



# Exception Review Committee Public Hearing

#WAIV-2023-00514

&

Water Quality Impact Assessment (WQIA) #009820-WQ-003-1

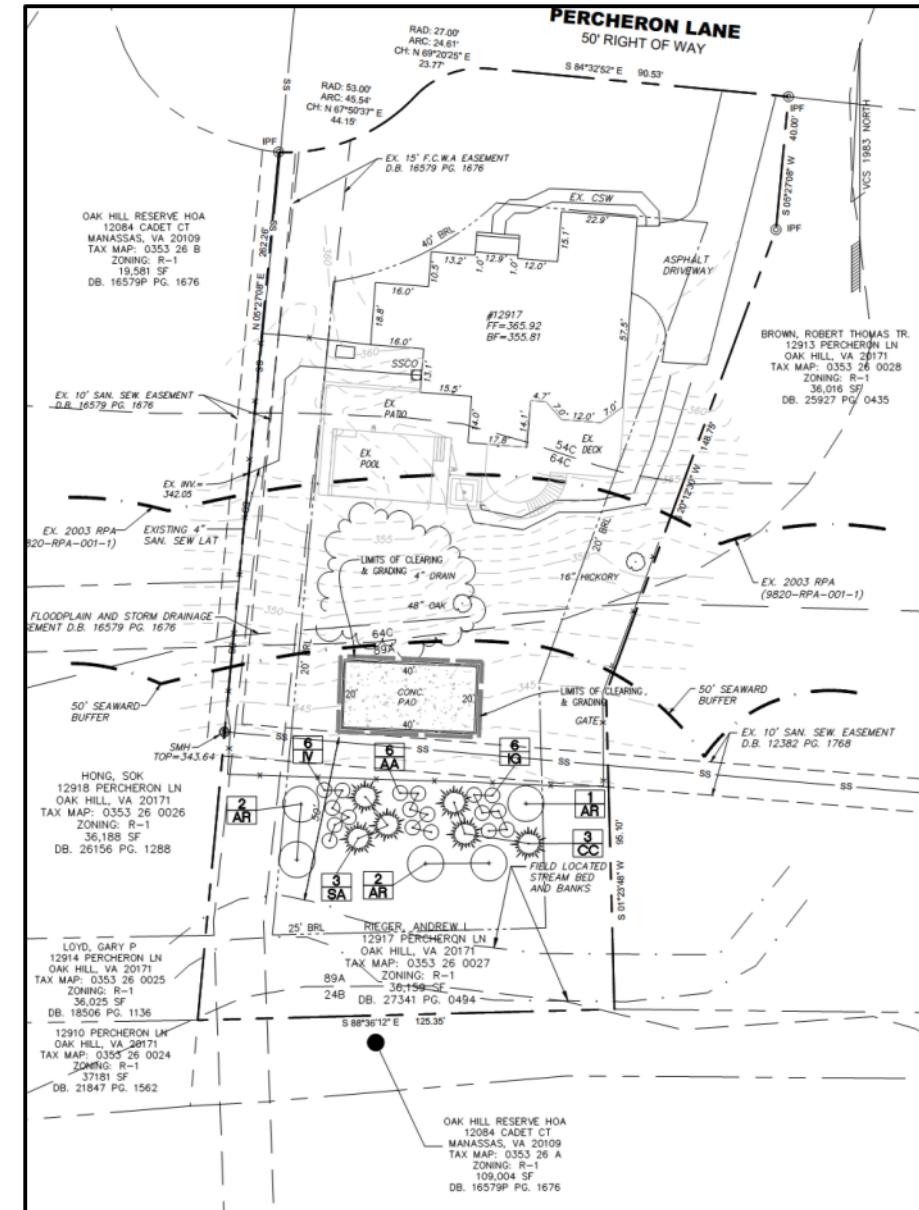
12917 Percheron Lane,  
Herndon, Virginia

Yosif Ibrahim, PE., Senior Engineer III

March 6th, 2024

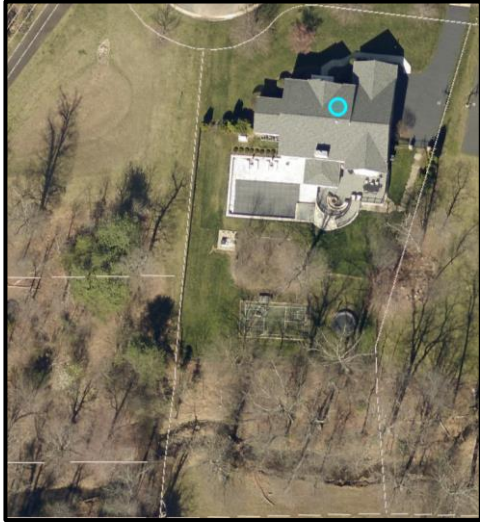
# Staff - Summary of the issues

- The applicant installed a sport court in the resource protection area (RPA).
- The applicant wishes to keep the sport court (40 ft x 20 ft = 800 square feet) on their property.
- The application is submitted under 118-6-9.



# Staff – History Aerial Images

2023



2022



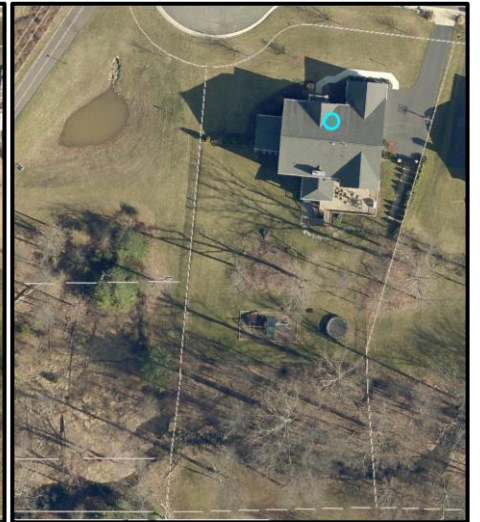
2019



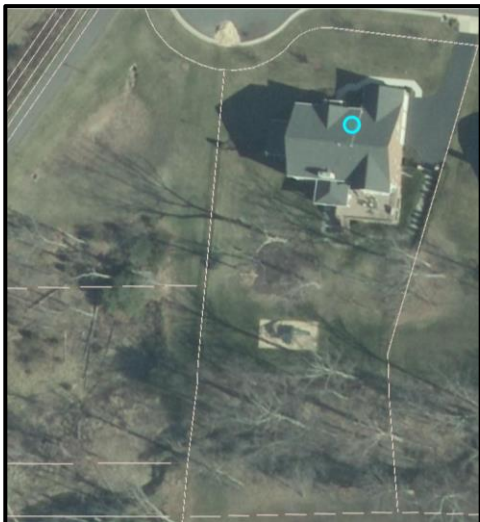
2017



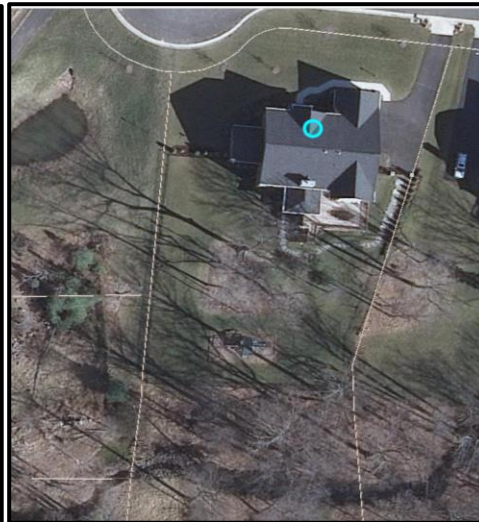
2015



2013



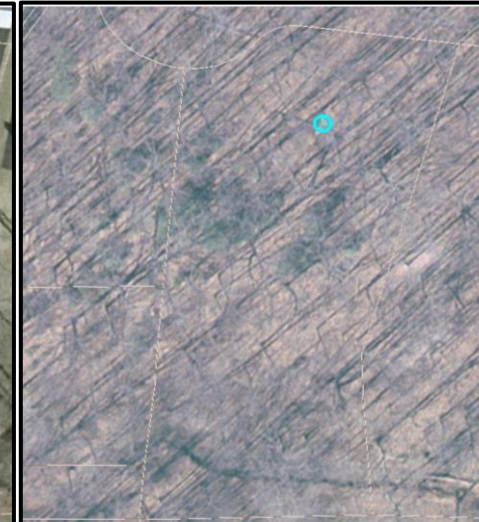
2009



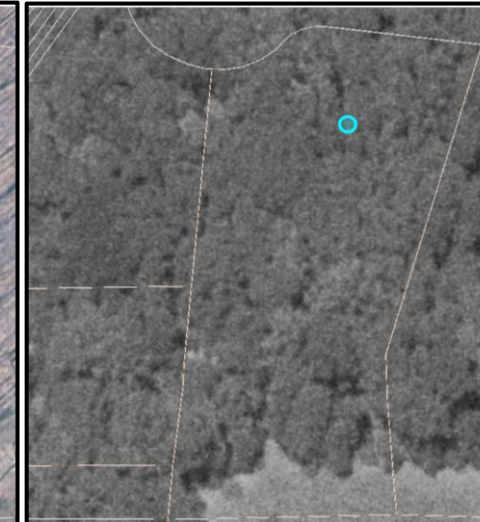
2007



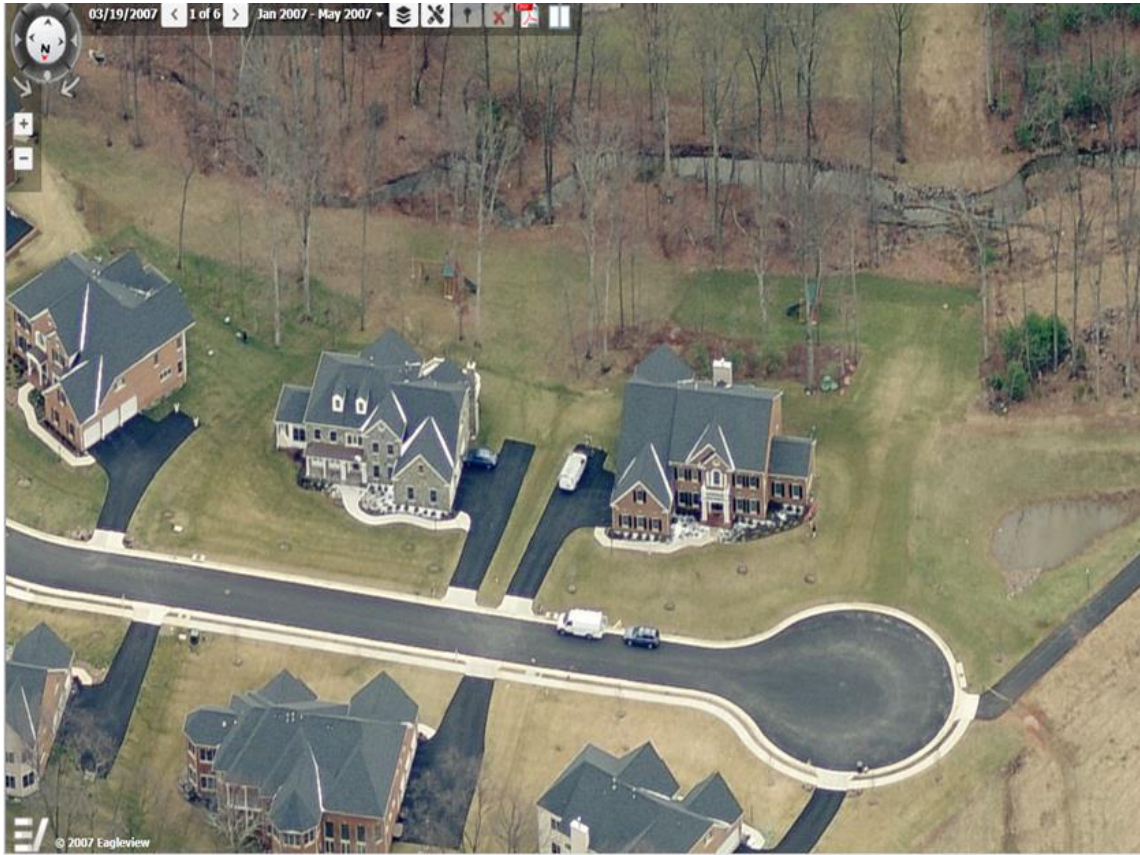
1997



1980

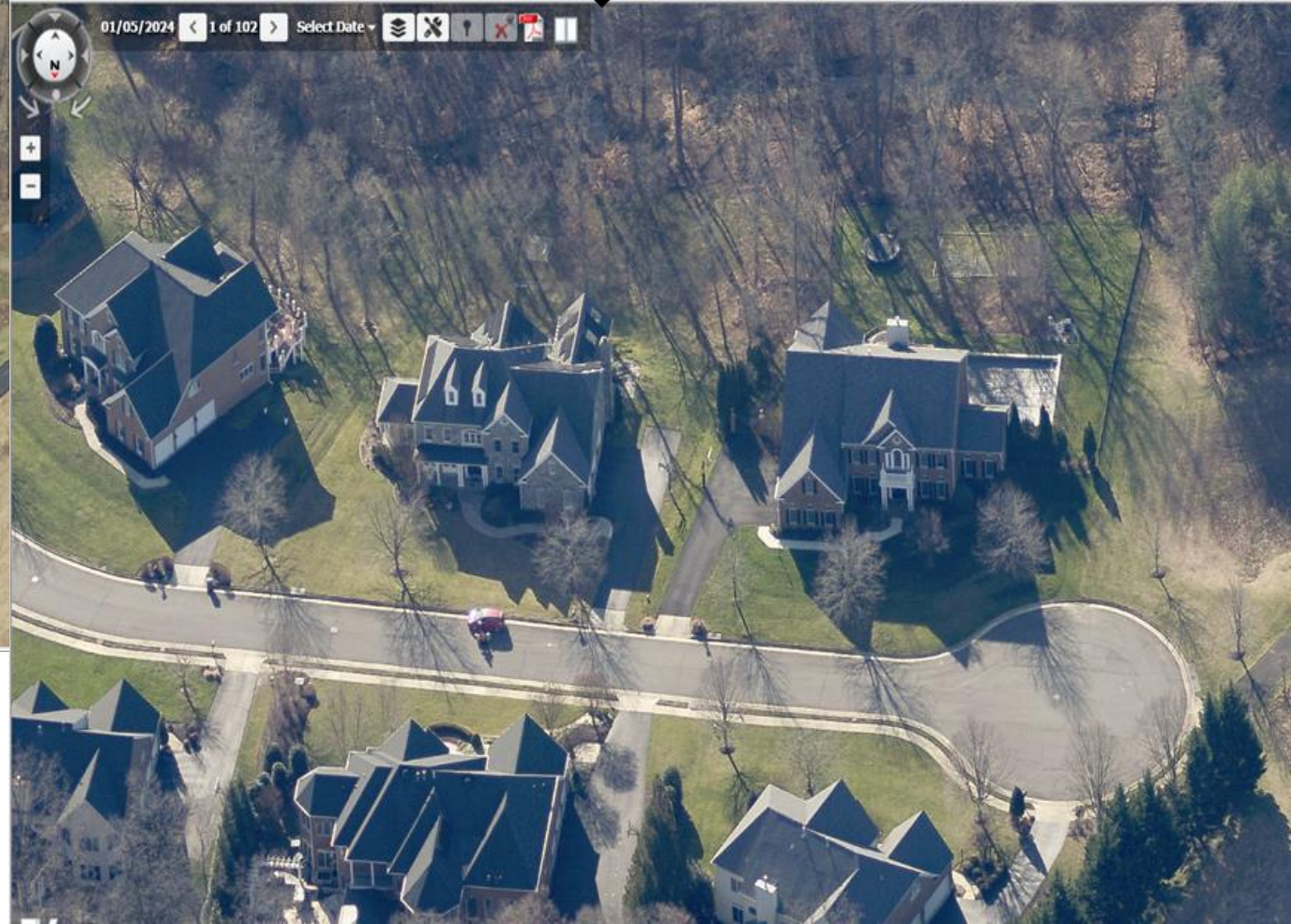


# Changes in Land Use from 2007 to 2024



**Year 2007: Before  
Purchase of Property**

**Year 2024**



# Staff – History and Timeline

<b>11/18/2003</b>	<b>RPA designated on the lot</b>
<b>11/20/2003</b>	<b>RPA Delineation Study (9820-RPA-001-1 ) as part of the subdivision Plan</b>
<b>06/17/2004</b>	<b>Final Approval of Subdivision Plan for Thompson Rd Property (9820-SD-002-2 )</b>
<b>10/07/2004</b>	<b>Final Lot Recordation (9820-RP-001-1) Deed #16579; Page # 1676</b>
<b>2005</b>	<b>House Constructed</b>
<b>08/03/2010</b>	<b>Rieger's purchased the property : Deed # 21168; Page # 1311</b>
<b>02/10/2022</b>	<b>Notice of Violation issued Case #202200244</b>
<b>10/22/2023</b>	<b>Water Quality Impact Assessment deemed complete: 009820-WQ-003-1</b>
<b>01/04/2024</b>	<b>Exception request accepted for public hearing: WAIV-2023-00514</b>

# Applicant Statement in Support

➤ **5 minutes**

## Statement – other interested parties

- **Supporting Statements**
- **Opposing Statements**

3 minutes each

# Position of the Director (Staff) Section 118-6-6. Required Findings

(a) *The requested exception to the criteria is the minimum necessary to afford relief;*

**Focus (DCR Guidance): Size & Placement of structure in relation to size, layout and location of the lot → Alternative location**

## Findings:

- Due to Zoning restriction → Not possible to place the sport court in the front yard;
- Sport court occupies same location of the swing court installed by previous owner.
- Back yard terrain is sloping towards the creek → can not be pushed outside the RPA.

The requested Exception meet this required finding.



Back Yard Steep Slopes towards the Creek



Sport Court Occupies same location and dimension of the swing set



# Position of the Director (Staff) Section 118-6-6. Required Findings (Continue)

*(b) Granting the exception will not confer upon the applicant any special privileges that are denied by this part to other property owners who are subject to its provisions and who are similarly situated;*

**Focus (DCR Guidance): Exception would not give the applicant something that has been denied to others → Equity, fairness**

## Findings:

- Total 36 cases by ERC → 29 Approved and 7 denied
- 4 cases found to be of similar nature involving existing accessory structures requested to remain
- 3 out of 4 cases were approved . Each decision being contingent upon the specific details and circumstances

**Granting approval in the current case would not results in the applicant receiving preferential treatment over others**

Comparison with Previous Cases that are Similarly Situated

Street Address	WRPA	Code	Description	Requested Imprevious Area within RPA	Decision	Date
12209 Throughbred Road	423-WRPA-001-2	118-6-8	Existing accessory structure to remain in RPA	1896	Approved	4-Apr-12
7815 Antiopi Street	25148-WRPA-001-2	118-6-8(a)	Existing shed accessory structure to remain in RPA	506	Approved	1-Jul-09
6630 Holland Street	129-WRPA-005-1	118-6-9	To allow an unpermitted patio and grill to remain	986	Approved	7-Apr-21
1008 Springvale Rd	7996-WRPA-002-1	118-6-9	To allow a portion of sport court to remain within the RPA	560	Denied	7-Jun-23
12917 Percheron Lane	WAIV-2023-00514	118-6-9	To allow a sport court to remain in the RPA	800	TBD	6-Mar-24

# Position of the Director (Staff) Section 118-6-6. Required Findings (continue)

(c) The exception is in harmony with the purpose and intent of this Chapter and is not of substantial detriment to water quality;

**Focus (DCR Guidance): Protection of the Water Quality and the WQIA is the tool to determine that**

- Applicant Propose 1200 SF of Vegetative Buffer=1.5 x Required (800 Sf).
- UFM Review → Proposed planting should be moved out of undisturbed wooded area to outer part of the RPA

### PLANTING NOTES:

FOR AREAS DISTURBED WITHIN THE RESOURCE PROTECTED AREA (RPA), THE AMOUNT OF VEGETATION SHALL AS STATED BELOW IN ACCORDANCE WITH THE PUBLIC FACILITY MANUAL SECTION 12-0316, TABLE 12.13B "PLANTING DENSITY PER ACRE FOR RPA ESTABLISHMENT OR RESTORATION".

PLANT SPECIES SHALL CONFORM WITH THE FAIRFAX COUNTY PUBLIC FACILITIES MANUAL PLANT LISTS.

PLANTINGS PER ACRE (43,560 SF):

- 164 OVERSTORY TREES AT 3/4" CALIPER
- 218 UNDERSTORY TREES AT 3/4" CALIPER
- 654 SHRUBS AT 12"-24" TALL
- 30 POUNDS PERENNIAL HERBACEOUS SEED MIX
- 60 POUNDS ANNUAL HERBACEOUS COVER CROP SEED MIX

REQUIRED PLANTING WITHIN RESOURCE PROTECTED AREA

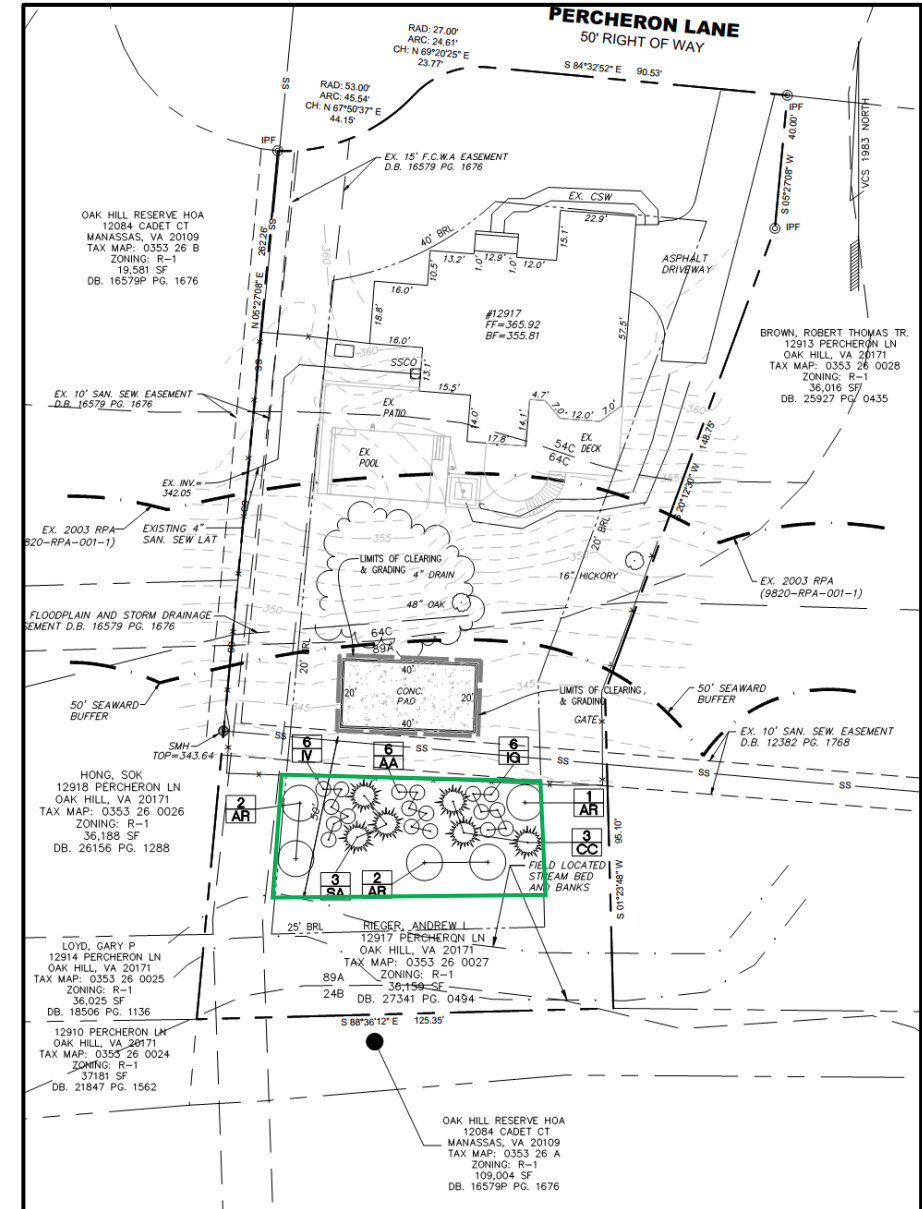
RPA DISTURBANCE

DISTURBED AREA WITHIN BUFFER = 800 SF

TYPE OF PLANTING	REQUIRED	PROVIDED
OVERSTORY TREE	3 TREES	5 TREES
UNDERSTORY TREE	4 TREES	6 TREES
SHRUBS	12 SHRUBS	18 SHRUBS
HERBACEOUS SEED MIX	0.6 LBS	0.9 LBS
ANNUAL HERBACEOUS COVER CROP SEED MIX	1.1 LBS	1.7 LBS

\* PROVIDING 1.5x REQUIRED PLANTINGS

PLANT SCHEDULE - RPA AREA							10-YR Canopy	Total Canopy
KEY	BOTANICAL NAME	COMMON NAME	QTY	Stock Size	Stock Type			
<b>OVERSTORY TREES</b>								
AR	Acer rubrum	Red Maple	5	3/4" Cal.	Cont.	150 S.F.	750 S.F.	
<b>UNDERSTORY TREES</b>								
CC	Cercis canadensis	Eastern Redbud	3	3/4" Cal.	Cont.	75 S.F.	225 S.F.	
SA	Sassafras albidum	Sassafras	3	3/4" Cal.	Cont.	75 S.F.	225 S.F.	
<b>SHRUBS</b>								
IV	Ilex verticillata	Winterberry Holly	6	18-24"	B&B	0 S.F.	0 S.F.	
AA	Aronia arbutifolia	Red Chokeberry	6	18-24"	B&B	0 S.F.	0 S.F.	
IG	Ilex glabra	Inkberry Holly	6	18-24"	B&B	0 S.F.	0 S.F.	
<b>HERBACEOUS SEED MIX</b>								
HERBACEOUS SEED MIX			0.6 LBS			0 S.F.	0 S.F.	
ANNUAL HERBACEOUS COVER CROP SEED MIX			1.7 LBS					
<b>* TOTAL =</b>							1,200.00 S.F.	0.03 AC.

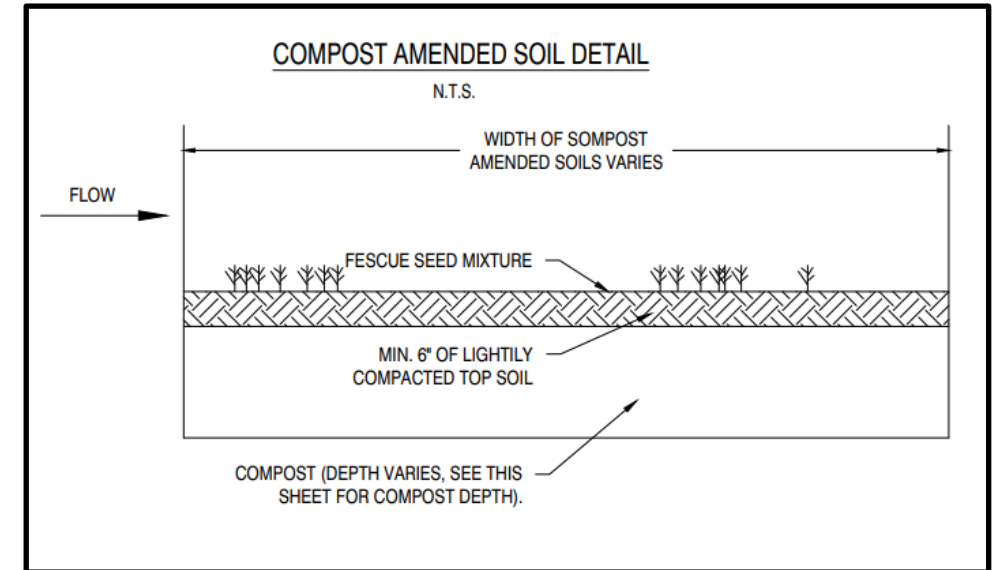


## Position of the Director (Staff) Section 118-6-6. Required Findings (continue)

*(c) The exception is in harmony with the purpose and intent of this Chapter and is not of substantial detriment to water quality;*

**Focus (DCR Guidance): Protection of the Water Quality and the WQIA is the tool to determine that**

- Additional measure → Applicant Propose 465 SF of Compost Soil Amendment Area to Treat and Direct 0.08 Acres (3485 SF) of impervious Area acres → This would achieve 0.09 lb./yr. TP load reduction



### COMPOST DEPTH

THIS SITE PROPOSES A COMPOST AMENDED SOILS TO PROVIDE STORMWATER MANAGEMENT WATER . PER THE SOIL AMENDMENTS SPECIFICATION, BELOW ARE THE CALCULATIONS TO DETERMINE THE AMOUNT OF COMPOST NEEDED FOR THE COMPOST AMENDMENT AREA BASED ON TABLE 4.3 SHOWN ON THIS SHEET.

### COMPOST AREA

IMPERVIOUS AREA TO COMPOST AMENDED AREA (IC) = 0.08 ACRES  
SURFACE AREA OF COMPOST AMENDAD AREA (SA) = 0.01 ACRES = 465 SF

IC / SA > 1.00

DEPTH OF COMPOST (D) = 6 INCHES

COMPOST NEEDED (C) = SA \* D \* 0.0031

C = 465 \* 6 \* 0.0031

C = 8.6 CUBIC YARDS

REFER TO VIRGINIA DEQ STORMWATER DESIGN SPECIFICATION NO. 4 SOIL COMPOST AMENDMENT FOR MORE INFORMATION ABOUT CONSTRUCTION, MAINTENANCE, AND DESIGN STANDARDS.

Position of the Director (Staff) Section 118-6-6. Required Findings (continue)  
 (c) The exception is in harmony with the purpose and intent of this Chapter and is not of substantial detriment to water quality;

**Focus: WQIA (VRRM Computations) Staff carried VRRM computations based on Two Scenarios**

Scenario A: Existing Conditions

Project Name: 12917 Percheron Lane: Existing Condition  
 Date: Jan 29th 2024  
 Linear Development Project? No

Site Information

Post-Development Project (Treatment Volume and Loads)

Enter Total Disturbed Area (acres) → 0.83

Check:  
 BMP Design Specifications List: 2011 Stds & Specs  
 Linear project? No  
 Land cover areas entered correctly? ✓  
 Total disturbed area entered? ✓

Pre-ReDevelopment Land Cover (acres)	A Soils	B Soils	C Soils	D Soils	Totals
Forest/Open Space (acres) – undisturbed, protected forest/open space or reforested				0.21	0.21
Managed Turf (acres) – disturbed, graded for yards or other turf to be				0.44	0.44
Impervious Cover (acres)				0.18	0.18
					0.83

Post-Development Land Cover (acres)	A Soils	B Soils	C Soils	D Soils	Totals
Forest/Open Space (acres) – undisturbed, protected forest/open space or reforested				0.21	0.21
Managed Turf (acres) – disturbed, graded for yards or other turf to be				0.42	0.42
Impervious Cover (acres)				0.20	0.20
					0.83

Post-Development Requirement for Site Area

TP Load Reduction Required (lb/yr) 0.10

Scenario B: Proposed Conditions

Site Results (Water Quality Compliance)

Area Checks	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	AREA CHECK
FOREST/OPEN SPACE (ac)	0.00	0.00	0.00	0.00	0.00	OK.
IMPERVIOUS COVER (ac)	0.08	0.00	0.00	0.00	0.00	OK.
IMPERVIOUS COVER TREATED (ac)	0.08	0.00	0.00	0.00	0.00	OK.
MANAGED TURF AREA (ac)	0.00	0.00	0.00	0.00	0.00	OK.
MANAGED TURF AREA TREATED (ac)	0.00	0.00	0.00	0.00	0.00	OK.
AREA CHECK	OK.	OK.	OK.	OK.	OK.	

Site Treatment Volume (ft<sup>3</sup>) 1,091

Runoff Reduction Volume and TP By Drainage Area

	D.A. A	D.A. B	D.A. C	D.A. D	D.A. E	TOTAL
RUNOFF REDUCTION VOLUME ACHIEVED (ft <sup>3</sup> )	138	0	0	0	0	138
TP LOAD AVAILABLE FOR REMOVAL (lb/yr)	0.17	0.00	0.00	0.00	0.00	0.17
TP LOAD REDUCTION ACHIEVED (lb/yr)	0.09	0.00	0.00	0.00	0.00	0.09
TP LOAD REMAINING (lb/yr)	0.09	0.00	0.00	0.00	0.00	0.09
NITROGEN LOAD REDUCTION ACHIEVED (lb/yr)	0.62	0.00	0.00	0.00	0.00	0.62

Total Phosphorus

FINAL POST-DEVELOPMENT TP LOAD (lb/yr)	0.69
TP LOAD REDUCTION REQUIRED (lb/yr)	0.09
TP LOAD REDUCTION ACHIEVED (lb/yr)	0.09
TP LOAD REMAINING (lb/yr):	0.60
REMAINING TP LOAD REDUCTION REQUIRED (lb/yr):	0.00

\*\*No further TP load reduction required

Total Nitrogen (For Information Purposes)

POST-DEVELOPMENT LOAD (lb/yr)	4.91
NITROGEN LOAD REDUCTION ACHIEVED (lb/yr)	0.62
REMAINING POST-DEVELOPMENT NITROGEN LOAD (lb/yr)	4.29

- the proposed mitigation measures, consisting of the establishment of a 1200-square-foot vegetative buffer area and proposed soil amendments, would meet the necessary criteria outlined in this section and would not pose a substantial detriment to water quality

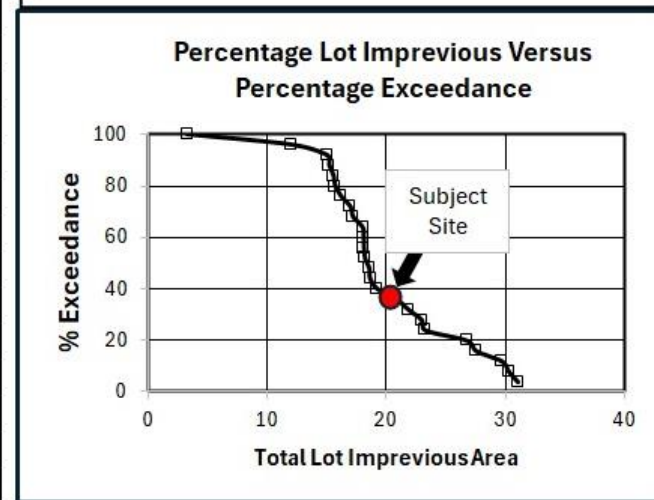
# Position of the Director (Staff) Section 118-6-6. Required Findings

(d) The exception request is not based upon conditions or circumstances that are self-created or self-imposed;

- ❑ **Focus (DCR Guidance): Action of the property owner, footprint and size of proposed use in relation to lot size and RPA (impervious area analysis) → Is the property suited for the intended use**
- Comparison of Total Lot Impervious Area → Among 25 lots, subject lot is ranked No. 8 with 7 lots exhibit greater impervious area than subject lot;
- Comparison of footprint house size → 72% of the lots have larger house size compared to subject lot;
- Comparison of accessory uses → Place the subject lot on 4<sup>th</sup> position. The top ranked three properties are located outside the RPA. → This suggests that size of accessory structures on the subject lot is relatively substantial;
- Comparison of % Impervious area → Lot 27 ranked Ninth above median range;
- ❑ Findings: The size of accessory uses seems excessive and the placement of sport court not meeting this required finding.

C.3.4 Impervious Area Analysis based on Total % Lot Imperviousness

Parcel ID	Total Lot Area (SF)	% Impervious Area	Rank	Percentage Exceedance
0353 26 0014	36027	31.1	1	4
0353 26 0025	36025	30.3	2	8
0353 26 0015	36038	29.7	3	12
0353 26 0031A	38610	27.5	4	16
0353 25 A	15509	26.8	5	20
0353 26 0019	36064	23.3	6	24
0353 09 0415	23709	23.0	7	28
0353 26 0021	36081	21.9	8	32
<b>0353 26 0027</b>	<b>36159</b>	<b>20.9</b>	<b>9</b>	<b>36</b>
0353 26 0023	36163	19.2	10	40
0353 26 0012	36266	18.6	11	44
0353 26 0024	37181	18.5	12	48
0353 26 0011	36497	18.2	13	52
0353 26 0010	36010	18.1	14	56
0353 26 0030	37343	18.1	15	60
0353 26 0028	36016	18.0	16	64
0353 09 0413	21709	17.2	17	68
0353 26 0020	36120	17.0	18	72
0353 26 0026	36188	16.2	19	76
0353 26 0022A	37203	15.7	20	80
0353 09 0416	24299	15.5	21	84
0353 26 0029	37509	15.2	22	88
0353 26 0013	36462	15.0	23	92
0353 09 0414	20775	12.0	24	96
0353 02 A2	278784	3.3	25	100



## Position of the Director (Staff) Section 118-6-6. Required Findings

*(e) Reasonable and appropriate conditions are imposed, as warranted, that will prevent the allowed activity from causing a degradation of water quality;*

**Focus: Conditions are imposed to ensure water quality is protected and the function of the RPA remain undisturbed**

### Findings:

- Establishment of 1200 SF of vegetative buffer area in accordance with 118-3-3(f) criteria and the provision of 465 Sf compost soil amendments would mitigate the impact of 800 SF sport court and protect the RPA buffer.
- Staff recommend the implementation of the restoration planting shall be performed under the supervision of certified landscape arborist.

The requested Exception meet this required finding.

## Position of the Director (Staff) Section 118-6-9. Required Findings

*The water quality benefits must exceed the detriments;*

Findings:

- The current proposal shows that the proposed mitigation measures are adequate to meet the VRRM target pollutant load reduction of 0.09 pounds per year → the water quality benefit exceed the detriment.

## Position of the Director Required Findings

- The request does not meet all the required findings (5 out of 6 are met).
- Staff recommends in the event ERC decided to approve the RPA encroachment Exception request, the conditions outlined in Attachment A shall be met.





# Position of the Director – Summary of Attachment A

# Rebuttal by the Applicant

3 minutes

# Surrebuttal by Staff

2 minutes



# Close Public Hearing

Committee discussion

Motion

Vote