ATTACHMENT A

ADMINISTRATIVE SUBDIVISION PLAN

M-NCP&PC No. 620240010

GENERAL NOTES

1. Boundary information and two-foot contour data are based upon surveys performed by CAS Engineering, dated October, 2021. Two-foot contour data not within the delineated "Limits of CAS Topographic Survey" is based upon available MNCPPC aerial topography, flown February, 2016.
2. Total lot area: Parcel 606 = 15.17 acres.
3. Property is located on Tax Map EX122 and WSSC 200' Sheet 221NW14.
4. Property is located on Soils Survey Map Number 18, Soil type(s): See "Soils Table"
5. Flood zone "X" per F.E.M.A. Firm Maps, Community Panel Number 24031C0310D.
6. Property is located in the Seneca Creek Watershed.
7. Water Category = 6, Sewer Category = 6
8. Local utilities include:
   Water / Sewer – Private Well and Septic
   Electric – PEPCO
   Telephone – Verizon
   Gas – Washington Gas
9. Property is not located in a Special Protection Area.
10. Property is not a Historic Site or located in a Historic District.
11. This plan was created without the benefit of a title report.

SITE / ZONING DATA – R-200 ZONE

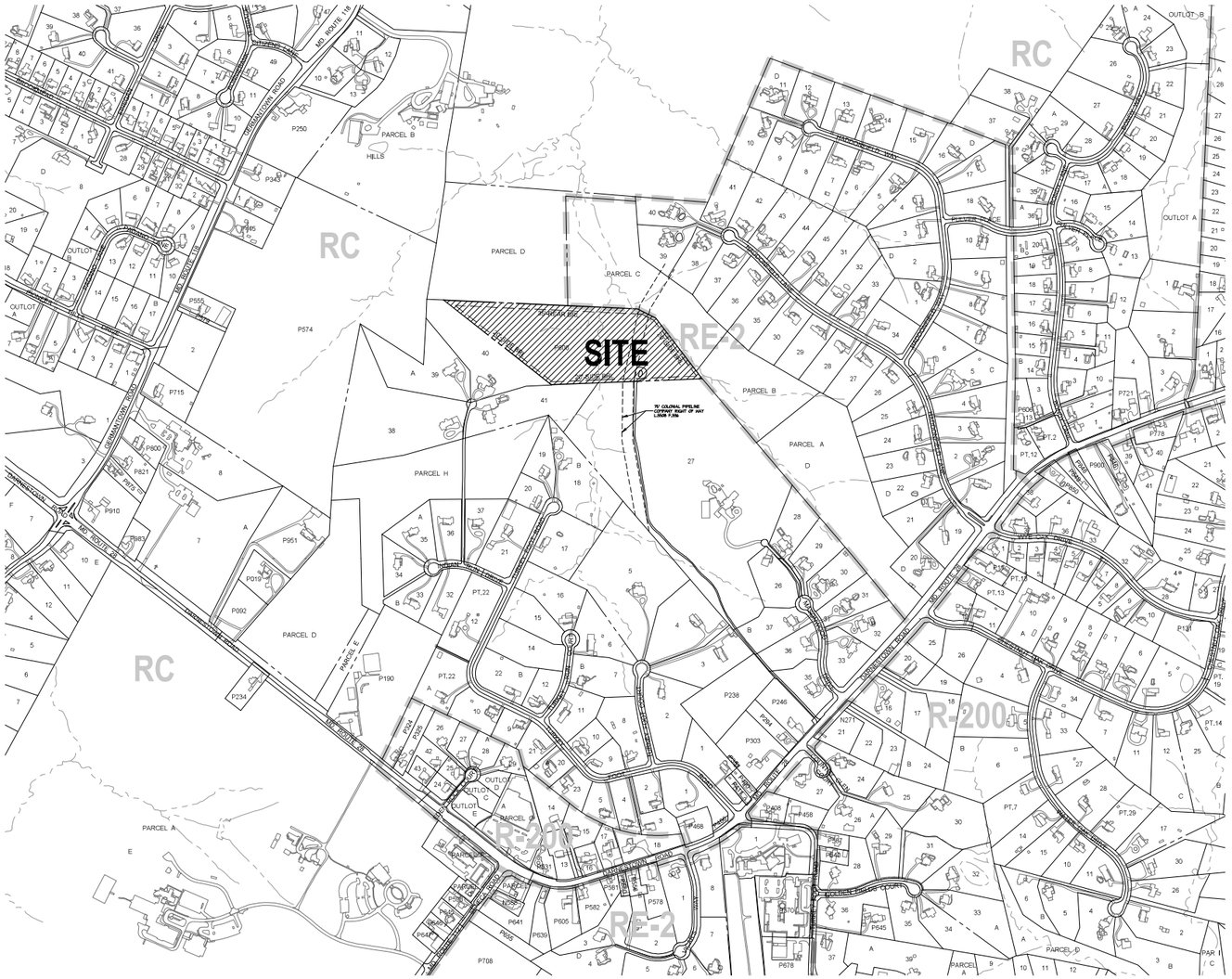
Gross Site Area	660,805.2 Sq. Ft. (15.17 Acres)
Platted Lot Area	0.0 Sq. Ft. (0.0 Acres)
Proposed Dedication	0 Sq. Ft. (0.0 Acres)
Net Tract Area	660,805.2 Sq. Ft. (15.17 Acres)
Existing # of Units	0 Unit
Proposed # of Units	1 Units

DEVELOPMENT STANDARDS TABLE

Rural Cluster Zone (RC)
Standard Method Development Standards

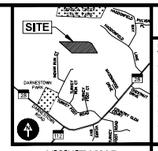
1. Lot and Density	Detached House	
Lot	**Required/Permitted**	**Provided LOT A**
Lot area (min.)	5 acres	15.17 acres
Lot width at front building line (min.)	300'	>300'
Lot width at front lot line (min.)	300	n/a *
Density (max)	**Required/Permitted**	**Provided LOT A**
Density (units/acre)	0.2	0.07
Coverage (max)	**Required/Permitted**	**Provided LOT A**
Max Lot Coverage	10%	<10%
2. Placement	**Detached House**	
Principal Building Setbacks (min)	**Required**	**Provided LOT A**
Front Setback	50' (min.)	n/a *
Side Street Setback	50' (min.)	n/a
Side Setback	20' (min.)	20'
Rear Setback	35' (min.)	35'
Accessory Structure Setbacks (min)	**Required**	**Provided LOT A**
Front Setback	80' (min.)	n/a*
Side Street Setback	50' (min.)	n/a
Side Setback	15' (min.)	15'
Rear Setback	15' (min.)	15'
3. Placement	**Detached House**	
Principal Building Height (max)	**Required**	**Provided LOT A**
Principal Building	50'	<50'
Accessory Structure Height (max)	**Required**	**Provided LOT A**
Accessory Structure	50'	<50'

* Proposed lot does not abut a public or private road.



LOCAL AREA MAP
SCALE: 1" = 300'

13635 Darnestown Road, Darnestown
Parcel 606, Rich Meadows



VICINITY MAP
ADC MAP 5162, GRID D-2, SCALE: 1" = 2000'

CAS JOB NO.:	21-297
DATE:	09/2024

DATE	REVISION
10/11/22	2SC - Concept Plan Uploaded to ePlans for Initial Plan Review by MNCPPC
07/10/23	2SC - Administrative Subdivision Application Submitted to MNCPPC
09/16/24	SMP - Admin Sub Uploaded to ePlans for Initial Plan Review by MNCPPC

JARED M. CARHART, P.E.
09/16/2024

PROFESSIONAL ENGINEER CERTIFICATION:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 19312, expiration date 09/07/2025, and that this plan meets MCDPS criteria for building and sediment control permit applications.

OWNER/APPLICANT
Kent Murphy
1600 Wilson Boulevard, Unit 449
Arlington, VA 22201
(540) 556-8566 Phone
kentmurphyemail@gmail.com

13635 Darnestown Road
Parcel 606, Rich Meadows
Proposed Lot A
Cover Sheet

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

INDEX OF DRAWINGS

Parcel 606, Rich Meadows
Book 63849, Page 66, Recorded 06/2021
Darnestown (6th) Election District, Montgomery County, MD

13635 Darnestown Road Darnestown, Maryland 20878
MNCPPC No. 620240010

CAS ENGINEERING-MD
10 South Bentz Street
Frederick, Maryland 21701
301-620-0031 Phone
info@casengineering.com
www.casengineering.com

CAS ENGINEERING-DC, LLC
4830 MacArthur Boulevard, NW, 2nd Floor
Washington, DC 20007
202-393-7200 Phone
info@cas-dc.com
www.cas-dc.com

0 25 50 75 100
SCALE: 1 INCH = 50 FEET

SHEET TITLE:
Administrative Subdivision Plan Cover Sheet

AP-1

P:\2021\21297_13635 Darnestown Road\6 drawings\SHEET\AP-1.dwg, 9/12/2024 8:50:28 AM, user, K:\2021\CAS\Engineering and CAS Engineering\DLL.ctb

ATTACHMENT B

PRELIMINARY / FINAL FOREST CONSERVATION PLAN - M-NCP&PC No. F20240060

GENERAL NOTES

1. Boundary information and two-foot contour data are based upon surveys performed by CAS Engineering, dated October, 2021. Two-foot contour data not within the delineated "Limits of CAS Topographic Survey" is based upon available MNCPPC aerial topography, flown February, 2018.
2. Total lot area: Parcel 606 = 15.17 acres.
3. Property is located on Tax Map ES122 and WSSC 200' Sheet 221NW14.
4. Property is located on Soils Survey Map Number 18. Soil type(s): See "Soils Table"
5. Flood zone "X" per F.E.M.A. Firm Maps, Community Panel Number 24031C0310D.
6. Property is located in the Seneca Creek Watershed.
7. Water Category - 6, Sewer Category - 6
8. Local utilities include:
   Water / Sewer - Private Well and Septic
   Electric - PEPCO
   Telephone - Verizon
   Gas - Washington Gas
9. Property is not located in a Special Protection Area.
10. Property is not a Historic Site or located in a Historic District.
11. This plan was created without the benefit of a title report.

SEQUENCE OF EVENTS FOR PROPERTIES REQUIRED TO COMPLY WITH FOREST CONSERVATION PLANS, EXEMPTIONS FROM SUBMITTING FOREST CONSERVATION PLANS, AND TREE SAVE PLANS

The property owner is responsible for ensuring all tree protection measures are performed in accordance with the approved final forest conservation plan or tree save plan, and as modified in the field by a Planning Department Forest Conservation Inspector. The measures must meet or exceed the most recent standards published by the American National Standards Institute (ANSI A300).

Pre-Construction

1. An on-site pre-construction meeting is required after the limits of disturbance have been staked and flagged and before any land disturbance.
2. The property owner must arrange for the meeting and following people should must participate at the pre-construction meeting: the property owner or their representative, construction superintendent, International Society of Arboriculture (ISA) certified arborist/Maryland Licensed Tree Expert (representing owner) that will implement the tree protection measures, The Planning Department Forest Conservation Inspector, and Montgomery County Department of Permitting Services (DPS) Sediment Control Inspector. The purpose of this meeting is verify the limits of disturbance and discuss specific tree protection and tree care measures shown on the approved plan. No land disturbance shall begin before tree protection and stress-reduction measures have been implemented and approved by the Planning Department's Forest Conservation Inspector.
   a. Typical tree protection devices include:
      i. Chain link fence (four feet high)
      ii. Super silt fence with wire strung between the support poles (minimum 4 feet high) with high visibility flagging.
      iii. 14 gauge, 2 inch x 4 inch welded wire fencing supported by steel T-bar posts (minimum 4 feet high) with high visibility flagging.
   b. Typical stress reduction measures may include, but are not limited to:
      i. Root pruning with a root cutter or vibratory plow designed for that purpose. Trenchers are not allowed, approved by the Forest Conservation Inspector
      ii. Crown Reduction or pruning
      iii. Watering
      iv. Fertilizing
      v. Vertical mulching
      vi. Root aeration systems

Measures not specified on the Forest Conservation Plan may be required as determined by the Forest Conservation Inspector in coordination with the property owner's arborist.

3. A Maryland Licensed Tree expert must perform, or directly supervise, the implementation of all stress reduction measures. Documentation of the process (including photographs) may be required by the Forest Conservation Inspector, and will be determined at the pre-construction meeting.
4. Temporary tree protection devices must be installed per the approved Forest Conservation Plan, Exemption Plan, or Tree Save Plan and prior to any land disturbance. 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.
5. Tree protection fencing must be installed and maintained by the property owner for the duration of construction project and must not be altered without prior approval from the Forest Conservation Inspector. All construction activity within protected tree and forest areas is prohibited. This includes the following activities:
   a. Parking or driving of equipment, machinery or vehicles of any type.
   b. Storage of any construction materials, equipment, stockpiling, fill, debris, etc.
   c. Dumping of any chemicals (i.e., paint thinner), mortar or concrete remainder, trash, garbage, or debris of any kind.
   d. Felling of trees into a protected area.
   e. Trenching or grading for utilities, irrigation, drainage, etc.
6. Forest and tree protection signs must be installed as required by the Forest Conservation Inspector. The signs must be waterproof and wording provided in both English and Spanish.

During Construction

7. Periodic inspections will be made by the Forest Conservation Inspector. Corrections and repairs to tree protection devices must be completed within the timeframe given by the Inspector.
8. The property owner must immediately notify the Forest Conservation Inspector of any damage to trees, forests, understory, ground cover, and any other undisturbed areas shown on the approved plan. Remedial actions, and the relative timeframes to restore these areas, will be determined by the Forest Conservation Inspector.

Post-Construction

9. After construction is completed, but before tree protection devices have been removed, the property owner must request a final inspection with the Forest Conservation Inspector. At the final inspection, the Forest Conservation Inspector may require additional corrective measures, which may include:
   a. Removal, and possible replacement, of dead, dying, or hazardous trees
   b. Pruning of dead or declining limbs
   c. Soil aeration
   d. Fertilization
   e. Watering
   f. Wound repair
   g. Clean up of retention areas, including trash removal
10. After the final inspection and completion of all corrective measures the Forest Conservation Inspector will request all temporary tree and forest protection devices be removed from the site. Removal of tree protection devices that also operate for erosion and sediment control must be coordinated with both DPS and the Forest Conservation Inspector and cannot be removed without permission of the Forest Conservation Inspector. No additional grading, sodding, or burial may take place after the tree protection fencing is removed.
11. Long-term protection measures, including permanent signage, must be installed per the approved plan. Installation will occur at the appropriate time during the construction project. Refer to the approved plan drawing for the 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

1. After the limits of disturbance have been staked and flagged, but before any clearing or grading begins.
2. 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.
3. 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

4. Before the start of any required reforestation and afforestation planting.
5. 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.
6. 2 years after reforestation and afforestation have been completed, to determine survival and assess necessary maintenance activities for the remaining duration of the maintenance and management period.
7. 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.

AFFORESTATION PLANTING SCHEDULE

TOTAL AREA OF AFFORESTATION:
0.29 ACRES

REQUIRED 2" CALIPER TREES:
(100/ACRE) = 29
29 2" CALIPER TREES REQUIRED

REQUIRED SHRUBS:
(33/ACRE) = 9.6
10 SHRUBS REQUIRED

(SEE SCHEDULE TO THE RIGHT FOR SUGGESTED PLANTING LIST)

NOTE:
DUE TO SITE VARIATIONS, THE FOLLOWING PLANTING TABLE MAY BE MODIFIED TO UTILIZE OTHER SPECIES OR QUANTITIES WITH PRIOR APPROVAL FROM THE MNCPPC FOREST CONSERVATION INSPECTOR.

BOTANICAL NAME	COMMON NAME	SIZE	FORM	SPACING	QUANTITY
DECIDUOUS TREES					
ACER RUBRUM	RED MAPLE	2" CALIPER	B&B	15'	9
QUERCUS ALBA	WHITE OAK	2" CALIPER	B&B	15'	10
FAGUS GRANDIFOLIA	AMERICAN BEECH	2" CALIPER	B&B	15'	10
B&B = BALL & BURLAP					
SHRUBS					
LINDERA BENZOIN	SPICEBUSH	1-3 GAL.	CONT.	--	4
VIBURNUM DENTATUM	ARROWWOOD	1-3 GAL.	CONT.	--	3
HAMAMELIS VIRGINIANA	WITCH HAZEL	1-3 GAL.	CONT.	--	3

DEVELOPER CERTIFICATE

THE UNDERSIGNED AGREES TO EXECUTE ALL THE FEATURES OF THE APPROVED FINAL FOREST CONSERVATION PLAN No. F20240060 INCLUDING, FINANCIAL BONDING, FOREST PLANTING, MAINTENANCE, AND ALL OTHER APPLICABLE AGREEMENTS.

DEVELOPER NAME:
CONTACT PERSON OR OWNER: KENT MURPHY
ADDRESS: 1800 WILSON BOULEVARD, UNIT 449
ARLINGTON, VA 22201
PHONE: (540) 558-8596
EMAIL: KENTMURPHYEMAIL@GMAIL.COM
SIGNATURE:

TREE DATA

Tree No.	Common Name	Botanical Name	D.B.H. (IN)	Condition	Notes
3627	Black Walnut	Juglans nigra	29	Good	Good, co-dominant stem, Deadwood and canopy
3628	White Oak	Quercus alba	49.5	Good	Good, slight dead wooden canopy
3629	Black Walnut	Juglans nigra	34	Fair	Fair, hollowing, slight dead wooden canopy
3630	Black Walnut	Juglans nigra	34.5	Fair	Decay, cavity, hollowing
3631	Black Walnut	Juglans nigra	24	Poor	Severe decay, dead wood, significant dieback, heavy ivy
3632	Tulip Poplar	Liriodendron tulipifera	31	Good	
3633	Tulip Poplar	Liriodendron tulipifera	25	Good	
3634	Tulip Poplar	Liriodendron tulipifera	36	Good	
3635	Tulip Poplar	Liriodendron tulipifera	30	Good	
3636	Tulip Poplar	Liriodendron tulipifera	33	Good	
3637	Red Maple	Acer rubrum	26	Poor	Co-dominant, severe decay, bracket fungus, seam, high probability of failure
3638	Red Maple	Acer rubrum	28	Fair	Cavity, decay
3639	Red Maple	Acer rubrum	25.5	Good	
3640	Tulip Poplar	Liriodendron tulipifera	32.5	Good	
3641	Tulip Poplar	Liriodendron tulipifera	29	Good	
3642	Pignut Hickory	Carya glabra	26	Fair	Multi stem, slight decay, few deadwood limbs
3643	Black Walnut	Juglans nigra	25.5	Poor	Severe decay, cavity, hollow
3644	American Elm	Ulmus Americana	32	Good	Few Deadwood limbs, crown thinning, multi stem
3645	American Elm	Ulmus Americana	24	Fair	Very heavy ivy, die back
3646	Red Oak	Quercus rubra	29	Poor	Twin, co-dominant, included bark, standing deadwood, high probability of failure
3647	Sycamore	Platanus occidentalis	38	Good	
3648	Tulip Poplar	Liriodendron tulipifera	29	Good	
3649	Black Cherry	Prunus serotina	24	Good	
3650	Tulip Poplar	Liriodendron tulipifera	30	Good	
3651	Red Maple	Acer rubrum	26	Good	
3652	Sycamore	Platanus occidentalis	30	Good	At stream
3653	Sycamore	Platanus occidentalis	34	Good	At stream
3654	Red Maple	Acer rubrum	25	Good	
3655	Tulip Poplar	Liriodendron tulipifera	29.5	Good	
3656	Tulip Poplar	Liriodendron tulipifera	29	Good	At stream
3657	Red Maple	Acer rubrum	26	Good	Multi-stem, slight decay, included bark, high probability of failure
3658	Tulip Poplar	Liriodendron tulipifera	36.5	Good	
3659	Red Maple	Acer rubrum	25	Good	
3660	Red Maple	Acer rubrum	31	Good	
3661	Red Maple	Acer rubrum	30	Good	Codominant with included bark, seam
3662	Red Maple	Acer rubrum	27	Poor	Severe decay, hollowing, cavity, high probability failure
3663	Deadwood	N/A	26	Poor	Standing Deadwood
3664	Red Oak	Quercus rubra	36	Good	
3665	Tulip Poplar	Liriodendron tulipifera	32.5	Good	
3666	White Oak	Quercus alba	33	Poor	Significant decline, co-dominant with included bark, deadwood in canopy, at stream
3667	Red Maple	Acer rubrum	28	Good	At stream
3668	Tulip Poplar	Liriodendron tulipifera	37	Good	
3669	Tulip Poplar	Liriodendron tulipifera	26	Good	
3670	Tulip Poplar	Liriodendron tulipifera	36.5	Good	
3671	White Oak	Quercus alba	28	Good	
3672	Tulip Poplar	Liriodendron tulipifera	27	Good	
3673	Tulip Poplar	Liriodendron tulipifera	27	Good	
3674	Tulip Poplar	Liriodendron tulipifera	31	Good	
3675	Tulip Poplar	Liriodendron tulipifera	27	Good	
3676	Tulip Poplar	Liriodendron tulipifera	29	Good	
3677	Tulip Poplar	Liriodendron tulipifera	28	Good	
3678	Tulip Poplar	Liriodendron tulipifera	31	Good	

SHADED CELLS INDICATE SPECIMEN TREE

TREE DATA (CONT'D)

Tree No.	Common Name	Botanical Name	D.B.H. (IN)	Condition	Notes
3679	Tulip Poplar	Liriodendron tulipifera	27	Good	
3680	Tulip Poplar	Liriodendron tulipifera	39	Good	Multi-stem, codominant with included bark, seam, high probability of failure
3681	Tulip Poplar	Liriodendron tulipifera	29	Good	
3682	Tulip Poplar	Liriodendron tulipifera	30	Good	
3683	Tulip Poplar	Liriodendron tulipifera	27.5	Good	
3684	Tulip Poplar	Liriodendron tulipifera	36	Good	Codominant, slight decay
3685	Tulip Poplar	Liriodendron tulipifera	34	Good	
3686	Tulip Poplar	Liriodendron tulipifera	25	Good	
3687	Tulip Poplar	Liriodendron tulipifera	28	Good	
3688	Tulip Poplar	Liriodendron tulipifera	28	Good	At stream, opposite side
3689	Tulip Poplar	Liriodendron tulipifera	43	Good	
3690	Tulip Poplar	Liriodendron tulipifera	25	Good	
3691	Tulip Poplar	Liriodendron tulipifera	25	Good	Poor form
3692	Tulip Poplar	Liriodendron tulipifera	24	Good	
3693	Red Maple	Acer rubrum	28.5	Good	
3694	Red Maple	Acer rubrum	27	Good	Codominant
3695	Tulip Poplar	Liriodendron tulipifera	29	Good	
3696	Tulip Poplar	Liriodendron tulipifera	27	Good	
3697	Tulip Poplar	Liriodendron tulipifera	27	Good	
3698	Sycamore	Platanus occidentalis	32	Good	
3699	Sycamore	Platanus occidentalis	28	Good	
3700	Tulip Poplar	Liriodendron tulipifera	25	Good	
3801	Tulip Poplar	Liriodendron tulipifera	29	Good	
3802	Tulip Poplar	Liriodendron tulipifera	27.5	Good	
3803	Tulip Poplar	Liriodendron tulipifera	28	Good	
3804	Tulip Poplar	Liriodendron tulipifera	24	Good	
3805	Tulip Poplar	Liriodendron tulipifera	32	Good	
3806	Tulip Poplar	Liriodendron tulipifera	35	Good	
3807	Tulip Poplar	Liriodendron tulipifera	30	Good	
3808	Deadwood	N/A	30	Poor	Standing Deadwood
3809	Red Maple	Acer rubrum	24	Good	
3810	Tulip Poplar	Liriodendron tulipifera	33	Good	
3811	Tulip Poplar	Liriodendron tulipifera	27.5	Good	
3812	Tulip Poplar	Liriodendron tulipifera	26.5	Good	
3813	Tulip Poplar	Liriodendron tulipifera	28	Good	
3814	Tulip Poplar	Liriodendron tulipifera	28.5	Good	
3815	Tulip Poplar	Liriodendron tulipifera	27	Fair	Large cavity, hollow
3816	Red Oak	Quercus rubra	37	Good	
3817	Tulip Poplar	Liriodendron tulipifera	27	Good	
3818	Tulip Poplar	Liriodendron tulipifera	31	Good	
3819	Tulip Poplar	Liriodendron tulipifera	24	Good	
3820	Tulip Poplar	Liriodendron tulipifera	24.5	Good	
3821	Tulip Poplar	Liriodendron tulipifera	29	Good	Codominant with included bark, seam, high probability of failure
3822	Tulip Poplar	Liriodendron tulipifera	31	Good	
3823	Black Cherry	Prunus serotina	24	Good	
3824	Tulip Poplar	Liriodendron tulipifera	24	Good	
3825	White oak	Quercus alba	44	Good	Codominant with included bark, seam, high probability of failure
3826	Red Oak	Quercus rubra	29	Fair	Die back in canopy, significant deadwood
3827	Red Oak	Quercus rubra	24	Fair	Significant guy back in canopy, significant deadwood
3828	Red Oak	Quercus rubra	32	Fair	Significant dieback, significant dead wooden canopy
3829	Red Oak	Quercus rubra	27	Fair	Significant die back in canopy, significant deadwood
3830	Tulip Poplar	Liriodendron tulipifera	30	Good	

SHADED CELLS INDICATE SPECIMEN TREE

TREE DATA (CONT'D)

Tree No.	Common Name	Botanical Name	D.B.H. (IN)	Condition	Notes
3831	Black Cherry	Prunus serotina	31	Poor	Severe dieback, mostly deadwood
3832	Tulip Poplar	Liriodendron tulipifera	26	Good	
3833	Tulip Poplar	Liriodendron tulipifera	26	Good	
3834	Red Maple	Acer rubrum	24	Good	
3835	White Oak	Quercus alba	32	Good	Codominant with included bark, seam, high probability of failure
3836	Tulip Poplar	Liriodendron tulipifera	37	Good	
3837	Tulip Poplar	Liriodendron tulipifera	24	Good	
3838	Tulip Poplar	Liriodendron tulipifera	33.5	Good	
3839	Red Oak	Quercus rubra	28	Good	
3840	Tulip Poplar	Liriodendron tulipifera	25	Good	
3841	Tulip Poplar	Liriodendron tulipifera	43	Good	
3842	Tulip Poplar	Liriodendron tulipifera	24	Good	
3843	Tulip Poplar	Liriodendron tulipifera	34	Good	
3844	Tulip Poplar	Liriodendron tulipifera	38	Good	
3845	Tulip Poplar	Liriodendron tulipifera	36	Good	
3846	Tulip Poplar	Liriodendron tulipifera	26	Good	
3847	Tulip Poplar	Liriodendron tulipifera	26	Good	
3848	Tulip Poplar	Liriodendron tulipifera	28	Good	
3849	Tulip Poplar	Liriodendron tulipifera	28	Good	
3850	Tulip Poplar	Liriodendron tulipifera	28.5	Good	
3851	Black Cherry	Prunus serotina	24	Good	
3852	Tulip Poplar	Liriodendron tulipifera	33	Good	
3853	Tulip Poplar	Liriodendron tulipifera	26	Good	
3854	Tulip Poplar	Liriodendron tulipifera	29	Good	
3855	Tulip Poplar	Liriodendron tulipifera	28	Good	
3856	Tulip Poplar	Liriodendron tulipifera	24	Good	
3857	Tulip Poplar	Liriodendron tulipifera	38	Good	
3858	Tulip Poplar	Liriodendron tulipifera	33	Good	
3859	Tulip Poplar	Liriodendron tulipifera	26	Good	
3860	Tulip Poplar	Liriodendron tulipifera	26	Good	
3861	Tulip Poplar	Liriodendron tulipifera	26	Good	
3862	Tulip Poplar	Liriodendron tulipifera	25	Good	
3863	Tulip Poplar	Liriodendron tulipifera	35	Good	
3864	Tulip Poplar	Liriodendron tulipifera	32	Good	
3865	Tulip Poplar	Liriodendron tulipifera	29	Good	
3866	Tulip Poplar	Liriodendron tulipifera	25	Good	
3867	Tulip Poplar	Liriodendron tulipifera	28	Good	
3868	Tulip Poplar	Liriodendron tulipifera	37	Good	
3869	Tulip Poplar	Liriodendron tulipifera	24	Good	
3870	Tulip Poplar	Liriodendron tulipifera	31.5	Good	
3871	Tulip Poplar	Liriodendron tulipifera	28	Good	
3872	Tulip Poplar	Liriodendron tulipifera	33	Good	
3873	Tulip Poplar	Liriodendron tulipifera	24.5	Good	
3874	Tulip Poplar	Liriodendron tulipifera	28	Good	
3875	Tulip Poplar	Liriodendron tulipifera	30	Good	
3876	Tulip Poplar	Liriodendron tulipifera	24.5	Good	
3877	Tulip Poplar	Liriodendron tulipifera	33	Good	
3878	Tulip Poplar	Liriodendron tulipifera	27.5	Good	
3879	Tulip Poplar	Liriodendron tulipifera	28	Good	
3880	Tulip Poplar	Liriodendron tulipifera	29	Good	
3881	Tulip Poplar	Liriodendron tulipifera	33	Fair	Die back in canopy, lightning struck
3882	Tulip Poplar	Liriodendron tulipifera	28	Good	
3883	White Oak	Quercus alba	35	Good	
3884	Black Oak	Quercus velutina	26	Good	
3885	Tulip Poplar	Liriodendron tulipifera	27	Good	

SHADED CELLS INDICATE SPECIMEN TREE

TREE DATA (CONT'D)

Tree No.	Common Name	Botanical Name	D.B.H. (IN)	Condition	Notes
3886	Tulip Poplar	Liriodendron tulipifera	24.5	Good	
3887	Tulip Poplar	Liriodendron tulipifera	26	Good	
3888	Red oak	Quercus rubra	29.5	poor	Severe dieback, decay, crown thinning, severe decline
3889	Tulip Poplar	Liriodendron tulipifera	24/11	fair	Cavity, hollow
3890	Tulip Poplar	Liriodendron tulipifera	25	Good	
3891	Tulip Poplar	Liriodendron tulipifera	37	Good	
3892	Tulip Poplar	Liriodendron tulipifera	32	Good	
3893	Pignut Hickory	Carya glabra	24	Good	
3894	Pignut Hickory	Carya glabra	24	Good	Codominant with included bark, seam, high probability of failure
3895	Red Maple	Acer rubrum	31	Good	Multi-stem, seams, high probability failure, in wetland
3896	Red Maple	Acer rubrum	33	Good	Twin, co-dominant with included bark
3897	Red Maple	Acer rubrum	32	Good	Not tagged

SHADED CELLS INDICATE SPECIMEN TREE

FCP NOTES

1. Owner Information:
   Kent Murphy
   1800 Wilson Boulevard, Unit 449
   Arlington, VA 22201
   Property Information:
   Parcel 606, Rich Meadows
   660,997 s.f. (15.17 ac) per Deed
   Tax Account: 06-02018368
2. This site is located in the Lower Great Seneca Creek Watershed. Watershed use class IV-P.
3. The site is not located in a Special Protection Area (S.P.A.) or the Patuxent River Watershed Primary Management Area (P.M.A.).
4. Perennial, intermittent streams and their associated buffers exist on site, as indicated on this plan.
5. There are no floodplains or associated buffers located onsite per F.E.M.A. Firm Maps, Community Panel Number 24031C0310D. However, the 100-year floodplain delineation shown hereon is per a floodplain study (DPS # 231363) completed by JAS Engineering & Design, LLC and was approved by MCDPS on June 18, 2007.
6. Steep slopes (25% or greater) and slopes between 15% -25% on highly erodible soils exist on site, as indicated on this plan.
7. There are no wetlands or their associated buffers located onsite per onsite observation.
8. No rare, threatened, or endangered (R.T.E.) species were observed during our site analysis. This has been confirmed by the Maryland Department of Natural Resources in a letter dated January 5, 2022.
9. No cultural and/or historical features exist onsite based on available records, onsite observation, and the use of the MNCPPC on-line locator wizard.
10. Forest, significant trees, and specimen trees exist on site, as indicated on this plan.
11. There are no state and/or county champion trees or trees >75% of the current state and/or county champion located on this site.
12. Tree diameter measurements were obtained utilizing a tree diameter tape.
13. The NRI field analysis for this project was conducted October, 2021 by James Witmer, JNM Engineering, LLC.
14. Subject property is located in the RC zone at the time of plan preparation.
15. The location of offsite trees, improvements, and other structures beyond the delineated "Limits of CAS Topographic Survey" are approximate. Offsite features are shown per available MNCPPC topographic records and are provided for illustrative purposes only.

ENVIRONMENTAL DATA TABLE

FEATURE	ACREAGE
Area of Steep Slopes	1.84 ac.
Forested Floodplain Area	0.26 ac. *
Stream Valley Buffer Area	8.80 ac.
Total Forested Area	13.24 ac.
Forested Stream Valley Buffer	8.30 ac.
100-year Flood Plain	0.26 ac. *
Wetlands	0 ac.
Forested Wetlands	0 ac.
Average Width of Stream Valley Buffer	160 ft. ±
Linear Extent of Stream	1,360 ft.

* Per approved MCDPS Floodplain Study (MCDPS No. 231363)

FOREST CONSERVATION WORKSHEET (WITHIN SAME WATERSHED OR PRIORITY AREA)

FOREST CONSERVATION WORKSHEET
RICH MEADOWS PARCEL 606

NET TRACT AREA:
A. Total tract area ... 15.17
B. Additions to tract area (Off Site Work, etc., construction required by this plan) ... 0.00
C. Land dedication acres (parks, county facility, etc.) ... 0.00
D. Land dedication for roads or utilities (construction not required by this plan) ... 0.00
E. Area to remain in commercial agricultural production/use ... 0.00
F. Other deductions (specify) Forest area within existing gas pipeline easement 0.06
G. Net Tract Area ... 15.11

LAND USE CATEGORY: (from Chapter 22A-3. Definitions)
Input the number "1" under the appropriate land use, limit to only one entry.

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

G. Afforestation Threshold ... 20% x G = 3.02
H. Conservation Threshold ... 45% x G = 6.80

EXISTING FOREST COVER:
I. Existing forest cover ... 13.18
J. Area of forest above afforestation threshold ... 10.16
K. Area of forest above conservation threshold ... 6.38

BREAK EVEN POINT:
L. Forest retention above threshold with no mitigation ... 8.08
M. Clearing permitted without mitigation ... 5.10

PROPOSED FOREST CLEARING:
N. Total area of forest to be cleared ... 0.38
O. Total area of forest to be retained ... 12.80

PLANTING REQUIREMENTS:
P. Reforestation for clearing above conservation threshold ... 0.19
Q. Reforestation for clearing below conservation threshold ... 0.00
R. Credit for retention above conservation threshold ... 6.00
S. Total reforestation required ... 0.00
T. Total afforestation required ... 0.00
U. Credit for landscaping (may not be used to meet reforestation requirement if project is located outside an Equity Focus Area (EFA). For projects within EFA, may not exceed 20% of "S") ... 0.00
V. Total reforestation and afforestation required ... 0.00
worksheet date 4/2023

FOREST CONSERVATION WORKSHEET (OUTSIDE OF SAME WATERSHED OR PRIORITY AREA)

FOREST CONSERVATION WORKSHEET
RICH MEADOWS PARCEL 606

NET TRACT AREA:
A. Total tract area ... 15.17
B. Additions to tract area (Off-Site Work, etc., construction required by this plan) ... 0.00
C. Land dedication acres (parks, county facility, etc.) ... 0.00
D. Land dedication for roads or utilities (construction not required by this plan) ... 0.00
E. Area to remain in commercial agricultural production/use ... 0.00
F. Other deductions (specify) Forest area within existing gas pipeline easement 0.06
G. Net Tract Area ... 15.11

LAND USE CATEGORY: (from Chapter 22A-3. Definitions)
Input the number "1" under the appropriate land use, limit to only one entry.

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

G. Afforestation Threshold ... 20% x G = 3.02
H. Conservation Threshold ... 45% x G = 6.80

EXISTING FOREST COVER:
I. Existing forest cover ... 13.18
J. Area of forest above afforestation threshold ... 10.16
K. Area of forest above conservation threshold ... 6.38

BREAK EVEN POINT:
L. Forest retention above threshold with no mitigation ... 8.08
M. Clearing permitted without mitigation ... 5.10

PROPOSED FOREST CLEARING:
N. Total area of forest to be cleared ... 0.38
O. Total area of forest to be retained ... 12.80

PLANTING REQUIREMENTS:
P. Reforestation for clearing above conservation threshold ... 0.38
Q. Reforestation for clearing below conservation threshold ... 0.00
R. Credit for retention above conservation threshold ... 6.00
S. Total reforestation required ... 0.00
T. Total afforestation required ... 0.00
U. Credit for landscaping (may not be used to meet reforestation requirement if project is located outside an Equity Focus Area (EFA). For projects within EFA, may not exceed 20% of "S") ... 0.00
V. Total reforestation and afforestation required ... 0.00
worksheet date 4/2023

Forest Conservation Data Table

	Number of Acres
Tract	15.11
Remaining in Agricultural Use	-
Road & Utility ROWs[1]	-
Total Existing Forest	13.18
Forest Retention	12.80
Forest Cleared	0.38

Land Use & Thresholds[2]

Land Use Category	CDR	ARA, CDR, MDR, IDA, HDR, MDP, or CIA
Conservation Threshold	45%	percent
Afforestation Threshold	20%	percent

	Total Channel Length (ft.)	Average Buffer Width (ft.)[3]
Stream(s)	1,360	160

Acres of Forest in	Retained	Cleared	Planted
Wetlands	-	-	-
100-Year Floodplain	0.26	-	-
Stream Buffers	8.24	0.06	0.28
Priority Areas	12.80	0.38	0.29

[1] Only Road or Utility ROWs not to be improved as part of development application.
[2] Information from FC Land Use Categories & Thresholds document.
[3] Measured from stream edge to buffer edge.

TREE MITIGATION NOTE

THIS PLAN PROPOSES THE REMOVAL OF NINE SPECIMEN TREES (#3628, 3629, 3630, & 3644).

THE PLANTING OF THIRTEEN MITIGATION TREES IS HEREBY PROPOSED. THE TREES WILL BE 3" CALIPER NATIVE MARYLAND PIEDMONT CANOPY TREES. THE LOCATIONS AND SPECIES OF SAID TREES ARE SUBJECT TO PLACEMENT WITH MNCPPC FOREST CONSERVATION INSPECTOR'S APPROVAL.

TREE #	DBH [in]
3628	49.5
3629	34
3630	34.5
3644	32

TOTAL DBH = 150 / 4 = 37.5" REQUIRED FOR MITIGATION

PROVIDE THIRTEEN, 3" CALIPER TREES TOTALING 39"

SEE TREE PLANTING SCHEDULE FOR TREES TO BE PLANTED:

A PRE-PLANTING MEETING WITH THE MNCPPC FOREST CONSERVATION INSPECTOR WILL BE REQUIRED PRIOR TO THE PLANTING OF THE TREES.

TREE MITIGATION PLANTING SCHEDULE

BOTANICAL NAME	COMMON NAME	SIZE	FORM	SPACING	QUANTITY
SUGAR MAPLE	(Acer saccharum)	3" CALIPER	B&B	15'	5
WHITE OAK	(Quercus alba)	3" CALIPER	B&B	15'	5
AMERICAN BEECH	(Fagus grandifolia)	3" CALIPER	B&B	15'	3

B&B = BALL & BURLAP

MARYLAND DEPARTMENT OF NATURAL RESOURCES

Larry Hogan, Governor
Boyd Rutherford, Lt. Governor
Jeannie Haddaway-Riccio, Secretary
Allan Fisher, Deputy Secretary

January 5, 2022

Mr. Jared Sims Carhart
CAS Engineering
10 South Bentz Street
Frederick, Maryland 21701

RE: Environmental Review for 13635 Darnestown Road, Parcel 606, Darnestown, Montgomery County, Maryland.

Dear Mr. Carhart:

The Wildlife and Heritage Service has determined that there are no official State or Federal records for listed plant or animal species within the delineated area shown on the map provided. We would like to point out, however, that our remote analysis suggests that the forested area on this property contains Forest Interior Dwelling Bird habitat. Populations of many bird species which depend on this type of forested habitat are declining in Maryland and throughout the eastern United States. Interested landowners can contact us for further voluntary guidelines to help conserve this important habitat.

Please be sure to let us know if the limits of proposed disturbance or overall site boundaries change and we will provide you with an updated evaluation. Thank you for allowing us the opportunity to review this project. If you should have any further questions regarding this information, please contact me at lori.byrne@maryland.gov or at (410) 260-8573.

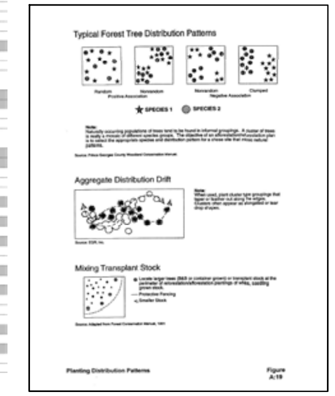
Sincerely,

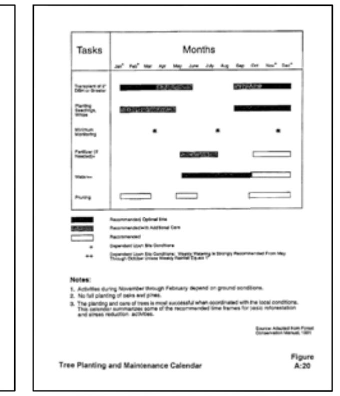
Lori A. Byrne,
Environmental Review Coordinator
Wildlife and Heritage Service
MD Dept. of Natural Resources

ER# 2021.1757.mo

Tawes State Office Building - 580 Taylor Avenue - Annapolis, Maryland 21401
410-260-8DNR or toll free in Maryland 877-620-8DNR - dnr.maryland.gov - TTY Users Call via the Maryland Relay

To address the Forest Interior Dwelling Bird habitat identified on-site, 12.80 acres of the property will be placed under a Category 1 Conservation Easement. This easement will ensure the preservation of the forested area, protecting it from any future development or disturbance. This measure serves as mitigation for potential impacts on the habitat, supporting efforts to conserve essential forest areas for bird species in decline, as noted by the Wildlife and Heritage Service.



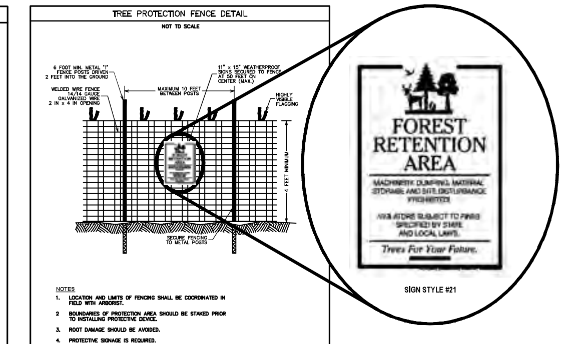


DEER PROTECTION CAGE

NOTES:
1. HEIGHT OF CAGE SHALL BE 4-FEET (MIN.)
2. CAGE SHALL BE FASTENED TO STAKE WITH TWO (MIN.) 11-INCH RELEASABLE CABLE TIES (ONE AT TOP AND ONE 6" (MIN.) ABOVE THE GROUND.
3. DO NOT DAMAGE TREE DURING INSTALLATION.
4. SUBSTITUTIONS MUST BE APPROVED BY FOREST ECOLOGIST.
5. CAGES TO BE REMOVED AT DIRECTION OF FOREST ECOLOGIST.

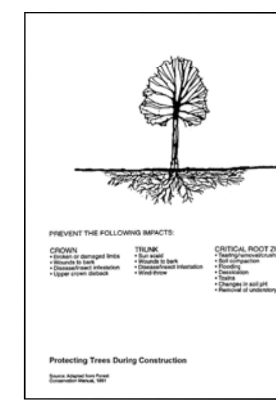
TREE PROTECTION FENCE DETAIL

NOT TO SCALE



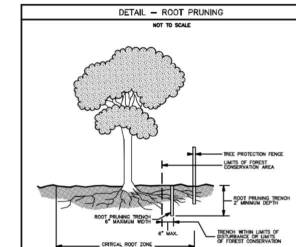
NOTES
1. LOCATION AND LIMITS OF FENCING SHALL BE COORDINATED IN FIELD WITH ARBORIST.
2. BOUNDARIES OF PROTECTION AREA SHOULD BE STAKED PRIOR TO INSTALLING PROTECTIVE DEVICE.
3. ROOT DAMAGE SHOULD BE AVOIDED.
4. PROTECTIVE SIGNAGE IS REQUIRED.
5. FENCING SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.

STANDARD SYMBOL
—TPF——TPF—

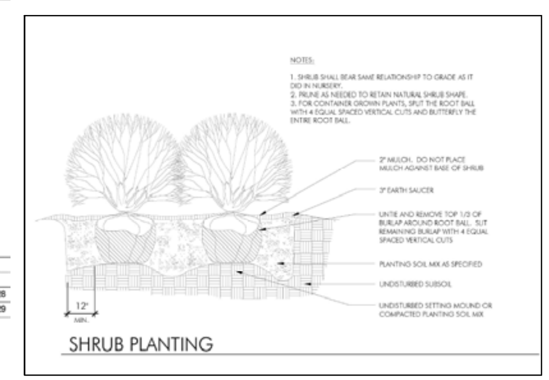


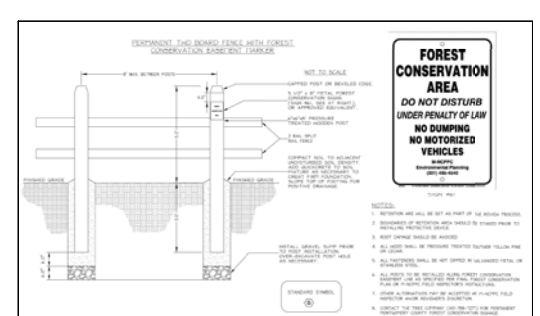
DETAIL – ROOT PRUNING

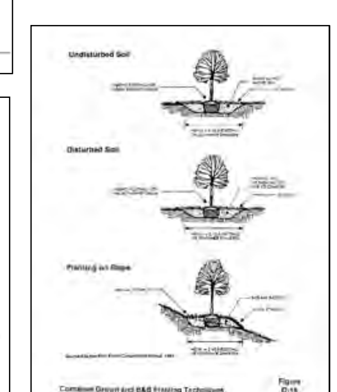
NOT TO SCALE



NOTES:
1. Retention Areas to be established as part of the forest conservation plan review process.
2. Boundaries of Retention Areas to be staked, flagged and/or fenced prior to trenching.
3. Exact location of trench to be determined at pre-construction meeting with the Forest Conservation Inspector.
4. Trench should be immediately backfilled with soil removed or organic soil.
5. Roots must be cleanly cut using vibratory knife or other acceptable equipment.
6. Shallow root pruning to be provided where specified or determined at pre-construction meeting.







SOILS TABLE

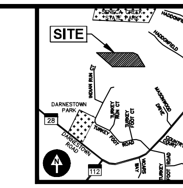
SYMBOL	SOIL	HYDRIC	PRIME FARMLAND	HIGH ERODIBLE	SERPENTINITE
1C	GAILA SILT LOAM, 8-15% SLOPES	YES	YES	NO	NO
2B	GLENELG SILT LOAM, 3-8% SLOPES	NO	YES	NO	NO
16D	BRINKLOW-BLOCKTOWN CHANNERY SILT LOAMS, 15-25% SLOPES	YES	NO	YES	NO
54A	HATBORO SILT LOAM, 0-3% SLOPES, FREQUENTLY FLOODED	YES	NO	NO	NO
116E	BLOCKTOWN CHANNERY SILT LOAM, 25-45% SLOPES, VERY ROCKY	YES	NO	YES	NO

OWNER/APPLICANT

Kent Murphy
1800 Wilson Boulevard, Unit 449
Arlington, VA 22201
(540) 558-8596 Phone
kentmurphyemail@gmail.com

13635 Darnestown Road
Parcel 606, Rich Meadows
Proposed Lot A
Preliminary / Final Forest Conservation Plan
Cover Sheet

INDEX OF DRAWINGS



VICINITY MAP
ADC MAP 5162, GRID D-2, SCALE: 1" = 2000'

CAS JOB NO.: 21-297
DATE: 09/2024

DATE	REVISION
01/11/22	JSC - Concept Plan Uploaded to ePlans for Initial Plan Review by M-NCP&PC.
07/10/23	JSC - Administrative Subdivision Application Submitted to M-NCP&P.
09/16/24	SMF- Admin Sub Uploaded to ePlans for Initial Plan Review by M-NCP&PC.

QUALIFIED PROFESSIONAL CERTIFICATION: I hereby certify that these documents were prepared in accordance with Maryland state and Montgomery County Forest Conservation Laws, and MNCPPC Guidelines. (DNR / COMAR 08.19.06.01)

JEFFREY A. ROBERTSON
09/18/2024

DISCLAIMER: Trees are living things whose livability and structural integrity are subject to a wide array of natural factors and impacts. Among those impacts are genetics, climate, weather, water regimen, soils, insects, and disease. As such, trees are subject to changes in health or condition very slowly over time or very abruptly. I do not take liability for these actions or other factors upon the health or structure of the tress involved in this document. This plan should not be interpreted as a tree hazard evaluation as internal, structural, or aerial inspections were not performed on or upon these trees. Conditions and weaknesses may exist out of sight from the human eye.

Parcel 606, Rich Meadows
Book 63849, Page 66, Recorded 06/2021
Darnestown (6th) Election District, Montgomery County, MD

13635 Darnestown Road Darnestown, Maryland 20878
MNCPPC No. F620240060

CAS ENGINEERING

CAS ENGINEERING-MD
10 South Bentz Street
Frederick, Maryland 21701
301-607-8031 Phone
info@casengineering.com
www.casengineering.com

CAS ENGINEERING-DC, LLC
4836 MacArthur Boulevard, NW, 2nd Floor
Washington, DC 20007
202-393-7200 Phone
info@cas-dc.com
www.cas-dc.com

0" 0.5" 1.0" 1.5" 2.0"
NOT TO SCALE OR AS NOTED

SHEET TITLE:
Preliminary / Final Forest Conservation Plan Cover Sheet

P/FCP-1

ATTACHMENT C

Department of Permitting Services
Fire Department Access and Water Supply Comments

DATE: 10-Dec-23

TO: Jared Carhart - jcarhart@casengineering.com
CAS Engineering

FROM: Marie LaBaw

RE: Rich Meadows Parcel 606
620240010

PLAN APPROVED

1. Review based only upon information contained on the plan submitted **07-Dec-23** .Review and approval does not cover unsatisfactory installation resulting from errors, omissions, or failure to clearly indicate conditions on this plan.

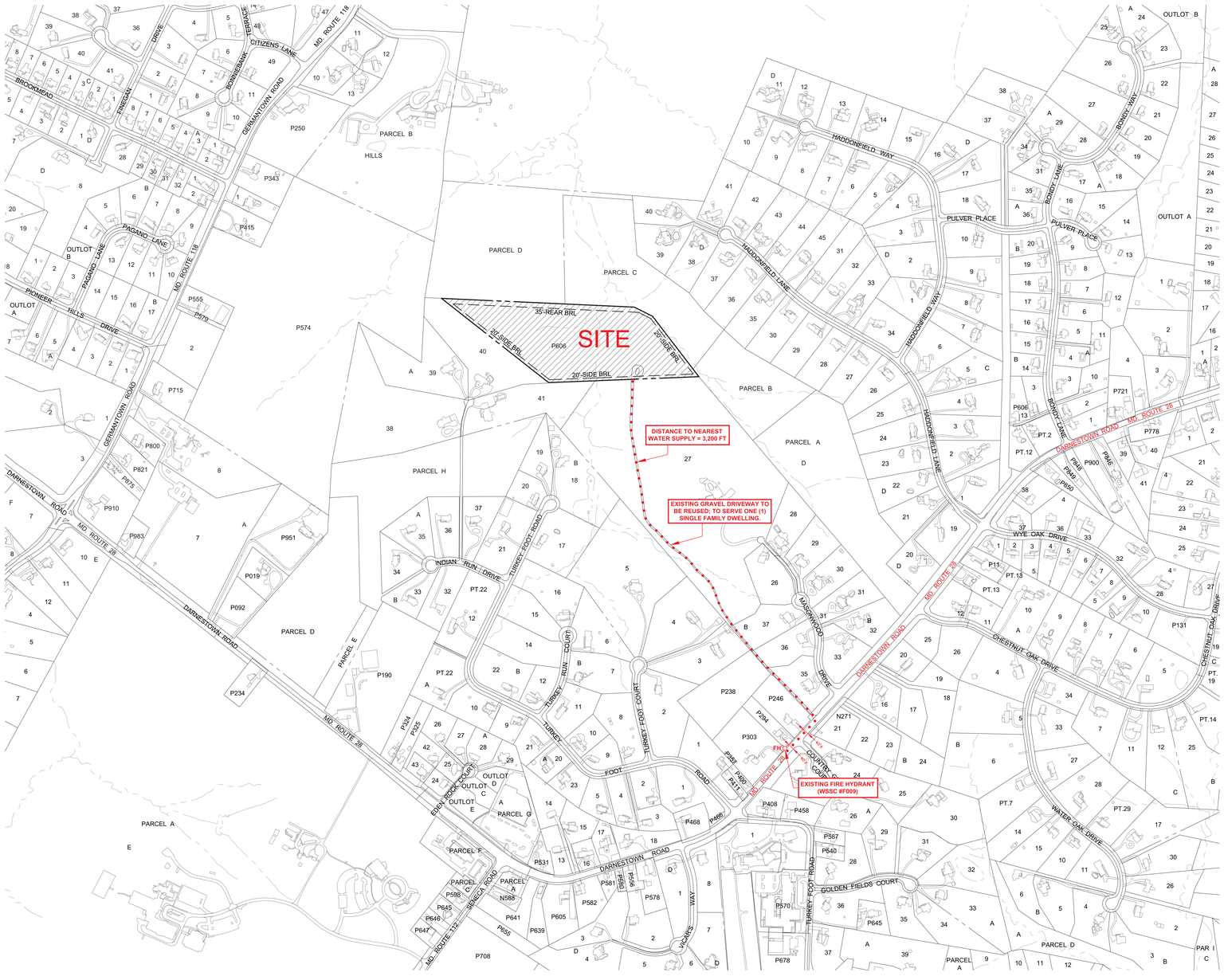
2. Correction of unsatisfactory installation will be required upon inspection and service of notice of violation to a party responsible for the property.

FIRE DEPARTMENT ACCESS PLAN

M-NCP&PC No. 620240010

GENERAL NOTES

1. Boundary information and two-foot contour data are based upon surveys performed by CAS Engineering, dated October, 2021. Two-foot contour data not within the delineated "Limits of CAS Topographic Survey" is based upon available MNCPPC aerial topography, flown February, 2018.
2. Total lot area: Parcel 606 = 15.17 acres.
3. Property is located on Tax Map ES122 and WSSC 200' Sheet 221NW14.
4. Property is located on Soils Survey Map Number 18.
   Soil type(s): See "Soils Table"
5. Flood zone "X" per F.E.M.A. Firm Maps, Community Panel Number 24031C0310D.
6. Property is located in the Seneca Creek Watershed.
7. Water Category - 1, Sewer Category - 1
8. Local utilities include:
   Water / Sewer - Washington Suburban Sanitary Commission
   Water / Sewer - Private Well and Septic
   Electric - PEPCO
   Telephone - Verizon
   Gas - Washington Gas
9. Property is not located in a Special Protection Area.
10. Property is not a Historic Site or located in a Historic District.
11. This plan was created without the benefit of a title report.



WATER SUPPLY SKETCH

SCALE: 1" = 300'

13635 Darnestown Road, Darnestown
Parcel 606, Rich Meadows

FIRE CODE ENFORCEMENT

Fire Department Access Review

Review based only upon information contained on this plan. Does not cover unsatisfactory layout resulting from commissions, errors or failure to clearly indicate conditions on this plan. Correction of such unsatisfactory layout to afford required access will be required if found upon inspection after installation

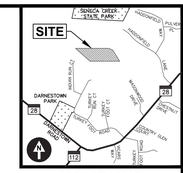
BY: SMC FM: 43 DATE: 12/10/2023

OWNER/APPLICANT

Kent Murphy
1800 Wilson Boulevard, Unit 449
Arlington, VA 22201
(540) 558-8596 Phone
kentmurphyemail@gmail.com

13635 Darnestown Road
Parcel 606, Rich Meadows
Proposed Lot A
Fire Department Access Plan

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



VICINITY MAP

ADC MAP 5162, GRID D-2, SCALE: 1" = 2000'

CAS JOB NO.:	21-297
DATE:	06/2023

DATE	REVISION
01/11/22	JSC - Concept Plan Uploaded to ePlans for Initial Plan Review by M-NCP&PC
07/10/23	JSC - Administrative Subdivision Application Submitted to M-NCP&P.

STATE OF MARYLAND — CURT A. SCHREFFLER — No. 19568 — PROFESSIONAL ENGINEER

CURT A. SCHREFFLER, PE
07/10/2023

PROFESSIONAL ENGINEER CERTIFICATION:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 19568, expiration date 3/6/2024, and that this plan meets MCDPS criteria for building and sediment control permit applications.

Parcel 606, Rich Meadows
Book 63849, Page 66, Recorded 06/2021
Darnestown (6th) Election District, Montgomery County, MD

13635 Darnestown Road Darnestown, Maryland 20878
MNCPPC No. 620240010

CAS ENGINEERING-MD
10 South Bentz Street
Frederick, Maryland 21701
301-607-8031 Phone
info@casengineering.com
www.casengineering.com

CAS ENGINEERING-DC, LLC
4836 MacArthur Boulevard, NW, 2nd Floor
Washington, DC 20007
202-393-7200 Phone
info@cas-dc.com
www.cas-dc.com

0 150 300 450 600
SCALE: 1 INCH = 300 FEET

SHEET TITLE:

Fire Department Access Plan

FDAP-1

DEPARTMENT OF PERMITTING SERVICES

Marc Elrich
County Executive

Rabbiah Sabbakhan
Director

September 26, 2024

Mr. Jared Carhart
CAS Engineering - MD
10 South Bentz Street
Frederick, MD 21701

Re: REVISED **COMBINED STORMWATER MANAGEMENT CONCEPT/*SITE DEVELOPMENT STORMWATER MANAGEMENT PLAN*** for
13635 Darnestown Road
Site Plan #: 620240010
SM File #: 289966
Tract Size/Zone: 15.17 ac.
Total Concept Area: 15.17 ac.
Lots/Block: Proposed Lot A
Parcel(s): P660
Watershed: Seneca Creek
Redevelopment (Yes/No): No

Dear Mr. Carhart::

Based on a review by the Department of Permitting Services Review Staff, the revised stormwater management concept for the above-mentioned site is **acceptable**. The plan proposes to meet required stormwater management goals via the use of dry wells and a micro-infiltration trench.

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

1. A detailed review of the stormwater management computations will occur at the time of detailed plan review.

2. An engineered sediment control plan must be submitted for this project.

3. All filtration media for manufactured best management practices, whether for new development or redevelopment, must consist of MDE approved material.

4. This approval replaces the previous approval dated January 5, 2024.

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

Payment of a stormwater management contribution in accordance with Section 2 of the Stormwater Management Regulation 4-90 **is not required**.

This letter must appear on the sediment control/stormwater management plan at its initial submittal. The concept approval is based on all stormwater management structures being located outside of the Public Utility Easement, the Public Improvement Easement, and the Public Right of Way unless specifically approved on the concept plan. Any divergence from the information provided to this office; or additional information received during the development process; or a change in an applicable Executive Regulation may constitute grounds to rescind or amend any approval actions taken, and to reevaluate the site for additional or amended stormwater management requirements. If there are subsequent additions or modifications to the development, a separate concept request shall be required.

If you have any questions regarding these actions, please feel free to contact Patrick Fitzgerald at 240-777-6362; Patrick.fitzgerald@montgomerycountymd.gov.

Sincerely,

Mark Etheridge

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

cc: Neil Braunstein
SM File # 289966

ESD: Required/Provided 585 c.f. / 604 c.f.
PE: Target/Achieved: 1.0”/1.0”
STRUCTURAL: N/A
WAIVED: N/A

GENERAL NOTES

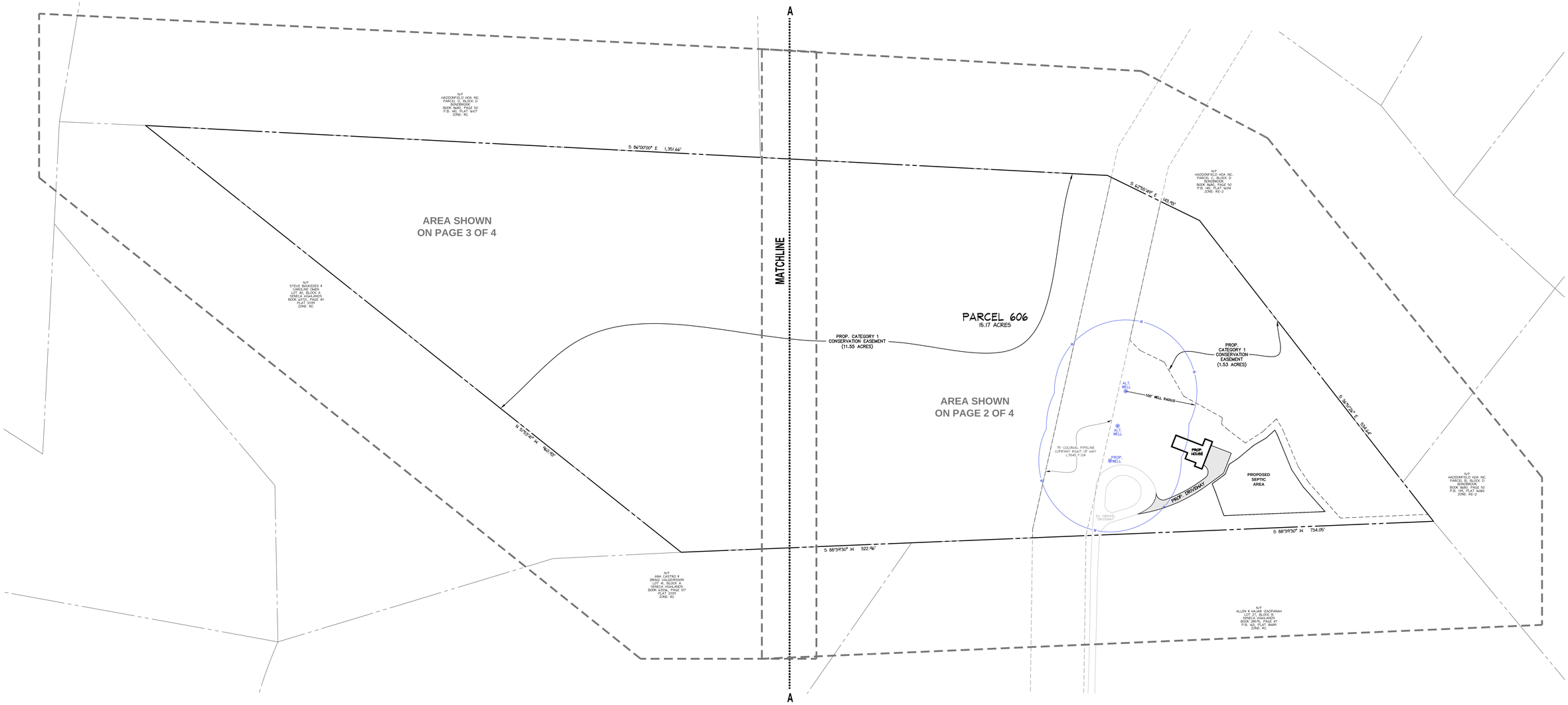
1. Boundary information and two-foot contour data are based upon surveys performed by CAS Engineering, dated October, 2021. Two-foot contour data not within the delineated "Limits of CAS Topographic Survey" is based upon available MNCPPC aerial topography, flown February, 2016.
2. Total lot area: Parcel 606 = 15.17 acres.
3. Property is located on Tax Map ES122 and WSSC 200' Sheet 221NW14.
4. Property is located on Soils Survey Map Number 18.
   Soil type(s): See "Soils Table"
5. Flood zone "X" per F.E.M.A. Firm Maps, Community Panel Number 24031C0320D.
6. Property is located in the Seneca Creek Watershed.
7. Water Category - 6, Sewer Category - 6
8. Local utilities include:
   Water / Sewer - Private Well and Septic
   Electric - PEPCO
   Telephone - Verizon
   Gas - Washington Gas
9. Property is not located in a Special Protection Area.
10. Property is a Historic Site or located in a Historic District.
11. This plan was created without the benefit of a title report.

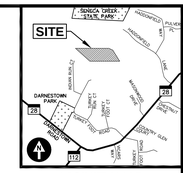
COMBINATION CONCEPT/ SITE DEVELOPMENT STORMWATER MANAGEMENT PLAN REVISION

RICH MEADOWS (PARCEL 606)

13635 DARNESTOWN ROAD

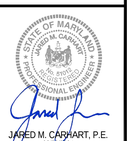
SM No. 289966





CAS JOB NO.: 21-297
DATE: 08/2024

DATE	REVISION
09/14/23	JSC -Stormwater Management Concept Plan Initial Submittal
06/29/24	JSC -Stormwater Management Concept Plan Revision Initial Submittal



JARED M. CARHART, P.E.
08/2024

PROFESSIONAL ENGINEER CERTIFICATION:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 51012, expiration date 06/07/2025; and that this plan meets MCDPS criteria for building and sediment control permit applications.

Parcel 606, Rich Meadows
Book 63849, Page 66, Recorded 06/2021
Darnestown (6th) Election District, Montgomery County, MD

13635 Darnestown Road Darnestown, Maryland 20878
MNCPPC No. F620240060

CONCEPTUAL SEQUENCE OF CONSTRUCTION

1. Prior to clearing trees, installing sediment control measures, or grading, a pre-construction meeting must be conducted on-site with the Montgomery County Department of Permitting Services (MCDPS) Sediment Control inspector (240) 777-0311 (48 hours notice) and the MNCPPC, Planning Department, Plans Enforcement inspector (301/495-4550 (48 hours notice), the Owners representative, and the site Engineer.
   In order for the meeting to occur, the applicant must provide the MCDPS Sediment Control Inspector with one approved copy of the approved Sediment Control Plan and one approved copy of the Right-of-Way and Roadside Tree Plan (when one is required) at the pre-construction meeting. If no plans are provided, the meeting shall not occur and will need to be rescheduled prior to commencing any work.
2. The limits of disturbance (L.O.D.) must be field marked prior to clearing of trees, installation of sediment control measures, construction, or other land disturbing activities.
3. Staging, access, and stockpiling activities may not occur beyond the approved limits of disturbance (L.O.D.) defined by this plan.
4. The permittee must obtain written approval form the MNCPPC inspector, certifying that the limits of disturbance and tree protection measures are correctly marked and installed prior to commencing any clearing.
5. Clear and grade for installation of sediment control devices.
6. Install sediment control devices.
7. Once the sediment control devices are installed, the permittee must obtain written approval from the MCDPS inspector before proceeding with any additional clearing, grubbing or grading.
8. The Stabilized Construction Entrance (SCE) is an erosion and sediment control practice and must remain in place until written permission is granted from the inspector for its removal.
9. Initiate rough grading. Temporarily seed any areas not to be re-graded within 7 days.
10. Install base courses for driveway, complete house construction, etc.
11. Gutters and downspouts to be installed early as possible, subject to availability of materials and labor.
12. Install stormwater management devices and associated piping but do not connect to downspouts at this time.
13. Pave driveway, install entrances per MCDOT permit, permanently stabilize all remaining areas.
14. Connect downspouts to roof drain piping and stormwater management devices.
15. Provide signed record set of plans to the sediment control inspector.
16. Obtain written approval from MCDPS inspector, prior to the removal of any sediment control device.

SWM CONCEPT SUMMARY TABLE
CONTACT INFORMATION FOR DESIGN ENGINEER (FOR TECHNICAL ISSUES): JARED CARHART (301-703-2346)
GENERAL PROPERTY INFORMATION:
SWM 289966:
TYPE OF CONCEPT: COMBINATION CONCEPT / SITE DEVELOPMENT STORMWATER MANAGEMENT PLAN
MNCPAPC PROCESSING: ADMINISTRATIVE SUBDIVISION #620240010
PROPERTY ADDRESS: 13635 DARNESTOWN ROAD, DARNESTOWN, MD 20878
PROPERTY LEGAL DESCRIPTION: PROPOSED LOT A, RICH MEADOWS (PARCEL P660)
PROPERTY SIZE (AC./SQ.FT.): 15.17 ACRES / 660,805.20 SQUARE FEET
TOTAL CONCEPT AREA (AC./SQ.FT.): 15.17 ACRES / 660,805.20 SQUARE FEET
ZONING: RC
WATERSHED AND STREAM CLASS: SENECA CREEK WATERSHED (CLASS IV-P)
SPECIAL PROTECTION AREA: N/A
100-YR FLOODPLAIN/S: FLOODPLAIN DELINEATION SHOWN HEREON IS PER FPS# 231363
EX % IMPERVIOUS/REDEVELOPMENT OR NEW DEVELOPMENT: NEW DEVELOPMENT
SWM SUMMARY:
TARGET P_E / PROPOSED P_E: 1.00 IN. / 1.03 IN.
TARGET ESDv / PROVIDED ESDv: 584.6 C.F. / 604.4 C.F.
ESD MEASURES: DRYWELLS (2), MICRO-INFILTRATION TRENCH (1)
STRUCTURAL STORAGE REQUIRED/PROVIDED: 0 C.F. / 0 C.F.
STRUCTURAL MEASURES: N/A
WAIVER REQUEST / QL / QN / BOTH: NO
PROVIDED ESDv + STRUCTURAL STORAGE PROVIDED = REQUESTED TO BE WAIVED = 604.4 C.F.
OTHER INFORMATION:

SOILS TABLE

SYMBOL	SOIL	HYDRIC	PRIME FARMLAND	HIGH ERODIBLE	SERPENTINITE
7C	GALA SILT LOAM, 8–15% SLOPES	YES	YES	NO	NO
28	GLENELG SILT LOAM, 3–8% SLOPES	NO	YES	NO	NO
76D	BRINKLOW-BLOCKTOWN CHANNERY SILT LOAMS, 15–25% SLOPES	YES	NO	YES	NO
54A	HATBORO SILT LOAM, 0–3% SLOPES, FREQUENTLY FLOODED	YES	NO	NO	NO
116E	BLOCKTOWN-CHANNERY SILT LOAM, 25–45% SLOPES, VERY ROCKY	YES	NO	YES	NO

UTILITY INFORMATION

EXISTING UNDERGROUND UTILITY LOCATIONS ARE APPROXIMATE AND MUST BE FIELD VERIFIED. UTILITY LOCATIONS ARE BASED UPON AVAILABLE RECORDS AND ARE SHOWN TO THE BEST OF OUR ABILITY.

FOR LOCATION OF UTILITIES, CALL "MISS UTILITY" AT 1–800–257–7777, OR LOG ON TO WWW.MISSUTILITY.NET AT LEAST 48 HOURS PRIOR TO EXCAVATION IN THE VICINITY. THE EXCAVATOR MUST NOTIFY ALL PUBLIC UTILITY COMPANIES WITH UNDER GROUND FACILITIES IN THE AREA OF PROPOSED EXCAVATION AND HAVE THOSE FACILITIES LOCATED BY THE UTILITY COMPANIES PRIOR TO COMMENCING EXCAVATION. THE EXCAVATOR IS RESPONSIBLE FOR COMPLIANCE WITH REQUIREMENTS OF CHAPTER 36A OF THE MONTGOMERY COUNTY CODE

Combined SWM Concept/SDP
REVISION
Accepted for DPS
Patrick Fitzgerald
09/26/2024

OWNER/APPLICANT

Kent Murphy
1800 Wilson Boulevard, Unit 449
Arlington, VA 22201
(540) 558-8596 Phone
kentmurphyemail@gmail.com

13635 Darnestown Road
Parcel 606, Rich Meadows
Proposed Lot A
Combination Concept /
Site Development SWM Plan
Cover Sheet Revision
MCDPS No. 289966

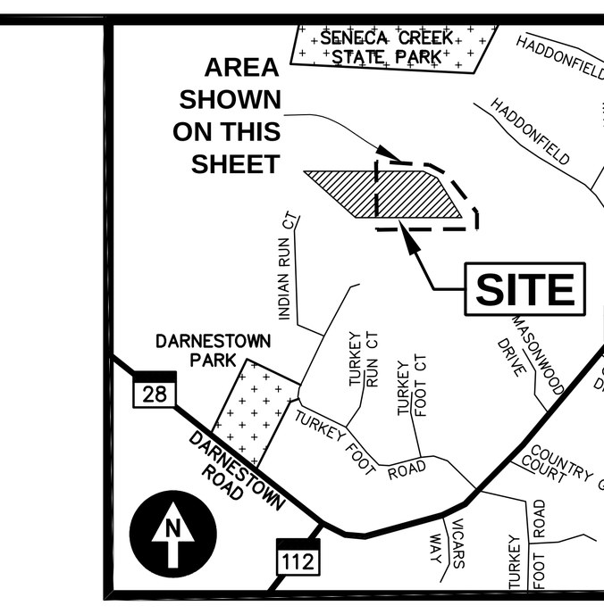
INDEX OF DRAWINGS	
NO.	SHEET TITLE
1 of 4	Cover Sheet - Site Plan
2 of 4	Combination Concept / Site Development SWM Plan
3 of 4	Combination Concept / Site Development SWM Plan
4 of 4	Stormwater Computation

CAS ENGINEERING-MD
10 South Bentz Street
Frederick, Maryland 21701
301-607-8031 Phone
info@casengineering.com
www.casengineering.com

CAS ENGINEERING-DC, LLC
4836 MacArthur Boulevard, NW, 2nd Floor
Washington, DC 20007
202-363-7200 Phone
info@cas-dc.com
www.cas-dc.com

0 25 50 75 100
SCALE: 1 INCH = 50 FEET

SHEET TITLE:
Combination Concept / Site Development SWM Plan
Cover Sheet Revision



VICINITY MAP
ADC MAP 5162, GRID D-2, SCALE: 1" = 2000'

CAS JOB NO.: 21-297
DATE: 08/2024

DATE	REVISION
09/14/23	JSC -Stormwater Management Concept Plan Initial Submittal
08/29/24	JSC -Stormwater Management Concept Plan Revision Initial Submittal

JARED M. CARHART, P.E.
08/29/2024

PROFESSIONAL ENGINEER CERTIFICATION: I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 51012, expiration date 06/07/2025, and that this plan meets MCDPS criteria for building and sediment control permit applications.

TREE DATA

Tree No.	Common Name	Botanical Name	D.B.H. (IN)	Condition	Notes
3627	Black Walnut	*Juglans nigra*	29	Good	Good, co-dominant stem, Deadwood and canopy
3628	White Oak	*Quercus alba*	49.5	Good	Good, slight dead wooden canopy
3629	Black Walnut	*Juglans nigra*	34	Fair	Fair, hollowing, slight dead wooden canopy
3630	Black Walnut	*Juglans nigra*	34.5	Fair	Decay, cavity, hollowing
3631	Black Walnut	*Juglans nigra*	24	Poor	Severe decay, dead wood, significant dieback, heavy ivy
3632	Tulip Poplar	*Lirodendron tulipifera*	31	Good	
3633	Tulip Poplar	*Lirodendron tulipifera*	25	Good	
3634	Tulip Poplar	*Lirodendron tulipifera*	36	Good	
3635	Tulip Poplar	*Lirodendron tulipifera*	30	Good	
3636	Tulip Poplar	*Lirodendron tulipifera*	33	Good	
3637	Red Maple	*Acer rubrum*	26	Poor	Co-dominant, severe decay, bracket fungus, seam, high probability of failure
3638	Red Maple	*Acer rubrum*	28	Fair	Cavity, decay
3639	Red Maple	*Acer rubrum*	25.5	Good	
3640	Tulip Poplar	*Lirodendron tulipifera*	32.5	Good	
3641	Tulip Poplar	*Lirodendron tulipifera*	29	Good	
3642	Pignut Hickory	*Carya glabra*	26	Fair	Multi stem, slight decay, few deadwood limbs
3643	Black Walnut	*Juglans nigra*	25.5	Poor	Severe decay, cavity, hollow
3644	American Elm	*Ulmus Americana*	32	Good	Few Deadwood limbs, crown thinning, multi stem
3645	American Elm	*Ulmus Americana*	24	Fair	Very heavy ivy, die back
3646	Red Oak	*Quercus rubra*	29	Poor	Twin, co-dominant, included bark, standing deadwood, high probability of failure
3647	Sycamore	*Platanus occidentalis*	38	Good	
3648	Tulip Poplar	*Lirodendron tulipifera*	29	Good	
3649	Black Cherry	*Prunus serontina*	24	Good	
3650	Tulip Poplar	*Lirodendron tulipifera*	30	Good	
3651	Red Maple	*Acer rubrum*	26	Good	
3652	Sycamore	*Platanus occidentalis*	30	Good	At stream
3653	Sycamore	*Platanus occidentalis*	34	Good	At stream
3654	Red Maple	*Acer rubrum*	25	Good	
3655	Tulip Poplar	*Lirodendron tulipifera*	29.5	Good	
3656	Tulip Poplar	*Lirodendron tulipifera*	29	Good	At stream
3657	Red Maple	*Acer rubrum*	28	Good	Multi-stem, slight decay, included bark, high probability of failure
3658	Tulip Poplar	*Lirodendron tulipifera*	36.5	Good	
3659	Red Maple	*Acer rubrum*	25	Good	
3660	Red Maple	*Acer rubrum*	31	Good	
3661	Red Maple	*Acer rubrum*	30	Good	Codominant with included bark, seam
3662	Red Maple	*Acer rubrum*	27	Poor	Severe decay, hollowing, cavity, high probability failure
3663	Deadwood	#N/A	26	Poor	Standing Deadwood
3664	Red Oak	*Quercus rubra*	36	Good	
3665	Tulip Poplar	*Lirodendron tulipifera*	32.5	Good	
3666	White Oak	*Quercus alba*	33	Poor	Significant decline, co-dominant with included bark, deadwood in canopy, at stream
3667	Red Maple	*Acer rubrum*	28	Good	At stream
3668	Tulip Poplar	*Lirodendron tulipifera*	37	Good	
3669	Tulip Poplar	*Lirodendron tulipifera*	26	Good	
3670	Tulip Poplar	*Lirodendron tulipifera*	26.5	Good	
3671	White Oak	*Quercus alba*	28	Good	
3672	Tulip Poplar	*Lirodendron tulipifera*	27	Good	
3673	Tulip Poplar	*Lirodendron tulipifera*	27	Good	
3674	Tulip Poplar	*Lirodendron tulipifera*	31	Good	
3675	Tulip Poplar	*Lirodendron tulipifera*	27	Good	
3676	Tulip Poplar	*Lirodendron tulipifera*	29	Good	
3677	Tulip Poplar	*Lirodendron tulipifera*	28	Good	
3678	Tulip Poplar	*Lirodendron tulipifera*	31	Good	

SHADED CELLS INDICATE SPECIMEN TREE

TREE DATA (CONT'D)

Tree No.	Common Name	Botanical Name	D.B.H. (IN)	Condition	Notes
3679	Tulip Poplar	*Lirodendron tulipifera*	27	Good	
3680	Tulip Poplar	*Lirodendron tulipifera*	39	Good	Multi-stem, codominant with included bark, seam, high probability of failure
3681	Tulip Poplar	*Lirodendron tulipifera*	29	Good	
3682	Tulip Poplar	*Lirodendron tulipifera*	30	Good	
3683	Tulip Poplar	*Lirodendron tulipifera*	27.5	Good	
3684	Tulip Poplar	*Lirodendron tulipifera*	36	Good	Codominant, slight decay,
3685	Tulip Poplar	*Lirodendron tulipifera*	34	Good	
3686	Tulip Poplar	*Lirodendron tulipifera*	25	Good	
3687	Tulip Poplar	*Lirodendron tulipifera*	26	Good	
3688	Tulip Poplar	*Lirodendron tulipifera*	26	Good	At stream, opposite side
3689	Tulip Poplar	*Lirodendron tulipifera*	43	Good	
3690	Tulip Poplar	*Lirodendron tulipifera*	25	Good	
3691	Tulip Poplar	*Lirodendron tulipifera*	25	Good	Poor form
3692	Tulip Poplar	*Lirodendron tulipifera*	24	Good	
3693	Red Maple	*Acer rubrum*	28.5	Good	
3694	Red Maple	*Acer rubrum*	27	Good	Codominant
3695	Tulip Poplar	*Lirodendron tulipifera*	29	Good	
3696	Tulip Poplar	*Lirodendron tulipifera*	27	Good	
3697	Tulip Poplar	*Lirodendron tulipifera*	27	Good	
3698	Sycamore	*Platanus occidentalis*	32	Good	
3699	Sycamore	*Platanus occidentalis*	28	Good	
3700	Tulip Poplar	*Lirodendron tulipifera*	25	Good	
3801	Tulip Poplar	*Lirodendron tulipifera*	29	Good	
3802	Tulip Poplar	*Lirodendron tulipifera*	27.5	Good	
3803	Tulip Poplar	*Lirodendron tulipifera*	28	Good	
3804	Tulip Poplar	*Lirodendron tulipifera*	24	Good	
3805	Tulip Poplar	*Lirodendron tulipifera*	32	Good	
3806	Tulip Poplar	*Lirodendron tulipifera*	35	Good	
3807	Tulip Poplar	*Lirodendron tulipifera*	30	Good	
3808	Deadwood	#N/A	30	Poor	Standing Deadwood
3809	Red Maple	*Acer rubrum*	24	Good	
3810	Tulip Poplar	*Lirodendron tulipifera*	33	Good	
3811	Tulip Poplar	*Lirodendron tulipifera*	27.5	Good	
3812	Tulip Poplar	*Lirodendron tulipifera*	26.5	Good	
3813	Tulip Poplar	*Lirodendron tulipifera*	28	Good	
3814	Tulip Poplar	*Lirodendron tulipifera*	28.5	Good	
3815	Tulip Poplar	*Lirodendron tulipifera*	27	Fair	Large cavity, hollow
3816	Red Oak	*Quercus rubra*	37	Good	
3817	Tulip Poplar	*Lirodendron tulipifera*	27	Good	
3818	Tulip Poplar	*Lirodendron tulipifera*	31	Good	
3819	Tulip Poplar	*Lirodendron tulipifera*	24	Good	
3820	Tulip Poplar	*Lirodendron tulipifera*	24.5	Good	
3821	Tulip Poplar	*Lirodendron tulipifera*	29	Good	Codominant with included bark, seam, high probability of failure
3822	Tulip Poplar	*Lirodendron tulipifera*	31	Good	
3823	Black Cherry	*Prunus serontina*	24	Good	
3824	Tulip Poplar	*Lirodendron tulipifera*	24	Good	
3825	White oak	*Quercus alba*	44	Good	Codominant with included bark, seem, high probability of failure
3826	Red Oak	*Quercus rubra*	29	Fair	Die back in canopy, significant deadwood
3827	Red Oak	*Quercus rubra*	24	Fair	Significant guy back in canopy, significant deadwood
3828	Red Oak	*Quercus rubra*	32	Fair	Significant dieback, significant dead wooden canopy
3829	Red Oak	*Quercus rubra*	27	Fair	Significant die back in canopy, significant deadwood
3830	Tulip Poplar	*Lirodendron tulipifera*	30	Good	

SHADED CELLS INDICATE SPECIMEN TREE

TREE DATA (CONT'D)

Tree No.	Common Name	Botanical Name	D.B.H. (IN)	Condition	Notes
3831	Black Cherry	*Prunus serontina*	31	Poor	Severe dieback, mostly deadwood
3832	Tulip Poplar	*Lirodendron tulipifera*	26	Good	
3833	Tulip Poplar	*Lirodendron tulipifera*	26	Good	
3834	Red Maple	*Acer rubrum*	24	Good	
3835	White Oak	*Quercus alba*	32	Good	Codominant with included bark, seam, high probability of failure
3836	Tulip Poplar	*Lirodendron tulipifera*	37	Good	
3837	Tulip Poplar	*Lirodendron tulipifera*	24	Good	
3838	Tulip Poplar	*Lirodendron tulipifera*	33.5	Good	
3839	Red Oak	*Quercus rubra*	28	Good	
3840	Tulip Poplar	*Lirodendron tulipifera*	25	Good	
3841	Tulip Poplar	*Lirodendron tulipifera*	43	Good	
3842	Tulip Poplar	*Lirodendron tulipifera*	24	Good	
3843	Tulip Poplar	*Lirodendron tulipifera*	34	Good	
3844	Tulip Poplar	*Lirodendron tulipifera*	38	Good	
3845	Tulip Poplar	*Lirodendron tulipifera*	36	Good	
3846	Tulip Poplar	*Lirodendron tulipifera*	26	Good	
3847	Tulip Poplar	*Lirodendron tulipifera*	26	Good	
3848	Tulip Poplar	*Lirodendron tulipifera*	28	Good	
3849	Tulip Poplar	*Lirodendron tulipifera*	28	Good	
3850	Tulip Poplar	*Lirodendron tulipifera*	28.5	Good	
3851	Black Cherry	*Prunus serontina*	24	Good	
3852	Tulip Poplar	*Lirodendron tulipifera*	33	Good	
3853	Tulip Poplar	*Lirodendron tulipifera*	26	Good	
3854	Tulip Poplar	*Lirodendron tulipifera*	29	Good	
3855	Tulip Poplar	*Lirodendron tulipifera*	28	Good	
3856	Tulip Poplar	*Lirodendron tulipifera*	24	Good	
3857	Tulip Poplar	*Lirodendron tulipifera*	38	Good	
3858	Tulip Poplar	*Lirodendron tulipifera*	33	Good	
3859	Tulip Poplar	*Lirodendron tulipifera*	26	Good	
3860	Tulip Poplar	*Lirodendron tulipifera*	26	Good	
3861	Tulip Poplar	*Lirodendron tulipifera*	26	Good	
3862	Tulip Poplar	*Lirodendron tulipifera*	25	Good	
3863	Tulip Poplar	*Lirodendron tulipifera*	35	Good	
3864	Tulip Poplar	*Lirodendron tulipifera*	32	Good	
3865	Tulip Poplar	*Lirodendron tulipifera*	29	Good	
3866	Tulip Poplar	*Lirodendron tulipifera*	25	Good	
3867	Tulip Poplar	*Lirodendron tulipifera*	28	Good	
3868	Tulip Poplar	*Lirodendron tulipifera*	37	Good	
3869	Tulip Poplar	*Lirodendron tulipifera*	24	Good	
3870	Tulip Poplar	*Lirodendron tulipifera*	31.5	Good	
3871	Tulip Poplar	*Lirodendron tulipifera*	28	Good	
3872	Tulip Poplar	*Lirodendron tulipifera*	33	Good	
3873	Tulip Poplar	*Lirodendron tulipifera*	24.5	Good	
3874	Tulip Poplar	*Lirodendron tulipifera*	28	Good	
3875	Tulip Poplar	*Lirodendron tulipifera*	30	Good	
3876	Tulip Poplar	*Lirodendron tulipifera*	24.5	Good	
3877	Tulip Poplar	*Lirodendron tulipifera*	33	Good	
3878	Tulip Poplar	*Lirodendron tulipifera*	27.5	Good	
3879	Tulip Poplar	*Lirodendron tulipifera*	28	Good	
3880	Tulip Poplar	*Lirodendron tulipifera*	29	Good	
3881	Tulip Poplar	*Lirodendron tulipifera*	33	Fair	Die back in canopy, lightning struck
3882	Tulip Poplar	*Lirodendron tulipifera*	26	Good	
3883	White Oak	*Quercus alba*	35	Good	
3884	Black Oak	*Quercus velutina*	26	Good	
3885	Tulip Poplar	*Lirodendron tulipifera*	27	Good	

SHADED CELLS INDICATE SPECIMEN TREE

TREE DATA (CONT'D)

Tree No.	Common Name	Botanical Name	D.B.H. (IN)	Condition	Notes
3886	Tulip Poplar	*Lirodendron tulipifera*	24.5	Good	
3887	Tulip Poplar	*Lirodendron tulipifera*	26	Good	
3888	Red oak	*Quercus rubra*	29.5	poor	Severe dieback, decay, crown thinning, severe decline
3889	Tulip Poplar	*Lirodendron tulipifera*	24.51	fair	Cavity, hollow
3890	Tulip Poplar	*Lirodendron tulipifera*	25	Good	
3891	Tulip Poplar	*Lirodendron tulipifera*	37	Good	
3892	Tulip Poplar	*Lirodendron tulipifera*	32	Good	
3893	Pignut Hickory	*Carya glabra*	24	Good	
3894	Pignut Hickory	*Carya glabra*	24	Good	Codominant with included bark, seem, high probability of failure
3895	Red Maple	*Acer rubrum*	31	Good	Multi-stem, seems, high probability failure, in wetland
3896	Red Maple	*Acer rubrum*	33	Good	Twin, co-dominant with included bark
3897	Red Maple	*Acer rubrum*	32	Good	Not tagged

SHADED CELLS INDICATE SPECIMEN TREE

LEGEND

EXISTING FEATURES
- Ex. Two- And Ten-foot Contours
- Ex. Spot Elevation
- Ex. Chain Link or Wire Fence
- Ex. 100-ft Limits of NRI-FSD
- Ex. Limits of Topographic Survey
- Ex. Stream Valley Buffer
- Ex. Forest Area
- Ex. Forest Sample Point (SP-A)
- Ex. Soil Line with Soil Types (2UB / 2UC)
- Ex. Steep Slopes (> 25%)
- Ex. Erodible Soil Slopes (> 15%)
- Ex. Tree Line
- Ex. Edge of Stream / Centerline of Stream
- Ex. Significant Tree w/ Tree Tag Number (#3683)
- Ex. Specimen Tree w/ Tree Tag Number (#3684)
- Ex. Tree with C.R.Z. (XX' C.R.Z.)
- Ex. Buffer Width w/ Calculated Slope Based on Steepest 100-foot Horizontal Run within 200-feet of Streambank (150.0' (SLOPE = 18%))
- Ex. Forest Area To Be Removed

PROPOSED FEATURES
- Limit Of Disturbance (L.O.D.) (LOD)
- Prop. Water-House Connection (PROP. WHC)
- Prop. Septic Area, With Primary Trench, Reserve Trench and Trench Lengths (0' 55')
- Prop. Electric-House Connection (PROP. EHC)
- Prop. Contour with Elevation (16)
- Prop. Spot Elevation (XX+X)
- Prop. 4" PVC Drain Pipe
- Prop. Surface Flow Direction
- Prop. Pipe Flow Direction
- Combined Tree Protection Fence and Root Pruning Trench (TP—RP)
- Dry Well with Perforated Pipe Layout, Downspout Leader, Pipe Flow Direction, and Pipe Invert Elevation ((354.4))
- Prop. Micro-Infiltration Trench
- Prop. M-NCP&PC Mitigation Tree

OWNER/APPLICANT
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13635 Darnestown Road
Parcel 606, Rich Meadows
Combination Concept / Site Development SWM Plan Revision
MCDPS No. 289966

Parcel 606, Rich Meadows
Book 63849, Page 66, Recorded 06/2021
Darnestown (6th) Election District, Montgomery County, MD
13635 Darnestown Road Darnestown, Maryland 20878
MNCPPC No. F620240060

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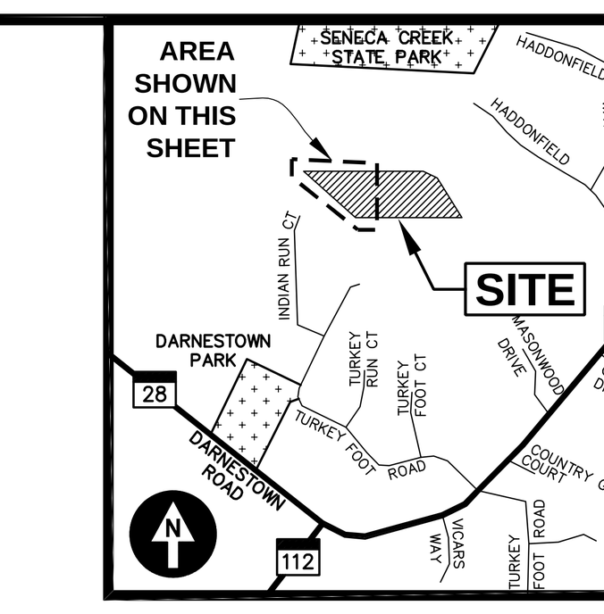
0 15 30 40 50 60
SCALE: 1 INCH = 30 FEET

SHEET TITLE:
Combination Concept / Site Development SWM Plan Revision

APPROVED
Department of Permitting Services
Permit #: STORMWATER CONCEPT
Date: 09/26/24



VICINITY MAP
ADC MAP 5162, GRID D-2, SCALE: 1" = 2000'

CAS JOB NO.:	21-297
DATE:	08/2024

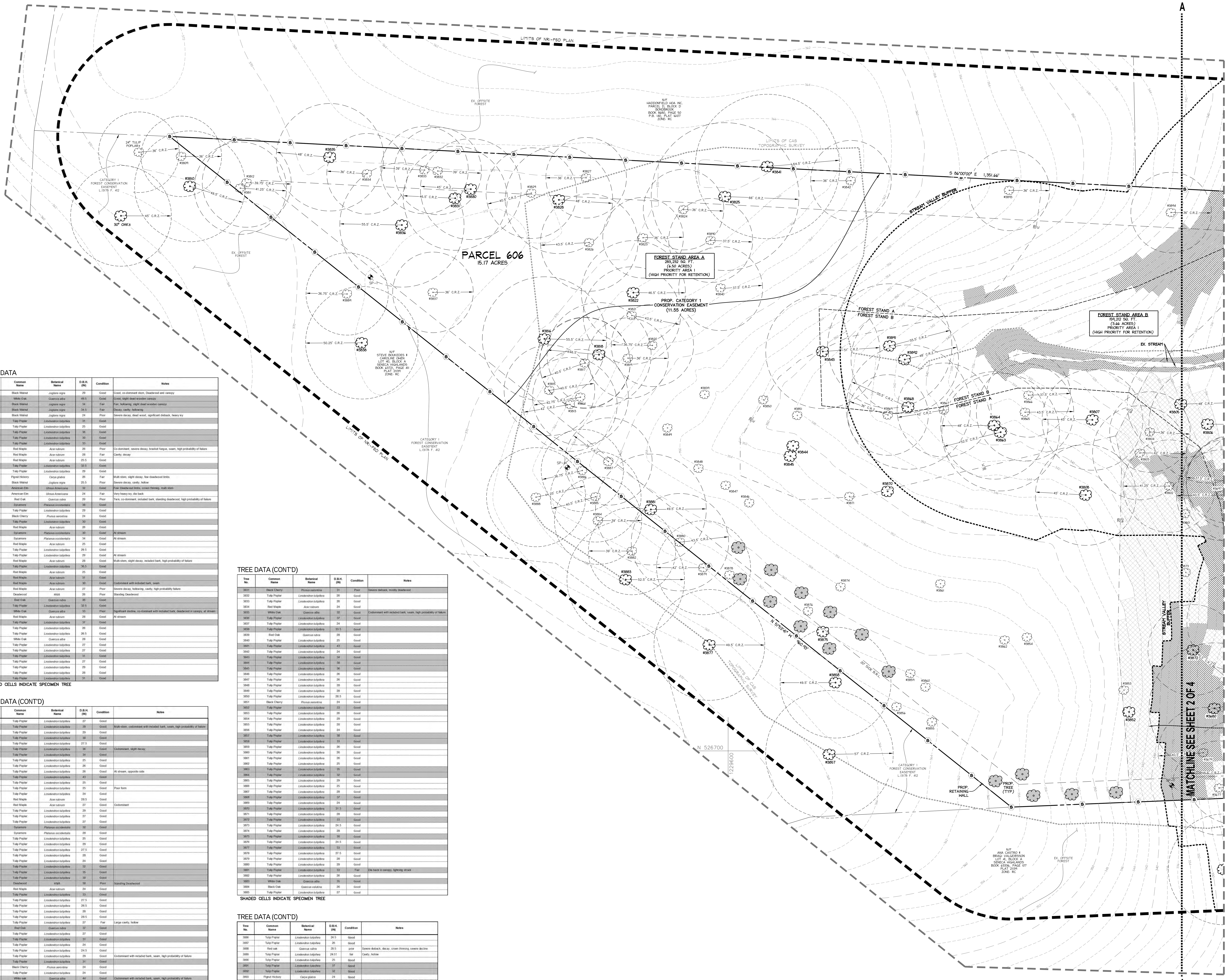
DATE	REVISION
09/14/23	JSC -Stormwater Management Concept Plan Initial Submittal
08/29/24	JSC -Stormwater Management Concept Plan Revision Initial Submittal

STATE OF MARYLAND · JARED M. CARHART · No. 51012 · REGISTERED PROFESSIONAL ENGINEER

JARED M. CARHART, P.E.
08/29/2024

PROFESSIONAL ENGINEER CERTIFICATION: I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 51012, expiration date 06/07/2025, and that this plan meets MCDPS criteria for building and sediment control permit applications.

Parcel 606, Rich Meadows
Book 63849, Page 66, Recorded 06/2021
Darnestown (6th) Election District, Montgomery County, MD
13635 Darnestown Road Darnestown, Maryland 20878
MNCPPC No. F620240060



TREE DATA

Tree No.	Common Name	Botanical Name	D.B.H. (IN)	Condition	Notes
3627	Black Walnut	*Juglans nigra*	29	Good	Good, co-dominant stem, Deadwood and canopy
3628	White Oak	*Quercus alba*	49.5	Good	Good, slight dead wooden canopy
3629	Black Walnut	*Juglans nigra*	34	Fair	Fair, hollowing, slight dead wooden canopy
3630	Black Walnut	*Juglans nigra*	34.5	Fair	Decay, cavity, hollowing
3631	Black Walnut	*Juglans nigra*	24	Poor	Severe decay, dead wood, significant dieback, heavy ivy
3632	Tulip Poplar	*Lirodendron tulipifera*	31	Good	
3633	Tulip Poplar	*Lirodendron tulipifera*	25	Good	
3634	Tulip Poplar	*Lirodendron tulipifera*	36	Good	
3635	Tulip Poplar	*Lirodendron tulipifera*	30	Good	
3636	Tulip Poplar	*Lirodendron tulipifera*	33	Good	
3637	Red Maple	*Acer rubrum*	26	Poor	Co-dominant, severe decay, bracket fungus, seam, high probability of failure
3638	Red Maple	*Acer rubrum*	28	Fair	Cavity, decay
3639	Red Maple	*Acer rubrum*	25.5	Good	
3640	Tulip Poplar	*Lirodendron tulipifera*	32.5	Good	
3641	Tulip Poplar	*Lirodendron tulipifera*	29	Good	
3642	Pignut Hickory	*Carya glabra*	26	Fair	Multi stem, slight decay, few deadwood limbs
3643	Black Walnut	*Juglans nigra*	25.5	Poor	Severe decay, cavity, hollow
3644	American Elm	*Ulmus Americana*	32	Good	Few Deadwood limbs, crown thinning, multi stem
3645	American Elm	*Ulmus Americana*	24	Fair	Very heavy ivy, die back
3646	Red Oak	*Quercus rubra*	29	Poor	Twin, co-dominant, included bark, standing deadwood, high probability of failure
3647	Sycamore	*Platanus occidentalis*	38	Good	
3648	Tulip Poplar	*Lirodendron tulipifera*	29	Good	
3649	Black Cherry	*Prunus serontina*	24	Good	
3650	Tulip Poplar	*Lirodendron tulipifera*	30	Good	
3651	Red Maple	*Acer rubrum*	26	Good	
3652	Sycamore	*Platanus occidentalis*	30	Good	At stream
3653	Sycamore	*Platanus occidentalis*	34	Good	At stream
3654	Red Maple	*Acer rubrum*	25	Good	
3655	Tulip Poplar	*Lirodendron tulipifera*	29.5	Good	
3656	Tulip Poplar	*Lirodendron tulipifera*	29	Good	At stream
3657	Red Maple	*Acer rubrum*	28	Good	Multi-stem, slight decay, included bark, high probability of failure
3658	Tulip Poplar	*Lirodendron tulipifera*	36.5	Good	
3659	Red Maple	*Acer rubrum*	25	Good	
3660	Red Maple	*Acer rubrum*	31	Good	
3661	Red Maple	*Acer rubrum*	30	Good	Codominant with included bark, seam
3662	Red Maple	*Acer rubrum*	27	Poor	Severe decay, hollowing, cavity, high probability failure
3663	Deadwood	*#N/A*	26	Poor	Standing Deadwood
3664	Red Oak	*Quercus rubra*	36	Good	
3665	Tulip Poplar	*Lirodendron tulipifera*	32.5	Good	
3666	White Oak	*Quercus alba*	33	Poor	Significant decline, co-dominant with included bark, deadwood in canopy, at stream
3667	Red Maple	*Acer rubrum*	28	Good	At stream
3668	Tulip Poplar	*Lirodendron tulipifera*	37	Good	
3669	Tulip Poplar	*Lirodendron tulipifera*	26	Good	
3670	Tulip Poplar	*Lirodendron tulipifera*	26.5	Good	
3671	White Oak	*Quercus alba*	28	Good	
3672	Tulip Poplar	*Lirodendron tulipifera*	27	Good	
3673	Tulip Poplar	*Lirodendron tulipifera*	27	Good	
3674	Tulip Poplar	*Lirodendron tulipifera*	31	Good	
3675	Tulip Poplar	*Lirodendron tulipifera*	27	Good	
3676	Tulip Poplar	*Lirodendron tulipifera*	29	Good	
3677	Tulip Poplar	*Lirodendron tulipifera*	28	Good	
3678	Tulip Poplar	*Lirodendron tulipifera*	31	Good	

SHADED CELLS INDICATE SPECIMEN TREE

TREE DATA (CONT'D)

Tree No.	Common Name	Botanical Name	D.B.H. (IN)	Condition	Notes
3679	Tulip Poplar	*Lirodendron tulipifera*	27	Good	
3680	Tulip Poplar	*Lirodendron tulipifera*	39	Good	Multi-stem, codominant with included bark, seam, high probability of failure
3681	Tulip Poplar	*Lirodendron tulipifera*	29	Good	
3682	Tulip Poplar	*Lirodendron tulipifera*	30	Good	
3683	Tulip Poplar	*Lirodendron tulipifera*	27.5	Good	
3684	Tulip Poplar	*Lirodendron tulipifera*	36	Good	Codominant, slight decay,
3685	Tulip Poplar	*Lirodendron tulipifera*	34	Good	
3686	Tulip Poplar	*Lirodendron tulipifera*	25	Good	
3687	Tulip Poplar	*Lirodendron tulipifera*	26	Good	
3688	Tulip Poplar	*Lirodendron tulipifera*	26	Good	At stream, opposite side
3689	Tulip Poplar	*Lirodendron tulipifera*	43	Good	
3690	Tulip Poplar	*Lirodendron tulipifera*	25	Good	
3691	Tulip Poplar	*Lirodendron tulipifera*	25	Good	Poor form
3692	Tulip Poplar	*Lirodendron tulipifera*	24	Good	
3693	Red Maple	*Acer rubrum*	28.5	Good	
3694	Red Maple	*Acer rubrum*	27	Good	Codominant
3695	Tulip Poplar	*Lirodendron tulipifera*	29	Good	
3696	Tulip Poplar	*Lirodendron tulipifera*	27	Good	
3697	Tulip Poplar	*Lirodendron tulipifera*	27	Good	
3698	Sycamore	*Platanus occidentalis*	32	Good	
3699	Sycamore	*Platanus occidentalis*	28	Good	
3700	Tulip Poplar	*Lirodendron tulipifera*	25	Good	
3801	Tulip Poplar	*Lirodendron tulipifera*	29	Good	
3802	Tulip Poplar	*Lirodendron tulipifera*	27.5	Good	
3803	Tulip Poplar	*Lirodendron tulipifera*	28	Good	
3804	Tulip Poplar	*Lirodendron tulipifera*	24	Good	
3805	Tulip Poplar	*Lirodendron tulipifera*	32	Good	
3806	Tulip Poplar	*Lirodendron tulipifera*	35	Good	
3807	Tulip Poplar	*Lirodendron tulipifera*	30	Good	
3808	Deadwood	*#N/A*	30	Poor	Standing Deadwood
3809	Red Maple	*Acer rubrum*	24	Good	
3810	Tulip Poplar	*Lirodendron tulipifera*	33	Good	
3811	Tulip Poplar	*Lirodendron tulipifera*	27.5	Good	
3812	Tulip Poplar	*Lirodendron tulipifera*	26.5	Good	
3813	Tulip Poplar	*Lirodendron tulipifera*	28	Good	
3814	Tulip Poplar	*Lirodendron tulipifera*	28.5	Good	
3815	Tulip Poplar	*Lirodendron tulipifera*	27	Fair	Large cavity, hollow
3816	Red Oak	*Quercus rubra*	37	Good	
3817	Tulip Poplar	*Lirodendron tulipifera*	27	Good	
3818	Tulip Poplar	*Lirodendron tulipifera*	31	Good	
3819	Tulip Poplar	*Lirodendron tulipifera*	24	Good	
3820	Tulip Poplar	*Lirodendron tulipifera*	24.5	Good	
3821	Tulip Poplar	*Lirodendron tulipifera*	29	Good	Codominant with included bark, seam, high probability of failure
3822	Tulip Poplar	*Lirodendron tulipifera*	31	Good	
3823	Black Cherry	*Prunus serontina*	24	Good	
3824	Tulip Poplar	*Lirodendron tulipifera*	24	Good	
3825	White oak	*Quercus alba*	44	Good	Codominant with included bark, seem, high probability of failure
3826	Red Oak	*Quercus rubra*	29	Fair	Die back in canopy, significant deadwood
3827	Red Oak	*Quercus rubra*	24	Fair	Significant guy back in canopy, significant deadwood
3828	Red Oak	*Quercus rubra*	32	Fair	Significant dieback, significant dead wooden canopy
3829	Red Oak	*Quercus rubra*	27	Fair	Significant die back in canopy, significant deadwood
3830	Tulip Poplar	*Lirodendron tulipifera*	30	Good	

SHADED CELLS INDICATE SPECIMEN TREE

TREE DATA (CONT'D)

Tree No.	Common Name	Botanical Name	D.B.H. (IN)	Condition	Notes
3831	Black Cherry	*Prunus serontina*	31	Poor	Severe dieback, mostly deadwood
3832	Tulip Poplar	*Lirodendron tulipifera*	26	Good	
3833	Tulip Poplar	*Lirodendron tulipifera*	26	Good	
3834	Red Maple	*Acer rubrum*	24	Good	
3835	White Oak	*Quercus alba*	32	Good	Codominant with included bark, seam, high probability of failure
3836	Tulip Poplar	*Lirodendron tulipifera*	37	Good	
3837	Tulip Poplar	*Lirodendron tulipifera*	24	Good	
3838	Tulip Poplar	*Lirodendron tulipifera*	33.5	Good	
3839	Red Oak	*Quercus rubra*	28	Good	
3840	Tulip Poplar	*Lirodendron tulipifera*	25	Good	
3841	Tulip Poplar	*Lirodendron tulipifera*	43	Good	
3842	Tulip Poplar	*Lirodendron tulipifera*	24	Good	
3843	Tulip Poplar	*Lirodendron tulipifera*	34	Good	
3844	Tulip Poplar	*Lirodendron tulipifera*	38	Good	
3845	Tulip Poplar	*Lirodendron tulipifera*	36	Good	
3846	Tulip Poplar	*Lirodendron tulipifera*	26	Good	
3847	Tulip Poplar	*Lirodendron tulipifera*	26	Good	
3848	Tulip Poplar	*Lirodendron tulipifera*	28	Good	
3849	Tulip Poplar	*Lirodendron tulipifera*	28	Good	
3850	Tulip Poplar	*Lirodendron tulipifera*	28.5	Good	
3851	Black Cherry	*Prunus serontina*	24	Good	
3852	Tulip Poplar	*Lirodendron tulipifera*	33	Good	
3853	Tulip Poplar	*Lirodendron tulipifera*	26	Good	
3854	Tulip Poplar	*Lirodendron tulipifera*	29	Good	
3855	Tulip Poplar	*Lirodendron tulipifera*	28	Good	
3856	Tulip Poplar	*Lirodendron tulipifera*	24	Good	
3857	Tulip Poplar	*Lirodendron tulipifera*	38	Good	
3858	Tulip Poplar	*Lirodendron tulipifera*	33	Good	
3859	Tulip Poplar	*Lirodendron tulipifera*	26	Good	
3860	Tulip Poplar	*Lirodendron tulipifera*	26	Good	
3861	Tulip Poplar	*Lirodendron tulipifera*	26	Good	
3862	Tulip Poplar	*Lirodendron tulipifera*	25	Good	
3863	Tulip Poplar	*Lirodendron tulipifera*	35	Good	
3864	Tulip Poplar	*Lirodendron tulipifera*	32	Good	
3865	Tulip Poplar	*Lirodendron tulipifera*	29	Good	
3866	Tulip Poplar	*Lirodendron tulipifera*	25	Good	
3867	Tulip Poplar	*Lirodendron tulipifera*	28	Good	
3868	Tulip Poplar	*Lirodendron tulipifera*	37	Good	
3869	Tulip Poplar	*Lirodendron tulipifera*	24	Good	
3870	Tulip Poplar	*Lirodendron tulipifera*	31.5	Good	
3871	Tulip Poplar	*Lirodendron tulipifera*	28	Good	
3872	Tulip Poplar	*Lirodendron tulipifera*	33	Good	
3873	Tulip Poplar	*Lirodendron tulipifera*	24.5	Good	
3874	Tulip Poplar	*Lirodendron tulipifera*	28	Good	
3875	Tulip Poplar	*Lirodendron tulipifera*	30	Good	
3876	Tulip Poplar	*Lirodendron tulipifera*	24.5	Good	
3877	Tulip Poplar	*Lirodendron tulipifera*	33	Good	
3878	Tulip Poplar	*Lirodendron tulipifera*	27.5	Good	
3879	Tulip Poplar	*Lirodendron tulipifera*	28	Good	
3880	Tulip Poplar	*Lirodendron tulipifera*	29	Good	
3881	Tulip Poplar	*Lirodendron tulipifera*	33	Fair	Die back in canopy, lightning struck
3882	Tulip Poplar	*Lirodendron tulipifera*	26	Good	
3883	White Oak	*Quercus alba*	35	Good	
3884	Black Oak	*Quercus velutina*	26	Good	
3885	Tulip Poplar	*Lirodendron tulipifera*	27	Good	

SHADED CELLS INDICATE SPECIMEN TREE

TREE DATA (CONT'D)

Tree No.	Common Name	Botanical Name	D.B.H. (IN)	Condition	Notes
3886	Tulip Poplar	*Lirodendron tulipifera*	24.5	Good	
3887	Tulip Poplar	*Lirodendron tulipifera*	26	Good	
3888	Red oak	*Quercus rubra*	29.5	poor	Severe dieback, decay, crown thinning, severe decline
3889	Tulip Poplar	*Lirodendron tulipifera*	24.51	fair	Cavity, hollow
3890	Tulip Poplar	*Lirodendron tulipifera*	25	Good	
3891	Tulip Poplar	*Lirodendron tulipifera*	37	Good	
3892	Tulip Poplar	*Lirodendron tulipifera*	32	Good	
3893	Pignut Hickory	*Carya glabra*	24	Good	
3894	Pignut Hickory	*Carya glabra*	24	Good	Codominant with included bark, seem, high probability of failure
3895	Red Maple	*Acer rubrum*	31	Good	Multi-stem, seems, high probability failure, in wetland
3896	Red Maple	*Acer rubrum*	33	Good	Twin, co-dominant with included bark
3897	Red Maple	*Acer rubrum*	32	Good	Not tagged

SHADED CELLS INDICATE SPECIMEN TREE

LEGEND

EXISTING FEATURES
- Ex. Two- And Ten-foot Contours
- Ex. Spot Elevation
- Ex. Chain Link or Wire Fence
- Ex. 100-ft Limits of NRI-FSD
- Ex. Limits of Topographic Survey
- Ex. Stream Valley Buffer
- Ex. Forest Area
- Ex. Forest Sample Point
- Ex. Soil Line with Soil Types
- Ex. Steep Slopes (> 25%)
- Ex. Erodible Soil Slopes (> 15%)
- Ex. Tree Line
- Ex. Edge of Stream / Centerline of Stream
- Ex. Significant Tree w/ Tree Tag Number
- Ex. Specimen Tree w/ Tree Tag Number
- Ex. Tree with C.R.Z.
- Ex. Buffer Width w/ Calculated Slope Based on Steepest 100-foot Horizontal Run within 200-feet of Streambank
- Ex. Forest Area To Be Removed

PROPOSED FEATURES
- Limit Of Disturbance (L.O.D.)
- Prop. Water-House Connection
- Prop. Septic Area, With Primary Trench, Reserve Trench and Trench Lengths
- Prop. Electric-House Connection
- Prop. Contour with Elevation
- Prop. Spot Elevation
- Prop. 4" PVC Drain Pipe
- Prop. Surface Flow Direction
- Prop. Pipe Flow Direction
- Combined Tree Protection Fence and Root Pruning Trench
- Dry Well with Perforated Pipe Layout, Downspout Leader, Pipe Flow Direction, and Pipe Invert Elevation
- Prop. Micro-Infiltration Trench
- Prop. M-NCP&PC Mitigation Tree

OWNER/APPLICANT
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13635 Darnestown Road Parcel 606, Rich Meadows Proposed Lot A Combination Concept / Site Development SWM Plan Revision MCDPS No. 289966

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N
0 15 30 40 50 60
SCALE: 1 INCH = 30 FEET

SHEET TITLE:
Combination Concept / Site Development SWM Plan Revision

APPROVED
Department of Permitting Services
Permit # 289966/SITE-289966
Date 09/29/24

CAS JOB NO.: 21-297
DATE: 08/2024

DATE	REVISION
09/14/23	JSC -Stormwater Management Concept Plan Initial Submittal
08/29/24	JSC -Stormwater Management Concept Plan Revision Initial Submittal

STATE OF MARYLAND — JARED MICHAEL CARHART — No. 51012 — PROFESSIONAL ENGINEER

JARED M. CARHART, P.E.
08/29/2024

PROFESSIONAL ENGINEER CERTIFICATION:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 51012, expiration date 06/07/2025; and that this plan meets MCDPS criteria for building and sediment control permit applications.

CAS ENGINEERING DRAINAGE NOTES

1. All storm drain pipe to be Schedule 40 PVC or of higher quality.
2. Downspout leaders originating directly from downspouts to be 4" diameter PVC, unless noted otherwise.
3. Maintain minimum 12" cover over all pipe. Pipe slopes to be 2% minimum.
4. All areaway and window well drains to sump pump - by plumber - unless noted otherwise.
5. Sump pump discharge to be located so as to avoid impact to the neighboring properties and to avoid recirculation of water.
6. The permittee shall install a splash block at the bottom of each downspout.
7. Maintenance of gutters, downspouts, leaf filters, inlets, drain pipes, drainage swales, drywells and other drainage related items should be performed as needed, but at least twice per year.
8. Drainage swales and drainage patterns shall not be impeded with trees, landscaping, fences, etc.
9. Window wells shall have a minimum freeboard of 6 inches and should be kept free of leaves and debris.
10. Ground cover (sod, seed, etc.) shall be selected based on soil conditions, drainage, sun exposure, final grade slopes, etc. per M.D.E. specifications.
11. Multi-Flow™ or equivalent drainage systems are recommended in lawn areas with a 3% slope or less.
12. Gutters and downspouts to be installed early as possible, subject to availability of materials and labor.
13. Sediment control devices must be inspected daily and with extra care before storm events. On disturbed sites they should be monitored during storm events.
14. Areas where construction is complete, such as side and rear yards, should be permanently stabilized as early as possible and in conformance with M.D.E. specifications.
15. Sump pumps serving driveways, patios, areaways, and other large open impervious surfaces must be sized for a 100-year storm event.

ESD COMPUTATIONS - 13635 Darnestown Road (HYDROLOGIC SOIL GROUP B)

TOTAL LOT AREA FOR P_I DETERMINATION	TOTAL LOT IMPERVIOUS AREA FOR P_I DETERMINATION	LOT IMPERVIOUS AREA PERCENTAGE (I) FOR P_I DETERMINATION	P_I = RAINFALL TARGET (INCHES) APPLY IMPERVIOUS COVER PERCENTAGE TO TABLE 5.3
660,805 SF	9,201 SF	1.39 %	1.0 IN
TOTAL L.O.D. AREA FOR R_v & ESD, DETERMINATION	**TOTAL IMPERVIOUS AREA WITHIN L.O.D. FOR R_v DETERMINATION**	L.O.D. IMPERVIOUS AREA PERCENTAGE (I) FOR R_v DETERMINATION	R_v = RUNOFF VOLUME 0.05 + 0.009(I) (I = Impervious Percentage)
30,500 SF	6,113 SF	20.05%	0.23
DETERMINE ESD $_v$ REQUIRED BASED ON THE L.O.D. (LIMIT OF DISTURBANCE)	TARGET ESD$_v$ = (PE) x (RR) x (A) / 12 **TARGET ESD$_v$ = 1 (PE) x 0.23 (Rv) x 30500 (Area) / 12** **TOTAL SITE ESD VOLUME REQUIRED: 584.6 CF**		

PER SECTION 5.2.3, THE SIZE OF ANY PRACTICE IS LIMITED TO THE RUNOFF FROM THE 1-YEAR 24-HOUR STORM

(Q_v) VOLUME = (Area) x 2.6 in (Pe Max) x (R_v) / 12

VOLUME PROVIDED VIA ESD DEVICE NOT EXCEED THE Q_v MAXIMUM (1-YEAR STORM)

DRYWELL STRUCTURE	IMPERVIOUS AREA NUMBERS	DRAINAGE AREA (SQ. FT.)	MINIMUM REQUIRED ESD, P_E = 1.0 IN (CUBIC FEET)	DRY WELL DIMENSIONS (FEET)	DRY WELL SURFACE AREA (SQUARE FEET)	TOTAL DRY WELL VOLUME (CUBIC FEET)	Q_v MAXIMUM VOLUME CHECK (1-YEAR STORM: 2.6 IN)	DRY WELL VOLUME PROVIDED (CUBIC FEET)
	DATA BELOW ROUNDED TO 1 DECIMAL PLACE; R_V FOR DRYWELLS IS 0.95 (100% IMPERVIOUS ROOF AREA)							
A ROOF	6	168 SF	ESDv = 712 (A) x 1.0 (Pe Min) x 0.95 (Rv) / 12 = ESDv Min = 56.4 CF	**9.75 (LENGTH) 7.5 (WIDTH) 5.0 (DEPTH)**	A = 9.75 (L) x 7.5 (W) = A = 73.1 SF	V = 73.1 (A) x 5 (D) x 0.4 = V = 146.2 CF	ESDv = 712 (A) x 2.6 (Pe Max) x 0.95 (Rv) / 12 = ESDv Max = 146.6 CF	**146.2 CF**
	7	304 SF						
	8	240 SF						
	TOTAL	**712 SF**						
B ROOF	5	168 SF	ESDv = 848 (A) x 1.0 (Pe Min) x 0.95 (Rv) / 12 = ESDv Min = 67.1 CF	**10.25 (LENGTH) 8.5 (WIDTH) 5.0 (DEPTH)**	A = 10.25 (L) x 8.5 (W) = A = 87.1 SF	V = 87.1 (A) x 5 (D) x 0.4 = V = 174.2 CF	ESDv = 848 (A) x 2.6 (Pe Max) x 0.95 (Rv) / 12 = ESDv Max = 174.5 CF	**174.2 CF**
	9	140 SF						
	10	140 SF						
	12	400 SF						
	TOTAL	**848 SF**						

MICRO-INFILTRATION TRENCH (M.I.T.)	IMPERVIOUS AREA NUMBERS	DRAINAGE AREA (SQ. FT.)	MINIMUM REQUIRED ESD, P_E = 1.0 IN (CUBIC FEET)	MICRO-INFILTRATION TRENCH DIMENSIONS (FEET)	MICRO-INFILTRATION TRENCH SURFACE AREA (SQUARE FEET)	MICRO-INFILTRATION TRENCH VOLUME (CUBIC FEET)	Q_v MAXIMUM VOLUME CHECK (1-YEAR STORM: 2.6 IN)	MICRO-INFILTRATION TRENCH VOLUME (CUBIC FEET)
C DRIVEWAY	3	680 SF	ESDv = 680 (A) x 1.0 (Pe min) x 0.95 (Rv) / 12 = ESDv Min = 53.8 CF	20.0 (LENGTH) 2.1 (WIDTH) 5.0 (DEPTH)	A = 20 (L) x 2.1 (W) = A = 42.0 SF	V = 42 (A) x 5 (D) x 0.4 = V = 84 CF	ESDv = 680(A) x 2.6 (Pe max) x 0.95 (Rv) / 12 = ESDv Max = 140.0 CF	**84. CF**
	TOTAL	**680 SF**						

AREAS NOT TREATED			
	1	3,086 SF	**DRIVEWAY (NOT WITHIN LOD0** - NOT TREATED BY THIS PLAN.
	2	1,265 SF	**DRIVEWAY (WITHIN LOD)** - NOT TREATED BY THIS PLAN.
	4	220 SF	**DRIVEWAY (WITHIN LOD)** - NOT TREATED BY THIS PLAN.
	11	301 SF	**PATIO** - NOT TREATED BY THIS PLAN.
	13	203 SF	**WALK** - NOT TREATED BY THIS PLAN.
	14	1,836 SF	**POOL & PATIO** - NOT TREATED BY THIS PLAN.
	TOTAL	**6,961 SF**	

TOTAL SITE IMPERVIOUS AREA	**9,201 SF**
IMPERVIOUS AREA IN RIGHT-OF-WAY	**0.0 SF**

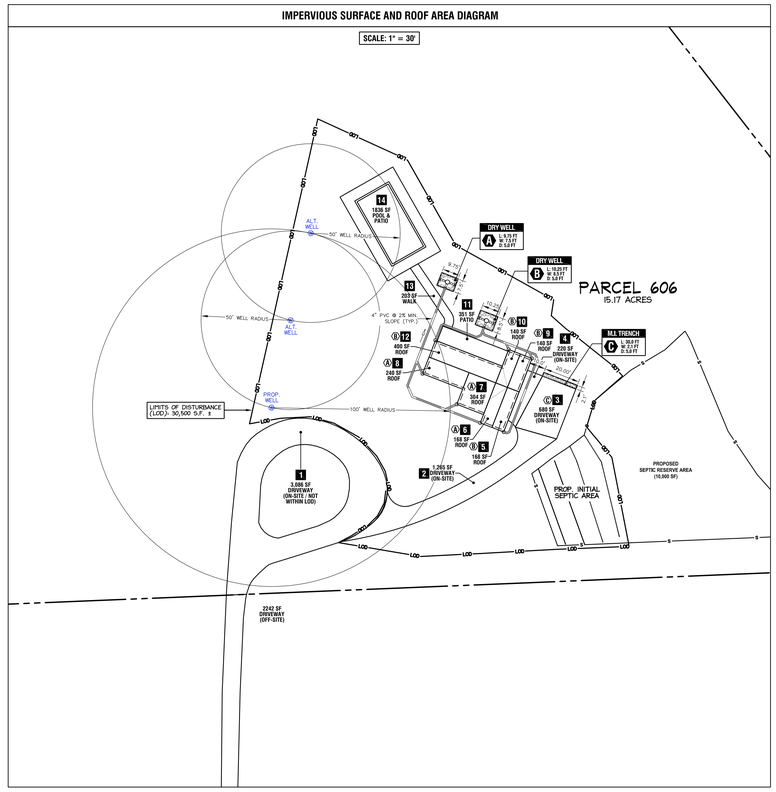
	ESDV PROVIDED VIA DRY WELLS		ESDV PROVIDED VIA DISCONNECTS	ESDV PROVIDED VIA MICRO-INFILTRATION TRENCH	ESDV PROVIDED VIA LANDSCAPE INFILTRATION	ESDV PROVIDED VIA PERMEABLE PAVEMENTS
TOTAL ESD$_v$ PROVIDED	520.4 CF		0.0 CF	84.0 CF	0.0 CF	0.0 CF
IS ESD$_v$ ADEQUATE	**604.4 CF**	>	584.6 CF	**ESD TO THE MEP, FULL ESD PROVIDED**		
IS P_I ADEQUATE	**1.03 IN**	>	1.00 IN			

DRYWELL SCHEDULE - 13635 Darnestown Road

DRYWELL STRUCTURE	FINISHED GRADE (LOW SIDE)	FINISHED GRADE (HIGH SIDE)	ELEVATION AT TOP OF GRAVEL (1-3 cover)	COVER DEPTH OVER DRY WELL ON HIGH SIDE (2 MAX.)	PIPE INVERT IN FROM DOWNSPOUTS	TOTAL DEPTH OF GRAVEL (4 max. depth)	ELEVATION AT BOTTOM OF GRAVEL	TOTAL DEPTH OF SAND	ELEVATION AT BOTTOM OF SAND	TOTAL DEPTH OF DRYWELL (gravel + sand, 5 max. depth)	TOTAL DEPTH OF DRYWELL FROM GRADE (8' max. depth)	RECOMMENDED OVERFLOW
A	346.5	348.0	345.0	3.0	344.0	4.0 ft	341.0	1.0 ft	340.0	5.0 ft	8.0 ft	POP-UP EMITTER AT DRY WELL CLEANOUTS AND A SURCHARGE PIPE AT EACH DOWNSPOUT
B	350.0	351.5	348.5	3.0	347.5	4.0 ft	344.5	1.0 ft	343.5	5.0 ft	8.0 ft	

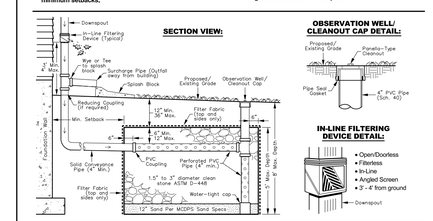
IMPERVIOUS SURFACE AND ROOF AREA DIAGRAM

SCALE: 1" = 30'



GENERAL NOTES:

1. **Dry wells may receive water from roof downspouts only.**
2. **Length, width, and depth of each dry well is to be as specified by the design engineer on the approved plan.**
3. **Manufactured sand is not acceptable. Refer to the MCDPS Sand Specifications.**
4. **With the inspector's approval, dry well locations may be field adjusted for site conditions. All adjustments must meet the minimum setbacks.**
5. **Impermeable liners may be used when specified by the design engineer and shown on the plan.**
6. **Overflow pipes may be used when specified by the design engineer and shown on the plan. They shall be set at a minimum 2% slope. If the outfall is to daylight the outfall invert shall be shown.**
7. **Pop-up emitters may be used when specified by the design engineer and shown on the plan.**



LAYOUT GUIDANCE:

- Downspouts shall be shown on the plan view.
- Conveyance pipe(s) from the downspout(s) to the dry well shall be shown on the plan view, including connections from other downspouts. Standard, readily-available bends shall be used at couplings.
- When possible there should be only one conveyance pipe entering the dry well. It should be centered and should enter at 90 degrees.
- The interior 6" PVC perforated pipe shall be designed and shown on the plan to maximize distribution within the dry well.
- When a dry well's length is greater than its width, consider locating the perforated pipe along the longest dimension.
- The observation well with cleanout cap shall be shown on the plan view.

MINIMUM SETBACKS:

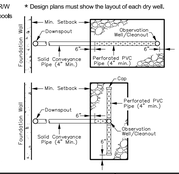
- 5 feet from property lines, Zero from RW
- 10 feet from slab-on-grade buildings/pools
- 15 feet from buried foundations
- 15 feet from another dry well
- 30 feet from septic trench or tank
- 100 feet from primary well location or open loop geothermal well
- 50 feet from alternate well location or closed loop geothermal well
- So as to avoid basement seepage
- In accordance with other county requirements

PERFORATED PVC PIPE:

- Schedule 40 PVC
- 3/8 Inch holes
- 4" on center
- 90° around pipe

EXAMPLE LAYOUTS * - PLAN VIEW:

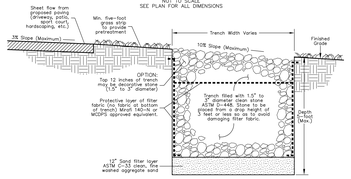
* Design plans must show the layout of each dry well.



MONTGOMERY COUNTY DEPARTMENT OF PERMITTING SERVICES **WATER RESOURCES SECTION**	DRY WELL FOR ROOF RUNOFF DETAIL	**DATE:** SEPTEMBER 2021 **SCALE:** NONE

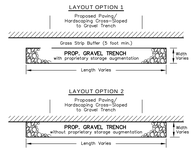
SECTION VIEW

NOT TO SCALE
SEE PLAN FOR ALL DIMENSIONS



PLAN VIEW

NOT TO SCALE, SEE PLAN FOR ALL DIMENSIONS



NOTES:

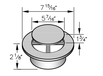
- Manufactured sand is not acceptable in trenches.
- Trenches must be located:
  - 5 ft min. from property lines
  - 10 ft min. from slab on/grade buildings
  - 20 ft min. from building foundation
  - 15 ft min. from another dry well
  - 30 ft min. from septic trench or tank
  - 50 ft min. from alternate well location
  - 100 ft min. from primary well location
  - so as to minimize any basement seepage
- All dimensions are to be specified by design engineer.
- Trench locations may be field-adjusted based upon site conditions, with inspector's approval.
- Trenches must be located in undisturbed soil (not in fill).
- Trenches may not be combined or eliminated without MCDPS approval.

MONTGOMERY COUNTY DEPARTMENT OF PERMITTING SERVICES **WATER RESOURCES DIVISION**	MICRO INFILTRATION TRENCH	**DATE:** AUGUST 2012 **SCALE:** NONE

OBSERVATION WELL WITH REMOVABLE 6" POP-UP DRAINAGE EMITTER

NDS® 6" POP-UP DRAINAGE EMITTER

PART NO.	DESCRIPTION	COLOR	WT. EA. (LBS)	PRODUCT CLASS	SPECIFICATIONS
620	6" Pop-Up Emitter (Removable, not glued)	Green	0.61	10ND	NDS #620, 6" Polyolefin Drainage Pop-Up Drainage Emitter, Center Spring Loaded Drive Pop-Up with UV inhibitor. 100 G.P.M.



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0" 0.5" 1.0" 1.5" 2.0"
NOT TO SCALE OR AS NOTED

SHEET TITLE:
Combination Concept / Site Development SWM Plan Revision

4 OF 4

OWNER/APPLICANT

Kent Murphy
1800 Wilson Boulevard, Unit 449
Arlington, VA 22201
(540) 558-8596 Phone
kentmurphyemail@gmail.com

13635 Darnestown Road
Parcel 606, Rich Meadows
Combination Concept / Site Development SWM Plan Revision
MCDPS No. 289966

13635 Darnestown Road Darnestown, Maryland 20878
MNCPPC No. F620240060

Parcel 606, Rich Meadows
Book 63849, Page 66, Recorded 06/2021
Darnestown (6th) Election District, Montgomery County, MD

DEPARTMENT OF PERMITTING SERVICES

Marc Elrich
County Executive

Rabbiah Sabbakhan
Director

MEMORANDUM

October 25, 2024

TO: Jeffrey Server
Development Review
Maryland National Capital Park and Planning Commission

FROM: Megan Wilhelm
Well and Septic Section
Department of Permitting Services

SUBJECT: Status of Administrative Subdivision, Rich Meadows, parcel 606:

Rich Meadows
13635 Darnestown Road
Darnestown, MD 20878
Preliminary Plan #620240010

This is to notify you that the Well & Septic Section of MCDPS approved the final well and septic plan (#293063) received in this office on May 15, 2024.

Approved with the following reservations:

1. The record plat must show the septic reserve area as it is shown on this plan with the 20 ft SBRL.
2. The septic reserve area is approved for a maximum of five bedrooms.
3. The septic field building restriction line is subject to change upon reapproval by the MCDPS Well and Septic section.
4. Forest conservation easements established after this approval must meet all minimum well and septic setback requirements:
   a. 5 feet from all septic areas
   b. 10 feet from all well sites
5. Stream Valley Buffers established after this approval, must not encroach within the septic area boundaries. Sewage disposal areas require a separation distance of 100 feet from all streams.

If you have any questions, please contact Megan Wilhelm at (240) 777-6271.

From: Steve Boukedes and Caroline Owen (Adjacent Lot 40)
15605 Indian Run Ct.
Darnestown, MD 20878

To: Intake and Regulatory Coordination Division (IRC)
M-NCPPC
2425 Reedie Drive
Wheaton, MD 20902

Subject: Questions on Development Plan Number 620240010 - Rich Meadows, Parcel 606

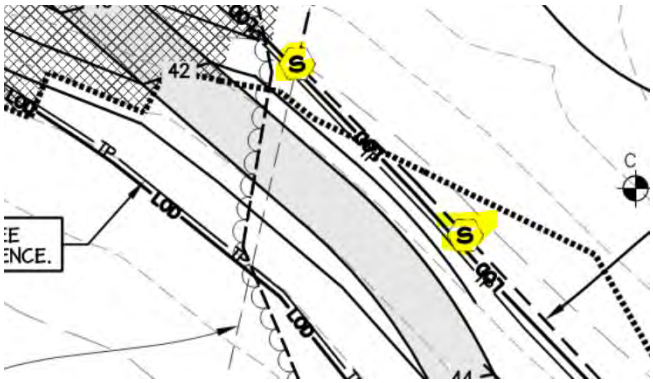
Hello,

We received a letter dated 10/24/2023 informing us of the proposed development on the adjacent lot, and after checking online for a week, we still do not see a lead reviewer assigned to this plan. We are writing to hopefully get more information about this proposal- specifically, items that are documented on Administrative Subdivision Plan AP-6:

1. What do the Hexagon-S symbols represent?

   Based on past plans submitted by this engineering firm, I believe the hexagons with the S inside are proposed Forest Conservation Easement (forest to be protected) signs. I don't see it in the legend, so I will ask them to add it.

   The typical sign is a 4"x4" post and sign like this:

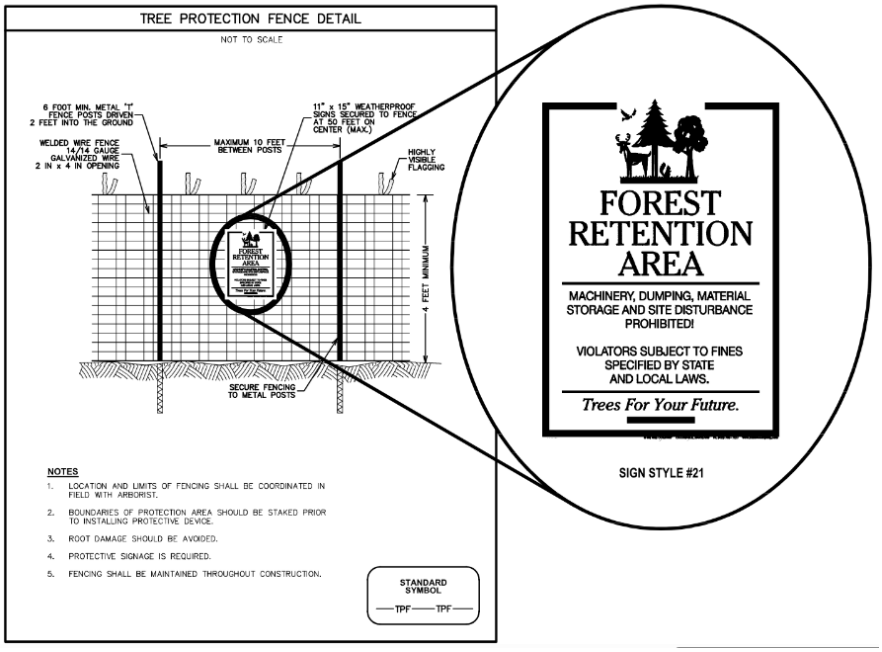


2. What is the purpose of the very large Accessory Structure?

   That information isn't really part of my review, but the engineer said they intend on using it for vehicle/equipment storage. The structure does appear to be larger than what is permitted in the Zoning Ordinance. The Montgomery County Department of Permitting Services, zoning Section, will be reviewing the application and they will provide feedback regarding the size of the building.

3. Is the tree protection fence temporary? If not, can you describe the style and height?

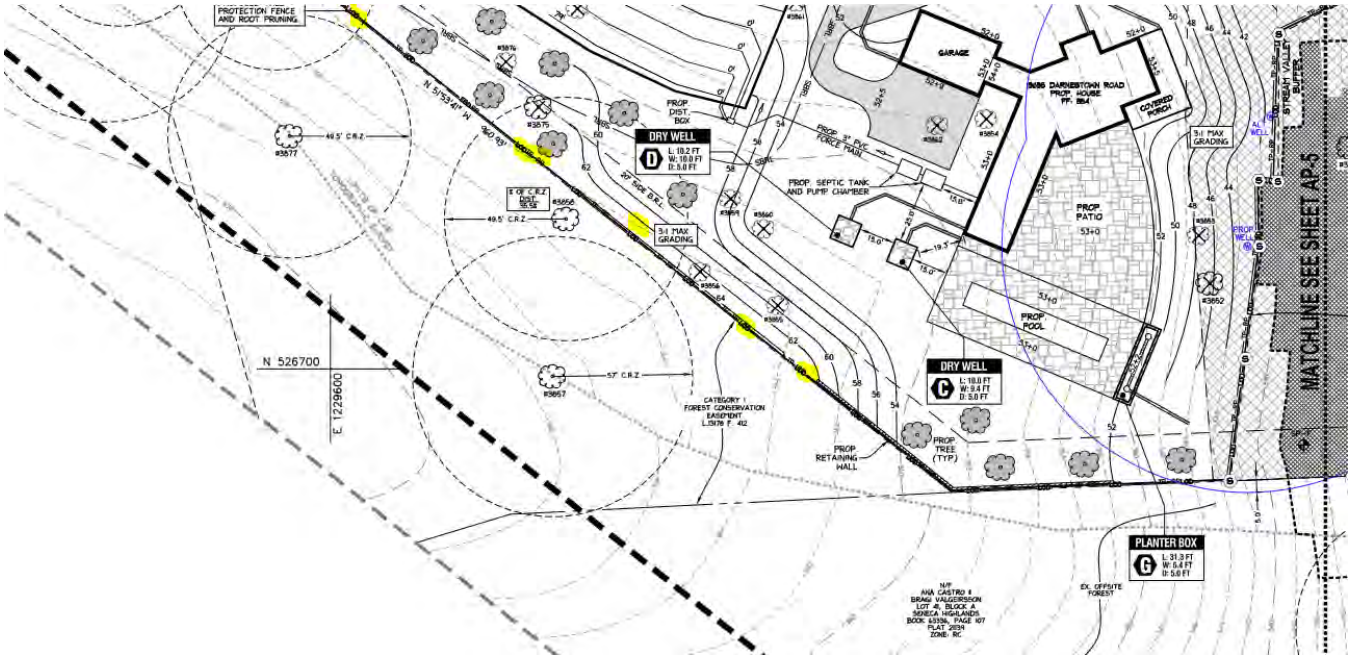
   The tree protection fencing (TPF) is a temporary measure that helps protect existing trees from damage during the construction process. The TPF will be removed once construction is complete. The Forest Conservation Easement signs (above) are permanent.

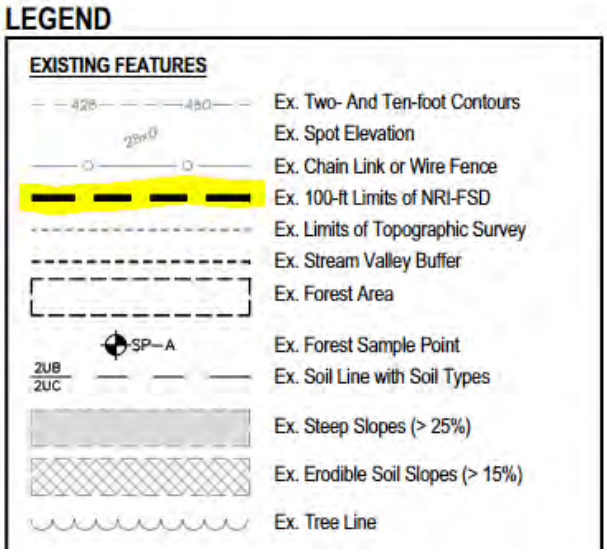


4. What is the purpose of the dashed line labeled **Limits of NRF-FSD Plan**? Since this extends into our lot we expect that there would be zero incursion/disturbance of this area but could you please clarify?

The limits of the NRI-FSD (100 feet from the property line) are distinctly different than the Limits-of-disturbance (LOD) identified in yellow on the plan below. The NRI-FSD limit (highlighted in the legend) is the area they need to look at to identify environmental features, including significant trees, streams, etc. The inventory area does extend outside of the subject property, in order to assess impacts to the off-site trees etc. All land disturbance will occur inside the LOD.

Screenshots from Sheet AP-6





I am happy to communicate via email at boukemail@gmail.com.

Thank you,

Steve Boukedes and Caroline Owen