County, and the State in the course of review of both the pre-preliminary and the preliminary plans for this property addresses that recommendation. This analysis explored and reviewed all relevant issues in more detail than a special study pursuant to the Master Plan would have done. Had the applicant proposed a rezoning, a special study to explore different alternatives would have been more appropriate. However, since the property is being developed under the existing R-200/R-90 zoning, staff believes that analysis and review performed for this application satisfies the intent of the Master Plan recommendation for a special study.

ENVIRONMENT

The site contains two major streams and their associated buffers and floodplain. There are also several smaller tributary streams within the site. Many of the streams, or their associated buffers, have been impacted by the existing golf course use on the site. The current development proposal includes protection of most of the environmentally sensitive areas, and restoration of the previously impacted areas.

Environmental Buffers

There are 99.5 acres of environmental buffers onsite. Currently, 72.4 acres of these buffer areas are in golf course use. Buffers on site have been disturbed to varying degrees because of the existing golf course use. Some buffer areas are fully forested and are considered to be high priority for preservation. Others are partly or completely within the golf course and are covered in grass that is mowed down to the stream channel. Still other parts have stream channels that have been partly or completely piped or have been converted to aesthetic ponds. Staff is not recommending buffers for long sections of piped stream channels.

Floodplains cover 45.8 acres of the site, all of which are in golf course use. Much of the upland topography on the site is rolling, with some areas of steep slopes along parts of wooded stream valleys adjacent to the flat floodplains of Northwest Branch and Bel Pre Creek. There are numerous individual trees and tree stands that exist throughout the site. Many of these trees are 24 inches or greater in diameter at breast height or are specimens.

As previously noted, most of the buffer areas will be protected within conservation easements or park dedication areas to preserve existing forest, and to be used for forest planting. There are some environmental buffer areas that are proposed for permanent or temporary encroachments. These encroachments, and staff's justification for recommending that they be permitted, are discussed fully in the Environmental staff memorandum and summarized below.

Permanent, Unavoidable Buffer Encroachments

Consistent with past practice in implementing the Planning Board's *Environmental Guidelines*, mitigation is not being recommended for encroachments into the environmental buffers that staff find to be necessary and unavoidable. In this proposal, these encroachments include: the crossing by the proposed primary road from Layhill Road into the site; the crossing by proposed Tivoli Lakes Boulevard extended; and, installation of new sewer lines from the subdivision that must connect to existing sewer lines located in the environmental buffers of Northwest Branch and Bel Pre Creek. There may also be unavoidable SWM outfalls that are located within the buffer areas, but these will be better shown as part of the site plan. For such encroachments, staff will be reviewing the site plan to ensure that the encroachments are minimized.

The environmental impacts of the proposed extension of Tivoli Lake Boulevard are discussed further below.

Permanent, Avoidable Environmental Buffer Encroachments

The applicant proposes a limited amount of permanent encroachments into environmental buffers, which could technically be avoided. The areas make up a total of about 4.25 acres. In staff's opinion, these encroachments are avoidable because they do not result from necessary infrastructure elements that are required to be located in the buffer. However, staff finds that each of the proposed permanent encroachments are acceptable if mitigation measures, as described below, are completed. The permanent, avoidable buffer encroachments make up a relatively small portion (about 4.3 percent) of the 99.5 acres of environmental buffers on the site, are located in highly disturbed parts of the buffer, are at or near the beginning of a buffer, and lie in those parts of the buffer that are fragmented and isolated from the rest of the buffer network.

Area A -- This area covers 1.93 acres that include roughly 350 linear feet of small stream channel and surrounding area that are all covered in grass and were part of the country club use. Staff recommends the following mitigation measures: (1) forest planting within another area of onsite environmental buffer at the rate of 2:1 (i.e., 3.81 acres); and, (2) restoring approximately 800 linear feet of channel into a natural stream channel that connects to an existing stream channel. In staff's opinion, the mitigation measures would be of greater benefit to the site's overall environmental buffer network than maintaining the existing 1.93 acres of environmental buffer as a natural, undisturbed area that is isolated and disconnected from other parts of the buffer. The proposed mitigation would allow another part of the environmental buffer to be fully reconnected and restored.

Area B -- This 1.27-acre area is part of the golf course driving range, contains a grass channel, and is the beginning of an environmental buffer for a small tributary. The applicant proposes to locate a SWM facility within this part of the buffer. Staff recommends the following mitigation measures: (1) design a SWM facility to provide

SWM quality controls for offsite areas that exceed DPS requirements; and, (2) plant forest within another part of the environmental buffer at a 1:1 rate (1.27 acres).

Area C -- A small golf course pond currently lies within these 1.05 acres of environmental buffer. This buffer is isolated both upstream and downstream from other environmental buffer areas because water flows to and from the pond are piped. The pond contains some wetlands around its edges. The applicant proposes to locate part of a new SWM facility in this area. In staff's opinion, this proposed encroachment is acceptable if a forested wetland is created at a 2:1 rate (2.10 acres) in the Northwest Branch environmental buffer. Staff finds that the creation of a forested wetland within the Northwest Branch environmental buffer will complement the floodplain and wetland features that exist in this buffer and will be more beneficial than maintaining the wetland around the existing, but isolated golf course pond.

Temporary Encroachments into the Environmental Buffers

Since a large portion of the environmental buffers have golf course features, staff supports the concept of restoring these areas into forested natural areas. Such restoration work will involve some grading. In addition, the applicant proposes to grade some edges of non-forested environmental buffers to avoid abrupt slope changes between the rear of lots and the edge of buffers. In concept, staff finds this is acceptable if the applicant provides restoration planting in and around the affected buffers at a denser rate of trees and shrubs than the minimum required in the Forest Conservation Law. At the site plan stage, staff will review the specific locations and extent of proposed grading for lots adjacent to environmental buffers, as well as proposed forest planting to offset the grading within the buffers.

Forest Conservation

The preliminary forest conservation plan shows 2.50 acres of forest clearing (including 0.40 acre of offsite forest removal for Tivoli Lakes Boulevard extended and a connection of a new sewer line to an existing line) and 29.55 acres of forest retention. The plan proposes 66.81 acres of forest planting, of which 19.19 acres are required for the project to meet Forest Conservation Law requirements. Another 7.23 acres are proposed to mitigate avoidable encroachments into the environmental buffer, and 40.39 acres are for a forest mitigation bank. Staff recommends approval of the preliminary forest conservation plan with conditions.

For this subdivision, the existing forest cover, which is 32.05 acres, is less than the afforestation threshold (46.24 acres). In such a situation, the Forest Conservation Law states that all existing forest must be retained and forest planting must occur on-site so the total on-site forest retention and planting is equal to the afforestation threshold, at a minimum. The Planning Board may waive the forest retention requirement if it finds that retaining all of the forest is "not possible" and the applicant must provide the "maximum possible" on-site retention and on-site forest planting.

For the subject plan, the applicant is proposing 2.50 acres of forest clearing. In staff's opinion, this clearing is unavoidable because of the need to connect to existing sewer lines, construct the entrance road from Layhill Road, and construct Tivoli Lake Boulevard extended. Other forest clearing is due to grading associated with some proposed lots and internal subdivision roads. Most, but not all, of the individual forest clearing areas are either small or on the edges of forest stands. Proposed forest planting, in combination with the proposed 29.55 acres of on-site forest retention, will result in a total of 48.74 acres of forest which exceeds the minimum on-site forest requirement of 46.24 acres.

As part of the site plan review, staff believes that additional changes to proposed grading and layout will occur and may affect the final proposed amount of forest clearing. Staff will continue to evaluate changes to the project and will determine the final amount of recommended forest clearing at the site plan stage.

Forest Mitigation Bank

The applicant is required to plant 19.19 acres of forest to meet the Forest Conservation Law requirements. This planting will be located within the environmental buffers. Some environmental buffers will also be planted in forest as mitigation for proposed environmental buffer encroachments. There remain about 40.39 acres of environmental buffers that could be planted in forest. The applicant proposes to use these remaining buffers to create a forest mitigation bank. Staff supports this concept because it creates a relatively large forest bank in a down county area. In addition, it is located in the Northwest Branch watershed, which currently has no forest banks. To date, the majority of forest banks have been created on upcountry sites in a limited number of watersheds, and many of these banks are on agricultural land.

Much of the proposed forest bank area is located within the park dedication area, which is currently covered with golf course features such as fairways, paths, and sand traps. Staff supports forest banking in future parkland provided the applicant satisfies the planting and maintenance requirements for the forest bank area before M-NCPPC takes ownership of the land. Through this banking, the applicant will restore the existing golf course areas within floodplains and other environmentally sensitive areas, which are the highest priority for reforestation, to natural, forested conditions. The applicant will receive the monetary benefits of selling bank credits, and M-NCPPC will benefit from receiving forested acreage without having to incur the cost of restoration.

PARKS

The Countywide Park Trails Master Plan that was approved by the Planning Board in 1998 provides for a hard surface trail from Alderton Drive south to Wheaton Regional Park. This trail has major regional significance by linking the Matthew Henson Trail to the Northwest Branch trail system thereby ultimately enabling users to travel on bicycle or foot along the entire Northwest Branch Stream Valley Park hard surface trail

system to the Master Planned Matthew Henson Trail and then west to connect with the Rock Creek Trail system. This trail connection is recommended in the Plan to be located outside the Northwest Branch stream valley to best protect the natural resources. Consequently, the Applicant is dedicating a green corridor through the development for the trail that is outside stream buffers and will best serve the residents of the proposed development as well as other trail users passing through. This alignment will also provide the most logical trail crossing of Bell Pre Creek. To enhance protection of the existing parkland and aquatic resources therein, the Applicant will be dedicating considerable additional parkland along both Northwest Branch and Bell Pre Creek.

In addition, this subdivision offers an ideal opportunity to link the proposed community, as well as existing nearby residents, to Northwest Branch Stream Valley Park and the master planned natural surface trail that lies on the east side of Northwest Branch. This plan includes the proposed construction by Applicant of a natural surface trail from the development to the master planned natural surface trail along the east side of Northwest Branch, including a pedestrian bridge over Northwest Branch.

TRANSPORTATION

Site Access and Vehicular Circulation

The Kensington-Wheaton Master Plan contains the following language (page 98) regarding vehicular access to, and within the subject site:

“If and when redeveloped with another use, the Country Club should be provided with access from Layhill Road and Randolph Road. Access from Layhill Road should be provided by reconstructing the existing access road to the typical primary residential street standard. Access from East Randolph Road should be provided by extending the primary street named Tivoli Lake Boulevard. The internal street network of any such development should be continuous but designed with the idea of preventing cut-through traffic movement between Layhill Road and Randolph Road.”

Given this language, Transportation Planning staff recommends four vehicular access points to the site. These access points include two primary residential and two secondary residential streets. They are as follows:

1. Primary residential access from Layhill Road (MD 182)

The existing Indian Spring Access Road is a private drive that connects Layhill Road to the existing Indian Spring Country Club’s parking area. Indian Spring Access Road is buffered from the residential neighborhoods to the north and south by physical barriers, different vertical grades, and existing trees and vegetation. Therefore, it cannot be connected to the adjacent residential streets of Wagon Way and Middlevale Lane on the northeast, and Middlebridge Drive to the southeast. The existing Indian Spring Access Road will be upgraded to a two lane primary residential street. The applicant is

providing additional right-of-way along Indian Spring access road at Layhill Road for an eastbound lane, for a total of three lanes at the intersection with Layhill Road: two westbound lanes and one eastbound lane. The available right-of-way varies from 60.5 feet to 70 feet. Since the existing property width does not meet minimum right-of-way width requirements, DPWT will accept a road built to an environmental primary residential standard with a sidewalk on one side and minor storm water management structures within the available right-of-way. In addition, a detailed storm drain and/or floodplain study for this road must be reviewed and approved by DPWT.

As part of the Local Area Transportation Review (LATR), the future traffic condition at the intersection of Layhill Road and the Indian Spring Access Road was analyzed. The applicant's transportation engineer submitted a traffic signal warrant study to SHA to determine if installation of a traffic signal is warranted for the intersection of Indian Spring Road and Layhill Road. SHA, which has the sole authority to approve a traffic signal at this location, has reviewed the traffic study and recommends that an additional (second) westbound approach lane be constructed at Layhill Road. SHA also supports extension of Tivoli Lake Boulevard into the site for better distribution of site traffic to the surrounding roadway network. Transportation Planning staff also recommends the applicant design and install a traffic signal at the intersection of Layhill Road and Indian Spring Access Road if SHA determines in the future, based on a warrant analysis, the need for a traffic signal at this location. SHA recommends that a traffic signal warrant analysis for this location be prepared and submitted to SHA when the proposed development reaches 75% completion.

2. Primary residential access from Randolph Road via Tivoli Lake Boulevard

Tivoli Lake Boulevard currently provides primary access to more than 500 residential units of the Tivoli Community. At the current northern terminus, it is built consistent with primary residential roadway standards, having a 36-foot typical paving width and sidewalks. It terminates near the southern property line of the proposed site near Hugo Circle. Parking exists on both sides of the road. Staff recommends extending Tivoli Lake Boulevard into the proposed site, based on the Kensington/Wheaton Master Plan recommendation to provide for a needed second point of primary access into the site.

In addition to the guidance in the approved and adopted Master Plan, staff believes that the Tivoli Lake Boulevard connection is needed for the following reasons:

- The Tivoli Lake Boulevard extension is needed to provide a second point of access via primary residential streets for the proposed community of 773 homes and a potential elementary school site. The proposed 773 single-family detached and attached units will generate approximately 585 peak-hour trips. According to Section 49-34(d) of the Montgomery County Code, a primary residential street serves as a principal outlet to major highways or arterial roads from a residential development for 200 or more families. According to the Master Plan, a primary

residential street is a local traffic collector for vehicles traveling between higher-level streets (Page 89).

- To offer emergency, transit, delivery, and service vehicles, as well as the motoring public an alternate point of ingress/egress to a significantly sized community. It provides an alternative primary route for emergency response from the south, and could potentially reduce the response time of emergency fire, rescue, and police vehicles.
- To support public transit. Transit routes work more efficiently on a connected network than on a series of cul-de-sacs. In a letter dated June 2, 2006 Ride-On Transit Services states support for extension of the existing bus route 31 to serve the new Indian Spring development, contingent upon the Tivoli Lake Boulevard connection.

Regarding the extension of Tivoli Lake Boulevard, the Director of DPWT submitted a letter dated January 27, 2006 (Attachment 3), stating that master planned primary residential roadways and specifically the Tivoli Lake Boulevard connection, be required as a conditions of subdivision approval. The Director of DPWT cites numerous consequences of not making the connection at time of subdivision, including:

- Postponing planned and necessary access (including public safety access) improvements to nearby communities
- Hindering community connectivity
- Concentrating excess travel demand on other system links not envisioned to carry such traffic
- Shifting the financial responsibility for the roadway construction from private developers to taxpayers throughout the county
- Deferring construction to a much later date, given constraints on capital spending and the need to prioritize expenditures to higher classification projects
- Causing significantly higher construction costs due to inflation during the period of the deferment

If the Tivoli Lake Boulevard connection is not made, staff believes that the proposed development could be at risk, should the Indian Spring Access Road be closed due to fallen power line, fallen trees, a car crash or any number of unforeseen hazards. Restricting the community of 773 homes plus a potential school to a single point of primary residential street access must not be permitted.

The Indian Spring Access Road-Tivoli Lake Boulevard connection, as designed with the public square and traffic circles, provides the benefits of a primary residential road that collects vehicular traffic from residential subdivisions and distributes traffic to arterials while discouraging non-local traffic.

For the reasons discussed, DPWT, Ride-On, SHA, and the majority of MNCPPC staff agree on the need for Tivoli Lake Boulevard to be constructed by the applicant.

Staff acknowledges that this extension will result in unavoidable environmental impact to the Bel Pre Creek stream valley. To balance the need for the road with environmental protection, the road is recommended to be tapered from the existing road section to a section design that is recommended for an environmental primary residential roadway. This design calls for 26 feet of pavement and a shared use path on the west side. This recommendation is intended to reduce the limit of disturbance, and environmental impacts, as the road crosses Bel Pre Creek.

Tivoli Lake Boulevard Extended – Environmental perspective

From an environmental perspective, Tivoli Lake Boulevard extended will have significant environmental impacts. The two points on either side of the stream valley that the road will connect are relatively high above the stream (Bel Pre Creek), and therefore, a large amount of area within the environmental buffer will be permanently filled. Environmental Planning staff would prefer not to extend the roadway. However, based on the need to balance environmental protection with other factors and planning objectives, staff has worked with the applicant on a crossing design to minimize environmental impacts as much as possible.

In Environmental Planning staff's opinion, a road crossing that would minimize environmental impacts would be a bridge structure that spans the stream valley to connect as close to the high points on either side of the valley as possible. The applicant has indicated that this kind of crossing would be cost-prohibitive and proposes a design with the following features to reduce environmental impacts: retaining walls on the southern end of the crossing to minimize clearing and disturbance of forested slopes; creation of fill slopes that are no steeper than 3:1 to allow for planting of trees and shrubs on these slopes up to the road ROW; an arch culvert over the stream that minimizes disruption to the stream channel; a 54-foot culvert opening to allow for a flat path next to the stream for pedestrian and wildlife movement under the road; and a road cross-section with two lanes, no median, and a sidewalk on only one side to keep the road features as narrow as possible through the stream valley.

In staff's opinion, the applicant's proposed design, short of a bridge structure spanning the stream valley, reduces environmental impacts. Staff believes the proposed design for the arch culvert and fill could be modified to further reduce impacts. Staff recommends that these modifications be reviewed during the site plan process.

The following table provides a preliminary comparison of the applicant's current roadway extension, with the option of crossing the stream valley, with just a pedestrian trail connection:

| Estimate of Environmental Impact (Approximate) | Type of Crossing Through Bel Pre Creek Stream Valley | |
|---|---|---|
| | <u>Pedestrian Trail</u>² | <u>Tivoli Lake Boulevard Extended (design as proposed by developer)</u> |
| Area of disturbance within environmental buffer | About 0.28 ac. (12,240 s.f.); buffer is about 280 ft. wide where disturbance would occur. | About 1.15 ac. (49,900 s.f.); buffer is about 280 – 350 ft. wide where disturbance would occur. |
| Forest clearing | 0.11 ac. (5000 s.f.) | 0.56 ac. (24,400 s.f.) |
| Proposed fill: <ul style="list-style-type: none"> • Estimated height in and near environmental buffer • Estimated width in and near environmental buffer | <ul style="list-style-type: none"> • Minimal fill • Minimal fill | <ul style="list-style-type: none"> • Approx. up to 24 feet high • 80 to 150 ft. wide |
| Wildlife and pedestrian movement within stream valley. | Movement within stream valley unrestricted by trail. | Movement within stream valley across the road; or under the road through 54-foot wide arch culvert that spans stream. |
| Ability to plant forest in and near environmental buffer area | Cannot plant on and adjacent to path -- about 0.08 ac. (3390 s.f.) | Cannot plant within road ROW -- about 1.03 ac. (44,977 s.f.) |

3. Secondary residential access from future Alderton Road

Within the Kensington/Wheaton plan area, Alderton Road has been constructed as a secondary residential roadway that terminates at a private drive for four privately owned lots approximately 300 feet north of the subject site. The road is interrupted at Mathew Henson State Park before continuing north to Bonifant Road in the Aspen Hill plan area. Alderton Road is classified as a Primary Residential road in the Aspen Hill master plan. Each built segments has approximately 15 residential driveways. Staff recommends that a secondary roadway be built on the site to stub out at the northern property limit where the roadway will continue upon redevelopment of the properties north of this site.

² Staff's evaluation of the environmental impacts of a trail are based on a preliminary concept that assumes a pedestrian bridge over the stream, a 10-foot wide trail surface, a 40-foot wide corridor for trail construction, same general location as the proposed primary road ROW, and as much at-grade construction as possible.

Alderton Road, if extended to the site, could connect to the Indian Spring Access Road or to a proposed internal road in the northwest corner of the site as reflected on the applicant's proposal. The applicant has shown a 60-foot ROW for the future connection.

4. Secondary residential access from the existing terminus of Foggy Glen Drive

Foggy Glen Drive currently terminates at the northern property line of the subject property. It is classified as a secondary residential roadway with a 60-foot-wide right-of-way, and provides a circuitous connection to Layhill Road via Wagon Way, Huxley Cove Court/Sullivan Lane, or Middlevale Lane. Foggy Glen Drive is shown to continue onto the proposed site as a secondary residential roadway with a 60-foot-wide right-of-way, a 26-foot-wide paving section and sidewalks on both sides. In order to be consistent with the existing network, staff believes the roadway on the site should also be called Foggy Glen Drive.

Pedestrian Facilities

The applicant is proposing a network of new sidewalks and pathways throughout the development. Secondary and tertiary residential streets are proposed to have sidewalks on both sides, with ADA ramps at intersections and marked crosswalks (locations to be determined at site plan). The Indian Spring access road is to have a continuous sidewalk, separated from traffic, on the north side. Tivoli Lake Boulevard is to have a shared-use-path on the west side of the road. Both of these entrance roads are proposed with reduced cross sections to accomplish environmental goals noted above. Part of the waiver package submitted to DPWT for the reduced cross section includes proposing sidewalk along only one side of these two roads. Staff finds that while providing pedestrian facilities on one side of the entrance roads is not ideal for pedestrian access, it does accomplish environmental goals of reduced grading, impervious surface, and reduced tree loss where one sidewalk may be sufficient. Existing sidewalks that intersect the property will be continued onto the site, connecting the pedestrian network where practical. The proposed preliminary plan will not adversely affect the existing pedestrian access.

Local Area Transportation Review (LATR)

A traffic study was submitted to determine the impact of this application on the local transportation network and was reviewed under the *Local Area Transportation Review (LATR) Guidelines*, adopted and approved July 1, 2004.

The proposed development is expected to generate 471 and 585 additional peak-hour trips during the morning and evening weekday peak periods, respectively. These site-generated trips were added to the existing and background traffic (from approved but unbuilt developments) to form the total future traffic. Traffic was distributed and assigned to the eight intersections in the study area according to the LATR guidelines. The critical lane volume (CLV) results were then compared to the applicable congestion standards for the Kensington/Wheaton and Glenmont Metro Policy Areas. Table 1 shows

the intersection congestion standards and the CLV results for existing, background and two total future traffic conditions: 1) Total future traffic **without** Tivoli Lake Boulevard connection and 2) Total future traffic **with the** Tivoli Lake Boulevard connection to the site. The scenario without Tivoli Lake Boulevard is included for reference purposes only.

Three intersections in the study area, as noted in Table 1, are located in the Kensington/Wheaton Policy Area and have a CLV standard of 1600. One intersection is located in the Aspen Hill Policy Area and has a CLV standard of 1500. Four intersections are in the Glenmont Metro Policy Area, which is situated near Metro, and has a higher policy standard of 1800 CLVs than the others where transit alternatives are not as strong. The developer's traffic study (dated 10/19/05) shows seven of the eight intersections projected to pass the policy area standards in a total traffic condition.

The Georgia Avenue (MD 97) and Randolph Road intersection, however, is not projected to pass the Glenmont policy area standard. The traffic study identifies potential improvements to the intersection that would be needed to pass the LATR test by adding turn lanes. According to the traffic study, Georgia Avenue would need an additional southbound through-right turn lane and a receiving lane on the south side of Randolph Road. A northbound right-turn lane would also be needed on Georgia Avenue. Combined, these improvements would reduce the CLV to below the background traffic condition and could satisfy LATR. The County could require these improvements to satisfy the APF test. However, staff believes that these improvements at this location are not feasible due to right-of way constraints and park impacts. Additionally, at the time of the Pre-Preliminary Plan (7-03058, Hearing on 4/11/04) the Planning Board found that, should improvement of the intersection capacity at Georgia Avenue and Randolph Road be required, the developer would be required to pay a pro-rata share of the project cost at Preliminary Plan review.

The State Highway Administration (SHA) has planned and designed a grade separated interchange at the intersection of Georgia Avenue (MD 97) and Randolph Road. The project is scheduled to be bid for construction in May of 2008. When it is complete, Randolph Road will have two travel lanes in each direction under Georgia Avenue. The Planning Board commented on the 35% completion design as a Mandatory Referral (MR 04815-SHA-1) in December 9, 2004. Staff calculates that an Indian Spring development of 773 single-family units will contribute approximately 3.45% of the future traffic volume of the interchange. As a result, Staff recommends that a pro-rata contribution of the project costs is an appropriate alternative to at grade improvements to satisfy LATR. According to SHA, the total project cost is estimated to be \$62,000,000. The applicant's share is therefore \$2,139,000. Staff recommends, and SHA supports, a

Table 1 – Results of Intersection Capacity Analysis

| Intersection | Congestion Standard ¹ | Peak Hour | Traffic Condition | | | |
|---------------------------------------|----------------------------------|-------------------|-------------------|--------------|---|---------------------------|
| | | | Existing | Background | Total w/o Tivoli Lake Blvd ² | Total w/ Tivoli Lake Blvd |
| Layhill Road & Bonifant Road | 1,500 Aspen Hill | Morning | 1,304 | 1,365 | 1,429 | 1,429 |
| | | Evening | 1,189 | 1,353 | 1,407 | 1,407 |
| Layhill Road & Indian Spring Road | 1,600 Kensington/Wheaton | Morning | 1,155 | 1,263 | 1,556 | 1,289 |
| | | Evening | 865 | 952 | 1,353 | 1,056 |
| Layhill Road & Glenallen Avenue | 1,800 Glenmont | Morning | 828 | 947 | 1,043 | 956 |
| | | Evening | 980 | 1,145 | 1,281 | 1,155 |
| Layhill Road & Georgia Avenue | 1,800 Glenmont | Morning | 1,200 | 1,246 | 1,384 | 1260 |
| | | Evening | 1,071 | 1,120 | 1,326 | 1,127 |
| Georgia Avenue & Randolph Road | 1,800 Glenmont | Morning | 1,762 | 1,810 | 1,925 | 1,861 |
| | | With improvements | | | 1,720 | 1,672 |
| | | Evening | 1,684 | 1,705 | 1,759 | 1,837 |
| | | With improvements | | | 1,759 | 1,692 |
| Randolph Road & Glenallen Avenue | 1,800 Glenmont | Morning | 1,250 | 1,290 | 1,311 | 1,377 |
| | | Evening | 962 | 1,001 | 1,010 | 1,091 |
| Randolph Road & Tivoli Lake Boulevard | 1,600 Kensington/Wheaton | Morning | 1,040 | 1,077 | 1,080 | 1,310 |
| | | Evening | 789 | 814 | 821 | 950 |
| Randolph Road & Kemp Mill Road | 1,600 Kensington/Wheaton | Morning | 1,263 | 1,265 | 1,277 | 1,277 |
| | | Evening | 1,270 | 1,296 | 1,303 | 1,303 |

¹ Congestion Standards for the Aspen Hill, and Kensington/Wheaton Policy Areas.

² Condition does not meet the recommendation of the Master Plan for two points of primary access.