

R E S O L U T I O N

WHEREAS, a 440.85-acre parcel of land known as Tax Map 77 in Grids A-2, 3, 4 and B-2, 3, and 4 (Parcel 30), said property being in the 7th Election District of Prince George's County, Maryland, and being zoned R-S; and

WHEREAS, on November 13, 2006, Toll Brothers, Inc. filed an application for approval of a Preliminary Subdivision Plan (Staff Exhibit #1) for 732 lots and 26 parcels; and

WHEREAS, the application for approval of the aforesaid Preliminary Subdivision Plan, also known as Preliminary Plan 4-06066 for Willowbrook was presented to the Prince George's County Planning Board of The Maryland-National Capital Park and Planning Commission by the staff of the Commission on February 8, 2007, for its review and action in accordance with Article 28, Section 7-116, Annotated Code of Maryland and the Regulations for the Subdivision of Land, Subtitle 24, Prince George's County Code; and

WHEREAS, the staff of The Maryland-National Capital Park and Planning Commission recommended APPROVAL of the application with conditions; and

WHEREAS, on February 8, 2007, the Prince George's County Planning Board heard testimony and received evidence submitted for the record on the aforesaid application.

NOW, THEREFORE, BE IT RESOLVED, that pursuant to the provisions of Subtitle 24, Prince George's County Code, the Prince George's County Planning Board APPROVED the Type I Tree Conservation Plan (TCPI/10/06-01), and further APPROVED Preliminary Plan of Subdivision 4-06066, Willowbrook, for Lots 1-699, Parcels A-X and Outparcel 1 with the following conditions:

1. Prior to signature approval of the preliminary plan, the TCPI and preliminary plan shall be revised to delineate the required 40 foot-wide scenic buffer along Leeland Road, outside of the public utility easement. Stormwater management facilities shall be removed from the delineated scenic easement.
2. Prior to signature approval of the preliminary plan, the plan shall be revised to show the location of the unmitigated and mitigated 1.5 safety factor lines.
3. At the time of the specific design plan, no structures or lots less than 40,000 square feet in area shall be shown within the mitigated 1.5 safety factor line.
4. With the submittal of any specific design plan proposing construction of a retaining wall, an addendum to the geo-technical report shall be submitted indicating that stability related to the presence of Marlboro Clay has been taken into account in the grading and placement of the retaining wall.

5. Prior to signature approval of the preliminary plan, and prior to acceptance of the first specific design plan, a copy of the revised and approved stormwater management concept plan shall be submitted. The plan shall include the use of sheet flow buffers, vegetated channels, and rooftop and non-rooftop disconnection to the fullest extent possible in addition to other stormwater management techniques. The approved concept shall be reflected on the SDP and TCPII.
6. Prior to signature approval of the preliminary plan and the TCPI, both plans shall be revised to add the following note: "Development of this site is subject to a habitat protection and management program. This program was conceptually approved concurrently with the preliminary plan of subdivision. Submittal of a detailed habitat protection and management program for the site is required with the submittal of the first specific design plan for this site, and is also subject to the approval of the Planning Board. The detailed habitat protection and management program shall be based on the conceptual plan, but is not necessarily limited to elements outlined in the conceptual plan."
7. At time of review of the SDP that shows the pond adjacent to the park entry road, the design shall be evaluated to ensure that it includes mitigation sedimentation entering directly into the sensitive species habitat. The structure shall be designed with a forebay or other appropriate design features.
8. Prior to the issuance of any permits which impact wetlands, wetland buffers, streams or Waters of the U.S., copies of all federal and state wetland permits, evidence that approval conditions have been complied with, and associated mitigation plans shall be submitted to the M-NCPPC Planning Department.
9. At time of final plat, bearings and distances shall describe a conservation easement. The conservation easement shall contain the Patuxent River Primary Management Area, and all adjacent preservation and reforestation/afforestation areas, excluding those areas where requests for impacts have been approved, and the plat shall be reviewed by the Environmental Planning Section prior to approval. The following note shall be placed on the plat:

"Conservation easements described on this plat are areas where the installation of structures and roads and the removal of vegetation are prohibited without prior written consent from the M-NCPPC Planning Director or designee. The removal of hazardous trees, limbs, branches, or trunks is allowed."
10. Prior to certificate approval of the preliminary plan, the Type I tree conservation plan shall be revised as follows:
 - a. Revise the plans to show the 15–25 percent slopes on highly erodible soils on the plans and in the legend;
 - b. Show no 1.5 safety factor line, or woodland conservation on any lot and calculate all woodland retained on any lot as cleared;

- c. Show conceptual clearing of the I-1 property in order to account for the development of this parcel on the TCPI;
 - d. Show woodland conservation and the limits of disturbance set back a minimum of 10 feet from the bottom of any retaining wall in order to provide for construction and maintenance without creating any additional PMA impacts;
 - e. Show woodland conservation and the limits of disturbance set back a minimum of 10 feet from any townhouse lot line;
 - f. Provide additional woodland conservation on-site through preservation and afforestation to the fullest extent possible, contiguous to the primary and secondary corridors identified on the site, and adjacent to environmentally sensitive areas;
 - g. Revise the worksheet as needed to reflect the above revisions;
 - h. Have the revised plan signed and dated by the qualified professional who prepared the plan.
11. Prior to the issuance of the building permits for lots adjacent to planting areas, all afforestation and associated fencing shall be installed. A certification prepared by a qualified professional shall be used to provide verification that the afforestation and fence installation have been completed. It must include, at a minimum, photos of the afforestation areas and the associated fencing for each planting area, with labels on the photos identifying the locations and a plan showing the locations where the photos were taken.
12. The final plat shall contain the following note:
- “This development is subject to restrictions shown on approved Type I Tree Conservation Plan (TCPI/010/06-01), or as modified by the Type II tree conservation plan, and precludes any disturbance or installation of any structure within specific areas. Failure to comply will mean a violation of an approved tree conservation plan and will make the owner subject to mitigation under the Woodland Conservation and Tree Preservation Ordinance. This property is subject to the notification provisions of CB-60-2005. Copies of all approved tree conservation plans for the subject property are available in the offices of The Maryland-National Capital Park and Planning Commission, Prince George’s County Planning Department.”
13. The final plat shall show all 1.5 safety factor lines. The location of the 1.5 safety factor lines shall be reviewed and approved by the M-NCPPC Environmental Planning Section and Prince George’s County. The final plat shall contain the following note:
- “No part of a principal dwelling unit may be permitted to encroach beyond the Unsafe Land Building Restriction Line (1.5 safety factor BRL). Accessory structures may be positioned

beyond the BRL, subject to prior written approval of the Planning Director, M-NCPPC and Prince George's County.”

14. As part of the submission of any specific design plan (SDP) containing unmitigated 1.5 safety factor lines, the applicant, his heirs, successors, and/or assigns shall submit an addendum to the geotechnical report for approval by the M-NCPPC Environmental Planning Section and Prince George's County addressing the placement of structures with regard to slope stability. The SDP shall show the proposed 1.5 safety factor line. Adjustments to lot lines and the public rights-of-way shall be made during the review of the SDP. No residential lot shall contain any portion of land within a mitigated 1.5 safety factor line.
15. At time of final plat, a 40 foot-wide scenic easement shall be established behind the public utility easement adjacent to Leeland Road, and a note shall be placed on the final plat as follows:

“The scenic easement described on this plat is an area where the installation of structures and roads and/or the removal of vegetation are prohibited without prior written consent from the M-NCPPC Planning Director or designee. The removal of hazardous trees, limbs, branches or trunks is allowed.”
16. At the time of final plat, the applicant, his heirs, successors and/or assignees shall convey to M-NCPPC 106± acres of land (Parcel E). Land to be conveyed shall be subject to the following:
 - a. An original, special warranty deed for the property to be conveyed, (signed by the WSSC Assessment Supervisor) shall be submitted to the Subdivision Section of the Development Review Division, The Maryland-National Capital Park and Planning Commission (M-NCPPC), along with the final plat.
 - b. M-NCPPC shall be held harmless for the cost of public improvements associated with land to be conveyed, including but not limited to, sewer extensions, adjacent road improvements, drains, sidewalls, curbs and gutters, and front-foot benefit charges prior to and subsequent to Final Plat.
 - c. The boundaries and acreage of land to be conveyed to M-NCPPC shall be indicated on all development plans and permits, which include such property.
 - d. The land to be conveyed shall not be disturbed or filled in any way without the prior written consent of the Department of Parks and Recreation (DPR). If the land is to be disturbed, the DPR shall require that a performance bond be posted to warrant restoration, repair or improvements made necessary or required by The M-NCPPC development approval process. The bond or other suitable financial guarantee (suitability to be judged by the General Counsel's Office, M-NCPPC) shall be submitted to the DPR within two weeks prior to applying for grading permits.
 - e. Storm drain outfalls shall be designed to avoid adverse impacts on land to be conveyed to or owned by M-NCPPC. If the outfalls require drainage improvements on adjacent land

to be conveyed to or owned by M-NCPPC, the DPR shall review and approve the location and design of these facilities. The DPR may require a performance bond and easement agreement prior to issuance of grading permits.

- f. All waste matter of any kind shall be removed from the property to be conveyed. All wells shall be filled and underground structures shall be removed. The DPR shall inspect the site and verify that land is in acceptable condition for conveyance, prior to dedication.
 - g. All existing structures shall be removed from the property to be conveyed, unless the applicant obtains the written consent of the DPR.
 - h. The applicant shall terminate any leasehold interests on property to be conveyed to M-NCPPC.
 - i. No stormwater management facilities, or tree conservation or utility easements shall be proposed on land owned by or to be conveyed to M-NCPPC without the prior written consent of the DPR. The DPR shall review and approve the location and/or design of these features. If such proposals are approved by the DPR, a performance bond, maintenance and easement agreements shall be required prior to the issuance of grading permits.
 - j. The proposed tree conservation area around the proposed active recreation shall be removed from the TCP I.
17. Prior to the submission of the specific design plan, detailed construction drawings shall be submitted including the following recreational facilities on MNCPPC land:
- a. A ten-foot-wide asphalt master planned trail as shown on DPR's "Exhibit A";
 - b. An eight-foot-wide trail connector/maintenance access trail from subject subdivision via land to be dedicated to M-NCPPC. Public parkland shall have a minimum of 40-feet of frontage on a public or private street as own on exhibit "A". If the connection is made on a private street, a public use easement shall be recorded at the final plat of subdivision.
 - c. A six-foot-wide trail connector via an HOA parcel and Brokenleaf Drive and a six-foot-wide trail connector via HOA land and Millhouse Court as shown on "Exhibit A";
 - d. Two adult soccer fields (225' x360' minimum), one baseball field, one full basketball court, one picnic shelter with grills and benches, one hundred and forty one (141) parking spaces, a multiage playground, trails and a restroom building.
18. Recreational facilities to be constructed by the applicant shall be subject to the following:

- a. Prior to the issuance of the 360th Building Permit, the applicant shall construct the following recreation facilities within the dedicated active parkland: Two adult soccer fields (225'x360' minimum), one baseball field, one full basketball court, one picnic shelter with grills and benches, 141 parking spaces, one multiage playground, trails and a restroom building.
 - b. Prior to issuance of the 360th building permit, a 10-foot-wide asphalt hiker/biker trail shall be completed, and the eight-foot-wide and six-foot-wide trail connectors shall be constructed in phase with development. No building permits shall be issued for the lots directly adjacent to the trail until the trail is under construction (this shall include clearing, grading and installation of the gravel base).
 - c. The location of the trail shall be staked in the field and approved by DPR prior to construction.
 - d. All trails shall be constructed to ensure dry passage. If wet areas must be traversed, suitable structures shall be constructed. Designs for any needed structures shall be reviewed and approved by DPR.
 - e. The handicapped accessibility of all trails shall be reviewed during the review of the SDP.
 - f. The public recreational facilities shall be constructed in accordance with the standards outlined in the *Park and Recreation Facilities Guidelines*.
 - g. Prior to submission of any final plats of subdivision, the applicant shall enter into a public recreational facilities agreement (RFA) with M-NCPPC for the construction of recreation facilities on parkland. The applicant shall submit three original executed RFAs to the Department of Parks and Recreation (DPR) for their approval three weeks prior to the submission of the final plats. Upon approval by DPR, the RFA shall be recorded among the land records of Prince George's County.
 - h. The applicant shall submit to DPR a performance bond, a letter of credit or other suitable financial guarantee, for the construction of the public recreation facilities in the amount to be determined by DPR, at least two weeks prior to issuance of grading permits for these facilities.
19. At the time of final plat, the applicant, his heirs, successors and/or assignees shall convey to the homeowners association (HOA) 152 ± acres of open space land. Land to be conveyed shall be subject to the following:
- a. Conveyance shall take place prior to the issuance of building permits.
 - b. A copy of unrecorded, special warranty deed for the property to be conveyed shall be

submitted to the Subdivision Section of the Development Review Division (DRD), Upper Marlboro, along with the final plat.

- c. All waste matter of any kind shall be removed from the property, prior to conveyance, and all disturbed areas shall have a full stand of grass or other vegetation upon completion of any phase, section, or the entire project.
 - d. The conveyed land shall not suffer the disposition of construction materials, soil filling, discarded plant materials, refuse or similar waste matter.
 - e. Any disturbance of land to be conveyed to a homeowners association shall require the written consent of DRD or be in accordance with an approved specific design plan. This shall include, but not be limited to, the location of sediment control measures, tree removal, temporary or permanent stormwater management facilities, utility placement and storm drain outfalls. If such proposals are approved, a written agreement and financial guarantee shall be required to warrant restoration, repair or improvements, required by the approval process.
 - f. Storm drain outfalls shall be designed to avoid adverse impacts on land to be conveyed to a homeowners association. The location and design of drainage outfalls that adversely impact property to be conveyed shall be reviewed and approved by DRD prior to the issuance of grading or building permits.
 - g. Temporary or permanent use of land to be conveyed to a homeowners association for stormwater management shall be approved by DRD.
 - h. Storm drain outfalls shall be designed to avoid adverse impacts on adjacent land, owned by or to be conveyed to The Maryland-National Capital Park and Planning Commission (M-NCPPC). If the outfalls require drainage improvements on land to be conveyed to or owned by M-NCPPC, the Department of Parks and Recreation (DPR) shall review and approve the location and design of these facilities. DPR may require a performance bond and easement agreement prior to issuance of grading permits.
 - i. There shall be no disturbance of any adjacent land that is owned by, or to be conveyed to, M-NCPPC, without the review and approval of DPR.
 - j. The Planning Board or its designee shall be satisfied that there are adequate provisions to assure retention and future maintenance of the property to be conveyed.
20. Prior to the approval of building permits the applicant, his heirs, successors and/or assignees shall demonstrate that a homeowners association has been established and that the common areas have been conveyed to the homeowners association.
 21. The applicant, his heirs, successors and/or assignees shall submit three original recreational facilities agreements (RFA) to DRD for construction of recreational facilities on homeowners

land, for approval prior to the submission of final plats. Upon approval by DRD, the RFAs shall be recorded among the County Land Records.

22. The applicant, his heirs, successors and/or assignees shall submit a performance bond, letter of credit, or other suitable financial guarantee for the construction of recreational facilities on homeowners land, prior to the issuance of building permits.
23. The applicant shall allocate appropriate and developable areas for the private recreational facilities on homeowners association (HOA) open space land. The private recreational facilities shall be reviewed by the Urban Design Section of DRD for adequacy and property siting in accordance with the standards outlined in the *Park and Recreation Facilities Guidelines*, at the time of specific design plan.
24. Prior to the issuance of a grading permit for the development, a public safety mitigation fee shall be paid in the amount of \$1,096,920.00, (\$1,320 x 831 dwelling units). Notwithstanding the number of dwelling units and the total fee payments noted in this condition, the final number of dwelling units shall be as approved by the Planning Board and the total fee payment shall be determined by multiplying the total dwelling unit number by the per unit factor noted above. The per unit factor of \$1,320 is subject to adjustment on an annual basis in accordance with the percentage change in the Consumer Price Index for all urban consumers. The actual fee to be paid will depend upon the year the grading permit is issued.
25. In conformance with the 2006 Bowie and Vicinity Master Plan and SMA, the applicant and the applicant's heirs, successors, and/or assigns shall provide the following:
 - a. Construct the master plan trail along the subject site's portion of Collington Branch to accommodate hikers, bikers, and equestrians. These accommodations shall be to the satisfaction of the Department of Parks and Recreation and in conformance with current park and recreation facility guidelines and standards.
 - b. Construct a Class I master plan trail along the subject site's entire frontage of Leeland Road. Sheets 5 and 6 shall be revised to include this master plan trail along the subject site's frontage of Leeland Road.
 - c. Provide standard sidewalks along both sides of all internal roads, unless modified by DPW&T.
 - d. A detailed analysis of the master plan trails, internal trail network, and neighborhood connector trails will be completed at the time of specific design plan. Connector trails to the master plan trails, to other park or recreation facilities, and between neighborhoods should be provided.
 - e. All trails shall be located off private lots, and located either with M-NCPPC land, HOA land, or within a public road right-of-way.

26. With the submission of each building permit, the applicant, his heirs, successors or assigns shall pay to Prince George's County, a fee calculated as $\$1,550/\text{DU} \times (\text{FHWA Construction Cost Index at time of payment}) / (\text{FHWA Construction Cost Index for 2nd quarter, 1989})$ as its share of costs for improvements to US 301 between MD 725 and MD 214.
27. In lieu of the payment of fees required in Condition 1 above, and subject to approval by the Department of Public Works and Transportation (DPW&T) and the State Highway Administration (SHA), the applicant, his heirs, successors or assigns may be required to construct a third northbound through lane on US 301 from a point just north of Leeland Road to a point just north of Trade Zone Avenue. Additionally, the improvement may include a third eastbound left turn lane along Leeland Road at its intersection with US 301. The total cost of these improvements, or other variation determined by SHA shall not exceed an amount calculated as $\$2,170,000.00 \times (\text{FHWA Construction Cost Index at time of payment}) / (\text{FHWA Construction Cost Index for 2nd quarter, 1989})$.
28. Prior to the issuance of any building permit, the applicant shall dedicate all rights-of-way for MC-600 (Leeland Road) as identified by the Planning Department.
29. Prior to the issuance of any building permit, the following improvements shall be in place, under construction, bonded (or letter of credit given to the appropriate agency for construction), 100 percent funded in a CIP/CTP or otherwise provided by the applicant, his heirs, successors or assigns:
 - a. **Leeland Road**

Construct Leeland Road-Oak Grove Road to provide a minimum of two lanes of the ultimate four-lane master plan alignment between US 301 and MD 193, in accordance with DPW&T standards.
 - b. **MD 193/Oak Grove Road Intersection (roundabout)**

The applicant shall provide an exclusive right turn lane at the westbound approach.
 - c. **MD 202/MD 193 Intersection**
 1. Provide a left turn, a shared left/through lane, and a right turn lane on the southbound MD 193 approach;
 2. Provide a second left turn on the eastbound MD 202 (towards Upper Marlboro) approach;
 3. Provide two receiving lanes on the eastern leg of the intersection to receive the double left turns from eastbound MD 202.

30. Prior to the issuance of any building permit, the applicant shall conduct signal warrant studies at the following intersections, and install said signal if deemed to be warranted, or provide an alternate improvement as deemed necessary by DPW&T;
 - a. Leeland Road/Safeway Access
 - b. Leeland Road/ Site Access B
 - c. Leeland Road/ Site Access A
 - d. Oak Grove Road/Whistling Duck Drive.

31. Prior to the issuance of any building permit, the following improvements shall be in place, under construction, bonded (or letter of credit given to the appropriate agency for construction), 100 percent funded in a CIP/CTP or otherwise provided by the applicant, his heirs, successors or assigns:

Church Road / Oak Grove Road relocated (roundabout)

The construction of a roundabout subject to DPW&T approval.

BE IT FURTHER RESOLVED, that the findings and reasons for the decision of the Prince George's County Planning Board are as follows:

1. The subdivision, as modified, meets the legal requirements of Subtitles 24 and 27 of the Prince George's County Code and of Article 28, Annotated Code of Maryland.

2. The property is undeveloped and predominately wooded. The site is surrounded by undeveloped land to the north that is part of the 890-acre R-L zoned Oak Creek development, Collington Industrial Park to the east, the existing Beech Tree subdivision and vacant land to the south, and vacant land where the proposed Locust Hill development is to be located to the west. The applicant proposes that both Willowbrook and Locust Hill will be developed in a unified manner so as to become one community with shared facilities and amenities.

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

	EXISTING	PROPOSED
Zone	R-S (425.85 acres)	R-S (425.85 acres)
	I-1 (15 acres)	I-1 (15 acres)
Use(s)	Vacant	Single-Family, Townhouses Condominiums
Acreage	440.85	440.85
Lots	0	699

Outparcel	0	1
Parcels	1	26
Dwelling Units:		
Single-Family	0	539
Multifamily	0	132
Townhouses	0	160
Public Safety Mitigation Fee		Yes

4. **Prior Approvals**— The property was zoned Residential-Suburban (R-S) by CR-90-2005, which also approved the basic plan for the property—A-9968, subject to conditions and with the following land use quantities identified:

Total area: 427 acres
 Land in the 100-year floodplain: 89.7 acres
 Adjusted gross area (427 less half the floodplain): approximately 382 acres
 Land devoted to mixed retirement development: 28 acres
 Adjusted gross area (382 less 28 acres): approximately 354 acres

Market Rate Development

354 acres @ 1.6 to 1.7 dwelling units per acre or 566 to 602 dwellings
 Approximately 80 percent single-family detached and 20 percent single-family attached units

Mixed Retirement Development

28 acres @ 2.2 to 8.0 dwelling units per acre or 61 to 224 dwellings
 Approximately 14 percent single-family detached, 25 percent single-family attached, and 61 percent multifamily units

Open Space

Public active open space: Approximately 20 acres
 Private active open space: Approximately 10–12 acres
 Passive open space: 220 acres

Development Data—Willowbrook

Zone	R-S
Gross tract area	427
Area within the 100-year floodplain	89.7
Net tract area	378.52
Area devoted to mixed retirement	42.14
Net area density for market rate units	352.21 acres
Number of units proposed at density of 1.82 du/ac	602
Density range (1.6 to 2.6 dwelling units per acre)	529–861 dwelling units

The comprehensive design plan for the project was approved by the Planning Board on December 7, 2006, and PGCPB Resolution 06-273 was adopted by the Planning Board on January 4, 2007,

formalizing that approval. The relevant conditions of that approval are listed below in bold face type, followed by staff's comments:

2. **Applicant and the applicant's heirs, successors, and/or assignees shall construct the master plan trail along the subject site's portion of Collington Branch. Park dedication and alignment of the trail shall be coordinated with the Department of Parks and Recreation.**
3. **Applicant and the applicant's heirs, successors, and/or assignees shall construct a Class I Master Plan Trail along the subject site's entire frontage of Leeland Road.**
4. **Standard sidewalks shall be provided along both sides of all internal roads, unless modified by the Department of Public Works and Transportation (DPW&T).**
5. **A detailed analysis of the master plan trails, internal trail network, and neighborhood connector trails shall be completed at the time of specific design plan. Connector trails to the master plan trails, to other park or recreational facilities, and between neighborhoods shall be provided.**
6. **All trails shall be located off private lots, and located on M-NCPPC or HOA land, or within a public road right-of-way.**

These conditions are being carried forward in the preliminary plan approval per the recommendations of the trails coordinator.

34. **At the time of specific design plan consideration, existing woodland will be augmented by additional plantings, as necessary to provide protection against off-site impacts**

This condition shall be addressed at the time of SDP.

5. **Environmental**—There are streams, wetlands, 100-year floodplains, and associated areas of steep slopes with highly erodible soils and areas of severe slopes on the property. The Pope's Creek Branch railroad, used by CSX, which is adjacent to the westernmost portion of the property, may be a source of noise and vibration. The proposed development is not a noise generator. According to the Prince George's County Soil Survey the principal soils on the site are in the Adelphia, Bibb, Collington, Colemantown Elkton, Howel, Marr, Monmouth, Sandy Land, Shrewsbury, and Westphalia series. Adelphi, Collington and Marr soils are in hydrologic class B and are not highly erodible. Bibb and Shrewsbury soils are in hydrologic class D, and pose various difficulties for development due to high water table, impeded drainage and flood hazard. Colemantown and Elkton soils are in hydrologic class D and have a K factor of 0.43 making them highly erodible. Howell and Westphalia soils are in hydrologic class B and are highly erodible. Monmouth soils are in hydrologic class C and have a K factor of 0.43, making them highly erodible. Sandy land soils are in hydrologic class A and pose few difficulties to development.

Marlboro clay is found to occur extensively in the vicinity of and on this property. According to information obtained from the Maryland Department of Natural Resources, Natural Heritage Program, a Sensitive Species Project Review Area as delineated on the SSPRA GIS layer is found to occur in the vicinity of this property. Further information received from the Wildlife and Heritage staff indicated known records related to three rare, threatened or endangered (RTE) aquatic species in Collington Branch, and the possible presence of several RTE plants. No designated scenic or historic roads are affected by this development. This property is located in the Collington Branch watershed in the Patuxent River basin and contains the mainstem of Collington Branch along the western side of the property. The site is in the Developing Tier according to the *Prince George's County Approved General Plan*. The site contains Regulated Areas, Evaluation Areas, and Network Gaps as designated on the Countywide Green Infrastructure Plan.

Master Plan Conformance

The Environmental Infrastructure section of the 2006 *Approved Master Plan for Bowie and Vicinity and Sectional Map Amendment for Planning Areas 71A, 71B, 74A, and 74B* contains goals, policies, and strategies. These goals, policies, and strategies were reviewed during review of the comprehensive design plan (CDP) and conditions related to conformance were recommended. All conditions approved during the CDP will be addressed later in this report.

Conformance with CR-11-2006

CR-11-2006, a resolution approving the 2006 Bowie and Vicinity Master Plan and SMA, was approved by the District Council on February 7, 2006, and contains a list of limitations and conditions on the approved rezoning of the property. There are also conditions to be applied at various review points in the process. Limitations and conditions related to the CDP were evaluated during that review; any resulting conditions of approval will be addressed later in this report.

The text from CR-11 has been shown in bold typeface, while the evaluation has been shown in standard typeface.

Limitations and Conditions of CR-11-2006

- 2. A ten-foot-wide master plan hiker/biker trail shall be located in the Collington Branch Stream Valley and the six-foot feeder trails shall be located near the development pods.**

The location of the trail proposed in the Collington Branch Stream Valley as shown requires extensive permanent and temporary impacts to the primary management area (PMA) for construction. The alignment of the trail must be designed to minimize impacts to the PMA and will be reviewed at time of preliminary plan.

Comment: PMA impacts related to the located of the stream valley trail are evaluated later in this report.

- 3. A buffer area shall be located between Leeland Road and any townhouse or multifamily development, sufficient to fully screen these units from view from the roadway, and to retain the current wooded character of the frontage.**

Buffering along Leeland Road will be addressed later in this report.

- 5. The applicant shall construct a ten-foot-wide master plan hiker/biker trail in the Collington Branch stream valley, and a 6-foot-wide feeder trail to the development pods.**

See comments associated with item 2 above.

- 9. The submission package of the comprehensive design plan shall contain a signed natural resources inventory (NRI). The NRI shall be used by the designers to prepare a site layout that minimizes impacts to the regulated areas of the site.**

The subject property has the signed revised Natural Resources Inventory NRI/098/05-02, dated January 11, 2007, that was submitted with the revised preliminary plan application package. The previously approved NRI has been declared null in accordance with Note 7 on Sheet 1 of 9 that states, "NRIs will be required to be revised and reapproved if the base information changes significantly."

- 9. A geotechnical study that identifies the location and elevation of the Marlboro clay layer throughout the site shall be submitted as part of the CDP application package.**

This property is located in an area with extensive amounts of Marlboro clay that is known as an unstable, problematic geologic formation when associated with steep and severe slopes. The presence of this formation raises concerns about slope stability and the potential for the placement of structures on unsafe land. Based on information available, the Environmental Planning Section projected that the top elevation of the Marlboro clay varies from an elevation of approximately 110 feet to approximately 120 feet. A geotechnical report was required for the subject property, and the report must be in conformance with the guidelines established by the Department of Environmental Resources (DER).

The original CDP application package included a report of preliminary geotechnical exploration prepared by Geotechnology Associates, Inc. and dated September 2005. The preliminary geotechnical study was determined to be inadequate, because it was based on an insufficient number of borings and failure to address the requirements contained in "Criteria for Soil Investigations and Reports on the Presence and Effect of Marlboro Clay upon Proposed Developments." The extent of impacts on the proposed design could not be determined without a detailed geotechnical report, establishment of a 1.5 safety factor line based on existing conditions,

identification of problem areas, and the establishment of a 1.5 safety factor line based on conceptual grading.

A report from Ben Dinsmore, Geotechnology Associates, Inc. to Nand Gupta, Toll Brothers, dated June 20, 2006, and an exploration location/slope stability evaluation plan, dated June 20, 2006, were submitted and stamped received on June 22, 2006. The report summarized 114 additional borings that have occurred on the site. The exploration location/slope stability evaluation plan showed the location of the additional boreholes.

A further report from Ben Dinsmore, Geotechnology Associates, Inc. to Nand Gupta, Toll Brothers, dated September 12, 2006, and an exploration location/slope stability evaluation plan, dated September 12, 2006, was submitted and stamped as received on September 29, 2006, as part of the first NRI revision. The boring logs for 137 test borings performed on the site were also submitted. In summary, the report states that Marlboro Clay is present over a large portion of the site at elevations generally on the order of 80 to 120 feet. A mitigated 1.5 safety factor line was proposed based on a grading plan provided on August 16, 2006, but it will require revision based on the current design proposal. The stability of the Marlboro Clay will need to be re-evaluated as revisions to the design and grading are proposed in the future. In addition, the plans indicate that retaining walls are planned in several portions of the site. Retaining walls can have a significant effect on the stability of slopes, and a more thorough evaluation of slopes that include retaining walls should be performed once the design becomes firmer.

Further evaluation of Marlboro clay and unsafe lands concerns are addressed later in this report.

- 11. A protocol for surveying the locations of all rare, threatened and endangered species within the subject property shall be obtained from the Maryland Department of Natural Resources prior to acceptance of the CDP and this protocol shall be part of the submittal package. The completed surveys and required reports shall be submitted as part of any application for preliminary plans.**

Information sheets indicating required documents to survey rare plants were included in the CDP application, but did not constitute a protocol. A protocol includes a listing of what species, plant and animal, will be surveyed for on the subject property, what the habitat requirements are for each species, what survey methods are appropriate for the indicated species, and what time(s) of year are best for the survey work. Both aquatic and plant species were investigated on this site.

No protocol or survey work was required for the rare, threatened, or endangered (RTE) aquatic species of this site, because there are known records, so their presence was assumed. Protection of the sensitive species habitat, which includes appropriate buffers as determined by the Wildlife and Heritage Service, is strongly recommended for the site.

With regard to the sensitive plant species, at a meeting on March 16, 2006, the Willowbrook project applicant met with staff of the Wildlife and Heritage Service, Maryland Department of Natural Resources (DNR), at which time DNR staff encouraged the applicant to conduct a plant

survey of the site for RTE species known to occur in the general vicinity. Following the meeting with DNR, an RTE plant survey was commissioned from Mr. Brent Steury, who is recognized by DNR as qualified to conduct such surveys. The completed survey work has been reviewed by DNR staff, and has been found to accurately identify the RTEs present on the site, their location, and population size; therefore, no protocol is necessary. More information regarding the plant species found is provided in the official file of the case.

Specific mapping showing the locations of the populations relative to the proposed development activity was essential to develop adequate protection measures. The rare species' populations have been mapped on the revised natural resources inventory (NRI) and the revised TCPI so that the proximity of populations to proposed development activities can be assessed and additional, more specific measures can be identified to maintain the hydrology and water quality of the rare species' wetland habitat.

Protection of the upland habitats of the state-listed plant species will require delineation of the habitats that support these species on-site. The delineation should be surveyed and placed on the tree conservation plans so that the buffers can be adequately depicted. The limit of disturbance should be set back from the crest of the slope above the plant species (a minimum of 100 feet was recommended by the Wildlife and Heritage staff of the Maryland Department of Natural Resources) in order to reduce the potential for erosion on the slopes that support these species, to maintain forest structure, and to minimize edge effects, including the encroachment of non-native, invasive plant species into the rare species' habitat subsequent to clearing. It was further recommended that the undisturbed buffer be marked on-site with safety fence and identified as a sensitive area in order to reduce the potential for unintentional disturbance.

The Wildlife and Heritage Service at DNR has further offered to assist in the development of a Habitat Protection and Management Program for long-term protection and monitoring of these rare species and their habitat.

It should be noted that the Western Branch watershed is ranked eighth out of 84 watersheds in Maryland with respect to aquatic biological diversity and priority for conservation. Zekiah Swamp, which is partially located within Prince George's County, is ranked first. Preservation and protection of the biological integrity of Western Branch is critical to the continued sustainability of this diverse and sensitive community of fish and plant species.

In order to protect and preserve the on-site habitat of the rare, threatened, and endangered species, DNR has provided several guidelines that should be addressed on the subject site before, during, and after the development of the site. These guidelines include the use of the following practices:

- Reduction of impervious surfaces
- Stormwater conveyance to streams via sheet flow and naturally vegetated channels
- Maximum retention of forest
- Disconnection of rooftop and non-rooftop runoff
- Improved sediment and erosion control
- 100 foot-wide buffer for all streams and non-tidal wetlands on the site

- Avoidance of in-stream work where possible

Although there will be significant limitations in reducing the proposed impervious areas based on the planned densities, the TCPI proposes large contiguous tracts of woodland conservation and pervious open space that are adequate enough to allow conveyance of stormwater to the streams via sheet flow. The stormwater management regulations require that the pre- and post-development run-offs be similar and the project proposes several stormwater management ponds to address the requirements.

Forest retention is discussed in detail in the woodland conservation section of this memo. The plan proposes to clear approximately 65 percent of the on-site woodland and the plan proposes to meet 52 percent of the 141.51-acre woodland conservation requirement on-site. The majority of the proposed woodland conservation is focused on areas adjacent to the preserved sensitive habitat areas. These numbers may be adjusted up when the plans are revised to address other recommended conditions in this report.

The revised TCPI does not address sediment and erosion control measures or the disconnection of rooftop and non-rooftop runoff. As part of the specific design plan submittal, a plan and text shall be submitted that addresses a sediment and erosion control protocol that is more stringent than the minimum required. It shall include phasing of the site in such a way that the sediment basins stay in place until the last lot is built in the phase. The plan shall incorporate additional control measures and inspections to ensure maximum filtration of runoff and complete implementation of the plan. The package will be reviewed by the Environmental Planning Section staff in coordination with the staff of the Soil Conservation District.

Rooftop and non-rooftop disconnection will allow a significant amount of runoff to be filtered and infiltrate over natural and pervious areas before reaching the stream valley. All proposed structures adjacent to open areas must be designed with rooftop and non-rooftop disconnection and should be addressed prior to any Planning Board hearing for the preliminary plan. The stormwater concept plan approval is associated with the preliminary plan review, and will be reviewed later in the report.

Most of the impacts to the stream have been limited to necessary road crossings and infrastructure. All impacts will be addressed later in this report, and impacts that are non-essential for development must be avoided.

The revised TCPI shows the 100 foot-wide habitat protection buffer from all streams, wetlands, and sensitive species populations as recommended by DNR incorporated into the PMA delineation. The definition of the Patuxent River Primary Management Area (PMA) includes the following text after it describes all other sensitive features that are regulated: "Specific areas of rare or sensitive wildlife habitat, as determined by the Planning Board."

During development of the specific design plans, stormwater management plans, and the sediment and erosion control plan, protection of sensitive species habitat from sedimentation, pollutants and changes of hydrologic regimen must be considered. A habitat protection and

management program for the rare, threatened, and endangered species identified on the site will be developed by the applicant and the Environmental Planning Section in consultation with the staff of the Maryland Department of Natural Resources, Natural Heritage Program. The program will address baseline monitoring of the site prior to the commencement of construction, monitoring of hydrology, sediment, and protective mechanisms during construction, and long-term monitoring of the sensitive species habitat after construction in order to assess the success of the mechanism proposed. The program shall include, but not be limited to:

Hydrologic monitoring for a minimum of a year prior to the issuance of the first grading permit to establish a baseline of data, during construction, and post construction for the following elements:

- Water quality
- Benthic macroinvertebrates
- Hydrologic flow
- Sedimentation

Monitoring during construction for the following:

- Sediment and erosion control measures
- Stormwater management controls
- Special protection measures for RTE habitat
- Monitoring of the RTE species during and post-construction.

The detailed program will be determined in future meetings with the applicant and in consultation with the Department of Natural Resources Natural Heritage Program, who will continue to provide guidance and expertise with regard to the preservation and protection of RTE habitat, in coordination with stream and wetlands permits required for the development. Review of the conceptual habitat protection and management program is addressed later in this report.

Comprehensive Design Plan Considerations (CR-11-2006)

- 3. A 200-foot buffer shall be maintained between the residential lots and adjacent land other than parkland that is in the E-I-A Zone. The existing woodland may be augmented by additional plantings so that the project is sufficiently protected from the impacts of the adjacent development.**

The TCPI and CDP shows a 200-foot buffer in all areas where residentially zoned land abuts E-I-A Zone property. The property labeled as being zoned I-1 is separated from the remainder of the subject application by a regulated environmental feature. The closest proposed lot is approximately 150 feet from the property line. Because the regulated area extends onto the I-1 portion of the property, the buffer provided is over 200 feet. No additional information is needed with regard to this provision of CR-11-2006.

Conditions of Comprehensive Design Plan Approval (PGCPB 06- 273)

The following are the conditions of approval of the Comprehensive Design Plan, CDP-0505. The text in bold reflects the actual text from the conditions. The text in plain type discusses how the condition has been addressed with the current application.

2. **Applicant and the applicant's heirs, successors, and/or assignees shall construct the master plan trail along the subject site's portion of Collington Branch. Park dedication and alignment of the trail shall be coordinated with the Department of Parks and Recreation.**
5. **A detailed analysis of the master plan trails, internal trail network, and neighborhood connector trails shall be completed at the time of specific design plan. Connector trails to the master plan trails, to other park or recreational facilities, and between neighborhoods shall be provided.**
6. **All trails shall be located off private lots, and located on M-NCPPC or HOA land, or within a public road right-of-way.**

An analysis of the trail system will be undertaken by the Department of Parks and Recreation and the Transportation Section's Trails Planner. A preliminary review of the impacts proposed for the construction of the stream valley trail is included in the Environmental Review section of this report.

10. **The preliminary plan submittal package shall include a wetlands report regarding the three stream segments shown on Watershed Restoration Action Strategy (WRAS) that were not shown on the signed natural resources inventory (NRI), providing an assessment of their characteristics and appropriate classification. The NRI and all associated plans shall be revised, if necessary, to reflect the results of that assessment.**

During recent revisions to the NRI, additional information was provided including an assessment of the three stream segments shown on the Watershed Restoration Action Strategy (WRAS) that were not shown on the signed NRI.

The two stream channels shown on the GIS data layer are located within floodplain areas. Portions of these floodplains are ponded or flooded for extended periods; this includes areas near the upland edge of the floodplain parallel to the mainstream channel. A field review of these areas completed by McCarthy & Associates on June 20, 2006 did not identify any of the aforementioned stream channels, and it was determined that these areas were wetlands located within the natural floodplain of the main stream. No further revisions to the NRI to address this condition are necessary.

11. **The preliminary plan submittal package shall include a report regarding the twelve (12) WRAS sites identified on the Willowbrook Stream Corridor Assessment based**

on the stream corridor assessment prepared by the Maryland Department of Natural Resources. The report shall identify the existing conditions and make specific recommendations regarding stream restoration and/or mitigation methods. Any restoration proposals that require impacts to the Patuxent River Primary Management Area (PMA) shall be included in the letter of justification for impacts associated with the proposed development.

A stream restoration report for Willowbrook and Locust prepared by McCarthy & Associates, Inc., dated December 2006, and stamped as received by the Countywide Planning Section on December 27, 2006, was submitted as supplemental material to the preliminary plan application in fulfillment of Condition 11.

Four WRAS sites were identified on the Willowbrook site: three related to erosion and one that was associated with a pipe outfall. The report addresses the location of the WRAS sites, includes photographs of the existing conditions, evaluates the existing problems, and proposes remediation.

The recommended remediation includes removal of trash, stormwater management retrofits, and stabilization of eroding stream banks. Staff does not recommend any disturbance to the stream system for stabilization work and a request for impacts to stabilize the streambanks was not included with the subject application. Any in-stream work must be carefully coordinated to ensure protection of the identified sensitive aquatic species in the stream and the detailed habitat protection and management program. The condition has been addressed with this application, and will be further implemented with the first specific design plan, as recommended below.

- 12. At time of submission of the first specific design plan, a watershed restoration plan shall be submitted which addresses the implementation of the WRAS sites report submitted at time of preliminary plan. The scope of the watershed restoration plan may be expanded to address additional sites or concerns identified during preliminary plan review.**

This condition will be addressed at the time of SDP.

- 13. At time of specific design plan submission, each SDP shall include a statement regarding how the proposal uses green building techniques and alternative energy sources.**

This condition will be addressed at the time of SDP.

- 14. The following note shall be placed on the preliminary plan and all future tree conservation plans: "All community lighting shall use full cut-off optics and be directed downward to reduce glare and light spill-over."**

This condition has been addressed on the revised TCPI.

15. **Prior to certificate approval of the CDP, the alignment of the hiker/biker trail shown in the Collington Branch stream valley shall be removed from all plans and substituted with the following note: “The placement of the hiker-biker trail will be evaluated at time of preliminary plan review and shall limit permanent and temporary impacts to the PMA to only those necessary for construction. The majority of the trail shall be located outside the PMA or in locations where impacts already exist.” All proposed impacts to the PMA for trails shall be shown on the TCPI associated with the preliminary plan and shall be part of the letter of justification.**

The CDP has not been submitted for certification. This condition will be addressed at time of CDP certification. The revised preliminary plan and revised TCPI submitted as part of the current application continue to show the alignment of the hiker/biker trail impacting the PMA. The Letter of Justification dated January 4, 2007, indicates that the trail system results in 76,682 square feet of impact to environmentally sensitive areas, which will be evaluated later in this report. The majority of the trail has been located outside of the PMA or in locations where impacts to the PMA already exist.

16. **Prior to certificate approval of the CDP, the TCPI shall be revised to show the provision of a wooded scenic buffer along Leeland Road through preservation, reforestation or afforestation with a minimum width of 40 feet outside of the public utility easement.**
17. **At time of preliminary plan, a scenic easement shall be established along the north side of Leeland Road with a minimum width of 40 feet outside of the public utility easement. The purpose of this scenic easement shall be to retain the wooded character of the Leeland Road frontage.**

The CDP has not been certified. The preliminary plan and revised TCPI submitted with the current application do not delineate a consistent 40 foot-wide scenic buffer along the north side of Leeland Road. In addition, the required wooded scenic buffer has not been provided in an area 350 feet long, on the north side of Leeland Road, east of proposed Leeland Grove Road, where a stormwater management (SWM) facility is proposed. A review of the topography of the area indicates that the SWM facility can be easily redesigned and relocated to allow for the provision of the required scenic buffer.

18. **At time of TCPII, the wooded scenic buffer along the north side of Leland Road shall be given special consideration in order to maintain the wooded character of the frontage. This shall include: the planting of native species, the planting of larger planting materials in order to establish the scenic buffer more quickly, and management techniques for enhancing preserved woodlands such as removing invasive vines and non-natives, trimming, and/or understory planting.**

This condition shall be addressed at time of TCPII. The recommended condition above ensures that an area will be available for planting.

- 19. At least 30 days prior to any hearing on the preliminary plan application, the NRI shall be revised to reflect all relevant information regarding the rare, threatened and endangered species, field-run topography and the location and classification of all existing streams.**

The -02 revision to the NRI, which was signed on January 11, 2007, addresses this condition.

- 20. At least 30 days prior to Planning Board hearing for the preliminary plan, a detailed geotechnical report based on the existing conditions of the site, including the most current topographical information (or as shown on the NRI) shall be submitted. It shall also address the existing outcrop pattern of Marlboro clays and areas of slope stability concerns with respect to the existing conditions. The study shall provide the appropriate plans and/or exhibits, showing the location of all slope stability cross-sections, and identify the unmitigated 1.5 safety factor lines. The unmitigated 1.5 safety factor lines based on that report shall then be placed on the TCPI and the preliminary plan.**
- 21. At least 30 days prior to any Planning Board hearing on the preliminary plan application, the existing conditions and proposed 1.5 safety factor line shall be shown on the preliminary plan and Type I tree conservation plan. No structures, septic fields, or lots less than 40,000 square feet in area shall be placed within the mitigated 1.5 safety factor line. All subsequent plans shall also show this information. If proposed engineering of the site will change the location of the existing 1.5 safety factor line, the proposed 1.5 safety factor line must also be shown on all plans.**

A report of geotechnical exploration at Willowbrook, prepared by Geo-Technology Associates, Inc., dated November 30, 2006, and the Addendum Letter for Marlboro Clay Study dated December 21, 2006, were stamped as received by the Countywide Planning Section on December 27, 2006. The location of the 1.5 safety factor line was determined based on revisions to the proposed grading received on December 20, 2006, which is assumed to match the most recent plans revisions. The unmitigated 1.5 safety factor line and the mitigation 1.5 safety factor line have been shown on the TCPI, but were not shown on the preliminary plan.

There is a single mitigated 1.5 safety factor line shown on the TCPI, which appears to impact two lots located on Split Rail Lane, and several condominium units located off Street Z.

The addendum includes specific recommendations regarding mitigation techniques to deal with Marlboro Clay. The addendum further notes that several retaining walls may be required (and are shown on the current grading design) for the proposed development, and in several the locations the proposed retaining walls may be at, or just above the elevation of the Marlboro Clay layer.

Additional evaluation of the stability of any proposed retaining walls with regard to Marlboro Clay is recommended.

- 22. At least 30 days prior to any Planning Board hearing for the preliminary plan, the associated TCPI shall be revised to show a 100-foot protection buffer for rare, threatened and endangered species with respect to all streams and wetlands on the site. The PMA shall be revised to include that 100-foot buffer. Impacts shown to the 100-foot buffer and PMA on the TCPI associated with the CDP shall be re-evaluated and reduced or eliminated during the review of the preliminary plan. Impacts should be limited to those that are essential for the development of the site.**

The NRI, preliminary plan and TCPI have been revised to show the PMA incorporating the 100-foot-wide habitat protection buffer for rare, threatened and endangered species with respect to all stream and wetlands on the site. Proposed impacts to the PMA have been revised significantly and have been reduced throughout the subject site. A detailed discussion of the proposed impacts is provided in the Environmental Review section of this report.

- 23. Prior to signature approval of the preliminary plan, a copy of the stormwater management concept plan shall be submitted. The plan shall include the use of sheet flow buffers, vegetated channels, and rooftop and non-rooftop disconnection to the fullest extent possible in addition to other stormwater management techniques.**

Stormwater Management Concept Plan (45944-2005) approved by DER on May 9, 2006, was stamped as received by the Countywide Planning Division on September 22, 2006. The layout of the concept plan no longer matches the current preliminary plan proposal, due to recent revision. A copy of the stormwater management concept approval letter is not currently in the preliminary plan file. The SWM plan reviewed does indicate the use of sheet flow buffers, vegetated channels, or rooftop or non-rooftop disconnection.

- 24. At least 30 days prior to any Planning Board hearing on the preliminary plan application, a conceptual habitat protection and management program shall be submitted for approval with the preliminary plan of subdivision. The program shall include, but not be limited to:**
 - a. Hydrologic monitoring for a minimum of a year prior to the issuance of the first grading permit to establish a baseline of data, during construction, and post construction for the following elements: water quality, benthic macroinvertebrate, hydrologic flow, sedimentation.**
 - b. Monitoring during construction for the following: sediment and erosion control measures, stormwater management controls, and special protection measures for RTE habitat.**

c. Monitoring of the RTE species during and post-construction.

A conceptual habitat protection and management program for Locust Hill and Willowbrook, dated December 2006, was submitted on December 27, 2006. The text submitted provides an overview of the monitoring practices and special protection measures proposed for the site. The program was forwarded to staff members at the Maryland Department of Natural Resources associated with the Maryland Biological Stream Survey, Wildlife and Natural Heritage, and the Environmental Review Unit, and preliminary comments were received by e-mail on January 8, 2007. The program submitted is based on the hydrologic monitoring and habitat management frameworks for nearby projects affecting the Collington Branch (Oak Creek Club and Beechtree), and provides an acceptable conceptual framework for the development of a detailed program, but cannot be considered as complete for use as a detailed program at this time because detailed comments from state and federal agencies have not been provided.

A detailed habitat protection and management program is required prior to the submission of the first specific design plan for the site due to conditions of comprehensive design plan approval. The detailed comments from the Maryland Department of Natural Resources, Maryland Biological Stream Survey, and the Maryland Department of Environment, based on the species to be protected, and the unique environmental characteristics of this site, will be incorporated into or addressed in that document. Staff anticipates that comments from these agencies will contribute greatly to the design of an effective program.

- 24. At least 30 days prior to any Planning Board hearing on the first SDP application, a detailed habitat protection and management plan shall be submitted to be approved with the first SDP which addresses specific implementation methodologies for the long-term protection and assessment of the RTE habitat location on this site.**

This condition will be addressed at the time of SDP application.

- 25. Prior to issuance of the first grading permit, a minimum of one year of hydrologic monitoring data, as determined by the program, shall be submitted, to establish a baseline for evaluation impacts to the RTE habitat resulting for construction activities, and post development.**

This condition will be addressed prior to the issuance of grading permits.

- 27. As part of the submission package for the first SDP, a plan and text shall be submitted that addresses a sediment and erosion control protocol that is more stringent than the minimum required. It shall include phasing of the site in such a way that the erosion prevention and sediment control mechanisms such as sediment basins stay in place until the last lot is built in the phase. The plan shall incorporate additional control measures and inspections to ensure maximum filtration of runoff and complete implementation of the plan. The package shall be reviewed by the Environmental Planning Section staff in coordination with the staff of the Soil**

Conservation District.

This condition will be addressed at the time of submittal of the first SDP.

- 28. Prior to the issuance of any permits which impact wetlands, wetland buffers, streams or Waters of the U.S., copies of all federal and state wetland permits, evidence that approval conditions have been complied with, and associated mitigation plans shall be submitted to the Planning Department.**

This condition will be addressed prior to the issuance of appropriate permits.

- 29. Prior to certificate approval of the CDP, the Type I tree conservation plan shall be revised as follows:**
- a. Revise the plans to label all graphic elements fully, and include all graphic elements in the legend;**
 - b. Show no 1.5 safety factor line, PMA or woodland conservation on any lot and calculate all woodland retained on any lot as cleared;**
 - c. Show conceptual clearing of the I-1 property in order to account for the development of this parcel on the TCPI;**
 - d. Revise the limits of disturbance on the parcel to be dedicated to the Department of Parks and Recreation to show how the 100 foot-wide RTE buffer can conceptually be preserved;**
 - e. Add the following note: “The limits of disturbance shown on this plan are conceptual and do not depict approval of any impacts to regulated features.”**
 - f. Remove the “50 foot stream buffer” and the “100 foot stream buffer” from the plan sheets and legends; only the PMA should be shown;**
 - g. Show the PMA in conformance with the revised NRI;**
 - h. Show the location of the plant populations of rare, threatened, and endangered species so the protection of the sensitive species habitat can be continually evaluated during the evolution of the CDP through the development process.**
 - i. Show woodland conservation and the limits of disturbance set back a minimum of 10 feet from the bottom of any retaining wall in order to provide for construction and maintenance;**

- j. Show woodland conservation and the limits of disturbance set back a minimum of 10 feet from any townhouse lot line.**
- k. Provide woodland conservation on-site to the fullest extent possible contiguous to the primary and secondary corridors identified on the site, especially in areas of high quality woodland;**
- l. Revise the worksheet as needed to reflect the above revisions;**
- m. Have the revised plan signed and dated by the qualified professional who prepared the plan.**

The CDP has not been submitted for certification. A review of comments related to the revised TCPI submitted with the current application will be addressed later in the report, and will supersede the above comments.

- 30. Prior to the signature approval of the preliminary plan, written authorization from the Department of Parks and Recreation shall be submitted for any woodland conservation provided on land to be dedicated.**

This condition will be addressed prior to signature approval of the preliminary plan. An exhibit labeled "MNCPPC Park Tree Conservation Exhibit" indicates that 22.15 acres of woodland conservation in preservation is proposed on land to be dedicated to M-NCPPC as shown on the revised TCPI.

- 31. At the time of specific design plan, the SDP and TCPII shall have the same sheet sections, sheet key, and sheet order. The sheet key shall be placed on all sheets.**

This condition shall be addressed at time of SDP.

- 32. Prior to the issuance of the building permits for lots adjacent to planting areas, all afforestation and associated fencing shall be installed. A certification prepared by a qualified professional may be used to provide verification that the afforestation and fence installation have been completed. It must include, at a minimum, photos of the afforestation areas and the associated fencing for each lot, with labels on the photos identifying the locations and a plan showing the locations where the photos were taken.**

This condition shall be addressed prior to issuance of the appropriate building permits.

- 34. At the time of specific design plan consideration, existing woodland will be augmented by additional plantings, as necessary to provide protection against off-site impacts.**

This condition will be addressed at time of SDP.

Conformance with the *Countywide Green Infrastructure Plan*

The site contains extensive areas designated as regulated areas and evaluation areas within the green infrastructure network. The TCPI shows some small isolated areas of woodland conservation; however, the plan primarily focuses on creating large tracts of contiguous woodland by preserving a significant amount of priority woodland within areas designated as regulated areas and evaluation areas. The proposed woodland conservation areas have been expanded to include a significant portion of the evaluation areas and network gaps that are within or connected to sensitive species habitat and buffers for this habitat. According to the NRI, the majority of the woodlands on this site are high quality, and have a high habitat value and a high priority for retention. The overall design provides significant protection for the sensitive environmental features and the rare, threatened, and endangered species that are known to occur on this site. The TCPI has been found to be in conformance with the *Countywide Green Infrastructure Plan*.

Rare, Threatened and Endangered Species

During the review of the CDP, the Environmental Planning Section conducted an extensive review of the site with regard to rare, threatened, and endangered species. In a letter dated November 6, 2006, the Department of Natural Resources, Natural Heritage Program, noted that rare, threatened, and endangered (RTE) species are known to occur on the subject property. The letter specifically addressed three fish species identified as the state-listed endangered Stripeback Darter (*Percina Notogramma*), the state-listed threatened American Brook Lamprey (*Lampetra Appendix*), and the state-listed threatened Glassy Darter (*Etheostoma Vitreum*).

Also identified on the site were seven state-listed threatened, rare and uncommon plant species: Single-headed Pussytoes (*Antennaria Solitaria*, state threatened), Swamp-oats (*Sphenopholis Pensylvanica*, state threatened), Large Seeded Forget-Me-Not (*Myosotis Macrosperma*, state rare/watch list), Low Spearwort (*Ranunculus pusillus*, status uncertain), Swamp Beggar-ticks (*Biden Discoidea*, watch list), Downy Milk Pea (*Galactia volubilis*, watch list) and Umbrella Magnolia (*Magnolis tripetala*, watch list). These, as well as other RTE species, have been identified in the Collington Branch of the Western Branch watershed in the Patuxent River basin, which runs north-south along the eastern portion of the subject site. It should be noted that the distribution of the Stripeback Darter in Maryland is limited to Western Branch, which is ranked eighth out of 84 watersheds in Maryland with respect to aquatic biological diversity and priority for conservation. Zekiah Swamp, which is partially located within Prince George's County, is ranked first. The only other known location of this species is along the James River in Virginia. Preservation and protection of the biological integrity of Western Branch is critical to the continued sustainability of this diverse and sensitive community of fish and plant species.

Conditions of approval regarding preservation and protection of the on-site habitat are contained in Resolution 06-273 for the CDP. This includes the expansion of the PMA for all streams and

wetlands, additional stormwater management techniques, enhanced sediment and erosion control mechanisms, and a conceptual habitat protection and management program.

Environmental Impacts to the Patuxent River Primary Management Area

When a property is located within the Patuxent River watershed, certain designated features comprise the Patuxent River Primary Management Area Preservation Area (PMA). Section 24-130(b)(5) requires that the Planning Board find that the PMA is preserved in its natural state to the fullest extent possible. All disturbances not essential to the development of the site as a whole are prohibited within the PMA. Essential development includes such features as public utility lines (including sewer and stormwater outfalls), road 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. Because this site contains fish and plant species designated as threatened and/or endangered, it is very important that impacts be limited to only those areas necessary for development.

All of the proposed impacts as shown on the TCPI and preliminary plan are for the construction of road crossings, public utilities (water and sewer), and stormwater outfalls, which are essential for development. The plans also show impacts for pedestrian trails, which are in conformance with the Bowie and Vicinity Master Plan And SMA. The plans have been revised to eliminate all unnecessary impacts that were previously shown for building construction and grading.

A letter of justification with exhibits for 11 impacts was stamped as received on January 4, 2007. Because the exhibits do not show individual impacts as required, the numbering of the impacts are repetitive. Refer to the impact exhibits received January 4, 2007, for the referenced impact types and acreages.

Evaluation of Proposed PMA Impacts

Impacts 1, 3, 4, 7, 8, 9, and 10 are solely for the connection of sanitary sewer lines to existing sewer lines within the PMA. These impacts are necessary for the health and safety of the proposed community. The total area of the requested impacts is 54,844 square feet (1.26 acres).

Impacts 2, 4, 6, 7, and 9 are for impacts related to stormwater management and stormwater outfalls that are necessary to safely convey stormwater to the stream system. The total area of requested impacts is 36, 571 square feet (0.84 acres). A small area of grading for pond 3 is shown as part of impact 4, which can be eliminated.

Impacts 5 and 7 are for impacts related to disturbance for necessary improvements to Leeland Road. These disturbances will allow for the required realignment of the existing road at the western end, and the installation of turn lanes at both ends to provide access to the subject property, based on master plan requirements. The total area of requested impacts is 81,159 square feet (1.86 acres).

Impact 6 is needed for tying into existing grades at the connection of the site entrance road to Leeland Road. The total area of this impact is 25,453 square feet (0.58 acres).

Part of impact 5 is labeled as being for the construction of a sediment control structure resulting in a temporary disturbance; however, it appears that this is a permanent structure. Because this discharge will enter directly into the sensitive species habitat this structure should be designed with a forebay to trap sediment before it enters the structure itself. The total area of this impact is 10,122 square feet (0.23 acres). Afforestation of any temporary impacts in this area should also be addressed.

The impacts shown on Impact Exhibit 11 are related to the trails system which connects to the countywide master planned trails system. There are two primary trails. One is a north-south trail following the stream valley through the large park area location on the western portion of the property. The other runs roughly parallel to Leeland Road. Trails also connect the park area to the residential sidewalk system of the proposed development. These trails are required by previous approvals and the master plan. The total area of impact is 76,682 square feet (1.76 acres). It is recognized that the alignment of the trail may be adjusted in the future, as a final design is developed. Relocation of the proposed trails within the PMA as part of future designs is acceptable, as long as there is no net gain of impacts related to this feature.

The proposed impacts as requested and shown on the associated exhibits are all necessary and essential for the development of the site. Staff supports without conditions all of the requested impacts, except for Impact 5. The impacts proposed by Impact 5 should be further mitigated at time of SDP review by application of additional sediment control measures, and by afforestation of the temporary impact area.

It should also be noted that the proposed plans were revised multiple times during the CDP review process in order to minimize the disturbance of sensitive environmental areas.

Woodland Conservation

The property is subject to the requirements of the Prince George's County Woodland Conservation and Tree Preservation Ordinance because it is more than 40,000 square feet in size and contains more than 10,000 square feet of existing woodland. A forest stand delineation was reviewed as part of the NRI review. The NRI has been revised to include a review of the forest interior dwelling bird species (FIDS) habitat on-site, and to provide the surveyed locations of rare, threatened and endangered species populations.

Eight forest stands have been identified on the site, along with 219 specimen trees located within or near the property boundaries.

The characteristics of the identified forest stands are included in the following table:

Stand No.	Forest Type	Dominant Size Class	Area	Forest Structure Value
1	Pioneer tulip poplar	2–5.9 inches DBH	20.98 acres	Low
2	Early deciduous	10–29.9 inches DBH	54.98 acres	High
3	Mid-successional oak-hickory	12–19.9 inches DBH	4.19 acres	Moderate
4	Early – mid-successional tulip poplar - American beech	12–19.9 inches DBH	53.91 acres	Moderate/High
5	Mid-successional tulip poplar-oak forest	20–29.9 inches DBH	88.78 acres	Moderate/High
6	Mid-successional tulip poplar	20–29.9 inches DBH	139.01 acres	Moderate/High
7	Mid-late successional tulip poplar	20–29.9 inches DBH	38.18 acres	Moderate/High
8	Late successional American beech/tulip poplar	20–29.9 inches DBH	34.66 acres	High
TOTAL			422.66 acres	

The Type I tree conservation plan was required as part of the application for a comprehensive design plan, and a revision has been submitted under this application. The woodland conservation threshold for R-S zoned land is 20 percent of the net tract, the woodland conservation threshold for I-1 zoned property is 15 percent. The woodland conservation threshold for this site, based on the 440.85-acre area, is 68.59 acres. Based upon the proposed clearing of 271.24 acres, as well clearing in the floodplain and off-site clearing, the woodland conservation requirement for the site is 141.51 acres. The TCPI proposes to meet the requirement by providing 61.25 acres of on-site preservation, 12.61 acres of on-site planting, and 67.65 acres of off-site mitigation for a total of 141.51 acres. According to the current design, the threshold requirement is being met on-site and 52 percent of the requirement is being met on-site.

Because of this site’s prominent location on a designated primary and secondary corridor of the green infrastructure network, the use of Collington Branch as a significant flyway linking the Belt Woods, located to the north, to the Patuxent River to the east, and the high quality of woodland present on the site, the plans should be evaluated for additional opportunities to preserve and reforest areas of the site, particularly along the Collington Branch stream valley. There appear to be additional areas of preservation, and possible afforestation opportunities located on the property in areas such as those between areas of afforestation and the PMA.

Overall, the plan addresses the intent of the Woodland Conservation and Tree Preservation Ordinance and the Green Infrastructure Plan by providing for the conservation of large contiguous woodlands along the stream valleys and in priority conservation areas. In addition, woodland conservation is proposed on lands to be dedicated to the Department of Parks and

Recreation. As previously conditioned, written permission from the Department of Parks and Recreation, to place 22.15 acres of woodland conservation on park property, will be required.

The TCPI indicates in the legend that all steep slopes are shown, not just those on highly erodible soils. This is not consistent with the approved NRI. Examining the plan more specifically indicates that the full extent of steep slopes on highly erodible soils has not been shown as shaded. In addition, the PMA line delineated does not relate to the topography in the same way as it appears on the -02 revision of the NRI.

The TCPI shows a system of retaining walls along the edges of the PMA that do not include sufficient work zones. The retaining walls must include a work zone below the wall to allow for construction, maintenance, or future reconstruction. All woodland conservation areas must be set back a minimum of 10 feet from the bottom of any retaining wall in order to provide for construction and maintenance. Woodland conservation and the limits of clearing must also be set back 10 feet from any townhouse lot line to provide sufficient space for utility installation.

Marlboro Clay

This property is located in an area with extensive amounts of Marlboro Clay that is known as an unstable, problematic geologic formation when associated with steep and severe slopes. The presence of this formation raises concerns about slope stability and the potential for the placement of structures on unsafe land. Conditions ensuring that development is precluded from potentially unsafe areas of the site have been recommended.

Soils

According to the "Prince George's County Soil Survey" the principal soils on the site are in the Adelpia, Bibb, Coleman, Collington, Marr, Monmouth, Sandy Land, Shrewsbury and Westphalia soils series. Adelpia, Collington, Marr, and Sandy Land soils pose few difficulties to development. Bibb, Coleman, and Shrewsbury soils may limit development due to high water tables, flooding hazards and poor drainage. Monmouth and Westphalia soils may pose development difficulties due to high erodibility and slopes.

The site is generally suitable for the proposed development. Specific mitigation measures will be further analyzed during the development process by the Washington Suburban Sanitary Commission (WSSC) for installation of water and sewer lines, by the Department of Public Works and Transportation for the installation of streets, the installation of stormwater management facilities, general site grading and foundations. This information is provided for the applicant's benefit. No further action is needed as it relates to this comprehensive design plan review. The WSSC and the Department of Public Works and Transportation (DPW&T) may require additional soils reports during the permit process review.

Scenic Roads

A condition of CDP approval required the delineation of a 40 foot-wide scenic easement adjacent to Leeland Road, to be set behind the public utility easement.

Water and Sewer Categories

The water and sewer service categories are W-4 and S-4 according to water and sewer maps obtained from the Department of Environmental Resources dated June 2003, and the property will, therefore, be served by public systems.

6. **Community Planning**—The subject property is located in Planning Area 74B and is subject to the recommendations of the 2006 Bowie and Vicinity Master Plan and SMA, which recommends residential low-density development for the site. The 2002 General Plan places the site 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. The applicant’s proposal is in conformance with these recommendations by proposing a low-suburban residential density of 1.8 dwelling units to the acre.
7. **Parks and Recreation**—The staff of the Department of Parks and Recreation has reviewed the above referenced preliminary plan for conformance with the requirements of the Basic Plan A-9968, the Conceptual Design Plan CDP-0505, the *Approved Master Plan and Sectional Map Amendment for Melwood-Westphalia (Planning Areas 77 and 78)*, the Land Preservation and Recreation Program for Prince George’s County and current subdivision regulations as they pertain to public parks and recreation.

Council Resolution CR-11-2006 for Basic Plan A-9968 contained conditions for the development of recreational facilities that affect the subject preliminary plan:

Conditon 3: At the time of preliminary plan of subdivision, the applicant shall dedicate 100[±] acres of parkland to M-NCPPC, including the Collington Branch stream valley and 20 acres of developable land for active recreation, as shown on DPR Exhibit 1.

The applicant has submitted a plan that is in basic conformance with both the basic plan and the conceptual design plan. Staff has developed a more detailed version of a park dedication exhibit more precisely showing the location of the parkland dedication to M-NCPPC as shown in attached “Exhibit A”.

Condition 5: The applicant shall construct a ten-foot-wide master plan hiker/biker trail in the Collington Branch stream valley, and 6-foot-wide feeder trails to the development pods.

The applicant is showing a 10-foot-wide trail and two trail connectors on the subject property. DPR would recommend that the trail connector be built on park property and connect to Trundle Lane. Since this access point will serve as the public maintenance access, DPR would recommend that the trail connector be eight feet in width. The second point of access to the development is via a HOA parcel and Broken Leaf Drive. The applicant is showing these connections on the preliminary plan.

Condition 8: The applicant shall construct recreational facilities typical for a 20-acre community park, such as ball fields, a playground, tennis or basketball courts, shelters, and restroom facilities. The list of recreational facilities shall be determined at the preliminary plan of subdivision and specific design plan stage. The construction of park facilities shall be eligible for the award of density increments based upon the regulations of the R-S Zone.

DPR has determined that the community park should have the following facilities: Two adult soccer fields (225 foot x 360 foot minimum), one baseball field, one full basketball court, one picnic shelter with grills and benches, 141 parking spaces, multi-age playground, trails and one restroom facility.

8. **Trails**—The subject site is within the area included in the 2006 Bowie and Vicinity Master Plan and SMA. Two master plan trails issues impact the subject site:

- A proposed trail/bikeway along Leeland Road
- A stream valley trail along Collington Branch

Condition five of approved Basic Plan A-9968 requires the construction of the stream valley trail with connector trail to each development pod. Several developments in the vicinity of the subject site have conditions of approval relating to the construction of the Collington Branch Stream Valley Trail. To the north, conditions 14 through 19 of approved Preliminary Plan 4-04035 pertain to the alignment and construction of the stream valley trail through the Karington development. The exact alignment of the stream valley trail will be determined through discussions between the applicant for the Willowbrook and Locust Hill applications and the Department of Parks and Recreation (DPR), and approved by DPR in conformance with the master plan.

Immediately to the north of the subject site (between Willowbrook and Karington), the Collington Center has been required to dedicate land along Collington Branch to accommodate the future provision of the stream valley trail (Condition 8, 4-96051). No trail construction was required, but it is envisioned that this portion of the trail will be completed by DPR in the future. To the south of Leeland Road and the subject site, Conditions 1a and 1b of approved Preliminary Plan 4-00010 require the construction of the stream valley trail through the Beech Tree development.

The provision of the stream valley trail should be coordinated with DPR. The amount of park

dedication and the alignment of the trail should be to the satisfaction of DPR, and coordinated with the trail construction both to the north and south of the subject site. Staff also recognizes that significant environmental features are present within the stream valley and that rare, threatened and endangered (RTE) species have been recorded. Careful work and discussion between the applicant, DPR, the trails planner, and the Environmental Planning Section will have to be undertaken at the time of specific design plan, to ensure that the trail is located outside of environmental features and does not impact the RTEs. It may be necessary to determine the appropriate alignment by staking the trail in the field prior to construction.

Staff also supports the provision of the connector trails and the loop trail shown on the CDP, and the trails shown on the cover sheet for the preliminary plan. The trails on the preliminary plan are reflected on Sheets 4 and 5, but do not appear on Sheet 2. Sheet 2 should be revised to include the master plan trail along Collington Branch. The connector trails that are shown on Sheet 4 within Parcel C will have to be sited to avoid impacts to environmental features. Significant areas of bridging and/or boardwalk may be required along both the loop trail and the stream valley trail.

The master plan recommends a Class I trail along Oak Grove Road and Leeland Road. This master plan trail is recommended along the subject site's entire frontage of Leeland Road. It will ultimately connect into the trail proposed along Oak Grove Road in the adjacent Locust Hill development (CDP-0506) and the trail approved along the Oak Creek Club frontage (Condition 15b of approved Preliminary Plan 4-01032). The trail along Willowbrook's frontage of Leeland Road should be reflected on the CDP and preliminary plan. It should be noted that the 1991 *Approved Master Plan and Adopted Sectional Map Amendment (SMA) for Bowie-Collington-Mitchellville and Vicinity, Planning Areas 71A, 71B, 74A, and 74B* did not include a recommended trail along Leeland Road east of Collington Branch, but the current 2006 Bowie and Vicinity Master Plan and SMA does recommend a trail along the entire length of Leeland Road, including the frontage of the subject site. Sheets 5 and 6 should be revised to show the master plan trail along the north side of Leeland Road.

The sidewalks in this project will be an integral part of the pedestrian circulation network. The combination of the master plan trails, connector trails, and comprehensive sidewalks should ensure pedestrian accessibility throughout the site. The road cross-sections appear to indicate that sidewalks will be provided along both sides of all roads. However, the sidewalks are not labeled in some of the details. Staff recommends that sidewalks be provided along both sides of all internal roads, unless modified by DPW&T. All trails shall be located off private lots.

9. **Transportation**—On February 7, 2006, the District Council approved a basic plan under ZMA A-9968, with conditions and considerations, in CR-11-2006. This enacted a rezoning of the subject property from R-A to R-S (1.6–2.6). The approval of the basic plan by the District Council was predicated on 12 conditions and 5 considerations as outlined in Planning Board Resolution 05-178. The conditions of approval included the following pertaining to transportation:

- “1. At the time of the submission of a comprehensive design plan/preliminary plan of subdivision, the applicant (or his heir, successors or assignees) shall provide a traffic study that analyzes the following intersections:**
- a. US 301/MD 725**
 - b. US 301/Village Drive**
 - c. US 301/Leeland Road**
 - d. US 301/Trade Zone Avenue**
 - e. Leeland Road/Safeway Access**
 - f. Oak Grove Road/Church Road**
 - g. Oak Grove Road/MD 193**
 - h. MD 202/MD 193**
- “2. At the time of preliminary plan of subdivision, the applicant shall provide the dedication for one-half of the 100 feet of dedication required to build Leeland Road (MC-600) to its ultimate cross section per DPW&T standards.”**

Traffic Study Analysis

On May 12, 2006, staff received a traffic study in support of the preliminary plan/comprehensive design plan phases of the subject property. Given the close proximity of the subject property to the Locust Hill property, and the fact that both properties share a common ownership, 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 proposed Locust Hill applications (CDP and preliminary plan). The analyses and findings presented in this memorandum are generally similar (with minor differences) for each site. The study identified the following link and intersections as the ones on which the proposed development would have the most impact:

EXISTING CONDITIONS		
Intersection/Link	(LOS/CLV) AM	(LOS/CLV) PM
Leeland Road (Church Road to US 301)	0.10–v/c ratio	0.08–v/c ratio
US 301/Trade Zone Ave.	D/1330	E/1533
US 301/Leeland Road	C/1216	D/1347
US 301/Village Drive	B/1096	D/1304
US 301/MD 725	D/1404	D/1357
MD 202/MD 193	D/1364	B/1077
MD 193/Oak Grove Road (Roundabout)	A/8.2 secs.	A/5.1 secs.
Oak Grove Road/Whistling Duck Drive **	C/15.2 secs.	B/12.2 secs.
Oak Grove Road/Church Road **	C/16.2 secs.	B/10.6 secs.
Leeland Road/Safeway Access **	B/12.3 secs.	B/11.3 secs.
<p>**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 45 seconds/car. For signalized intersections, a CLV of 1450 or less is deemed acceptable as per the Guidelines.</p>		

The study cited 17 approved background developments that collectively, will impact the above intersections and link during the morning and evening peak hours. An analysis of the background developments was done based on a 4-year (2010) build-out. Those analyses yielded the following results:

BACKGROUND CONDITIONS		
Intersection/Link	(LOS/CLV) AM	(LOS/CLV) PM
Leeland Road (Church Road to US 301)	0.30–v/c ratio	0.31–v/c ratio
US 301/Trade Zone Ave.	F/2196	F/2665
US 301/Leeland Road	F/2186	F/2359
US 301/Village Drive	F/1715	F/2057
US 301/MD 725	F/2214	F/2170
MD 202/MD 193	F/1753	E/1490
MD 193/Oak Grove Road (Roundabout)	E/72.4 secs.	A/7.9 secs.
Oak Grove Road/Whistling Duck Drive **	F/58.9 secs.	D/29.0 secs.
Oak Grove Road/Church Road **	F/149.3 secs.	F/156.6 secs.
Leeland Road/Safeway Access **	F/66.4 secs.	F/62.0 secs.
<p>**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 45 seconds/car. For signalized intersections, a CLV of 1450 or less is deemed acceptable as per the Guidelines.</p>		

Using the “Guidelines for the Analysis of the Traffic Impact Of Development Proposals,” the study has indicated that the proposed development (623 single family DUs and 227 town homes) will be adding 626 (125 in and 501 out) AM peak hour trips and 743 (483 in, 260 out) PM peak hour trips at the time of full build-out.

The traffic study also included projected traffic from the proposed Locust Hill Preliminary Plan. Five hundred and fifty dwelling units are being proposed generating 413 (83 in, and 330 out) AM peak hour trips and 495 (322 in, 173 out) PM peak hour trips at the time of full build-out. As was the case for the background analyses, the study assumed full build-out up to the year 2010. Applying a growth rate of 3 percent per year for through traffic along US 301, and combining the site-generated traffic along with background developments, the following results were

determined:

TOTAL CONDITIONS (Without Improvements)		
Intersection/Link	(LOS/CLV) AM	(LOS/CLV) PM
Leeland Road (Church Road to US 301)	0.43 – v/c ratio	0.47 – v/c ratio
US 301/Trade Zone Ave.	F/2316	F/2780
US 301/Leeland Road	F/2306	F/2663
US 301/Village Drive	F/1749	F/2190
US 301/MD 725	F/2333	F/2294
MD 202/MD 193	F/1853	E/1587
MD 193/Oak Grove Road (Roundabout)	E/132.6 secs.	B/19.8 secs.
Oak Grove Road/Whistling Duck Drive **	F/153.3 secs.	F/51.1 secs.
Oak Grove Road/Church Road **	F/419.1 secs.	F/482.1 secs.
Leeland Road/Site Access “A”	F/71.0 secs.	F/82.3 secs.
Leeland Road/Site Access “B”	F/93.3 secs.	F/108.0 secs.
Leeland Road/Safeway Access **	F/201.8 secs.	F/212.9 secs.
<p>**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 guidelines, an average vehicle delay exceeding 50.0 seconds indicates inadequate traffic operations. Values shown as “+999” suggest that the parameters are outside of the normal range of the procedure and should be interpreted as a severe inadequacy</p>		

To provide adequate levels-of-service at the facilities mentioned above, the traffic study cited improvements along US 301 between MD 214 and MD 725 which are described in the current Prince George's County Capital Improvement Program (CIP) FY 2006–2011 (Project FD669161). Specifically, the CIP describes the improvements as “**providing a third through lane north and south bound between MD 214 and MD 725 and further widening, as needed at Trade Zone Avenue, MD 214 and MD 725. Associated intersection improvements at Old Central Avenue, Trade Zone Avenue, Leeland Road and Village Drive West also will be undertaken.**”

The improvements that have been identified in the applicant's traffic impact study as needed to provide adequate levels of service for the 2010 build-out are as follows:

US 301/Trade Zone Avenue

1. Construct an additional northbound left turn lane along US 301
2. Construct a third eastbound left turn lane along Trade Zone Avenue
3. Construct **three additional** southbound through lanes along US 301
4. Construct **two additional** northbound through lanes along US 301

US 301/Leeland Road

1. Construct two additional northbound through lanes along US 301.
2. Construct an additional eastbound left turn lane along Leeland Road
3. Construct two additional southbound through lanes along US 301.

US 301/Village Drive

1. Construct two additional northbound through lanes along US 301
2. Construct two additional southbound through lanes along US 301

US 301/MD 725

1. Construct an additional northbound through lane along US 301
2. Construct two additional southbound through lanes along US 301
3. Construct an additional eastbound left turn lane along MD 725

4. Construct an additional westbound through lane along MD 725
5. Construct an exclusive westbound right turn lane along MD 725.

Citing these improvements (along US 301), the traffic study projected the following levels of service:

TOTAL CONDITIONS—BOTH DEVELOPMENTS (With CIP Improvements)		
Intersections (All Signalized)	(LOS/CLV) AM	(LOS/CLV) PM
US 301/Trade Zone Ave.	C/1250	D/1370
US 301/Leeland Road	C/1290	D/1450
US 301/Village Drive	B/1077	D/1397
US 301/MD 725	D/1439	D/1422
MD 202/MD 193 (Not part of US 301 CIP)	D/1351	B/1053

Based on the results shown in the aforementioned table, all of the intersections along US 301 were shown to operate at adequate levels of service.

In addition to analyzing the projected levels of service for the intersections along US 301, the traffic study also identified the overall cost of the CIP improvements, the capacity created as a result of the improvements and the site's proportion of the capacity created by the improvements. According to the applicant's traffic study, the total cost of the CIP improvements as used in the analyses would be \$31 million. The study also indicated that approximately 7 percent of the capacity created by the CIP improvements would be needed for the proposed developments (subject property + Locust Hill). The study concludes therefore that a reasonable fair share contribution towards the CIP improvements would be $\$31,000,000.00 \times 7\% = \$2,170,000.00$. The study also suggested that in lieu of actual payment of cash, the pro-rata payment should be applied to construction of improvements along the US 301 corridor, within the limits of the CIP project.

Currently, there are no funded CIP or CTP improvements along the MD 202 or Leeland Road-Oak Grove Road corridor. However, there are several intersections along these corridors that are

projected to operate beyond acceptable levels of service.

At the signalized intersection of MD 202 and MD 193, the applicant has proffered the following improvements:

- Provide a left turn, a shared left/through lane, and a right turn lane on the southbound approach;
- Provide a second left turn on the eastbound (towards Upper Marlboro) MD 202 approach;
- Provide two receiving lanes on the eastern leg of the intersection to receive the double left turns from eastbound MD 202.

The improvements proposed for the MD 202/MD 193 intersection would provide acceptable levels of service.

All of the unsignalized intersections along Leeland Road-Oak Grove Road are projected to operate with delays greater than 50 seconds. Since no specific improvements were proffered by the applicant for these unsignalized intersections, staff will request that a signal warrant study be prepared for all of the unsignalized intersections along this corridor with the exception of the roundabout at the intersection of MD 193 and Oak Grove Road.

Transportation Staff Review and Comments

Upon review of the applicant's traffic study (including revisions) staff does not totally concur with its findings and conclusion. In addition to the planning staff, the May 12, 2006, study was reviewed by two other agencies, the State Highway Administration (SHA) and the Department of Public Works and Transportation (DPW&T). In a June 13, 2006, memorandum to staff (Issayans to Burton), all of the comments expressed by Mr. Issayans, the county's chief Traffic Engineer, were confined to issues relating to Leeland Road-Oak Grove Road, a county maintained facility. While most of those issues are operational and engineering related, DPW&T did indicate that the future access points of the property will operate with failing levels of service, and should therefore conduct the appropriate signal warrant studies. Staff supports this request.

In several correspondences from SHA, including an October 4, 2006, memorandum to staff (Foster to Winters), SHA has indicated that the financial contribution (\$2.17 million) proposed by the applicant will not result in adequate levels of service along the US 301 corridor. The memorandum recommended that improvements should be constructed along US 301, between MD 214 and MD 725 (a similar recommendation was made during the specific design plan phase of the Beech Tree development).

Staff is in general support of SHA's position regarding the fact that the applicant's contribution represents only 7 percent of the total cost of the improvements required to provide an acceptable level of service. However, there is a provision in the CIP project that allows for developers to

make contributions towards the total cost of the CIP project. Previous actions by the Planning Board have established precedents for the use of developer contributions in the case of Beechtree (PGCPB 98-50) and other nearby subdivisions along the US 301 CIP project. To date, the Beechtree, Buck Property, and Karington developments have all been conditioned to provide various improvements along US 301. The applicant provided staff with an exhibit that indicated how the various sets of improvements could be coordinated. Staff and SHA are fully supportive of this proposal.

Transportation Staff Findings

- A. The application is a preliminary plan for a residential development consisting of 623 single-family dwelling units and 227 town homes. For the purpose of determining adequacy, and given the fact that the subject application shares a common ownership with the adjacent Locust Hill development, and the fact that both developments are in close proximity to each other, the projected traffic from both developments is being combined. Locust Hill is a residential development proposing 550 dwelling units. The combined developments (1,400 DU) would generate 1,039 AM (208 in, 831 out) and 1,238 PM (805 in, 433 out) peak hour vehicle trips as determined using the “Guidelines for the Analysis of the Traffic Impact of Development Proposals.”
- B. The traffic generated by the proposed developments would impact the following intersections and links:
- Link—Leeland Road—Church Road to US 301
 - US 301/MD 725
 - US 301/Village Drive
 - US 301/Leeland Road
 - US 301/Trade Zone Avenue
 - MD 202/MD 193
 - MD 193/Oak Grove Road
 - Oak Grove Road/Whistling Duck Drive
 - Oak Grove Road/Church Road
 - Leeland Road/Safeway Access
- C. Four of the intersections (along US 301) identified in Finding B above are programmed for improvement with 100 percent construction funding within the next six years in the current (FY 2007–2012) Prince George’s County Capital Improvement Program (CIP). While the CIP identifies this project as being fully funded, there is also a provision for developer contributions should funding from the State of Maryland be delayed. This applicant has proffered a contribution of \$2,170,000.00 or \$1,550/DU. To date the following developments have made financial commitments towards the aforementioned CIP improvements through Planning Board resolutions:

Marlboro Square	4-96084	PB96-342	\$30,880.00
Meadowbrook	4-89227	PB90-102	\$106,948.31
Karington	4-04035	PB04-247(C)	\$725,094.25
Beechtree	CDP-9706	PB98-50	\$1,194,805.08
Buck Property (Balmoral)	4-03100	PB04-21	\$172,252.64
TOTAL			\$2,685,980.28

D. 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.

E. The following intersections identified in Finding B above, when analyzed with the programmed improvements in Finding C above and total future traffic as developed using the Guidelines, were *not* found to be operating at LOS D or better:

- MD 202/MD 193
- MD 193/Oak Grove Road
- Oak Grove Road/Whistling Duck Drive
- Oak Grove Road/Church Road
- Leeland Road/Safeway Access

F. The applicant has agreed to provide the following improvements to the intersections, in consideration of the findings in Finding E above:

At the signalized intersection of MD 202 and MD 193:

- Provide a left turn, a shared left/through lane, and a right turn lane on the southbound MD 193 approach;

- Provide a second left turn on the eastbound (towards Upper Marlboro) approach;
- Provide two receiving lanes on the eastern leg of the intersection to receive the double left turns from eastbound MD 202.

At the unsignalized intersection of Oak Grove and MD 193 (roundabout):

- Provide an exclusive right turn lane at the westbound Oak Grove Road approach (towards MD 202).

- G. The intersections identified in Finding F above will both operate acceptably as a result of the improvements proffered by the applicants. All of the remaining unsignalized intersections along Oak Grove Road-Leeland Road will operate with delays greater than 50 seconds in at least one movement. Consequently, signal warrant analyses of those intersections should be required.

Transportation Staff Conclusions

The Transportation Planning Section concludes that adequate transportation facilities would exist to serve the proposed subdivision as required by Section 24-124 of the Prince George's County Code if the application is approved with conditions consistent with the above findings.

10. **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, CB-30-2003, and CR-23-2003 and concluded the following.

Impact on Affected Public School Clusters

Affected School Clusters	Elementary School Cluster 3	Middle School Cluster 2	High School Cluster 2
Dwelling Units	732 sfd	732 sfd	732 sfd
Pupil Yield Factor	0.24	0.06	0.12
Subdivision Enrollment	175.68	43.92	87.84
Actual Enrollment	5,137	7,218	10,839
Completion Enrollment	178	112	223
Cumulative Enrollment	30.48	304.86	610.80
Total Enrollment	5,521.16	7,678.78	11,760.64
State Rated Capacity	4,838	6,569	8,920
Percent Capacity	114.12%	116.89%	131.85%

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

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 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, CB-31-2003, and CR-23-2003.

11. **Fire and Rescue**—The Historic Preservation and 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 beyond the required seven-minute response time for the first due fire station Marlboro, Company 20, using the “Seven-Minute Travel Times and Fire Station Locations Map” provided by the

Prince George’s County Fire Department.

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

In accordance with Section 24-122.01 of the Subdivision Regulations, Preliminary Plan 4-06066 fails to meet the standards for fire and rescue response times. The Planning Board may not approve a preliminary plan until a mitigation plan between the applicant and the county is entered into and filed with the Planning Board in accordance with the County Council’s adopted “Guidelines for the Mitigation of Adequate Public Facilities for Public Safety Infrastructure.”

12. **Police Facilities**—The preliminary plan is located in Police District II. 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 September 14, 2006.

Reporting Cycle	Date	Emergency Calls	Nonemergency
Acceptance Date	01/05/05-08/05/06	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 August 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.

13. **Health Department**—The Environmental Engineering Program has reviewed the preliminary plan of subdivision and reminds the applicant that raze permits are required prior to demolition of any structure on the site. The Health Department also noted that wells and septic systems to be abandoned must be pumped, backfilled and/or sealed in accordance with COMAR 26.04.04.
14. **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 approved for this site, CSD 45944-2005-00 (May 9, 2006). 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.

15. **Historic**—A Phase I archeological survey was completed for the above-reference property. Four copies of a revised final report, “Phase IB Archeological Survey of the Willowbrook Property, Prince George’s County, Maryland, Preliminary Plan 4-06066”, have been received and accepted by the Planning Department on January 5, 2007. All comments have been addressed. Staff concurs that no further archeological work is required by the Planning Department on the property.

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.

BE IT FURTHER RESOLVED, that an appeal of the Planning Board’s action must be filed with Circuit Court for Prince George’s County, Maryland within thirty (30) days following the adoption of this Resolution.

* * * * *

This is to certify that the foregoing is a true and correct copy of the action taken by the Prince George's County Planning Board of The Maryland-National Capital Park and Planning Commission on the motion of Commissioner Squire, seconded by Commissioner Clark, with Commissioners Squire, Clark, Vaughns, Eley and Parker voting in favor of the motion at its regular meeting held on Thursday, February 8, 2007, in Upper Marlboro, Maryland.

Adopted by the Prince George's County Planning Board this 15th day of March 2007.

R. Bruce Crawford
Executive Director

By Frances J. Guertin
Planning Board Administrator