



Deerwood Manor: Preliminary Plan No. 120160140

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Completed: 4/28/17

Description

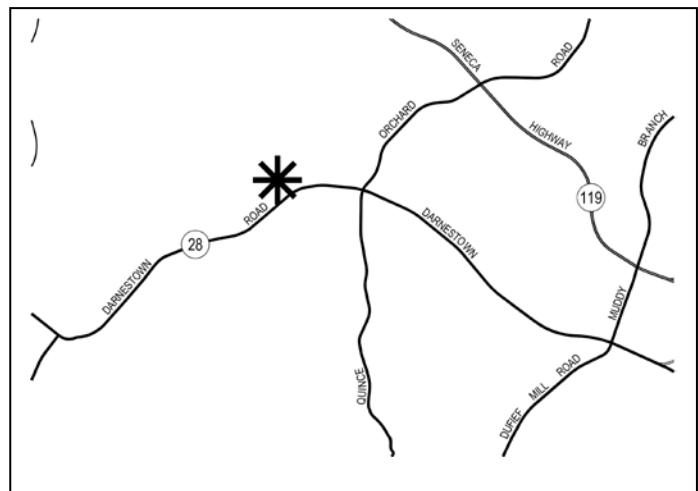
**Deerwood Manor: Preliminary Plan No. 120160140:** Request to create (6) six lots from two unplatted parcels; 500 feet west of the intersection of Riffle Ford Road and Darnestown Road/MD 28; 4.26 acres; R-200 zone; Potomac Subregion Master Plan.

**Recommendation** – *Approval with conditions*

**Applicant:** CK Technologies, LLC

**Submittal Date:** December 18, 2015

**Review Basis:** Chapter 50, Chapter 59



Summary

- Staff recommends **Approval with conditions**.
- The Subject Property is zoned R-200.
- Application proposes six lots for six single family detached homes.
- Meets requirements of Chapter 22A, Forest Conservation Law.
- The Application removes and plants mitigation trees on M-NCPPC Park property.
- Substantially conforms to the *2002 Potomac Subregion Master Plan*.
- Application has been reviewed under the Subdivision Regulations effective prior to February 13, 2017.
- Application has been reviewed under the 2012-2016 Subdivision Staging Policy since the application was submitted prior to January 1, 2017.
- Staff has not received any citizen correspondence on the Application.

## SECTION 1 – RECOMMENDATIONS AND CONDITIONS

**PRELIMINARY PLAN NO. 120160140:** Staff recommends approval of the Preliminary Plan subject to the following conditions:

1. This Application is limited to six (6) lots for six (6) single family detached homes.
2. The Applicant must comply with the conditions of approval for the Preliminary and Final Forest Conservation Plan No. 120160140, approved as part of this Preliminary Plan:
  - a. Prior to Certified Preliminary Plan, the Preliminary/Final Forest Conservation Plan must be revised to reflect the following:
    - i. The forest conservation worksheet must be revised to remove Outlot A from the Total Tract Area, and to include all of the offsite limits of disturbance in the net tract area, including any required improvements to Riffle Ford Road.
    - ii. All offsite limits of disturbance must be shown on the Preliminary/Final Forest Conservation Plan and the area included in the forest conservation worksheet calculations.
    - iii. Remove the landscape credit area from the plan and adjust the area of forest planting to be satisfied by fee-in-lieu accordingly.
    - iv. Revise the proposed forest planting area on Lot 1 to provide a minimum of 30 feet between the rear building restriction line for the proposed house and the Category I conservation easement, and adjust the area of forest planting to be satisfied by fee-in-lieu accordingly.
  - b. The Applicant must record a Category I Conservation Easement over the proposed forest planting area as specified on the approved Preliminary/Final Forest Conservation Plan. The Category I Conservation Easement approved by the M-NCPPC Office of the General Counsel must be recorded in the Montgomery County Land Records by deed prior to the start of any clearing or grading on the Property, and the Liber Folio for the easement must be referenced on the record plat.
  - c. Prior to the start of any clearing or grading on the Property, the Applicant must provide financial surety to the M-NCPPC Planning Department for the forest planting areas, including but not limited to plants, deer protection, fencing, signage, installation costs, and implementation of the maintenance and management agreement.
  - d. Prior to the start of any clearing or grading on the Property, the Applicant must submit for review and approval a two-year Maintenance and Management Agreement for the forest planting areas. The Agreement approved by the M-NCPPC Office of the General Counsel must be recorded in the Montgomery County Land Records.
  - e. The Applicant must complete all forest and tree variance mitigation planting as shown on the approved Preliminary/Final Forest Conservation Plan within one year or two growing seasons after the development project is complete.
  - f. Prior to the start of any demolition, clearing, or grading on the Property, the Applicant must provide fee-in-lieu payment to the M-NCPPC Planning Department for the remaining afforestation planting requirement that is not being met on the Property.
  - g. Mitigation must be provided for the removal of four variance trees. Mitigation must be provided in the form of planting fourteen native canopy trees with a minimum planting

stock size of three caliper inches. The trees must be planted on the adjacent Orchard Neighborhood Park property, outside of any existing or proposed rights-of-way, or utility easements, including stormwater management easements. Alternatively, the trees may be planted on the Subject Property, outside of any existing or proposed rights-of-way, utility easements, stormwater management easements, or slope easements. The planting locations of these trees and any substitution of species from what is shown on the approved FCP are subject to the approval of the M-NCPPC forest conservation inspector and M-NCPPC Parks Department staff prior to Certified Preliminary/Final Forest Conservation Plan.

- h. The limits of disturbance (LOD) on the Final Sediment and Erosion Control Plan must be consistent with the LOD shown on the approved Final Forest Conservation Plan.
  - i. The Applicant must comply with all tree protection and tree save measures shown on the approved Preliminary/Final Forest Conservation Plan. Tree save measures not specified on the approved Forest Conservation Plan may be required by the M-NCPPC forest conservation inspector.
  - j. Prior to the start of any clearing or grading occurring on the Property, the Applicant must install permanent conservation easement signage along the perimeter of the Category I conservation easement. Signs must be installed a maximum of 100 feet apart with additional signs installed where the easement changes direction, or as determined by the M-NCPPC forest conservation inspector.
  - k. Prior to the start of any clearing or grading occurring on the Property, the Applicant must install permanent 4-foot high, 2-rail, split-rail fencing or equivalent acceptable to M-NCPPC Staff, along the entire conservation easement boundary except where it abuts existing M-NCPPC park property.
3. The Planning Board accepts the recommendations of the Montgomery County Department of Transportation (“MCDOT”) in its letters dated August 18, 2016 and April 5, 2017, 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 that the amendments do not conflict with other conditions of the Preliminary Plan approval.
  4. The Planning Board accepts the recommendations of the Montgomery County Department of Permitting Services (MCDPS), Fire Department Access and Water Supply Section in its letter dated August 10, 2016, 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.
  5. Prior to submittal of Certified Preliminary Plan, the Applicant must label the proposed public street as “Public Street A”.
  6. Prior to submittal of Certified Preliminary Plan, the Applicant must modify the rear building restriction line on Lot 1 to setback 232 feet from the rear property line.
  7. The Applicant must dedicate and show on the record plat the rights-of-way for the following roads as well as construct the roads to the design standards specified in a. and b. below.

For dedication and construction of public streets:

- a. Riffle Ford Road: Dedicate a minimum of 40 feet of right-of-way from its centerline and construct to MCDOT Road Code Standard MC-213.02: Arterial Road Open Section, as shown on the Certified Preliminary Plan.
  - b. Public Street A: Dedicate a minimum of 44 feet of right-of-way and construct to MCDOT Road Code Standard MC-2001.01: Tertiary Residential Street with sidewalk on one side, as shown on the Certified Preliminary Plan.
8. The existing house on the Subject Property must be razed prior to the recording of a record plat.
  9. Prior to the submittal of Certified Preliminary Plan, the Applicant must modify the Public Utility Easement (PUE) and Public Improvement Easement (PIE) along Riffle Ford Road to show a 20-foot PUE from the right-of-way line with an overlapping 10-foot PIE starting from the right-of-way line.
  10. The Applicant must construct a five (5) foot wide sidewalk along Riffle Ford Road.
  11. The Applicant must construct a five (5) foot wide sidewalk along Public Street A.
  12. Prior to recordation of plat(s), the Applicant must satisfy the provisions for access and improvements as required by MCDOT.
  13. Provide access/frontage to Orchard Neighborhood Park from Riffle Ford Road from the proposed development via easement or public road with sidewalk and apron to Orchard Neighborhood Park.
  14. The Planning Board accepts the recommendations of the Montgomery County Department of Permitting Service ("MCDPS") – Water Resources Section in its stormwater management concept letter dated December 7, 2016, and hereby incorporates them as conditions of the Preliminary Plan approval. Therefore, 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 that the amendments do not conflict with other conditions of the Preliminary Plan approval.
  15. 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, 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 permits. 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."*
  16. Record plat must show all necessary easements.
  17. 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 – SITE LOCATION & DESCRIPTION

### Site Location

The subject property is located along the north side of Riffle Ford Road approximately 500 west of the intersection of Darnestown Road/MD 28 and Riffle Ford Road. The property consists of Parcel P024 and Parcel P032 on Tax Map ES42 with a total of 4.26 acres (“Property” or “Subject Property”) (Figure 1). The Subject Property is zoned R-200, and is located in the Potomac area of the *2002 Potomac Subregion Master Plan* (“Master Plan”).



Figure 1 – Vicinity

**Site Vicinity**

To the east and west, the Subject Property abuts other properties, primarily single family residential, in the R-200 zone. To the south across Riffle Ford Road are additional single family residential properties in the RE-1 zone. To the north are properties in the RE-2C zone which includes the Smokey Glen Farm, Thurgood Marshall Elementary School, and other single family residential properties. Adjacent to the Subject Property directly to the west is the Orchard Neighborhood Park owned by M-NCPPC.

**Site Analysis**

The Subject Property is improved with a detached single family home, shed, barn, and driveway access from Riffle Ford Road (Figure 2). The 4.26-acre Property is located within the Lower Great Seneca Creek watershed, which is classified by the State of Maryland as Use Class IV-P waters. There is no forest on the Property; however, there are numerous large trees located adjacent to and along the property boundaries.



*Figure 2 – Aerial Map*

## SECTION 3 – APPLICATIONS AND PROPOSAL

### Current Application

#### Preliminary Plan No. 120160140

The preliminary plan, No. 120160140, proposes to subdivide Parcel P024 and Parcel P032 identified on Tax Map No. ES42 into six lots for six one-family detached houses (“Preliminary Plan” or “Application”) (Figure 3 & Attachment 2). The proposed lot sizes range in size from approximately 35,295 square feet to 20,012 square feet. All six lots will have access to the proposed public street to be constructed as part of this Application. No driveways will have access to Riffle Ford Road. The existing house on the site must be razed prior to recording a record plat because the house will sit on an outlet which cannot meet the minimum size requirements for the R-200 zone. There are four trees proposed to be removed which are located on the adjoining M-NCPPC Park property. As such, mitigation for these trees is proposed to occur on the same N-MCPC Park property via replanting.

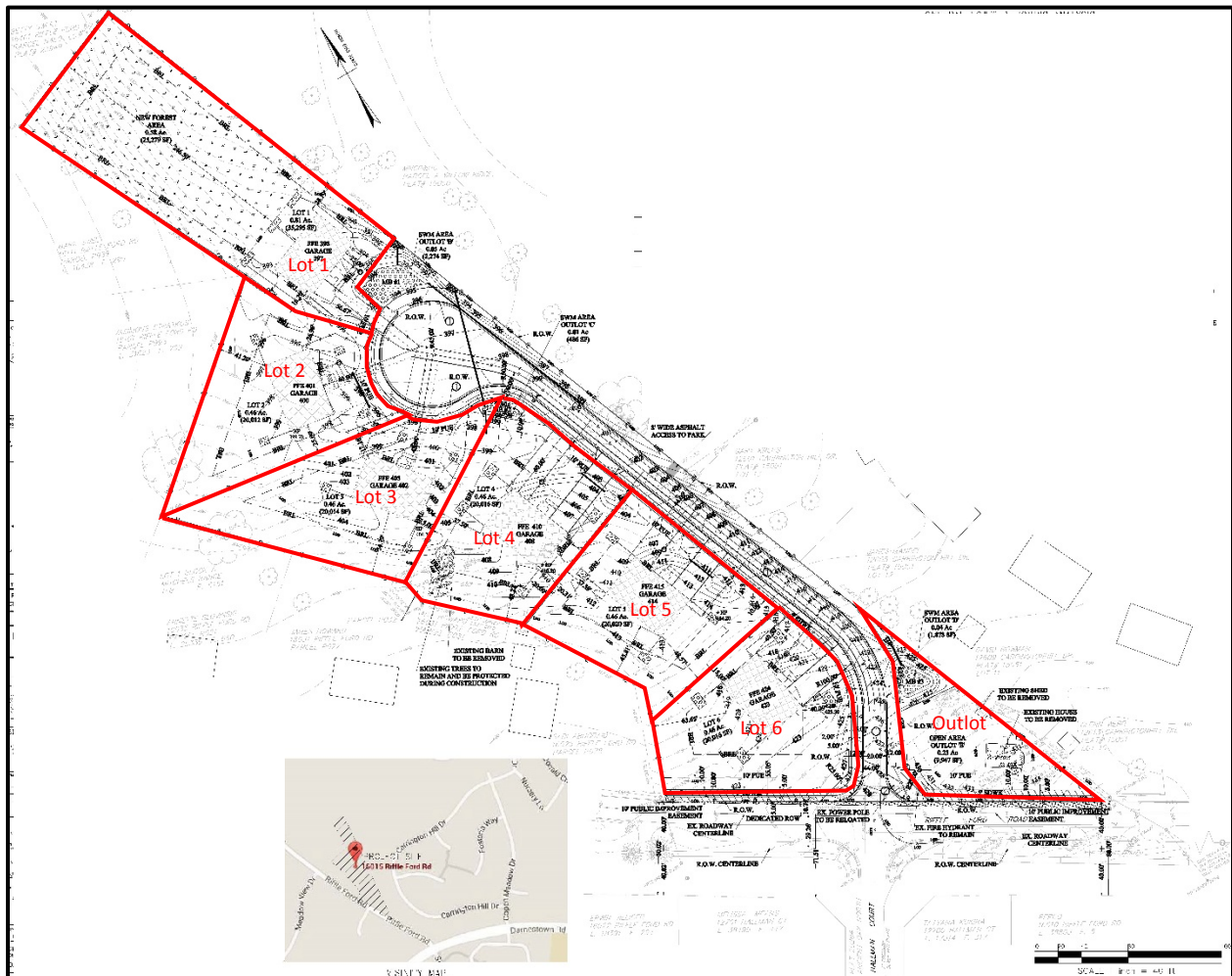


Figure 3 – Preliminary Plan

## SECTION 4 – ANALYSIS AND FINDINGS - Preliminary Plan No. 120160140

### 1. *The Preliminary Plan substantially conforms to the Master Plan*

The Application is consistent with the 2002 Potomac Subregion Master Plan's general recommendations to provide a transition between the suburban areas to the east and the prime agricultural areas to the west. The Preliminary Plan achieves these recommendations by proposing a density of 1.41 units per acre and lot patterns that are similar to adjacent properties.

The Subject Property is located in the Darnestown Planning Area. The Master Plan does not specifically identify the Subject Property. The Master Plan recommends to preserve, protect, and enhance Darnestown's unique residential and community character and to review major undeveloped sites for their potential to contribute to park land and open space (p. 94). This Application achieves these goals via its lot pattern and density of the R-200 zone while enhancing access to the adjacent M-NCPPC Parks property.

The Master Plan also reconfirms the R-200 zone for the Subject Property and the surrounding area.

### 2. *Public facilities will be adequate to support and service the area of the approved subdivision.*

#### Adequate Public Facilities

The transportation Adequate Public Facilities (APF) test is satisfied under the 2012-2016 Subdivision Staging Policy since the application was submitted prior to January 1, 2017. The Property is located in the North Potomac Policy Area which is subject to the APF's Transportation Policy Area Review (TPAR) test.

#### Local Area Transportation Review

A traffic study is not required to satisfy the APF's Local Area Transportation Review (LATR) test because five new single-family detached units (1 unit exists already) do not generate 30 or more peak-hour trips within the weekday morning (6:30 to 9:30 a.m.) and evening (4:00 to 7:00 p.m.) peak periods.

#### Transportation Policy Area Review

While the Subject Property is located within the North Potomac Policy Area for the Transportation Policy Area Review ("TPAR") test and is subject to the 2012-2016 Subdivision Staging Policy, TPAR payment will not apply in this particular case because as of March 1, 2017 the Department of Permitting Services ("MCDPS") stopped collecting TPAR payments. Instead, MCDPS now collects impact fees for all building permits as adopted by the County Council under the current Subdivision Staging Policy. Because the Applicant has not received a building permit before March 1<sup>st</sup>, 2017 the Applicant will pay the impact fees based on the Subdivision Staging Policy currently in effect rather than the Subdivision Staging Policy in effect at the time of Application submission.

If the TPAR test were implemented, the roadway test for the North Potomac Policy Area is inadequate, and the transit test is inadequate. Therefore, the Applicant would have been required to provide TPAR mitigation payment equal to 50 percent of the General District Transportation Impact Tax for any new square feet, pursuant to the 2012-2016 Subdivision Staging Policy. However, as stated above, because this Application is being reviewed by the Planning Board during the transition between



subdivision staging policies, a TPAR payment will not be collected at the time a permit building is submitted. Therefore, no TPAR condition is included as part of this Staff Report.

#### Other Public Facilities and Services

Other public facilities and services are available and adequate to serve the proposed lots. The Subject Property has W-1 and S-1 water and sewer service categories, respectively, and will utilize public water and sewer.

The Application was reviewed by the MCDPS, Fire Department Access and Water Supply Section, and a Fire Access Plan was approved on August 10, 2016 (Attachment 8). Other utilities, public facilities and services, such as electric, telecommunications, police stations, firehouses and health services are currently operating within the standards set by the Subdivision Staging Policy Resolution in effect at that time that the application was submitted.

The Application is located in the Quince Orchard High School cluster, which is identified as inadequate at the Elementary and High school levels, and would have been subject to a School Facilities Payment under the 2012-2016 Subdivision Staging Policy. However, as mentioned above in the transportation section, as of March 1, 2017 MCDPS stopped collecting School Facilities Payments. Instead, MCDPS collects impacts fees for school facilities based on the current Subdivision Staging Policy for all building permits. The Applicant will pay the fees in place under the current Subdivision Staging Policy at the time of building permit application. As such, no condition for a School Facilities Payment is included in this Staff Report.

3. *The size, width, shape, and orientation of the approved lots are appropriate for the location of the subdivision, taking into account the recommendations included in the applicable master plan, and for the type of development or use contemplated.*

The Preliminary Plan meets all applicable sections of the Subdivision Regulations. The proposed lots size, widths, shapes and orientations are appropriate for the location of the subdivision and building type because the proposed lots adequately accommodate a proposed house and related infrastructure. The single loaded design of the proposed public street is appropriate because of the need to meet intersection separation requirements. As such, the proposed street had to line up with the existing Hallman Court on the opposite side of Riffle Ford Road.

The lots were reviewed for compliance with the dimensional requirements of the R-200 zone as specified in the Zoning Ordinance. The lots as proposed will meet all the dimensional requirements for area, frontage and can accommodate a building which can reasonably meet the width and setbacks requirements in that zone. A summary of this review is included in Table 1. The Preliminary Plan has been reviewed by other applicable County agencies, all of whom have recommended approval.

**Table 1 – Development Review Table**

<i>R-200</i>	Required by the Zone	Proposed for Approval
Minimum Lot Area	20,000 sq. ft.	20,000 or greater
Minimum Lot Frontage	25 feet	25 feet or more
Minimum Lot Width at B.R.L.	100 feet	100 feet or more
Maximum Lot Coverage	25% (Maximum)	Less than 25%
Setbacks (for all lots)		
Front	40 feet	40 feet or greater
Side, abutting Residential	12 feet min./ 25 feet total	12 feet min./ 35 feet total or greater
Rear, abutting Residential	30 feet	30 feet or greater
Building Height	If lot is greater than or equal to 15,000 sq. ft. and less than 25,000 sq. ft. = 40 feet If lot is greater than or equal to 25,000 sq. ft. and less than 40,000 sq. ft. = 45 feet	Lot 1 = 45 feet or lower Lots 2-6 = 40 feet or lower
Site Plan Required	No	No

4. *The Application satisfies all the applicable requirements of the Forest Conservation Law, Montgomery County Code Chapter 22A.*

**Forest Conservation**

Natural Resource Inventory/Forest Stand Delineation

The Natural Resource Inventory/Forest Stand Delineation (NRI/FSD) #420160300 for the Property was approved on October 29, 2015. The NRI/FSD identifies the environmental features and forest resources on the Property. The Property contains no forest and there are no streams, wetlands, 100-year floodplain, or stream buffers on or immediately adjacent to the Property. An area of 15 percent slopes on highly erodible soils exists in the northern portion of the Property. There are 37 trees greater than or equal to 24” Diameter at Breast Height (DBH) that were identified on or adjacent to the Subject Property, 21 of which are 30” DBH and greater.

Forest Conservation Plan

The Application meets the requirements of Chapter 22A of the Montgomery County Forest Conservation Law. As required by the County Forest Conservation Law (Chapter 22A of the County Code), a Preliminary and Final Forest Conservation Plan (FCP) for the project was submitted with the Preliminary Plan (Attachments 3, 4, & 5). The net tract area for forest conservation includes the 4.26-acre Property and all areas of offsite disturbance. There is no forest on the Property and the resulting afforestation requirement will be satisfied by planting forest on the Property, and the remaining requirement will be satisfied by fee-

in-lieu payment. The forest planting will be accomplished in the northern portion of the Property, which includes the existing area of 15 percent slopes on highly erodible soils.

*Forest Conservation Variance*

Section 22A-12(b)(3) of the 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 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 (Protected Trees), therefore, the Applicant has submitted a variance request for these impacts. Staff recommends that a variance be granted and mitigation be required.

Variance Request – The Applicant submitted a variance request in a letter dated November 11, 2016, for the impacts/removal of trees (Attachment 10). The Applicant proposes to remove four (4) Protected Trees that are 30 inches or greater, DBH, and considered a high priority for retention under Section 22A-12(b)(3) of the County Forest Conservation Law. These trees are noted as E10, E12, E15, and E24 on the FCP, listed in Table 2, and shown graphically in Figure 4. The Applicant also proposes to impact, but not remove, five (5) Protected Trees that are considered high priority for retention under Section 22A-12(b)(3) of the County Forest Conservation Law. The critical root zones of these off-site trees will be impacted during the grading for the proposed lots and construction of the proposed road that provides access to the lots. Details of the Protected Trees to be affected but retained are listed in Table 3 and shown graphically in Figure 5.

**Table 2 - Protected Trees to be removed\***

Tree No.	Common Name	Botanical Name	Size (DBH)	Tree Condition	Location
E10	Tuliptree	<i>Liriodendron tulipifera</i>	40 inch	Fair	Property Line, Grading for road
E12	Tuliptree	<i>Liriodendron tulipifera</i>	48 inch	Fair	Property Line, Grading for road
E15	Silver Maple	<i>Acer saccharinum</i>	30 inch	Fair	Property Line, Grading for road
E24	Red Maple	<i>Acer rubrum</i>	40 inch	Fair	Offsite, Lot grading

\*Trees located on common property line with or on adjacent M-NCPPC Park property. Parks Department has granted permission for removal of the trees; mitigation to occur on Orchard Neighborhood Park property or Subject Property.

Table 3 - Protected Trees to be affected but retained

Tree No.	Common Name	Botanical Name	Size (DBH)	CRZ Impact	Tree Condition	Location
E14	Silver Maple	<i>Acer saccharinum</i>	46 inch	31%	Good	Offsite, grading road
E18	Tuliptree	<i>Liriodendron tulipifera</i>	30 inch	5%	Good	Offsite, Lot 1, grading
E22	Red Maple	<i>Acer rubrum</i>	36 inch	16%	Fair	Offsite, Lot 1, grading
E34	Norway Maple	<i>Acer platanoides</i>	48 inch	24%	Good	Offsite, Lot 5, grading
E38	Red Maple	<i>Acer rubrum</i>	36 inch	16%	Good	Onsite, Lot 6, grading

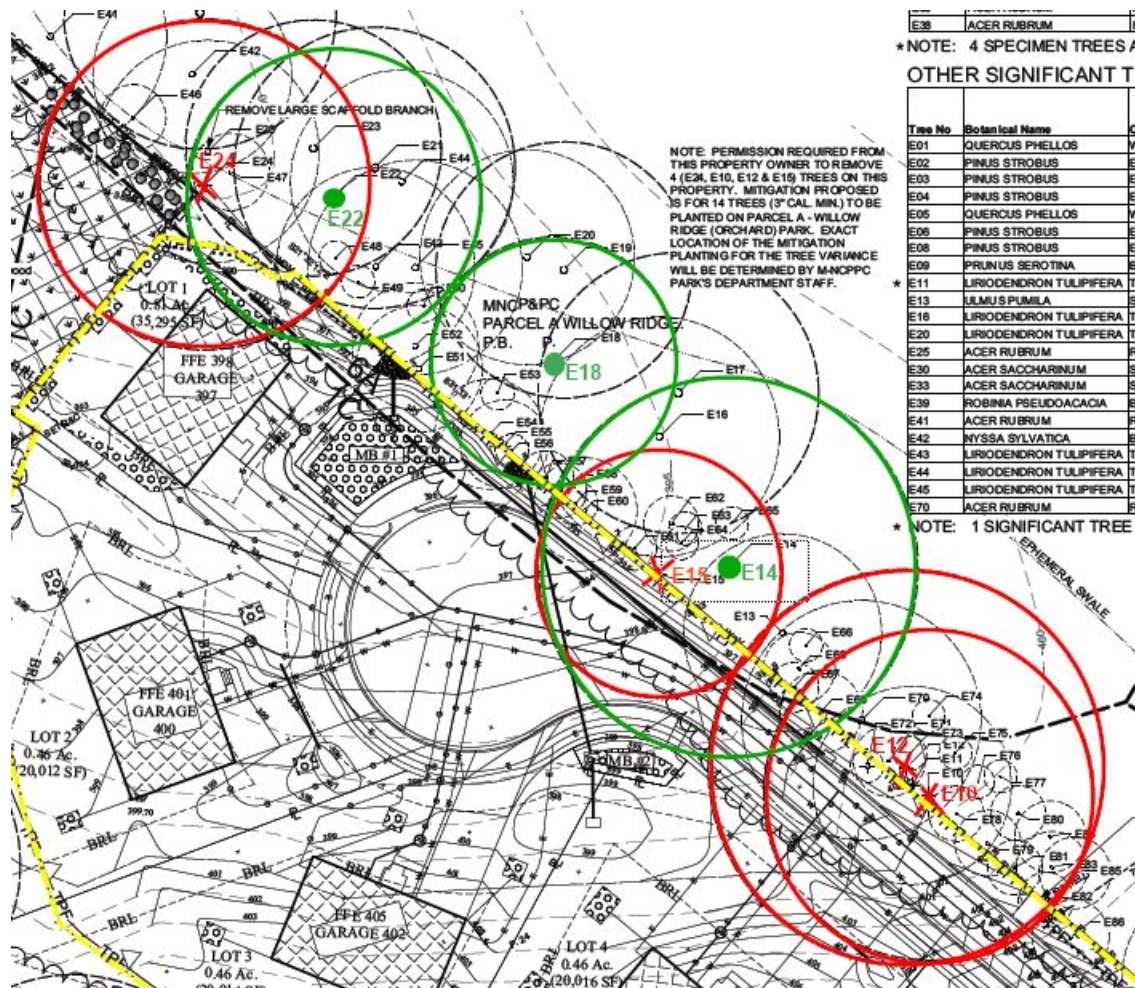


Figure 4 - Protected Trees to be removed (red X) and retained but impacted (green dot)



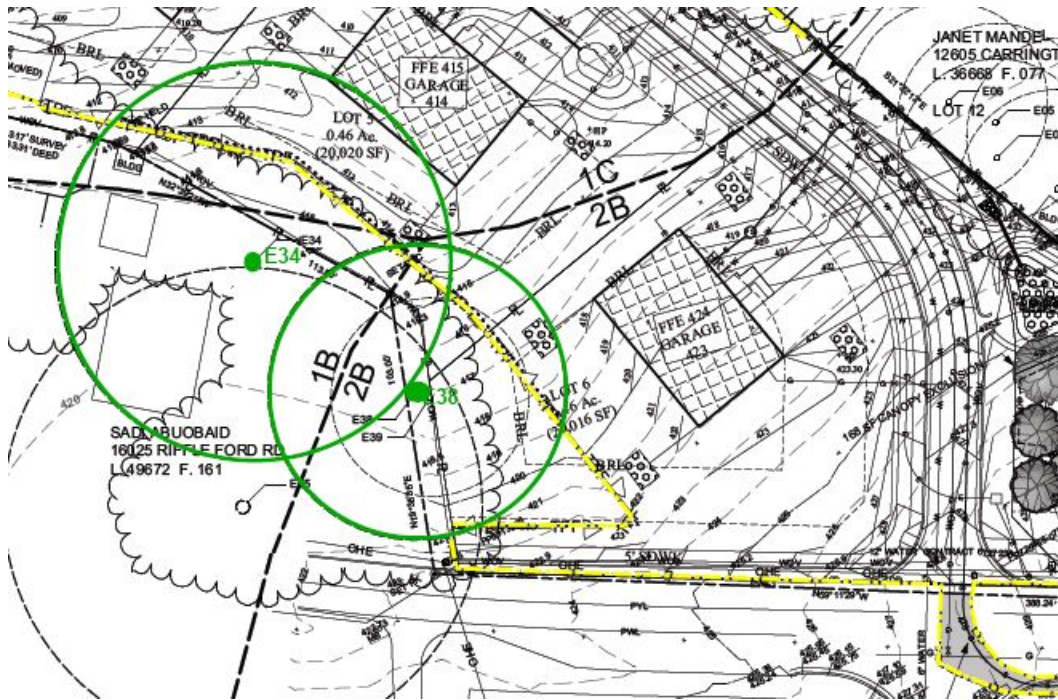


Figure 5 - Protected Trees to be retained but impacted (green dot)

Unwarranted Hardship Basis – Per Section 22A-21, a variance may only be considered if the Planning Board finds that leaving the Protected Trees in an undisturbed state would result in an unwarranted hardship, denying an applicant reasonable and significant use of the Property. The Applicant contends that an unwarranted hardship would be created due to existing conditions on the Property and the zoning and development requirements for the Property.

The Application includes 21 trees subject to the variance provision (one on-site, three on shared property lines, and seventeen off-site); four of which will be removed by this Application. The four trees to be removed are in fair condition. The five trees proposed to be impacted but retained include one onsite and four offsite trees, all in good condition except for Tree E22, which is rated in fair condition.

The 4.29-acre Property is zoned R-200, and proposes the construction of six residential homes. The location of the proposed street and homes was dictated to some extent by the linear shape of the Property and the limited frontage along Riffle Ford Road. There is no forest onsite; however, there are numerous large trees located along the property lines and immediately adjacent to the Property. The locations of the Protected Trees and the relatively narrow width of the property make it difficult to avoid impacts to these trees. The configuration of the Property and limited frontage along Riffle Ford Road dictates the location of the 20-foot wide public street and cul-de-sac termination into the site which also provides the necessary fire department access to the proposed homes. The remainder of the Property is the developable area available for the construction of the proposed homes and required stormwater management features.

The Protected Trees are located along the property lines and just offsite. The four trees proposed for removal are located along the eastern property line and on M-NCPPC park land. The proposed cul-

de-sac is located adjacent to the eastern property line in part to allow the lots to meet the minimum size requirements of the zone. The five offsite trees that will be impacted, but remain, are located along both the eastern and western property lines. The number and location of the Protected Trees, along with the existing shape of the Property and development requirements create an unwarranted hardship. If the variance were not considered, the development anticipated on this R-200 zoned Property would not occur. Staff has reviewed this Application and finds that there would be an unwarranted hardship if a variance were not considered.

Variance Findings – Section 22A-21 of the County Forest Conservation Law sets forth the findings that must be made by the Planning Board or Planning Director, as appropriate, for a variance to be granted. Staff has made the following determination based on the required findings in the review of the variance request and the forest conservation plan:

Granting of the requested variance:

1. *Will not confer on the applicant a special privilege that would be denied to other applicants.*

Granting the variance will not confer a special privilege on the Applicant as the disturbance to the Protected Trees is due to the reasonable development of the Property. The Protected Trees are in the developable area of the Property, including along the property lines. The Property is narrow and linear in configuration, requiring the access road to the proposed lots to be constructed along the property line in order to allow the lots to meet the minimum size requirements of the zone. Any residential development considered for this Property, would be faced with the same considerations of locating the development on a Property with relatively narrow frontage along Riffle Ford Road. Granting a variance to allow land disturbance within the developable portion of the Property is not unique to this Applicant and is not a special privilege that would be denied to other applicants.

2. *Is not based on conditions or circumstances which are the result of the actions by the applicant.*

The need for the variance is not based on conditions or circumstances which are the result of actions by the Applicant. The requested variance is based upon existing Property conditions, including the shape of the Property and the location of the Protected Trees within the developable area of the Property, and the requirements of the zone.

3. *Is not based on a condition relating to land or building use, either permitted or non-conforming, on a neighboring property.*

The need for a variance is a result of the existing conditions and the proposed design and layout of the Property, and not a result of land or building use on a neighboring property.

4. *Will not violate State water quality standards or cause measurable degradation in water quality.*

The variance will not violate State water quality standards or cause measurable degradation in water quality. No trees located within a stream buffer, wetland, or Special Protection Area will be impacted or removed as part of this Application. In addition, the MCDPS has found the stormwater management concept for the proposed project to be acceptable as stated in a letter

dated December 7, 2016 (Attachment 9). The stormwater management concept incorporates Environmental Site Design (ESD) standards.

Mitigation for Protected Trees – Mitigation for the removal of the four Protected Trees is recommended at a rate that approximates the form and function of the trees removed. Therefore, Staff is recommending that replacement occur at a ratio of approximately one-inch caliper for every four inches removed, using trees that are a minimum of three caliper inches in size. This Application proposed to remove 158 inches in DBH, resulting in a mitigation requirement of 40 caliper inches of planted, native, canopy trees with a minimum size of three-inch caliper. The FCP includes the planting of 14 native, canopy trees as mitigation for the removal of the four variance trees. Although these trees will not be as large as the trees lost, they will provide some immediate benefit and ultimately replace the canopy lost by the removal of these trees. Since the four Protected Trees to be removed are located along the property line and just off-site on M-NCPPC Park property, the mitigation trees will be planted on the adjacent park land under the direction of M-NCPPC Planning Department Staff Inspectors and the Parks Department Staff. If suitable locations are not identified on the adjacent park site, the trees will be planted on the Property. Staff does not recommend mitigation for trees affected, but not removed. The affected root systems will regenerate and the functions provided restored.

County Arborist's Recommendation on the Variance – In accordance with Montgomery County Code Section 22A-21(c), the Planning Department is required to refer a copy of the variance request to the County Arborist in the Montgomery County Department of Environmental Protection for a recommendation prior to acting on the request. The request was forwarded to the County Arborist. On January 13, 2017, the County Arborist provided a letter recommending that a variance be granted with mitigation (Attachment 11).

Variance Recommendation – Staff recommends that the variance be granted with mitigation as described above.

5. *All stormwater management requirements shall be met as provided in Montgomery County Code Chapter 19, Article II, titled "Storm Water Management," Sections 19-20 through 19-35.*

The Preliminary Plan received an approved stormwater concept plan from the Montgomery County Department of Permitting Services, Water Resources Section on December 7, 2016 (Attachment 9). The Application will meet stormwater management goals for each new lot via drywells and microbioretention.

## **SECTION 5 – CITIZEN CORRESPONDENCE AND ISSUES**

This Application was submitted and noticed in accordance with all Planning Board adopted procedures. One sign referencing the proposed modification was posted along the Subject Property frontage. A pre-submission meeting was held at the Fellowship Hall of the Fairhaven United Methodist Church on December 15, 2015.

As of the date of this report, Staff has not received any written correspondence on the Application.

## **SECTION 6 – CONCLUSION**

The proposed lots meet all requirements established in the Subdivision Regulations, Forest Conservation Law in Chapter 22A, and the proposed use substantially conform to the recommendations of *2002 Potomac Subregion Master Plan*. Access and public facilities will be adequate to serve the proposed lots, and the Application has been reviewed by other applicable county agencies, all of whom have recommended approval of the Preliminary Plan with the conditions provided. Therefore, approval of the Application with the conditions specified herein is recommended.

### **ATTACHMENTS**

Attachment 1 – Statement of Justification

Attachment 2 – Preliminary Plan

Attachment 3 – Preliminary/Final Forest Conservation Plan, Sheet 1

Attachment 4 – Preliminary/Final Forest Conservation Plan, Sheet 2

Attachment 5 – Preliminary/Final Forest Conservation Plan, Sheet 3

Attachment 6 – MCDOT 1<sup>st</sup> Approval Letter, August 18, 2016

Attachment 7 – MCDOT 2<sup>st</sup> Approval Letter, April 5, 2017

Attachment 8 – MC Fire and Rescue Approval, August 10, 2016

Attachment 9 – MCDPS Stormwater Management Concept Approval, December 7, 2016

Attachment 10 – Tree Variance Request from Applicant, May 31, 2016

Attachment 11 – County Arborist Tree Variance Approval Letter, January 13, 2017



**ENDESCO, Inc.** Engineers, Designers & Consultants  
438, North Frederick Avenue, Suite 455 Gaithersburg, MD 20877  
Phone: (301) 987-8776 · Fax: (301) 987-8777 · email: endesco@endescoinc.com

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## STATEMENT OF JUSTIFICATION

### IN SUPPORT OF PRELIMINARY PLAN OF SUBDIVISION DEERWOOD MANOR SUBDIVISION #120160140

CK Technologies, LLC seeks approval to subdivide its property located at 16015 Riffle Ford Road, Gaithersburg in order to create six (6) buildable lots so that the company can construct six (6) single family homes. The property includes parcels P024 and P032, a total of 4.23 acres of land. The following is a statement of justification for this development:

1. The preliminary Plan substantially conforms to the Master Plan.

According to Montgomery County Master plan, Gaithersburg Vicinity Master Plan, Smokey Glen Area Zoning Plan, the site is in zone R-200, which requires minimum lot size of 20,000 sf. The proposed development is to subdivide the parcel per the zoning R-200 requirement. Therefore the development conforms to the Master Plan.

2. Public facilities will be adequate to support and service the area of the approved subdivision.

The assigned schools for this property are Thurgood Marshall Elementary School (0.9 mile), Ridgeview Middle School (1.8 miles), and Quince Orchard High School (0.8 mile). A public library – the Montgomery County Library – Quince Orchard Branch is located at only 0.9 mile away from the property. Rockville Volunteer Fire Department is located only 0.8 mile away from the site. Public roadway – Riffle Ford Road is adjacent to the property on the south. Existing 12” water main, 8” sanitary sewer, gas line, and over head power line are located along the Riffle Ford Road, which can provide services to the property.

3. The size, width, shape, and orientation of the approved lots are appropriate for the location of the subdivision, taking into account the recommendation included in the applicable master plan, and for the type of development or use contemplated.



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In the Master Plan the property is zoned R-200, which requires minimum lot size of 20000 sf, width of 100 ft, front setback of 40 ft, rear setback of 30 ft, and side setback of 12ft with 25 ft total. Minimum lot width at street line is 25 ft. The proposed development meets the requirement as shown in the Master Plan. Proposed minimum lot size is 20000 sf, width 100 ft at building face, front setback 40 ft, rear setback 30', side setback 12' and 25 ft width at the street line. A 44' wide ROW public road is proposed for the access of the seven homes. All homes are oriented toward the roadway for convenience of access.

4. The Application satisfies all the applicable requirements of the Forest Conservation Law, Montgomery County Code Chapter 22A.

Per Montgomery County Code Chapter 22A, 15% forest conservation area is required for this property. The existing site area is 4.26 acres, and proposed site is 4.23 acres. The required forest conservation area is 0.63 acre for the property. New forest conservation (FC) area of 0.58 acre is proposed under the new development. Landscaping of the site provides additional 0.04 acre of credit for the forest conservation, the remaining 0.01 acre of the required FC area will be paid through monetary contribution, so the proposed development meets the requirement of the Forest Conservation Law.

5. All storm water management requirements shall be met as provided in Montgomery County Code 19, Article II, titled "Storm Water Management", Section 19-20 through 19-35.

The County Code 19 requires the stormwater from the site to be managed to meet ESDv requirement using the method specified in the MDE Stormwater Design Manual. Three micro bioretentions/rain gardens and thirteen dry wells are proposed to satisfy the stormwater management requirements. A storm water management plan and report has been submitted to MCDPS for review/approval.

6. Other findings

The surrounding properties around the subject property were developed in recent years. The proposed development conforms with these surrounding developments that had been completed in past years.



***ENDESCO, Inc.*** Engineers, Designers & Consultants

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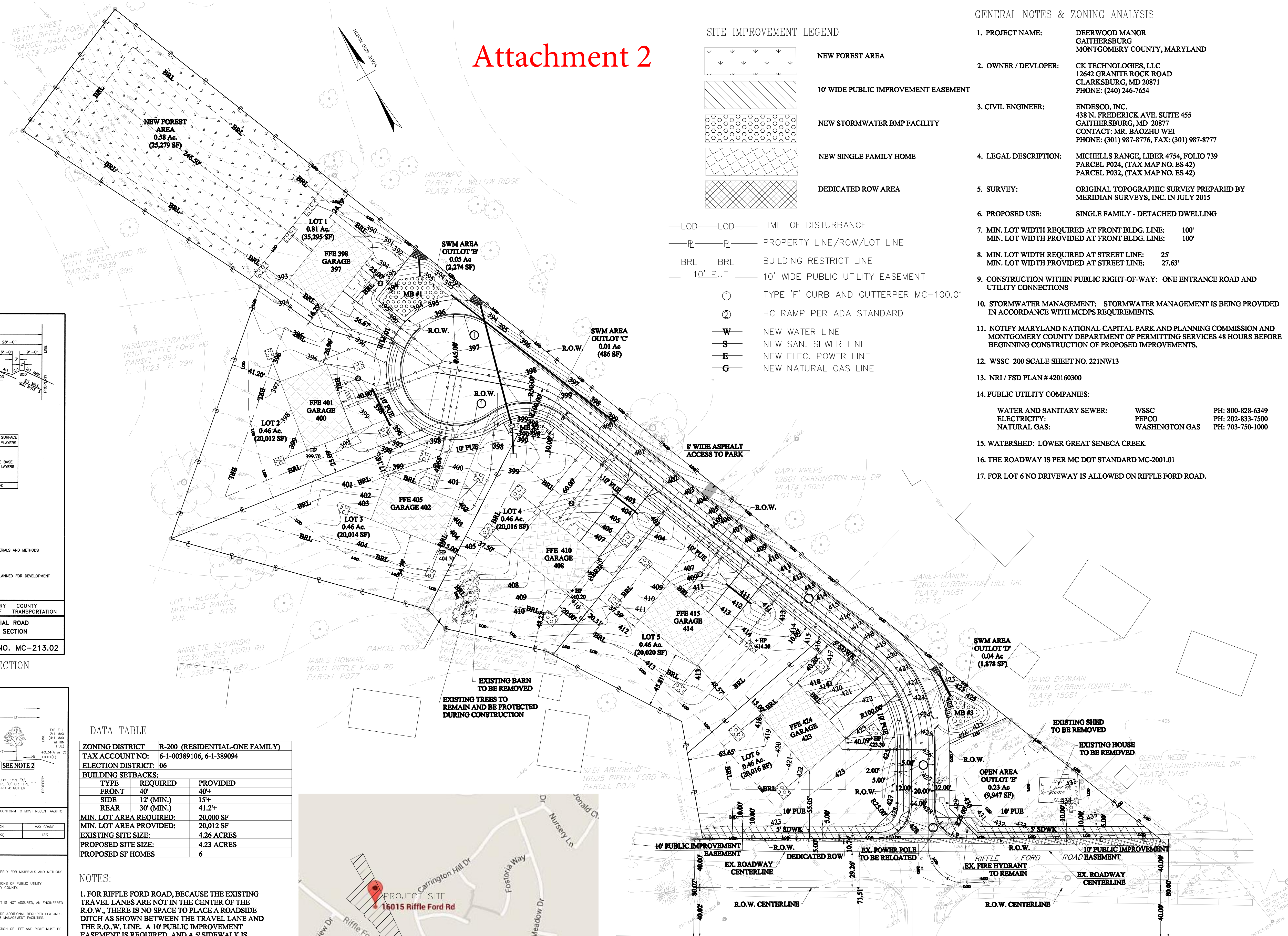
Phone: (301) 987-8776 · Fax: (301) 987-8777 · email: [endesco@endescoinc.com](mailto:endesco@endescoinc.com)

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Based on the above statements, in all aspects the application for preliminary plan of subdivision meets the standards of the Subdivision Ordinance, the provisions of Chapter 50 of the County Code.



# Attachment 2



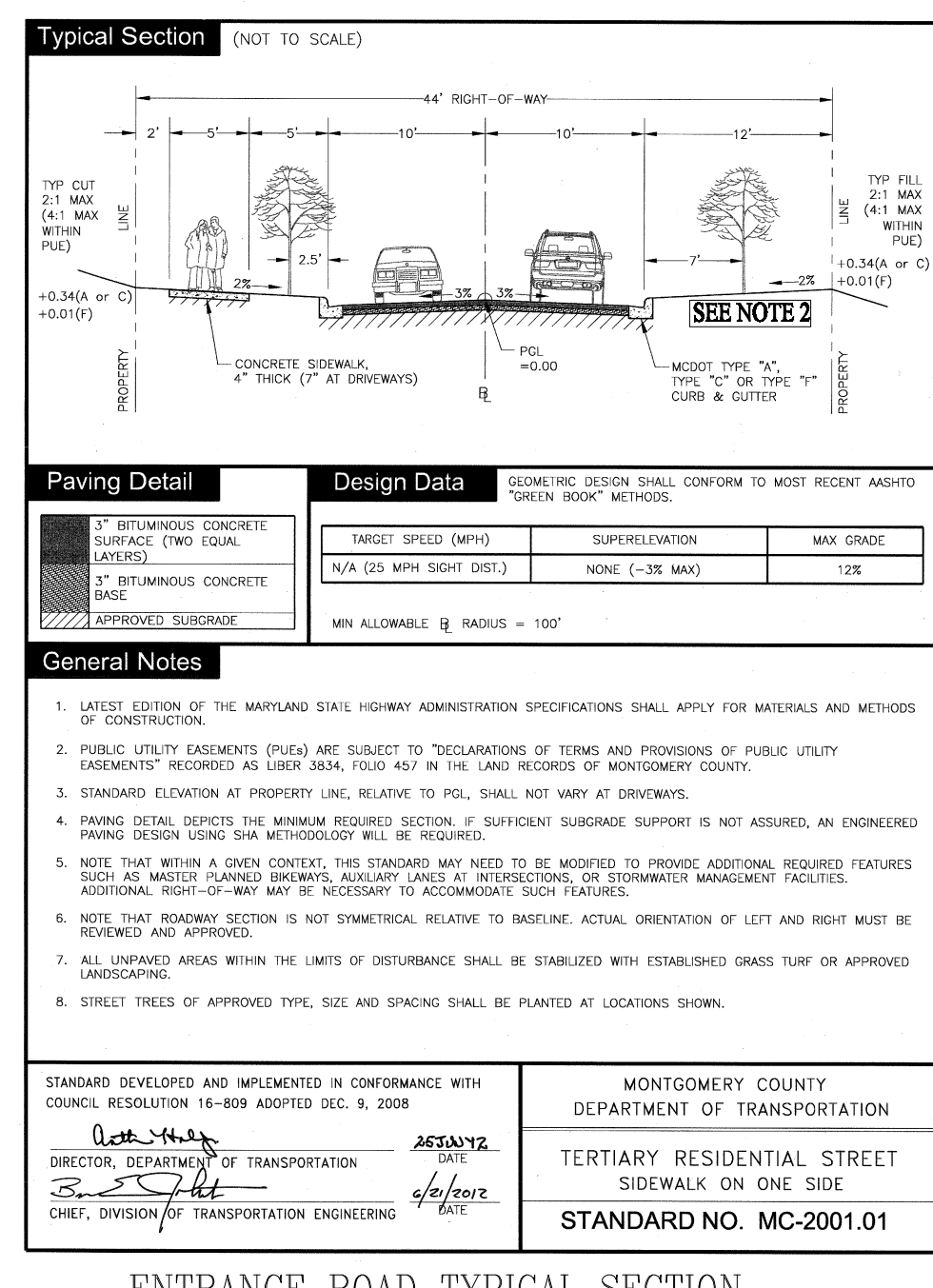
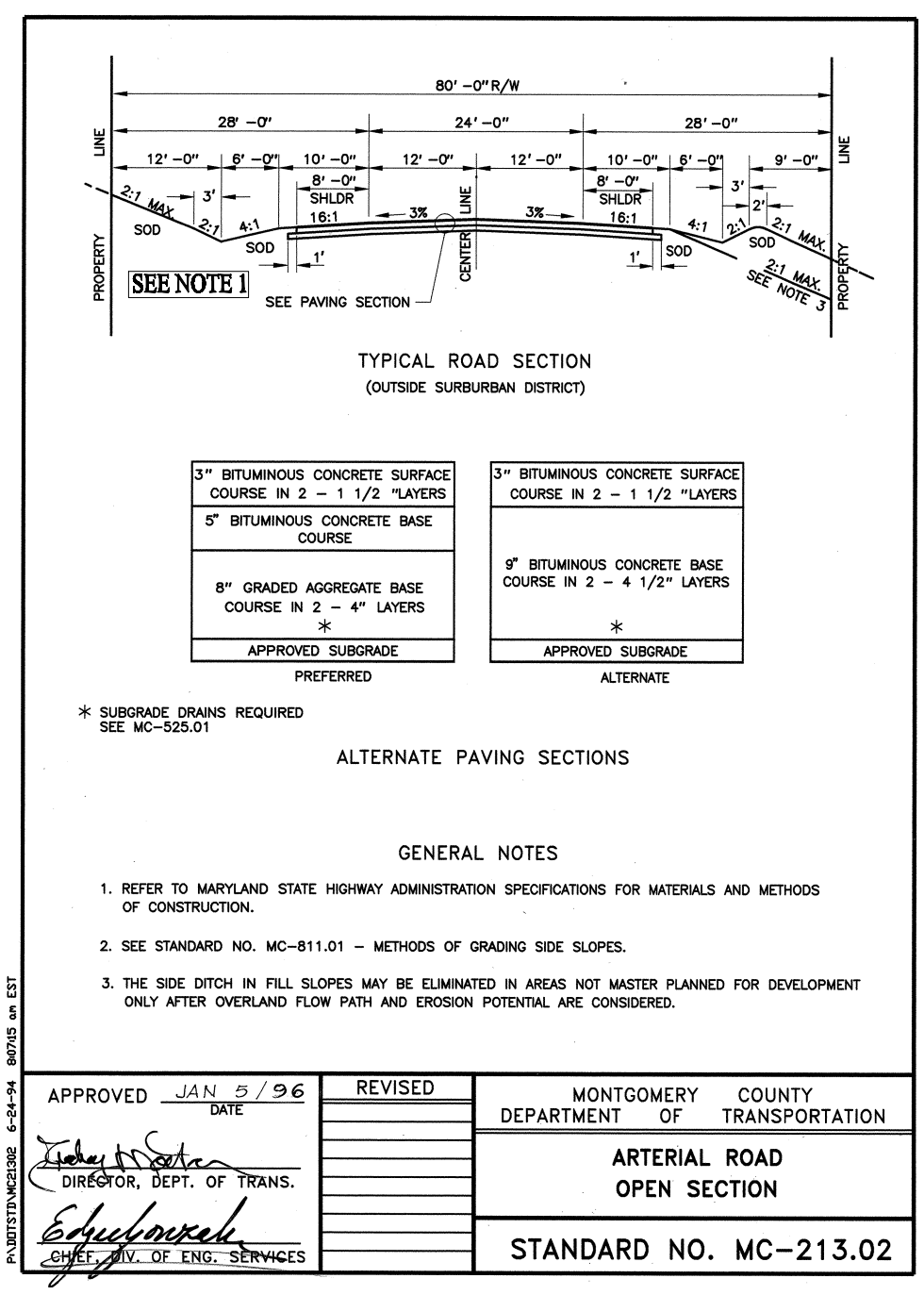
### SITE IMPROVEMENT LEGEND

- NEW FOREST AREA
- 10' WIDE PUBLIC IMPROVEMENT EASEMENT
- NEW STORMWATER BMP FACILITY
- NEW SINGLE FAMILY HOME
- DEDICATED ROW AREA
- LOD - LIMIT OF DISTURBANCE
- R - PROPERTY LINE/ROW/LOT LINE
- BRL - BUILDING RESTRICT LINE
- 10' PUE - 10' WIDE PUBLIC UTILITY EASEMENT
- ① TYPE 'F' CURB AND GUTTER PER MC-100.01
- ② HC RAMP PER ADA STANDARD
- W - NEW WATER LINE
- S - NEW SAN. SEWER LINE
- E - NEW ELEC. POWER LINE
- G - NEW NATURAL GAS LINE

### GENERAL NOTES & ZONING ANALYSIS

1. PROJECT NAME: DEERWOOD MANOR GAITHERSBURG MONTGOMERY COUNTY, MARYLAND
2. OWNER / DEVELOPER: CK TECHNOLOGIES, LLC 12642 GRANITE ROCK ROAD CLARKSBURG, MD 20871 PHONE: (240) 246-7654
3. CIVIL ENGINEER: ENDESCO, INC. 438 N. FREDERICK AVE. SUITE 455 GAITHERSBURG, MD 20877 CONTACT: MR. BAOZHU WEI PHONE: (301) 987-8776, FAX: (301) 987-8777
4. LEGAL DESCRIPTION: MICHELL'S RANGE, LIBER 4754, FOLIO 739 PARCEL P024, (TAX MAP NO. ES 42) PARCEL P032, (TAX MAP NO. ES 42)
5. SURVEY: ORIGINAL TOPOGRAPHIC SURVEY PREPARED BY MERIDIAN SURVEYS, INC. IN JULY 2015
6. PROPOSED USE: SINGLE FAMILY - DETACHED DWELLING
7. MIN. LOT WIDTH REQUIRED AT FRONT BLDG. LINE: 100' MIN. LOT WIDTH PROVIDED AT FRONT BLDG. LINE: 100'
8. MIN. LOT WIDTH REQUIRED AT STREET LINE: 25' MIN. LOT WIDTH PROVIDED AT STREET LINE: 27.63'
9. CONSTRUCTION WITHIN PUBLIC RIGHT-OF-WAY: ONE ENTRANCE ROAD AND UTILITY CONNECTIONS
10. STORMWATER MANAGEMENT: STORMWATER MANAGEMENT IS BEING PROVIDED IN ACCORDANCE WITH MDCPS REQUIREMENTS.
11. NOTIFY MARYLAND NATIONAL CAPITAL PARK AND PLANNING COMMISSION AND MONTGOMERY COUNTY DEPARTMENT OF PERMITTING SERVICES 48 HOURS BEFORE BEGINNING CONSTRUCTION OF PROPOSED IMPROVEMENTS.
12. WSSC 200 SCALE SHEET NO. 221NW13
13. NRI / FSD PLAN # 420160300
14. PUBLIC UTILITY COMPANIES:
 

WATER AND SANITARY SEWER:	WSSC	PH: 800-828-6349
ELECTRICITY:	PEPCO	PH: 202-833-7500
NATURAL GAS:	WASHINGTON GAS	PH: 703-750-1000
15. WATERSHED: LOWER GREAT SENECA CREEK
16. THE ROADWAY IS PER MC DOT STANDARD MC-2001.01
17. FOR LOT 6 NO DRIVEWAY IS ALLOWED ON RIFFLE FORD ROAD.



#### DATA TABLE

ZONING DISTRICT	R-200 (RESIDENTIAL-ONE FAMILY)	
TAX ACCOUNT NO:	6-1-00389106, 6-1-389094	
ELECTION DISTRICT:	06	
BUILDING SETBACKS:		
TYPE	REQUIRED	PROVIDED
FRONT	40'	40'+
SIDE	12' (MIN.)	15'+
REAR	30' (MIN.)	41.2'+
MIN. LOT AREA REQUIRED:	20,000 SF	
MIN. LOT AREA PROVIDED:	20,012 SF	
EXISTING SITE SIZE:	4.26 ACRES	
PROPOSED SITE SIZE:	4.23 ACRES	
PROPOSED SF HOMES	6	

- #### NOTES:
1. FOR RIFFLE FORD ROAD, BECAUSE THE EXISTING TRAVEL LANES ARE NOT IN THE CENTER OF THE R.O.W., THERE IS NO SPACE TO PLACE A ROADSIDE DITCH AS SHOWN BETWEEN THE TRAVEL LANE AND THE R.O.W. LINE. A 10' PUBLIC IMPROVEMENT EASEMENT IS REQUIRED, AND A 5' SIDEWALK IS PROPOSED PER MNCPPC'S REQUEST.
  2. THE SLOPE OF RIGHT 12' WIDE PLANTING STRIP OF THE ENTRANCE ROAD VARIES AS REQUIRED FOR TIE-INTO THE EXISTING GRADING, NOT NECESSARY TO BE 2% TOWARD THE ROADWAY AS SHOWN.



**ENDESCO, INC.**  
 ENGINEERS, DESIGNERS & CONSULTANTS  
 438 NORTH FREDERICK AVENUE  
 SUITE 455  
 GAITHERSBURG, MD 20877  
 TEL: (301) 987-8776  
 FAX: (301) 987-8777

LOTS 1 THROUGH 6  
**DEERWOOD MANOR**  
 LIBER 4754 FOLIO 739  
 MONTGOMERY COUNTY, MARYLAND

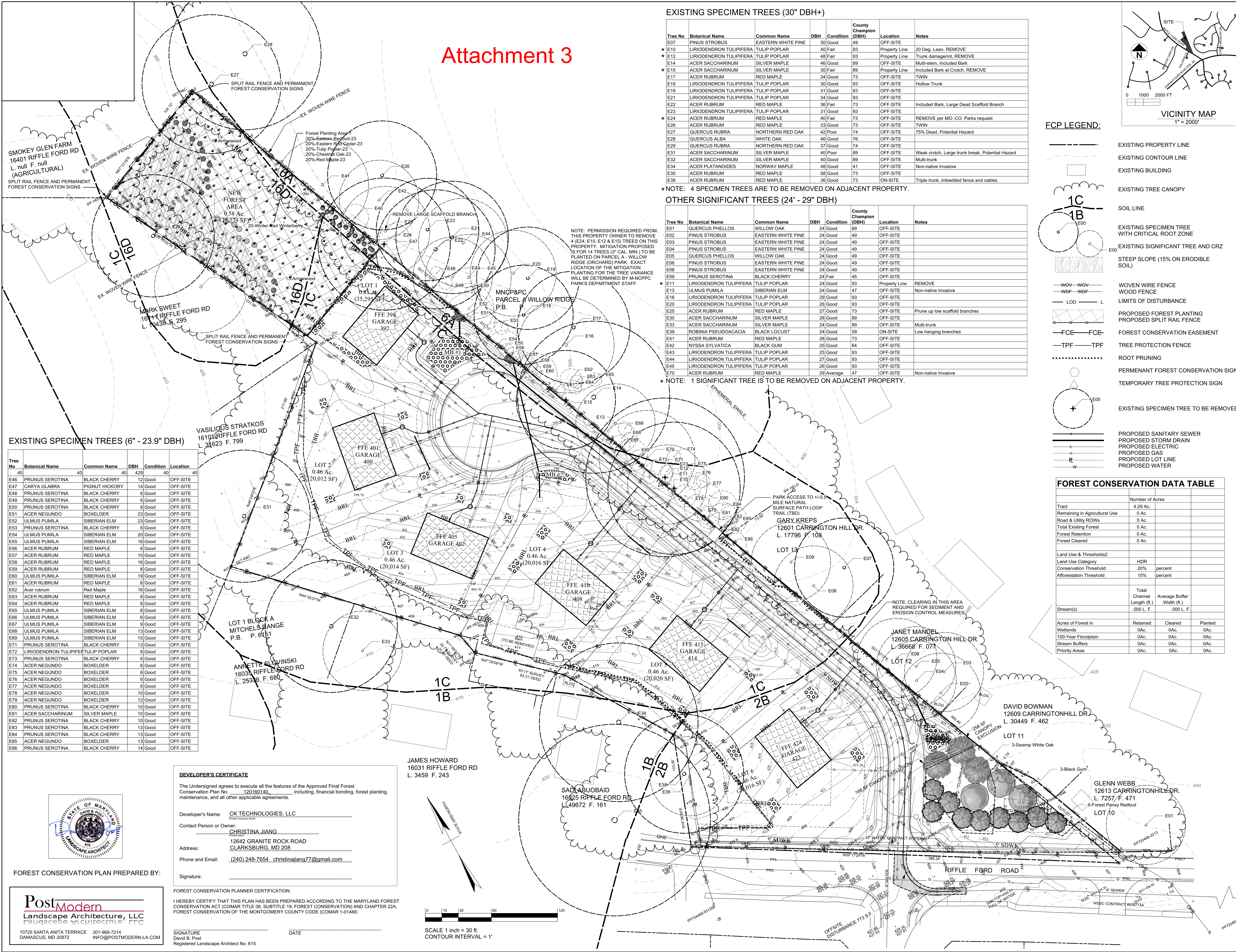
DATE	TITLE	REVISIONS	
		NO.	DESCRIPTION
JUNE 20, 2016	PRELIMINARY PLAN	1.	
		2.	
		3.	
		4.	

DRAWN: **BW**  
 DESIGNED: **BW**  
 CHECKED: **KH**

SCALE 1" = 40'  
 SHEET C-2 of 6



# Attachment 3



### EXISTING SPECIMEN TREES (6" - 23.9" DBH)

Tree No	Botanical Name	Common Name	DBH	Condition	Location
E40	PRUNUS SEROTINA	BLACK CHERRY	12	Good	OFF-SITE
E41	CARYA GLABRA	PIGNOT HICKORY	14	Good	OFF-SITE
E42	PRUNUS SEROTINA	BLACK CHERRY	6	Good	OFF-SITE
E43	PRUNUS SEROTINA	BLACK CHERRY	6	Good	OFF-SITE
E44	PRUNUS SEROTINA	BLACK CHERRY	6	Good	OFF-SITE
E45	PRUNUS SEROTINA	BLACK CHERRY	6	Good	OFF-SITE
E46	ULMUS PUMILA	SIBERIAN ELM	23	Good	OFF-SITE
E47	PRUNUS SEROTINA	BLACK CHERRY	6	Good	OFF-SITE
E48	ULMUS PUMILA	SIBERIAN ELM	20	Good	OFF-SITE
E49	ULMUS PUMILA	SIBERIAN ELM	16	Good	OFF-SITE
E50	ACER RUBRUM	RED MAPLE	6	Good	OFF-SITE
E51	ACER RUBRUM	RED MAPLE	10	Good	OFF-SITE
E52	ACER RUBRUM	RED MAPLE	16	Good	OFF-SITE
E53	ACER RUBRUM	RED MAPLE	8	Good	OFF-SITE
E54	ULMUS PUMILA	SIBERIAN ELM	19	Good	OFF-SITE
E55	ACER RUBRUM	RED MAPLE	8	Good	OFF-SITE
E56	ACER RUBRUM	RED MAPLE	16	Good	OFF-SITE
E57	ACER RUBRUM	RED MAPLE	6	Good	OFF-SITE
E58	ULMUS PUMILA	SIBERIAN ELM	9	Good	OFF-SITE
E59	ULMUS PUMILA	SIBERIAN ELM	13	Good	OFF-SITE
E60	ULMUS PUMILA	SIBERIAN ELM	15	Good	OFF-SITE
E61	PRUNUS SEROTINA	BLACK CHERRY	13	Good	OFF-SITE
E62	LIRODENDRON TULIPIFERA	TULIP POPLAR	6	Good	OFF-SITE
E63	PRUNUS SEROTINA	BLACK CHERRY	6	Good	OFF-SITE
E64	ACER NEGUNDO	BOXELDER	6	Good	OFF-SITE
E65	ACER NEGUNDO	BOXELDER	6	Good	OFF-SITE
E66	ACER NEGUNDO	BOXELDER	6	Good	OFF-SITE
E67	ACER NEGUNDO	BOXELDER	6	Good	OFF-SITE
E68	ACER NEGUNDO	BOXELDER	10	Good	OFF-SITE
E69	ACER NEGUNDO	BOXELDER	12	Good	OFF-SITE
E70	PRUNUS SEROTINA	BLACK CHERRY	10	Good	OFF-SITE
E71	ACER SACCHARINUM	SILVER MAPLE	10	Good	OFF-SITE
E72	PRUNUS SEROTINA	BLACK CHERRY	10	Good	OFF-SITE
E73	PRUNUS SEROTINA	BLACK CHERRY	13	Good	OFF-SITE
E74	PRUNUS SEROTINA	BLACK CHERRY	13	Good	OFF-SITE
E75	PRUNUS SEROTINA	BLACK CHERRY	13	Good	OFF-SITE
E76	ACER NEGUNDO	BOXELDER	13	Good	OFF-SITE
E77	PRUNUS SEROTINA	BLACK CHERRY	14	Good	OFF-SITE

### DEVELOPER'S CERTIFICATE

The Undersigned agrees to execute all the features of the Approved Final Forest Conservation Plan No. 12016140, including, financial bonding, forest planting, maintenance, and all other applicable agreements.

Developer's Name: CK TECHNOLOGIES, LLC  
 Contact Person or Owner: CHRISTINA JIANG  
 Address: 12642 GRANITE ROCK ROAD CLARKSBURG, MD 208  
 Phone and Email: (240) 248-7654 christinajiang77@gmail.com  
 Signature: \_\_\_\_\_

FOREST CONSERVATION PLANNER CERTIFICATION:  
 I HEREBY CERTIFY THAT THIS PLAN HAS BEEN PREPARED ACCORDING TO THE MARYLAND FOREST CONSERVATION ACT (COMAR TITLE 08, SUBTITLE 19, FOREST CONSERVATION) AND CHAPTER 22A, FOREST CONSERVATION OF THE MONTGOMERY COUNTY CODE (COMAR 1-01AM)

SIGNATURE: David B. Post DATE: \_\_\_\_\_  
 Registered Landscape Architect No. 615

10725 SANTA ANITA TERRACE  
 DAMASCUS, MD 20872  
 301-968-7214  
 INFO@POSTMODERN-LA.COM

### EXISTING SPECIMEN TREES (30" DBH+)

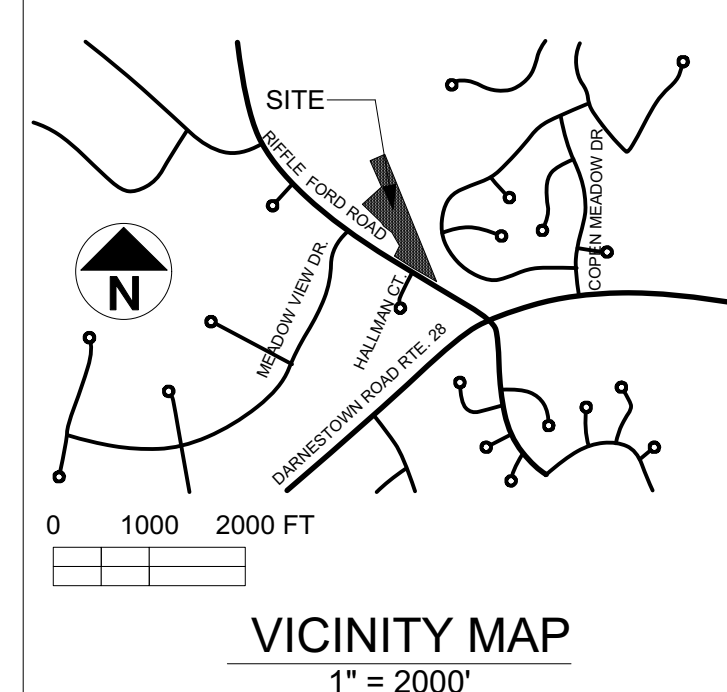
Tree No	Botanical Name	Common Name	DBH	Condition	County Champion (DBH)	Location	Notes
E07	QUERCUS PHELLOS	WILLOW OAK	24	Good	69	OFF-SITE	
E10	LIRODENDRON TULIPIFERA	TULIP POPLAR	40	Fair	93	Property Line	20 Deg. Lean, REMOVE
E12	LIRODENDRON TULIPIFERA	TULIP POPLAR	48	Fair	93	Property Line	Trunk damage/rot, REMOVE
E14	ACER SACCHARINUM	SILVER MAPLE	40	Good	89	OFF-SITE	Multi-stem, Included Bark
E15	ACER SACCHARINUM	SILVER MAPLE	30	Fair	89	Property Line	Included Bark at Crotch, REMOVE
E17	ACER RUBRUM	RED MAPLE	34	Good	73	OFF-SITE	TWIN
E18	LIRODENDRON TULIPIFERA	TULIP POPLAR	30	Good	93	OFF-SITE	Hollow Trunk
E19	LIRODENDRON TULIPIFERA	TULIP POPLAR	31	Good	93	OFF-SITE	
E21	LIRODENDRON TULIPIFERA	TULIP POPLAR	34	Good	93	OFF-SITE	
E22	ACER RUBRUM	RED MAPLE	36	Fair	73	OFF-SITE	Included Bark, Large Dead Scaffold Branch
E23	LIRODENDRON TULIPIFERA	TULIP POPLAR	31	Good	93	OFF-SITE	
E24	ACER RUBRUM	RED MAPLE	40	Fair	73	OFF-SITE	REMOVE per MO. CO. Parks request
E26	ACER RUBRUM	RED MAPLE	33	Good	73	OFF-SITE	TWIN
E27	QUERCUS RUBRA	NORTHERN RED OAK	42	Poor	74	OFF-SITE	75% Dead, Potential Hazard
E28	QUERCUS ALBA	WHITE OAK	46	Good	76	OFF-SITE	
E29	QUERCUS RUBRA	NORTHERN RED OAK	37	Good	74	OFF-SITE	
E31	ACER SACCHARINUM	SILVER MAPLE	40	Poor	89	OFF-SITE	Weak crotch, Large trunk break, Potential Hazard
E32	ACER SACCHARINUM	SILVER MAPLE	40	Good	89	OFF-SITE	Multi-trunk
E34	ACER PLATANOIDES	NORWAY MAPLE	48	Good	41	OFF-SITE	Non-native Invasive
E35	ACER RUBRUM	RED MAPLE	58	Good	73	OFF-SITE	
E38	ACER RUBRUM	RED MAPLE	36	Good	73	ON-SITE	Triple trunk, imbedded fence and cables

\* NOTE: 4 SPECIMEN TREES ARE TO BE REMOVED ON ADJACENT PROPERTY.

### OTHER SIGNIFICANT TREES (24' - 29" DBH)

Tree No	Botanical Name	Common Name	DBH	Condition	County Champion (DBH)	Location	Notes
E01	QUERCUS PHELLOS	WILLOW OAK	24	Good	69	OFF-SITE	
E02	QUERCUS RUBRA	NORTHERN RED OAK	24	Good	49	OFF-SITE	
E03	QUERCUS RUBRA	NORTHERN RED OAK	24	Good	49	OFF-SITE	
E04	QUERCUS RUBRA	NORTHERN RED OAK	24	Good	49	OFF-SITE	
E05	QUERCUS PHELLOS	WILLOW OAK	24	Good	49	OFF-SITE	
E06	QUERCUS PHELLOS	WILLOW OAK	24	Good	49	OFF-SITE	
E07	QUERCUS PHELLOS	WILLOW OAK	24	Good	49	OFF-SITE	
E08	QUERCUS PHELLOS	WILLOW OAK	24	Good	49	OFF-SITE	
E09	PRUNUS SEROTINA	BLACK CHERRY	24	Fair	45	OFF-SITE	
E11	LIRODENDRON TULIPIFERA	TULIP POPLAR	24	Good	93	Property Line	REMOVE
E13	ULMUS PUMILA	SIBERIAN ELM	24	Good	47	OFF-SITE	Non-native Invasive
E16	LIRODENDRON TULIPIFERA	TULIP POPLAR	29	Good	93	OFF-SITE	
E20	LIRODENDRON TULIPIFERA	TULIP POPLAR	28	Good	93	OFF-SITE	
E25	ACER RUBRUM	RED MAPLE	27	Good	73	OFF-SITE	
E30	ACER SACCHARINUM	SILVER MAPLE	28	Good	89	OFF-SITE	Prune up low scaffold branches
E33	ACER SACCHARINUM	SILVER MAPLE	24	Good	89	OFF-SITE	Multi-trunk
E39	ROBINIA PSEUDOACACIA	BLACK LOCUST	24	Good	59	ON-SITE	Low hanging branches
E41	ACER RUBRUM	RED MAPLE	28	Good	73	OFF-SITE	
E42	NYSSA SYLVATICA	BLACK GUM	25	Good	64	OFF-SITE	
E43	LIRODENDRON TULIPIFERA	TULIP POPLAR	25	Good	93	OFF-SITE	
E44	LIRODENDRON TULIPIFERA	TULIP POPLAR	27	Good	93	OFF-SITE	
E45	LIRODENDRON TULIPIFERA	TULIP POPLAR	26	Good	93	OFF-SITE	
E70	ACER RUBRUM	RED MAPLE	29	Average	47	OFF-SITE	Non-native Invasive

\* NOTE: 1 SIGNIFICANT TREE IS TO BE REMOVED ON ADJACENT PROPERTY.



### FCP LEGEND:

- EXISTING PROPERTY LINE
- EXISTING CONTOUR LINE
- EXISTING BUILDING
- EXISTING TREE CANOPY
- SOIL LINE
- EXISTING SPECIMEN TREE WITH CRITICAL ROOT ZONE
- EXISTING SIGNIFICANT TREE AND CRZ
- STEEP SLOPE (15% ON ERODIBLE SOIL)
- WOVEN WIRE FENCE
- WOOD FENCE
- LIMITS OF DISTURBANCE
- PROPOSED FOREST PLANTING
- PROPOSED SPLIT RAIL FENCE
- FOREST CONSERVATION EASEMENT
- TREE PROTECTION FENCE
- ROOT PRUNING
- PERMANENT FOREST CONSERVATION SIGN
- TEMPORARY TREE PROTECTION SIGN
- EXISTING SPECIMEN TREE TO BE REMOVED
- PROPOSED SANITARY SEWER
- PROPOSED STORM DRAIN
- PROPOSED ELECTRIC
- PROPOSED GAS
- PROPOSED LOT LINE
- PROPOSED WATER

### FOREST CONSERVATION DATA TABLE

Tract	Number of Acres
Remaining in Agricultural Use	4.29 Ac.
Road & Utility ROW's	0 Ac.
Total Existing Forest	0 Ac.
Forest Retention	0 Ac.
Forest Cleared	0 Ac.

Land Use & Thresholds	HDR	percent
Land Use Category	20%	percent
Conservation Threshold	15%	percent
Afforestation Threshold		

Stream(s)	Total Channel Length (ft.)	Average Buffer Width (ft.)
	.000 L. F.	.000 L. F.

Acres of Forest in	Retained	Cleared	Planted
Wetlands	0Ac.	0Ac.	0Ac.
100-Year Floodplain	0Ac.	0Ac.	0Ac.
Stream Buffers	0Ac.	0Ac.	0Ac.
Priority Areas	0Ac.	0Ac.	0Ac.

438 NORTH FREDERICK AVENUE  
 SUITE 455  
 GAITHERSBURG, MD 20877  
 TEL: (301) 987-8776  
 FAX: (301) 987-8777

## DEERWOOD MANOR

LIBER 4754 FOLIO 739  
 MONTGOMERY COUNTY, MARYLAND

TITLE: PRELIMINARY/FINAL FOREST CONSERVATION PLAN

DRAWN: DP

DESIGNED: DP

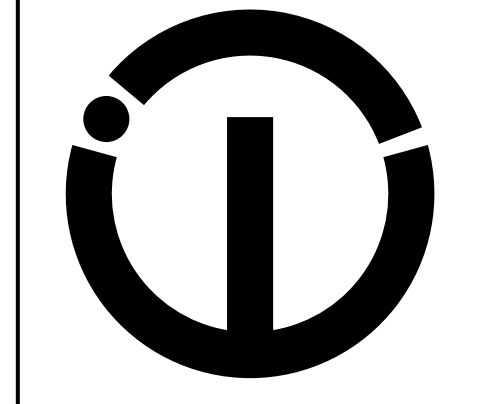
CHECKED: DP

DATE: FEB. 19, 2016

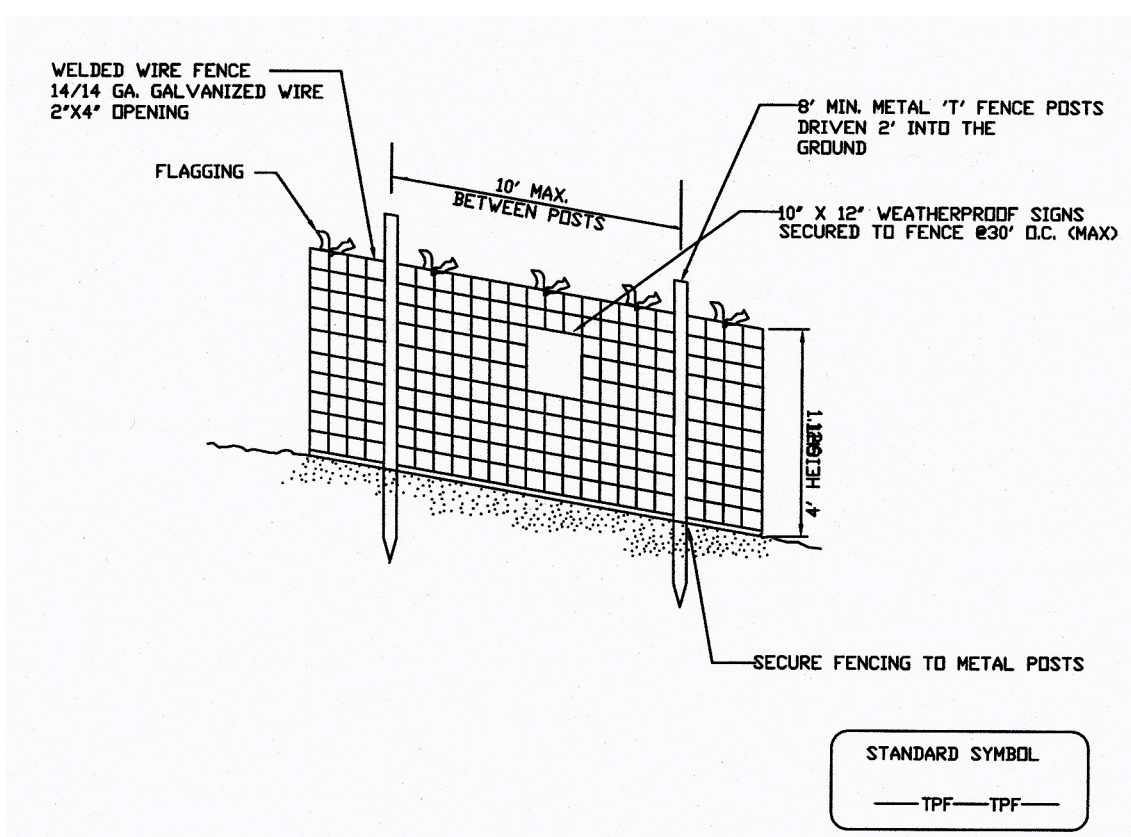
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SHEET: 1 OF 3

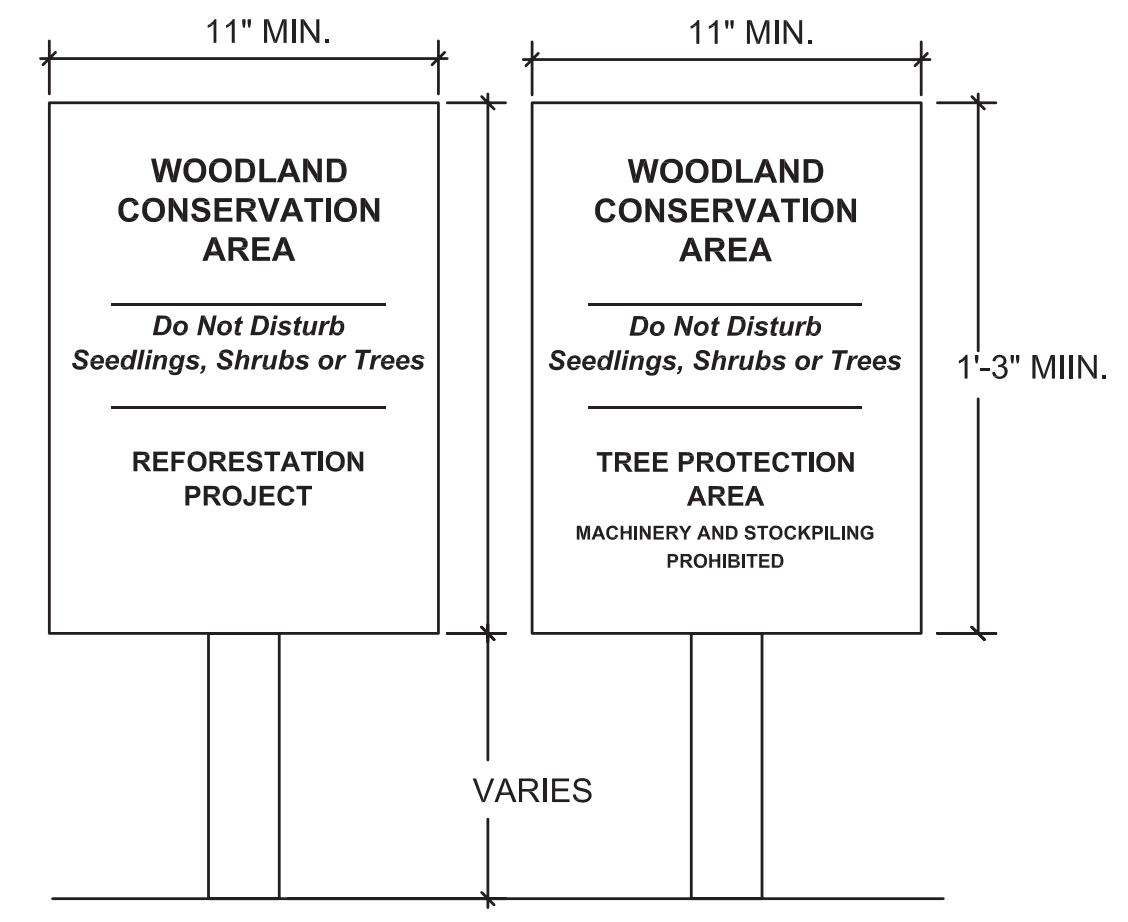




Tree Protection Fence Detail  
Not to scale



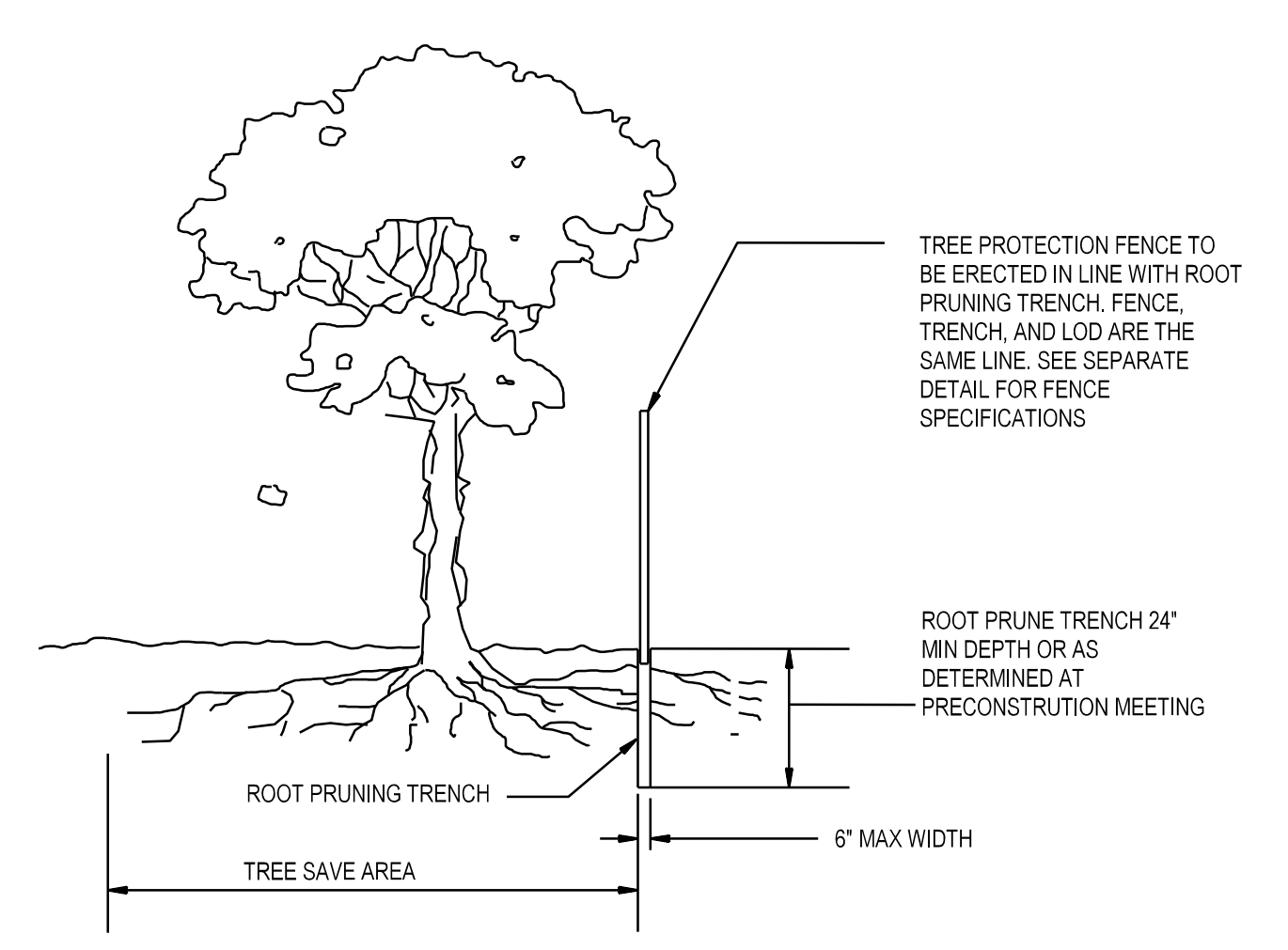
- NOTES
- Practice may be combined with sediment control fencing.
  - Location and limits of fencing should be coordinated in field with arborist.
  - Boundaries of protection area should be staked prior to installing protective device.
  - Root damage should be avoided.
  - Protection signage is required.
  - Fencing shall be maintained throughout construction.



- NOTES:
- BOTTOM OF SIGNS TO BE HIGHER THAN TOP OF TREE PROTECTION FENCE.
  - SIGNS TO BE PLACED APPROXIMATELY 50' APART. CONDITIONS ON SITE AFFECTING VISIBILITY MAY WARRANT PLACING SIGNS CLOSER OR FARTHER APART.
  - ATTACHMENT OF SIGNS TO TREES IS PROHIBITED.
  - SIGNS SHALL BE CONSTRUCTED OF MATERIAL SUITABLE TO WITHSTAND WEATHER EXPOSURE FOR AT LEAST THE DURATION OF CONSTRUCTION (0.05 GAUGE HDPE PLASTIC BY "THE TREE COMPANY", CATONSVILLE, MD OR EQUAL).
  - SIGN COLORS SHALL BE GREEN LETTERING ON A WHITE BACKGROUND OR SIMILAR.
  - SIGNS SHALL BE PROPERLY MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.
  - AVOID INJURY TO ROOTS WHEN PLACING POSTS FOR THE SIGNS

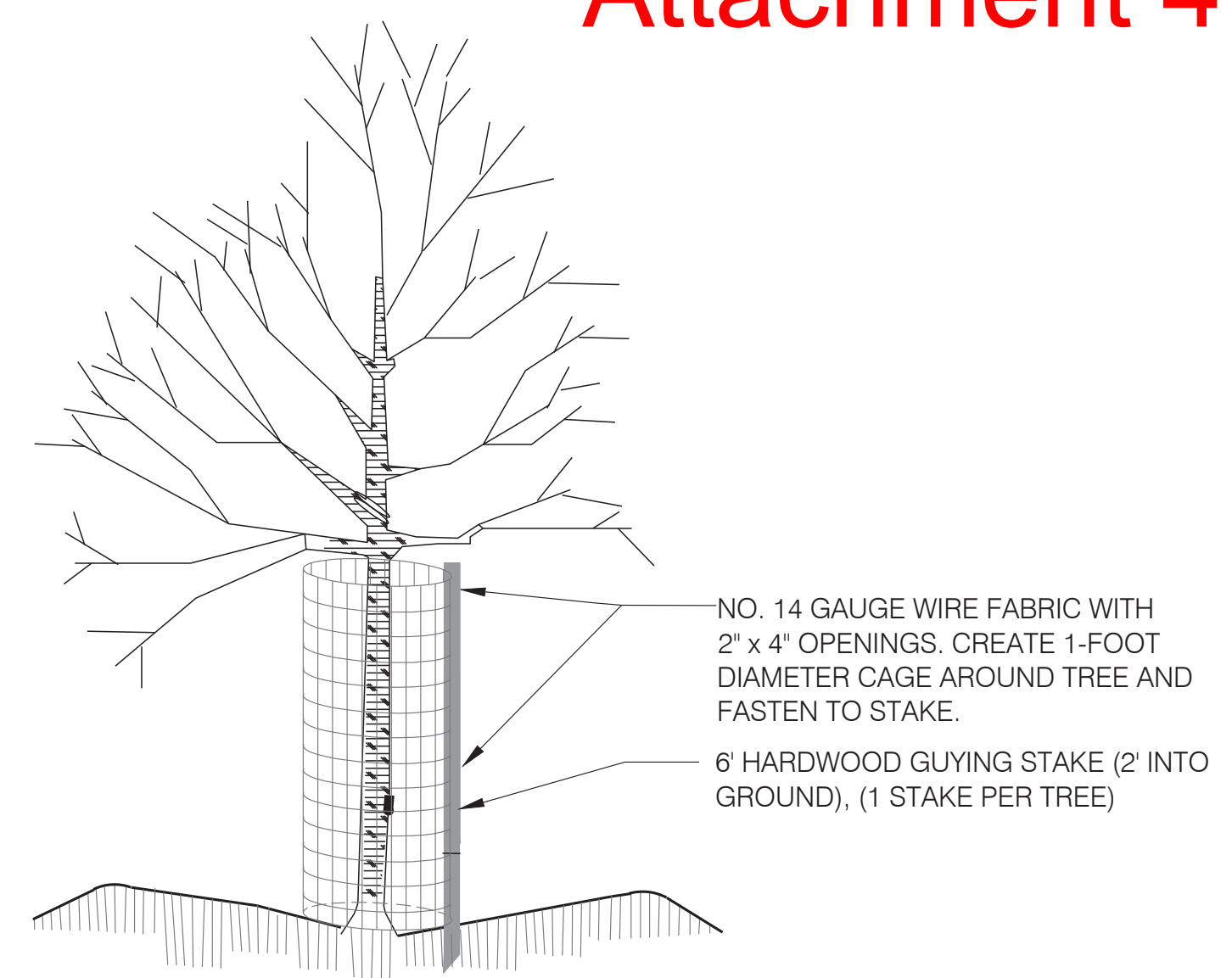
TREE PROTECTION SIGNAGE

2 TREE PROTECTION SIGNS  
NOT TO SCALE



- NOTES:
- RETENTION AREAS WILL BE SET AS PART OF THE REVIEW PROCESS AND PRECONSTRUCTION MEETING.
  - BOUNDARIES OF RETENTION AREAS MUST BE STAKED AT THE PRECONSTRUCTION MEETING AND FLAGGED PRIOR TO TRENCHING.
  - EXACT LOCATION OF TRENCH SHALL BE DETERMINED IN THE FIELD IN COORDINATION WITH THE FOREST CONSERVATION (FC) INSPECTOR.
  - TRENCH SHOULD BE IMMEDIATELY BACKFILLED WITH EXCAVATED SOIL OR OTHER ORGANIC SOIL AS SPECIFIED PER PLAN OR BY THE FC INSPECTOR.
  - ROOTS SHALL BE CLEANLY CUT USING VIBRATORY KNIFE OR OTHER ACCEPTABLE EQUIPMENT.
  - ALL PRUNING MUST BE EXECUTED WITH LOD SHOWN ON PLANS OR AS AUTHORIZED IN WRITING BY THE FC INSPECTOR.

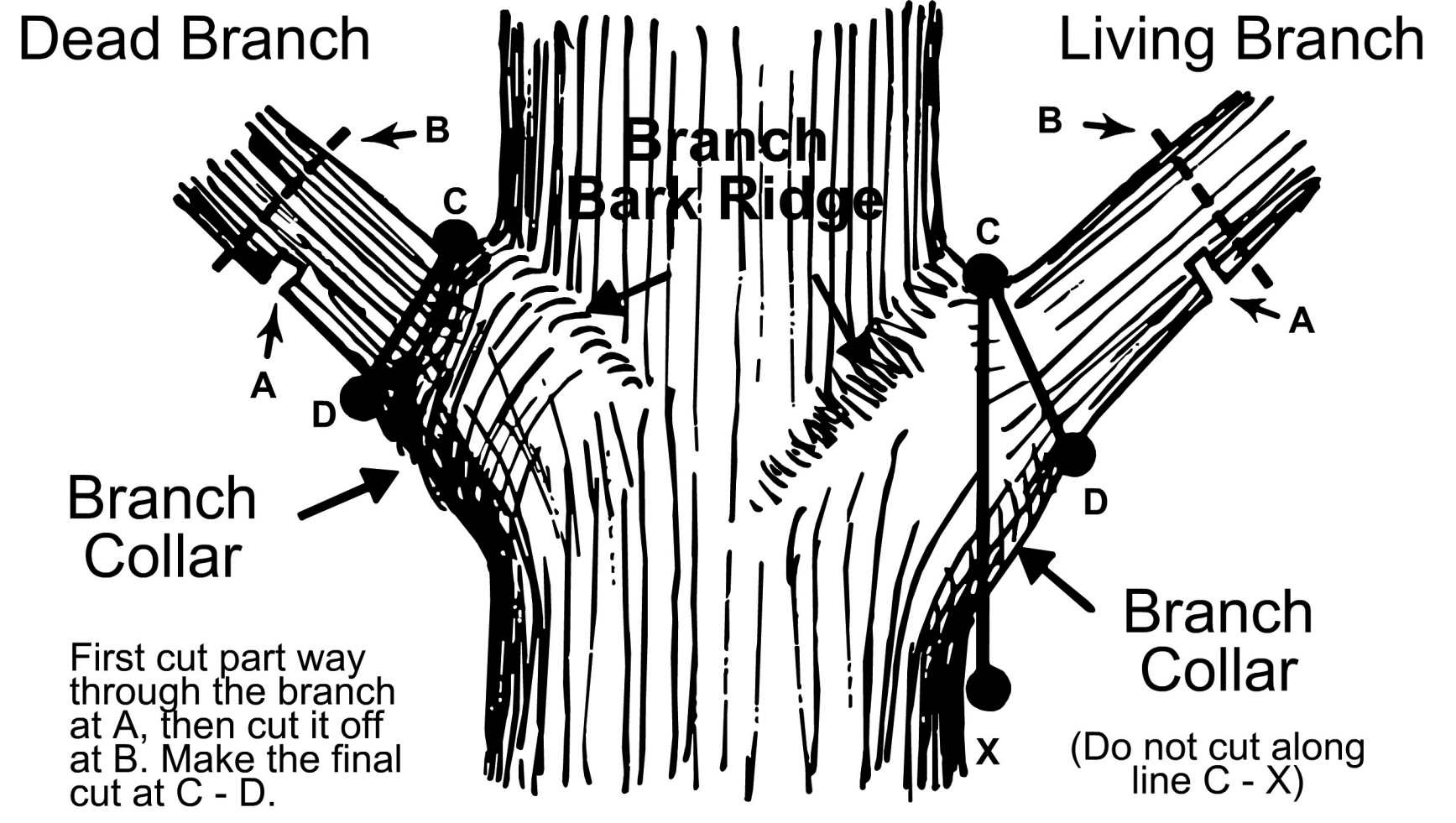
ROOT PRUNING DETAIL  
NTS



- NOTES:
- HEIGHT OF CAGE SHALL BE 4- FEET (MIN.)
  - CAGE SHALL BE FASTENED TO STAKE WITH TWO (MIN.) 11-INCH RELEASABLE CABLE TIES (ONE AT TOP AND ONE 6\"/>

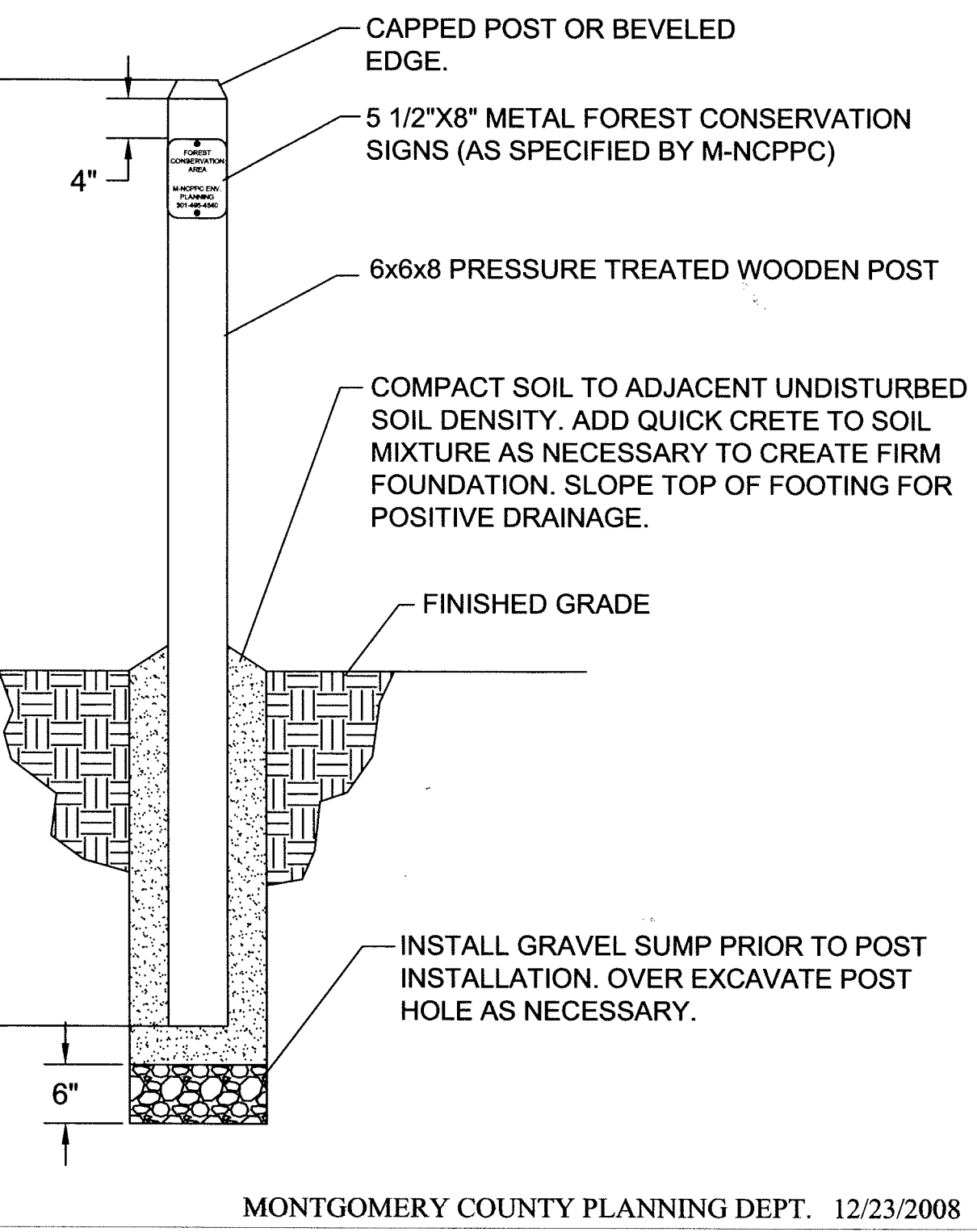
4 BARK PROTECTION DETAIL  
NOT TO SCALE

Montgomery County Planning Department • M-NCPPC  
MontgomeryPlanning.org



6 BRANCH PRUNING DETAIL  
NOT TO SCALE

PERMANENT FOREST CONSERVATION EASEMENT SIGNAGE



- NOTES:
- POST TO BE INSTALLED IN A VERTICALLY PLUMB POSITION.
  - ALL WOOD SHALL BE PRESSURE TREATED SOUTHERN YELLOW PINE OR CEDAR.
  - ALL FASTENERS SHALL BE STAINLESS STEEL 1/2\"/>

Specifications of Forest Planting

- Soil Preparations: Each planting field may require one or all of the following:
- Soil test for nutrient content, organic matter, structure, pH, and cation exchange capacity
  - Cultivation by subsoling, plowing, discing, and tilling of the entire planting field (for compacted soils)
  - Application of post-emergent herbicide (i.e. "Round Up") to control competing vegetation.

Plant Material: The contractor shall furnish and install all plants required to complete the work as shown on the drawings. Substitutions shall not be made without the written approval of the landscape architect. This contract will be based on the bidder having verified, prior to bidding, the availability of the required plant material as specified on the plant list. All trees and shrubs shall be dense and well grown, showing evidence of having been pruned regularly, and shall be vigorous, healthy and of good color. All plants shall be sound, free of plant disease or insect eggs and shall have a healthy normal root system. Balled and burlapped (B&B) plants shall be freshly dug and not heeded-in stock from cold storage. All plants shall be nursery grown. Plants shall not be pruned prior to delivery. The shape of the plant shall, in general, conform to its natural growth proportions unless otherwise specified. All plant, including container grown, shall conform to the branching, caliper, and height specifications of the American Association of Nurserymen's publication entitled American Standard for Nursery Stock, ANSI Z60.1-1986 or latest edition, and shall have a well-shaped, heavy-branched structure for the species. Plants of a given size shall not measure less than the minimum size as set forth in the American Standard for Nursery Stock, ANSI Z60.1-1986 or latest edition. Contain-grown trees and shrubs shall be grown in a compost mixture or one part leaves and one part grass clippings. Compost shall be mixed with pine bark or sand, and shall be at a ratio of two(2) cubic yards of compost to one (1) cubic yard of pine bark/sand. Local genetic stock, within 100 mile radius, is preferred because of hardiness and disease resistance.

Plant Spacing: All one (1) inch and two (2) inch caliper trees shall be located as shown on the plan. All other forestation trees and shrubs shall be randomly spaced within the planting field boundaries at the quantities indicated for each forest stands.

Planting Procedures: For B&B and container-grown trees, the tree pit wall shall be dug so that they are vertical and scarified. The tree pit width shall be a minimum of 2.5 times the diameter of the rootball or container and shall be one (1) inch shallower than the height of the rootball. Plants shall rest on undisturbed existing soil or well-compacted backfill. The trees shall be handled with care and shall not be picked up by the trunk or dropped. Set the tree straight and centered in the tree pit. Remove burlap and rope from top half (1/2) of B&B rootball. For container-grown tree, remove the container and butterfly the rootball. The pits shall be backfilled using stock-piled native topsoil or amended native soils. Amended native soil shall be 2/3 existing soil to 1/3 organic matter thoroughly homogenized. Do not stake trees unless instructed to do so by the landscape architect. Trees shall not be wrapped.

Soil Stabilization: Disturbed areas of 5,000 square feet or greater and any erodible slopes shall be stabilized with vegetation as specified.

Tree Protection: To prevent damage to planted areas, reforestation, and afforestation sites shall be posted with appropriate signs. See tree protection notes and details.

Sequence of Events for Property Owners Required to Comply With Forest Conservation and/or Tree-Save Plans

- Pre-Construction
- An on-site pre-construction meeting is required after the limits of disturbance have been staked and flagged, but before any clearing or grading begins. The property owner should contact the Montgomery County Planning Department inspection staff before construction to verify the limits of disturbance and discuss tree protection and tree care measures. The developer's representative, construction superintendent, ISA certified arborist or Maryland-licensed tree expert that will implement the tree protection measures, forest conservation inspector, and Department of Permitting Services (DPS) sediment control inspector should attend this pre-construction meeting.
  - No clearing or grading shall begin before stress-reduction measures have been implemented. Appropriate measures may include, but are not limited to:
    - Root pruning
    - Crown reduction or pruning
    - Watering
    - Fertilizing
    - Vertical mulching
    - Root aeration matting
 Measures not specified on the forest conservation plan may be required as determined by the forest conservation inspector in coordination with the arborist.
  - A Maryland-licensed tree expert or an International Society of Arboriculture-certified arborist must perform all stress reduction measures. Documentation of stress reduction measures must be either observed by the Forest conservation inspector or sent to the inspector at 8787 Georgia Avenue, Silver Spring, MD 20910. The forest conservation inspector will determine the exact method to convey the stress reductions measures during the pre-construction meeting.
  - Temporary tree protection devices shall be installed per the Forest Conservation Plan/Tree Save Plan and prior to any construction activities. Tree protection fencing locations should be staked prior to the pre-construction meeting. The forest conservation inspector, in coordination with the DPS sediment control inspector, may make field adjustments to increase the survivability of trees and forest shown as saved on the approved plan. Temporary tree protect devices may include:
    - Chain link fence (four feet high)
    - Super slit fence with wire strung between support poles (minimum 4 feet high) with high visibility flagging.
    - 14 gauge 2 inch x 4 inch welded wire fencing supported by steel T-bar posts (minimum 4 feet high) with high visibility flagging.
  - Temporary protection devices shall be maintained and installed by the contractor for the duration of construction project and must not be altered without prior approval from the forest conservation inspector. No equipment, trucks, materials, or debris may be stored within the tree protection fence areas during the entire construction project. No vehicle or equipment access to the fenced area will be permitted. Tree protection shall not be removed without prior approval of forest conservation inspector.
  - Forest retention area signs shall be installed as required by the forest conservation inspector, or as shown on the approved plan.
  - Long-term protection devices will be installed per the Forest Conservation Plan/Tree Save Plan and attached details. Installation will occur at the appropriate time during the construction project. Refer to the plan drawing for long-term protection measures to be installed.

INSPECTIONS

All field inspections must be requested by the applicant. Field Inspections must be conducted as follows:

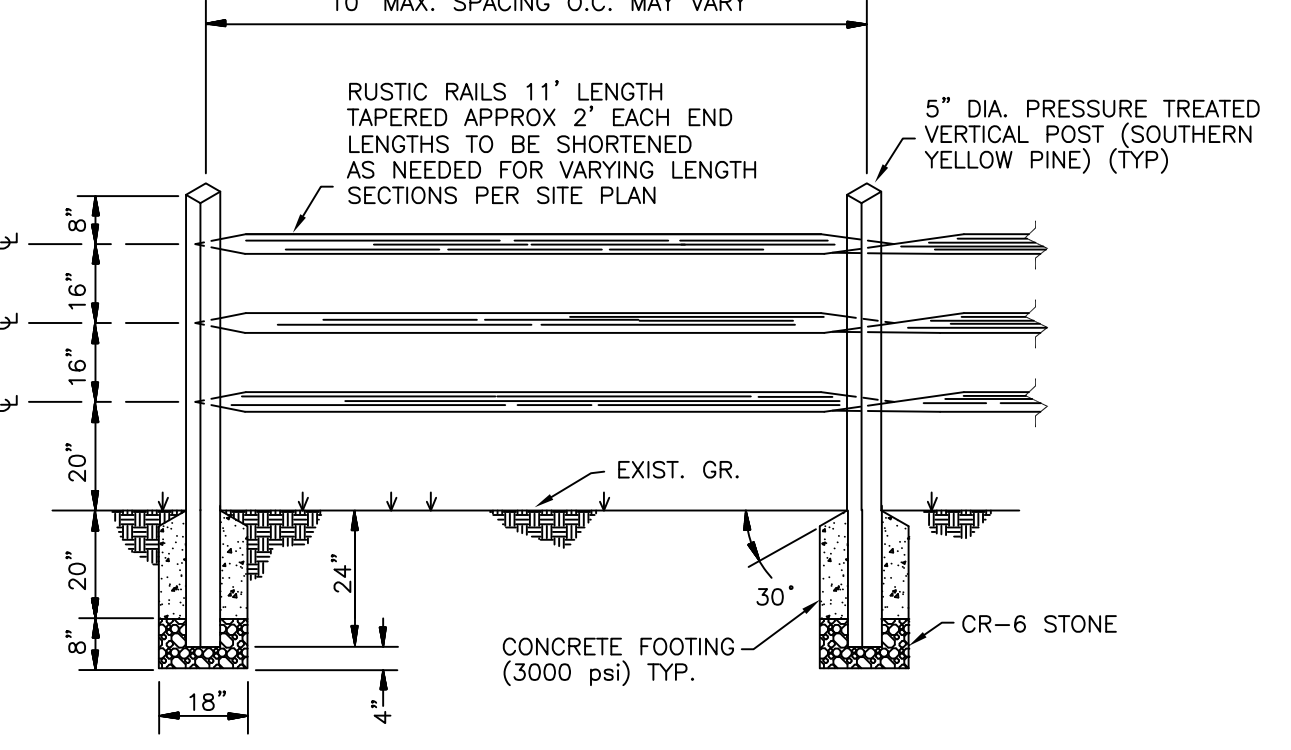
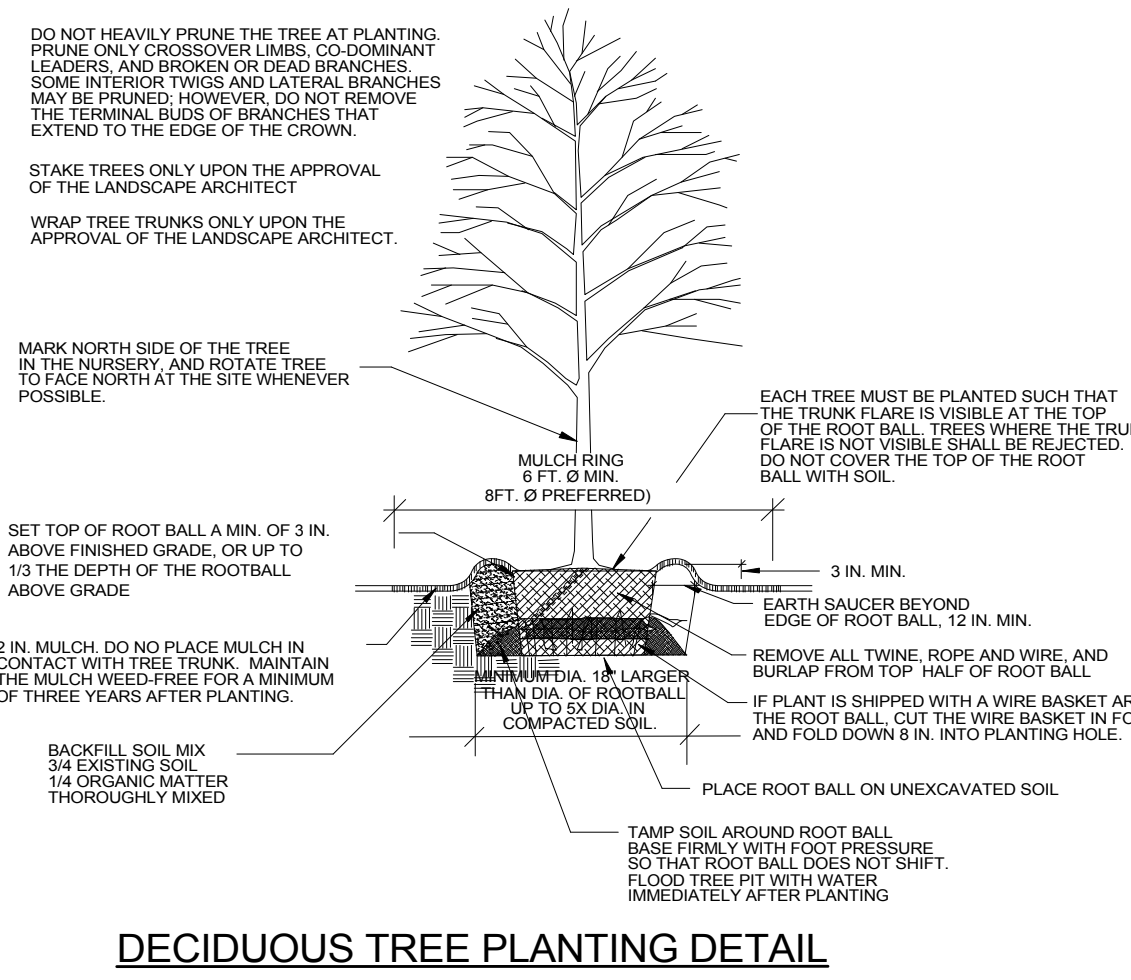
Plans without Planting Requirements

- After the limits of disturbance have been staked and flagged, but before any clearing or grading begins.
- After necessary stress reduction measures have been completed and protection measures have been installed, but before any clearing and grading begin and before release of the building permit.
- After completion of all construction activities, but before removal of tree protection fencing, to determine the level of compliance with the provision of the forest conservation.

Additional Requirements for Plans with Planting Requirements

- Before the start of any required reforestation and afforestation planting.
- After the required reforestation and afforestation planting has been completed to verify that the planting is acceptable and prior to the start the maintenance period.
- At the end of the maintenance period to determine the level of compliance with the provisions of the planting plan, and if appropriate, release of the performance bond.

5 TREE PLANTING DETAIL  
NOT TO SCALE



8 SPLIT RAIL FENCE DETAIL  
NOT TO SCALE

**DEVELOPER'S CERTIFICATE**

The Undersigned agrees to execute all the features of the Approved Final Forest Conservation Plan No. 120160140 including, financial bonding, forest planting, maintenance, and all other applicable agreements.

Developer's Name: CK TECHNOLOGIES, LLC

Contact Person or Owner: CHRISTINA JIANG

Address: 12842 GRANITE ROCK ROAD CLARKSBURG, MD 208

Phone and Email: (240) 248-7654 christinajiang77@gmail.com

Signature: \_\_\_\_\_

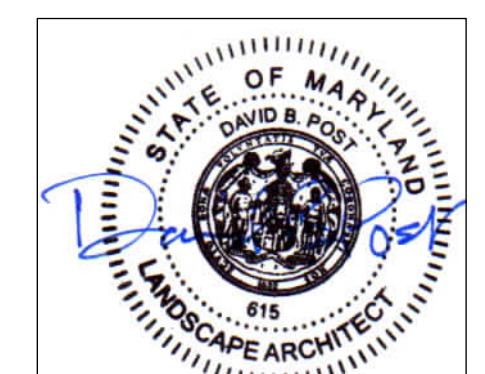
FOREST CONSERVATION PLAN PREPARED BY:

**PostModern Landscape Architecture, LLC**  
10725 SANTA ANITA TERRACE  
DAMASCUS, MD 20872  
301-968-7214  
INFO@POSTMODERN-LA.COM

FOREST CONSERVATION PLANNER CERTIFICATION:

I HEREBY CERTIFY THAT THIS PLAN HAS BEEN PREPARED ACCORDING TO THE MARYLAND FOREST CONSERVATION ACT (COMAR TITLE 08, SUBTITLE 19, FOREST CONSERVATION) AND CHAPTER 22A, FOREST CONSERVATION OF THE MONTGOMERY COUNTY CODE (COMAR 1-01AM)

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_  
David B. Post  
Registered Landscape Architect No. 615



NO.	DATE	DESCRIPTION
1.	4/30/16	PER SITE PLAN REVISION
2.	6/01/16	PER MNCPPC REVIEW
3.	7/20/16	PER MNCPPC REVIEW
4.	7/20/16	PER MNCPPC REVIEW
5.	8/14/16	PER MNCPPC REVIEW
6.	10/26/16	PER REV. SITE PLAN & MNCPPC REVIEW

TITLE	PRELIMINARY/FINAL FOREST CONSERVATION PLAN	DRAWN:	DP	DESIGNED:	DP	CHECKED:	DP
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DATE	FEB. 19, 2016	SCALE	SHEET	F-2	2 OF 3
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### FOREST CONSERVATION WORKSHEET

#### DEERWOOD MANOR

NET TRACT AREA:

A. Total tract area ...	4.31 AC
B. Land dedication acres (parks, county facility, etc.) ...	0.00 AC
C. Land dedication for roads or utilities (not being constructed by this plan) ...	0.00 AC
D. Area to remain in commercial agricultural production/use ...	0.00 AC
E. Other deductions (specify) .....	0.00 AC
F. Net Tract Area .....	4.31 AC

LAND USE CATEGORY: (from Trees Technical Manual)

Input the number "1" under the appropriate land use, limit to only one entry.

ARA	MDR	IDA	HDR	MPD	CIA
0	0	0	1	0	0

G. Afforestation Threshold ... 15% x F = 0.65 AC  
H. Conservation Threshold ... 20% x F = 0.86 AC

EXISTING FOREST COVER:

I. Existing forest cover .....= 0.00 AC  
J. Area of forest above afforestation threshold .....= 0.00 AC  
K. Area of forest above conservation threshold .....= 0.00 AC

BREAK EVEN POINT:

L. Forest retention above threshold with no mitigation .....= 0.00 AC  
M. Clearing permitted without mitigation .....= 0.00 AC

PROPOSED FOREST CLEARING:

N. Total area of forest to be cleared .....= 0.00 AC  
O. Total area of forest to be retained .....= 0.00 AC

PLANTING REQUIREMENTS:

P. Reforestation for clearing above conservation threshold .....= 0.00 AC  
Q. Reforestation for clearing below conservation threshold .....= 0.00 AC  
R. Credit for retention above conservation threshold .....= 0.00 AC  
S. Total reforestation required .....= 0.00 AC  
T. Total afforestation required .....= 0.65 AC  
U. Credit for landscaping (may not exceed 20% of "S") .....= 0.03 AC  
V. Total reforestation and afforestation required .....= 0.61 AC

NOTE: TRACT AREA INCLUDES 0.02 ACRES OF OFF-SITE DISTURBANCE FOR THE SEWER LINE CONNECTION.

NOTE: 0.58 ACRES OF AFFORESTATION WILL BE PROVIDED ON-SITE. 0.03 ACRES WILL BE PROVIDED BY FEE-IN-LIEU.

#### PLANT LIST - FOREST PLANTING

ID	Qty	Latin Name	Common Name	Scheduled Size	Remarks
AR	23	Acer rubrum	Red Maple	1"-1 1/2" CAL.	B&B OR 7 GALLON CONTAINER
CC	23	Cercis canadensis	Eastern Redbud	1"-1 1/2" CAL.	B&B OR 7 GALLON CONTAINER
IWV	20	Ilex verticillata "Winter Red"	Winter Red Winterberry	24" SPR.	B&B OR CONTAINER
JV	23	Juniperus virginiana	Eastern Red Cedar	1"-1 1/2" CAL.	B&B OR 7 GALLON CONTAINER
LT	23	Liriodendron tulipifera	Tulip Poplar	1"-1 1/2" CAL.	B&B OR 7 GALLON CONTAINER
QM	23	Quercus montana	Chestnut Oak	1"-1 1/2" CAL.	B&B OR 7 GALLON CONTAINER
VDA	25	Viburnum dentatum	Arrowwood	3 GAL.	CONTAINER

#### PLANT LIST - LANDSCAPE CREDIT

ID	Qty	Latin Name	Common Name	Scheduled Size	Remarks
CCFP	9	Cercis canadensis "Forest Pansy"	Forest Pansy Redbud	3" Cal. Min.	B&B
NS	3	Nyssa sylvatica	Black Gum	3" - 3 1/2" Cal.	B&B
QBO	3	Quercus bicolor	Swamp White Oak	3" - 3 1/2" Cal.	B&B

#### LANDSCAPE CREDIT CALCULATION

ID	Qty	Latin Name	Common Name	20-Yr Canopy (Dia. Ft.)	Canopy Area (Sq. Ft.)	Total Canopy (Sq. Ft.)	Total Canopy in Easements (Sq. Ft.)	Net Total Canopy (Sq. Ft.)
CCFP	9	Cercis canadensis "Forest Pansy"	Forest Pansy Redbud	20	314	2,826	-	2,826
NS	3	Nyssa sylvatica	Black Gum	26	531	1,593	-	1,593
QBO	3	Quercus bicolor	Swamp White Oak	26	531	1,593	426	1,167
						<b>TOTAL TREE CANOPY</b>		<b>5,588</b>
						<b>25% CREDIT</b>		<b>1,397</b>
						<b>LANDSCAPE CREDIT (Ac.)</b>		<b>0.03</b>

#### VARIANCE REQUEST AND MITIGATION WORKSHEET

ID	Botanical Name	Common Name	DBH	Mitigation
E 10	LIRIODENDRON TULIPIFERA	TULIP POPLAR	40	10 (One inch cal. per 4" DBH removed)
E 12	LIRIODENDRON TULIPIFERA	TULIP POPLAR	48	12 (One inch cal. per 4" DBH removed)
E 15	ACER SACCHARINUM	SILVER MAPLE	30	8 (One inch cal. per 4" DBH removed)
E 24	ACER RUBRUM	RED MAPLE	40	10 (One inch cal. per 4" DBH removed)
				40 Total caliper inches required
				14 Total 3" caliper trees required

#### PLANT LIST - MITIGATION TREES

ID	Qty	Latin Name	Common Name	Scheduled Size	Remarks
AR3	4	Acer rubrum	Red Maple	3" - 3 1/2" Cal.	B&B
NS	4	Nyssa sylvatica	Black Gum	3" - 3 1/2" Cal.	B&B
QBO	6	Quercus bicolor	Swamp White Oak	3" - 3 1/2" Cal.	B&B

#### DEVELOPER'S CERTIFICATE

The Undersigned agrees to execute all the features of the Approved Final Forest Conservation Plan No. 120160140 including, financial bonding, forest planting, maintenance, and all other applicable agreements.

Developer's Name: CK TECHNOLOGIES, LLC

Contact Person or Owner: CHRISTINA JIANG

Address: 12642 GRANITE ROCK ROAD  
CLARKSBURG, MD 208

Phone and Email: (240) 248-7654 christinajiang77@gmail.com

Signature: \_\_\_\_\_

FOREST CONSERVATION PLAN PREPARED BY:

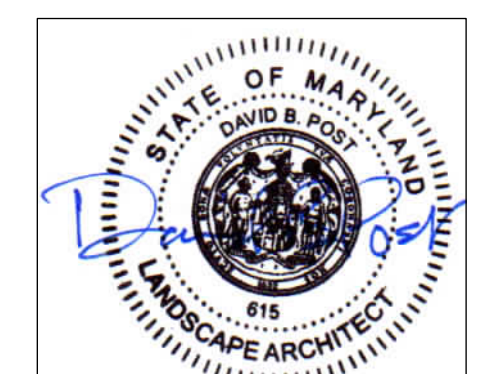


FOREST CONSERVATION PLANNER CERTIFICATION:

I HEREBY CERTIFY THAT THIS PLAN HAS BEEN PREPARED ACCORDING TO THE MARYLAND FOREST CONSERVATION ACT (COMAR TITLE 08, SUBTITLE 19, FOREST CONSERVATION) AND CHAPTER 22A, FOREST CONSERVATION OF THE MONTGOMERY COUNTY CODE (COMAR 1-01AM)

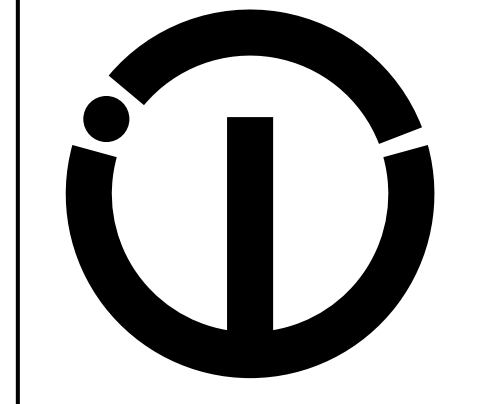
SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

Registered Landscape Architect No. 615



**ENDESCO, INC.**  
ENGINEERS, DESIGNERS &  
CONSULTANTS

438 NORTH FREDERICK AVENUE  
SUITE 455  
GAITHERSBURG, MD 20877  
TEL: (301) 987-8776  
FAX: (301) 987-8777



**DEERWOOD MANOR**  
LIBER 4754 FOLIO 739  
MONTGOMERY COUNTY, MARYLAND

#### REVISIONS

NO.	DATE	DESCRIPTION
1.	4/30/16	PER SITE PLAN REVISION
2.	6/01/16	PER MNCPPC REVIEW
3.	7/20/16	PER MNCPPC REVIEW
4.	7/29/16	PER MNCPPC REVIEW
5.	9/14/16	PER MNCPPC REVIEW
6.	10/07/16	PER RES. SITE PLAN & MNCPPC REVIEW
7.	11/11/16	PER MNCPPC REVIEW

TITLE PRELIMINARY/FINAL FOREST CONSERVATION PLAN

SCALE: \_\_\_\_\_

DRAWN: **DP**

DESIGNED: **DP**

CHECKED: **DP**



DEPARTMENT OF TRANSPORTATION

Isiah Leggett  
County Executive

Al R. Roshdieh  
Director

April 5, 2017

Mr. Ryan Sigworth, Senior Planner  
Area 3 Planning Division  
The Maryland-National Capital  
Park and Planning Commission  
8787 Georgia Avenue  
Silver Spring, Maryland 20910-3760

RE: Deerwood Manor  
Preliminary Plan No. 120160140

**AMENDMENT LETTER**

*Ryan:*  
Dear Mr. Sigworth:

Thank you for your suggestion to amend our August 18, 2016 letter for this preliminary plan to clarify the Department of Transportation's recommendations for improvements along the project's site frontage on Riffle Ford Road. We appreciate you bringing your concern to our attention. As a result, this letter is to amend certain comments and recommendations contained in that letter; all comments in the August 18, 2016 letter remain applicable unless modified below.

After our original letter was prepared, the County commenced construction of improvements to the nearby intersection of Riffle Ford Road with Darnestown Road (MD28) and Seurat Drive. These improvements are now being completed under Capital Improvements Program Project No. 507017 ["MD28 (Darnestown Road) at Riffle Ford Road/Seurat Drive"]. For ease of construction, we recommend the applicants replicate the baseline of construction for the CIP project, which appears to be approximately ten (10) feet from the existing east edge of pavement along the property's Riffle Ford Road site frontage.

Copies of the CIP plans may be obtained from the MCDOT Division of Traffic Engineering and Operations. The applicant's consultants should contact Messrs. Dan Sanayi and/or John Hoobler at 240-777-2190 to coordinate their engineering design.

The comments in our August 18, 2016 letter are hereby amended as follows:

**Office of the Director**

101 Monroe St., 10th Floor • Rockville, Maryland 20850 • 240-777-7170 • 240-777-7178 FAX  
[www.montgomerycountymd.gov/dot](http://www.montgomerycountymd.gov/dot)



Mr. Ryan Sigworth  
Preliminary Plan No. 120160140  
AMENDMENT LETTER  
April 5, 2017  
Page 2

2. Grant necessary slope and drainage easements. Slope easements are to be determined by study or set at the building restriction line. Grant a Public Improvements Easement (P.I.E.) with an overlapping Public Utilities Easement (P.U.E.) on Riffle Ford Road (widths are to be confirmed at the permit and/or plat stage).
  5. From the CIP project's baseline of construction on Riffle Ford Road, sawcut the pavement and construct concrete curb and gutter along the Riffle Ford Road site frontage. (To be consistent with the CIP project, the back of the curb is to be located eleven (11) feet from the baseline of construction. Extend the graded aggregate subbase one (1) foot behind the back of curb, as shown on the CIP plans.) From the back of curb, grade a four (4) foot minimum width lawn panel on a two (2) percent slope, construct a five (5) foot concrete sidewalk, and provide a one (1) foot minimum width lawn panel. Plant minor species street trees in the four (4) foot wide lawn panel.
- 14(A) Construct improvements along Riffle Ford Road site frontage as described in amended comment no. 5 of this letter.
- 14(G) Developer shall provide street lights in accordance with the specifications, requirements, and standards prescribed by the MCDOT Division of Traffic Engineering and Operations.

Thank you for your consideration of these amended recommendations. If you have any questions or comments regarding this letter, please contact Mr. William Whelan, our Development Review Area Engineer for this project at 240-777-2173 or at [william.whelan@montgomerycountymd.gov](mailto:william.whelan@montgomerycountymd.gov).

Sincerely,



Gregory M. Leck, Manager  
Development Review Team  
Office of Transportation Policy

Mr. Ryan Sigworth  
Preliminary Plan No. 120160140  
AMENDMENT LETTER  
April 5, 2017  
Page 3

CC:	Christina Jiang	CK Technologies, LLC
	Baozhu Wei	ENDESCO, Inc.
	Richard Weaver	M-NCPPC Area 3
	Ed Axler	M-NCPPC Area 3
	Laura Hodgson	M-NCPPC Area 3
	Dan Sanayi	MCDOT DTEO
	John Hoobler	MCDOT DTEO
cc-e:	Sam Farhadi	MCDPS RWPR
	William Whelan	MCDOT OTP

MAILING LIST

Christina Jiang  
CK Technologies, LLC  
12642 Granite Rock Road  
Clarksburg, MD 20871

Baozhu Frank Wei  
Endesco, Inc.  
438 N. Frederick Avenue, Suite 455  
Gaithersburg, Maryland 20877



DEPARTMENT OF TRANSPORTATION

Isiah Leggett  
County Executive

Al R. Roshdieh  
Director

August 18, 2016

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

RE: Deerwood Manor  
Preliminary Plan No. 120160140

Dear Mr. Sigworth:

We have completed our review of the revised preliminary plan dated June 20, 2016 and revised drainage study submitted July 18, 2016. This plan was originally reviewed by the Development Review Committee at its meeting on January 11, 2016 and revisited at its meeting on March 21, 2016. We recommend approval of the plan subject to the following comments:

All Planning Board Opinions relating to this plan or any subsequent revision, project plans or site plans should be submitted to the Department of Permitting Services 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. Provide necessary dedication of Riffle Ford Road in accordance with the Master Plan.
2. Grant necessary slope and drainage easements. Slope easements are to be determined by study or set at the building restriction line. Grant PIE and overlapping PUE on Riffle Ford Road (widths are to be confirmed at the permit and/or plat stage).
3. Provide full width dedication and construction of the public entrance road.
4. Grade establishments for all new public streets and/or pedestrian paths must be approved prior to submission of the record plat.
5. The typical section for Riffle Ford Road is not consistent with the Master Plan intentions, nor does it reflect the proposed interim improvements (due to the existing offset roadway pavement per Note 1 on the plan). We recommend this typical section be replaced, prior to Certified Preliminary Plan, with a site specific detail showing the proposed temporary improvements.
6. The typical section for the public entrance road is acceptable as shown.

Office of the Director

101 Monroe St., 10th Floor • Rockville, Maryland 20850 • 240-777-7170 • 240-777-7178 FAX  
[www.montgomerycountymd.gov/dot](http://www.montgomerycountymd.gov/dot)



7. The sight distance evaluation should be updated (to reflect the correct posted speed limit for Riffle Ford Road) and resubmitted for Executive Branch approval prior to Certified Preliminary Plan.
8. The storm drain study is incomplete and has not been approved. Environmental Site Design (ESD) and reduced runoff curve numbers cannot be credited to reduce the ten (10) year post development storm drain calculations. This detail will need to be addressed at the permit stage.
9. Unless the applicant is able to realign the storm drain system and obtain an outfall easement on Parks property, the enclosed storm drain system will have to be extended north (in a storm drain easement) so that the discharge outfalls past the structure on Lot 1.
10. This project is located in the North Potomac Policy Area. Therefore, the applicant must pay the TPAR mitigation payment that is equivalent to 50% of the Transportation Impact Tax prior to issuance of the building permit.
11. Relocation of utilities along Riffle Ford Road to accommodate the required roadway improvements, if necessary, is the responsibility of the applicant.
12. If the proposed development will alter any existing street lights, signing, and/or pavement markings, please contact Mr. Dan Sanayi of our Traffic Engineering Design and Operations Section at (240) 777-2190 for proper executing procedures. All costs associated with such relocations shall be the responsibility of the applicant.
13. Access to the BMP facilities #'s 1 & 2 will be provided via a standard residential driveway apron. The details of those facilities will be finalized at the permit stage.
14. Permit and bond will be required as a prerequisite to DPS approval of the record plat. The permit will include, but not necessarily be limited to, the following improvements:
  - A. Interim improvements along Riffle Ford Road site frontage per comment No. 5.
  - B. Construct the entrance road as a Tertiary Residential Street in accordance with Standard No. MC-2001.01, terminating in and offset cul-de-sac.

NOTE: The Public Utility Easements are to be graded at a side slope not to exceed 4:1.

  - C. Provide permanent monuments and property line markers, as required by Section 50-24(e) of the Subdivision Regulations.
  - D. Enclosed storm drainage and/or engineered channel are to be designed in accordance with MCDOT Storm Drain Design Criteria within the County rights-of-way and all drainage easements. See comment No. 9 regarding the location of the storm drain outfall.

Mr. Ryan Sigworth  
Preliminary Plan No. 1-20160140  
August 18, 2016  
Page 3

- E. The developer shall ensure final and proper installation of all utility lines underground for all new road construction.
  
- F. Erosion and sediment control measures as required by Section 50-35(j) and on-site stormwater management where applicable shall be provided by the Developer (at no cost to the County) at such locations deemed necessary by the Department of Permitting Services (DPS) and will comply with their specifications. Erosion and sediment control measures are to be built prior to construction of streets, houses and/or site grading and are to remain in operation (including maintenance) as long as deemed necessary by the DPS.

Thank you for the opportunity to review this preliminary plan. If you have any questions or comments regarding this letter, please contact William Whelan, our Development Review Area Engineer for this project at [william.whelan@montgomerycountymd.gov](mailto:william.whelan@montgomerycountymd.gov) or (240) 777-2173.

Sincerely,



Gregory M. Leck, Manager  
Development Review Team  
Office of Transportation Policy

120160140 Deerwood Manor - MCDOT final plan review ltr.docx

cc: Christina Jiang CK Technologies, LLC  
Baozhu Wei Endesco, Inc.  
Preliminary Plan folder  
Preliminary Plan letters notebook

cc-e: Sam Farhadi MCDPS RWPR  
William Whelan MCDOT OTP

Mr. Ryan Sigworth  
Preliminary Plan No. 1-20160140  
August 18, 2016  
Page 4

MAILING LIST

Christina Jiang  
CK Technologies, LLC  
12642 Granite Rock Road  
Clarksburg, MD 20871

Baozhu Frank Wei  
Endesco, Inc.  
438 N. Frederick Avenue, Suite 455  
Gaithersburg, Maryland 20877



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

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**DATE:** 10-Aug-16  
**TO:** Baozhu Wei  
Endesco, Inc  
**FROM:** Marie LaBaw  
**RE:** Deerwood Manor  
120160140

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**PLAN APPROVED**

1. Review based only upon information contained on the plan submitted **10-Aug-16** .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.



DEPARTMENT OF PERMITTING SERVICES

Isiah Leggett  
County Executive

Diane R. Schwartz Jones  
Director

December 7, 2016

Mr. Baozhu Wei, P.E.  
Endesco, Inc.  
438 N. Frederick Avenue, Suite 455  
Gaithersburg, MD 20877

Re: Stormwater Management **CONCEPT** Request  
for Deerwood Manor  
Preliminary Plan #: 120160140  
SM File #: 281036  
Tract Size/Zone: 4.29 acres/R-200  
Total Concept Area: 4.29 acres  
Lots/Block: NA  
Parcel(s): 32 and 24  
Watershed: Great Seneca

Dear Mr. Wei:

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 microbioretention and drywells.

The following **item(s)/condition(s)** will need to be addressed **during/prior to** the detailed sediment control/stormwater management plan stage:

1. Submission and approval of a **Site Development Stormwater Management Plan** is required prior to Site Plan approval. If the project will be submitted in phases, each phase must be clearly indicated in the submission by clearly showing the phasing limits on the plan and by giving each phase a unique name (i.e. Phase 1, Phase 2, etc.).
2. A detailed review of the stormwater management computations will occur at the time of detailed plan review.

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

If you have any questions regarding these actions, please feel free to contact Bill Musico at 240-777-6340.

Sincerely,

MCE:wjm

cc: SM File No. 281036  
ESD Acres: 4.29  
Structural Acres: 0.00. Waived Acres: 0.00

  
Mark Etheridge  
Manager  
Water Resources Section  
Division of Land Development Services

Variance Request  
Deerwood Manor  
Riffle Ford Road, Potomac, Maryland  
(FCP120160140)

May 31, 2016  
Revised July 29, 2016  
Revised September 14, 2016  
Revised October 20, 2016  
Revised November 11, 2016

CK Technologies, LLC, the applicants of the reference Forest Conservation Plan, hereby request a variance for impact to (4) four specimen trees on adjacent property, as required by the Maryland Natural Resources, Title 5, Subtitle 16, Forest Conservation, Section 5-1611, and in accordance with Chapter 22A-21(b) of the Montgomery County Code.

A. Background Information:

The 4.29 acre tract consists of two parcels, 24 and 32 and Outlot A to be developed into 6 single family residential lots. The property is zoned R-200. There are 4 existing structures on the property including a single family residence, shed, and a barn. There are no specimen trees on the property. The variance is necessary to mitigate the removal of (4) four specimen trees on the adjacent Willow Ridge Park property that are 30" or greater diameter at breast height (DBH). The disturbance proposed is for the construction of a new road and the associated grading, utilities, storm water management and sediment control measures.

B. Proposed Development:

The development plan includes the construction of a road, sidewalk, street lighting, tree planting and other improvements associated with the development of (6) six residential lots.

C. Specific Specimen Trees to be removed:

ID	Botanical Name	Common Name	DBH"
E10	Liriodendron tulipifera	Tulip Poplar	40
E12	Liriodendron tulipifera	Tulip Poplar	48

E15	Acer saccharinum	Silver Maple	30
E24	Acer rubrum	Red Maple	40

Tree No. E10: Tulip Poplar/Liriodendron tulipifera 40" DBH, fair condition located on the property line with a 20 degree lean. Root zone impact is 50%. Removal is recommended.

Tree No. E12: Tulip Poplar/Liriodendron tulipifera 48" DBH, fair condition located on the property line with trunk damage and rot. Root zone impact is 50%. Removal is recommended.

Tree No. E15: Silver Maple/Acer saccharinum - 30" DBH, fair condition located on the property line. Included bark at the crotch. Root zone impact is 50%. Removal is recommended.

Tree No. E24: Red Maple/Acer rubrum - 40" DBH, fair condition located near property line on adjacent park property. This tree has a large leader leaning towards a proposed building with root zone impact of about 25%. Removal is recommended for the potential hazard to the proposed residence.

Other specimen tree root zone disturbances.

Tree No. E14 Silver Maple/Acer saccharinum - 46"DBH, good condition located on the adjacent park property. 31% root zone disturbance.

Tree No. E18: Tulip Poplar/Liriodendron tulipifera 30" DBH twin (24"/18") trunked, good condition located on the adjacent park property. Root zone impact is less than 5%.

Tree No. E22 Red Maple/Acer rubrum - 36" DBH, fair condition located on the adjacent park property. 16% root zone disturbance.

Tree No. E34 Norway Maple/Acer platanoides - 48" DBH, good condition located on the adjacent single family residential property. 24% root zone disturbance.

Tree No. E38 Red Maple/Acer rubrum - 36" DBH, good condition located on the adjacent single family residential property. 16% root zone disturbance.

D. Justification Statement:

1. The special conditions peculiar to this property include the constraints of the size and configuration of the property lines and lot size requirements of the development. The condition of the specimen trees on the property line and relative to the proposed roadway, associated grading and construction necessitate their removal.
2. The applicant's goal is to provide adequate vehicular and pedestrian access that is functional, safe and aesthetic for the residences and the neighborhood.
3. The four (4) specimen trees to be removed have root zone impact of significance. The condition and species, in particular the Tulip Poplars, would likely not be saved with available tree protection measures. The public roadway location is the preferred alignment requested by Montgomery County Department of Transportation. The public roadway requires grading to the property line and

even though the roadway is in a fill, aeration is not allowed in the public right of way. In addition, Montgomery County Department of Transportation and Parks Department should not be burdened with the tree removal in the event of future tree failure. Moving the roadway away from the trees to avoid removal would present an unwarranted hardship on the developer as a minimum lot size and setbacks for all of the six lots would not be able to be achieved.

4. Mitigation planting includes a total of fourteen (14) trees (3" - 3 ½" caliper inches) proposed on MNCPPC property on which property line the trees lie. The trees are native shade trees found in the natural woodlands of Montgomery County. They will be located at the direction of the Parks Department.
5. The applicant is not requesting any special privileges or benefits by the granting of this variance that would not be available to another applicant. The variance request is based on existing conditions of the site including the location of the specimen trees and site access have guided the development of the plan which is within the norms of the development of a residential development. The variance request is not related to the condition of any adjacent property and, in my professional opinion, will not violate State of Maryland water quality standards or cause measurable degradation of water quality.

If the applicant is not granted this variance, they would be prevented from providing adequate access to the six lot development, denied the ability to develop the landscape as they wish and would not be able to address the drainage on the site. Please let us know if there is any additional information you would need to support his request.

Submitted by:  
PostModern Landscape Architecture, LLC

David B. Post, ASLA  
Registered Landscape Architect #615  
I.S.A Certified Arborist #MA-5220-A





DEPARTMENT OF ENVIRONMENTAL PROTECTION

Isiah Leggett  
County Executive

Lisa Feldt  
Director

January 13, 2017

Casey Anderson, Chair  
Montgomery County Planning Board  
Maryland National Capital Park & Planning Commission  
8787 Georgia Avenue  
Silver Spring, Maryland 20910

RE: Deewood Manor, ePlan 120160140, NRI/FSD application accepted on 8/21/2015

Dear Mr. Anderson:

All applications for a variance from the requirements of Chapter 22A of the County Code submitted after October 1, 2009 are subject to Section 22A-12(b)(3). Accordingly, given that the application for the above referenced request was submitted after that date and must comply with Chapter 22A, and the Montgomery County Planning Department ("Planning Department") has completed all review required under applicable law, I am providing the following recommendation pertaining to this request for a variance.

Section 22A-21(d) of the Forest Conservation Law states that a variance must not be granted if granting the request:

1. Will confer on the applicant a special privilege that would be denied to other applicants;
2. Is based on conditions or circumstances which are the result of the actions by the applicant;
3. Arises from a condition relating to land or building use, either permitted or nonconforming, on a neighboring property; or
4. Will violate State water quality standards or cause measurable degradation in water quality.

Applying the above conditions to the plan submitted by the applicant, I make the following findings as the result of my review:

1. The granting of a variance in this case would not confer a special privilege on this applicant that would be denied other applicants as long as the same criteria are applied in each case. Therefore, the variance can be granted under this criterion.
2. Based on a discussion on March 19, 2010 between representatives of the County, the Planning Department, and the Maryland Department of Natural Resources Forest Service, the disturbance of trees, or other vegetation, as a result of development activity is not, in and of itself, interpreted as a condition or circumstance that is the result of the actions by the applicant. Therefore, the variance can be granted under this criterion, as long as appropriate mitigation is provided for the resources disturbed.

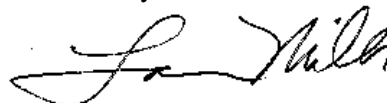
3. The disturbance of trees, or other vegetation, by the applicant does not arise from a condition relating to land or building use, either permitted or nonconforming, on a neighboring property. Therefore, the variance can be granted under this criterion.
4. The disturbance of trees, or other vegetation, by the applicant will not result in a violation of State water quality standards or cause measurable degradation in water quality. Therefore, the variance can be granted under this criterion.

Therefore, I recommend a finding by the Planning Board that this applicant qualifies for a variance conditioned upon meeting 'conditions of approval' pertaining to variance trees recommended by Planning staff, as well as the applicant mitigating for the loss of resources due to removal or disturbance to trees, and other vegetation, subject to the law based on the limits of disturbance (LOD) recommended during the review by the Planning Department. In the case of removal, the entire area of the critical root zone (CRZ) should be included in mitigation calculations regardless of the location of the CRZ (i.e., even that portion of the CRZ located on an adjacent property). When trees are disturbed, any area within the CRZ where the roots are severed, compacted, etc., such that the roots are not functioning as they were before the disturbance must be mitigated. Exceptions should not be allowed for trees in poor or hazardous condition because the loss of CRZ eliminates the future potential of the area to support a tree or provide stormwater management. Tree protection techniques implemented according to industry standards, such as trimming branches or installing temporary mulch mats to limit soil compaction during construction without permanently reducing the critical root zone, are acceptable mitigation to limit disturbance. Techniques such as root pruning should be used to improve survival rates of impacted trees but they should not be considered mitigation for the permanent loss of critical root zone. I recommend requiring mitigation based on the number of square feet of the critical root zone lost or disturbed. The mitigation can be met using any currently acceptable method under Chapter 22A of the Montgomery County Code.

In the event that minor revisions to the impacts to trees subject to variance provisions are approved by the Planning Department, the mitigation requirements outlined above should apply to the removal or disturbance to the CRZ of all trees subject to the law as a result of the revised LOD.

If you have any questions, please do not hesitate to contact me directly.

Sincerely,



Laura Miller  
County Arborist

cc: Mary Jo Kishter, Senior Planner