



**Cashell Estates: Preliminary Plan No. 120160210 (“Design for Life”)**

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Staff Report Date: 3/23/18

Description

Request for 19 lots for 19 Townhouse Living Units which incorporate the Design for Life standards; located at 7009 Garrett Road in Derwood, approximately 2,300 feet south of the intersection of Redland Road and Muncaster Mill Road; identified as Part of Lot 5 on Tax Map GT-341; 2.0 acres; RE-1 Zone; 2004 Upper Rock Creek Area Master Plan.

**Application Acceptance date:** 2/10/2017

**Applicant:** Garrett Gateway Partners, LLC

**Review Basis:** Chapter 50, Chapter 59 (Design for Life)

**Staff Recommendation:** Approval with Conditions



Summary

- On December 2, 2016, the Hearing Examiner approved Conditional Use Application No. CU2016-11 for the proposed 19 Townhouse Living Units which incorporate the Design for Life criteria (Sec.50-3.3.1.D.b).
- On October 6, 2016, the Planning Board approved the associated Preliminary Forest Conservation Plan No. CU2016-11.
- The Application was accepted as complete prior to February 13, 2017 and is therefore being reviewed under the old subdivision regulations.
- A Final Forest Conservation Plan (“FFCP”) No. 120160210 associated with this application has been reviewed and recommended for approval with conditions.
- The Application is consistent with the recommendations of the *2004 Upper Rock Creek Master Plan*.
- The Application is being reviewed for compliance with the development standards for Townhouse Medium Density (TMD) Zone Optional Method of Development as specified in the use standards.
- The proposed lots meet the standards of development for a Townhouse Living Conditional Use in the RE-1 Zone.
- *Staff has not received any citizen correspondence on the Application.*

## SECTION 1 – RECOMMENDATION AND CONDITIONS

**Preliminary Plan No. 120160210:** Staff recommends approval of the Preliminary Plan and associated Final Forest Conservation Plan No. 120160210, subject to the following conditions:

1. This Preliminary Plan is limited to 19 lots for 19 Townhouse Living Units.
2. The Applicant must comply with conditions of approval of in the Hearing Examiner’s Report and Decision dated December 2<sup>nd</sup>, 2016 for Conditional Use No. 2016-11.
3. Prior to record plat approval, amended plans for Conditional Use No. CU2016-11 that are consistent with the approved Preliminary Plan must be submitted to the Hearing Examiner.

### Forest Conservation

4. The Applicant must comply with the conditions of approval for the Final Forest Conservation Plan No. 120160210, approved as part of this Preliminary Plan, including:
  - a. Prior to the start of any demolition, clearing, grading or construction on the Subject Property, the Applicant must record an M-NCPPC approved Certificate of Compliance in an M-NCPPC approved off-site forest bank to satisfy the afforestation requirement for a total of 0.42 acres (18,295 sq. ft.) of mitigation credit.
  - b. At the direction of the M-NCPPC Forest Conservation Inspector, mitigation must be provided for the removal of three variance trees. Mitigation must be provided in the form of planting eleven (11) native canopy trees with a minimum planting stock size of three caliper inches. The trees must be planted outside of any rights-of-way, or utility easements, including stormwater management easements. The trees must be planted within one year or two growing seasons after the development project is complete. The planting locations of these trees and any substitution of species from what is shown on the approved FFCP are subject to the approval of the M-NCPPC Forest Conservation Inspector.
  - c. The Applicant must comply with all tree protection and tree save measures shown on the approved FFCP. Tree save measures not specified on the FFCP may be required by the M-NCPPC Forest Conservation Inspector.
  - d. The Applicant must have all required site inspections performed by M-NCPPC staff per Section 22A.00.01.10 of the Forest Conservation Regulation.
  - e. The limits of disturbance (LOD) on the Final Sediment and Erosion Control Plan must be consistent with the LOD shown on the approved FFCP.
5. The Planning Board accepts the recommendations of the Montgomery County Department of Permitting Services (“MCDPS”) - Water Resources Section in its Stormwater Management Plan letter dated March 2, 2018, and hereby incorporates them as conditions of the Preliminary Plan approval. The Applicant must comply with each of the recommendations as set forth in the letter, which may be amended by MCDPS – Water Resources Section, provided the amendments do not conflict with other conditions of the Preliminary Plan approval.
6. The Planning Board accepts the recommendations of the Montgomery County Department of Transportation (“MCDOT”) in its letter dated March 8, 2018, with the exception of Condition #3 Redland Road – Comment #2 and hereby incorporates them as conditions of the Preliminary Plan

approval. The Applicant must comply with each of the recommendations as set forth in the letter, which may be amended by MCDOT, provided the amendments do not conflict with other conditions of the Preliminary Plan approval.

7. Prior to issuance of access permits, the Applicant must satisfy the provisions for access and improvements as required by MCDOT.
8. The Planning Board accepts the recommendations of the MCDPS - Fire Department Access and Water Supply Section in its letter dated March 1, 2018, and hereby incorporates them as conditions of approval. The Applicant must comply with each of the recommendations as set forth in the letter, which MCDPS may amend if the amendments do not conflict with other conditions of Preliminary Plan approval.
9. The Applicant must obtain a Park Construction Permit from the Montgomery County Department of Parks prior to any construction on Parkland related to this Application.

#### Road Dedication & Improvements

10. The Applicant must dedicate and show on the record plat(s) the following dedications:
  - a. Thirty-five feet from the existing road centerline along the Subject Property frontage for Redland Road as shown on the Preliminary Plan.
  - b. Forty-four feet from the opposite right-of-way line along the Subject Property frontage for Garrett Road as shown on the Preliminary Plan.
11. The Applicant must construct all road improvements within the rights-of-way shown on the approved Preliminary Plan to the full width mandated by the master plan and/or to the design standards imposed by all applicable road codes. Only those roads (or portions thereof) expressly designated on the Preliminary Plan, "To Be Constructed By \_\_\_\_\_" are excluded from this condition.
12. Prior to recordation of the plat(s) the Applicant must satisfy MCDPS requirements to ensure the construction of a five-foot wide sidewalk along the property frontage on Redland Road and Garrett Road.

#### Private Roads

13. The Applicant must provide Private Road, Street "A", including any sidewalks, bikeways, storm drainage facilities, street trees, street lights, private utility systems and other necessary improvements as required by either the Conditional Use Plan within the delineated private road area (collectively, the "Private Road"), subject to the following conditions:
  - a. The record plat must clearly delineate the Private Road Parcel and include a metes and bounds description of the boundaries of the Private Road.
  - b. The Private Road must be subjected by reference on the plat to the Declaration of Restrictive Covenant for Private Roads recorded among the Land Records of Montgomery County, Maryland in Book 54062 at Page 338, and the terms and conditions as required by the Montgomery County Code with regard to private roads set forth at § 50-4.3.E et seq.

- c. Prior to issuance of building permit, the Applicant must deliver to the Planning Department, with a copy to MCDPS, certification by a professional engineer licensed in the State of Maryland that the Private Road has been designed and the applicable building permits will provide for construction in accordance with the paving detail and cross-section specifications required by the Montgomery County Road Code, as may be modified on this Preliminary Plan, and that the road has been designed for safe use including horizontal and vertical alignments for the intended target speed, adequate typical section(s) for vehicles/pedestrians/bicyclists, ADA compliance, drainage facilities, sight distances, points of access and parking, and all necessary requirements for emergency access, egress, and apparatus as required by the Montgomery County Fire Marshal.
14. Prior to the release of the tenth (10th) building permit, the Applicant must:
- a. Record the access easement on Parcel 313, as stated in the SHA letter dated May 31, 2017.
  - b. Permit and bond the portion of the private street from Garrett Road to the Subject Property within the SHA access easement on Parcel 313.
15. Prior to release of the seventeenth (17<sup>th</sup>) building permit, the Applicant must construct the portion of the private street section on Parcel 313.

Surety

16. Prior to issuance of any building permit and sediment control permit, the Applicant must enter into a Surety and Maintenance Agreement with the Planning Board in a form approved by the M-NCPPC Office of General Counsel that outlines the responsibilities of the Applicant. The Agreement must include a performance bond(s) or other form of surety, with the following provisions
- a. A cost estimate of the materials and facilities, which, upon Staff approval, will establish the surety amount.
  - b. The cost estimate must include list any/all aspects required for construction of a site element by the Planning Board on the preliminary plan such as a private road, sidewalks or other circulation, and any off-site improvements not bonded by other county agencies
  - c. Completion of all improvements covered by the surety will be followed by inspection and potential reduction of the surety.
  - d. The bond or surety for each item shall be clearly described within the Surety & Maintenance Agreement including all relevant conditions.

Record Plats

17. The record plat must show necessary easements.
18. The record plat must reflect a common use and access covenant for the benefit of the public over all trails, sidewalks and paths not included in a public right-of-way or private street parcel. The easement must be created in a form approved by the M-NCPPC Office of the General Counsel and recorded in the Montgomery County Land Records.
19. The record plat must reflect all areas under Homeowners Association ownership and specifically identify stormwater management parcels.

20. The record plat must reference the Common Open Space Covenant recorded at Liber 28045 Folio 578 (“Covenant”). The Applicant must provide verification to Staff prior to release of the final building permit that the Applicant’s recorded HOA Documents incorporate the Covenant by reference.

21. The Certified Preliminary Plan must contain the following note:

*“Unless specifically noted on this plan drawing or in the Planning Board conditions of approval, the building footprints, building heights, on-site parking, site circulation, and sidewalks shown on the Preliminary Plan are illustrative. The final locations of buildings, structures and hardscape will be determined at the time of issuance of building permit(s). Please refer to the zoning data table for development standards such as setbacks, building restriction lines, building height, and lot coverage for each lot. Other limitations for site development may also be included in the conditions of the Planning Board’s approval.”*

APF

22. The Adequate Public Facility (“APF”) review for the Preliminary Plan will remain valid for sixty-one (61) months from the date of mailing of the Planning Board Resolution.

## **SECTION 2 – PROPERTY LOCATION AND DESCRIPTION**

The subject property is identified as Part of Lot 5 on Tax Map GT 341, and is located at 7009 Garrett Road, at the intersection of Garrett Road and Redland Road, approximately 2,300 feet south of the intersection of Redland Road and Muncaster Mill Road (“Subject Property” or “Property”) in the *2004 Upper Rock Creek Master Plan* area (“Master Plan”). The Subject Property is located north of the Intercounty Connector (ICC/MD 200), in the northeast quadrant of the intersection of Redland Road and Garrett Road and is zoned RE-1. The Property is 2.00 acres in size and has approximately 340 feet of frontage on Redland Road and 240 feet of frontage on Garrett Road.



Figure 1- Vicinity Map

The northern half of the Property is improved with a single-family detached house which is accessible from Garrett Road via a gravel driveway that parallels Redland Road. The remainder of the Property is kept in open grass field with some large individual trees present. There is a 6.7 percent slope from the northern Property line (480 ft.) to the southern Property line (458 ft.). There are no steep slopes, highly erodible soils, or 100-year floodplains on the Property. The Property does contain three specimen trees ( $\geq 30$  inches Diameter at Breast Height (DBH)) that requires a tree variance to impact or remove. The variance was approved by the Planning Board as part of the Preliminary Forest Conservation Plan as part of the Conditional use review.



Figure 2 – Aerial View of the Subject Property

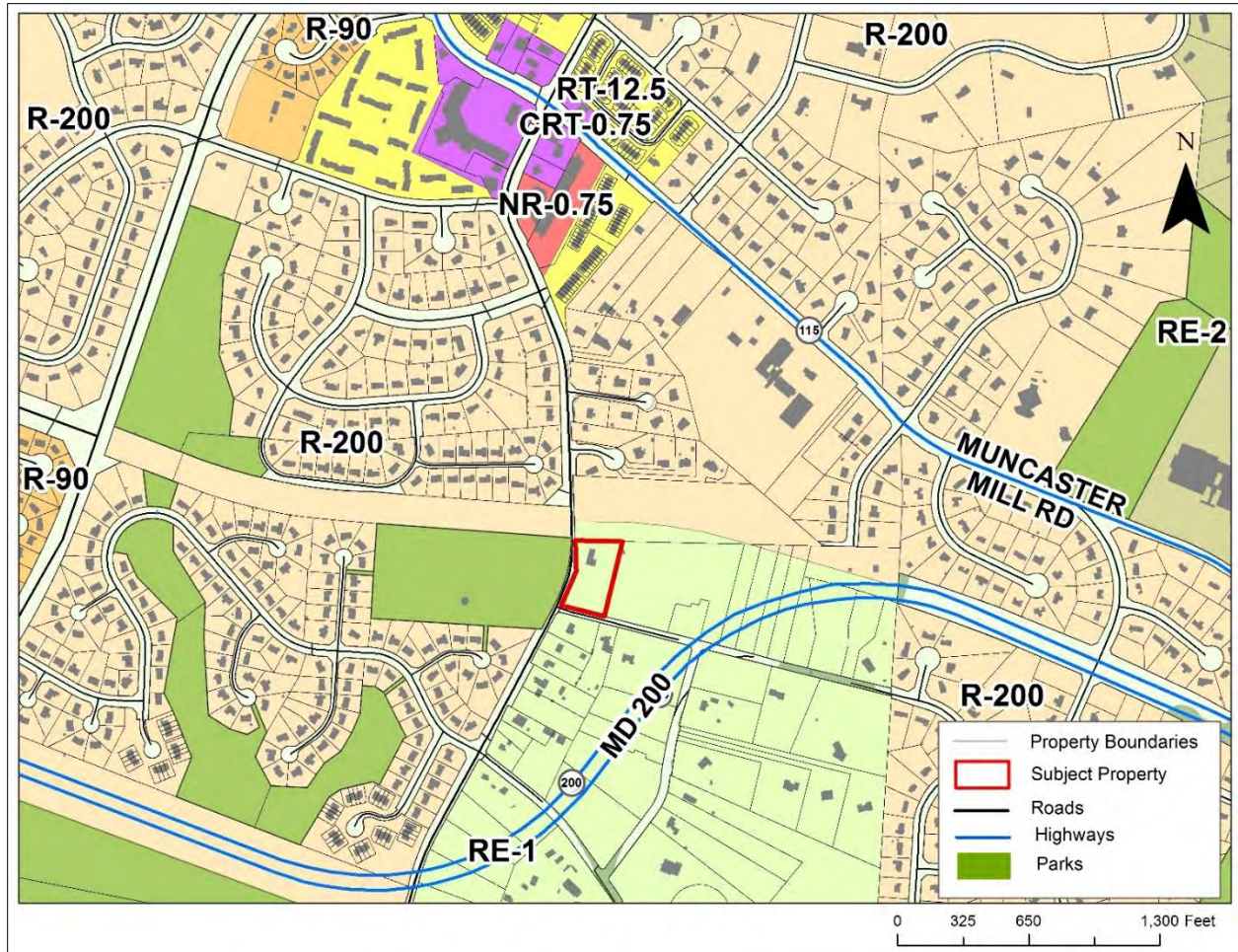


Figure 3 – Zoning

The surrounding area is predominantly comprised of one-family detached residential dwellings located in subdivisions on either side of Redland Road. Immediately to the north and east of the Subject Property is approximately 7.4 acres of land owned by the SHA that is reserved for the potential future extension of Mid-County Highway east to intersect with the Inter-County Connector. Immediately north of there are one-family detached dwelling units. The neighboring properties to the north and west are zoned R-200 and the properties to the east and south are zoned RE-1. Confronting the Property on Redland Road is the Redland Local Park. There are three single-family detached homes south of the Property, on the opposite side of Garrett Road.

### SECTION 3 – PROPOSAL

#### Proposal

Preliminary Plan Application No. 120160210, Cashell Estates (“Application” or “Preliminary Plan”) proposes to create 19 lots for 19 Townhouse Living Units. The Property was found to be suitable for up to 19 townhouses consistent with approved Conditional Use No. CU2016-11 (Attachment A). The Applicant



is dedicating a total of 11,063 square feet (0.25397) of right-of-way along the Property's frontage on Redland Road and Garrett Road (Figure 3).

The existing house will be demolished and the driveway to Garrett Road will be eliminated. The Application includes five sticks of three townhouses and one stick of four townhouses. Two sticks will face Redland Road, two will face Garrett Road and the remaining two sticks will be interior and parallel the eastern Property line. Two new access points will be established, one on Redland Road, approximately 320 feet north of Garrett Road and one on Garrett Road through the SHA property (via an ingress/egress easement). The two access points will connect via a new 20-foot-wide private road. The Applicant is constructing a new five-foot-wide concrete sidewalk along the entire Property frontage on Garrett Road and Redland Road. An internal sidewalk system will also be constructed. The proposed sidewalk network will connect the townhomes, open space and connect residents to Redland Local Park via an ADA compliant ramp and crosswalk.

The existing residence is served by public water and a septic system. The Applicant plans to abandon the existing septic system, upgrade the existing water service and connect to an existing 8" sewer line located on the west side of Redland Road, approximately 500 feet south of the Subject Property. The Subject Property is in sewer category S-3 and water category W-3 which is consistent with the Applicant's proposal to utilize public water and sewer.

Stormwater management goals are being met via two landscape infiltration facilities, one bioretention facility, and partial use of permeable pavement on-site. The stormwater management design requires discharge of stormwater through the adjacent Redland Local Park (M-NCPPC Property) to reach an existing drainpipe. As part of the Preliminary Plan, the Applicant has actively worked with Park's staff to coordinate the improvements. Two bio-swales on Park's property, providing additional stormwater storage and improved treatment of existing runoff. To compensate for the impacts to the Parks property, the Applicant will also be making additional improvements to the Parkland as outlined their letter, dated March 8, 2018 (Attachment B).

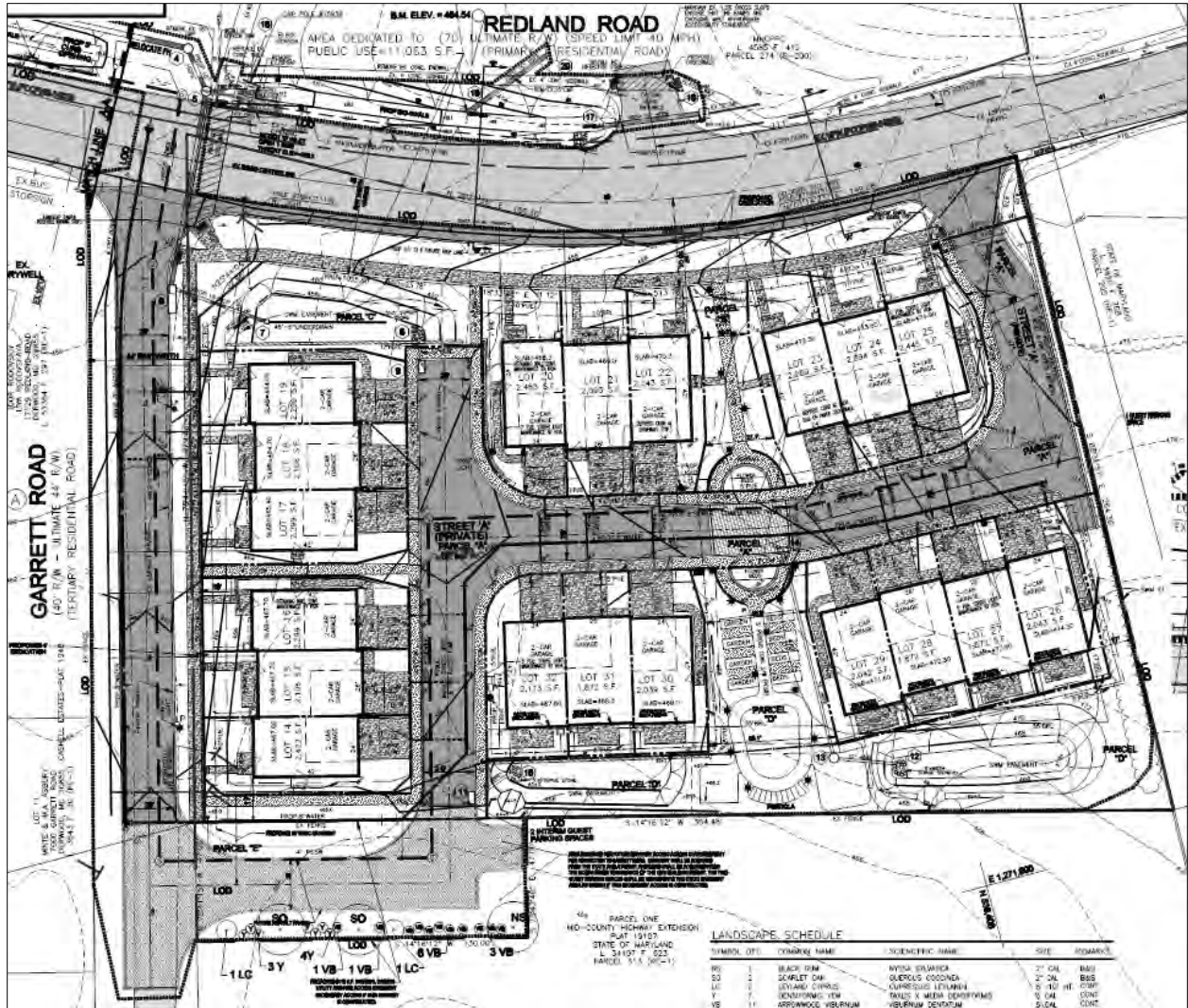


Figure 4 – Preliminary Plan

## BACKGROUND

### Design for Life

Cashell Estates CU2016-11 was the first application requesting to develop Townhouse Living Units as a conditional use under the Design for Life program. Townhouse Living was added to the Montgomery County Zoning Ordinance (Ch.59) as a conditional use in the RE-1 zone through the adoption of ZTA 15-02. Introduction of the townhouse living conditional use was one of the ways the Montgomery County Council sought to implement the objectives of the “Design for Life Montgomery” legislation. The intent of the Design for Life program is to increase the number and variety of dwelling units in Montgomery County that are integrated into existing communities and fully accessible to all, including those with mobility or physical disability.

The tax credit portion of the Design for Life program is intended to incentivize the renovation of existing structures with accessible features. The second way to increase the accessible housing stock is through new construction. As part of the Design for Life program new construction of accessible units was incentivized by the adoption of ZTA 15-02 which allows for an increase in the number of dwelling units per acre on the qualifying properties over the base zoning density if the Application meets the conditional use standards in Section 3.3.1.D.

### COMPLIANCE WITH PREVIOUS APPROVALS

The Montgomery County Hearing Examiner granted approval of Conditional Use CU2016-11, with conditions, pursuant to Section 59-3.1.D.2.(B) of the Zoning Ordinance, to construct up to 19 Townhouse Living Units (“Conditional Use”) (Attachment C). Landscape and Lighting plans were approved as part of the Conditional Use application. To address Staff and MCDOT comments, minor changes to the approved Conditional Use were necessary. The modifications include adding a second access point, from Garrett Road, relocation of two guest parking spaces and limited changes to the landscaping plan.

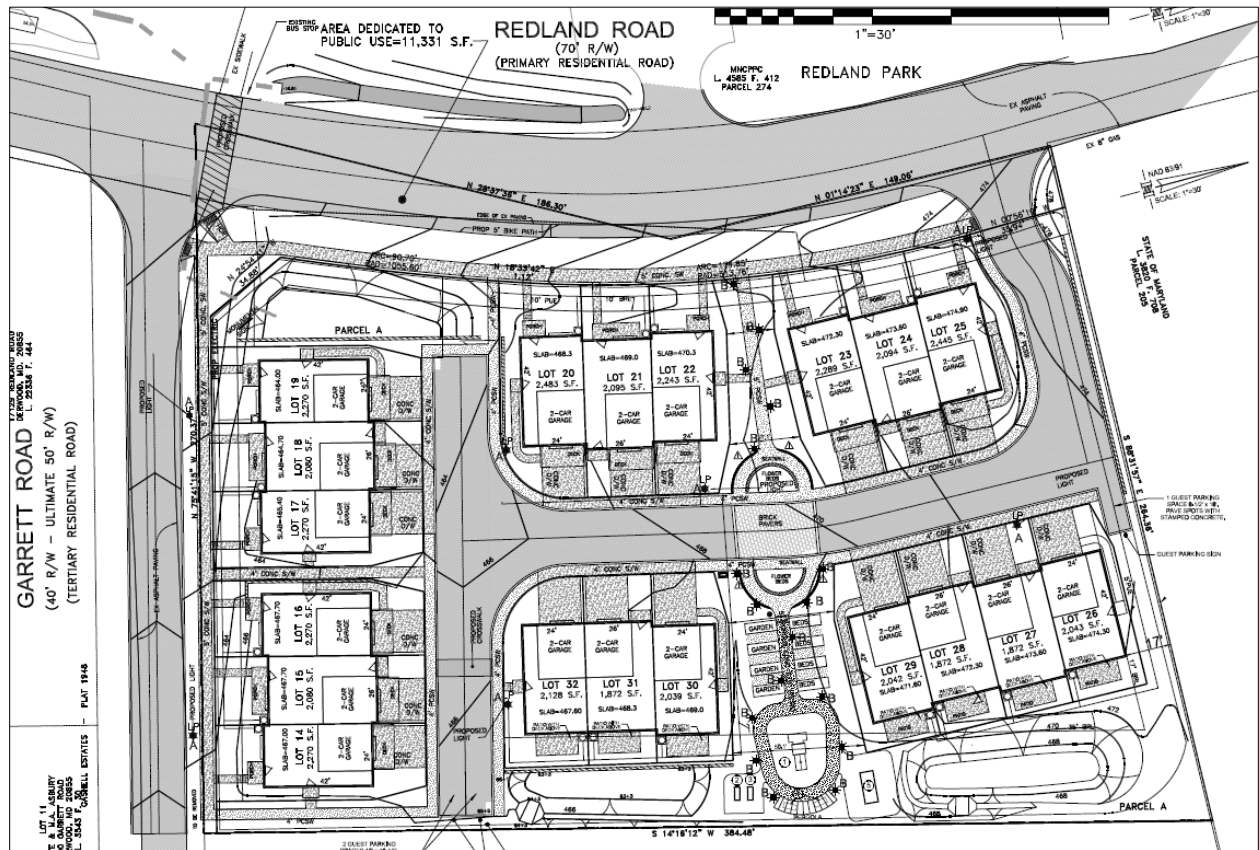


Figure 5 – Approved Conditional Use Plan

The Application remains substantially unchanged from what was approved by the Hearing Examiner. As conditioned, the Preliminary Plan will comply with the conditions of the Conditional Use approval. Prior

to recordation of the plat, the Applicant is required to file an amendment with the Hearing Examiner which reflects the changes mentioned above.

## SECTION 4 - ANALYSIS AND FINDINGS

### A. Conformance to the Master Plan

The Hearing Examiner found that Conditional Use CU2016-11 substantially conformed with the *2004 Upper Rock Creek Area Master Plan*. The proposed Preliminary Plan does not include any substantial changes to the lot configuration and statement of operations that were included in the record of the Conditional Use application. However, the layout has been modified slightly with the addition of a second access point, as discussed below. While not reviewed as part of CU2016-11, the secondary entrance does not conflict with the Hearing Examiner's finding that CU2016-11 conforms to the Master Plan. Therefore, this Application is also in substantial conformance with the Master Plan.

As discussed at the time of the Conditional Use review, the Master Plan does not make specific recommendations for the Subject Property, but as noted below, makes general land use and zoning recommendations for the area in which the Property is located.

The Master Plan focused on preserving environmental resources in the sensitive Upper Rock Creek watershed, maintaining the fabric of existing communities and enabling environmentally sensitive new development. To achieve a balance among these objectives, the Master Plan recommended low-density cluster development in the area north of Muncaster Mill Road, allowing public sewer service to large developing properties and creating a Special Protection Area to help preserve natural resources. An environmental overlay zone, with an eight percent limit on impervious surfaces, helped to implement these recommendations. The *Upper Rock Creek Master Plan* did not include in the Special Protection Area the portion of the watershed south of Muncaster Mill Road, which is largely developed and includes the Subject Property.

The Master Plan also endorsed the County's Housing Policy, which *"stresses the provision of affordable housing, or assistance to those with diverse housing needs, such as the elderly, the physically disabled and those with mental illness, and of equal opportunity in seeking housing."* (MP, p 35) The Master Plan recognized that preservation of natural resources and low density residential character limited the universe of housing options. It recommended several specific sites as suitable for additional affordable housing and endorsed expansion of the Moderately Priced Dwelling Unit program to large lot zones.

The Master Plan reconfirmed existing land uses and zones in the area south of Muncaster Mill Road. The Subject Property is in the RE-1 Zone. Land to the east and south is in the R-200 Zone. The Master Plan notes that development in this area occurred in the 1960s and *"did not entirely conform to the General Plan's policy recommendations, which in this area translated into residential densities of about one unit for every two acres."* (MP, p 3) The 1964 General Plan recommended a rural pattern for large parts of the county, including the Upper Rock Creek watershed, that would contribute to creation of a wedge that would mold *"the urban corridors, providing open space for recreation, enabling the continuation of farming and natural resource activities and conserving natural resources."*

The Master Plan notes that *"land along Needwood and Redland Roads was reclassified to half-acre zones—in part because trunk sewer lines had already reached the area—and residential subdivisions were*

*approved at this density.*" (MP, p 3) The R-200 communities in the vicinity of the Subject Property were initially laid out in the mid-sixties, and their creation, contrary to the General Plan's recommended policy, prompted preparation of the *1968 Master Plan for the Rock Creek Planning Area*. The RE-1 Zone placed on the Property and other land along Redland Road is consistent with a longstanding planning vision for this part of the Upper Rock Creek watershed. The Master Plan does not forbid conditional uses in this area, nor did it foresee the introduction of new uses that could further accomplish the housing goals recommended in the Master Plan.

The project falls under the category of Townhouse Living which is a limited or conditional use in the RE-1 Zone. In general, conditional uses are considered appropriate when subject to an additional layer of regulatory scrutiny. In this case, the focus is on accessibility for broad ranges of residents. With conformance to the conditional use standards and recommended conditions of approval, the Hearing Examiner found that this use is consistent with the Master Plan's land use and housing goals. It will enable the integration of additional housing in Upper Rock Creek suitable for people with special needs, an important objective of the Master Plan.

#### Master Plan Transportation Facilities

The following summarizes recommendations included in the *2004 Approved and Adopted Upper Rock Creek Master Plan*, *2005 Countywide Bikeways Functional Master Plan* and the *2018 Bicycle Master Plan Update (in progress)*, and the *2009 Intercountry Connector Limited Functional Master Plan Amendment – Bikeways and Interchanges* along the property frontage:

- Redland Road is a two lane road, with a posted speed limit of 35 MPH and is designated in the *2004 Approved and Adopted Upper Rock Creek Master Plan* as a Primary Residential Street (P-7) with an ultimate right-of-way of 70 feet between Needwood Road and Muncaster Mill Road.
- Bike lanes (BL-29) were designated on Redland Road between Needwood Road and Muncaster Mill Road as part of the *2005 Countywide Bicycle Functional Master Plan*. The in-process *2018 Bicycle Master Plan Update* recommends these same bike lanes as well as a side path on the north side of the road, opposite the Subject Property. Therefore, the Applicant will construction a five and one-half (5.5)-foot-wide bike lane along the frontage of the Subject Property on Redland Road abutting the current pavement edge.
- Garrett Road is not a currently classified road. With the removal of the one house on the subject property and the addition of the 19 townhomes for the Cashell Estates property, as well as future possible development on the state-owned parcel to the east of the Subject Property, the road will at no point in the future serve 75 or more dwelling units. Therefore, Staff recommend that Garrett Road be classified as a Tertiary Residential Street.
- Midcounty Highway Extended (M-83) is proposed to intersect Redland Road just north of the property and connect Shady Grove Road with the Intercountry Connector (ICC). This road is planned to be a four to six lane divided Major Highway (M-83) with an ultimate right-of-way of 150 feet.

The Application takes into consideration the necessary dedication and right-of-way improvements recommended in the aforementioned master plans. The Applicant is dedicating approximately 35 feet of

right-of-way from the existing centerline along the Subject Property's frontage on Redland Road to the Property edge to achieve the full master planned right-of-way width on their side of the road.

Garrett Road is currently improved within a 40-foot wide right-of-way with a variable pavement width of 16 feet to 18 feet along the frontage of the Property. Garrett Road was a through road at one point but was bisected when the ICC was constructed. Garrett Road is approximately 600 feet long and terminates in a non-standard cul-de-sac (constructed by SHA). The Applicant is dedicating an additional four feet along the Subject Property's frontage which will provide the 22' from the centerline required to fulfill their portion of the ultimate 44' right-of-way width and the ultimate 44' right-of-way width (modified Tertiary, MC-2001.01). The Applicant also proposes to widen the pavement on Garrett Road to meet the full 20' pavement width along the frontage of their property and the additional access easement to the east of the Property.

During the review of the Preliminary Plan it became evident that the Conditional Use review did not adequately address the proximity of the project's access onto Redland Road with the future planned intersection of Redland Road and the Midcounty Highway Extension recommended in both the *2004 Approved and Adopted Upper Rock Creek Master Plan* and the *2009 Intercounty Connector Limited Functional Master Plan – Bikeways and Interchanges*. Without knowing the details of the future planned intersection or interchange because no study had been completed, SHA deferred all decisions regarding the future intersection/interchange to Montgomery County in a letter dated May 31, 2017 (Attachment D). Therefore, MCDOT found it necessary to plan for an alternative access point to the project in the case that the spacing between the two intersections would not be safe. (The intersections could be as close as 120 feet apart, and while there is no express requirement in the old Subdivision Regulations for intersection spacing, it is clear that the intersections would be spaced too close together from a safety standpoint should MidCounty Highway be implemented.) After coordination with MCDOT, the Applicant suggested in a letter dated May 1, 2017 that they be granted approval of the project provided they permit and bond an additional access onto Garrett Road prior to the issuance of the 10<sup>th</sup> building permit. Since permitting and bonding would require the Applicant to pay for the alternative road connection, Planning and MCDOT staff have coordinated to condition that the alternative access be permitted and bonded prior to the 10<sup>th</sup> building permit and built prior to issuance of the 17<sup>th</sup> building permit (not the 16<sup>th</sup> as indicated in MCDOT's approval letter). Requiring the alternative access be built at this time prevents the issue of when to release the bond, provides no adverse effect to nearby residences, and ensures safe access to the Subject Property should future road connections to Midcounty Highway and/or the ICC be implemented.

## **B. Adequate Public Facilities Review (APF)**

### **Local Area Transportation Review (LATR)**

The Application was accepted after January 1, 2017 and therefore was reviewed under the new 2016-2020 Subdivision Staging Policy and Local Area Transportation Review (LATR) Guidelines in effect currently. The Applicant's consultant provided a traffic statement which states that the proposed development of 19 dwelling units will generate 13 morning peak hour person trips and 15 evening peak hour person trips (Attachment E). Based on the traffic statement, the development will generate fewer than 50 peak hour person trips during the morning or evening peak hours. Therefore, this project is exempt from the LATR.

The Preliminary Plan has been evaluated by M-NCPPC Staff (“Staff”) and the Montgomery County Department of Transportation, which supports the transportation elements of the Preliminary Plan as indicated in a letter dated March 8, 2018 (Attachment F). The proposed access to the Subject Property, as shown on the Preliminary Plan, is adequate to serve the development and the alternative Garrett Road access provides access should M-83 be constructed.

Other Public Facilities and Services

The Subject Property is in sewer category S-3 and water category W-3 which is consistent with the Applicant’s proposal to connect to public water and sewer which are available and adequate to serve the development.

The Application has been reviewed by the MCDPS Fire Code Enforcement Section, which determined that the Property has adequate access for fire and rescue vehicles by transmittal dated March 1, 2018. (Attachment G).

Other public facilities and services, such as police stations, firehouses and health services are currently operating within the standards set by the 2016-2020 Subdivision Staging Policy.

School Adequacy Analysis

**Calculation of Student Generation**

To calculate the number of students generated by the proposed development, the number of dwelling units is multiplied by the applicable student generation rate for each school level. Dwelling units are categorized by structure type: single family detached, single family attached (townhouse), low- to mid-rise multifamily unit, or high-rise multifamily unit.

**Per Unit Student Generation Rates**

	<b>Elementary School</b>	<b>Middle School</b>	<b>High School</b>
<b>SF Detached</b>	0.204	0.111	0.150
<b>SF Attached</b>	0.234	0.111	0.147
<b>MF Low- to Mid-Rise</b>	0.212	0.084	0.112
<b>MF High-Rise</b>	0.072	0.029	0.038

For the proposed project, with 19 single family attached units replacing one single family detached unit, the following number of students will be generated:

<b>Type of Unit</b>	<b>Net Number of Units</b>	<b>ES Generation Rates</b>	<b>ES Students Generated</b>	<b>MS Generation Rates</b>	<b>MS Students Generated</b>	<b>HS Generation Rates</b>	<b>HS Students Generated</b>
<b>SF Detached</b>	-1	0.204	-0.204	0.111	-0.111	0.150	-0.150
<b>SF Attached</b>	19	0.234	4.446	0.111	2.109	0.147	2.793
<b>TOTAL</b>	<b>18</b>		<b>4</b>		<b>1</b>		<b>2</b>

This project is estimated to generate 4 elementary school students, 1 middle school student and 2 high school students.

### Cluster Adequacy Test

There is sufficient capacity within the school cluster to accommodate the estimated number of students generated by this project. The project is located in the Col. Zadok Magruder High School Cluster. Based on the FY18 Annual School Test results, the student enrollment and capacity projections for the Magruder Cluster are noted in the following table:

School Level	Projected Sept. 2022 Enrollment	100% Projected MCPS Program Capacity, 2022	Cluster % Utilization 2022-2023	Moratorium Enrollment Threshold	Projected Enrollment + Application Impact
Elementary	2,612	2,868	91.1%	3,442	2,616
Middle	1,283	1,603	80.0%	1,924	1,284
High	1,872	1,941	96.4%	2,330	1,874

The Moratorium Enrollment Threshold identified in the table is the enrollment at which the 120% utilization threshold is exceeded, resulting in a cluster-wide residential development moratorium. As indicated in the last column, the projected enrollment plus the estimated impact of this Application fall below the moratorium thresholds at all three school levels. Therefore, there is sufficient capacity at the elementary, middle and high school cluster levels to accommodate the estimated number of students generated by this project.

### Individual School Adequacy Test

The applicable elementary and middle schools for this project are Candlewood ES and Shady Grove MS, respectively. Based on the FY18 Annual School Test results, the student enrollment and capacity projections for these schools are noted in the following table:

School	Projected Sept. 2022 Enrollment	100% Projected MCPS Program Capacity, 2022	School % Utilization 2022-2023	Moratorium Enrollment Thresholds		Projected Enrollment + Application Impact
				120% Utilization	Seat Deficit	
Candlewood ES	360	516	69.8%	620	626	364
Shady Grove MS	632	846	74.7%	1,016	1,026	633

Under the individual school adequacy test, a school is deemed inadequate if the projected school utilization rate exceeds 120% and if the school seat deficit meets or exceeds 110 seats for the elementary school or 180 seats for the middle school. If a school's projected enrollment exceeds both triggers, then the school service area is placed in a residential development moratorium.

The Moratorium Enrollment Thresholds identified in the table above are the enrollments at which the 120% utilization threshold and the seat deficit threshold are exceeded. As indicated in the last column, the projected enrollment plus the estimated impact of this Application fall below the applicable moratorium thresholds for both Candlewood ES and Shady Grove MS.



Based on the school cluster and individual school capacity analysis performed, there is adequate school capacity for the amount and type of development proposed by this Application.

**C. Compliance with the Subdivision Regulations and Zoning Ordinance**

This Application has been reviewed for compliance with the Montgomery County Code, Chapter 50, the Subdivision Regulations that were in effect prior to February 13, 2017. The lot size, width, shape and orientation are appropriate for the location of the subdivision taking into account that the Subject Property was approved for up to 19 townhouses as a Conditional Use<sup>1</sup>. The Conditional Use Application took into consideration the applicable Master Plan recommendations, open space requirements and layout if the development in addition to the density and development standards outlined in Section 59-4.4.12.C.

**Table 1 - Development Standards  
TMD Zone Option Method of Development**

<b>Development Standards</b>	<b>Required/Allowed</b>	<b>Proposed/Provided</b>
Dimensions		
Tract Area	2 acres	2 acres
<ul style="list-style-type: none"> <li>Usable Area (Min.)</li> </ul>	20,000 S.F.	75,872 S.F.
Density (Max units/usable area)	26 units	19 units
Common Open Space (Min.)		
<ul style="list-style-type: none"> <li>Percent of Usable Area</li> </ul>	20% (15,174 S.F.)	31.02% (23,631 S.F.)*
Minimum Lot Area	800 S.F.	1,872 S.F.
Lot width at front building line	24 ft.**	24 ft.
Lot width at front lot line	14 ft.	24 ft.
Frontage on street or open space	Required	Provided
Coverage		
<ul style="list-style-type: none"> <li>Maximum Site Coverage</li> </ul>	40%	26.02% (19,740 S.F.)
Minimum Building Setback		
<ul style="list-style-type: none"> <li>Front (from public street)</li> <li>Front (from private street or open space)</li> <li>Side street setback</li> <li>Rear setback ally</li> <li>Side yard setback, abutting property not in Application (SHA to the north)</li> </ul>	10 ft. 4 ft. 5 ft. 4 ft. 17 ft.	12 ft. 22 ft. NA NA 17 ft.

<sup>1</sup> The Subject Property is zoned RE-1, however, the density and development standards of the RE-1 zone do not apply to Townhouse Living as a Conditional Use in the RE-1 zone. Section 59-3.3.1.D.2.b.iiv states that “the density limitations and development standards of the TMD zone under optional method (Section 4.4.12.C) apply despite any other limitation in this Chapter.” Therefore, the Application was reviewed for compliance with the development standards of the TMD zone under the optional method of development. Table 1, below, summarized staffs review of the Application.

<ul style="list-style-type: none"> <li>• Rear setback, abutting property not in Application (SHA to the east)</li> </ul>	35 ft.	35 ft.
Maximum Building Height	40 ft.	39 ft. max.
Parking Requirements (59.6.2.4)		
<ul style="list-style-type: none"> <li>• Handicap accessible spaces</li> <li>• Standard spaces</li> <li>• Guest parking</li> </ul>	1 space per lot 2 spaces per lot NA	19 spaces 38 spaces 3 spaces
Total Parking on-site:	38 spaces	60 spaces min.

\* The proposed common open space does not entirely meet the 50-foot minimum width requirement of Section 6.3.5.B.2 and requires an exception be granted by the deciding body. The width ranges from 18 feet at the west to 50 feet at the west (widest point). Although the space does not meet the width requirement, Staff believes that an exception is warranted because the open space fully meets the intent of Division 6.3. As described on page 13 of this report, the proposed common space meets the intent because it is centrally located within the development, provides a break between the individual rows of townhouses, provides passive and active recreation including seating, a pergola, accessible garden beds and specialty play equipment designed for those with disabilities. The space is well connected with sidewalks and will be a welcoming space for visitors and residents.

\*\*Minimum lot width at front building line was established as part of the Conditional Use because Site Plan is not required

The lots were reviewed for compliance with the dimensional requirements for the TMD zone, under the Optional Method of Development as specified in the Zoning Ordinance. A summary of this review is included in Table 1. The Application has been reviewed by other applicable county agencies, all of whom have recommended approval of the Application.

#### **D. Environment**

##### **Forest Conservation Plan**

This Application meets the requirements of Chapter 22A of the Montgomery County Forest Conservation Law. A Natural Resource Inventory/Forest Stand Delineation (NRI/FSD) was approved for the Property on June 23, 2015. There are no forests or environmentally sensitive features on the Property. A Preliminary Forest Conservation Plan (Attachment H) was approved by the Planning Board on October 6, 2016 as part of a Conditional Use Application, Plan No. CU2016-11. This project is not being built under the Optional Method for Development. As a result, Section 22A-12(f), the Montgomery County code requiring that afforestation be met onsite, does not apply. However, development of this Property generates a 0.42-acre afforestation planting requirement which will be met by purchasing the necessary credits in an off-site forest mitigation bank.

##### **Forest Conservation Variance**

Section 22A-12(b)(3) of Montgomery County Forest Conservation Law provides criteria that identify certain individual trees and other vegetation as high priority for retention and protection. The law requires that there be no impact to: trees that measure 30 inches or greater DBH; are part of an historic site or designated with an historic structure; are designated as a national, State, or County champion trees; are at least 75 percent of the diameter of the current State champion tree of that species; or trees, shrubs, or plants that are designated as Federal or State rare, threatened, or endangered species. Any impact to high priority vegetation, including disturbance to the critical root zone (CRZ) requires a variance. An applicant for a variance must provide certain written information in support of the required findings in

accordance with Section 22A-21 of the County Forest Conservation Law. Development of the Property requires impact to trees identified as high priority for retention and protection, therefore, the Applicant has submitted a variance request for these impacts.

#### Variance Request

The Applicant submitted a variance request in a letter dated January 29, 2016 as part of the Preliminary Forest Conservation Plan application. Both the Preliminary Forest Conservation Plan and the variance request were approved by the Planning Board on October 6, 2016.

#### Stormwater Management

The Preliminary Plan Application meets the stormwater management requirements of Chapter 19 of the County Code. The Applicant received a stormwater concept approval from MCDPS – Water Resources Division on March 2, 2018 (Attachment I). The Application will meet stormwater management goals by installing one micro-bioretenion facility and two landscaping infiltration facilities.

### **E. Citizen Correspondence and Issues**

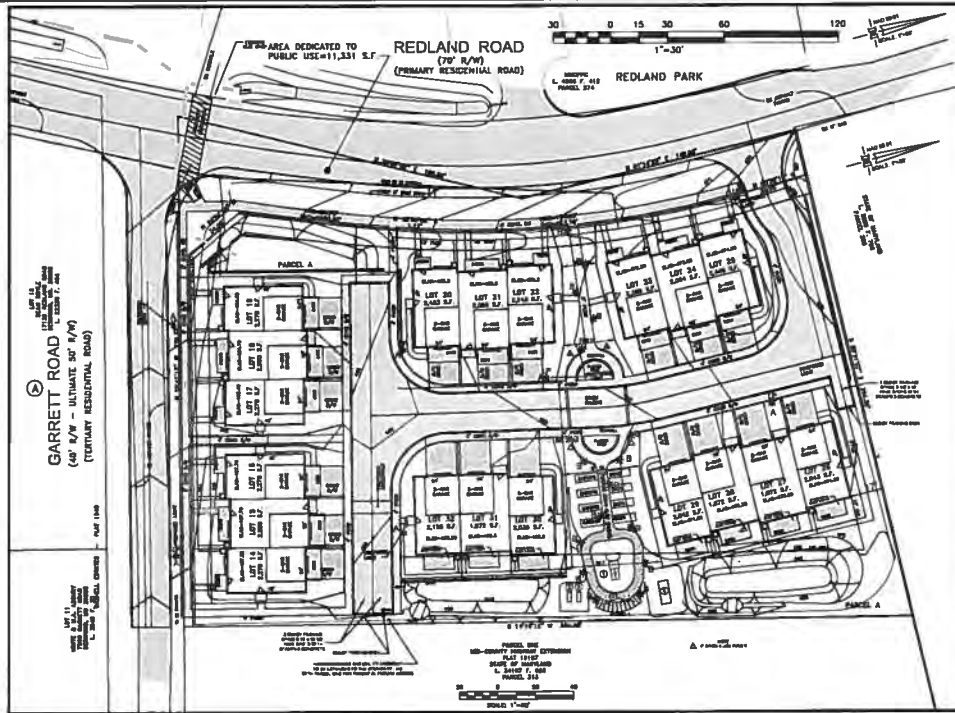
The Application was submitted and noticed in accordance with all required procedures. Application signs were posted along the Property's frontage on Redland. The Applicant held a pre-submission meeting with the citizens at 6:00 p.m. on November 14, 2016 at the Rockville Community Library. To date, Staff has not received any community inquiries or correspondence regarding this Application.

### **CONCLUSION**

The proposed lot meets all requirements established in the Subdivision Regulations and the Zoning Ordinance and substantially conform to the recommendations of the *2004 Approved and Adopted Upper Rock Creek Master Plan*. Access and public facilities will be adequate to serve the proposed subdivision. The FFCP meets all applicable requirements of Chapter 22A of the County Code. The Application has been reviewed by other applicable county agencies, all of which have recommended approval of the Preliminary Plan. Therefore, Staff recommends approval of the Application with the conditions as specified above.

### **Attachments**

- A. Conditional Use No. CU2016-11
- B. Parks Department letter
- C. Notification of Hearing Examiner's Decision
- D. SHA Letter
- E. Traffic Statement
- F. MCDOT amended letter
- G. MCDPS Fire Code Enforcement Section letter
- H. Preliminary Forest Conservation Plan
- I. MCDPS Water Resources Division letter



VICINITY MAP  
SCALE: 1" = 2000'  
ADC MAP 46 - GRID B/C-3

**GENERAL NOTES**

1. SITE ADDRESS IS 7008 GARRETT ROAD, DERWOOD, MD 20856
2. TAX ID. NUMBERS: 04-001181218
3. PLAT REFERENCE: PLAT 2038
4. DEED REFERENCE: LIBERTY 48877 FOLIO 28A.
5. SITE IS LOCATED ON TAX MAP DT-341.
6. SITE IS LOCATED ON WSSC 200 SHEET No. 223-WH-07.
7. EXISTING WATER AND SEWER CATEGORY IS W-3 & S-3.
8. SITE HAS EXISTING WATER AND SEWER AVAILABLE.
9. EXISTING ZONING IS RC-1
10. EXISTING SOILS ARE Z8, CLEVELAND SILT LOAM, 3-ISE SLOPES.
11. BOUNDARY SURVEY FROM SURVEY PREPARED BY PG ASSOCIATES, INC. DATED APRIL, 2015.
12. TOPOGRAPHY BY FIELD SURVEY BY P.A. ASSOCIATES, INC. JUNE 2014.
13. WATERSHED: UPPER ROCK CREEK, CLASS IV
14. UTILITY COMPANIES:  
ELECTRIC: PEPCO  
WATER & SEWER: WSSC  
TELEPHONE: VERIZON  
CITY: COMCAST
15. OWNER: GARRETT GATEWAY PARTNERS, LLC  
18220 FREDERICK ROAD, SUITE 300  
CARTHERSBURG, MD, 20817  
PHONE: 301-208-0230
16. TOTAL DISTURBED AREA: 108,000 S.F.

**DEVELOPMENT DATA**

1. TOTAL TRACT AREA = 87,303 S.F. OR 2.00181 ACRES
2. DEDICATION TO PUBLIC USE = 11,331 S.F. OR 0.26011 ACRES
3. NET TRACT AREA = 75,972 S.F. OR 1.74180 ACRES
4. THIS PROJECT SHALL BE DEVELOPED UNDER THE DESIGN FOR LIFE PROVISIONS OF ORDINANCE 18-02 AND AS MODIFIED BY ZTA-15-08. THE CONDITIONAL USE PLAN SHALL BE DESIGNED PER SECTION 4-412.C. TOWNHOUSE MEDIUM DENSITY ZONE (TMZ), OPTIONAL METHOD DEVELOPMENT STANDARDS.

**DATA TABLE/DEVELOPMENT STANDARDS**

ELEMENTS	REQUIRED / ALLOWED	PROPOSED
<b>SITE</b>		
DIMENSIONS (MIN)	20,000 S.F.	75,872 S.F.
USABLE AREA		40,785 S.F.
LOTS		35,107 S.F.
PARCEL A		18 UNITS
DENSITY (MAX)	15.23/1,744	
UNITS / AREA OF USABLE AREA	28 UNITS	
COMMON OPEN SPACE (MIN)	20%	23.537 S.F.
% OF USABLE AREA		31.02%
SITE COVERAGE (MAX)	40%	18,740 S.F.
		28.02%
<b>LOTS</b>		
LOT AREA (MIN)	800 S.F.	1,872 S.F.
LOT COVERAGE(MAX)	N/A	54%
<b>PLACEMENT</b>		
PRINCIPLE BUILDING SETBACKS (MIN)		
FRONT SETBACK FROM PUBLIC STREET	10'	12' MIN
FRONT SETBACK FROM PRIVATE STREET OR OPEN SPACE	4'	22' MIN
SIDE STREET SETBACK	5'	10' MIN
REAR SETBACK ALLY	4'	N/A
HEIGHT (PRINCIPAL STRUCTURE)	40'	36' MAX.
(ACCESSORY STRUCTURE)	23'	N/A
SIDEYARD SETBACK, ABUTTING PROPERTY NOT IN APPLICATION	17'	
REAR SETBACK ABUTTING PROPERTY NOT IN APPLICATION	35'	35'
<b>PARKING</b>		
HANDICAP ACCESSIBLE SPACE PER LOT	1 SPACE	1 SPACE
TOTAL PARKING PER LOT OR LOT	2 SPACES	3 SPACES
GUEST PARKING		37 SPACES
TOTAL PARKING (SITE)	38 SPACES	60 SPACES

# CASHELL ESTATES

A DESIGN FOR LIFE COMMUNITY

**PROFESSIONAL CERTIFICATION**

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE No. 18518, EXPIRATION DATE: 08/10/2017.

DEAN PACKARD, P.E.

GATE

**DRAWING INDEX**

No.	DESCRIPTION
1	COVER SHEET
2	CONDITIONAL USE PLAN, SHEET 1
3	CONDITIONAL USE PLAN, SHEET 2
4	LANDSCAPE & LIGHTING PLAN
5	LANDSCAPE & LIGHTING DETAILS
6	LANDSCAPE & LIGHTING DETAILS
7	PHOTOMETRIC PLAN

PACKARD & ASSOCIATES, LLC

CIVIL ENGINEERS & SURVEYORS & LAND PLANNERS  
16220 FREDERICK ROAD, SUITE 300  
CARTHERSBURG, MARYLAND 20817

PHONE (301) 208-0250 FAX (301) 208-1270

CONDITIONAL USE PLAN  
PROPOSED LOTS No. 14 thru 32 - BLOCK B

CASHELL ESTATES

PART OF LOT 5, BLOCK B  
RECORDED IN PLAT 2038  
MONTGOMERY COUNTY, MARYLAND

DATE	REVISION
N/A	OP
	BT
	8-08-18
	ADD FILE NAME

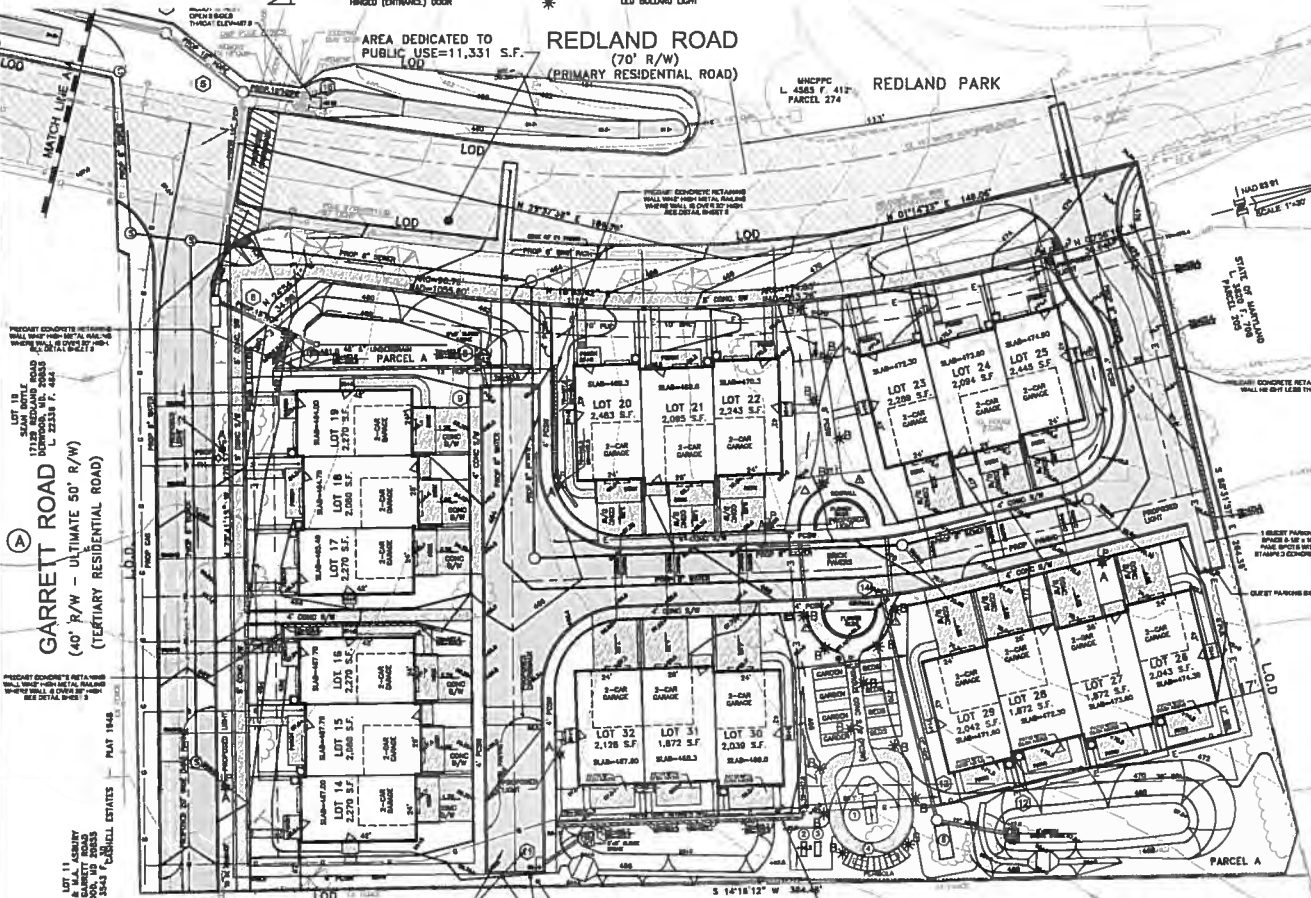
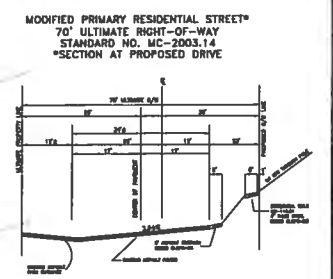
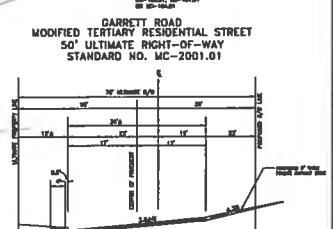
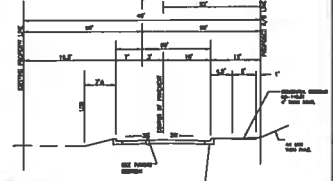
**LEGEND**

—	PROPERTY LINE	—	EXISTING UNDERGROUND GAS LINES
—	EXISTING CONTOUR	—	EXISTING UNDERGROUND ELECTRICAL LINES
—	PROPOSED CONTOUR	—	EXISTING UNDERGROUND TELEPHONE / CABLE LINES
—	LIMIT OF DETERMINANCE	—	EXISTING WOOD FENCE
—	ROOF TOP DISCONNECT FLOW PATH	—	EXISTING WIRE FENCE
—	TRICE LINE	—	EXISTING RAIL FENCE
—	EXISTING OVERHEAD LINES	—	PROPOSED SPOT GRADIES
—	EXISTING WATER LINES	—	SOIL TEST
—	EXISTING SEWER LINES	—	PERVIOUS CONCRETE SIDEWALK
—	EXISTING STORM SEWER	—	COLORHAL POST LED LIGHT/POLE
—	EXISTING DRAINAGE	—	LED BOLLARD LIGHT
—	HINGED (ENTRANCE) DOOR	—	

**SOIL DATA**

SYMBOL	DESCRIPTION	PRIME	HIGHLY	HYDRIC
2B	GLENGLE SILT LOAM 3-6% SLOPES	YES	NO	NO

NOTE: ALL SOIL ON SITE IS 2B, GLENGLE SILT LOAM.



**GARRETT ROAD**  
(40' R/W - ULTIMATE 50' R/W)  
(TERTIARY RESIDENTIAL ROAD)

LOT 18  
SEAN WATKINS  
1710 GARRETT ROAD  
DORHAM, MD 21043  
L 25331 P. 464

LOT 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32  
WATKINS & M.A. AGENCY  
16220 FREDERICK ROAD, SUITE 300  
GAITHERSBURG, MD 20877  
L 35543

PARCEL A

PARCEL ONE  
MID-COUNTY HIGHWAY EXTENSION  
PLAT 18107  
STATE OF MARYLAND  
L 34107 P. 523  
PARCEL 313

**PROFESSIONAL CERTIFICATION**

I, HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME,  
AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE  
STATE OF MARYLAND, LICENSE NO. 16318, EXPIRATION DATE: 08/10/2017.

DEAN PACKARD, P.E. DATE

**PACKARD & ASSOCIATES, LLC**  
CIVIL ENGINEERS & SURVEYORS & LAND PLANNERS  
16220 FREDERICK ROAD, SUITE 300  
GAITHERSBURG, MARYLAND 20877  
PHONE (301) 208-0250 FAX (301) 208-1270

**CONDITIONAL USE PLAN**  
PROPOSED LOTS No. 14 thru 32 - BLOCK B  
**CASHELL ESTATES**  
PART OF LOT 5, BLOCK B  
RECORDED IN PLAT 2018  
ROCKVILLE ELECTION DISTRICT No. 4, MONTGOMERY COUNTY, MARYLAND

Call "Auto Link" at 1-800-293-7777. All rates prior to the start of work. The accessor must verify all address utility companies with utility provided facilities in the area. If personal exceptions and have those facilities located by the utility companies prior to commencing construction. The accessor is responsible for compliance with requirements of Chapter 304 of the Montgomery County Code.



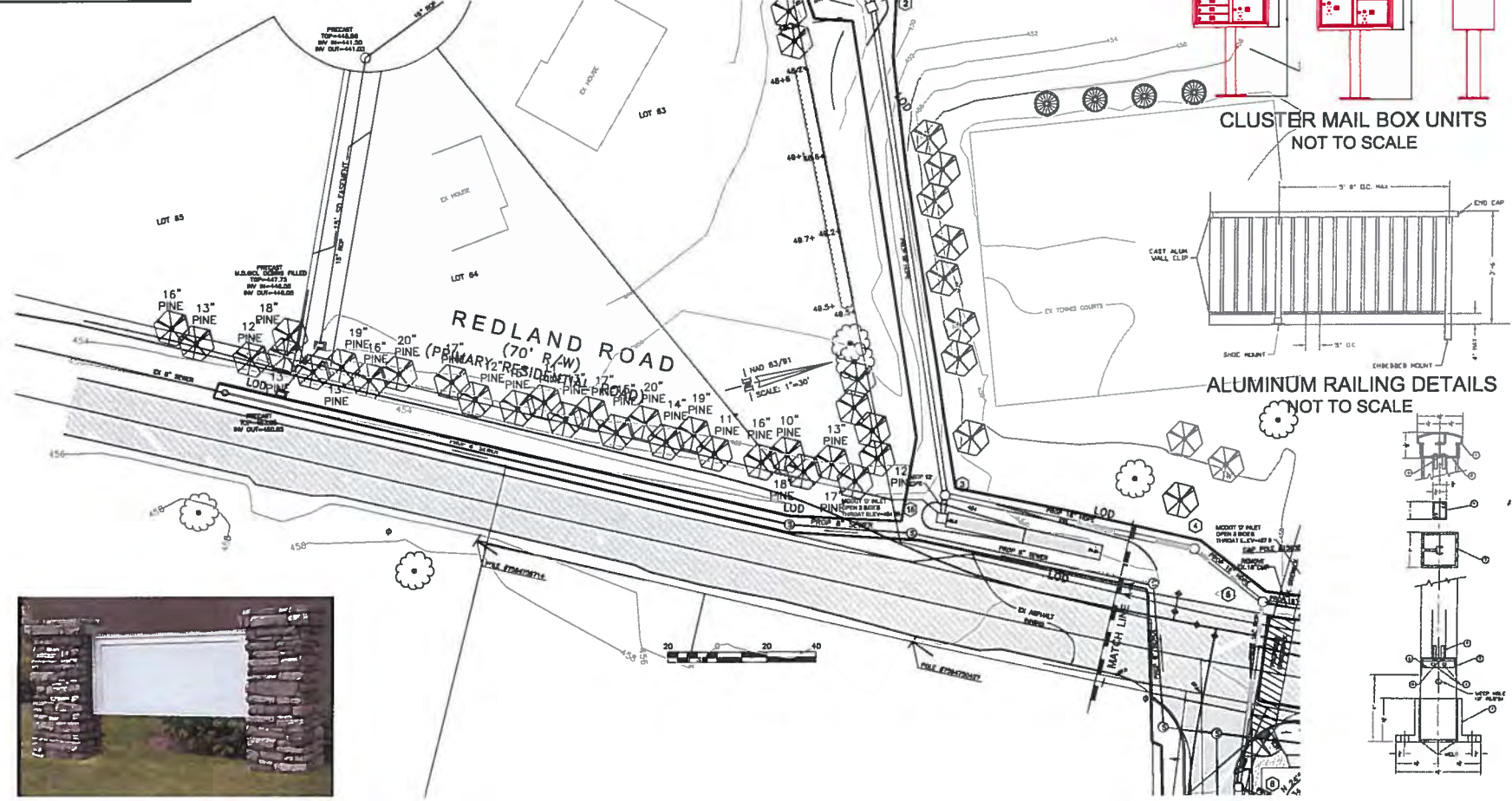
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—	EXISTING CONTOUR	—	EXISTING UNDERGROUND ELECTRICAL LINES
—	PROPOSED CONTOUR	—	EXISTING UNDERGROUND TELEPHONE / CABLE LINES
—	L.S.B.	—	EXISTING WOOD FENCE
—	LIMIT OF DISTURBANCE	—	EXISTING WIRE FENCE
—	ROCK TOP DISCONNECT FLOW PATH	—	EXISTING PAUL FENCE
—	TREE LINE	—	PROPOSED SPOT GRADES
—	EXISTING OVERHEAD LINES	—	PROPOSED DRY WELLS
—	EXISTING WATER LINES	—	SOIL BORING
—	EXISTING SEWER LINES		
—	EXISTING STORM DRAIN		

**SOIL DATA**

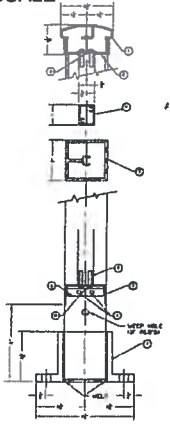
SYMBOL	DESCRIPTION	PRIME FARMLAND	HIGHLY ERODIBLE	HYDRIC
20	GLENELG SILT LOAM 3-8% SLOPES	YES	NO	NO

NOTE: ALL SOIL ON SITE IS 20, GLENELG SILT LOAM.



CLUSTER MAIL BOX UNITS  
NOT TO SCALE

ALUMINUM RAILING DETAILS  
NOT TO SCALE



60' x 30' x 4' PAINTED MONUMENTAL SIGN

MOSS UTILITY

Call "Moss Utility" at 1-800-257-7777 48 hours prior to the start of work. The excavator must notify all public utility companies with existing ground facilities in the area of proposed excavation and have those facilities located by the utility companies prior to commencing excavation. The excavator is responsible for compliance with requirements of Chapter 26A of the Montgomery County Code.

**PROFESSIONAL CERTIFICATION**  
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE No. 16518, EXPIRATION DATE: 06/10/2017.

DEAN PACKARD, P.E. DATE

**PACKARD & ASSOCIATES, LLC**  
CIVIL ENGINEERS & SURVEYORS & LAND PLANNERS  
16220 FREDERICK ROAD, SUITE 300  
GAITHERSBURG, MARYLAND 20877  
PHONE (301) 208-0250 FAX (301) 208-1270

**CONDITIONAL USE PLAN**  
PROPOSED LOTS No. 14 thru 32 - BLOCK B  
**CASHELL ESTATES**  
PART OF LOT 5, PLAT 2038  
RECORDED IN PLAT 2038  
ROCKVILLE ELECTION DISTRICT No. 4  
MONTGOMERY COUNTY, MARYLAND

SCALE	1"=20'	1"=10'
DATE	5-12-16	
SHEET 3 of 7		

**LEGEND**

—	PROPERTY LINE	—	EXISTING UNDERGROUND GAS LINES
- - -	EXISTING CONTOUR	—	EXISTING UNDERGROUND ELECTRICAL LINES
—	PROPOSED CONTOUR	- - -	EXISTING UNDERGROUND TELEPHONE / CABLE LINES
—	LIMIT OF DISTURBANCE	—	EXISTING WOOD FENCE
—	ROOF TOP DISCONNECT FLOW PATH	—	EXISTING WIRE FENCE
—	TREE LINE	—	EXISTING RAIL FENCE
—	EXISTING OVERHEAD LINES	—	PROPOSED SPOT GRADES
—	EXISTING WATER LINES	—	PROPOSED LIGHT POLES
—	EXISTING SEWER LINES	—	PROPOSED TREE/SHRUB 20 YR GROWTH DIAMETER
—	EXISTING STORM DRAIN	—	PREVIOUS CONCRETE SIDEWALK
		—	LED BOLLARD
		—	PLAYGROUND EQUIPMENT

**LANDSCAPE SCHEDULE**

SYMBOL	QTY	COMMON NAME	SCIENTIFIC NAME	SIZE	REMARKS
SM	17	SUGAR MAPLE	ACER SACCARUM	3" CAL	869
SD	17	SHARLOT OAK	QUERCUS CECROGIA	2" CAL	869
WD	18	WHITE DOGWOOD	CORNUS FLORIDA	1-1/2" CAL	869
CM	8	TORONTO CRAPE MYRTLE	LACONOSTOMA (MOCHA X FAURE) 'TORONTO'	1-1/2" CAL	869
MA	3	SWEETBAY MAGNOLIA	MAGNOLIA VIRGINIANA	1-1/2" CAL	869
KC	4	KIWANSH CHERRY	PRUNUS SEROTINA 'KIWANSH'	1-1/2" CAL	869
RB	4	EASTERN REDBUD	CERCIS CANADENSIS	1-1/2" CAL	869
AM	15	EMERALD GREEN ARBOVITAE	TAXUS SCODICENSIS 'EMERALD GREEN'	8"-10" HT.	CONT.
LC	13	LEYLAND CYPRUS	CUPRESSUS LEYLANDII	8"-10" HT.	CONT.
SJ	39	SPYROCKET JUMPER	JUNIPERUS SCOPULORUM	5"-6" HT.	CONT.
Y	77	DOGSFORME YEW	TAXUS MEDIA DOGSFORME	3" CAL	CONT.
NH	28	MELLE STEVENS HOLLY	ILEX 'MELLE R STEVENS'	3" CAL	CONT.
VB	58	ARROWWOOD VIBURNUM	VIBURNUM DENTATUM	3" CAL	CONT.
AZ	18	AZALEA	AZALEA	3" CAL	CONT.



**VICINITY MAP**  
SCALE: 1" = 2000'  
ADC MAP 48 - GRID B/C-3

**REDLAND ROAD**  
(70' R/W)  
(PRIMARY RESIDENTIAL ROAD)

MHCPC  
L. 4585 F. 412  
PARCEL 274

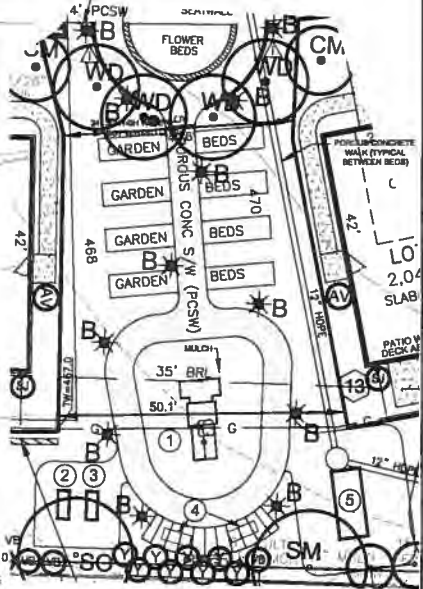
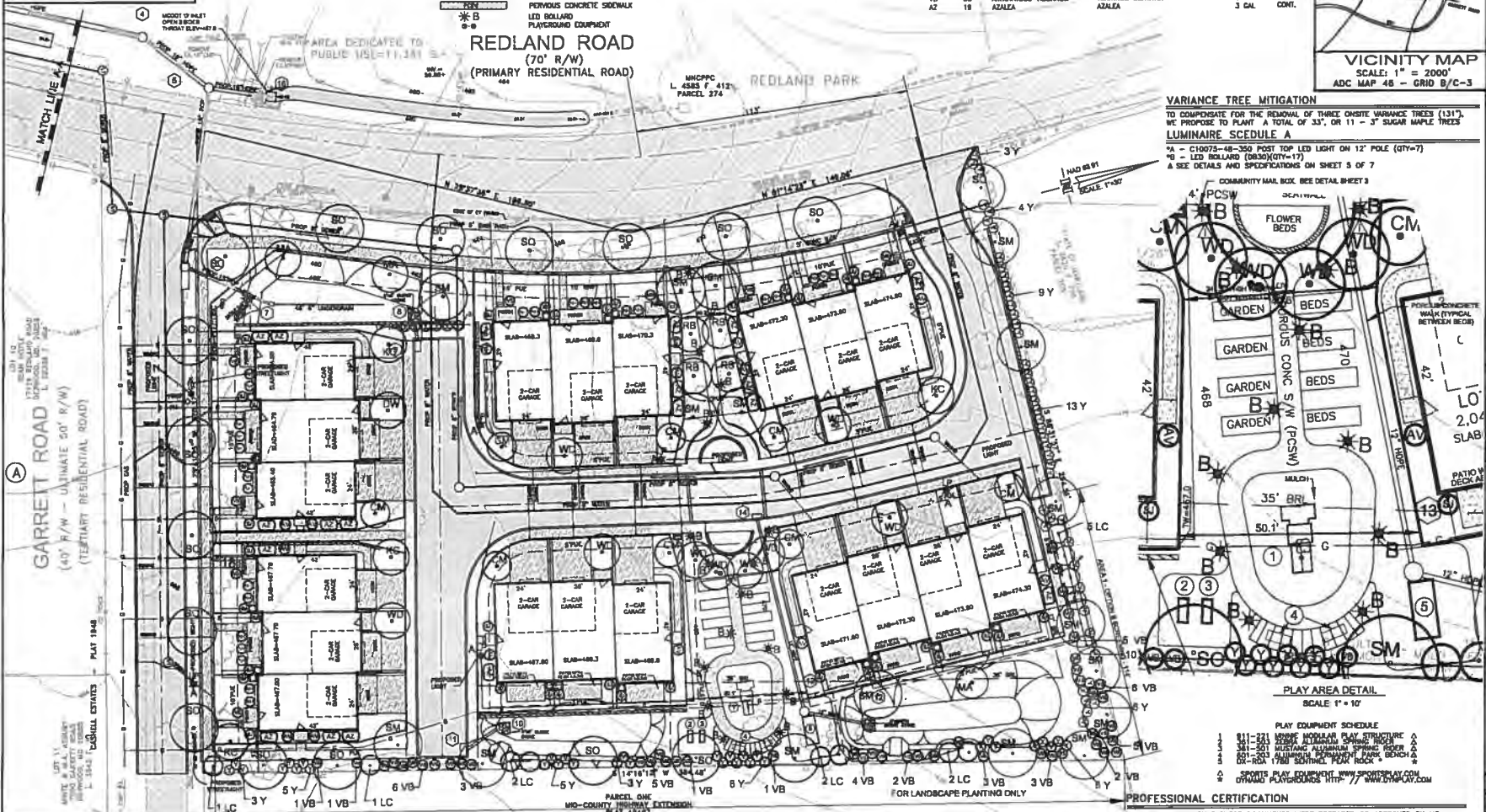
**REDLAND PARK**

**VARIANCE TREE MITIGATION**  
TO COMPENSATE FOR THE REMOVAL OF THREE ONSITE VARIANCE TREES (131'), WE PROPOSE TO PLANT A TOTAL OF 33', OR 11 - 3" SUGAR MAPLE TREES

**LUMINAIRE SCHEDULE A**

\*A - C10073-68-350 POST TOP LED LIGHT ON 12" POLE (QTY=7)  
\*B - LED REDLAND (QTY=17)  
SEE DETAILS AND SPECIFICATIONS ON SHEET 5 OF 7

COMMUNITY MAIL BOX, SEE DETAIL SHEET 3



**PLAY EQUIPMENT SCHEDULE**

811-821	SPRINT MONOLITH PLAY STRUCTURE
811-822	SPRINT MONOLITH SHADE HOUSE
811-823	SPRINT MONOLITH SPINNING REEFER
811-824	SPRINT MONOLITH PARK BENCH
811-825	SPRINT MONOLITH PARK BENCH
811-826	SPRINT MONOLITH PARK BENCH
811-827	SPRINT MONOLITH PARK BENCH
811-828	SPRINT MONOLITH PARK BENCH
811-829	SPRINT MONOLITH PARK BENCH
811-830	SPRINT MONOLITH PARK BENCH

**PROFESSIONAL CERTIFICATION**  
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 143518, EXPIRATION DATE: 06/10/2017.

**NORTON LAND DESIGN**  
LANDSCAPE ARCHITECTURE + ENVIRONMENTAL PLANNING  
4000 CORNETT HALL DRIVE, 3RD FLOOR  
BALTIMORE, MD 21208  
WWW.NORTONLANDDESIGN.COM

STATE OF MARYLAND  
L. 34187 F. 833  
PARCEL 313  
SCALE: 1"=20'

MICHAEL A. NORTON  
MEMBER / COMAR 08.18.01  
QUALIFIED PROFESSIONAL  
REGISTERED LANDSCAPE ARCHITECT No. 3310  
ISA CERTIFIED ARBORIST

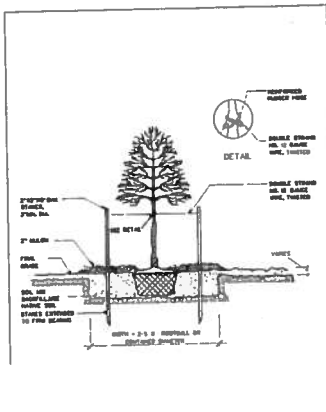
DEAN PACKARD, P.E.  
DATE

**PACKARD & ASSOCIATES, LLC**  
CIVIL ENGINEERS & SURVEYORS • LAND PLANNERS  
18220 FREDERICK ROAD, SUITE 300  
CHATTERTOWN, MARYLAND 20777  
PHONE (301) 208-0250 FAX (301) 208-1270

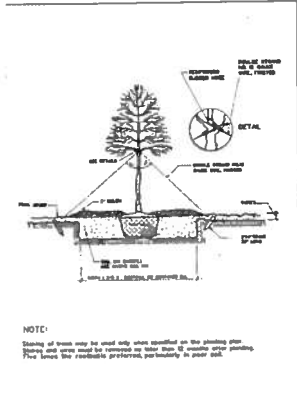
**LANDSCAPE & LIGHTING PLAN**  
PROPOSED LOTS No. 14 thru 32 - BLOCK B  
**CASHELL ESTATES**  
PART OF LOT 5, BLOCK B  
RECORDED IN PLAT 2038  
ROCKVILLE ELECTION DISTRICT No. 4 MONTGOMERY COUNTY, MARYLAND

DATE	11-27	DATE	06-25-2018
SCALE	1"=20'	SCALE	1"=20'
SHEET 4 of 7			

### STAKED TREE SPECIFICATION(2)



### STAKED TREE SPECIFICATION(1)



#### 3.1) Example Materials

The laminate shall meet the requirements of American Association of State Highway and Transportation Officials (AASHTO) Standard, "Specification for Synthetic Linings for Highway Signs, Luminaires and Traffic Signals," listed below.

#### 3.2) Signs and Minimum Size

4) The luminaire shall be of a standard shape. The minimum size for the luminaire shall be based on the length plus height, when viewed from the side.

5) The luminaire shall be suitable to accommodate LED's with E17 or E19. The LED's shall be spaced evenly and shall be of the same color and wattage.

#### 3.3) Fabricated Polymer Laminate

The laminate shall have a minimum thickness of 0.015" for the luminaire and 0.020" for the sign.

#### 3.4) Finish

The laminate shall have a smooth polymer finish on both sides. During the finishing process, all voids shall be plugged to prevent accumulation of the elements or residues of other material.

#### 4) MATERIALS

#### 4.1) Housing

The housing shall consist of a metal plate having a minimum thickness of 1/8 inch and a diameter of 12 inches. The plate shall be of the same material as the luminaire housing. The plate shall be secured to the luminaire housing with a double-headed bolt and washer. The plate shall be secured to the luminaire housing with a double-headed bolt and washer.

#### 4.2) Drive & Signal Protection

The drive shall be mounted to the luminaire housing with a double-headed bolt and washer. The drive shall be protected by a metal plate having a minimum thickness of 1/8 inch and a diameter of 12 inches. The plate shall be of the same material as the luminaire housing. The plate shall be secured to the luminaire housing with a double-headed bolt and washer.

#### 4.3) LED Color Temperature (CCT) and Beam Spread (BT)

The CCT shall be 2700K and the BT shall be 120 degrees.

#### 4.4) Electronics

The electronics shall be mounted to the luminaire housing with a double-headed bolt and washer. The electronics shall be protected by a metal plate having a minimum thickness of 1/8 inch and a diameter of 12 inches. The plate shall be of the same material as the luminaire housing. The plate shall be secured to the luminaire housing with a double-headed bolt and washer.

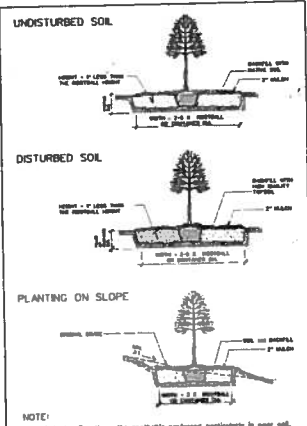
#### 4.5) Size

The luminaire shall be 12 inches in diameter and 12 inches in height. The sign shall be 12 inches in diameter and 12 inches in height.

#### 4.6) Materials

The housing shall be made of aluminum. The drive shall be made of aluminum. The LED's shall be made of aluminum. The electronics shall be made of aluminum. The metal plate shall be made of aluminum.

### CONTAINER GROWN AND BALLED AND BURLAPPED TOWN



PACKARD & ASSOCIATES, LLC  
CIVIL ENGINEERS & SURVEYORS & LAND PLANNERS  
16220 FREDERICK ROAD, SUITE 300  
GANTHERSBURG, MARYLAND 20877  
PHONE (301) 208-0250 FAX (301) 208-1270

#### 3.1) Example Materials

The laminate shall meet the requirements of American Association of State Highway and Transportation Officials (AASHTO) Standard, "Specification for Synthetic Linings for Highway Signs, Luminaires and Traffic Signals," listed below.

#### 3.2) Signs and Minimum Size

4) The luminaire shall be of a standard shape. The minimum size for the luminaire shall be based on the length plus height, when viewed from the side.

5) The luminaire shall be suitable to accommodate LED's with E17 or E19. The LED's shall be spaced evenly and shall be of the same color and wattage.

#### 3.3) Fabricated Polymer Laminate

The laminate shall have a minimum thickness of 0.015" for the luminaire and 0.020" for the sign.

#### 3.4) Finish

The laminate shall have a smooth polymer finish on both sides. During the finishing process, all voids shall be plugged to prevent accumulation of the elements or residues of other material.

#### 4) MATERIALS

#### 4.1) Housing

The housing shall consist of a metal plate having a minimum thickness of 1/8 inch and a diameter of 12 inches. The plate shall be of the same material as the luminaire housing. The plate shall be secured to the luminaire housing with a double-headed bolt and washer. The plate shall be secured to the luminaire housing with a double-headed bolt and washer.

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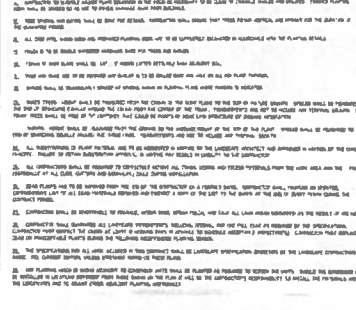
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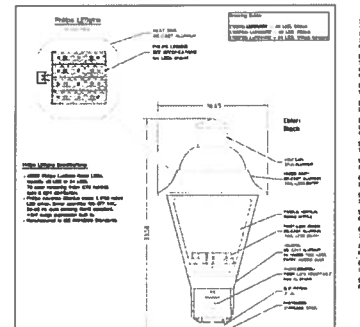
MONTEGOMERY COUNTY  
DEPARTMENT OF TRANSPORTATION  
TRAFFIC ENGINEERING AND OPERATIONS  
MAY 2012

#### 1) PURPOSE

The purpose of these specifications is to provide the minimum requirements for the design, construction, installation, testing and operation of the LED bollards.

#### 2) DESCRIPTION

The bollards shall be made of aluminum and shall be 12 inches in diameter and 12 inches in height. The bollards shall be of a standard shape and shall be suitable to accommodate LED's with E17 or E19. The LED's shall be spaced evenly and shall be of the same color and wattage.



REV	DATE	DESCRIPTION
1	05/15/12	ISSUED FOR CONSTRUCTION

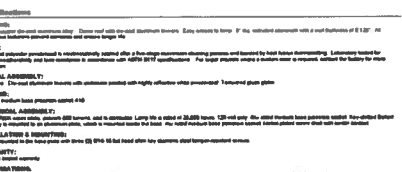
NORTON LAND DESIGN  
LANDSCAPE ARCHITECTURE • ENVIRONMENTAL PLANNING  
8340 CORNEY HALL DRIVE, SUITE FLOOR  
BALT. MD 21286-5100 WWW.NORTONLANDDESIGN.COM

RENDERING, CROWN, PINK-TOP  
LED (TYPE), 12" DISTRIBUTION, 12VDC, 12W, 12VDC

RENDERING, CROWN, PINK-TOP  
LED (TYPE), 12" DISTRIBUTION, 12VDC, 12W, 12VDC

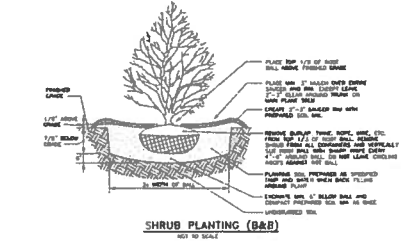
### LED Bollard (DB30) Specification Sheet

Model	Power	Color
DB30-12W	12W	White
DB30-24W	24W	White
DB30-36W	36W	White



Model	Power	Color
DB30-12W	12W	White
DB30-24W	24W	White
DB30-36W	36W	White

FOR LANDSCAPE PLANTING ONLY



PROFESSIONAL CERTIFICATION  
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME,  
AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE  
STATE OF MARYLAND, LICENSE No. 16818, EXPIRATION DATE: 06/10/2017.

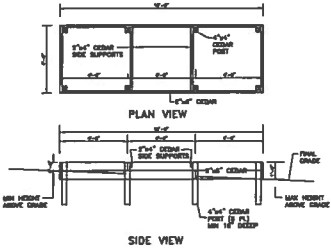
MICHAEL A. NORTON  
MGNR / DGMN 08.10.08.01  
QUALIFIED PROFESSIONAL  
REGISTERED LANDSCAPE ARCHITECT No. 3310  
ISA CERTIFIED 68090621

DATE

LANDSCAPE & LIGHTING PLAN  
PROPOSED LOTS No. 14 thru 32 - BLOCK B  
CASHELL ESTATES  
PART OF LOT 5, BLOCK B  
RECORDED IN PLAT 2038  
ROCKVILLE ELECTRON DISTRICT No. 4  
MONTGOMERY COUNTY, MARYLAND

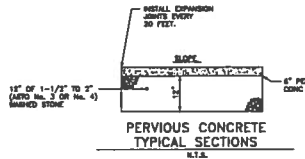


MICHAEL A. NORTON DATE  
 MORN / COMAR DB.18.08.01  
 QUALIFIED PROFESSIONAL  
 REGISTERED LANDSCAPE ARCHITECT No. 3310  
 ISA CERTIFIED ARBORIST

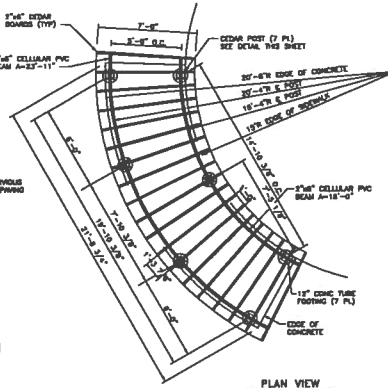


GARDEN PLANTER DETAIL  
 N.T.S.

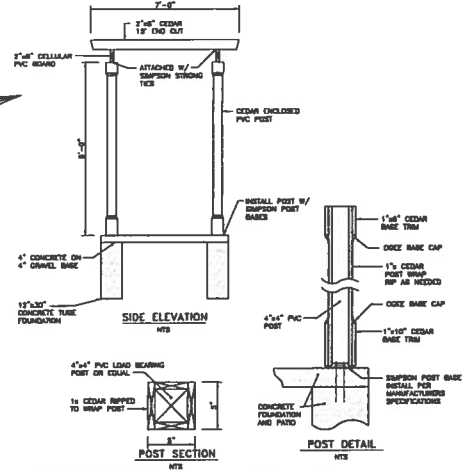
- NOTES:  
 1. NO PRESURE TREATED WOOD ALLOWED.  
 2. ALL LIGNED TO BE CEDAR.  
 3. CEILING SHALL BE 1/2" GYP BOARD TO POST WITH 3-1/2" LAMINATED CEDAR WOOD SCORING SML 3 BORDERS AT LEAST AND 1/2" AIR SPACE ABOVE.  
 4. WHERE 2x4 WOODS CROSS CHECKLAP ATTACH WITH SML 3-1/2" LONG EXTENSIVE GRACE WOOD SCORING SML 3 SCORING FOR BOARD.  
 5. 2x4 POST SUPPORTS TO BE ATTACH TO POST WITH SML 3-1/2" LONG EXTENSIVE GRACE WOOD SCORING SML 3 PLANNING TO BE FILLED WITH 1/2" POST HOLE, 1/2" DOWEL JOINT AND 1/2" GRACE PERPENDICULAR VERTICALITY.



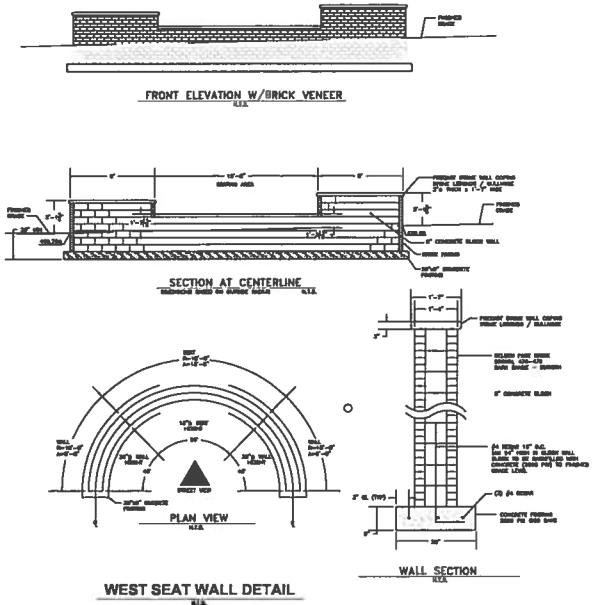
EXPANSION JOINT TYPICAL DETAIL  
 N.T.S.



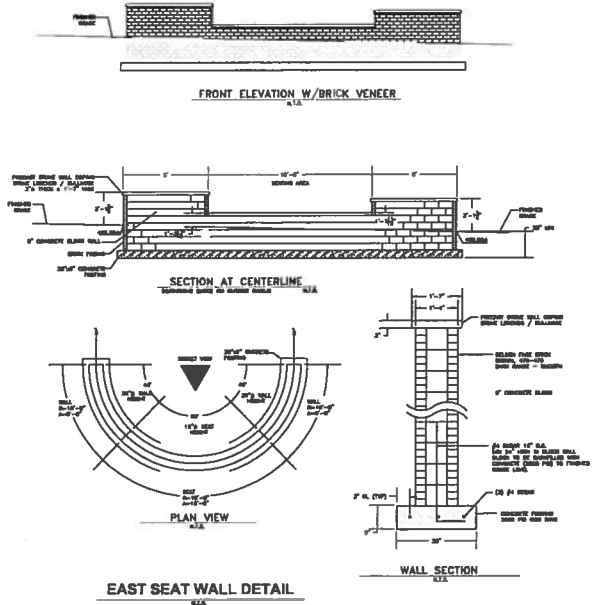
PERGOLA DETAIL  
 CEDAR AND CELLULAR PVC OR APPROVED EQUAL, CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR THE APPROVAL OF ARCHITECT.



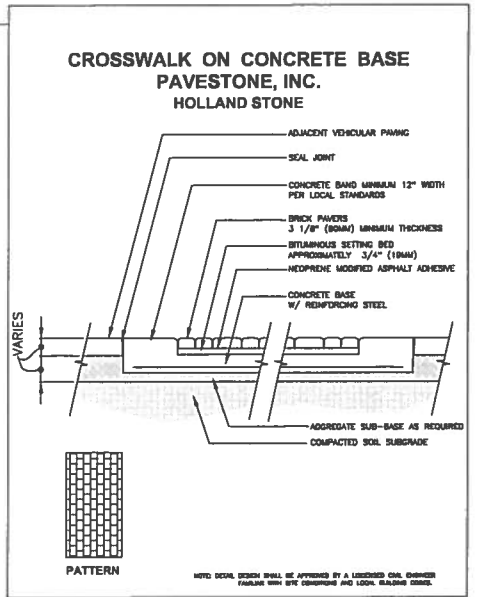
CROSSWALK ON CONCRETE BASE  
 PAVESTONE, INC.  
 HOLLAND STONE



WEST SEAT WALL DETAIL  
 N.T.S.



EAST SEAT WALL DETAIL  
 N.T.S.



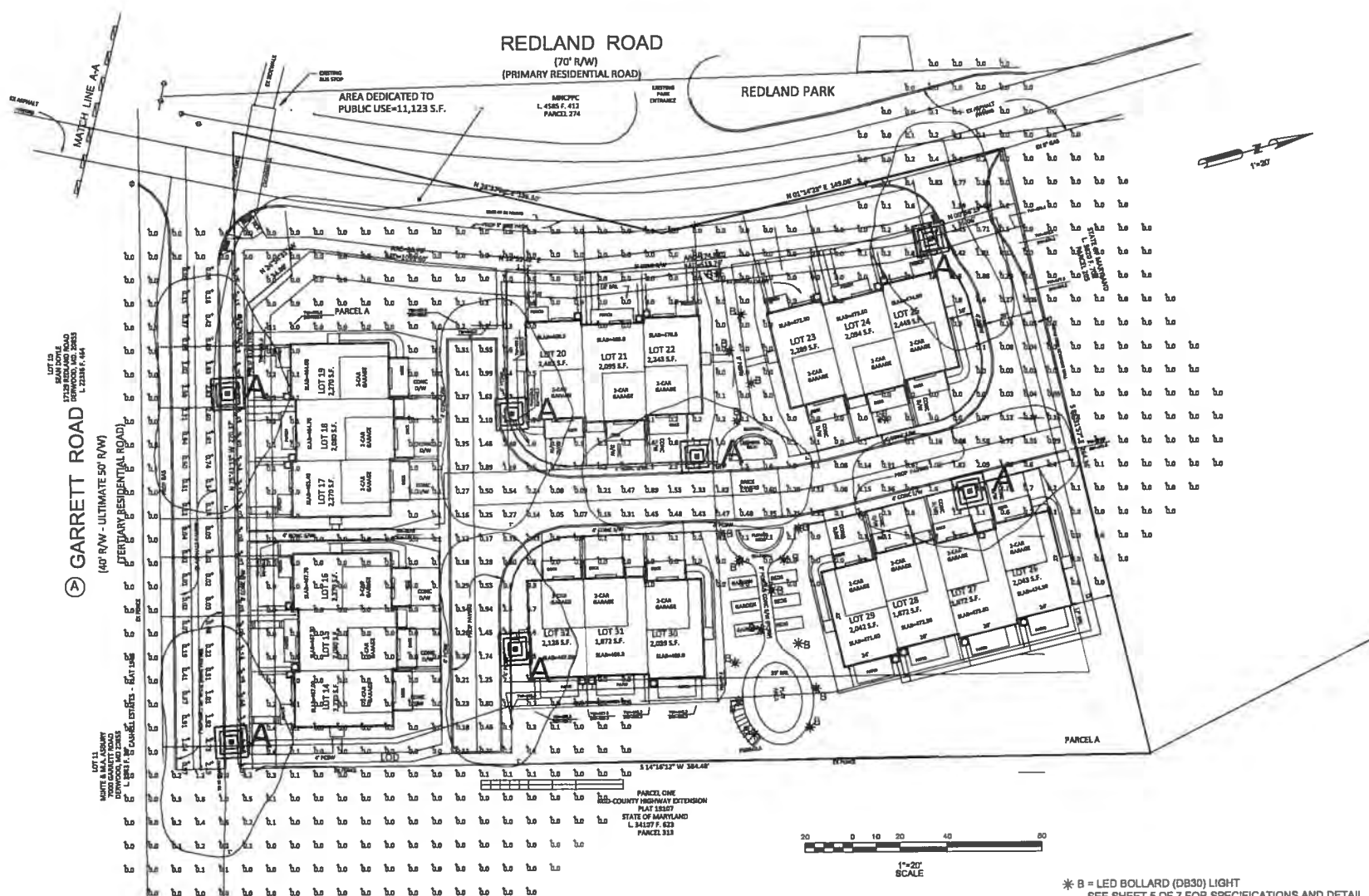
PROFESSIONAL CERTIFICATION  
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE No. 16518, EXPIRATION DATE: 06/16/2017.

DATE: 08-12-16

PACKARD & ASSOCIATES, LLC  
 CIVIL ENGINEERS & SURVEYORS & LAND PLANNERS  
 16220 FREDERICK ROAD, SUITE 300  
 GAITHERSBURG, MARYLAND 20877  
 PHONE (301) 208-0250 FAX (301) 208-1270

LANDSCAPE & LIGHTING PLAN  
 PROPOSED LOTS No. 14 thru 32 - BLOCK B  
 CASHELLE ESTATES  
 PART OF LOT 5, BLOCK B  
 RECORDED IN PLAT 2038  
 ROCKVILLE ELECTION DISTRICT No. 4  
 HUNTERDOWNEY COUNTY, MARYLAND

SHEET 8 of 7



Rev. Date  
05/27/16

Rev. # Description  
#1 Revised per new drawing provided  
#2  
#3  
#4

Project:  
Cashell Estates

Date: 12/15/2015  
Page: 1 of 1

Project #: 472-1289  
Created By: P. Dugan

**PHILIPS**  
LED Lighting Solutions

**Luminaire Schedule**

Symbol	Qty	Label	Arrangement	Lumens	Lum. Waits	LLF	Description
	8	C10075-48-380	SINGLE	3643	53.3	0.850	Post-Top, 48 LED's @ 350mA, Type III, Ribbed Panels, 12ft Pole

**Calculation Summary**

Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min	Description
Garrett Road	Illuminance	Fc	0.72	2.74	0.02	38.00	137.00	10R Grid
Garrett Road Sidewalk	Illuminance	Fc	0.52	1.43	0.02	28.00	71.00	10R Spacing
Proposed Drive	Illuminance	Fc	0.62	2.74	0.01	62.00	274.00	10R Grid

\* B = LED BOLLARD (DB30) LIGHT  
SEE SHEET 5 OF 7 FOR SPECIFICATIONS AND DETAIL



**MONTGOMERY COUNTY DEPARTMENT OF PARKS**  
THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

March 8, 2018

To: Jonathan Casey, Planner  
Montgomery County Planning Department Area 2

From: Dominic Quattrocchi, AICP, Planner Coordinator  
Park Planning and Stewardship

Matt Harper, Acting Section Leader  
Park Planning and Stewardship

**SUBJECT:** Cashell Estates Preliminary Plan 120160210

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Coordination with the applicant on the Cashell Estates Preliminary Plan submission has yielded the following requirements to allow for the proposed work impacting parkland:

- 1) The proposed crosswalk across Redland Road shall meet Accessibility Standards all the way across the road from the applicant's property onto Parkland, including grading, appropriate slopes, ramps as needed, and detectable warnings.
- 2) Replace ex. 18" CMP running under the sidewalk at the Parkland side of the crosswalk.
- 3) Install appropriate detectable warnings at the location where the sidewalk crosses the Redland LP parking lot entrance Accessible. Replace existing 18" CMP under entrance road.
- 4) Parks is willing to allow the applicant to discharge stormwater through Parkland in order to achieve safe conveyance as shown on the most recently reviewed plans submitted to Parks on 12/15/17 and dated 11/20/17.
- 5) The asphalt path along Parcel 1 that connects to the community shall be replaced along its full length.
- 6) Parks has worked with the applicant and approves of Bioswales #4 and #5 on Parkland to treat ROW runoff that would otherwise go untreated as a result of this development. The applicant will be fully responsible for any maintenance requirements related to these facilities.
- 7) The entire concrete sidewalk west of Redland Rd. between the proposed crosswalk and the park driveway entrance must meet appropriate Accessibility Standards.
- 8) To make the crossing Accessible, plans shall include ramps, grade adjustments, and pavement markings where the sidewalk crosses the Redland LP parking lot entrance. Special attention is needed to ensure a maximum 1.5% cross slope across the entrance. Approximately 25' of existing sidewalk south of the entrance shall be replaced to remove the steep grade and flatten the walkway gradient.

The applicant will be fully responsible for any maintenance requirements related to the proposed stormwater management facilities in Redland Local Park. A Right of Entry agreement will need to be executed with Montgomery County Parks giving Cashell Estates personnel, their designated contractors, and any future property owners access onto Parkland for that maintenance.

Before any construction can take place on Parkland, including work related to the proposed stormwater management facilities, sewer and stormdrain connections, ADA improvements, trail/culvert replacements, as well as any other parkland impacts that may arise as the design progresses, a Park Construction Permit must be obtained. Through this detailed review of the proposed design, adjustments may be required to minimize impacts to existing park resources. All Conditions of this Park Construction Permit shall be followed during construction.



## MONTGOMERY COUNTY, MARYLAND

December 2, 2016

TO: Parties to OZAH Case No. CU 16-11, *Application of Garrett Gateway Partners, LLC*

FROM: Montgomery County Office of Zoning and Administrative Hearings

SUBJECT: Notification of Decision and Applicable Procedures

On December 2, 2016, the Hearing Examiner issued a Report and Decision in **OZAH Case No. CU 16-11, Application of Garrett Gateway Partners, LLC** for a conditional use under Section 59.3.3.1.D.2.b. of the Zoning Ordinance to construct a “Design for Life” Townhouse Living Community, at 7009 Garrett Road, in Derwood, Maryland. The decision approves the application, subject to the following conditions:

1. The Applicant shall be bound by the testimony of its witnesses and the representations of its counsel identified in this Report and Decision.
2. This conditional use is limited to a maximum of 19 townhouse living units.
3. The Applicant must obtain approval of a Preliminary Plan of Subdivision per Chapter 50 of the Montgomery County Code. At the time of Preliminary Plan, the Applicant must address the comments provided by the M-NCPPC Department of Parks in its email dated August 26, 2016, and directed to the Applicant and Planning Staff (Exhibit 56).
4. No property owner of the conditional use project may seek a tax credit under Montgomery County Code Section 52-18U or 52-93(e), except for tax credits for additional accessibility features installed post occupancy, as described in Montgomery County Code, Section 59.3.3.1.D.2.b.
5. As prescribed in Zoning Ordinance §59.3.3.1.D.2.b.i., all buildings and structures must be designed and constructed to meet or exceed the “Level II Accessibility Standards” established by Section 52-18T and detailed in Section 52-18U.<sup>1</sup>
6. The post-construction site must have a slope of less than 5%, and no fence constructed on the lots with frontage on Redland Road and Garrett Road may exceed four feet in height.
7. The common open space area must include a pergola, six raised planted beds, and 3 log benches as shown on the Conditional Use Plan (Exhibits 41(a) (b) and (c)).
8. The amount of parking provided must be consistent with that described in the Conditional Use Plan (Exhibits 41(a) (b) and (c)).
9. The Applicant must obtain a sign permit issued jointly by the Sign Review Board and the appropriate transportation jurisdiction for any proposed sign, and must file a copy of any

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<sup>1</sup> Those sections do not appear to exist in the current codification of the Montgomery County Code, but the Council did enact Bill No. 5-13, as amended in Expedited Bill No. 24-14, both effective July 1, 2014, adding Sections 52-18T and 52-18U to the County Code. The accessibility standards are also set forth in County Code

such sign permit with OZAH. The final design of the proposed sign must be in compliance with the Zoning Ordinance restrictions for signs displayed in a residential zone, or the Applicant must first obtain a sign variance from the Sign Review Board.

10. The Applicant must obtain and satisfy the requirements of all licenses and permits, including but not limited to building permits and use and occupancy permits, necessary to occupy the conditional use premises and operate the conditional use as granted herein. The Applicant shall at all times ensure that the conditional use and premises comply with all applicable codes (including but not limited to building, life safety and handicapped accessibility requirements), regulations, directives and other governmental requirements

The full text of the Hearing Examiner's report is available at the following website address: [http://www.montgomerycountymd.gov/OZAH/spec\\_excep.html](http://www.montgomerycountymd.gov/OZAH/spec_excep.html). Any person receiving this notice who does not have access to the internet or to a printer may request a paper copy of the report by stating in writing that he or she lacks internet or printer access. Any interested person may also make a paper copy of the report, at a cost of ten cents per page, by visiting our office in the County Council Office Building, 100 Maryland Avenue, Suite 200, Rockville, Maryland 20850. For further information on obtaining a paper copy, please call the Office of Zoning and Administrative Hearings at 240-777-6660.

Any party of record or aggrieved party may file a written request to present oral argument before the Board of Appeals, in writing, within 10 days after the Office of Zoning and Administrative Hearings issues the Hearing Examiner's Report and Decision. Any party of record or aggrieved party may, no later than 5 days after a request for oral argument is filed, file a written opposition or request to participate in oral argument.

Contact information for the Board of Appeals is listed below, and additional procedures are specified in Zoning Ordinance §59.7.3.1.F.1.c.

Montgomery County Board of Appeals  
100 Maryland Avenue, Room 217  
Rockville, MD 20850  
(240) 777-6600

You will be notified by the Board of Appeals if your request for oral argument is granted and at what time and place it will occur. If the request is granted, the oral argument must be confined to the evidence of record before the Hearing Examiner. No new or additional evidence or witnesses will be considered. Prior to oral argument do not attempt to discuss this case with individual Board members because such *ex parte* communications are prohibited by law. If you have any questions regarding this procedure, please contact the Board of Appeals by calling 240-777-6600 or visiting its website: <http://www.montgomerycountymd.gov/boa/>

cc: Stephen J. Orens Esquire  
Garrett Gateway Partners, LLC, Applicant  
Dean Packard, William Landfair, Steve Mulholland and Michael Lenhart  
Barbara Jay, Executive Director  
Montgomery County Board of Appeals  
Jonathan Casey, Senior Planner, Planning Department

Larry Hogan, **Governor**  
Boyd K. Rutherford, **LI. Governor**



Pete K. Rahn, **Secretary**  
Gregory Slater, **Administrator**

**STATE HIGHWAY  
ADMINISTRATION**

May 31, 2017

Mr. Dean Packard  
Managing Member  
Packard & Associates, LLC  
16220 Frederick Road, Suite 300  
Gaithersburg, MD 20877

Dear Mr. Packard:

Thank you for meeting with me and discussing the Cashell Estates project. The Maryland Department of Transportation's State Highway Administration (MDOT SHA) has reviewed the information and is pleased to respond.

As noted in our meeting, time is of the essence and the MDOT SHA is committed to working with you to address your access concerns. With regard to the M-83 alignment, the MDOT SHA acknowledges that this project is a complex project that at this point is not imminent. As mentioned in some of your correspondence, answering questions about M-83 alignment will require thorough and in depth study. However, this project is a county project and is still listed on the Montgomery County masterplan. In this case the MDOT SHA cannot make a determination on what the future alignment or interchanges should be on the county system and defers all decisions, including a grade separated interchange to Montgomery County, and therefore has no opinion on the M-83 design. The MDOT SHA commits that if the county grants access for your entrance along Redland Road and the M-83 project introduces an interchange along Redland Road, we would assist in maintaining access to your site.

The MDOT SHA is agreeable to grant access via easement to the proposed 5,000 square foot area of state land. We would also look to explore conveying that portion of the property. As you mentioned this solution would create a secondary access for your site across state property to Garrett Road. I believe this solution allows you to move forward as we work on a long term solution.

---

**Maryland Department of Transportation**  
**State Highway Administration**

9300 Kenilworth Ave., Greenbelt, MD 20770

301-513-7300 | TTY 800.735.2258 | [roads.maryland.gov](http://roads.maryland.gov)

My telephone number/toll-free number is [301.513.7300](tel:301.513.7300)/[1.800.206.0770](tel:1.800.206.0770)

Mr. Dean Packard  
Page 2 of 2  
May 31, 2017

If you have any questions, or require any additional information, please contact Mr. Kwesi Woodroffe, District 3 Regional Engineer, at 301-513-7247, 1-800-206-0770 toll free in Maryland, or via email at [KWoodroffe@sha.state.md.us](mailto:KWoodroffe@sha.state.md.us).

Sincerely,

A handwritten signature in black ink, appearing to read "B. Young", with a long horizontal flourish extending to the right.

Brian W. Young  
District 3 Engineer

BWY/ kw



**Lenhart Traffic Consulting, Inc.**  
Transportation Planning & Traffic Engineering

**Memorandum:****Date: February 1, 2017**

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TO: MNCPPC  
8787 Georgia Avenue  
Silver Spring, MD 20910

FROM: Mike Lenhart

RE: Traffic Statement for Cashell Estates

---

The purpose of this report is to provide a Traffic Statement for the Cashell Estates as required in the Montgomery County Subdivision Staging Policy. This Traffic Statement has been prepared in accordance with the recently adopted 2016 – 2020 Subdivision Staging Policy which resulted in substantial changes in the methodology used to calculate trip rates. The property is proposed to be developed as a "Design for Life" community with 19 residential townhouse units.

The property is located in the Derwood Policy Area (an Orange Policy Area) just north of the Intercounty Connector (MD 200) in the northeast quadrant of Redland Road at Garrett Road. A site location map is shown on Exhibit 1. A copy of the site plan is included in Appendix A.

The Subdivision Staging Policy establishes the "*Local Area Transportation Review (LATR) Guidelines*". These Guidelines are utilized by the Montgomery County Planning Board for the administration of the Adequate Public Facilities Ordinance.

The Guidelines require a Traffic Statement to determine the applicability and status of the LATR requirements as it applies to the project.

The site is proposed to be developed with 19 residential townhouse units. The trip generation rates were obtained from the *ITE Trip Generation Manual, 9<sup>th</sup> Edition*, and the trip generation total shown on Exhibit 2 shows that the proposed development will generate 8 AM peak hour trips and 10 PM peak hour trips based upon the ITE trip generation rates. The LATR Guidelines require the application of ITE vehicle trip adjustment factors which is a 94% adjustment factor for residential projects in the Derwood Policy area. The resulting LATR adjusted vehicle trips are 8 AM peak hour vehicular trips and 9 PM peak hour vehicular trips. The LATR Guidelines then require the application of an auto driver split of 61% for the residential developments in the Derwood Policy Area which translates to a total of 13 AM peak hour person trips and 15 PM peak hour person trips. The application of the transit and ped/bike LATR adjustment factors reveal that the site would generate one (1) AM and one (1) PM peak hour transit trip, and one (1) AM and one (1) PM peak hour ped/bike trip. The site will generate fewer than 50 peak hour person trips; therefore, the site is exempt from LATR.

The site plan is contained in Appendix A and access is planned via Garrett Road and Redland Road.

# Lenhart Traffic Consulting, Inc.

## Transportation Planning & Traffic Engineering

Redland Road is an existing two lane roadway with no shoulder and a posted speed limit is 35 MPH in the vicinity of the site. The site is located in the Upper Rock Creek Area Master Plan, and Redland Road is designated as a two lane Primary Residential road (P-7) with a 70 foot right-of-way from Needwood Road to Muncaster Mill Road.

The Upper Rock Creek Area Master Plan designates Redland Road (BL-29) as an On-road (Class II or III) bikeway from Crabbs Branch Way to Muncaster Mill Road. The Master Plan also notes that Class II or Class III bikeways should be improved to meet safety standards before bikeway signs or markings are placed on the road, and specifically notes that Redland Road is one of these roads that are likely to require such safety improvements. It should be noted that a Class II bikeway is an outdated term for bike lanes and a Class III bikeway is an outdated term for a shared roadway.

According to the Countywide Bikeways Functional Master Plan (2005) and the M-NCPPC's Master Plan of Bikeways, Redland Road is designated as BL-29 with bike lanes from Needwood Road to Muncaster Mill Road.

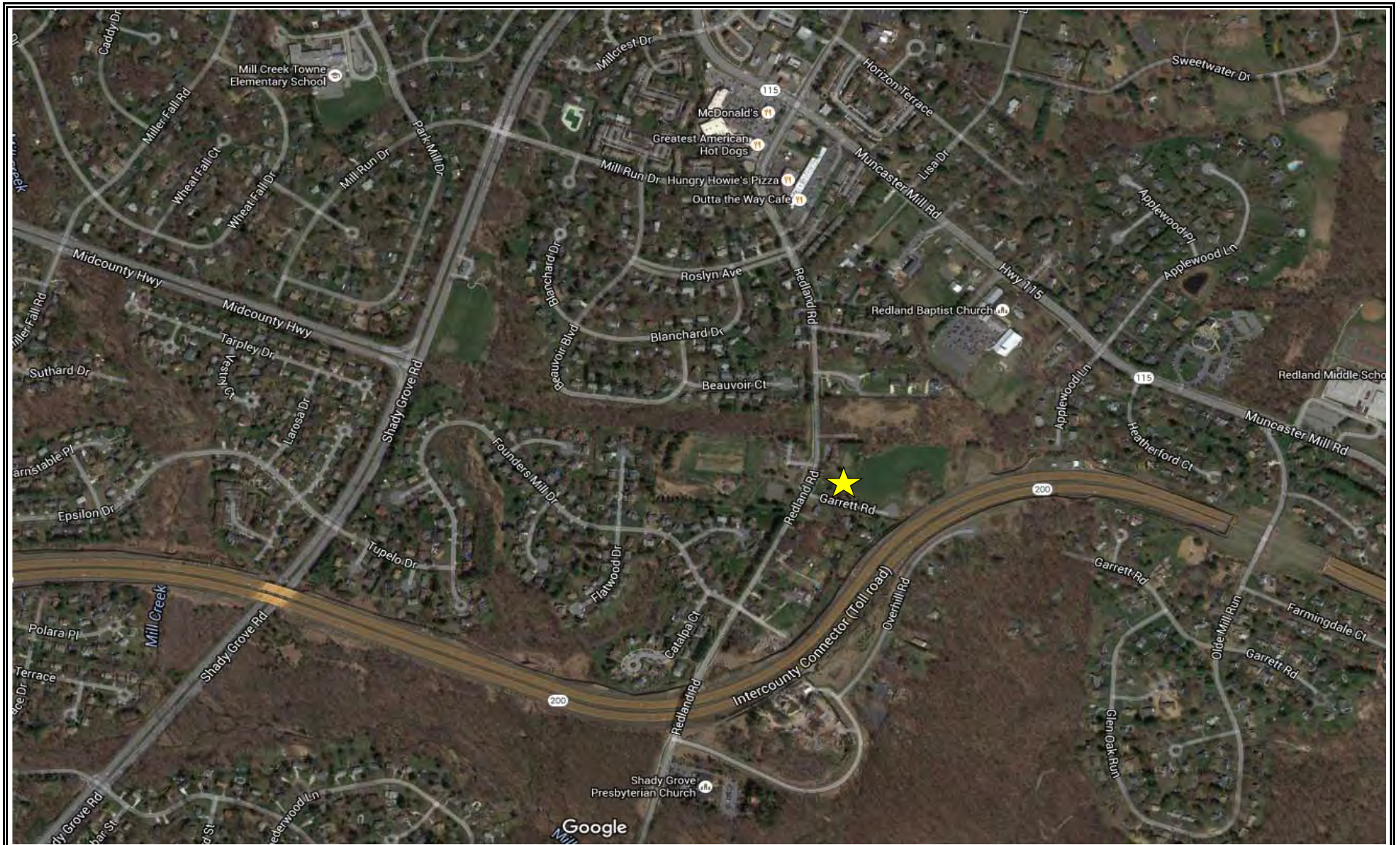
The plan for Cashell Estates is proposing a 5 foot bike path along the property frontage, therefore this satisfies the intent of the Master Plan.

Based on the information contained in this report.....

- The project will generate fewer than 50 peak hour person trips, therefore is exempt from LATR.

If you have any questions regarding this matter, please do not hesitate to contact me at the number below.

Thanks,  
Mike



Traffic Impact Analysis	<h2>Site Location Map</h2>	<h1>Exhibit 1</h1>
Lenhart Traffic Consulting, Inc. Traffic Engineering & Transportation Planning		

**Trip Generation Rates**

**Townhouse Units (ITE-230, Units)**

Morning Trips = 0.44 x Units

Evening Trips = 0.52 x Units

**Trip Distribution (In/Out)**

17/83

67/33

**Trip Generation Totals**

		AM Peak			PM Peak					
		In	Out	Total	In	Out	Total			
Mont. Co. Rates	Townhouse Units (Montgomery County, <100 Units)	19 units			1	7	8	7	3	10
Total Vehicular Trips per ITE Trip Generation Manual, 9th Edition:		1	7	8	7	3	10			
LATR Vehicle Trip Generation Rate Adjustment Factor (Derwood):		94%								
Total LATR Adjusted Vehicular Trips per ITE Trip Generation Manual, 9th Edition (Auto Driver at 61%):		1	7	8	6	3	9			
<b>Total Person Trips:</b>		<b>2</b>	<b>11</b>	<b>13</b>	<b>10</b>	<b>5</b>	<b>15</b>			
	Auto Driver:	61.0%	1	7	8	6	3	9		
	Auto Passenger:	26.6%	1	3	3	3	1	4		
	Transit:	5.6%	0	0	1	0	1	1		
	Non-Motorized:	6.8%	0	1	1	1	0	1		

**NOTES:**

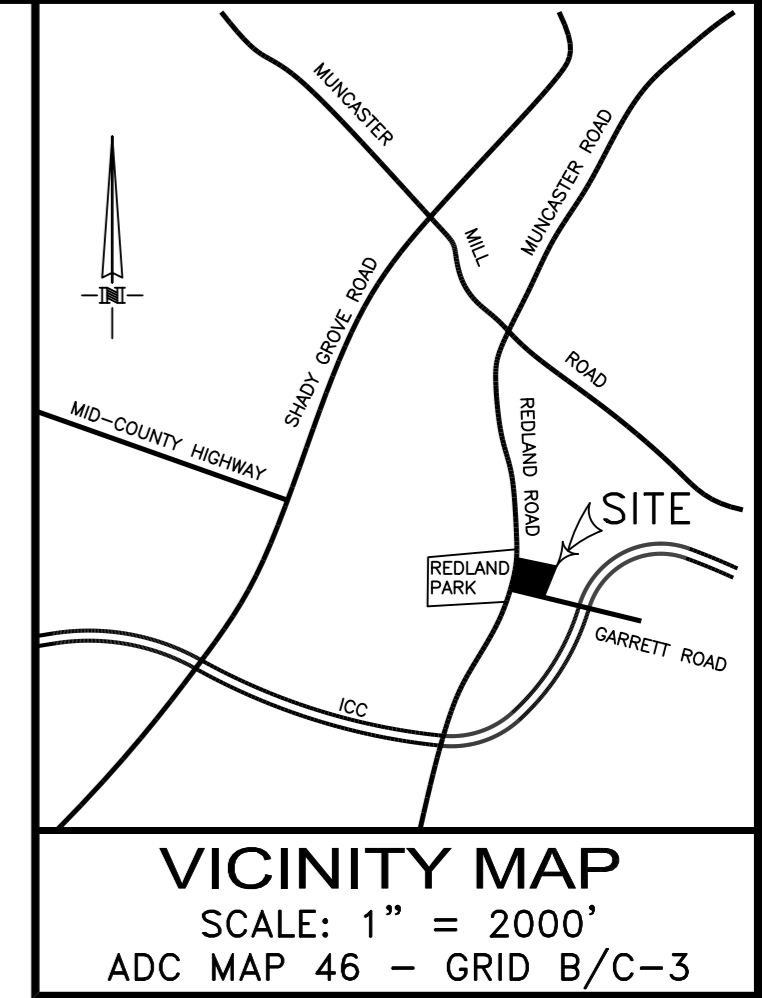
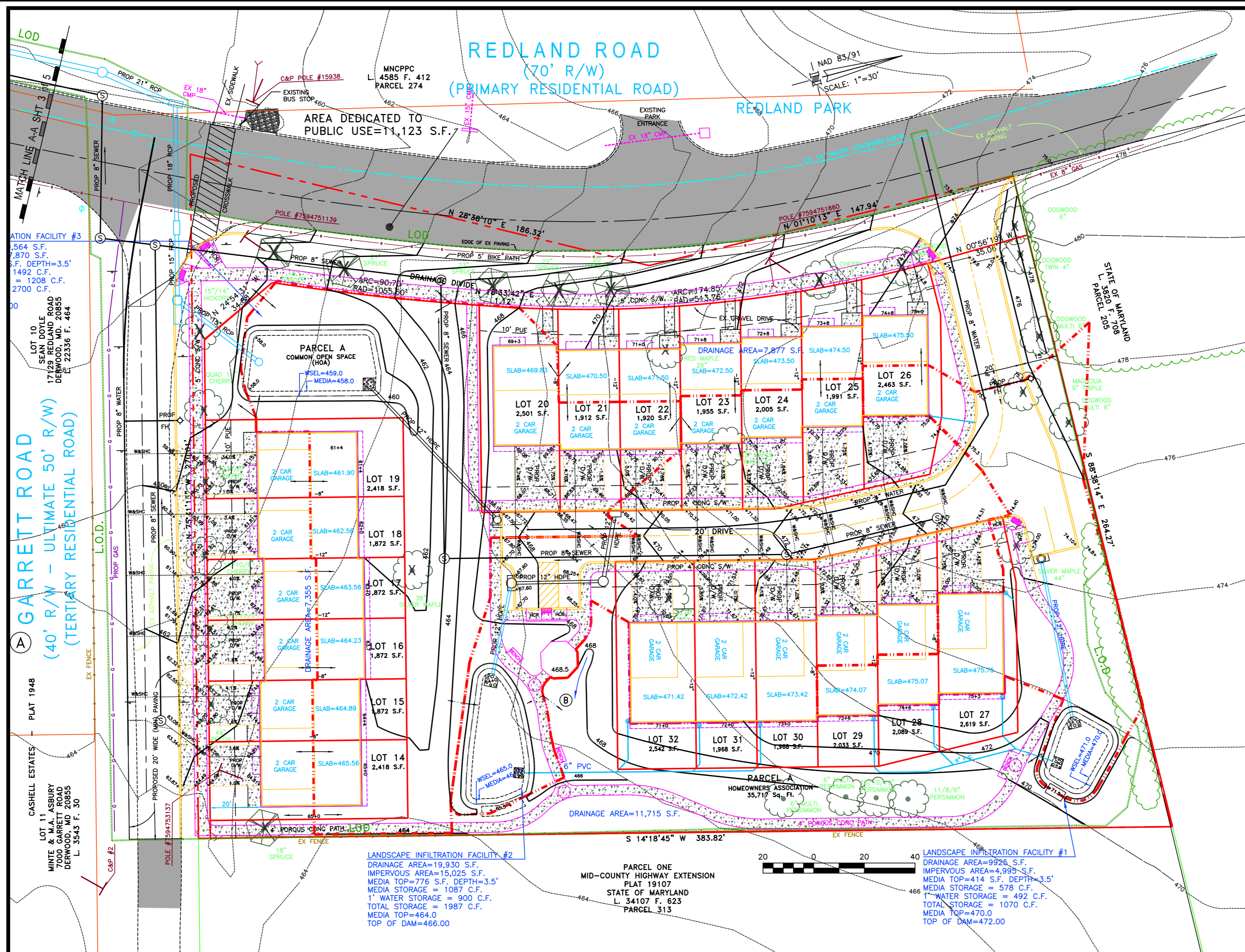
The Montgomery County Subdivision Staging Policy states that projects with fewer than 50 peak hour person trips are exempt from LATR.

Traffic Impact Analysis	Trip Generation for Site	<b>Exhibit 2</b>
Lenhart Traffic Consulting, Inc. Traffic Engineering & Transportation Planning		

# Appendix A

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Site Plan  
Excerpts from Master Plan



- GENERAL NOTES**
- SITE ADDRESS IS 7009 GARRETT ROAD, DERWOOD, MD 20855
  - TAX I.D. NUMBER: 04-00118126
  - PLAT REFERENCE: PLAT 2038
  - DEED REFERENCE: LIBER 49677 FOLIO 284.
  - SITE IS LOCATED ON TAX MAP GT-341.
  - SITE IS LOCATED ON WSSC 200 SHEET No. 223-NW-07.
  - EXISTING WATER AND SEWER CATEGORY IS W-3 & S-3.
  - SITE HAS EXISTING WATER AND SEWER AVAILABLE.
  - EXISTING ZONING IS RE-1
  - EXISTING SOILS ARE 2B, CLENELG SILT LOAM, 3-8% SLOPES.
  - BOUNDARY SHOWN FROM SURVEY PREPARED BY PG ASSOCIATES, INC DATED APRIL, 2015.
  - TOPOGRAPHY BY FIELD SURVEY BY P.G. ASSOCIATES, INC. JUNE 2014.
  - WATERSHED: UPPER ROCK CREEK, CLASS IV
  - UTILITY COMPANIES:  
ELECTRIC: PEPCO  
WATER & SEWER: WSSC  
TELEPHONE: VERIZON  
CATV: COMCAST
  - OWNER  
GARRETT GATEWAY PARTNERS, LLC  
16220 FREDERICK ROAD, SUITE 300  
GAITHERSBURG, MD, 20877  
PHONE: 301-208-0250
  - TOTAL DISTURBED AREA: 91,000 S.F.

- DEVELOPMENT DATA**
- TOTAL TRACT AREA = 86,891 S.F. / 1.9996 ACRES
  - DEDICATION TO PUBLIC USE = 11,123 S.F. / 0.2553 ACRES
  - NET TRACT AREA = 75,768 S.F. / 1.7443 ACRES
  - THIS PROJECT SHALL BE DEVELOPED UNDER THE DESIGN FOR LIFE PROVISIONS OF ORDINANCE 18-02 AND AS MODIFIED BY ZTA-15-09. THIS CONDITIONAL USE PLAN SHALL BE DESIGNED PER SECTION 4.4.12.C TOWNHOUSE MEDIUM DENSITY ZONE (TMD), OPTIONAL METHOD DEVELOPMENT STANDARDS.

BINDING ELEMENTS		
ELEMENTS	REQUIRED /ALLOWED	PROPOSED
<b>SITE</b>		
DIMENSIONS (MIN)	20,000 S.F.	75,768 S.F.
USABLE AREA		40,355 S.F.
LOTS		35,433 S.F.
PARCEL A DENSITY (MAX)	15.25/1.79= 26 UNITS	19 UNITS
COMMON OPEN SPACE (MIN) % OF USABLE AREA	20%	26,419 S.F. 34.8%
SITE COVERAGE (MAX)	40%	18,720 S.F. 24.7%
<b>LOTS</b>		
LOT AREA (MIN)	1,100 S.F.	1,872 S.F.
LOT COVERAGE(MAX)	N/A	52%
<b>PLACEMENT</b>		
PRINCIPLE BUILDING SETBACKS (MIN)		
FRONT SETBACK FROM PUBLIC STREET	10'	13' MIN
FRONT SETBACK FROM PRIVATE STREET OR OPEN SPACE	4'	22' MIN
SIDE STREET SETBACK	5'	5' MIN
REAR SETBACK ALLY	4'	N/A
<b>PARKING</b>		
HANDICAP ACCESSIBLE SPACE PER LOT	1 SPACE PER LOT	1 SPACE PER LOT
TOTAL PARKING PER LOT	2 SPACES	4 SPACES
TOTAL PARKING (SITE)	38 SPACES	80 SPACES

**PROFESSIONAL CERTIFICATION**

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE No. 16518, EXPIRATION DATE: 06/10/2017.

DEAN PACKARD, P.E. \_\_\_\_\_ DATE \_\_\_\_\_

# CASHELL ESTATES

## A DESIGN FOR LIFE COMMUNITY

**DRAWING INDEX**

No.	DESCRIPTION
1	COVER SHEET
2	CONDITIONAL USE PLAN, SHEET 1
3	CONDITIONAL USE PLAN, SHEET 2
4	LANDSCAPE PLAN
5	LANDSCAPE DETAILS

**PACKARD & ASSOCIATES, LLC**  
 CIVIL ENGINEERS \* SURVEYORS \* LAND PLANNERS  
 16220 FREDERICK ROAD, SUITE 300  
 GAITHERSBURG, MARYLAND 20877  
 PHONE (301) 208-0250 FAX (301) 208-1270

**CONDITIONAL USE PLAN**  
 PROPOSED LOTS No. 14 thru 32 - BLOCK B  
**CASHELL ESTATES**  
 PART OF LOT 5, BLOCK B  
 RECORDED IN PLAT 2038  
 ROCKVILLE ELECTION DISTRICT No. 4 MONTGOMERY COUNTY, MARYLAND

SCALE	DRAWN
N/A	DP
	DATE
	9-3-15
ACAD FILE NAME	

# TRANSPORTATION PLAN

## INTRODUCTION

Most of the Upper Rock Creek Planning Area is within one of the County's rural policy areas; only the Derwood section of the Planning Area is outside this rural classification. Transportation needs in Upper Rock Creek are influenced by the area's location adjacent to the I-270 corridor to the west, the suburban community of Aspen Hill to the southeast and the satellite community of Olney to the east and northeast. Commercial activities in the I-270 corridor and downcounty areas influence travel patterns for residents of Upper Rock Creek as well those traveling from other planning areas.

The Shady Grove Metrorail Station is located just outside the Planning Area's western boundary at the intersection of Redland Road and Crabbs Branch Way. This station serves as the terminus of the Metrorail Red Line and is an important destination for motorists, transit services, bicyclists and pedestrians.

The Master Plan alignments for the Intercounty Connector (ICC) traverse the Upper Rock Creek Planning Area. The feasibility of the ICC has been reviewed through both state and local transportation studies that have not yet been concluded. This Plan, therefore, does not recommend any changes to the ICC rights-of-way already defined in the Master Plan of Highways and the 1985 Upper Rock Creek Master Plan. Should the state study process conclude that the Master Plan route is not feasible, the transportation recommendations of this Plan would need to be reviewed. The status of the studies and recommendations for interim uses of the right-of-way are described in greater detail below.

This Plan addresses streets and highways, transit, and bikeways in an effort to create a comprehensive system that meets the needs of the local community, provides adequate regional connections, and respects the physical character of Upper Rock Creek.

## TRAVEL FORECASTING

Travel demand is a function of the amount and type of activity generated by land uses and the available facilities and services that connect those land uses. There is a relationship between the amount of development recommended by a master plan and the transportation system capacity required to accommodate the resulting demand for transportation.

The focus of the land use recommendations in this Plan is on the larger portion of land area in the Rural Policy Area. Currently, this area has approximately 1,900 households and 2,000 jobs. This Plan supports measures to reduce the amount of travel demand generated from activities within this Planning Area. A majority of travel demand will be generated by additional development outside the Upper Rock Creek Master Planning Area. Currently, approximately 75 percent of the traffic that crosses the Upper Rock Creek Planning Area boundary is through

traffic; only about 25 percent is generated by local land uses. This ratio is forecast to stay relatively constant as planned development occurs in both Upper Rock Creek, the remainder of Montgomery County, and the rest of the Washington region.

The transportation recommendations in this Plan have been developed using the results of independent regional travel forecasting studies, including a State Highway Administration (SHA) analysis for the Woodfield Road (MD 124) project planning study, and the M-NCPPC analysis of the Muncaster Mill Road (MD 115) corridor. The Appendix provides additional details on the process and findings for each of these studies.

The travel forecasting process is also used to determine the degree of balance between land use and transportation recommendations in master plans by comparing the forecast average congestion index (ACI) to Annual Growth Policy (AGP) standards for policy area transportation review. Many master plan areas and policy areas have coterminous boundaries, so that the AGP policy area standards can be applied directly. The Upper Rock Creek Planning Area, however, does not correspond to a Policy Area. Approximately two-thirds of the Upper Rock Creek Planning Area is located within the Rock Creek Policy Area, one of the County's five rural policy areas. The AGP does not specify ACI indices for rural policy areas, as land use in these areas is controlled by zoning, water and sewer constraints. The remainder of the Upper Rock Creek Master Plan Area is part of the Derwood Policy Area, which has an ACI standard of 0.58. The travel forecasting performed for the master plan analyses indicates that the portion of the Derwood Policy Area within Upper Rock Creek is estimated to have an ACI of 0.55 in 2025. This plan is therefore considered to have a balance between land use and transportation.

## **STREETS AND HIGHWAYS**

Most of the Upper Rock Creek Planning Area is served by a network of two-lane roadways, consistent with the prevailing low-density development pattern. Exceptions to the two-lane roadways are generally located along the edges of the area, and include Airpark Road, Gude Drive, and portions of Woodfield Road. Muncaster Road, Avery Road, Bowie Mill Road and Muncaster Mill Road are currently two-lane roads without curbs or gutters. To support efforts to preserve and enhance the low-density residential character of the Planning Area, this Plan recommends that, where it is consistent with safety and other operational issues such as turning movements or acceleration/deceleration lanes, roads retain their existing two-lane, open sections.

Two proposed new roadways have been retained in the Master Plan to provide east-west transportation. This Plan proposes no changes to those Master Plan alignments until federal and local feasibility studies have been completed and reviewed. The status of the east-west transportation studies and several other recommended changes to the remaining street and highway network are described below.

### **East-West Transportation**

The Intercounty Connector (ICC) is a master planned, 18-mile long freeway connecting Interstate 270 to I-95 and US 1 in Prince George's County. The facility is designated as F-9 in the Montgomery County Master Plan of Highways, with a 300-foot wide right-of-way. Access to the ICC within Montgomery County is envisioned only at six locations: I-370, Midcounty Highway Extended (M-83), Georgia Avenue (MD 97), Layhill Road (MD 182), New Hampshire



Avenue (MD 650) and Columbia Pike (US 29). The Master Plan of Bikeways includes an off-road bike path within the ICC right-of-way. In the Upper Rock Creek Master Plan Area, the ICC right-of-way extends approximately three miles between Redland Road and the North Branch of Rock Creek. Access to the ICC is via the interchange with the Mid-County Highway.

The ICC has twice been studied by the Maryland Department of Transportation under the federal environmental impact statement (EIS) process, resulting in one Draft EIS in 1983 and a second Draft EIS in 1997. Neither study resulted in a signed Final EIS or Record of Decision (ROD) from the Federal Highway Administration. Federal agency comments on the 1997 Draft EIS regarding impacts in the Northwest Branch and Paint Branch stream valleys led then-Governor Glendening to propose abandoning the central portion of the ICC between Georgia Avenue and US 29 and pursuing new roadways in the remaining western and eastern portions of the alignment, subsequently termed Western Connector and Eastern Connector, respectively.

This Master Plan recommends that the ICC be constructed along the Master Plan alignment, consistent with the Master Plan of Highways as amended by the 1985 Upper Rock Creek Master Plan and subsequent area master plans along the ICC right-of-way for Gaithersburg Vicinity (1990), Aspen Hill (1994), Fairland (1997), and Cloverly (1997). This Master Plan also provides some level of flexibility to allow a Western Connector to be constructed within the ICC right-of-way, based on the results of recent state and local planning studies described below.

In this Plan, the term “Western Connector” refers to a range of east-west roadway options in the vicinity of Muncaster Mill Road generally between Georgia Avenue/Norbeck Road in the east and the termini of Mid-County Highway and I-370 at Shady Grove in the west. Three separate studies have been undertaken within the past five years to examine east-west transportation needs between the I-270 corridor and the central and eastern portions of Montgomery County. These studies, in chronological order are:

The *Intercounty Connector Draft Environmental Impact Statement*, published in 1997, examined a Master Plan Alignment Alternative of the Intercounty Connector and three other build alternates: the Northern Alignment Alternative, the Mid-County Highway/MD 198 Alignment Alternative, and the Upgrade Existing Roads Alternative. Governor Glendening placed the study on hold after the DEIS was published in 1997.

The *Muncaster Mill Road Corridor Study* was an M-NCPPC study designed to respond to a County Council request to determine a preferred alternate for increasing roadway capacity either along existing Muncaster Mill Road or along the Mid-County Highway Extended (M-83) alignment. This study quantified the effects of three build alternates, labeled Alternates A, B, and C. Alternate A would widen Muncaster Mill Road to four lanes in a 100-foot right-of-way between Shady Grove and Norbeck roads; Alternate B would construct the Mid-County Highway between Shady Grove and Muncaster Mill roads, and widen Muncaster Mill Road to four lanes from that point east to Norbeck Road; Alternate C would construct the Mid-County Highway between Shady Grove and Muncaster Mill roads, and extend a new road from that point east in the ICC right-of-way to Norbeck Road. The County Council placed the study on hold in March 2001, based primarily on concerns that drawing conclusions would adversely affect the planning process for both the Upper Rock Creek Master Plan and the Transportation Policy Report. The Appendix contains detailed information on the Study and the alternatives evaluated in it.

The *Transportation Policy Report* (TPR) was an M-NCPPC study designed to examine and prioritize transportation needs countywide. The TPR process included a 35-member Task Force and culminated in two separate documents. The Transportation Policy Report Task Force Report, published as a Final Draft Report on January 17, 2002, summarized the study findings and indicated Task Force member voting on individual transportation projects, but did not develop consensus on a set of complementary projects that should be retained as a master plan network for transportation. In late 2001, recognizing that the Task Force Report would not deliver a recommended network, the Planning Board requested that M-NCPPC staff develop a recommended network, informed by but not limited to the Task Force findings. This network, refined during Planning Board worksessions in December 2001, is described in the Montgomery County Planning Board's Transportation Policy Report, published on January 15, 2002. The network includes four near-term options for east-west transportation improvements through the Upper Rock Creek Planning Area: construction of a four-lane arterial between I-370 and MD 28 east of Georgia Avenue along the ICC's Master Plan alignment (Option 1); constructing the Mid-County Highway between Shady Grove Road and MD 28, using the ICC right-of-way east of Muncaster Mill Road (Option 2); widening Muncaster Mill Road between Redland Road and MD 28 (Option 3); and constructing the Mid-County Highway between Shady Grove Road and Muncaster Mill Road, and widening Muncaster Mill Road between the Mid-County Highway intersection and MD 28 (Option 4).

Each of these three studies is relevant to the Upper Rock Creek Area Master Plan. The *Inter-County Connector DEIS* provides the most robust analysis of environmental impacts associated with the range of roadway alternates investigated. The *Muncaster Mill Road Corridor Study* provides updated transportation analyses and revisited the quantitative environmental and community impacts associated with alternatives limited to the western portion of the ICC study area, between Shady Grove Road and Norbeck Road (MD 28). These analyses were used in part to develop other environmental and transportation recommendations in this Plan.

## Recommendations

- Maintain the Master Plan functional classification and recommended right-of-way, and two-lane section for Muncaster Mill Road (A-93). Do not widen Muncaster Mill Road to increase capacity.
- Maintain the Master Plan functional classification, recommended right-of-way and number of lanes for the Intercounty Connector (F-9) and for the Mid-County Highway Extended.
- Complete the federal Environmental Impact Statement (EIS) process to implement the ICC. If the Final EIS concludes that the full ICC cannot be built as envisioned in the Master Plan, then alternative east-west transportation projects, described as Transportation Policy Report Option 1 and Option 2, may be considered consistent with the Upper Rock Creek Area Master Plan.

## **ROADWAY CLASSIFICATIONS**

The County's road classifications identify road function, service, and ultimate right-of-way width to create a rational road hierarchy and insure room for streetscape, sidewalks, and bikeways. Road classification changes are intended to make roadways consistent with road definitions in the County Code, intended road function, and ultimate road design and right-of-way.

The minimum roadway right-of-way width and number of lanes are identified in the Street and Highway Classification Table. These recommendations are used as a guide to right-of-way dedication and other elements such as sidewalks and streetscape. This Master Plan does not make specific recommendations for secondary or tertiary residential roads.

### **Cherry Valley Drive Extended**

The 1985 Upper Rock Creek Master Plan included a primary roadway connection across the North Branch of Rock Creek to connect Upper Rock Creek to Olney. This roadway was an extension of Cherry Valley Drive in Olney and was intended to connect to a realigned Muncaster Mill Road in the vicinity of the ICC right-of-way. Existing Cherry Valley Drive is designated as P-8 in the Olney Master Plan. Within the Upper Rock Creek Planning Area, Cherry Valley Drive Extended was designated as P-10.

Travel demand analyses indicated that if built as one element of an expanded network of east-west roadways, Cherry Valley Drive Extended would ultimately carry between 13,000 and 16,000 vehicles per day across the North Branch, depending upon the assumptions for roadway facilities in the ICC right-of-way. These volumes would approach or exceed the roadway capacity, estimated to be approximately 14,000 vehicles per day.

The high levels of travel demand forecast for Cherry Valley Drive Extended indicate the degree to which the stream valleys act as barriers to regional traffic. More importantly, however, the demand indicates that if built, Cherry Valley Drive would be serving the function of an arterial roadway, not a primary residential roadway, as most of the traffic crossing the North Branch would be traveling between communities east of Cashell Road and west of Muncaster Mill Road. This connection would also result in an increased cut-through traffic on the network of residential streets in Olney.

The environmental impact associated with Cherry Valley Drive is also substantial. This Plan recognizes that any stream valley crossing will have adverse impacts to the natural environment. The transportation benefits of a new roadway crossing must be balanced against the community and environmental effects. In the case of Cherry Valley Drive Extended, this Plan finds that this primary residential street is inappropriate from a transportation network perspective as well as from community and environmental perspectives.

#### **Recommendation**

- Remove Cherry Valley Drive Extended (P-10) from the Upper Rock Creek Master Plan street and highway network.

## **Muncaster Mill Road/Avery Road Realignment**

The 1985 Upper Rock Creek Plan recommended the easterly relocation of Muncaster Mill Road for approximately one half mile to the northwest of its intersection with Avery Drive. In the 1985 Plan, Muncaster Mill Road is classified as a primary residential road, designated P-6 to the northwest of Avery Road and designated P-9 to the southeast of Avery Road. The realignment would reorient the skewed “T” intersection so that the through movement across the top of the “T” would be between Avery Road and Relocated Muncaster Mill Road. This realignment was intended to address sight distance concerns at the existing intersection and anticipated subdivision activity on the parcels traversed by Relocated Muncaster Mill Road.

The 1995 Muncaster Road and Muncaster Mill Road Highway Classification and Alignment Master Plan Amendment reclassified Muncaster Mill Road from a primary residential road to an arterial roadway, designated A-93, throughout the Plan Area. The mapping shown in the 1995 amendment did not show the realignment described in the 1985 Plan, yet the actual amendment text and County Council resolutions did not address the relocation shown in the 1985 Plan. This Plan removes the realignment of Muncaster Mill Road in the vicinity of Avery Road. It supports a minor realignment in this area that is part of ongoing safety improvements on Muncaster Mill Road.

### **Recommendation**

- Remove the realignment of Muncaster Mill Road (A-93) in the vicinity of Avery Road.

## **Bowie Mill Road Relocated**

The Muncaster Mill Road (A-93) intersections with Bowie Mill Road (A-42) and Needwood Road (P-8) are approximately 600 feet apart. Both intersections are controlled by a traffic signal. The Bowie Mill Road intersection is a “T” intersection and the Needwood Road intersection is a four-leg intersection, with the northeastern leg serving the driveway for Casey House, a hospice facility. During the plan development for Casey House, the property line was established to facilitate a southerly relocation of Bowie Mill Road so that it would intersect Muncaster Mill Road directly opposite Needwood Road.

Based on existing traffic counts at the two intersections, approximately 300 vehicles per hour travel in the peak direction (southbound in the morning and northbound in the evening) between Bowie Mill Road and Needwood Road. This dog-leg maneuver would be simplified if Bowie Mill Road were realigned to meet Needwood Road. A four-leg intersection is also generally preferable, in terms of motorist expectations and traffic safety, to two offset “T” intersections.

Consolidating the travel movements to a single intersection by relocating Bowie Mill Road may result in a poorer level of traffic service at the four-leg intersection, by bringing all turning movements to a single point rather than allowing some conflicting maneuvers to occur simultaneously at two separate intersections. If the existing segment of Bowie Mill Road between Muncaster Mill Road and Relocated Bowie Mill Road is closed or otherwise disconnected, traffic moving between the northwest leg of Muncaster Mill Road and the northeast leg of Bowie Mill Road would be relocated, resulting in a longer travel distance and an increase in the critical lane volume (CLV) at the Needwood Road intersection.

This adverse affect could be alleviated by retaining the existing roadways and constructing Bowie Mill Road relocated. This design would increase the number of stream crossings, and is therefore not preferred due to environmental effects. This Plan therefore recommends retaining the dog-leg configuration. The State Highway Administration should conduct further study of operational improvements, such as extending or widening selected turn lanes and examining signal phasing, to enhance safety and reduce delays at these closely spaced intersections. Should a subsequent public agency study or subsequent subdivision proposal satisfy both transportation and environmental objectives by relocating Bowie Mill Road to meet Needwood Road, such a proposal should be consistent with this Plan.

#### Recommendation

- Retain the existing configuration of the intersections of Muncaster Mill and Bowie Mill Roads and of Muncaster Mill and Needwood Roads.
- Support a State Highway Administration study of operational improvements and consider environmentally and operationally appropriate relocations consistent with this Plan.

### Redland Road Classification

The 1985 Plan classified Redland Road as a primary residential street (P-7) from Muncaster Mill Road to the Plan boundary at Crabbs Branch Way. The recommended right-of-way is not specified in the 1985 Plan, but Section 49-34 of the County Code identifies a 70' recommended right-of-way for primary residential roads in cases where a master plan does not otherwise indicate a recommended right-of-way.

This two-mile section of Redland Road operates more as an arterial roadway than as a primary residential roadway. This is due to several factors as described below:

- **Network connectivity:** The 1985 Plan envisioned an extension of Shady Grove Road (M-42) including a direct connection across Rock Creek to Muncaster Road in the vicinity of the Agricultural History Farm Park. The 1995 Muncaster Road and Muncaster Mill Road Highway Classification and Alignment Master Plan Amendment removed the M-42 extension and reclassified Muncaster Road from a major highway to an arterial roadway (A-102) between Olney-Laytonsville Road (M-60) and Muncaster Mill Road (reclassified as A-93 in the 1995 amendment). To the west of the Planning Area boundary at Crabbs Branch Way, Redland Road is classified as a four-lane industrial roadway (I-9) with an 80' right-of-way. Redland Road is the most direct connection between Muncaster Road and the Shady Grove Metrorail station.
- **County Code guidance:** Section 49-34 of the County Code describes an arterial roadway as any road other than a business district road that connects two state or federal roads and will be used primarily for through traffic. Redland Road connects Muncaster Mill Road (MD 115) to Rockville Pike (MD 355). To the southwest of Muncaster Mill Road, Redland Road carries an average daily traffic volume of approximately 13,200 vehicles. This volume is forecast to increase only slightly, to 14,200 vehicles, by 2025, if no other changes are made to the east-west transportation network. This volume of

traffic is within the carrying capacity of a two-lane roadway, but substantially higher than would be generated by the neighborhoods that access Redland Road, indicating that it currently functions as a through roadway.

- **Adjacent land use:** The adjacent land use on Redland Road is inconsistent with the residential road classification, including:
  - Three houses of worship: Shady Grove Presbyterian Church, Derwood Alliance Church, and Inglesia Alianza Derwood
  - Commercial frontage between Muncaster Mill Road and Roslyn Avenue

Approximately 40 single-family residences have driveway access onto this two-mile long segment of Redland Road.

- **Planned intersection capacity improvement:** The intersection of Redland Road and Needwood Road is forecast to exceed the Derwood Policy Area congestion standard. Increasing the intersection capacity to attain the congestion standard requires extending a through travel lane on Redland Road from Crabbs Branch Way to a point north of the Needwood Road intersection.

The recommended right-of-way for a rural arterial roadway is 80 feet (two lanes with paved shoulders and an open section) and other arterial roadways (four lanes with sidewalks and curb and gutter) have the same right-of-way dimension. The existing right-of-way on Redland Road varies, with most areas adjacent to subdivided properties having a 70-foot right-of-way.

While these characteristics of Redland Road are common to arterial roadways, the function of Redland Road has not been compromised by its current classification as a primary residential road.

#### Recommendation

- Retain Redland Road as a Primary Residential roadway (P-7) between Muncaster Mill Road and Crabbs Branch Way, with a 70-foot minimum right-of-way. Between Muncaster Mill Road and Needwood Road, two through travel lanes and an open section are recommended. Between Needwood Road and Crabbs Branch Way, a maximum of four travel lanes is recommended as through lanes between the programmed intersection capacity improvements.

## Woodfield Road

Woodfield Road (M-21), also known as MD 124, forms the boundary of the Upper Rock Creek and Gaithersburg Vicinity Planning Areas between Muncaster Mill Road and Warfield Road. The 1985 Gaithersburg Vicinity Master Plan recommends four to six lanes on this segment of roadway. The Maryland State Highway Administration (SHA) has completed facility planning for this roadway and found that throughout the project study area, from Midcounty Highway to Warfield Road, a six-lane cross-section would be required to accommodate forecast 2020 travel

demand so that intersections would operate within the Montgomery Village/Airpark Policy Area congestion standard. The Planning Board and County Council, in commenting on a preferred alternate, recommended that the facility be staged so that four lanes were constructed initially, but concurred that the section should accommodate future widening to six lanes.

#### Recommendation

- The recommended number of through travel lanes on Woodfield Road (M-21) between Muncaster Mill Road and Warfield Road is six.

## **BIKEWAYS**

The *Master Plan of Bikeways* is a functional master plan that designates the locations and classes of bikeways throughout the County. There are three bikeway classes. Class I bikeways are separate off-street paths located on one side of a roadway. Class I bikeways are a minimum of eight feet wide and allow two-way bicycle traffic. They can also function as mixed-use paths that can be shared with pedestrians. Class II bikeways are on-street lanes designated for the exclusive or semi-exclusive use of bicycles. They are located on both sides of a roadway, and are designated on the roadway by a five-foot wide marking. Class III bikeways are on-street routes that are designated by signs only. They are shared with motor vehicles.

The purpose of the Bikeway System is to provide routes for people of all levels of experience and ability between parks, schools, neighborhoods and other destinations, as well as to provide direct routes to the Shady Grove Metro Station.

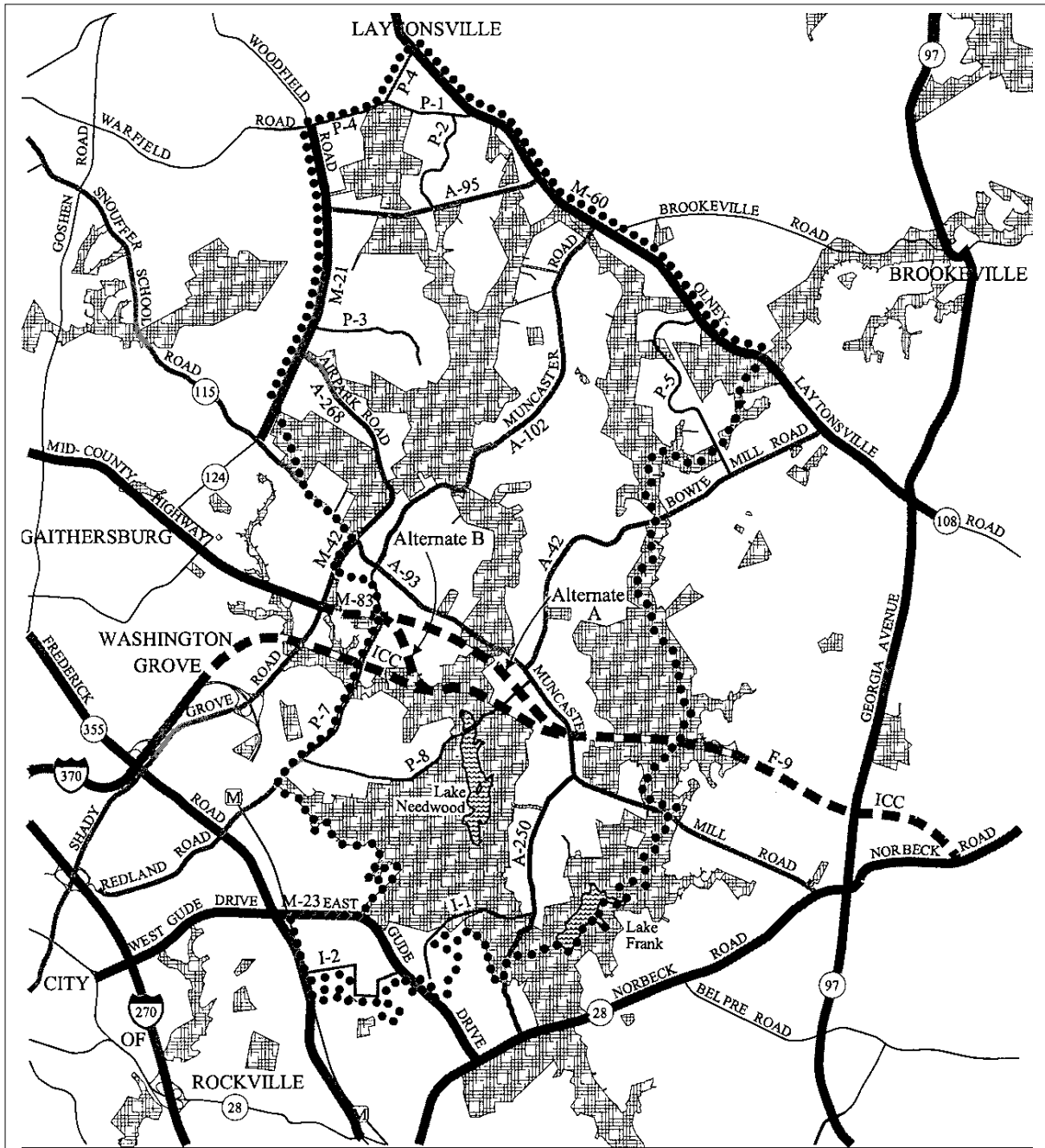
The Bikeway System includes:

- The Agricultural Heritage Bikeway, which will enable bicyclists to reach an important destination, the Agricultural History Farm Park, from both east and west.
- Several bike routes for commuters that lead directly to the Shady Grove Metro Station – Muncaster Road/Redland Road, Bowie Mill Road/Needwood Road, and Woodfield/Shady Grove Road.
- The Magruder Bikeway that runs between Rock Creek and the Shady Grove Metro Station and links two key destinations: Lake Needwood and Magruder High School.

Local bikeways that serve individual neighborhoods should also be provided as new roads and subdivisions are built.

This Bikeway System reflects several changes to the previous bikeway plan. These changes provide improved environmental protection of the streams by moving several proposed bikeways out of the stream valleys and replacing them with other routes, improved direct routes for commuters to the Shady Grove Metro Station; added bike paths to provide routes that are separated from traffic, and improved connections to regional bike routes that extend beyond the Planning Area.

# ROADWAY DESIGNATIONS



- Master Plan Area Boundary
- ▨ Existing and Proposed Parkland
- ▬ Western Connector
- ▬ Major Highway or Freeway (M-#)
- ▬ Arterial (A-#) or Industrial (I-#)
- ▬ Primary Residential or Business (P-#)

**NOTE:** Road designations outside the master plan area are for information only. See relevant area master plan for their designations.





## Street and Highway Classifications

Roadway		Limits	Minimum ROW Width (feet)	Number of Travel Lanes <sup>1</sup>
<b>Freeways</b>				
F-9	Intercounty Connector	Redland Road to North Branch of Rock Creek	300	6, divided, plus transitway facility
<b>Major Highways</b>				
M-21	Woodfield Road (MD 124)	Muncaster Mill Road to Warfield Road	120-150 <sup>2</sup>	6, divided
M-23	East Gude Drive	CSX Railroad to Southlawn Lane	120	4, divided
M-42	Shady Grove Road	Mill Run Drive to Muncaster Mill Road	120-150 <sup>2</sup>	6, divided
M-60	Olney-Laytonsville Road (MD 108)	Laytonsville Town Boundary to Plan Boundary	120	4, divided
M-83	Midcounty Highway	Redland Road to F-9	150	4-6, divided
<b>Arterials</b>				
A-42	Bowie Mill Road	Muncaster Mill Road to North Branch of Rock Creek	80	2
A-93	Muncaster Mill Road (MD 115)	Woodfield Road to Redland Road	100	4, divided
A-93	Muncaster Mill Road (MD 115)	Redland Road to North Branch of Rock Creek	80	2
A-95	Fieldcrest Road	Woodfield Road to Olney-Laytonsville Road	80	2
A-102	Muncaster Road	Muncaster Mill Road to Olney-Laytonsville Road	80	2

<sup>1</sup> These are the number of planned through travel lanes for each segment, not including lanes for turning, parking, acceleration, deceleration, or other purposes auxiliary to through travel

<sup>2</sup> Current design plans for these roadways call for six lanes within a 120-foot right-of-way. These plans should be implemented. Future subdivisions should require 150-foot rights-of-way for long term planning purposes.

Roadway		Limits	Minimum ROW Width (feet)	Number of Travel Lanes <sup>1</sup>
A-250	Avery Road	Plan Boundary to Muncaster Mill Road	80	2
A-268	Airpark Road Extended	Woodfield Road to Shady Grove Road	80	4
<b>Primary Residential</b>				
P-1	Dorsey Road	Warfield Road to Olney-Laytonsville Road	70	2
P-2	Sweet Meadow Lane/Belle Chase Drive	Dorsey Road to Fieldcrest Road	70	2
P-3	Cypress Hill Drive	Woodfield Road to Road End	70	2
P-4	Warfield Road	Woodfield Road to Laytonsville Town Boundary	70	2
P-5	Wickham Road	Olney-Laytonsville Road to Plan Boundary	70	2
P-7	Redland Road	Crabbs Branch Way to Needwood Road	70	4
		Needwood Road to Muncaster Mill Road	70	2
P-8	Needwood Road	Redland Road to Muncaster Mill Road	70	2
<b>Industrial</b>				
I-1	Southlawn Lane	Gude Drive to Avery Road	70	2-4
I-2	Dover Road	Gude Drive to Horners Lane	70	2
I-2	Horners Lane	Dover Road to Westmore Avenue	70	2
I-2	Westmore Avenue	Horners Lane to Westmore Road	70	2
I-2	Westmore Road	Westmore Avenue to Road End	70	2

## Overall Recommendations

- Bikeway System routes as described in this Master Plan should be implemented as well as a “finer” system of neighborhood routes. The neighborhood routes should be designated and built when new roads and neighborhoods are built. They should provide connections to the main bike routes as well as circulation within the neighborhoods and connections to local destinations such as nearby parks and schools.
- Roadways that include Class II or Class III bikeways should be improved to meet safety standards before bikeway signs or markings are placed on the road. Two roads in particular are likely to require such safety improvements: Muncaster Road and Redland Road.
- Bikeways should provide access to park trails, which are important destinations.

This Plan makes these recommendations for individual bikeways:

- The Agricultural Heritage Bikeway creates bicycle connections to this important park from east and west. From MD 124 on the west, a Class II bike path should be designated on Cypress Hill Drive. Land newly acquired as part of the development of the Hoover property also can be used. To reach the park from the east, Class I or Class II bike paths should be designated as part of the development of the Fraley and Hendry properties.
- Bikeways can be used as commuter routes to the Shady Grove Metro Station. This Plan recommends a Class II or Class III bikeway on Redland Road, depending on the availability of right-of-way. Class II or Class III bikeways on Muncaster and Bowie Mill Roads should be designated to allow longer distance commuters the opportunity to reach Shady Grove. On Needwood Road, a Class I bike path should be designated and constructed from Redland Road to Muncaster Mill Road to provide access to Rock Creek Park. The Park and Trails section of this Plan contains additional information on connecting bike paths between Rock Creek Park and the Intercounty Connector bike paths. A Class I bike path is included as part of improvements to MD 124.
- The Magruder Bikeway allows connections between Rock Creek and Shady Grove. The Class I bikeway on Needwood Road provides access from Shady Grove to Muncaster Mill Road near Magruder High School. Connecting bike paths should be designated and built as part of the development of the Casey property to serve Magruder High School and connect to the park.
- Class I bikeways should be designated and constructed in the rights-of-way for the Intercounty Connector and the Mid-County Highway.
- A Class II bikeway should be designated on MD 108 from Laytonsville to the Planning Area Boundary near North Branch. A Class I bike path would be desirable along this route, should improvements be programmed for MD 108.

- A Class II bikeway should be designated on Fieldcrest Road between MD 124 and MD 108. A Class I bike path is desirable, if improvements are programmed for Fieldcrest Road.
- A Class II or Class III bikeway should be designated on Muncaster Mill Road between MD 124 and North Branch.
- A Class II or Class III bikeway should be designated on Avery Road between Muncaster Mill Road and the entrance to Rock Creek Regional Park.

This Bikeway System reflects coordination with the *Countywide Parks Trails Plan*. The system includes a Class I bikeway along Needwood Road to connect the ICC bike path and Shady Grove Metro. It also includes a Class I bikeway on Emory Lane, avoiding the North Branch biodiversity area.

## **PEDESTRIAN NETWORK**

This Plan proposes two key concepts for a pedestrian system: a park trails plan that serves both the local community and the entire County, and safe walking routes to local destinations such as schools, local parks, commercial areas and transit, particularly the Shady Grove Metro Station.

Improvements are needed to insure that people who live near these destinations can safely walk to them, instead of driving. For this reason, particular attention should be given to providing for crossings of main roads – such as Bowie Mill Road at Sequoyah Elementary School, and the North Branch Trail crossing at Muncaster Mill Road.

The concept shows the local destinations that should be studied to determine what improvements are needed to provide good access. For schools, this study should be coordinated by MCPS and DPWT through their on-going work to ensure safe routes to schools. Walking routes should be provided within a one-half mile radius of a destination. MCPS standards should be applied when determining appropriate walking distances to local schools.

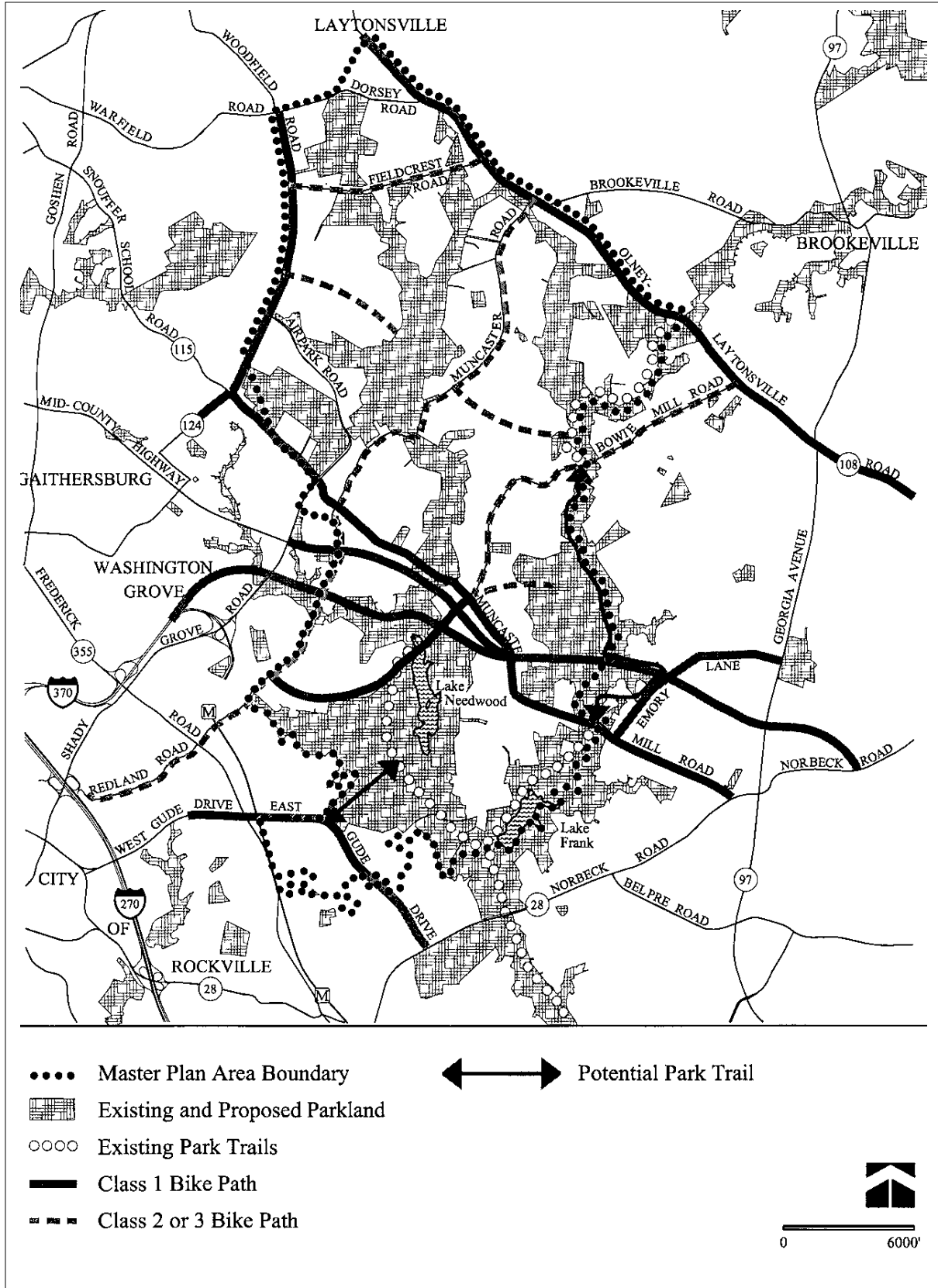
## **PUBLIC TRANSIT**

Travel forecasts indicate that the Upper Rock Creek Planning Area will become increasingly congested in the next twenty years, but a primary goal of this Plan is to preserve the area's low density residential character. A greater emphasis on transit and travel demand management can increase the efficient use of the roads and help reduce congestion. Continued planning for public transit should further examine opportunities to expand public transit services in the Planning Area to complement the environmental goal of the Plan and the two-lane road policy. Because of the area's low density residential character, this Plan does not envision the introduction of rail or other fixed-guideway transit services in the Planning Area. The transit objectives must be met through expansion of efficient bus services and consideration of transit priority projects that enhances these bus services. These planning activities should include consideration of bus priority treatments such as auxiliary "queue jumper" lanes that may require additional right-of-way beyond that indicated in the Street and Highway Classification table.

## Bikeways

<b>Ref. No.</b>	<b>Bikeway</b>	<b>Location</b>	<b>Type</b>
DB-14	Needwood Road	Redland Road to Muncaster Mill Road (MD 115)	Shared-use path (Class I)
DB-19	Woodfield Road (MD 124)	Gaithersburg Vicinity Plan Boundary to Warfield Road	Dual bikeway (Class I and either Class II or Class III)
BL-20	Bowie Mill Road	Muncaster Mill Road (MD 115) to North Branch of Rock Creek	On-road (Class II or III)
SP-28	Muncaster Mill Road (MD 115)	Gaithersburg Vicinity Plan Boundary to North Branch of Rock Creek	On-road (Class II or III)
BL-29	Redland Road	Crabbs Branch Way to Muncaster Mill Road	On-road (Class II or III)
BL-30	Shady Grove Road	Muncaster Mill Road (MD 115) to Midcounty Highway	On-road (Class II or III)
BL-31	Fieldcrest Road	Woodfield Road (MD 124) to Olney-Laytonsville Road (MD 108)	On-road (Class II or III)
SP-36	Olney-Laytonsville Road (MD 108)	Town of Laytonsville to Olney Plan Boundary	Shared-use path (Class I)
SP-40	ICC	Redland Road to North Branch of Rock Creek	Shared-use path (Class I)
SP-51	East Gude Drive	CSX Railroad to Southlawn Lane	Shared-use path (Class I)
SP-55	Airpark Road	Woodfield Road (MD 124) to Muncaster Mill Road (MD 115)	Shared-use path (Class I)
SP-70	Midcounty Highway Extended	Redland Road to ICC	Shared-use path (Class I)
B-1	Muncaster Road	Olney-Laytonsville Road (MD 108) to Muncaster Mill Road (MD 115)	On-road (Class II or III)
B-2	Cypress Hill Drive	Woodfield Road (MD 124) to Rock Creek Stream Valley Park	On-road (Class II or III)
B-3	Casey property internal street system	Muncaster Road to North Branch Stream Valley Park	On-road (Class II or III)
B-4	Avery Road	Muncaster Mill Road (MD 115) to Rock Creek Regional Park	On-road (Class II or III)
B-5	Agricultural Bikeway	Hendry property internal street system from Muncaster Road to Little Spring Road, Little Spring Road from Hendry property to Fraley Farm Road, Fraley Farm Road from Little Spring Road to Griffith Farm Road, Griffith Farm Road from Fraley Farm Road to Fraley property, Fraley property internal street system from Griffith Farm Road to North Branch Stream Valley Park	On-road (Class II or III)

# BIKEWAYS



Public transit serves two constituencies. Some users choose transit as a competitive alternative to auto travel; others are transit-dependent and auto travel is not an option. Upper Rock Creek has both types of users and requires a transit plan which addresses the needs of both groups. Transit is an attractive option where development densities are sufficiently high to generate travelers on shared routes. Areas can then be served by vehicles operating on fixed routes or schedules. The existing fixed-route bus services are generally oriented toward the Shady Grove Metrorail Station.

## **TRAVEL DEMAND MANAGEMENT**

Travel Demand Management (TDM) describes a range of policies and programs designed to discourage use of the single-occupant auto and to encourage alternative forms of travel, including transit, ridesharing, bicycling, and walking. These policies and programs range from regional and countywide information and education programs to employer-based financial incentives.

Montgomery County has legislated TDM activities in areas of concentrated commercial development with high traffic congestion. In these areas, a Transportation Management Organization (TMO) is established to implement and monitor TDM activities. The Shady Grove Share-a-Ride District includes a portion of the Derwood area near the Shady Grove Metrorail Station.



## DEPARTMENT OF TRANSPORTATION

Isiah Leggett  
*County Executive*

Al R. Roshdieh  
*Director*

March 8, 2018

Mr. Jonathan Casey, Senior Planner  
Area 3 Planning Division  
The Maryland-National Capital  
Park & Planning Commission  
8787 Georgia Avenue  
Silver Spring, Maryland 20910-3760

RE: **AMENDED** Preliminary Plan Letter  
Design Exception Package  
Preliminary Plan No. 120160210  
Cashell Estates

Dear Mr. Casey:

This letter is to amend the comments contained in our March 6, 2018 preliminary plan and Design Exception package review letter.

All Planning Board Opinions relating to this plan or any subsequent revision, project plans or site plans should be submitted to the Montgomery County Department of Permitting Services (MCDPS) in the package for record plats, storm drain, grading or paving plans, or application for access permit. Include this letter and all other correspondence from this department.

1. All previous comments in our March 6, 2018 letter remain applicable unless modified below.

**Design Exception Package Comments**

2. **Redland Road- Comment # 2 (A):**

**MCDOT Response:**

The Redland Road cross sections from the previous letter shall be revised to include the following:

**Office of the Director**

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101 Monroe Street 10<sup>th</sup> Floor · Rockville Maryland 20850 · 240-777-7170 · 240-777-7178 FAX

[www.montgomerycountymd.gov](http://www.montgomerycountymd.gov)

*Located one block west of the Rockville Metro Station*



From West to East:

SECTION A-A:

- Existing two (2)-ft. wide bottom swale (outside the right-of-way)
- Existing four (4)-ft. wide sidewalk
- Existing Asphalt curb
- 34- ft. +/- existing super elevated pavement
- Proposed 5.5-ft. wide bikeable shoulder.
- Proposed curb & reverse gutter
- Proposed 11.5-ft. wide lawn panel with 6:1 max slope.
- Proposed Five (5)-foot wide sidewalk
- Proposed One (1)- foot wide buffer

SECTION B-B:

- Existing four (4)-ft. wide sidewalk (outside the right-of-way)
- Proposed six (6)-ft. wide bottom swale with 3:1 side slopes (outside the right-of-way)
- Existing Asphalt curb
- 34- ft. +/- existing super elevated pavement
- Proposed 5.5-ft. wide bikeable shoulder.
- Proposed curb & reverse gutter
- Proposed 11.5-ft. wide lawn panel with 6:1 max slope.
- Proposed Five (5)-foot wide sidewalk
- Proposed One (1)- foot wide buffer

3. **Redland Road- Comment # 2 (B)**

**MCDOT Response: (i) third paragraph:**

Original language:

*"We recommend that the proposed access easement along the state property on the east side of the subject property as stated in the MDOT SHA letter shall be recorded and the proposed private*

*street from Garrett Road to the subject property shall be permitted, bonded, and built by the applicant before the release of the tenth (10th) building permit (similar to the recommendation in the applicant's letter dated May 1, 2017)."*

The comment shall be revised as follows:

"We recommend that the proposed access easement along the state property on the east side of the subject property as stated in the MDOT SHA letter shall be recorded and the proposed private street from Garrett Road to the subject property shall be permitted and bonded by the applicant before the release of the tenth (10<sup>th</sup>) building permit (as recommended in the applicant's letter dated May 1, 2017) and built by the applicant prior to the release of the **sixteenth (16<sup>th</sup>)** building permit."

**MCDOT Response: (i) fourth paragraph second bullet point:**

Original language:

- *"The access easement along the state property on the east side of the subject property as stated in the MDOT SHA letter shall be recorded by the applicant and the proposed private street from Garrett Road to the subject property shall be permitted, bonded, and built by the applicant before the release of the tenth (10<sup>th</sup>) building permit."*

The comment shall be revised as follows:

- The access easement along the state property on the east side of the subject property as stated in the MDOT SHA letter shall be recorded by the applicant and the proposed private street from Garrett Road to the subject property shall be permitted and bonded by the applicant before the release of the tenth (10<sup>th</sup>) building permit (as recommended in the applicant's letter dated May 1, 2017) and built by the applicant prior to the release of the **sixteenth (16<sup>th</sup>)** building permit.

### **Significant Preliminary Plan Comments**

1. **Comment # 1: Second Bullet Point:**

Original language:

- *"The access easement along the state property on the east side of the subject property as stated in the MDOT SHA letter shall be recorded by the applicant and the proposed private street from Garrett Road to the subject property shall be permitted, bonded, and built by the applicant before the release of the tenth (10<sup>th</sup>) building permit."*

The comment shall be revised as follows:

- The access easement along the state property on the east side of the subject property as stated in the MDOT SHA letter shall be recorded by the applicant and the proposed private street from Garrett Road to the subject property shall be permitted and bonded by the applicant before the release of the tenth (10<sup>th</sup>) building permit (as recommended in the applicant's letter dated May 1, 2017) and built by the applicant prior to the release of the **sixteenth (16<sup>th</sup>)** building permit.

2. **Comment # 2 (A) Second Bullet Point, Second paragraph:**

Original language:

*The note should state: "Area reserved for a proposed private street across state property for connection to Garrett Road. The access easement along the state property shall be recorded by the applicant and the proposed private street from Garrett Road shall be permitted, bonded, and built by the applicant before the release of the tenth (10<sup>th</sup>) building permit. The two guest parking spaces shall be moved onto the state easement area as shown when the secondary access is constructed."*

The comment shall be revised as follows:

*The note should state: "Area reserved for a proposed private street across state property for connection to Garrett Road. The access easement along the state property shall be recorded by the applicant and the proposed private street from Garrett Road shall be permitted and bonded by the applicant before the release*

*of the tenth (10<sup>th</sup>) building permit (as recommended in the applicant's letter dated May 1, 2017) and built by the applicant prior to the release of the **sixteenth (16<sup>th</sup>)** building permit. The two guest parking spaces shall be moved onto the state easement area as shown when the secondary access is constructed.”*

### **Additional Preliminary Plan Comments**

3. **Comment # 23 (a):** The Redland Road cross sections from the previous letter shall be revised to include the following:

#### From West to East:

##### SECTION A-A:

- Existing two (2)-ft. wide bottom swale (outside the right-of-way)
- Existing four (4)-ft. wide sidewalk
- Existing Asphalt curb
- 34- ft. +/- existing super elevated pavement
- Proposed 5.5-ft. wide bikeable shoulder.
- Proposed curb & reverse gutter
- Proposed 11.5-ft. wide lawn panel with 6:1 max slope.
- Proposed Five (5)-foot wide sidewalk
- Proposed One (1)- foot wide buffer

##### SECTION B-B:

- Existing four (4)-ft. wide sidewalk (outside the right-of-way)
- Proposed six (6)-ft. wide bottom swale with 3:1 side slopes (outside the right-of-way)
- Existing Asphalt curb
- 34- ft. +/- existing super elevated pavement
- Proposed 5.5-ft. wide bikeable shoulder.
- Proposed curb & reverse gutter
- Proposed 11.5-ft. wide lawn panel with 6:1 max slope.

Mr. Jonathan Casey  
Design Exception &  
Preliminary Plan No. 120160210  
**AMENDED LETTER**  
March 8, 2018  
Page 6

- Proposed Five (5)-foot wide sidewalk
- Proposed One (1)- foot wide buffer

Thank you for the opportunity to review this Preliminary Plan. If you have any questions or comments regarding this letter, please contact Deepak Somarajan, our Development Review Team Engineer for this project at [deepak.somarajan@montgomerycountymd.gov](mailto:deepak.somarajan@montgomerycountymd.gov) or (240) 777-7170.

Sincerely,



Rebecca Torma, Acting Manager  
Development Review  
Office of Transportation Policy

SharePoint\teams\DOT\Director's Office\Development Review\Deepak\Preliminary Plan\Cashell Estates\Letter\  
120160210 Cashell Estates--AMENDED LETTER

Attachments (0): Refer to the attachments in the previous letter dated March 6, 2018

cc: Dean Packard                      Garrett Gateway Partners, LLC  
Stephen Orens                      McMillan Metro, P.C.  
Kwesi Woodroffe                  MDOT SHA District 3  
Preliminary Plan folder  
Preliminary Plan letters notebook

cc-e: Atiq Panjshiri                  MCDPS RWPR  
Sam Farhadi                        MCDPS RWPR  
Marie LaBaw                        MCDPS Fire Dept. Access  
Christopher Conklin                MCDOT OTP/DTEO  
Devang Dave                        MCDOT DTEO  
Dewa Salihi                         MCDOT DTEO  
Dan Sanayi                         MCDOT DTEO  
Patricia Shepherd                  MCDOT DTE  
Stacy Coletta                        MCDOT DTS  
Deepak Somarajan                  MCDOT OTP



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**Department of Permitting Services  
Fire Department Access and Water Supply Comments**

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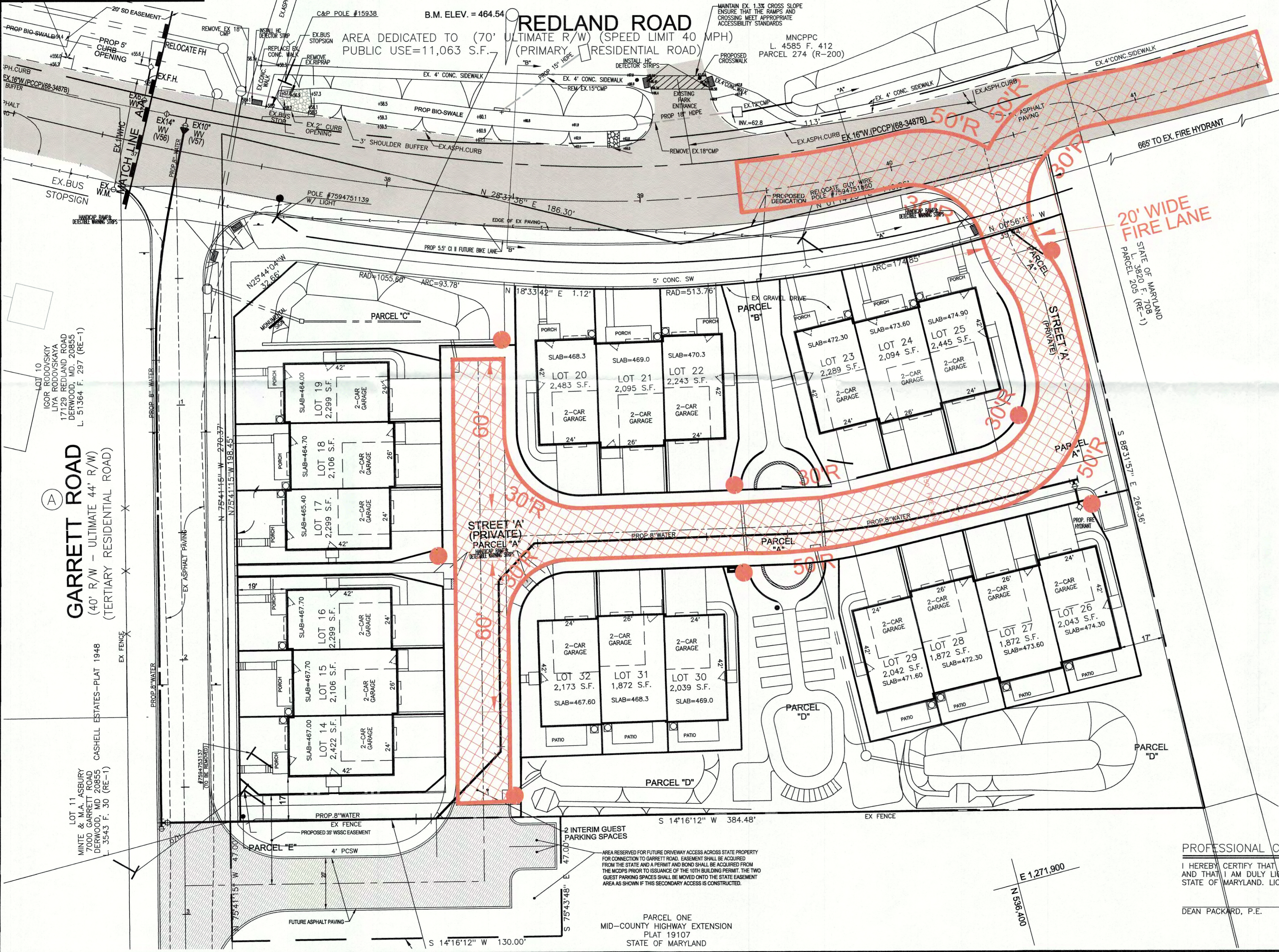
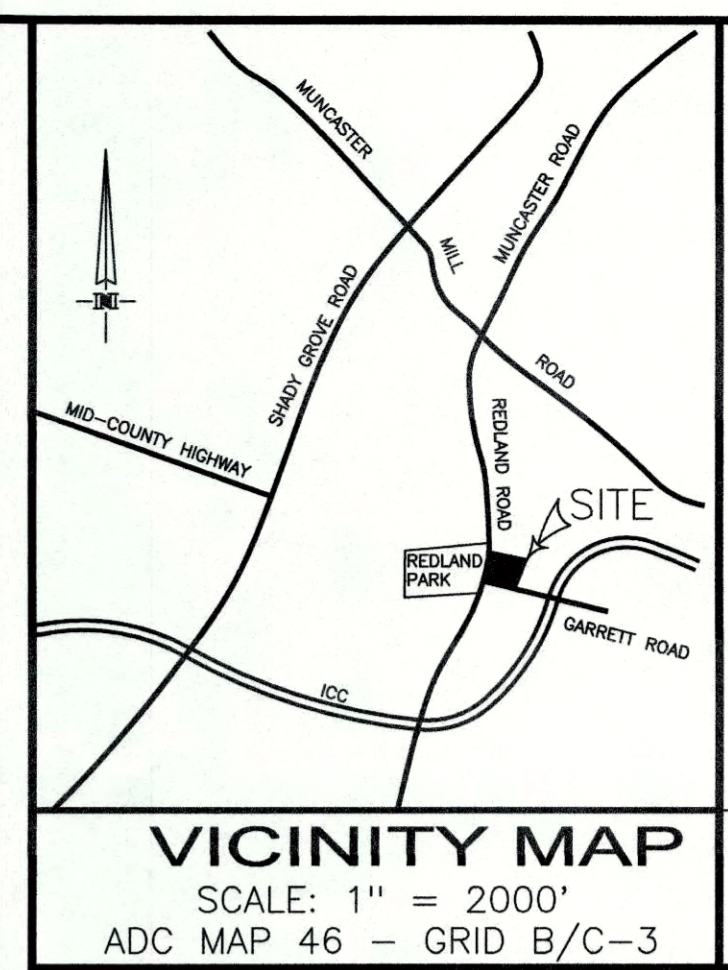
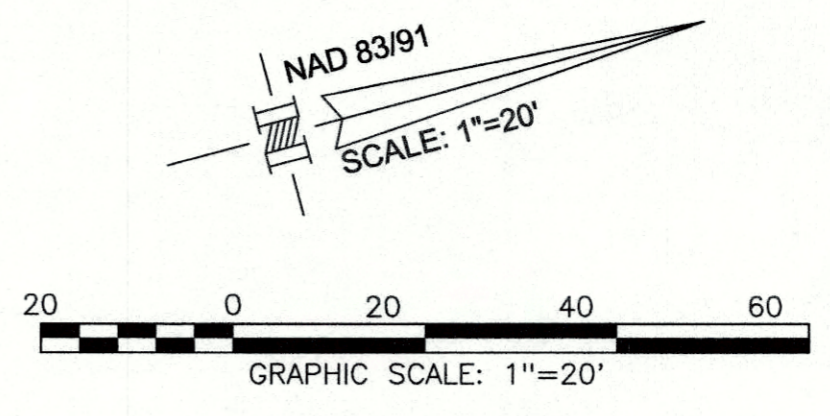
**DATE:** 01-Mar-18  
**TO:** Dean Packard - [pgai@verizon.net](mailto:pgai@verizon.net)  
P.G. Associates, Inc  
**FROM:** Marie LaBaw  
**RE:** Cashell Estates  
120160210

---

**PLAN APPROVED**

1. Review based only upon information contained on the plan submitted **01-Mar-18** .Review and approval does not cover unsatisfactory installation resulting from errors, omissions, or failure to clearly indicate conditions on this plan.
2. Correction of unsatisfactory installation will be required upon inspection and service of notice of violation to a party responsible for the property.

LEGEND	
	PROPERTY LINE
	EXISTING CONTOUR
	PROPOSED CONTOUR
	LIMIT OF DISTURBANCE
	ROOF TOP DISCONNECT FLOW PATH
	TREE LINE
	EXISTING OVERHEAD LINES
	EXISTING WATER LINES
	EXISTING SEWER LINES
	EXISTING STORM DRAIN
	EXISTING UNDERGROUND GAS LINES
	EXISTING UNDERGROUND ELECTRICAL LINES
	EXISTING UNDERGROUND TELEPHONE / CABLE LINES
	EXISTING WOOD FENCE
	EXISTING WIRE FENCE
	EXISTING RAIL FENCE
	PROPOSED SPOT GRADES
	PROPOSED DRY WELLS
	SOIL BORING



**GENERAL NOTES**

- SITE ADDRESS IS 7009 GARRETT ROAD, DERWOOD, MD 20855
- TAX I.D. NUMBER: 04-00118126
- PLAT REFERENCE: PLAT 2038
- DEED REFERENCE: LIBER 49677 FOLIO 284.
- SITE IS LOCATED ON TAX MAP GT-341.
- SITE IS LOCATED ON WSSC 200 SHEET No. 223-NW-07.
- EXISTING WATER AND SEWER CATEGORY IS W-3 & S-3.
- SITE HAS EXISTING WATER AND SEWER AVAILABLE.
- EXISTING ZONING IS RE-1
- EXISTING SOILS ARE 2B, GLENELG SILT LOAM, 3-8% SLOPES.
- BOUNDARY SHOWN FROM AVAILABLE DEEDS AND PLATS.
- TOPOGRAPHY BY FIELD SURVEY BY P.G. ASSOCIATES, INC. JUNE 2014.
- WATERSHED: UPPER ROCK CREEK, CLASS IV
- UTILITY COMPANIES:  
ELECTRIC: PEPCO  
WATER & SEWER: WSSC  
TELEPHONE: VERIZON  
CATV: COMCAST
- OWNER  
GARRETT GATEWAY PARTNERS, LLC  
16220 FREDERICK ROAD, SUITE 300  
GAITHERSBURG, MD. 20877  
PHONE: 301-208-0250

**FIRE LANE  
NO PARKING SIGNS**

**FIRE CODE ENFORCEMENT**  
Fire Department Access Review  
Review based only upon information contained on this plan. Does not cover unsatisfactory layout resulting from omissions, errors or failure to clearly indicate conditions on this plan. Correction of such unsatisfactory layout to afford required access will be required if found upon inspection after installation.  
BY: *SJC* FM: *43* DATE: *3/1/2018*

**PROFESSIONAL CERTIFICATION**  
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE No. 16518, EXPIRATION DATE: 06/10/2019.  
DEAN PACKARD, P.E. *Dean Packard* 3/1/18 DATE

**PACKARD & ASSOCIATES, LLC**  
CIVIL ENGINEERS \* SURVEYORS \* LAND PLANNERS  
16220 FREDERICK ROAD, SUITE 300  
GAITHERSBURG, MARYLAND 20877  
PHONE (301) 208-0250 FAX (301) 208-1270



**FIRE DEPARTMENT ACCESS PLAN**  
PROPOSED LOTS No. 14 thru 32 - BLOCK B  
**CASHELL ESTATES**  
PART OF LOT 5, BLOCK B  
RECORDED IN PLAT 2038  
\*\* ELECTION DISTRICT No. \*

SCALE 1"=20'	DRAWN JDJ
DATE 1-29-18	ACAD FILE NAME
SHEET 1 of 1	

SOIL DATA				
SYMBOL	DESCRIPTION	PRIME FARMLAND	HIGHLY ERODIBLE	HYDRIC
2B	GLENELG SILT LOAM 3-8% SLOPES	YES	NO	NO

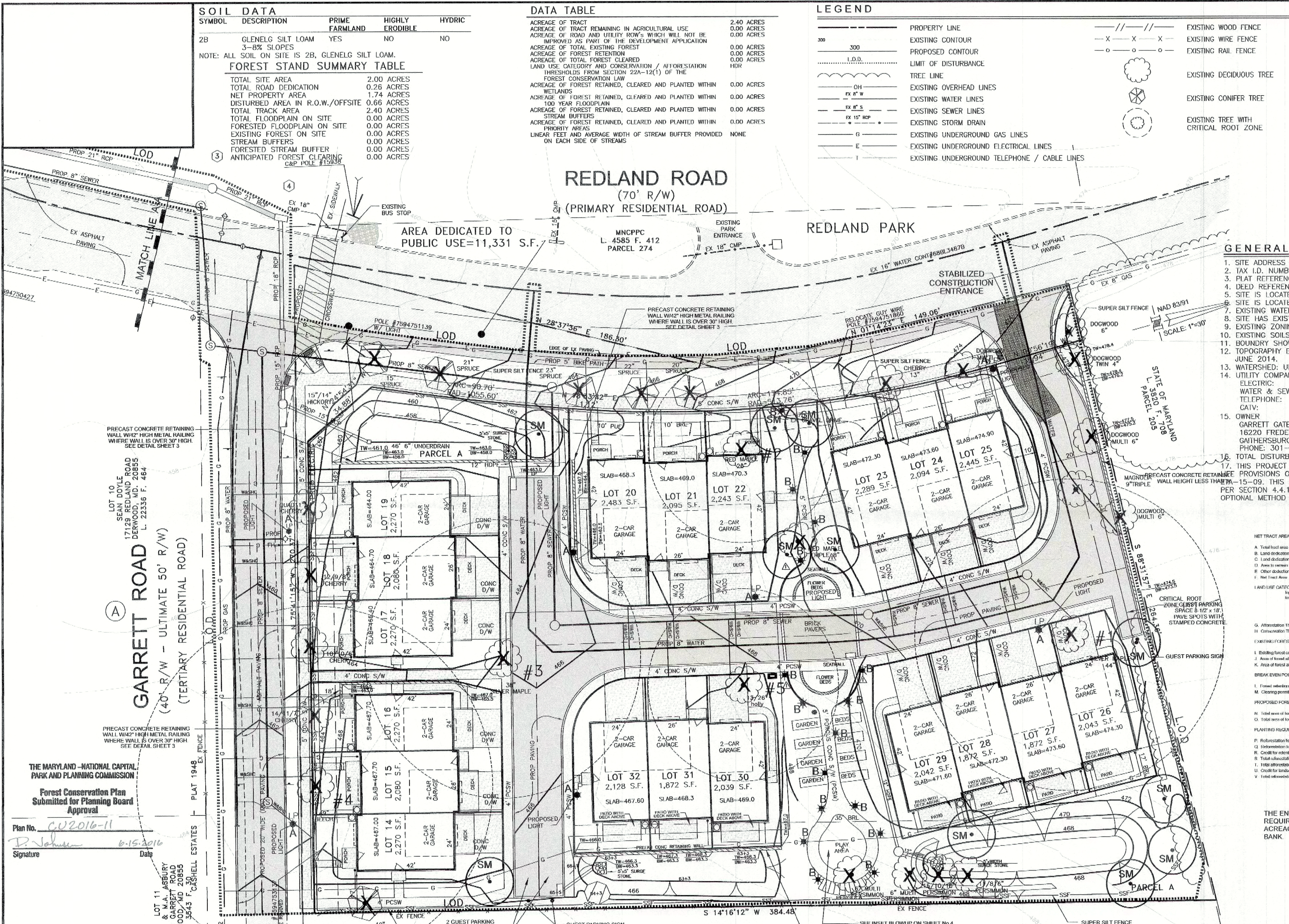
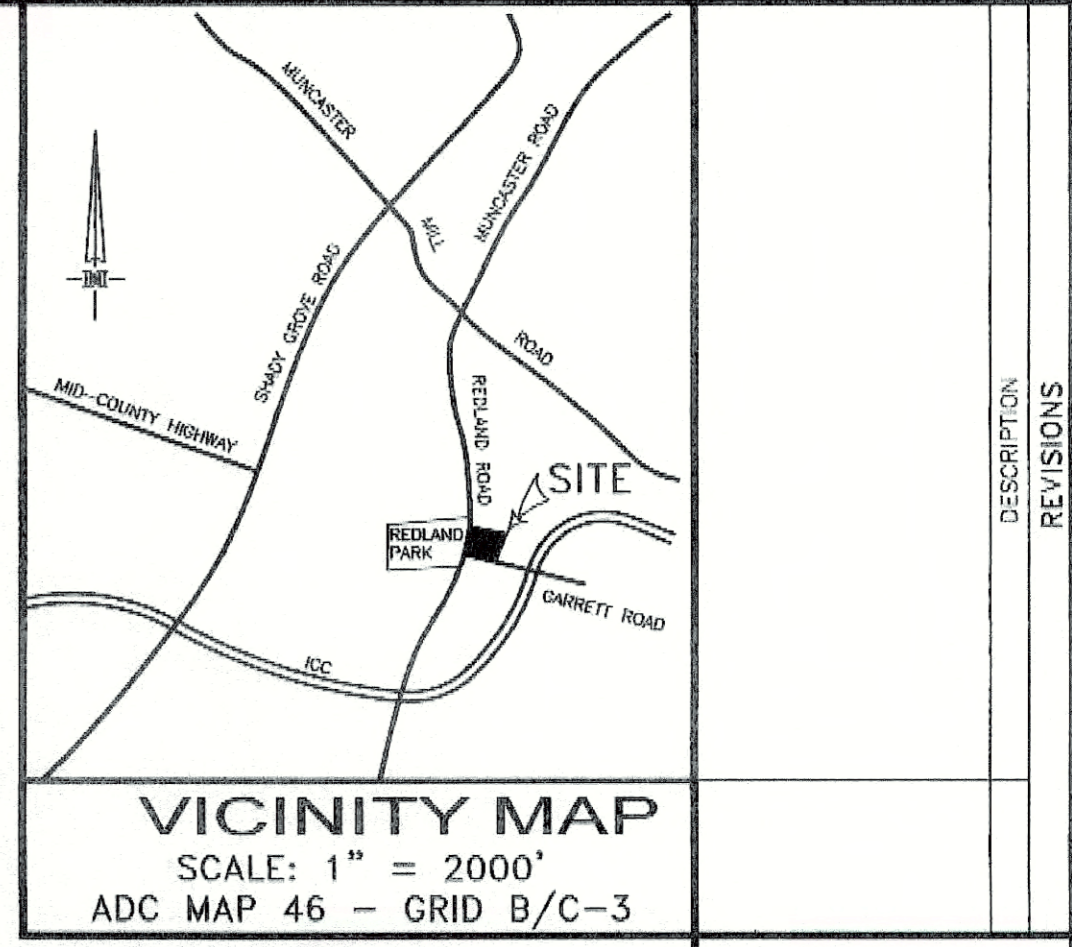
NOTE: ALL SOIL ON SITE IS 2B, GLENELG SILT LOAM.

### FOREST STAND SUMMARY TABLE

TOTAL SITE AREA	2.00 ACRES
TOTAL ROAD DEDICATION	0.26 ACRES
NET PROPERTY AREA	1.74 ACRES
DISTURBED AREA IN R.O.W./OFFSITE	0.06 ACRES
TOTAL TRACK AREA	2.40 ACRES
TOTAL FLOODPLAIN ON SITE	0.00 ACRES
FORESTED FLOODPLAIN ON SITE	0.00 ACRES
EXISTING FOREST ON SITE	0.00 ACRES
STREAM BUFFERS	0.00 ACRES
FORESTED STREAM BUFFER	0.00 ACRES
ANTICIPATED FOREST CLEARING	0.00 ACRES

DATA TABLE	
ACREAGE OF TRACT	2.40 ACRES
ACREAGE OF TRACT REMAINING IN AGRICULTURAL USE	0.00 ACRES
ACREAGE OF ROAD AND UTILITY ROW'S WHICH WILL NOT BE IMPROVED AS PART OF THE DEVELOPMENT APPLICATION	0.00 ACRES
ACREAGE OF TOTAL EXISTING FOREST	0.00 ACRES
ACREAGE OF FOREST RETENTION	0.00 ACRES
ACREAGE OF TOTAL FOREST CLEARED	0.00 ACRES
LAND USE CATEGORY AND CONSERVATION / AFFORESTATION THRESHOLDS FROM SECTION 22A-12(1) OF THE FOREST CONSERVATION LAW	0.00 ACRES
ACREAGE OF FOREST RETAINED, CLEARED AND PLANTED WITHIN WETLANDS	0.00 ACRES
ACREAGE OF FOREST RETAINED, CLEARED AND PLANTED WITHIN 100 YEAR FLOODPLAIN	0.00 ACRES
ACREAGE OF FOREST RETAINED, CLEARED AND PLANTED WITHIN STREAM BUFFERS	0.00 ACRES
ACREAGE OF FOREST RETAINED, CLEARED AND PLANTED WITHIN PRIORITY AREAS	0.00 ACRES
LINEAR FEET AND AVERAGE WIDTH OF STREAM BUFFER PROVIDED ON EACH SIDE OF STREAMS	NONE

LEGEND	
---	PROPERTY LINE
---	EXISTING CONTOUR
---	PROPOSED CONTOUR
---	LIMIT OF DISTURBANCE
---	TREE LINE
OH	EXISTING OVERHEAD LINES
EX 8" W	EXISTING WATER LINES
EX 8" S	EXISTING SEWER LINES
EX 10" RCP	EXISTING STORM DRAIN
G	EXISTING UNDERGROUND GAS LINES
E	EXISTING UNDERGROUND ELECTRICAL LINES
T	EXISTING UNDERGROUND TELEPHONE / CABLE LINES
---	EXISTING WOOD FENCE
X X X	EXISTING WIRE FENCE
---	EXISTING RAIL FENCE
○	EXISTING DECIDUOUS TREE
⊗	EXISTING CONIFER TREE
○	EXISTING TREE WITH CRITICAL ROOT ZONE



- ### GENERAL NOTES
- SITE ADDRESS IS 7009 GARRETT ROAD, DERWOOD, MD 20855
  - TAX I.D. NUMBER: 04-00118126
  - PLAT REFERENCE: PLAT 2038
  - DEED REFERENCE: LIBER 49677 FOLIO 284.
  - SITE IS LOCATED ON TAX MAP GT-341
  - SITE IS LOCATED ON WSSC 200 SHEET No. 223-NW-07.
  - EXISTING WATER AND SEWER CATEGORY IS W-3 & S-3.
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  - EXISTING ZONING IS RE-1
  - EXISTING SOILS ARE 2B, GLENELG SILT LOAM, 3-8% SLOPES.
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    - ELECTRIC: PEPCO
    - WATER & SEWER: WSSC
    - TELEPHONE: VERIZON
    - CATV: COMCAST
  - OWNER: GARRETT GATEWAY PARTNERS, LLC 16220 FREDERICK ROAD, SUITE 300 GAITHERSBURG, MD 20877 PHONE: 301-208-0250
  - TOTAL DISTURBED AREA: 104,544 S.F. / 2.40 ACRES
  - THIS PROJECT SHALL BE DEVELOPED UNDER THE DESIGN FOR PROVISIONS OF ORDINANCE 18-02 AND AS MODIFIED BY 15-09. THIS CONDITIONAL USE PLAN SHALL BE DESIGNED PER SECTION 4.4.12.C TOWNHOUSE MEDIUM DENSITY ZONE (TMD), OPTIONAL METHOD DEVELOPMENT STANDARDS.

FOREST CONSERVATION WORKSHEET		5-Apr-07
NET TRACT AREA:		
A. Total tract area	2.40	
B. Land dedication areas (parks, county facility, etc.)	0.00	
C. Land dedication for roads or utilities (not being constructed by this party)	0.00	
D. Area to remain in commercial agricultural production	0.00	
E. Other dedications (specify) _____	0.00	
F. Net Tract Area	2.40	
LAND USE CATEGORY (from Tract Forestry Allowance)		
AREA	MERIT	ESA
0	0	0
AFFORESTATION THRESHOLD		
G. Afforestation Threshold	10%	0.36
H. Conservation Threshold	20%	0.48
EXISTING FOREST COVER:		
I. Existing forest cover	0.00	
J. Area of forest above afforestation threshold	0.00	
K. Area of forest above conservation threshold	0.00	
BREAK EVEN POINT:		
L. Forest retention above forest cover with no mitigation	0.00	
M. Clearing permitted without mitigation	0.00	
PROPOSED FOREST CLEARING:		
N. Total area of forest to be cleared	0.00	
O. Total area of forest to be retained	0.00	
PLANTING REQUIREMENTS:		
P. Reforestation for clearing above conservation threshold	0.00	
Q. Reforestation for clearing below conservation threshold	0.00	
R. Credit for retention above conservation threshold	0.00	
S. Total reforestation required	0.00	
T. Total afforestation required	0.36	
U. Credit for landscaping (may not exceed 20% of "S")	0.00	
V. Total reforestation cost (afforestation required)	0.36	

THE ENTIRE AFFORESTATION/REFORESTATION REQUIREMENT WILL BE MET BY TAKING THE ACREAGE TO AN OFF-SITE FOREST MITIGATION BANK.

PACKARD & ASSOCIATES, LLC  
16220 FREDERICK ROAD, SUITE 300  
GAITHERSBURG, MARYLAND 20877  
PHONE: 301-208-0250 FAX: 301-208-1270

Plan Prepared by:  
*Dean Packard*  
DEAN PACKARD, P.E.  
Qualified Professional  
08.19.06.01

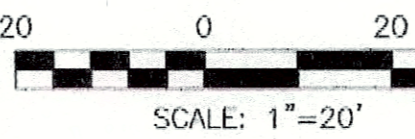
**PACKARD & ASSOCIATES, LLC**  
CIVIL ENGINEERS \* SURVEYORS \* LAND PLANNERS  
16220 FREDERICK ROAD, SUITE 300  
GAITHERSBURG, MARYLAND 20877  
PHONE (301) 208-0250 FAX (301) 208-1270

**PRELIMINARY FOREST CONSERVATION PLAN**  
PROPOSED LOTS No. 14 thru 32 - BLOCK B  
**CASHELL ESTATES**  
PART OF LOT 5, BLOCK B  
RECORDED IN PLAT 2038  
MONTGOMERY COUNTY, MARYLAND  
ROCKVILLE ELECTION DISTRICT No. 4

SPECIMEN TREE LIST					
NO.	COMMON NAME	SPECIES NAME	DBH	REMARKS	CONDITION
1	SILVER MAPLE	ACER SACCHARINUM	44"	REMOVE	FAIR, HOLLOW TRUNK, DEAD LIMBS
2	RED MAPLE	ACER RUBRUM	26"	REMOVE	FAIR, LIGHTNING DAMAGE, HOLLOW TRUNK
3	SILVER MAPLE	ACER SACCHARINUM	38"	REMOVE	GOOD, POOR SHAPE
4	AMERICAN BITCH	FAGUS GRANDIFOLIA	49"	REMOVE	GOOD
5	AMERICAN HOLLY	ILEX OPACA	26"	REMOVE	GOOD

PARCEL ONE  
MID-COUNTY HIGHWAY EXTENSION  
PLAT 19107  
STATE OF MARYLAND  
L. 34107 F. 623  
PARCEL 313

**VARIANCE TREE MITIGATION**  
TO COMPENSATE FOR THE REMOVAL OF THREE ONSITE VARIANCE TREES (1, 2, 3), WE PROPOSE TO PLANT A TOTAL OF 33", OR 11 - 3" ACER SACCHARUM TREES (SILVER MAPLE) TREES SHOWN THUS







## DEPARTMENT OF PERMITTING SERVICES

Isiah Leggett  
County Executive

Diane R. Schwartz Jones  
Director

March 2, 2018

Mr. Dean Packard, P.E.  
Packard & Associates, LLC  
16220 Frederick Road, Suite 300  
Gaithersburg, Maryland 20877

Re: **COMBINED STORMWATER MANAGEMENT  
CONCEPT/SITE DEVELOPMENT  
STORMWATER MANAGEMENT PLAN** for  
Cashell Estates  
Preliminary Plan #: 120160210  
SM File #: 280375  
Tract Size/Zone: 2 Ac. / RE-1  
Total Concept Area: 2 Ac.  
Lots/Block: Pt of Lot 5/B  
Parcel(s): N/A  
Watershed: Upper Rock Creek

Dear Mr. Packard:

Based on a review by the Department of Permitting Services Review Staff, the stormwater management concept for the above-mentioned site is **acceptable**. The stormwater management concept proposes to meet required stormwater management goals via the providing 2 landscape infiltration facilities, 3 bio-swales, 1 micro-bioretenion facility and the partial use of permeable pavement.

The following items will need to be addressed during the detailed sediment control/stormwater management plan stage:

1. A detailed review of the stormwater management computations will occur at the time of detailed plan review.
2. An engineered sediment control plan must be submitted for this development.
3. All filtration media for manufactured best management practices, whether for new development or redevelopment, must consist of MDE approved material.
4. Landscaping shown on the approved Landscape Plan as part of the approved Site Plan are illustrative purpose only and may be changed at the time of detailed plan review of the Sediment Control/Storm Water Management plans by the Mont. Co. Department of Permitting Services, Water Resources Section.

This list may not be all-inclusive and may change based on available information at the time.

This letter must appear on the sediment control/stormwater management plan at its initial submittal. The concept approval is based on all stormwater management structures being located outside of the Public Utility Easement, the Public Improvement Easement, and the Public Right of Way unless specifically approved on the concept plan. Any divergence from the information provided to this

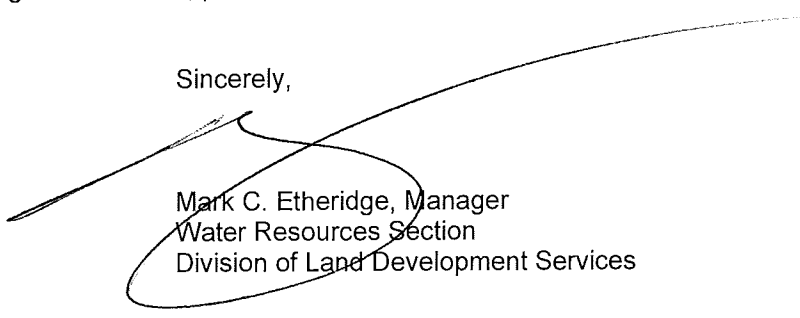


255 Rockville Pike, 2<sup>nd</sup> Floor, Rockville, Maryland 20850 | 240-777-0311 | [www.montgomerycountymd.gov/permittingservices](http://www.montgomerycountymd.gov/permittingservices)

office; or additional information received during the development process; or a change in an applicable Executive Regulation may constitute grounds to rescind or amend any approval actions taken, and to reevaluate the site for additional or amended stormwater management requirements. If there are subsequent additions or modifications to the development, a separate concept request shall be required.

If you have any questions regarding these actions, please feel free to contact Mike Geier at 240-777-6342.

Sincerely,



Mark C. Etheridge, Manager  
Water Resources Section  
Division of Land Development Services

MCE: CN280375 Cashell Estates.mjg

cc: N. Braunstein  
SM File # 280375

ESD: Required/Provided 9114 cf / 9388 cf  
PE: Target/Achieved: 2.0"/2.0"  
STRUCTURAL: 0 cf  
WAIVED: 0 ac.