



**APPLICATION ACCEPTED:** May 13, 2014  
**PLANNING COMMISSION:** October 15, 2014  
**BOARD OF SUPERVISORS:** Not yet scheduled

# County of Fairfax, Virginia

---

**October 2, 2014**

**STAFF REPORT**

**APPLICATION SE 2014-MV-019**



**Concurrent with:**

**Resource Protection Area Encroachment Exception #1391-WRPA-001-1 &  
Water Quality Impact Assessment #1391-WQ-001-1**

**MOUNT VERNON DISTRICT**

<b>APPLICANT:</b>	Qin H. Zheng
<b>ZONING:</b>	R-3 (Residential, 3 du/ac)
<b>PARCEL:</b>	93-2 ((8)) (37) 0028A
<b>SITE AREA:</b>	7,000 square feet
<b>PLAN MAP:</b>	Residential, 2 – 3 dwelling units per acre (du/ac)
<b>SPECIAL EXCEPTION PROPOSAL:</b>	To allow fill within the 100-year floodplain for the construction of a new single family detached dwelling.

## **STAFF RECOMMENDATIONS:**

Staff recommends approval of SE 2014-MV-019, subject to the proposed development conditions contained in Appendix 1.

Staff recommends approval of RPA Encroachment Exception #1391-WRPA-001-1 and WQIA #1391-WQ-001-1, subject to the proposed development conditions contained in Attachment A of Appendix 5.

Staff recommends approval of a deviation from the tree preservation target pursuant to Section 12-0508.3 of the Public Facilities Manual (PFM) in favor of the landscaping shown on the SE Plat.

---

**Megan Duca**

**Department of Planning and Zoning**  
Zoning Evaluation Division  
12055 Government Center Parkway, Suite 801  
Fairfax, Virginia 22035-5509  
Phone 703-324-1290 FAX 703-324-3924  
[www.fairfaxcounty.gov/dpz/](http://www.fairfaxcounty.gov/dpz/)



It should be noted that it is not the intent of the staff to recommend that the Board, in adopting any conditions proffered by the owner, relieve the applicant/owner from compliance with the provisions of any applicable ordinances, regulations, or adopted standards.

The approval of this application does not interfere with, abrogate or annul any easements, covenants, or other agreements between parties, as they may apply to the property subject to this application. It should be noted that the content of this report reflects the analysis and recommendation of staff; it does not reflect the position of the Board of Supervisors.

For information, contact the Zoning Evaluation Division, Department of Planning and Zoning, 12055 Government Center Parkway, Suite 801, Fairfax, Virginia 22035-5505, (703) 324-1290.

O:\mbrad9\SE\SE 2014-MV-019 Zheng\Staff Report\Staff Report Assembly\00\_SE 2014-MV-019\_Staff report cover.doc



Americans with Disabilities Act (ADA): Reasonable accommodation is available upon 48 hours advance notice. For additional information on ADA call (703) 324-1334 or TTY 711 (Virginia Relay Center).

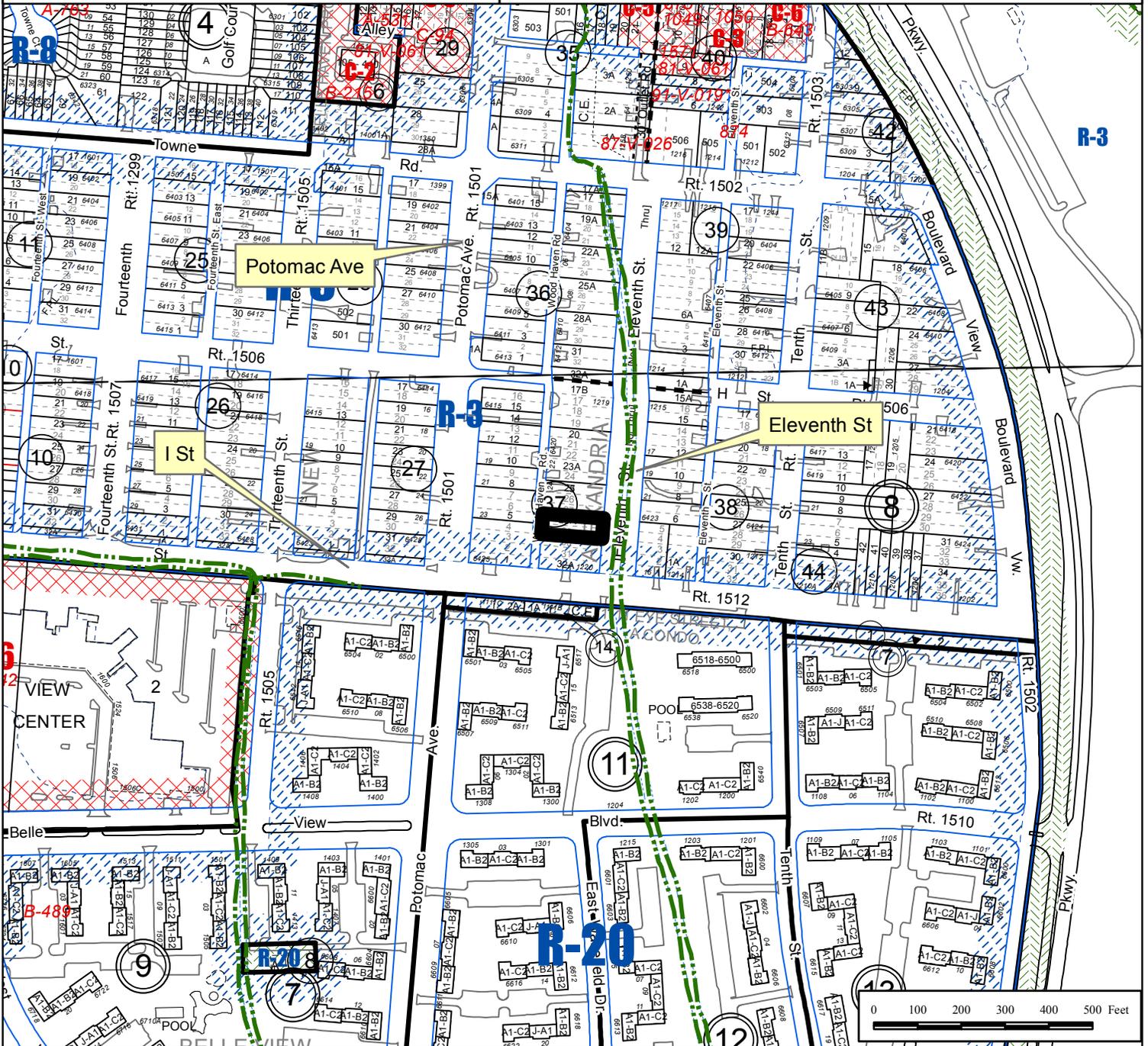
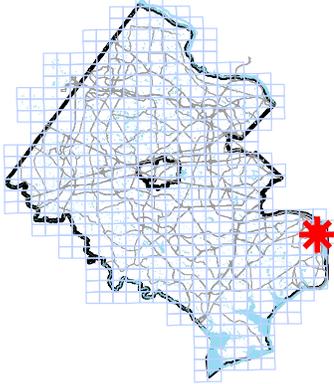
# Special Exception

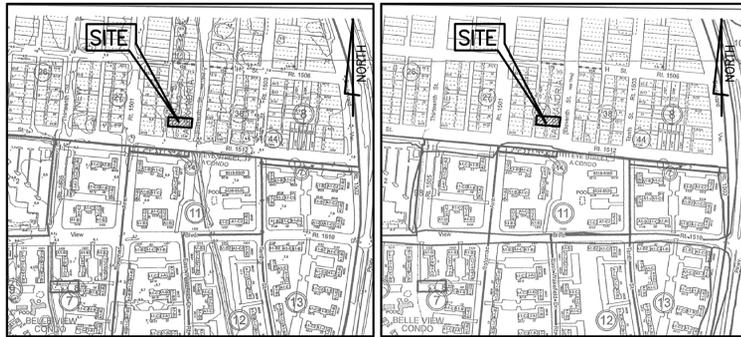
SE 2014-MV-019

Applicant: QIN H. ZHENG  
Accepted: 05/13/2014  
Proposed: FILL IN FLOOD PLAIN  
Area: 7000 SF OF LAND

Zoning Dist Sect: 02-0904  
Located: 6430 WOOD HAVEN ROAD, ALEXANDRIA, VA 22307

Zoning: R-3  
Overlay Dist:  
Map Ref Num: 093-2- /08/37/0028A





VICINITY & TOPO MAP  
(SCALE 1" = 500')

SOILS MAP  
(SCALE 1" = 500')

**BUFFER PLANTING NARRATIVE**

THE BUFFER PLANTINGS SHOWN ARE FOR FUTURE EXCEPTION FOR LOSS OF BUILDABLE AREA WITHIN A RESOURCE PROTECTION AREA (RPA) UNDER SECTION 118-6-7. THIS RPA EXCEPTION REQUEST AND A WATER QUALITY IMPACT ASSESSMENT WILL BE PROCESSED CONCURRENTLY WITH THIS SPECIAL EXCEPTION. NO FILL IS ASSOCIATED WITH THE PLANTINGS, AND THEY ARE SHOWN ON THIS SHEET AS A COURTESY TO REFLECT HOW THE FINAL SITE LAYOUT WILL APPEAR.

**DOWNSPOUT NOTE:**

ALL PROPOSED ROOF DRAINS ARE TO BE DISCHARGED TO GRADE. NO STORMWATER INLET EXISTING WITHIN 100' OF THE SUBJECT PROPERTY.

**OUTFALL NARRATIVE:**

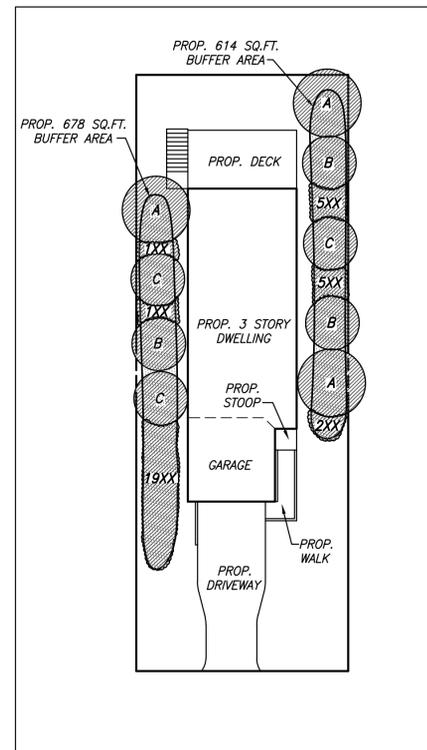
THE STORMWATER RUNOFF FROM THIS PROPERTY HONORS NATURAL DRAINAGE PATTERNS. THE MAJORITY OF STORMWATER GENERATED BY THIS PROJECT LEAVES THE SITE IN THE EASTERLY DIRECTION WHERE IT IMMEDIATELY ENTERS AN UNNAMED CREEK. ONCE THE STORMWATER ENTERS THE CREEK IT IS CONVEYED SOUTHEAST UNTIL IT EVENTUALLY OUTFALLS TO THE POTOMAC RIVER. THE REMAINDER OF THE STORMWATER LEAVES THE SITE IN THE WESTERLY DIRECTION WHERE IT ENTERS THE WOOD HAVEN ROAD RIGHT-OF-WAY. ONCE IN THE RIGHT-OF-WAY THE STORMWATER FOLLOWS NATURAL DRAINAGE PATTERNS IN A SOUTHERLY DIRECTION TOWARDS THE BED & BANKS OF A DRAINAGE CHANNEL THAT FLOWS SOUTHEAST TOWARDS THE POTOMAC RIVER. AT THIS POINT THE DRAINAGE AREA IS GREATER THAN 100 TIMES THE SITE AREA. IT IS THE PROFESSIONAL OPINION OF THIS FIRM THAT THIS PROJECT WILL HAVE NO ADVERSE AFFECTS ON ADJACENT OR DOWNSTREAM PROPERTIES.

**GREEN BUILDING NARRATIVE:**

THIS BUILDING WILL BE DESIGNED WITH THE GOAL OF MINIMIZING ITS ENVIRONMENTAL FOOTPRINT USING THE PRINCIPLES OF THE ICC 700 NATIONAL GREEN BUILDING STANDARD. ACHIEVING THIS GOAL WILL BE ACCOMPLISHED BY UTILIZING THE NATURAL SITE CONDITIONS TO MITIGATE UNNECESSARY SOIL DISTURBANCE, MANAGING STORM WATER RUN-OFF USING NATURAL LANDSCAPING AND PERMEABLE SURFACES WHEREVER POSSIBLE, PROVIDING AND INSTALLING LOCALLY SUPPLIED BUILDING MATERIALS WITH RECYCLED CONTENT AND INSTALLING ENERGY AND RESOURCE EFFICIENT ENERGY STAR APPLIANCES AND LOW FLOW FIXTURES. ADDITIONAL MATERIALS AND PROGRAMS, SUCH AS LOW VOC CONTENT WALL AND FLOOR COVERINGS, PROPERLY SEALED ENERGY EFFICIENT WINDOWS AND PROPERLY SCHEDULED MAINTENANCE FOR ALL SYSTEMS, WILL BE USED IN ADDITION TO THOSE MENTIONED ABOVE TO FACILITATE AN ENVIRONMENTALLY RESPONSIBLE BUILDING.

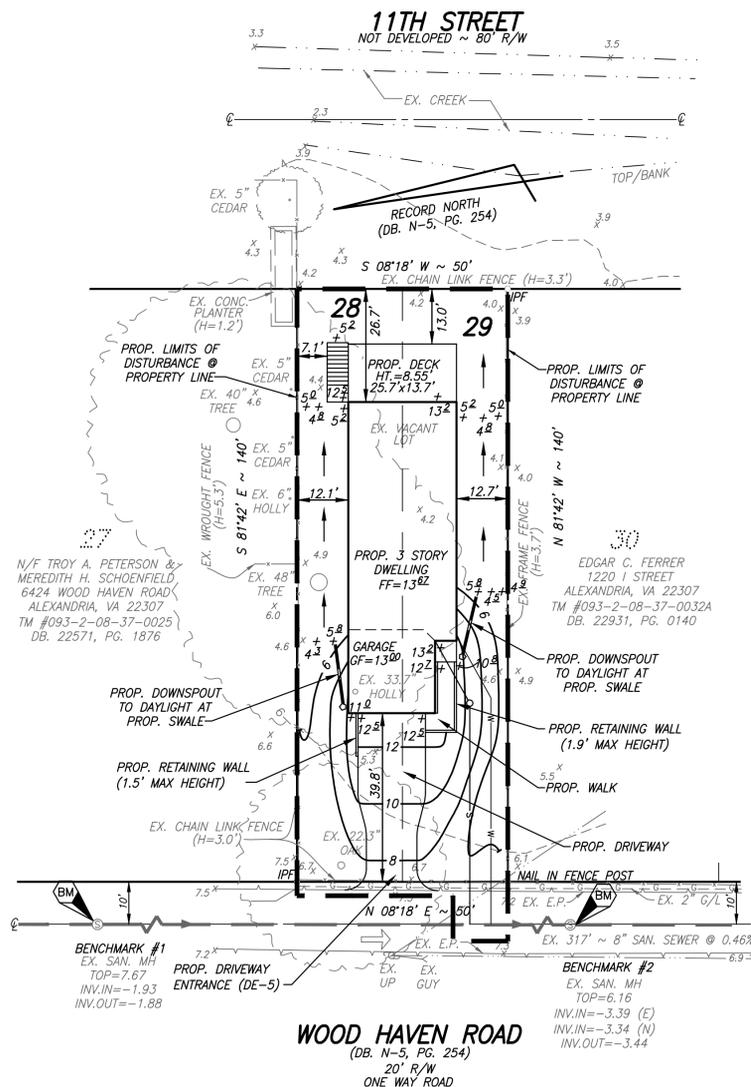
**FRONT YARD COVERAGE CALCULATION:**

AREA OF FRONT YARD = 1,500 SF  
ALLOWABLE IMPERVIOUS AREA IN FRONT YARD (30%) = 450 SF  
PERCENTAGE OF IMPERVIOUS AREA IN FRONT YARD = 27.9% OR 418 SF



BUFFER PLANTING DETAIL  
SCALE: 1" = 20'

SOILS TABLE			
LOT NO.	SOILS NO.	SOILS NAME	PROBLEM CLASS
28-29	47B	GRIST MILL - WOODSTOWN COMPLEX	IVA



**PLANTING SCHEDULE**

ITEM	NO.	BOTANICAL NAME	COMMON NAME	SIZE	COMMENTS	COVER (EACH)	COVER (SUM)	CREDIT/MULT.	COVER (TOTAL)
(A)	3	ACER RUBRUM	RED MAPLE	2" CAL.	B & B	200 SQ.FT.	600 SQ.FT.	WILDLIFE/x1.5	900 SQ.FT.
(B)	3	AMELANCHIER ARBOREA	DOWNEY SERVICEBERRY	3" CAL.	B & B	125 SQ.FT.	375 SQ.FT.	WILDLIFE/x1.5	563 SQ.FT.
(C)	3	AMELANCHIER LAEVIS	ALLEGHENY SERVICEBERRY	3" CAL.	B & B	125 SQ.FT.	375 SQ.FT.	WILDLIFE/x1.5	563 SQ.FT.
(XX)	33	ROSA 'ROSEAE'	RUGOSA ROSE	2 GALLON SHRUB		-	-	-	-

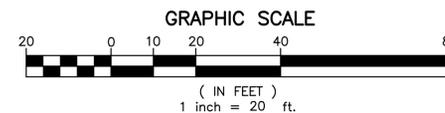
NOTE: TREE SPECIES SUBSTITUTIONS MAY OCCUR IN COORDINATION WITH URBAN FORESTRY. FINAL SPECIES DETERMINATIONS AND COVERAGE REQUIRED TO BE ESTABLISHED WITH GRADING PLAN. TOTAL TREE COVER PLANTED: 2,026 SQ.FT.

**CROWN COVER CALCULATIONS**

TOTAL SITE AREA = 7,000 SQ. FT.  
REQUIRED CROWN COVER (28%) = 1,750 SQ. FT.  
EXISTING CROWN COVER = 3,277 SQ. FT.  
REMOVED CROWN COVER = 3,277 SQ. FT.  
CROWN COVER TO BE PLANTED = 2,026 SQ. FT.  
CROWN COVER PROVIDED = 2,026 SQ. FT. OR 28.9%

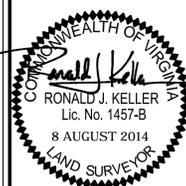
**GENERAL NOTES:**

- TAX MAP: #093-2-08-37-0028A
- ZONE: R-3
- REQUIRED MINIMUM YARDS:  
FRONT: 30' SIDE: 12' REAR: 25'
- OWNER: QIN H. ZHENG  
PO BOX 6542  
ALEXANDRIA, VA 22306  
DB. 21396, PG. 606
- TOPOGRAPHIC SURVEY FIELD RUN BY THIS FIRM. VERTICAL DATUM = NGVD '29. BASED ON FAIRFAX COUNTY MONUMENT STATION BM-9, EL.=9.477 FEMA BASE FLOOD ELEVATION = 11.0'
- LIMITS OF 100 YEAR FLOODPLAIN ASSOCIATED WITH THE POTOMAC RIVER SHOWN PER FEMA PANEL 51059C0320E, EFFECTIVE DATE: 17 SEPTEMBER 2010, ELEVATION: 11.0'
- TITLE REPORT FURNISHED BY HBS TITLE ENTERPRISES, INC., FILE #H-09-17498, DATED 12TH SEPTEMBER, 2009 AND IS RELIED UPON AS ACCURATE BY THE SURVEYOR.
- PLAT SUBJECT TO RESTRICTIONS OF RECORD.
- TOTAL SITE AREA = 7,000 SQ. FT. OR 0.1607 AC.  
TOTAL DISTURBED AREA IN RPA = 7,281 SF  
(NOT INCLUDING DISTURBANCE ASSOCIATED WITH ACCESS TO THE PARCEL OR PRINCIPAL STRUCTURE PER SECTION 118-5-4(a)(4) PURSUANT TO SECTION 118-2-1(d))  
EXISTING IMPERVIOUS AREA = 0.000 SQ.FT.  
PROPOSED IMPERVIOUS AREA = 2,499 SQ.FT  
APPROXIMATE AMOUNT OF FILL = 570 CY
- SOIL TYPE: SEE MAP AND TABLE ON THIS PAGE
- NO CONSTRUCTION SHALL TAKE PLACE IN A RESOURCE PROTECTION AREA (RPA) WITHOUT PROPER PERMITS ASSOCIATED WITH THE CHESAPEAKE BAY PRESERVATION ORDINANCE (CBPO). THIS PROPERTY IS LOCATED COMPLETELY WITHIN THE RPA. A LOSS OF BUILDABLE AREA WAIVER UNDER SECTION 118-6-7 SHALL BE SUBMITTED CONCURRENTLY WITH THIS PLAN.
- THIS LOT IS NOT IN A BONDED SUBDIVISION
- BUILDING HEIGHT NOT TO EXCEED 35'
- (T.B.R.) DENOTES TO BE REMOVED. (T.B.S.) DENOTES TO BE SAVED
- PROPOSED UTILITIES WILL BE PLACED UNDERGROUND
- THE STONE USED TO CONSTRUCT THE DRIVEWAY MAY BE USED AS THE CONSTRUCTION ENTRANCE PROVIDED THE FILTER FABRIC UNDERLINING IS INSTALLED AS REQUIRED.
- THE PROPOSED DWELLING TO BE SERVED BY PUBLIC SEWER AND WATER. A NEW WATER SERVICE AND SANITARY LATERAL WILL BE INSTALLED.
- A HOLD HARMLESS AGREEMENT FOR STRUCTURES WITHIN THE FLOODPLAIN SHALL BE RECORDED PRIOR TO APPROVAL OF THE GRADING PLAN.
- THIS SITE WILL COMPLY WITH ALL STATE AND FEDERAL WATERPROOFING REQUIREMENTS.
- NO DOWNSTREAM OR UPSTREAM DRAINAGE PROBLEMS ARE GENERATED DUE TO THE PROPOSED DEVELOPMENT OF THIS SITE.
- DEVELOPMENT ON THIS SITE WILL REQUIRE A GEOTECHNICAL ENGINEERING STUDY IN ACCORDANCE WITH THE FAIRFAX COUNTY CODE AND THE GEOTECHNICAL GUIDELINES OF THE PUBLIC FACILITIES MANUAL.
- THERE IS NO TRAIL REQUIREMENT ALONG THE FRONTAGE OF THE PROPERTY OR ASSOCIATED WITH THE DEVELOPMENT OF THIS PROPERTY (AS PER FFX. CO. TRAIL MAP).
- THIS LOT IS COMPLETELY LOCATED IN THE RESOURCE PROTECTION AREA (RPA) AND 100-YEAR FLOODPLAIN (ELEVATION 11.0) FLOODPLAIN INFORMATION PROVIDED BY FEMA MAPS PANEL 320, EFFECTIVE SEPTEMBER 17, 2010.
- THERE ARE NO KNOWN GRAVES, OBJECTS OF STRUCTURES MARKING A PLACE OF BURIAL ON-SITE.
- TWO OFF STREET PARKING SPACES, AS REQUIRED, ARE PROVIDED ON-SITE IN THE PROPOSED GARAGE.
- THIS PLAN CONTAINS INFORMATION TAKEN FROM PLAN OF PUBLIC RECORD.
- THERE ARE NO KNOWN HAZARDOUS OR TOXIC SUBSTANCES AS SET FORTH IN TITLE 40, CODE OF FEDERAL REGULATIONS, PARTS 116.4, 302.4 AND 355 OR HAZARDOUS WASTE AS SET FORTH IN COMMONWEALTH OF VIRGINIA/DEPARTMENT OF WASTE MANAGEMENT. VR 672-10-1 OF VIRGINIA HAZARDOUS WASTE MANAGEMENT REGULATIONS; AND/OR PETROLEUM PRODUCTS AS DEFINED IN TITLE 40, CODE OF FEDERAL REGULATIONS PART 280; TO BE GENERATED, UTILIZED, STORED, TREATED, AND/OR DISPOSED OF ON-SITE.
- THE PROPOSED USE OF THIS PROJECT IS RESIDENTIAL AND CONFORMS TO ALL APPLICABLE ORDINANCE, REGULATIONS, ADOPTED STANDARDS AND APPLICABLE CONDITIONS.
- THERE ARE NO PROPOSED STORMWATER MANAGEMENT FACILITIES ASSOCIATED WITH THIS PLAN. (A LOSS OF BUILDABLE AREA EXCEPTION (118-6-7) AND WATER QUALITY IMPACT ASSESSMENT SHALL BE SUBMITTED CONCURRENTLY WITH THIS PLAN.)
- THE OWNER, APPLICANT AND POTENTIAL BUYERS SHALL BE AWARE THAT FLOOD INSURANCE MAY BE REQUIRED BY A LENDING INSTITUTION AND THAT FLOOD INSURANCE RATES MAY INCREASE BECAUSE OF INCREASES IN RISKS TO LIFE AND PROPERTY. THIS STATEMENT SHALL BE INCLUDED IN THE CONTRACT OF SALE.
- ALL MECHANICAL EQUIPMENT ASSOCIATED WITH THE PROPOSED DWELLING SHALL BE PLACED AT AN ELEVATION ABOVE THE 100 YEAR FLOODPLAIN (ELEV. 11.0)
- THE APPLICANT SHALL PROVIDE "A STATEMENT CERTIFYING THAT ALL FLOODPROOFING PROPOSED COMPLIES WITH COUNTY, STATE AND FEDERAL REQUIREMENTS. THE CERTIFICATION SHALL BE SIGNED, SEALED, AND INDICATE THE ADDRESS OF THE CERTIFYING PROFESSIONAL. IT SHALL COVER ALL STRUCTURAL, ELECTRICAL, MECHANICAL, PLUMBING, WATER AND SANITARY FACILITIES CONNECTED WITH THE USE."
- NO MORE LAND SHALL BE DISTURBED THAN NECESSARY TO PROVIDE FOR THE SINGLE-FAMILY DWELLING.
- THIS SITE DOES NOT CONTAIN ANY KNOWN MAJOR UNDERGROUND UTILITY EASEMENTS OR UTILITY EASEMENTS HAVING A WIDTH OF TWENTY-FIVE (25) FEET OR MORE.
- ALL EXISTING IMPROVEMENTS ARE TO BE REMOVED UNLESS OTHERWISE NOTED.
- NO ADDITIONAL FEDERAL AND/OR STATE PERMITS ARE REQUIRED.
- THE PROPOSED DECK WILL BE UNCOVERED. (NO ROOF AND NOT SCREENED)
- THERE IS NO ROUTE NUMBER ASSOCIATED WITH WOOD HAVEN ROAD.



THIS DRAWING IS A SERVICE DOCUMENT OF R.C. FIELDS & ASSOCIATES, INC. AND MAY NOT BE USED OR REPRODUCED WITHOUT THE WRITTEN PERMISSION OF THE ENGINEER AND/OR LAND SURVEYOR.  
EXISTING UTILITIES SHOWN ON THIS PLAN TAKEN FROM AVAILABLE RECORDS AND/OR FROM FIELD OBSERVATIONS. FOR EXACT LOCATIONS OF EXISTING UNDERGROUND UTILITIES, NOTIFY "MISS UTILITY" AT 1-800-562-7001, 72 HOURS BEFORE THE START OF ANY EXCAVATION OR CONSTRUCTION.  
LOCATION AND DEPTH OF ALL EXISTING UNDERGROUND UTILITIES TO BE VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION. INTERFERENCE OR DISRUPTION OF SAME WILL NOT BE THE RESPONSIBILITY OF THIS OFFICE  
ALL CONSTRUCTION SHALL CONFORM TO THE CURRENT STANDARDS AND SPECIFICATIONS OF FAIRFAX COUNTY, VIRGINIA.  
©2013 R.C. FIELDS & ASSOCIATES, INC.

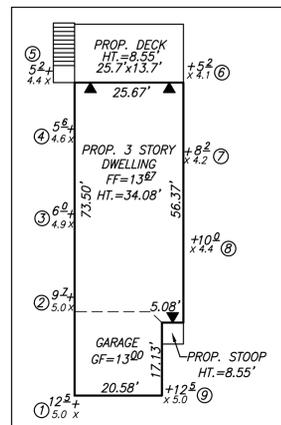
**R.C. FIELDS & ASSOCIATES, INC.**  
LAND SURVEYING • ENGINEERING • PLANNING  
www.rcfields.com  
(703) 549-6422  
730 S. Washington Street  
Alexandria, Virginia 22314



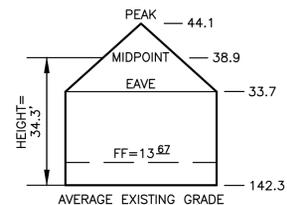
**SPECIAL EXCEPTION**  
LOTS 28 & 29, BLOCK 37  
**NEW ALEXANDRIA**  
(6430 WOOD HAVEN ROAD)  
MT. VERNON DISTRICT  
**FAIRFAX COUNTY, VIRGINIA**

DATE	REVISION
12/12/13	PER FFX COUNTY
4/7/14	PER FFX COUNTY
7/2/14	PER FFX COUNTY
8/8/14	PER FFX COUNTY

DESIGN: AWB  
DRAWN: TG  
SCALE: 1" = 20'  
DATE: SEPTEMBER 16, 2013  
SHEET 1 OF 5  
FILE: 12-101

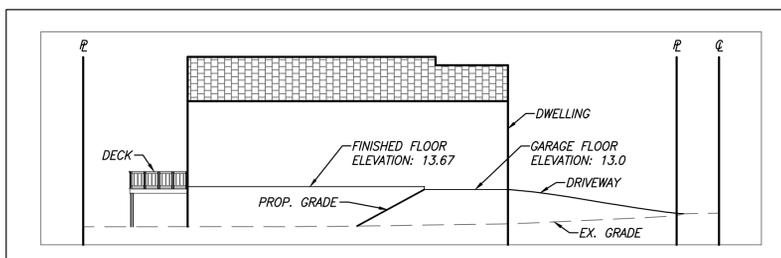


SPOTS	EXISTING - ELEVATION	POST- ELEVATION
1	5.0	12.5
2	5.0	9.7
3	4.9	6.0
4	4.6	5.6
5	4.4	5.2
6	4.1	5.2
7	4.2	8.2
8	4.4	10.0
9	5.0	12.5
SUM:	41.6	74.9
AVERAGE:	4.6	8.3

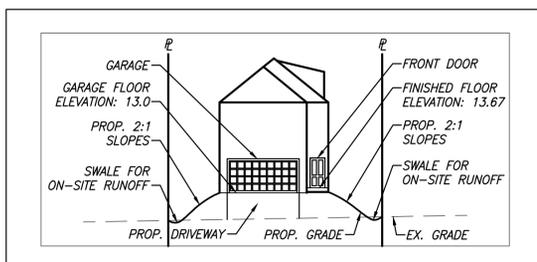


**DWELLING DETAIL**  
NOTE: HEIGHTS SHOWN ARE FROM AVERAGE PRE-DEVELOPMENT GRADE  
SCALE: 1" = 20'

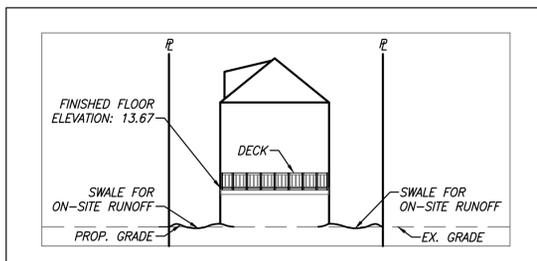
DWELLING HEIGHT CALCULATION				
AVERAGE EX. GRADE	ROOF EAVE ELEVATIONS	PEAK ROOF (HIGHEST RIDGE) ELEVATION	ROOF MIDPOINT (ROOF HEIGHT) ELEVATION	PROPOSED DWELLING HEIGHT
4.6	33.7	44.1	38.9	34.3



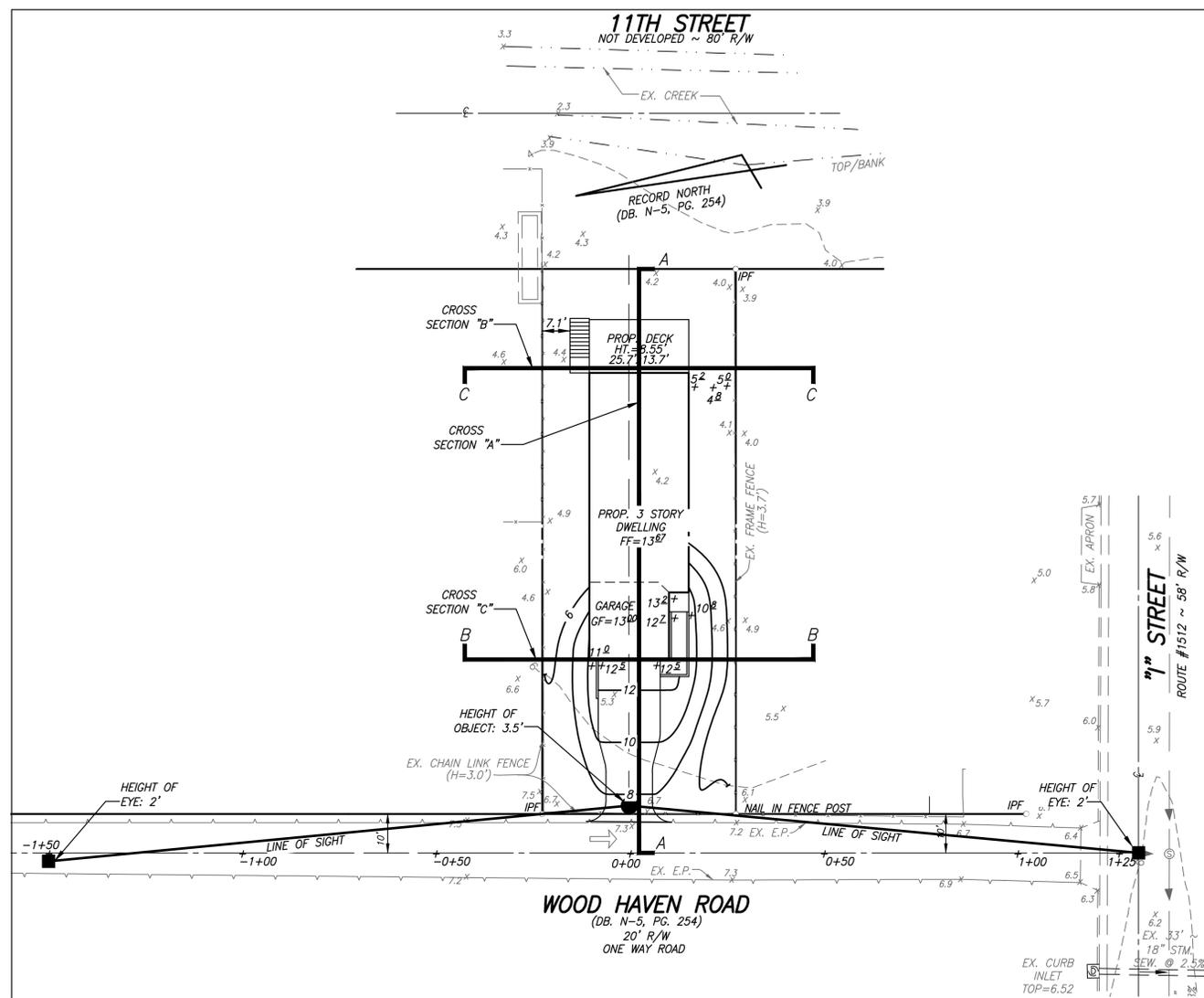
**DWELLING DETAIL AT CROSS SECTION "A"**  
SCALE: 1" = 20'



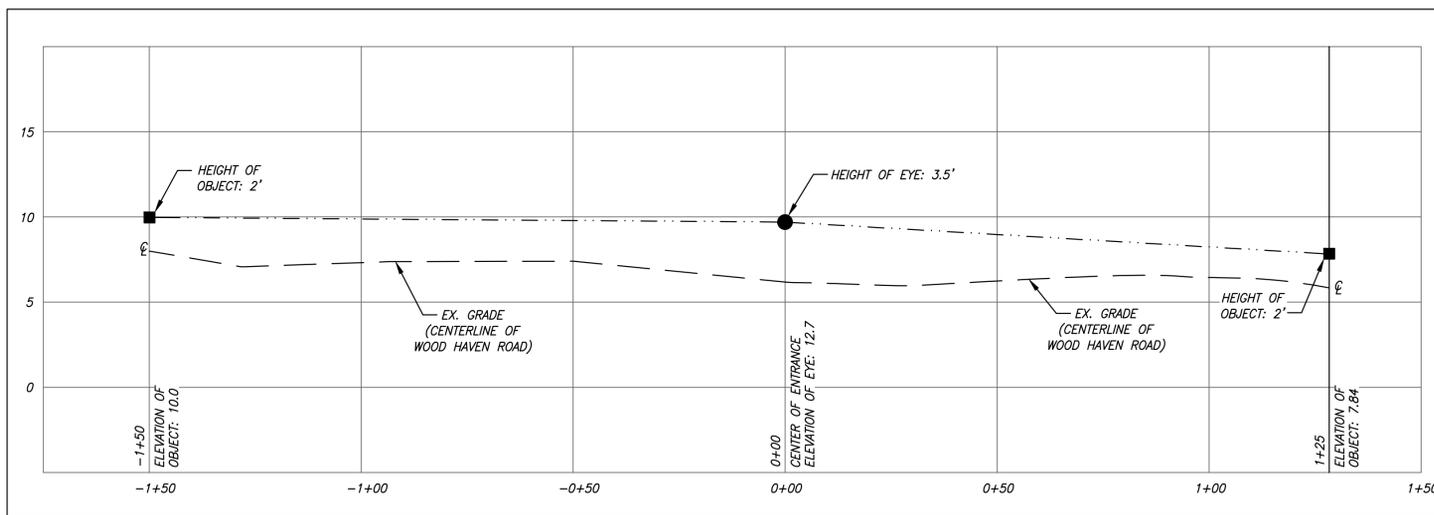
**DWELLING DETAIL AT CROSS SECTION "B"**  
SCALE: 1" = 20'



**DWELLING DETAIL AT CROSS SECTION "C"**  
SCALE: 1" = 20'



**CROSS SECTION AND SITE DISTANCE DETAIL**  
SCALE: 1" = 20'



**SIGHT DISTANCE PROFILE**

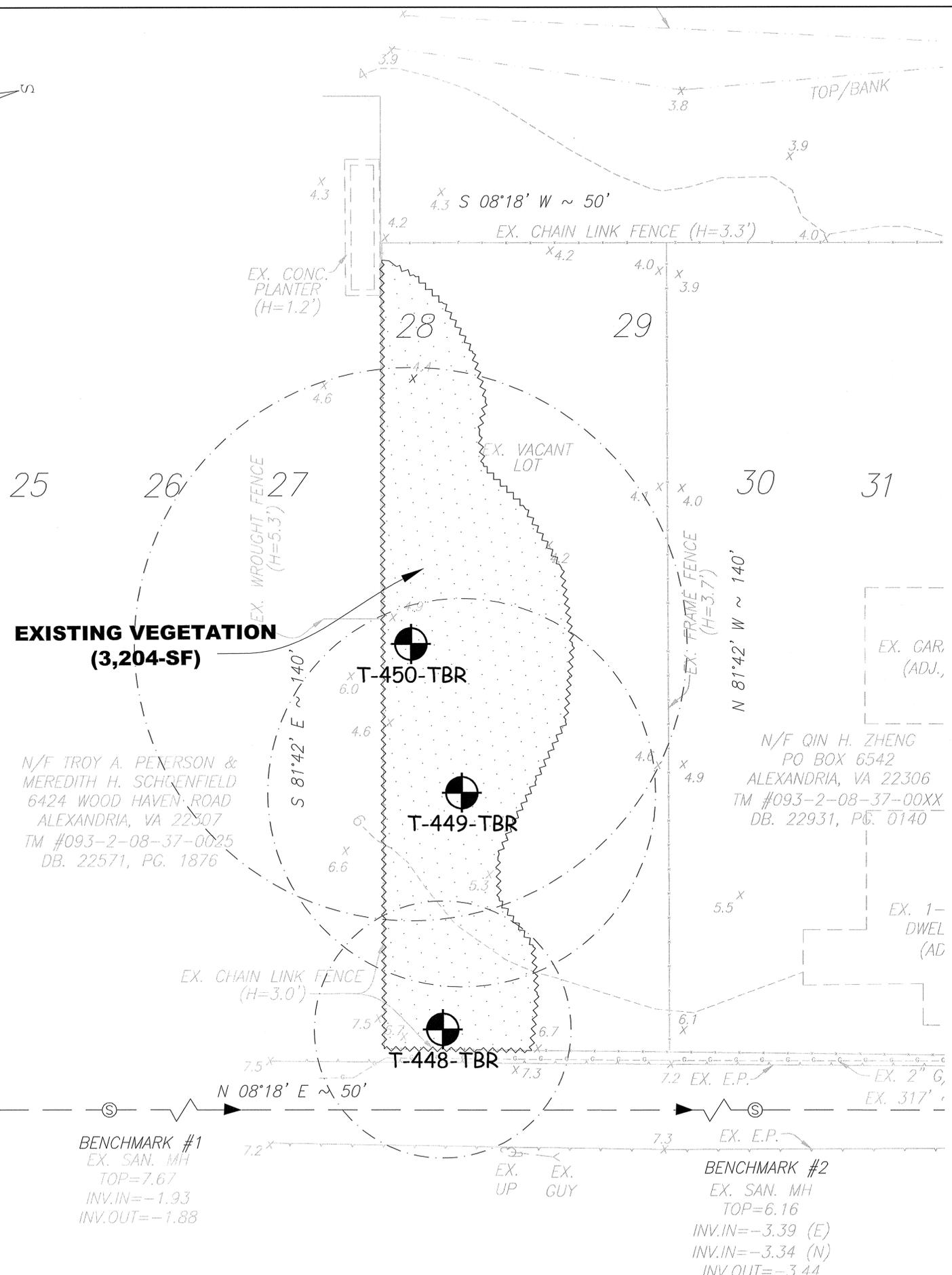
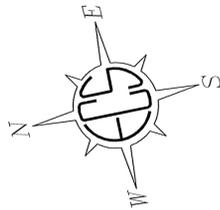
VERTICAL SCALE: 1" = 5'  
HORIZONTAL SCALE: 1" = 20'  
SIGHT STOPPING DISTANCE REQUIRED = 150 FEET  
(125' SHOWN TO INTERSECTION OF 1 STREET)

NOTE: PROFILE SHOWN PER REQUEST FAIRFAX COUNTY DEPART OF TRANSPORTATION.

THIS DRAWING IS A SERVICE DOCUMENT OF R.C. FIELDS & ASSOCIATES, INC. AND MAY NOT BE USED OR REPRODUCED WITHOUT THE WRITTEN PERMISSION OF THE ENGINEER AND/OR LAND SURVEYOR.  
EXISTING UTILITIES SHOWN ON THIS PLAN TAKEN FROM AVAILABLE RECORDS AND/OR FROM FIELD OBSERVATIONS. FOR EXACT LOCATIONS OF EXISTING UNDERGROUND UTILITIES, NOTIFY "MISS UTILITY" AT 1-800-552-7001, 72 HOURS BEFORE THE START OF ANY EXCAVATION OR CONSTRUCTION.  
LOCATION AND DEPTH OF ALL EXISTING UNDERGROUND UTILITIES TO BE VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION. INTERFERENCE OR DISRUPTION OF SAME WILL NOT BE THE RESPONSIBILITY OF THIS OFFICE.  
ALL CONSTRUCTION SHALL CONFORM TO THE CURRENT STANDARDS AND SPECIFICATIONS OF FAIRFAX COUNTY, VIRGINIA.  
©2013 R.C. FIELDS & ASSOCIATES, INC.

DATE	REVISION
12/12/13	PER FFX COUNTY
4/7/14	PER FFX COUNTY
7/2/14	PER FFX COUNTY
8/8/14	PER FFX COUNTY

DESIGN: AWB  
DRAWN: TG  
SCALE: 1" = 20'  
DATE: SEPTEMBER 16, 2013  
SHEET 2 OF 5  
FILE: 12-101



**LEGEND**

- TREELINE
- EXISTING CANOPY (2) UPLAND FOREST (3,204-SF)  
LONGTERM SUCCESSIONAL FOREST
- CRITICAL ROOT ZONE (CRZ)
- TREE LOCATION

Tree Number	Common Name	Size (Inches DBH)	Critical Root Zone (feet)	Condition	Remove	Notes
448	Red Maple	22.3	22.3	Poor	x	Poorly pruned; dead limbs; leaning
449	American Holly	33.7	33.7	Poor	x	Dead limbs; English Ivy vines; dead wood
450	Silver Maple	48.0	48.0	Fair	x	Few trunk cavities; English Ivy vines; multi-trunk; dead limbs; two dead trunks

NOTE: SHARED TREES SHALL NOT BE REMOVED WITHOUT WRITTEN PERMISSION FROM AFFECTED ADJACENT PROPERTY OWNERS.

CELEBRATING  
25 YEARS  
OF EXCELLENCE

ECS - MID-ATLANTIC, LLC  
14026 THUNDERBOLT PLACE  
SUITE 100  
CHANTILLY, VA 20151  
1-800-822-3489  
703-471-6400  
(940)708-834-0627

SETTING THE STANDARD FOR SERVICE

**ECS** LLC  
MID-ATLANTIC

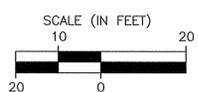
**6424 WOOD HAVEN ROAD  
ALEXANDRIA, VIRGINIA  
FAIRFAX COUNTY**

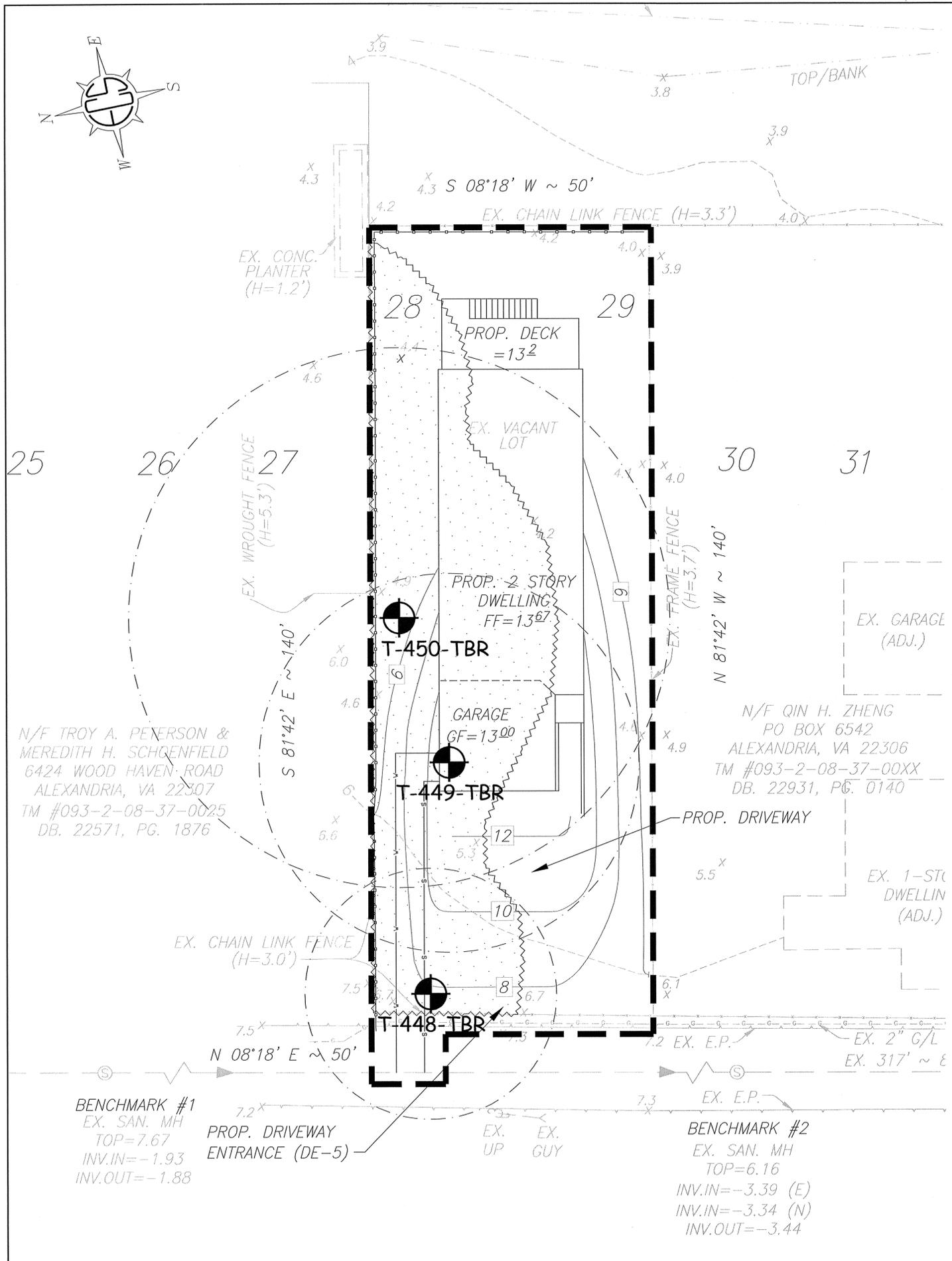
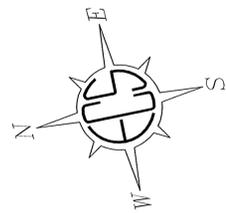
**EXISTING VEGETATION  
MAP  
QIN ZHENG**

ECS REVISIONS  
07/30/14 (AEA)

ENGINEER AEA	DRAFTING AEA
SCALE 1" = 20'	
PROJECT NO. 01:21653	
SHEET 1 OF 3	
DATE 07/23/13	

Anna Allie  
Certified Arborist  
Certification # MA-5292A





N/F TROY A. PETERSON & MEREDITH H. SCHENFIELD  
6424 WOOD HAVEN ROAD  
ALEXANDRIA, VA 22307  
TM #093-2-08-37-0025  
DB. 22571, PG. 1876

N/F QIN H. ZHENG  
PO BOX 6542  
ALEXANDRIA, VA 22306  
TM #093-2-08-37-00XX  
DB. 22931, PG. 0140

BENCHMARK #1  
EX. SAN. MH  
TOP=7.67  
INV.IN=-1.93  
INV.OUT=-1.88

BENCHMARK #2  
EX. SAN. MH  
TOP=6.16  
INV.IN=-3.39 (E)  
INV.IN=-3.34 (N)  
INV.OUT=-3.44

**LEGEND**

- TREELINE
- EXISTING CANOPY (2) UPLAND FOREST (3,204-SF)  
LONGTERM SUCCESSIONAL FOREST
- CRITICAL ROOT ZONE (CRZ)
- TREE LOCATION  
T-16
- TREE PROTECTION FENCING & ROOT PRUNING

**TREE PRESERVATION & CANOPY CALCULATIONS**

GROSS SITE AREA	0.16- AC	7,000 SF
ADJUSTED SITE AREA		7,000 SF
MULTIPLY PERCENT REQUIRED (ZONED R3)		25%
EQUALS TREE COVER TO BE PROVIDED		1,750 SF
EXISTING TREES TO BE PRESERVED		0 SF
PROPOSED CREDIT REQUIRED BY PLANTING		2,026.0 SF
HAS THE TREE PRESERVATION TARGET BEEN MET?		NO
ADJUSTED CANOPY COVER PER SECTION 12-0404.4		0 SF
TOTAL TREE COVER PROVIDED	28.9%	2,026.0 SF

Table 12.10 - 10-Year Tree Canopy Calculation Worksheet

Step	Totals
<b>A. Tree Preservation Target &amp; Statement</b>	
A1 Tree Preservation Target calculations and statement	
<b>B. Tree Canopy Requirement</b>	
B1 Gross Site Area =	7,000.0
B2 Subtract area dedicated to parks, road frontage =	0.0
B3 Subtract area of exemptions (wetlands/stream and drainfields) =	0.0
B4 Adjusted gross site area =	7,000.0
B5 Identify site's zoning and/or use =	R-3
B6 Percentage of 10-year canopy required =	25%
B7 Area of 10-year canopy required =	1,750
B8 Modification of 10-year Tree Canopy Requirement Requested? =	No
B9 If B8 is yes, list plan sheet where modification is located =	N/A
<b>C. Tree Preservation</b>	
C1 Tree Preservation Target Area =	801.0
C2 Total canopy area meeting standards of § 12-0400 =	0.0
C3 C2 x 1.25 =	0.0
C4 Total canopy area provided by unique or valuable forest/woodland communities =	0.0
C5 C4 x 1.5 =	0.0
C6 Total of canopy area provide by Heritage, Memorial, Specimen, or Street Trees =	0.0
C7 C6 x 1.5 to 3.0 =	0.0
C8 Canopy area of trees within Resource Protection Areas and 100-year floodplains =	0.0
C9 C8 x 1.0 =	0.0
C10 Total of C3, C5, C7, and C9 =	0
<b>D. Tree Planting</b>	
D1 Area of canopy to be met through tree planting =	1,750.0
D2 Area of canopy planted for air quality benefits =	0.0
D3 D2 x 1.5 =	0.0
D4 Area of canopy planted for energy conservation =	0.0
D5 D4 x 1.5 =	0.0
D6 Area of canopy planted for water quality benefits =	0.0
D7 D6 x 1.25 =	0.0
D8 Area of canopy planted for wildlife benefits =	1,350.0
D9 D8 x 1.5 =	2,026.0
D10 Area of canopy provided by native trees =	0.0
D11 D10 x 1.5 =	0.0
D12 Area of canopy provided by improved cultivars and varieties =	0.0
D13 D12 x 1.5 =	0.0
D14 Area of canopy provided through tree seedlings =	0.0
D15 Area of canopy provided through native shrubs or woody seed mix =	0.0
D16 Percentage of 14 represented by D15 (must be less than 33%) =	0.0%
D17 Total of canopy area provided through tree planting =	2,026.0
D18 Is an offsite planting relief requested? =	No
D19 Tree Bank or Tree Fund? =	No
D20 Canopy area requested to be provided through offsite banking or tree fund? =	No
D21 Amount to be deposited into the Tree Preservation and Planting Fund =	\$0.0
<b>E. Total of 10-year Tree Canopy Provided</b>	
E1 Total of canopy area provided through tree preservation =	0
E2 Total of canopy area provided through tree planting =	2,026.0
E3 Total of canopy area provided through offsite mechanism =	0
E4 Total of 10-year Tree Canopy Provided =	2,026.0

Table 12.3 - Tree Preservation Target Calculations & Statement

A	Pre-development area (sf) of existing tree canopy (From Existing Vegetation Map) =	3,204.0
B	Percentage of gross site area covered by existing tree canopy =	45.8%
C	Percentage of 10-year tree canopy required for site per zoning =	25%
D	Percentage of the 10-year tree canopy requirement that should be met through preservation =	45.8%
E	Proposed percentage of canopy requirement that will be met through tree preservation =	0.0%
F	Has the Tree Preservation Target minimum been met?	NO
G	If no for line F, provide sheet number where deviation request is located	
H	If step G requires a narrative it shall be prepared and attached	

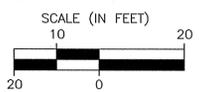
**INVASIVE SPECIES CONTROL NARRATIVE:**

- ANY APPLICATION OF ENVIRONMENTALLY SENSITIVE APPLIED HERBICIDES SHALL BE APPLIED BY A VIRGINIA CERTIFIED APPLICATOR OR REGISTERED TECHNICIAN.
- ENGLISH IVY: REMOVE FROM TREES BY CUTTING ALL VINES AT GROUND LEVEL. VINES SHOULD BE CUT AGAIN SEVERAL FEET UP THE TRUNK. PEEL THE CUT SECTION OF IVY OFF BUT CARE SHOULD BE TAKEN NOT TO STRIP THE BARK OF THE TREE. PULL GROUND IVY BACK A FEW FEET FROM THE BASE OF THE TREE TO SLOW REGROWTH UP THE TREE TRUNK. REMOVE GROUND IVY BY HAND PULLING, CUTTING AND MULCHING OVER TOP, AND/OR APPLYING A SYSTEMIC HERBICIDE LIKE TRICLOPYR TO LEAVES OR FRESHLY CUT LARGE STEMS. RETREATMENT MAY BE NECESSARY FOR COMPLETE ERADICATION. THE ENGLISH IVY REMNANTS SHALL BE BAGGED AND REMOVED FROM THE PROJECT SITE.
- INVASIVE SPECIES CONTROL SHALL BE CONDUCTED UNTIL THE PLANTS NOTED ABOVE ARE NO LONGER IN ABUNDANCE OR UNTIL BOND RELEASE, WHICHEVER IS LATER.

Tree Number	Common Name	Size (Inches DBH)	Critical Root Zone (feet)	Condition	Remove	Notes
448	Red Maple	22.3	22.3	Poor	x	Poorly pruned; dead limbs; leaning
449	American Holly	33.7	33.7	Poor	x	Dead limbs; English Ivy vines; dead wood
450	Silver Maple	48.0	48.0	Fair	x	Few trunk cavities; English Ivy vines; multi-trunk; dead limbs; two dead trunks

NOTE: SHARED TREES SHALL NOT BE REMOVED WITHOUT WRITTEN PERMISSION FROM AFFECTED ADJACENT PROPERTY OWNERS.

Anna Allie  
Certified Arborist  
Certification # MA-5292A



CELEBRATING 25 YEARS OF EXCELLENCE

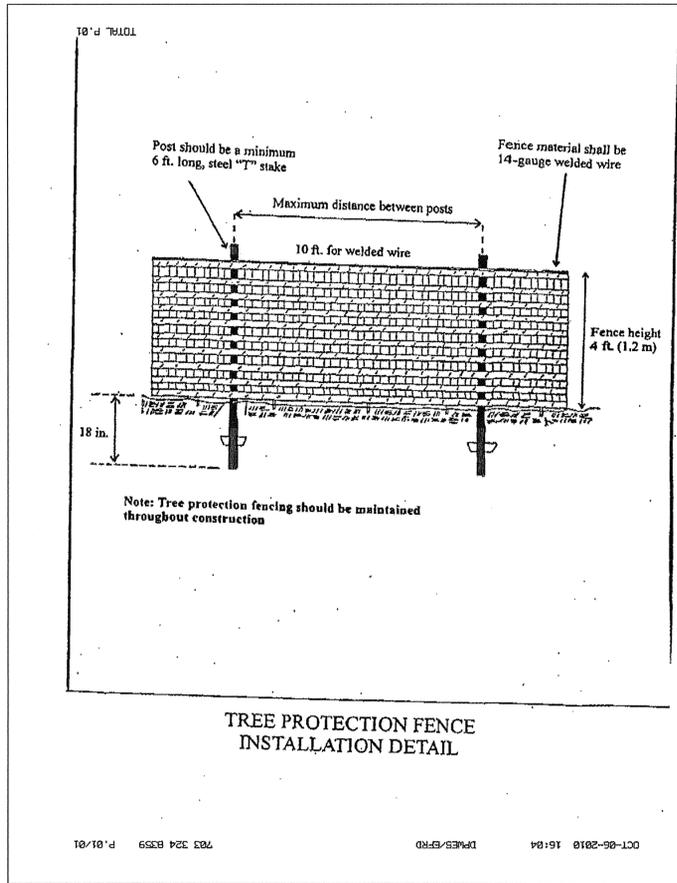
ECS LLC  
MID-ATLANTIC

6424 WOOD HAVEN ROAD  
ALEXANDRIA, VIRGINIA  
FAIRFAX COUNTY

TREE PRESERVATION & PROTECTION PLAN  
QIN ZHENG

ECS REVISIONS  
07/30/14 (AEA)

ENGINEER AEA	DRAFTING AEA
SCALE 1" = 20'	
PROJECT NO. 01:21653	
SHEET 2 OF 3	
DATE 07/23/13	



**TREE CONDITION ANALYSIS**

ECS Mid-Atlantic, LLC (ECS) conducted a site reconnaissance to evaluate the wooded habitat on the project site in July 2013. The undeveloped portions of the site are comprised primarily of Upland Hardwoods (i.e. Red Maple, American Holly, Silver Maple). The species of trees assessed near the limits of clearing are listed in the Tree Table on the Existing Vegetation Map. In addition to those species, Eastern Red Cedar was also observed onsite.

Based on our site reconnaissance, invasive and/or noxious species (i.e.: English Ivy) are present on the project site. Invasive species located within the areas to be preserved should be removed by hand wherever practicable to minimize site disturbance. The trees onsite are in Fair/Poor condition, except where otherwise noted on the EVM (i.e.: Poor or Dead). Onsite trees within 150-feet of the proposed limits of clearing meet the standards for structural integrity and health identified in § 12-0403.2A and 12-0403.2B and are identified on the Existing Vegetation Map. At the time of inspection there were poor and dead trees located within 150-feet of the proposed limits of clearing, which are identified on the Existing Vegetation Map.

In accordance with § 12-0507.E2(1), trees designated for preservation shall be protected during construction.

**TREE PRESERVATION NARRATIVE**

§ 12-0509.3B: Dead or potentially hazardous trees shall be removed upon their discovery if they are located within 100-feet of the proposed limits of clearing. Dead trees not within this area shall be left in place to serve as wildlife habitat. Dead or potentially hazardous trees will be removed by hand (i.e.: chainsaw) wherever practical and will be conducted in a manner that incurs the least amount of damage to surrounding trees and vegetation proposed for preservation. Felled trees shall be left in place and brush should be removed by hand. No heavy equipment shall be used within tree preservation areas.

§ 12-0509.3C: Based on the current condition of the existing wooded areas, no adverse human health risks are anticipated provided that trees which pose a hazard to human health and safety are properly removed from areas where they could pose such a risk

§ 12-0509.3D: Invasive and/or noxious species (i.e.: English Ivy) are present on the site. Invasive species located within the areas to be preserved should be removed by hand wherever practicable to minimize site disturbance. See the previous sheet for species-specific control measures. Most of the forested areas within the tree preservation area do not contain invasive plant species at levels that endanger the long-term ecological functionality, health, and regenerative capacity of any native plant communities present onsite.

§ 12-0509.3E: The Applicant is not requesting official Specimen Tree designation for any of the large trees located onsite and is not using a multiplier for tree canopy calculations.

§ 12-0509.3F: Non-impacted Specimen trees located on and off-site shall be protected throughout all phases of construction by utilizing tree protection fencing as required by §12-0507.2E(1).

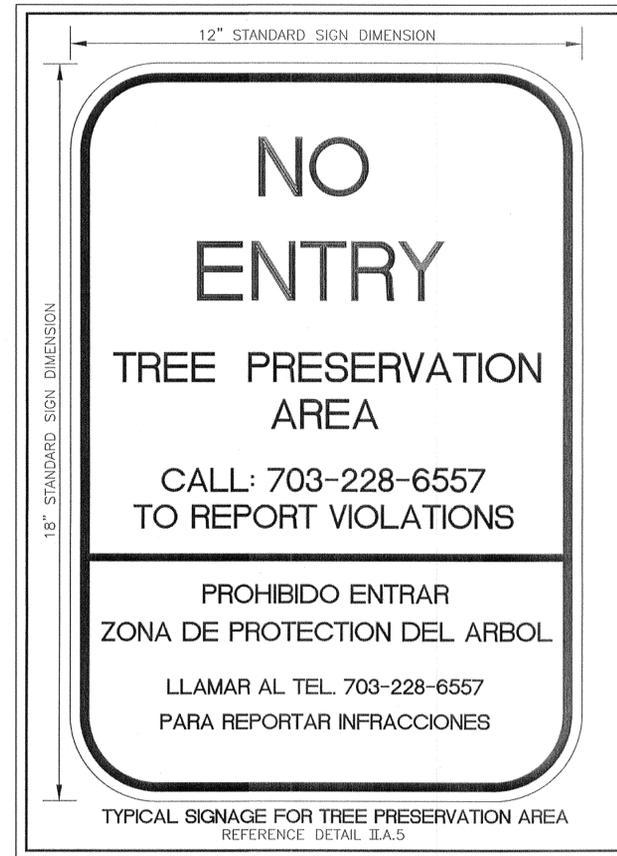
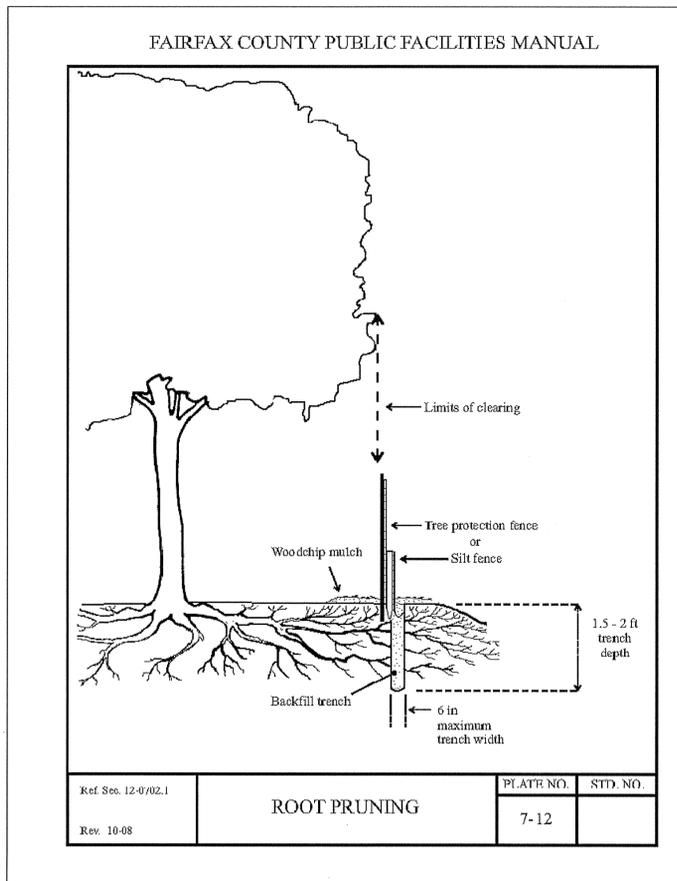
§ 12-0509.3G: Prior to land disturbing activities, root pruning with a vibratory plow, trencher or other device approved by the Director shall be conducted along the limits of clearing adjacent to tree preservation areas. Root pruning shall be conducted along the proposed limits of clearing and grading adjacent to the wooded habitat to be preserved and along property boundaries where the CRZ of off-site trees will be impacted. Locations of root pruning and tree protection fencing are shown on the Tree Preservation & Protection Plan.

§ 12-0509.3H: No trees will be transplanted as part of the proposed construction activities.

§ 12-0509.3I: Tree protection fencing and signage shall be placed subsequent to the staking of the limits of clearing in the field prior to construction in accordance with current Fairfax County ordinances. 14-gauge welded wire fence shall be used as devices to protect trees and forested areas. The protective device shall be placed within the disturbed area at the limits of clearing and erected at a minimum height of 4 feet, except for super silt fence where height may be 3.5 feet. The fencing material shall be mounted on 6-foot tall steel poses driven 1.5 feet into the ground and placed a maximum of 10 feet apart.

§ 12-0509.3J: No work shall occur within the areas to be protected. Onsite trees within the limits of clearing and grading will be removed. No trees outside this area shall be removed unless indicated on the plan. Trees in preservation areas indicated on the plan to be removed shall be removed by hand. Dead or hazardous trees within this area may be limbed or topped, rather than removing the entire tree and left as snags.

§ 12-0509.3K: There are no known proffer conditions which would require a tree inventory, tree condition, tree valuation or tree bonding information.



**RC FIELDS & ASSOCIATES**  
INCORPORATED  
ENGINEERING • LAND SURVEYING • PLANNING  
730 S. WASHINGTON STREET  
ALEXANDRIA, VA 22314  
TEL: (703) 548-5452  
FAX: (703) 548-5452  
www.rcfieldsoc.com

6 August 2014

Mr. Keith Cline, Director  
Fairfax County Urban Forest Management  
12055 Government Center Parkway, 5th Floor  
Fairfax, VA 22035

Re: **Tree Preservation Deviation Request**  
6430 Wood Haven Road, Alexandria, Virginia 22307

Dear Keith Cline:

ECS Mid-Atlantic, LLC (ECS) has prepared an existing vegetation map and associated Tree Preservation & Protection Plans for the above-referenced project site in conjunction with a Special Exception for the subject property for the construction of a new single-family dwelling and driveway the vacant subject property.

In accordance with PPM section 12-0508.3A(2)(3), RC Fields and Associates, Inc. (RC Fields) is requesting permission to deviate from the Tree Preservation Target Area requirement. Currently, the subject lot is approximately 45.8% covered by existing tree canopy. Upon development, 28.9% of the subject property shall have tree canopy coverage via tree planting. Due to development activities none of the required 25% canopy coverage will be met through tree preservation. The following serves as our justification for this request:

- Due to the small size of the subject property, development activities could reasonably be expected to impact all existing on-site vegetation. Development activities include site grading and construction activities. In accordance with Section 12-0508.3A(3), deviations from the Tree Preservation Target Area are permitted if construction activities could be reasonably expected to impact existing trees or forested areas used to meet the tree preservation target to the extent they would not likely survive in a healthy manner for a minimum of ten years.
- The subject property does not contain any "champion", "Heritage", "specimen", "memorial" or "street" trees as designated in chapter 120 of the county code.

Due to the aforementioned reasons we feel a request to deviate from the Tree Preservation Target Area can be justified. If you have any questions or require any additional information, please do not hesitate to contact this office at your earliest convenience. We appreciate your consideration of this request.

Respectfully,  
R.C. FIELDS & ASSOCIATES, INC.

*Alex Boulden*  
Alex Boulden, E.I.T.  
Project Engineer

CELEBRATING  
25 YEARS  
OF EXCELLENCE

ECS MID-ATLANTIC, LLC  
1408 HUNTERS PLACE  
SUITE 200  
CHANTILLY, VA 20151  
1-800-822-3489  
703-477-8400  
(FAX) 703-834-8557

SETTING THE STANDARD FOR SERVICE

**ECS** LLC  
MID-ATLANTIC

**6424 WOOD HAVEN ROAD**  
**ALEXANDRIA, VIRGINIA**  
**FAIRFAX COUNTY**

**TREE PRESERVATION**  
**NARRATIVES**  
**QIN ZHENG**

ECS REVISIONS  
07/30/14 (AEA)

ENGINEER  
AEA

DRAFTING  
AEA

SCALE  
NTS

PROJECT NO.  
01:21653

SHEET  
3 OF 3

DATE  
07/23/13

Anna Allie  
Certified Arborist  
Certification # MA-5292A

*Anna Allie*

## DESCRIPTION OF THE APPLICATION

The applicant requests the approval of a Special Exception (SE) to allow construction of a single family detached residential dwelling within the 100-year floodplain. The subject property consists of two narrow lots zoned R-3 within the New Alexandria subdivision. The subject property is located entirely within the Resource Protection Area (RPA). Par. 9 of Sect. 2-903 of the Zoning Ordinance allows site grading to properties which do not require major fill as a permitted use in a floodplain. The Ordinance defines major fill as any fill, regardless of amount, in an area greater than 5,000 square feet or any fill in excess of 278 cubic yards in an area of 5,000 square feet or less. To exceed this maximum, the applicant must obtain a Special Exception from the Board of Supervisors. The applicant intends to place 570 cubic yards of fill on the 7,000 square foot lot and would disturb approximately 7,281 square feet (which includes disturbance in the right-of-way) in order to construct the proposed dwelling, and accordingly requires Special Exception approval. In addition, because the entire site is located within the RPA, the applicant is also requesting the approval of an associated RPA Encroachment Exception (WRPA) and Water Quality Impact Assessment (WQIA), which are scheduled to be heard by the Board of Supervisors concurrent with the SE application.

A reduced copy of the submitted Special Exception Plat is included at the beginning of this staff report. Copies of the proposed development conditions, applicant's statement of justification, and the affidavit are included in Appendices 1, 2 and 3, respectively.

## LOCATION AND CHARACTER

The 7,000 square foot subject property is located at 6430 Wood Haven Road in the New Alexandria subdivision. The property is located entirely within the floodplain and RPA and is currently vacant. The subject property consists of two individual lots, which are collectively referred to as Parcel 28A according to the County property map and tax records. The property is zoned R-3 and is surrounded by other properties zoned R-3 containing single family detached dwellings to the north, south, and west and bounded by non-vegetated wetlands and an unnamed channel to the east. The subject property and surrounding properties are planned for residential use at 2 - 3 dwelling units per acre (du/ac).

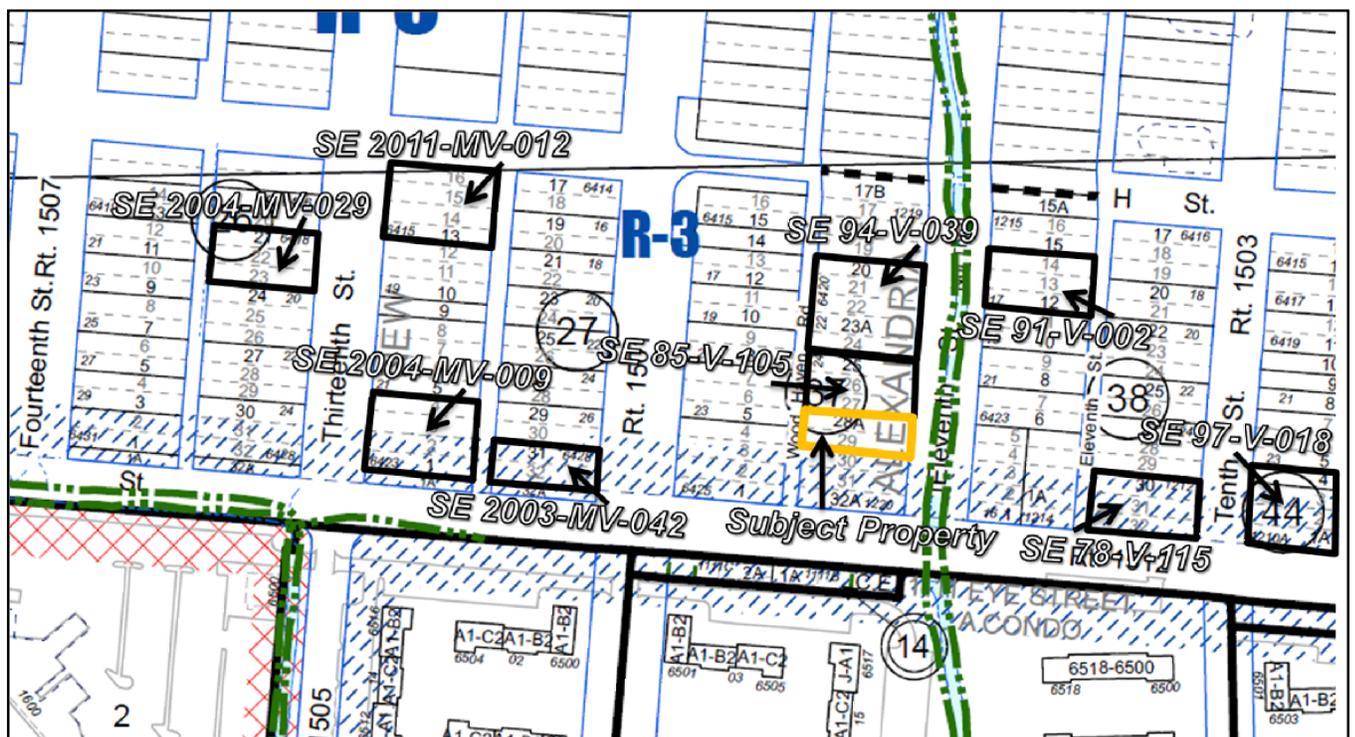


Source: Fairfax County Zoning Map with added graphics

## BACKGROUND

On February 4, 2013, a buildable lot determination (09172-LV-001-1) was issued for Parcels 28 – 32, which stated that the subject lots were created and recorded in 1892. A copy of this determination is contained in Appendix 4 of this report. The current application includes two of these parcels, Parcel 28 and 29, which are referred to collectively as Parcel 28A. These parcels do not meet the current Zoning Ordinance requirements for lot area and lot width. However, these lots predated the first Zoning Ordinance in 1941 when they were created and recorded. Therefore, the subject parcels were determined to be valid lots under the Subdivision Ordinance and a building permit may be issued for the development of a use permitted by right, by special permit, or by special exception on the lot, provided all County and applicable Zoning Ordinance regulations including minimum yard requirements are met. The subject lots were also established prior to establishment of the RPA and floodplain controls currently in effect.

The property is not subject to any proffers, special exceptions, special permits, or variances. Various other Special Exception applications for fill in the floodplain to construct new or replace existing single family dwellings have been approved in the vicinity of the property, as shown in the image below.



Source: Fairfax County Zoning Map with added graphics

- SE 78-V-115: Construct 1 SFD dwelling
- SE 85-V-105: Construct 1 SFD dwelling
- SE 91-V-002: Construct 1 SFD dwelling
- SE 94-V-039: Construct 2 SFD dwellings
- SE 97-V-018: Construct 1 SFD dwelling
- SE 2003-MV-042: Replace and expand SFD dwelling
- SE 2004-MV-009: Replace existing SFD dwelling
- SE 2004-MV-029: Replace existing SFD dwelling
- SE 2011-MV-012: Replace existing SFD dwelling

## **COMPREHENSIVE PLAN PROVISIONS**

The subject property is located within the Mount Vernon Planning District in the MV4 - Wellington Community Planning Sector. The plan map shows the subject property as planned for residential use at 2 – 3 du/ac.

## **DESCRIPTION OF THE SPECIAL EXCEPTION PLAT**

The SE/SP Plat titled “Lots 28 & 29, Block 37 New Alexandria,” prepared by R.C. Fields & Associates, Inc., consisting of five sheets dated September 16, 2013, as revised through August 8, 2014, is reviewed below.

### **Site Layout**

The SE Plat depicts the proposed dwelling, deck, garage, and driveway on the subject property. The proposed dwelling contains three stories, with a height of 34.3 feet as measured from the current existing grade to the mid-point of the roof in accordance with the Zoning Ordinance. The dwelling features a 39.8-foot front yard setback, 26.7-foot rear yard setback, and 12.1 and 12.7-foot side yard setbacks. The proposed deck extends into the minimum required rear yard as permitted by the Zoning Ordinance and is located 13 feet from the rear lot line. Approximately 570 cubic yards of fill will be placed on the property to accommodate the proposed development. The limits of clearing and grading include the entire property as well as a portion of the adjacent right-of-way to permit the construction of the driveway and utility extensions. The existing topography shown on the SE Plat indicates that the site is relatively flat at an elevation of approximately 6 feet above sea level near Wood Haven Road and transitions to approximately 4 feet above sea level in elevation at the rear of the property. The floodplain elevation at this site is 11 feet above sea level. The proposed fill would transition the site’s topography from 6 feet above sea level in the front yard along Wood Haven Road up to a finished floor elevation of approximately 13 feet for the garage and 13.67 feet above sea level for the dwelling. The proposed driveway would feature a sloped topography (approximately 13%) in order to accommodate this transition from the entrance off Wood Haven Road to the proposed garage. No fill is shown to be placed in the rear yard of the property, which would remain at an elevation of approximately 4 – 5 feet above sea level. The SE Plat depicts two retaining walls: a 1.5-foot high wall along the northern side of the dwelling and a 1.9-foot wall along the southern side of the dwelling.

### **Vehicular Access and Parking**

Vehicular access will be provided to the dwelling through the construction of a driveway from Wood Haven Road. The driveway connects to the proposed garage on the property, which will accommodate two vehicles. Eleventh Street is shown on the County property map to the rear of the property; however, this street was never constructed. An unnamed channel is located in the area where Eleventh Street is shown on the map.

## Landscaping

The Existing Vegetation Map on Sheet 3 of the SE Plat indicates that the site contains three existing trees: a Red Maple in poor condition, an American Holly in poor condition, and a Silver Maple in fair condition. These three trees would be removed with the proposed development and, as a result, the SE Plat describes a request for a deviation from the tree preservation target. Sheet 1 of the SE Plat depicts proposed buffer plantings along the northern and southern property lines to satisfy the planting requirements of the Chesapeake Bay Preservation Ordinance. Overall, the applicant proposes to meet the 10-year tree canopy requirement contained in the Public Facilities Manual (PFM) with 2,026 square feet of proposed tree canopy.

## ANALYSIS

### Use Limitations for Uses in a Floodplain (Sect. 2-905)

All permitted uses and all special exception uses in a floodplain are subject to the following Zoning Ordinance provisions.

1. *Except as may be permitted by Par. 6 and 7 of Sect. 903 above, any new construction, substantial improvements, or other development, including fill, when combined with all other existing, anticipated and planned development, shall not increase the water surface elevation above the 100-year flood level upstream and downstream, calculated in accordance with the provisions of the Public Facilities Manual.*

The subject property is located entirely within the 100-year Tidal Federal Emergency Management Agency (FEMA) floodplain. The applicant intends to place 570 cubic yards of fill on the property. Given that the proposal is for a single dwelling on a 7,000 square foot lot, staff believes the proposed dwelling is unlikely to increase the water surface elevation above the 100-year flood level upstream and downstream. However, staff has proposed several development conditions to ensure that the application meets the requirements of Section 2-905 of the Zoning Ordinance. One such development condition would require the applicant to demonstrate to the Department of Public Works and Environmental Services (DPWES) prior to the approval of a grading plan that the proposed disturbance will not increase the water surface elevation above the 100-year floodplain level upstream and downstream. Therefore, staff believes the application satisfies this standard.

2. *Except as may be permitted by Par. 8 of Sect. 903 above, the lowest elevation of the lowest floor of any proposed dwelling shall be eighteen inches or greater above the water-surface elevation of the 100-year flood level calculated in accordance with the provisions of the Public Facilities Manual.*

As depicted on the SE Plat, the 100-year flood level is 11 feet above sea level on the subject property. The dwelling depicts a finished floor elevation of approximately 13 feet above sea level for the dwelling and attached garage, which meets the 18 inch requirement stated in this standard. The rear of the dwelling below the deck will be an unfinished crawl space with masonry construction with openings at grade as required to permit the free flow of water through the space. This area cannot be used as living space since the floor elevation is not located at least 18 inches above the base flood elevation. Staff has proposed a development condition to ensure that the lowest finished floor is at least 18 inches above the base flood elevation and that the crawl space cannot be converted to living space.

3. *All uses shall be subject to the provisions of Par. 1 of Sect. 602 above.*

Part 1 of Sect. 2-602 states that no building shall be erected on any land and no change shall be made in the existing contours of any land, including any change in the course, width or elevation of any natural or other drainage channel, in any manner that will obstruct, interfere with, or change the drainage of such land, taking into account land development that may take place in the vicinity under the provisions of this Ordinance, without providing adequate drainage in connection therewith as determined by the Director in accordance with the provisions of the Public Facilities Manual (PFM). Staff has proposed a development condition to ensure that the proposed grading and construction will not increase the water surface elevation above the 100-year flood level upstream and downstream. In addition, staff has proposed a development condition that would require the applicant to submit a geotechnical study prior to grading plan approval. With the proposed development conditions, staff believes this standard will be met.

4. *No structure or substantial improvement to any existing structure shall be allowed unless adequate floodproofing as defined in the Public Facilities Manual is provided.*

The applicant proposes to construct a new dwelling on a currently vacant lot. Staff has proposed a development condition that would require the applicant to demonstrate to DPWES that all necessary federal, state, and county approvals have been obtained prior to any additional land disturbing activity. With the proposed development conditions, staff believes the application satisfies this standard.

5. *To the extent possible, stable vegetation shall be protected and maintained in the floodplain.*

Sheets 3 and 4 of the SE Plat provide an existing vegetation map and the 10-year tree canopy calculation worksheet. As shown on the existing vegetation map, there are currently three trees on the property: a Red Maple in poor condition, an American Holly in poor condition, and a Silver Maple in fair

condition. The applicant intends to remove these trees to construct the proposed dwelling and driveway, which requires a deviation from the tree preservation target. Staff from the Urban Forest Management Division (UFMD) reviewed the applicant's request for such deviation and does not oppose the requested deviation. As shown on the SE Plat, the applicant intends to plant buffer plantings along the northern and southern property lines that will satisfy the 10-year tree canopy requirements. Staff initially noted a potential concern with the proposed development impacting an off-site tree to the north. Staff from UFMD, however, noted that the proposed tree protection measures shown on the SE Plat should be sufficient to protect that area. This will be subject to further review by UFMD at the time of grading plan review.

Through the submission of a Water Quality Impact Assessment (WQIA) and Resource Protection Area Encroachment Exception (WRPA), staff reviewed the applications to ensure compliance with the requirements of the Chesapeake Bay Preservation Ordinance (CBPO) and PFM. The WQIA and WRPA applications were reviewed concurrently with the Special Exception for this application because the proposed disturbance extends into the 50 seaward feet of the Resource Protection Area. Staff from DPWES recommends approval of the WQIA and WRPA applications, as described in the staff report contained in Appendix 5 of this report. As part of this review, staff from DPWES reviewed the buffer plantings proposed to satisfy water quality requirements of the CBPO. The proposed buffer area contains a total of 2,026 square feet of proposed plantings within the RPA. The buffer plantings will be located in the lower portions of the lot to filter runoff generated on the subject parcel for increased water quality. As summarized in the staff report for the WRPA and WQIA, the dense buffer will provide filtering of on-site stormwater runoff prior to leaving the site. Staff has proposed a development condition to attempt to ensure that this vegetation will be protected and maintained. The proposed condition requires that the vegetated buffer areas be established following construction of the dwelling and remain undisturbed once established.

6. *There shall be no storage of herbicides, pesticides, or toxic or hazardous substances as set forth in Title 40, Code of Federal Regulations, Parts 116.4 and 261.30 et seq., in a floodplain.*

The applicant has given no indication to staff that these substances would be stored on the property and the SE Plat states that there are no known hazardous or toxic substances to be generated, utilized, stored, treated, and/or disposed of on-site. To ensure that the application meets this standard, staff has proposed a development condition that prohibits the storage of herbicides, pesticides, or toxic or hazardous substances within the floodplain.

7. *For uses other than those enumerated in Par. 2 and 3 of Sect. 903 above, the applicant shall demonstrate to the satisfaction of the approving authority the extent to which:*

- A. *There are no other feasible options available to achieve the proposed use; and,*
- B. *The proposal is the least disruptive option to the floodplain; and,*
- C. *The proposal meets the environmental goals and objectives of the adopted comprehensive plan for the subject property.*

As previously discussed, the establishment of the subject property as a buildable lot predates a number of regulatory requirements and Policy Plan recommendations, including guidance on the RPA and floodplain. Given these circumstances, staff believes that the development of a single family detached dwelling on the property may be deemed appropriate. As described above, staff from DPWES reviewed the associated WQIA and WRPA applications for conformance with the CBPO. As summarized in the staff report for these applications contained in Appendix 5, staff finds that the proposal is the minimum necessary to provide an adequate finished floor elevation (13.67 feet above sea level) and garage floor elevation (13.0 feet above sea level) that is at least 18 inches above the 100-year floodplain elevation (11.0 feet above sea level). Staff also finds that the proposed development is in harmony with the purpose and intent of the CBPO and is not of substantial detriment to water quality. To address water quality, the development will include the installation of a buffer area consisting of three overstory trees, six understory trees, and 33 shrubs located in the lower portions of the lot to filter the runoff generated on the subject property for increased water quality.

The Environment Section of the Policy Plan encourages the application of energy conservation, water conservation, and other green building practices in the design and construction of new development projects, which includes the encouragement of commitments to certification under established green building rating systems. As a result, staff encouraged the applicant to commit to green building certification through Leadership in Energy and Environmental Design (LEED) for Homes, Earthcraft, or the National Green Building Standard (NGBS) using the ENERGY STAR® Qualified Homes path for energy performance. The SE Plat now states that the building will be designed using the principles of the ICC 700 National Green Building Standard. Staff has proposed a development condition that would allow the applicant the flexibility to pursue LEED for Homes, Earthcraft, or NGBS.

Overall, staff believes the application satisfies this provision for the reasons described above.

- 8. *Nothing herein shall be deemed to prohibit the refurbishing, refinishing, repair, reconstruction or other such improvements of the structure for an existing use provided such improvements are done in conformance with the Virginia Uniform Statewide Building Code and Article 15 of this Ordinance.*

The applicant's request would conform to this standard.

9. *Nothing herein shall be deemed to preclude public uses and public improvements performed by or at the direction of the County.*

No public uses have been proposed for the subject property.

10. *Notwithstanding the minimum yard requirements specified by Sect. 415 above, dwellings and additions thereto proposed for location in a floodplain may be permitted subject to the provisions of this Part and Chapter 118 of The Code.*

The proposed dwelling conforms to all of the applicable bulk regulations of the R-3 Zoning District, including minimum setbacks of 30 feet in the front, 25 feet in the rear, and 12 feet on the sides. The proposed deck and associated steps extend into the minimum required rear and side yards, which is permitted under Section 2-412 of the Zoning Ordinance. The applicant has submitted a WQIA and WRPA in accordance with Chapter 118 of The Code and staff recommends approval of these applications (Appendix 5). Therefore, staff finds this standard has been met.

11. *All uses and activities shall be subject to the provisions of Chapter 118 of The Code.*

Chapter 118 of the Fairfax County Code is the County's Chesapeake Bay Preservation Ordinance. This ordinance defines how Resource Protection Areas are delineated, governs the land use activity that is permitted within them, and provides remedial requirements for unauthorized disturbance of RPAs. The CBPO requires a WQIA and WRPA to be submitted for land disturbance within an RPA and is used to ensure that this disturbance meets the goals, objectives, and requirements of Chapter 118. The applicant has submitted a WQIA and WRPA to be heard by the Board of Supervisors concurrently with the Special Exception request. Staff from DPWES reviewed these applications and recommends approval of the requested WQIA and WRPA. With the approval of a WQIA and WRPA, the application will satisfy this standard.

12. *When as-built floor elevations are required by federal regulations or the Virginia Uniform Statewide Building Code for any structure, such elevations shall be submitted to the County on a standard Federal Emergency Management Agency (FEMA) Elevation Certificate upon placement of the lowest floor, including basement and prior to further vertical construction. If a non-residential building is being floodproofed, then a FEMA Floodproofing Certificate shall be completed in addition to the Elevation Certificate. In the case of special exception uses, the Elevation Certificate shall show compliance with the approved special exception elevations.*

Staff has proposed a development condition that would require the applicant to submit to DPWES certified as-built floor elevations prior to approval of the framing inspection on a FEMA Certificate in accordance with minimum federal

requirements and the Virginia Uniform Statewide Building Code. Staff believes that the application will satisfy this standard with the adoption of the proposed condition.

13. *The construction of all buildings and structures shall be subject to the requirements of the Virginia Uniform Statewide Building Code.*

The proposed dwelling would be subject to these requirements.

14. *All recreational vehicles shall:*

- A. *Be on site for fewer than 180 consecutive days;*
- B. *Be fully licensed and ready for highway use; or,*
- C. *Meet the requirements of this Part and the Virginia Uniform Statewide Building Code for anchoring and elevation of manufactured homes.*

If the applicant decides to store recreational vehicles on site, this standard would apply.

15. *All necessary permits shall be received from those governmental agencies from which approval is required by Federal or State law, including Section 404 of the Federal Water Pollution Control Act Amendments of 1972, as amended, 33 U.S.C. § 1334.*

Staff has proposed a development condition that will require the applicant to demonstrate to DPWES that all necessary federal, state, and county approvals have been obtained prior to any additional land disturbing activity. In addition, staff has proposed a development condition that will require the applicant to obtain a written determination from the US Army Corps of Engineers prior to the submission of a grading plan as to whether any action is required by the applicant to ensure compliance with § 404 of the Clean Water Act.

16. *If any new construction, substantial improvements, or other development, including fill, when combined with all other existing, anticipated and planned development, results in change in the base flood elevation in any Special Flood Hazard Area (SFHA) depicted on the County's Flood Insurance Rate Map (FIRM), the applicant shall notify the Federal Insurance Administrator of the changes by submitting technical or scientific data to FEMA for a Letter of Map Revision, as soon as practicable but, not later than six (6) months after the date such information becomes available or the placement of fill, whichever comes first. If the projected increase in the base flood elevation is greater than one (1) foot, the applicant shall also obtain approval of a Conditional Letter of Map Revision from the Federal Insurance Administrator prior to the approval of construction.*

To ensure that the applicant complies with this standard, staff has proposed a development condition that would require the applicant to notify the Federal Insurance Administrator of the grading changes resulting from the development.

17. *In riverine situations, adjacent communities and the Virginia Department of Conservation and Recreation shall be notified prior to any alteration or relocation of a watercourse depicted on the FIRM and copies of such notifications shall be submitted to the Federal Insurance Administrator. The flood carrying capacity within the altered or relocated portion of any watercourse shall be maintained.*

Staff does not believe the nearby watercourses will be altered or relocated as a result of the proposed fill. As such, staff believes the application satisfies this standard.

In staff's opinion, the applicant's request satisfies all of the Use Limitations for Uses in a Floodplain with the proposed development conditions.

#### **General Special Exception Standards (Sect. 9-006)**

All special exception uses shall satisfy the following general standards:

1. *The proposed use at the specified location shall be in harmony with the adopted comprehensive plan.*

The subject parcel is designated for residential use in the Comprehensive Plan. Staff believes this project is in harmony with the recommendations of the Comprehensive Plan.

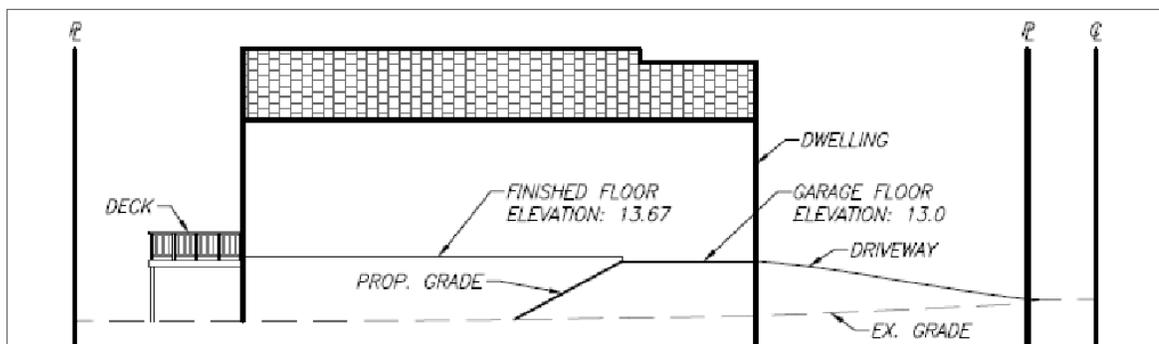
2. *The proposed use shall be in harmony with the general purpose and intent of the applicable zoning district regulations.*

Staff finds that the application is in harmony with the purpose and intent of the R-3 District, which was established to provide for single family detached dwellings, provide for affordable dwelling unit developments, and allow other selected uses which are compatible with the low density residential character of the district. The purpose and intent of the Zoning Ordinance's Floodplain Regulations is to provide for safety from flood and other dangers; to protect against loss of life, health, or property from flood or other dangers; and, to preserve and protect floodplains in as natural a state as possible for the preservation of wildlife habitats, for the maintenance of the natural integrity and function of the streams, for the protection of water quality, and for the promotion of a zone for ground water recharge. Therefore, staff believes the applicant's request would be harmonious with the applicable zoning district regulations subject to conformance with the proposed development conditions.

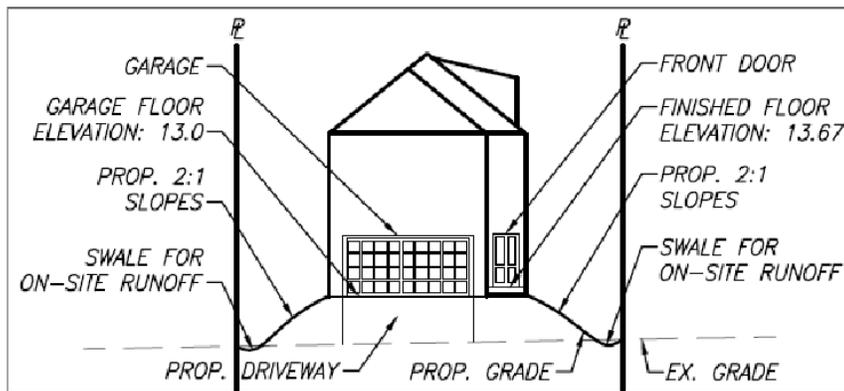
3. *The proposed use shall be such that it will be harmonious with and will not adversely affect the use or development of neighboring properties in accordance with the applicable zoning district regulations and the adopted comprehensive plan. The location, size and height of buildings, structures, walls and fences, and the nature and extent of screening, buffering and landscaping shall be such that the use will not hinder or discourage the appropriate development and use of adjacent or nearby land and/or buildings or impair the value thereof.*

The property is zoned R-3 and is surrounded by other properties zoned R-3 containing single family detached dwellings to the north, south, and west and bounded by non-vegetated wetlands to the east. The proposed dwelling will conform to the 35-foot maximum height regulation of the R-3 District. As previously discussed, the New Alexandria subdivision is located within the floodplain and RPA. As a result, numerous Special Exception applications for fill in the floodplain to reconstruct or construct new single family dwellings have been approved in the vicinity of the subject property. Because the applicant will be adding less than 2,500 square feet of impervious area within the RPA, no stormwater management or Best Management Practices (BMPs) are required.

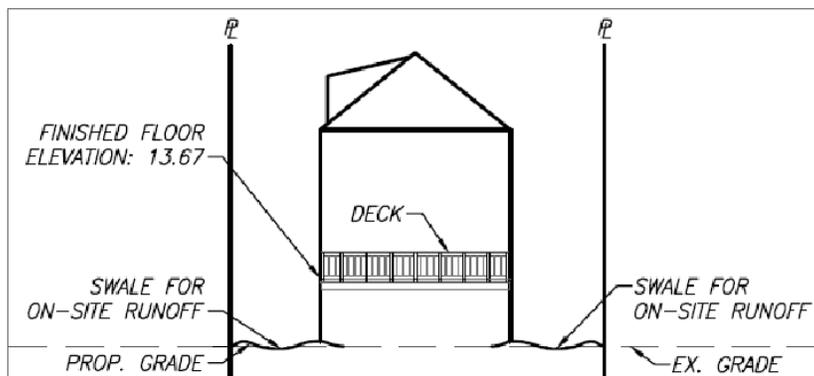
During the review of the application, staff raised concerns during the review of the application regarding the possible impact of the proposed dwelling on the adjacent properties in terms of stormwater runoff and drainage due to the increase in impervious surface and fill being proposed on the property. The applicant responded by providing the below cross-sections to attempt to demonstrate how drainage will occur, which illustrates that a swale will be provided on both sides of the dwelling to channel the on-site runoff. As described in the outfall narrative on Sheet 1 of the SE Plat, the majority of stormwater generated will leave the site in the easterly direction where it immediately enters an unnamed creek and is conveyed to the southeast until it eventually outfalls into the Potomac River. The remainder of the stormwater will leave the site in the westerly direction where it enters the Wood Haven Road right-of-way.



Side of Dwelling



Front of Dwelling



Rear of Dwelling

In addition, the applicant's revised SE Plat depicts downspouts on the northern and southern sides of the dwelling to collect water from the dwelling's roof and daylight it into the proposed swales to the sides of the dwelling.

In reviewing the above cross-sections, staff raised a concern about the proposed dwelling appearing elevated above the adjacent dwellings. The narrow lot width of 50 feet allows only a short distance available to transition from existing grade to the finished floor elevation of the dwelling. Although the dwelling may appear elevated above the adjacent dwellings, staff acknowledges that this is the result of the requirement to elevate the garage and dwelling above the floodplain elevation. The existing elevation near the area of the proposed dwelling is approximately 6 feet above sea level and the applicant is required to elevate the dwelling by at least 18 inches above the floodplain elevation, which is 11 feet in this area. Staff notes that the proposed dwelling is subject to the maximum building height in the R-3 District of 35 feet as measured from the existing grade.

Staff has proposed a development condition to further address the drainage issue, which states that stormwater drainage shall be directed to ditches through the use of pipes, swales, or other devices. The proposed condition further states that all fill areas shall be stabilized, graded, or have drains installed such that rainfall during the 2-year and 10-year storm events will not flow over the filled

area onto adjacent properties, as determined by DPWES. In addition, the applicant will be required to demonstrate at the time of grading plan that adequate outfall will be provided in accordance with the PFM. Staff believes that with the proposed development conditions, the proposed dwelling and associated fill will not adversely affect the use or development of neighboring properties.

4. *The proposed use shall be such that pedestrian and vehicular traffic associated with such use will not be hazardous or conflict with the existing and anticipated traffic in the neighborhood.*

In staff's opinion, the construction of one single family detached dwelling will not significantly affect pedestrian and vehicular traffic in the neighborhood.

5. *In addition to the standards which may be set forth in this Article for a particular category or use, the Board shall require landscaping and screening in accordance with the provisions of Article 13.*

There are no transitional screening or barrier requirements for the proposed single family detached dwelling. Article 13 of the Zoning Ordinance requires any addition or removal of vegetation within the RPA to be subject to the provisions of Chapter 118 of the County Code, which is the Chesapeake Bay Preservation Ordinance. The applicant would need to comply with these regulations. Sheet 1 of the SE Plat depicts proposed buffer plantings along the northern and southern property lines in accordance with Chapter 118 of the County Code. Staff has proposed a development condition that will require the vegetated buffer areas to be established following construction of the single family detached dwelling and that once established the vegetated buffers shall remain undisturbed. The condition further states there shall be no fences, structures, or other land disturbing activities permitted except for the removal of dead, dying, or diseased trees. Finally, the proposed development conditions state that the final location and species of the proposed plantings shall be subject to the review and approval of UFMD at the time of grading plan review. With the implementation of the proposed development conditions, staff believes the applicant meets this standard.

6. *Open space shall be provided in an amount equivalent to that specified for the zoning district in which the proposed use is located.*

The Zoning Ordinance does not specify a minimum open space requirement for a parcel within the R-3 conventional district.

7. *Adequate utility, drainage, parking, loading and other necessary facilities to serve the proposed use shall be provided. Parking and loading requirements shall be in accordance with the provisions of Article 11.*

Staff believes the applicant will be providing for adequate utilities and parking for the proposed dwelling with the connection of water and sewer and the proposed two-car garage. As previously discussed, staff believes that with the proposed development conditions, adequate drainage will be provided. In staff's opinion the application meets this standard.

8. *Signs shall be regulated by the provisions of Article 12; however, the Board may impose more strict requirements for a given use than those set forth in this Ordinance.*

The applicant has not incorporated any requests related to signs. Any signs for the proposed use shall be in accordance with the provisions of Article 12 of the Zoning Ordinance.

In staff's opinion, the applicant's request satisfies all of the General Special Exception Standards with the adoption of the proposed development conditions.

## **WAIVERS AND MODIFICATIONS**

### **Deviation from the Tree Preservation Target pursuant to Section 12-0508.3 of the Public Facilities Manual (PFM) to provide no tree preservation**

The applicant is not providing any tree preservation and the tree preservation target for this site is 801 square feet according to the SE Plat. Therefore, the applicant is requesting a deviation of the tree preservation target. The applicant submitted a request for this deviation to UFMD under Sect. 12-0508.3A(3) of the PFM, which allows a deviation to the tree preservation target when construction activities could be reasonably expected to impact existing trees or forested areas used to meet the tree preservation target to the extent these would not likely survive in a healthy and structurally sound manner for a minimum of 10 years. The applicant's request states that due to the small size of the property, development activities could reasonably be expected to impact all existing on-site vegetation. Staff from UFMD reviewed the applicant's request and does not object to the approval of a deviation from the tree preservation target given the applicant's justification.

## **CONCLUSIONS AND RECOMMENDATIONS**

### **Staff Conclusions**

The applicant requests the approval of a Special Exception to allow construction of a single family detached residential dwelling within the 100-year floodplain. The applicant also requests approval of an associated WRPA and WQIA to permit disturbance within the RPA. Staff believes that with the implementation of the proposed development conditions and the WRPA/WQIA conditions, the proposal is in

conformance with the Comprehensive Plan guidelines and the applicable Zoning Ordinance provisions.

### **Recommendation**

Staff recommends approval of SE 2014-MV-019, subject to the Development Conditions contained in Appendix 1.

Staff recommends approval of RPA Encroachment Exception #1391-WRPA-001-1 and WQIA #1391-WQ-001-1, subject to the proposed development conditions contained in Attachment A of Appendix 5.

Staff recommends approval of a deviation from the tree preservation target pursuant to Section 12-0508.3 of the PFM in favor of the landscaping shown on the SE Plat.

It should be noted that it is not the intent of staff to recommend that the Board, in adopting any conditions proffered by the owner, relieve the applicants/owners from compliance with the provisions of any applicable ordinances, regulations, or adopted standards.

It should be further noted that the content of this report reflects the analysis and recommendation of staff; it does not reflect the position of the Board of Supervisors. The approval of this application does not interfere with, abrogate or annul any easements, covenants, or other agreements between parties, as they may apply to the property subject to this application.

### **APPENDICES**

1. Proposed Development Conditions
2. Applicant's Statement of Justification
3. Affidavit
4. Buildable Lot Determination 09172-LV-001-1
5. Staff Report for #1391-WRPA-001-1 and 1391-WQ-001-1
6. Environmental Analysis
7. Stormwater Management Analysis
8. Urban Forest Management Analysis
9. Glossary of Terms

**PROPOSED DEVELOPMENT CONDITIONS****SE 2014-MV-019****October 2, 2014**

If it is the intent of the Board of Supervisors to approve SE 2014-MV-019, located at 6430 Wood Haven Road, Tax Map 93-2 ((8)) (37) 28A, for fill in a floodplain pursuant to Sect. 2-904 and 9-606 of the Fairfax County Zoning Ordinance, staff recommends that the Board condition the approval by requiring conformance with the following development conditions:

1. This Special Exception is granted for and runs with the land indicated in this application and is not transferable to other land.
2. This Special Exception is granted only for the purpose(s), structure(s) and/or use(s) indicated on the Special Exception Plat approved with the application, as qualified by these development conditions.
3. This Special Exception is subject to the provisions of Article 17, Site Plans as may be determined by the Department of Public Works and Environmental Services (DPWES). Any plan submitted pursuant to this Special Exception shall be in substantial conformance with the approved Special Exception Plat entitled "Special Exception Lots 28 and 29, Block 37 New Alexandria" prepared by R.C. Fields & Associates, Inc., which is dated September 16, 2013, as revised through August 8, 2014, and these conditions. Minor modifications to the approved Special Exception may be permitted pursuant to Par. 4 of Sect. 9-004 of the Zoning Ordinance.
4. Within 30 days of the Special Exception's approval, the applicant shall submit an agreement or suitable documents to the County Attorney's office for review and approval. The agreement shall notify future owners of Tax Map 93-2 ((8)) (47) 28A that the land is subject to an approved Special Exception (SE 2014-MV-019). The agreement or suitable documents shall be recorded prior to grading plan approval.
5. Disclosure of potential flood hazards due to the location of the site within the 100-year floodplain shall be made in writing to any potential home buyers prior to the execution of a sales contract.
6. The amount of fill permitted shall not exceed 570 cubic yards.
7. The applicant shall obtain a written determination from the US Army Corps of Engineers prior to the submission of a grading plan as to whether any action is required by the applicant to ensure compliance with § 404 of the Clean Water act. Any required actions shall be completed prior to grading the site. If any

necessary permissions are not granted or the required actions are not completed, this Special Exception shall be null and void.

8. Concurrent with the first submission of any grading plan, site plan, or minor site plan, the applicant shall submit an additional copy of the plan to the Fairfax County Federal Emergency Management Agency (FEMA) Floodplain Administrator (Stormwater Planning Division) to determine whether the base flood elevation in any Special Flood Hazard Area (SFHA) depicted on the County's Flood Insurance Rate Map (FIRM) would be altered as a result of any new construction, substantial improvements, or other development shown on the plan, including fill. If the County FEMA Floodplain Administrator determines that the base flood elevation would be altered, the applicant shall submit technical or scientific data to FEMA for a Letter of Map Revision. If the projected increase in the base flood elevation is greater than one foot, the applicant shall also obtain approval of a Conditional Letter of Map Revision from the Federal Insurance Administrator prior to the approval of any construction. If the applicant is required to submit either a Letter of Map Revision and/or Conditional Letter of Map Revision as outlined above, the applicant shall submit a copy of the approval letter from FEMA to the Department of Planning and Zoning (DPZ).
9. Prior to the approval of a grading plan, site plan, or minor site plan, a Hold Harmless agreement shall be executed with Fairfax County for any adverse effects resulting from the location of the site within a floodplain area.
10. If requested by DPWES, a geotechnical report shall be submitted to DPWES prior to grading plan approval. Plans shall be implemented as required by DPWES.
11. The applicant shall demonstrate to DPWES prior to approval of a grading plan that the proposed disturbance, when combined with all other existing, anticipated, and planned development, shall not increase the water surface elevation above the 100-year flood level upstream and downstream.
12. The applicant must demonstrate to DPWES that all necessary federal, state, and county approvals have been obtained prior to any additional land disturbing activity.
13. Erosion and sediment control measures shall be installed at all stages of construction, as determined by DPWES. A "super silt fence" shall be installed along the lower clearing and grading limits for the site. If deemed necessary by DPWES, controls shall be designed to achieve greater erosion and sediment control than that achieved by the minimum design standards set forth in the Public Facilities Manual and the Virginia Erosion and Sediment Control Handbook.
14. The applicant shall submit certified as-built floor elevations prior to approval of the framing inspection, on a FEMA Certificate to be filed with the Residential

Inspections Division, DPWES, in accordance with minimum federal requirements and the Virginia Uniform Statewide Building Code in effect at the time the building permit is issued. In addition, at the time of the framing inspection the applicant shall demonstrate to DPWES that the elevation of the lowest part of the lowest floor of the dwelling proposed on the property shall be at least 18 inches above the base flood elevation, in accordance with Par. 2 of Sect. 2-905 of the Zoning Ordinance, and the inspection record shall include a signed or initialed statement of concurrence by the inspector.

15. The limits of clearing and grading as shown on the SE Plat shall be clearly marked and fenced to protect the off-site trees outside those limits. Tree protection fencing shall be erected using 4-foot high, 14-gauge welded wire fencing attached to 6-foot steel posts driven 18 inches into the ground on 10-foot centers.
16. All tree-protection fencing shall be installed prior to any clearing and grading activities and shall be done under the supervision of a certified arborist and accomplished in a manner that does not harm any existing off-site vegetation that is to be preserved. After the fencing is installed and at least 3 days prior to any ground disturbing activity, Urban Forest Management, DPWES and the District Supervisor shall be notified and given the opportunity to inspect the site to ensure all tree protection fencing is properly installed. No grading or construction activity shall occur until the required fencing is correctly completed, as determined by DPWES.
17. The final location and species of the proposed plantings shall be subject to the review and approval of the Urban Forest Management Division (UFMD) at the time of grading plan review.
18. The vegetated buffer areas shall be established following construction of the single family detached dwelling and plantings within the vegetated buffer areas shall be provided prior to the issuance of the Residential Use Permit (RUP), as determined by the Urban Forest Management Division (UFMD). Prior to installation of plants to meet requirements of the approved landscape plan, the Applicant shall coordinate a pre-installation meeting on site with the landscape contractor and a representative of the County Urban Forest Management Division. Any proposed changes to the location of planting, size of trees/shrubs, and any proposed plant substitutions for species specified on the approved plan shall be reviewed at this time and must be approved prior to planting. The installation of plants not specified on the approved plan, and not previously approved by UFMD, may require submission of a revision to the landscape plan or removal and replacement with approved material, prior to bond release. UFMD shall be contacted a minimum of three days prior to the meeting on site. Once established the vegetated buffer areas shall remain undisturbed. There shall be no fences, structures, or other land disturbing activities permitted except for the removal of dead, dying or diseased trees.

19. The limits of clearing and grading shown on the Plat shall be strictly observed and enforced. Any encroachment into, and/or disturbance of, the Resource Protection Area (RPA) not shown on the approved Plat will be considered a violation of the Chesapeake Bay Preservation Ordinance (CBPO) and is subject to the penalties of the CBPO Article 9.
20. Any replanting or maintenance of landscaping shown on the approved grading plan shall be in accordance with the Chesapeake Bay Preservation Ordinance (Chapter 118 of the Fairfax County Code).
21. All mechanical, electrical, and utility equipment shall be located at or above the flood level.
22. The crawl space shall not be converted to a finished basement or any living space.
23. The dwelling shall be limited to a height of 35 feet as measured from the existing grade, as defined by the Zoning Ordinance.
24. Stormwater drainage shall be directed to ditches through the use of pipes, swales, or other devices, as determined by DPWES. All fill areas shall be stabilized, graded, or have drains installed such that rainfall during 2-year and 10-year storm events will not flow over the filled area onto adjacent properties, as determined by DPWES.
25. The dwelling unit shall be constructed to achieve one of the following:
  - a) Qualification in accordance with ENERGY STAR® (VERSION 3.0) Qualified Homes path for energy performance, as demonstrated through documentation submitted to the Environment and Development review Branch of the Department of Planning and Zoning ("DPZ") and from a home energy rater certified through the Home Innovation Research Labs that demonstrates that the dwelling unit has attained the certification prior to the issuance of the Residential Use Permit for the dwelling; or
  - b) Certification in accordance with the National Green Building Standard (NGCS) using the ENERGY STAR® (version 3.0) Qualified Homes path for energy performance, as demonstrated through documentation submitted to the Environment and Development review Branch of the DPZ and from a home energy rater certified through the Home Innovation Research Labs that demonstrates that the dwelling unit has attained the certification prior to the issuance of the RUP for the dwelling; or
  - c) Certification in accordance with the Earth Craft House Program, as demonstrated through documentation provided to DPWES and DPZ prior to the issuance of the RUP for the dwelling.

26. There shall be no storage of herbicides, pesticides, or toxic or hazardous substances as set forth in Title 40, Code of Federal Regulations, Parts 116.4 and 261.30 et seq., within the floodplain.

This approval, contingent on the above noted conditions, shall not relieve the applicant from compliance with the provisions of any applicable ordinances, regulations, or adopted standards. The applicant shall be themselves responsible for obtaining the required Residential Use Permit through established procedures, and this Special Exception shall not be valid until this has been accomplished.

Pursuant to Section 9-015 of the Zoning Ordinance, this special exception shall automatically expire, without notice, thirty (30) months after the date of approval unless, at a minimum, the use has been established or construction has commenced and been diligently prosecuted as evidenced by the issuance of an approval for a grading plan, site plan, or minor site plan. The Board of Supervisors may grant additional time to establish the use or to commence construction if a written request for additional time is filed with the Zoning Administrator prior to the date of expiration of the special exception. The request must specify the amount of additional time requested, the basis for the amount of time requested and an explanation of why additional time is required.

July 18, 2013

Fairfax County Board of Zoning Appeals  
12055 Government Center Parkway  
Suite #801  
Fairfax, VA. 22035

**SPECIAL EXCEPTION STATEMENT of JUSTIFICATION**

**TM# 093-2-08-37-0028A  
6430 Wood Haven Road  
Alexandria, VA 22307**

I, Alex Boulden; agent for the owner of the above mentioned property, am requesting a Special Exception (section 9-011) to allow for fill in the floodplain and construction of a single-family dwelling on an existing site located in the Mount Vernon District of Fairfax County. The property is located completely within a Resource Protection Area (RPA) and the 100-year Floodplain. The site is currently vacant. The proposed dwelling will have a minimum floor elevation of 13.00 ft. for the garage and a minimum floor elevation of 13.67 ft. for the main living area. These elevations will allow for the base of the aforementioned floors to be 18" above the 100-year floodplain (elevation of 11.0). The proposed dwelling will be designed in an architectural style similar to surrounding properties. This exception is the minimum necessary to afford relief.

The proposed use for the site is residential. The properties to the north, south, and west are all used for or zoned residential. The proposed residential dwelling is expected to have 10 vehicle trips per day. The granting of this exception will not confer any special privileges that are denied to other property owners who are similarly situated.

There are no known hazardous or toxic substances to be generated, utilized, stored, treated or disposed of on-site. The proposed use of this site conforms to all applicable ordinances, regulations and adopted standards. A Water Quality Impact Assessment and exception for encroachment within the seaward 50' of the RPA (loss of buildable area in RPA [section 118-6-7]) has been submitted concurrently with this special exception application. Due to limitation of the property (poor soils, located within the flood plain, and completely in the RPA) a bio-retention basin or other BMP is impractical on this property; therefore, A water quality control modification waiver for impervious area over 18% (section 118-3-2(f)(7)) shall be requested after approval of this Special Exception. In order to offset the increase in impervious area we are proposing a buffer area that is 1,292 sq. ft. This exception request is not based on conditions or circumstances that are self-created or self-imposed.

I thank you in advance for your consideration of this Special Exception and will gladly answer any additional questions you may have.

Sincerely,

  
\_\_\_\_\_  
Alex Boulden, E.I.T. (agent)

4/7/2014  
\_\_\_\_\_  
Date

## Attachment to Special Exception Statement of Justification

After conversation with Fairfax County Staff it has been determined that the Waiver Determination Letter regarding our letter requested a Waiver of Certain Submission Requirements for Qin H. Zheng Special Exception for Fill in the Floodplain has been approved. The County's determination letter states within the 4<sup>th</sup> paragraph that our request has been partially approved pursuant to the provisions of Par. 6 of Sect. 18-204 of the Zoning Ordinance. The request is deemed appropriate because the information requested will be sufficient to allow adequate staff evaluation of the proposal. The Waiver Determination letter is attached to this letter.

**SPECIAL EXCEPTION AFFIDAVIT**DATE: July 8, 2014  
(enter date affidavit is notarized)I, Inda E. Stagg, agent, do hereby state that I am an  
(enter name of applicant or authorized agent)(check one)             applicant  
                              applicant's authorized agent listed in Par. 1(a) below

126301

in Application No.(s): SE 2014-MV-019  
(enter County-assigned application number(s), e.g. SE 88-V-001)

and that, to the best of my knowledge and belief, the following information is true:

1(a). The following constitutes a listing of the names and addresses of all **APPLICANTS, TITLE OWNERS, CONTRACT PURCHASERS, and LESSEES** of the land described in the application,\* and, if any of the foregoing is a **TRUSTEE,\*\*** each **BENEFICIARY** of such trust, and all **ATTORNEYS and REAL ESTATE BROKERS**, and all **AGENTS** who have acted on behalf of any of the foregoing with respect to the application:

**(NOTE:** All relationships to the application listed above in **BOLD** print are to be disclosed. Multiple relationships may be listed together, e.g., **Attorney/Agent, Contract Purchaser/Lessee, Applicant/Title Owner**, etc. For a multiparcel application, list the Tax Map Number(s) of the parcel(s) for each owner(s) in the Relationship column.)

<b>NAME</b> (enter first name, middle initial, and last name)	<b>ADDRESS</b> (enter number, street, city, state, and zip code)	<b>RELATIONSHIP(S)</b> (enter applicable relationships listed in <b>BOLD</b> above)
Qin H. Zheng	P.O. Box 6542 Alexandria, VA 22306	Applicant/Title Owner of Tax Map 93-2 ((8)) (37) 28A
R.C. Fields & Associates, Inc.  Agents: Alex W. Boulden Ronald J. Keller Robert A. Weinig Paul A. Wilder	730 S. Washington Street Alexandria, Virginia 22314	Engineer/Agent

(check if applicable)             There are more relationships to be listed and Par. 1(a) is continued on a "Special Exception Attachment to Par. 1(a)" form.

\* In the case of a condominium, the title owner, contract purchaser, or lessee of 10% or more of the units in the condominium.

\*\* List as follows: Name of trustee, Trustee for (name of trust, if applicable), for the benefit of: (state name of each beneficiary).

**Special Exception Attachment to Par. 1(a)**

DATE: July 8, 2014  
(enter date affidavit is notarized)

for Application No. (s): SE 2014-MV-019  
(enter County-assigned application number (s))

126301

**(NOTE:** All relationships to the application are to be disclosed. Multiple relationships may be listed together, e.g., **Attorney/Agent, Contract Purchaser/Lessee, Applicant/Title Owner**, etc. For a multiparcel application, list the Tax Map Number(s) of the parcel (s) for each owner(s) in the Relationship column.)

<b>NAME</b> (enter first name, middle initial, and last name)	<b>ADDRESS</b> (enter number, street, city, state, and zip code)	<b>RELATIONSHIP(S)</b> (enter applicable relationships listed in <b>BOLD</b> above)
Walsh, Colucci, Lubeley & Walsh, P.C.  Agents: Martin D. Walsh Lynne J. Strobel Timothy S. Sampson M. Catharine Puskar Sara V. Mariska G. Evan Pritchard Andrew A. Painter Matthew J. Allman Elizabeth D. Baker Inda E. Stagg Elizabeth A. Nicholson	2200 Clarendon Boulevard Suite 1300 Arlington, VA 22201	Attorneys/Planners/Agent  Attorney/Agent Attorney/Agent Attorney/Agent Attorney/Agent Attorney/Agent Attorney/Agent Attorney/Agent Planner/Agent Planner/Agent Planner/Agent

(check if applicable)  There are more relationships to be listed and Par. 1(a) is continued further on a "Special Exception Attachment to Par. 1(a)" form.

SPECIAL EXCEPTION AFFIDAVIT

DATE: July 8, 2014
(enter date affidavit is notarized)

for Application No. (s): SE 2014-MV-019
(enter County-assigned application number(s))

126301

1(b). The following constitutes a listing\*\*\* of the SHAREHOLDERS of all corporations disclosed in this affidavit who own 10% or more of any class of stock issued by said corporation, and where such corporation has 10 or less shareholders, a listing of all of the shareholders:

(NOTE: Include SOLE PROPRIETORSHIPS, LIMITED LIABILITY COMPANIES, and REAL ESTATE INVESTMENT TRUSTS herein.)

CORPORATION INFORMATION

NAME & ADDRESS OF CORPORATION: (enter complete name and number, street, city, state, and zip code) - R.C. Fields & Associates, Inc.
730 S. Washington Street
Alexandria, Virginia 22314

DESCRIPTION OF CORPORATION: (check one statement)

- [x] There are 10 or less shareholders, and all of the shareholders are listed below.
[ ] There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
[ ] There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

NAMES OF SHAREHOLDERS: (enter first name, middle initial and last name)

Paul A. Wilder
Ronald J. Keller

(check if applicable) [x] There is more corporation information and Par. 1(b) is continued on a "Special Exception Affidavit Attachment 1(b)" form.

\*\*\* All listings which include partnerships, corporations, or trusts, to include the names of beneficiaries, must be broken down successively until: (a) only individual persons are listed or (b) the listing for a corporation having more than 10 shareholders has no shareholder owning 10% or more of any class of stock. In the case of an APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE\* of the land that is a partnership, corporation, or trust, such successive breakdown must include a listing and further breakdown of all of its partners, of its shareholders as required above, and of beneficiaries of any trusts. Such successive breakdown must also include breakdowns of any partnership, corporation, or trust owning 10% or more of the APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE\* of the land. Limited liability companies and real estate investment trusts and their equivalents are treated as corporations, with members being deemed the equivalent of shareholders; managing members shall also be listed. Use footnote numbers to designate partnerships or corporations, which have further listings on an attachment page, and reference the same footnote numbers on the attachment page.

**Special Exception Attachment to Par. 1(b)**

DATE: July 8, 2014  
(enter date affidavit is notarized)

126301

for Application No. (s): SE 2014-MV-019  
(enter County-assigned application number (s))

**NAME & ADDRESS OF CORPORATION:** (enter complete name, number, street, city, state, and zip code)

Walsh, Colucci, Lubeley & Walsh, P.C.  
2200 Clarendon Boulevard, Suite 1300  
Arlington, VA 22201

**DESCRIPTION OF CORPORATION:** (check one statement)

- There are 10 or less shareholders, and all of the shareholders are listed below.
- There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
- There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

**NAMES OF THE SHAREHOLDERS:** (enter first name, middle initial, and last name)

David J. Bomgardner, E. Andrew Burcher,	Michael D. Lubeley, J. Randall Minchew,
Thomas J. Colucci, Michael J. Coughlin,	G. Evan Pritchard, M. Catharine Puskar,
Peter M. Dolan, Jr., Jay du Von, William A.	John E. Rinaldi, Kathleen H. Smith,
Fogarty, John H. Foote, H. Mark Goetzman,	Lynne J. Strobel, Garth M. Wainman,
Bryan H. Guidash, Michael J. Kalish,	Nan E. Walsh, Martin D. Walsh

**NAME & ADDRESS OF CORPORATION:** (enter complete name, number, street, city, state, and zip code)

**DESCRIPTION OF CORPORATION:** (check one statement)

- There are 10 or less shareholders, and all of the shareholders are listed below.
- There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
- There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

**NAMES OF THE SHAREHOLDERS:** (enter first name, middle initial, and last name)

(check if applicable)  There is more corporation information and Par. 1(b) is continued further on a "Special Exception Attachment to Par. 1(b)" form.

SPECIAL EXCEPTION AFFIDAVIT

DATE: July 8, 2014
(enter date affidavit is notarized)

126301

for Application No. (s): SE 2014-MV-019
(enter County-assigned application number(s))

1(c). The following constitutes a listing\*\*\* of all of the PARTNERS, both GENERAL and LIMITED, in any partnership disclosed in this affidavit:

PARTNERSHIP INFORMATION

PARTNERSHIP NAME & ADDRESS: (enter complete name, and number, street, city, state, and zip code)
None

(check if applicable) [ ] The above-listed partnership has no limited partners.

NAMES AND TITLE OF THE PARTNERS (enter first name, middle initial, last name, and title, e.g. General Partner, Limited Partner, or General and Limited Partner)

(check if applicable) [ ] There is more partnership information and Par. 1(c) is continued on a "Special Exception Affidavit Attachment to Par. 1(c)" form.

\*\*\* All listings which include partnerships, corporations, or trusts, to include the names of beneficiaries, must be broken down successively until: (a) only individual persons are listed or (b) the listing for a corporation having more than 10 shareholders has no shareholder owning 10% or more of any class of stock. In the case of an APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE\* of the land that is a partnership, corporation, or trust, such successive breakdown must include a listing and further breakdown of all of its partners, of its shareholders as required above, and of beneficiaries of any trusts. Such successive breakdown must also include breakdowns of any partnership, corporation, or trust owning 10% or more of the APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE\* of the land. Limited liability companies and real estate investment trusts and their equivalents are treated as corporations, with members being deemed the equivalent of shareholders; managing members shall also be listed. Use footnote numbers to designate partnerships or corporations, which have further listings on an attachment page, and reference the same footnote numbers on the attachment page.

SPECIAL EXCEPTION AFFIDAVIT

DATE: July 8, 2014  
(enter date affidavit is notarized)

126301

for Application No. (s): SE 2014-MV-019  
(enter County-assigned application number(s))

1(d). One of the following boxes **must** be checked:

In addition to the names listed in Paragraphs 1(a), 1(b), and 1(c) above, the following is a listing of any and all other individuals who own in the aggregate (directly and as a shareholder, partner, and beneficiary of a trust) 10% or more of the **APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE\*** of the land:

Other than the names listed in Paragraphs 1(a), 1(b), and 1(c) above, no individual owns in the aggregate (directly and as a shareholder, partner, and beneficiary of a trust) 10% or more of the **APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE\*** of the land.

2. That no member of the Fairfax County Board of Supervisors, Planning Commission, or any member of his or her immediate household owns or has any financial interest in the subject land either individually, by ownership of stock in a corporation owning such land, or through an interest in a partnership owning such land.

**EXCEPT AS FOLLOWS:** (NOTE: If answer is none, enter "NONE" on the line below.)

None

(check if applicable)  There are more interests to be listed and Par. 2 is continued on a "Special Exception Attachment to Par. 2" form.

Application No.(s): SE 2014-MV-019  
(county-assigned application number(s), to be entered by County Staff)

**SPECIAL EXCEPTION AFFIDAVIT**

DATE: July 8, 2014  
(enter date affidavit is notarized)

126301

3. That within the twelve-month period prior to the public hearing of this application, no member of the Fairfax County Board of Supervisors, Planning Commission, or any member of his or her immediate household, either directly or by way of partnership in which any of them is a partner, employee, agent, or attorney, or through a partner of any of them, or through a corporation in which any of them is an officer, director, employee, agent, or attorney or holds 10% or more of the outstanding bonds or shares of stock of a particular class, has, or has had any business or financial relationship, other than any ordinary depositor or customer relationship with or by a retail establishment, public utility, or bank, including any gift or donation having a value of more than \$100, singularly or in the aggregate, with any of those listed in Par. 1 above.

**EXCEPT AS FOLLOWS:** (NOTE: If answer is none, enter "NONE" on line below.)

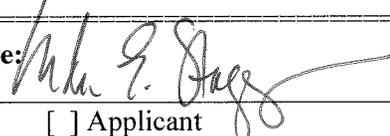
None

**NOTE:** Business or financial relationships of the type described in this paragraph that arise after the filing of this application and before each public hearing must be disclosed prior to the public hearings. See Par. 4 below.)

(check if applicable) [ ] There are more disclosures to be listed and Par. 3 is continued on a "Special Exception Attachment to Par. 3" form.

4. That the information contained in this affidavit is complete, that all partnerships, corporations, and trusts owning 10% or more of the APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE\* of the land have been listed and broken down, and that prior to each and every public hearing on this matter, I will reexamine this affidavit and provide any changed or supplemental information, including business or financial relationships of the type described in Paragraph 3 above, that arise on or after the date of this application.

WITNESS the following signature:



(check one) [ ] Applicant [x] Applicant's Authorized Agent

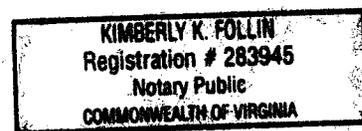
Inda E. Stagg, agent

(type or print first name, middle initial, last name, and & title of signee)

Subscribed and sworn to before me this 8 day of July 2014, in the State/Comm. of Virginia, County/City of Arlington.

  
Notary Public

My commission expires: 11/30/2015





# County of Fairfax, Virginia

To protect and enrich the quality of life for the people, neighborhoods and diverse communities of Fairfax County

## Buildable Lot Determination

0	9	1	7	2	-	L	V	-	0	0	1	-	1
---	---	---	---	---	---	---	---	---	---	---	---	---	---

**Property Tax Map Number:** 093-2-08-37-0028  
**Property Address:** 1220 I Street, Alexandria, VA  
**Applicant's Name:** Andrea Spruch  
**Applicant's Address:** R.C. Fields & Associates, 730 S. Washington Street, Alexandria, VA 22314  
**Applicant's Phone Number:** 703-549-6422  
**Current Zoning:** R-3  
**Magisterial District:** Mount Vernon  
**Subdivision Name:** New Alexandria

The Department of Public Works and Environmental Services have reviewed the subject lot for compliance with the Fairfax County Subdivision Ordinance. Based on a search of the pertinent deed information associated with this lot, it appears that the subject lot was created and recorded on October 21, 1892 in Deed Book 118 Page 254. From a subdivision perspective, this action is described as one of the following:

- BGN 01/25/2013  
Initial/Date Recordation of a metes and bounds description or plat prior to September 1, 1947.
- \_\_\_\_\_  
Initial/Date Recordation of a deed and plat in compliance with the Subdivision Ordinance in effect at the time.
- \_\_\_\_\_  
Initial/Date Recordation of a metes and bounds description or plat after September 1, 1947 and at least on March 25, 2003, or thereafter the subject lot has been included on the Fairfax County Real Property Identification Map as a separate lot and has been taxed as a separate lot.

The Zoning Administration Division, Department of Planning and Zoning (DPZ) have reviewed the subject lot for compliance with the applicable requirements of the Fairfax County Zoning Ordinance. The subject lot is currently zoned R-3 which district requires a minimum lot area of 10,500 square feet and a minimum lot width of 80 feet. Each of the lots has a lot area of 3,500 square feet and a lot width of 25 feet.

- The subject lot meets the current Zoning Ordinance requirements for lot area and lot width.

Department of Public Works and Environmental Services  
 Land Development Services, Environmental and Site Review Division  
 12055 Government Center Parkway, Suite 535  
 Fairfax, Virginia 22035-5503  
 Phone 703-324-1720 • TTY 703-324-1877 • FAX 703-324-8359



- Lots 28 – 32 do not meet the current Zoning Ordinance requirements for lot area and/or lot width. However, the grandfathering provision of Sect. 2-405 of the Zoning Ordinance is applicable based on DPZ research that indicates that the Lots 28 – 32 met the applicable Zoning Ordinance requirements, with regard to lot area and lot width, when created/recorded or such creation/recordation predated the first Zoning Ordinance (March 1, 1941).
- The subject lot does not meet the current Zoning Ordinance requirements for lot area and/or lot width and did not meet such requirements at the time it was created. However, the grandfathering provision of Section 2-405 of the Zoning Ordinance is applicable based on DPZ research that indicates that the lot contained a principal structure on March 9, 2004, that was occupied or had been occupied at any time between March 9, 1999 and March 9, 2004, or is under construction pursuant to a building permit and that a Non-Residential Use Permit will be issued within 12 months after March 9, 2004.
- The subject lot does not meet the current Zoning Ordinance requirements and did not meet the applicable lot area and/or lot width requirements when the lot was created or any time thereafter. A separate letter from the DPZ, explaining this noncompliance will be subsequently issued.

Reviewing Authority: Lorrie Kirst January 25, 2013  
 Zoning Administration Division Date  
 Department of Planning and Zoning

Based on the foregoing the following is applicable to the subject lot:

- The subject lot is considered a valid lot under the Subdivision Ordinance and a building permit may be issued for the development of a use permitted by right, by special permit or by special exception on the lot, provided all County and applicable Zoning Ordinance regulations, including minimum yard requirements, are met. Lot 28 consists of five separate lots, Lots 28, 29, 30, 31 and 32.
- The subject lot is an outlot under the Subdivision Ordinance and does not constitute a buildable lot.

Approving Authority: B.G. Nassimbeni 2-4-2013  
 Bruce G. Nassimbeni, Land Development Services Date  
 Department of Public Works and Environmental Services

cc: Tim Shirocky, Acting Director, Real Estate Division, DTA  
 GIS and Mapping Services Branch, DIT  
 Leslie Johnson, Zoning Administrator, Ordinance Administration Branch, DPZ  
 Diane Johnson-Quinn, Deputy Zoning Administrator, Zoning Permit Review Branch, DPZ  
 Ken Williams, Chief, Technical Processing, Customer and Technical Support Center, Land Development Services, DPWES



# FAIRFAX COUNTY

APPENDIX 5

V I R G I N I A

July 22, 2014

**DEPARTMENT OF PUBLIC WORKS AND ENVIRONMENTAL SERVICES**

**SITE DEVELOPMENT AND INSPECTION DIVISION**

**STAFF REPORT**

**RESOURCE PROTECTION AREA (RPA) ENCROACHMENT  
EXCEPTION: #1391-WRPA-001-1 and WATER QUALITY IMPACT ASSESSMENT  
(WQIA) 1391-WQ-001-1**

**Lot 28 & 29, Block 37- New Alexandria**

**MOUNT VERNON DISTRICT**

**APPLICANT:** RC Fields and Associates, Inc.

**PROJECT LOCATION:** 6430 Wood Haven Road, Alexandria, VA 22307

**TAX MAP REFERENCE:** 093-2-08-37-0028A

**APPLICATION SUBMITTED:** July 13, 2014

**APPLICATION ACCEPTED:** July 13, 2014

**WATERSHED:** Belle Haven

**RPA EXCEPTION REQUEST:** Exception for loss of buildable area in a RPA, Chesapeake Bay Preservation Ordinance (CBPO) Section 118-6-7

**PROPOSAL:** Construction of a single family detached house on an existing lot, within the seaward 50 feet of 1993 RPA

**LOT SIZE:** Single Family Detached parcel area 7,000 square feet (0.1607 acres)

**AREA OF REQUESTED  
RPA ENCROACHMENT:** Approximately 7,281 square feet (0.167 acres) disturbed area of which 2,499 square feet (0.058 acres) impervious area.

**PUBLIC HEARING:** Loss of buildable area RPA Encroachment request under CBPO Section 118-6-7.

**DESCRIPTION:** The applicant is requesting a 50 feet seaward 1993 RPA encroachment exception to permit for the creation of a Single Family Detached House

**BACKGROUND:** The subject parcel totals 7,000 square feet in size, which is less than the 10,500 square foot minimum lot size required by the R-3 zone. However, the subject parcel is considered to be a legal lot due to its creation being prior to March 1, 1941 pursuant Fairfax County Code section 112-2-405. The lots making up the subject parcel were created on October 21, 1892 by the “New Alexandria” subdivision which can be found at Deed Book: N-5 Page: 254.

**DOCUMENTS AND CORRESPONDENCE:** The following information is part of this application:

- RPA Encroachment Exception Application and statement of justification
- WQIA (1391-WQ-001-1) and WRPA (1391-WRPA-001-1) prepared by RC Fields and Associates, Inc.

**ANALYSIS:** The construction of the proposed single family dwelling will disturb approximately 7,281 square feet (0.167 acres) in the 1993 RPA. This will result in an impervious area within the RPA of 2, 499 square feet (0.063 acres).

Where application of the RPA criteria will result in the effective loss of a reasonable buildable area on a lot or parcel recorded prior to November 18, 2003, in accordance with all applicable provisions of the County Code at the time of recordation and the proposed development does not satisfy the criteria for an administrative waiver by the Director under CBPO Section 118-5-4, exceptions may be approved in accordance with the criteria listed in CBPO Sections 118-6-7(a) through (f) and only upon the findings listed in CBPO Section 118-6-6(a) through (f).

The proposed development does not satisfy the criteria for an administrative waiver by the Director because the encroachment extends into the seaward 50 feet of the RPA buffer area.

Therefore, the requested encroachment does not qualify for an administrative waiver for loss of buildable area.

General RPA Encroachment Requests under CBPO Section 118-6-7 associated with a Special Exception (SE) require approval by the Board of Supervisors, after conducting a public hearing, in accordance with the criteria of CBPO Section 118-6-3(d).

**REQUIRED FINDINGS:**

Exception requests for loss of buildable area in an RPA may be granted only upon the findings listed in CBPO Section 118-6-6(a) through (f): and 118-6-7 are satisfied. It is the opinion of staff that the required findings, as discussed below, have been fully satisfied in this application.

**The following is the Statement of Justification, which addresses how the development complies with the factors set forth in Sections 118-6-6 (a) through (f):**

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

The proposed disturbance within the RPA associated with this plan is for the construction of a single family home and is the minimum necessary to afford relief. Construction of the single family home will include a driveway and a deck. Some grading will be necessary for this project and shall be the minimum necessary to provide an adequate finish floor elevation (13.67 ft.) and garage floor elevation (13.00 ft.). These elevation will allow for the base of the aforementioned floors to be 18” above the 100-year floodplain elevation (11.0 ft.). Total disturbance within the RPA will be 7,281 square feet and the proposed increase in impervious area shall be 2,499 square feet which is less than what is allowed under section 118-6-7(a) and (b).

**(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.***

Existing dwellings are located within the RPA along Wood Haven Road; therefore, no special privileges are being granted to the applicant.

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

The subject development is in harmony with the purpose and intent of this chapter because it meets all the requirements of section 118-6-7(a) through (f). To address water quality the

proposed development includes the installation a buffer area consisting of 3 overstory trees, 6 understory trees and 33 shrubs. The buffer planting areas will be located in the lower portions of the lot to filter the runoff generate on the subject parcel for increased water quality. It is our opinion that the proposed development is in harmony with the purpose and intent of this chapter and is not of substantial detriment to water quality.

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

The subject parcel was created prior to the creation of the RPA in 1993. The creation of the RPA buffer area in 1993 created a substantial loss of buildable area on the subject parcel. Due to this fact, we are of the opinion that this exception request is not based upon conditions or circumstance that are self-created or self-imposed.

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

The establishment of 1,292 square feet of buffer restoration within the RPA is to be planted to mitigate the disturbance proposed on site. This dense buffer will provide filtering of on-site stormwater prior to leaving the site.

- (f) *Other findings, as appropriate and required herein, are met. (32-03-118.)*

In our opinion, no such other findings are required.

**The following is the Statement of Justification which addresses how the development complies with the factors set forth in Sections 118-6-7 (a) through (f):**

- (a) *The proposed development does not exceed 10,000 square feet of land disturbance, exclusive of land disturbance necessary for the installation of a soil absorption field associated with an individual sewage disposal facility and land disturbance necessary to provide access to the lot or parcel and principal structure pursuant to section 118-2-1(d).*

The proposed disturbed area is 7,281 square feet. This is under the 10,000 square feet allowable.

- (b) ***The proposed development does not create more than 5,000 square feet of impervious surface within an RPA, exclusive of impervious surface necessary to provide access to the lot or parcel and principal structure pursuant to section 118-2-1(d).***

The total amount of impervious surface, including the driveway is 2,499 square feet. This is under the 5,000 square feet allowable.

- (c) ***The lot or parcel must meet the minimum lot size specified for the zoning district in which located or meet the requirements of section 2-405 of Chapter 112, the Zoning Ordinance, and any other applicable ordinances and laws.***

The subject parcel totals 7,000 square feet in size which is less than the 10,500 square foot minimum lot size required by the R-3 zone. However, the subject parcel is considered to be a legal lot due to its creation being prior to March 1, 1941 pursuant Fairfax County Code section 112-2-405. The lots making up the subject parcel were created on October 21, 1892 by the "New Alexandria" subdivision which can be found at Deed Book: N-5 Page: 254.

- (d) ***Where practicable, a vegetated area that will maximize water quality protection, mitigate the effects of the buffer encroachment, and is equal to the area of encroachment into the buffer area shall be established elsewhere on the lot or parcel.***

Since the entire site is located within the RPA, establishing a vegetated area equal to the area of encroachment is not practicable. However, this plan proposes 1,292 square feet of vegetated planting area per the density requirements of chapter 118 upon the outside edges of the site. This vegetated area will promote infiltration and transpiration, thereby increasing water quality before leaving the site.

- (e) ***The requirements of section 118-3-2 shall be satisfied or an exception granted pursuant to section 118-3-2(i).***

The plan satisfies all the requirements set within section 118-3-2 of Fairfax County Code. No exception pursuant to section 118-3-2(i) will be requested in conjunction with this project.

- (f) ***The requirements of section 118-3-3 shall be satisfied except as specifically provided for in this section to permit an encroachment into the RPA buffer area.***

The requirements of Section 118-3-3 shall be satisfied as detailed under the Water Quality Impact Assessment.

**STAFF RECOMMENDATION:**

Staff recommends approval of RPA encroachment Exception #1391-WRPA-001-1 and and WQIA#1391-WQ-001-1, subject to the proposed development conditions dated July 22, 2014, contained in Attachment A.

It should be noted that it is not the intent of staff to recommend that the Committee, in adopting any conditions, relieve the applicant from compliance with the provisions of any other applicable ordinances, regulations, or adopted standards.

It should be further noted that the content of this report reflects the analysis and recommendations of the staff; it does not reflect the position of the Board of Supervisors. For further information, contact the Site Development and Inspections Division, Office of Land Development Services, Department of Public Works and Environmental Services, 12055 Government Center Parkway, Suite 535, Fairfax, Virginia 22035-5505, 703-324-1720.

**ATTACHMENT A****PROPOSED EXCEPTION CONDITIONS**

**#1391-WRPA-001-1 and #1391-WQ-001-1  
July 22, 2014**

If it is the intent of the Board of Supervisors to approve #1391-WRPA-001-1, for the property located at 6430 Wood Haven Road, Alexandria, VA 22307, Tax Map 093-2-08-37-0028A, to allow encroachment in the Resource Protection Area (RPA) pursuant to Section 118-6-7 of the Chesapeake Bay Preservation Ordinance (CBPO), staff recommends the following development conditions:

1. This RPA Exception is granted for and runs with the land indicated in this application and is not transferable to other land.
2. This RPA Exception is granted only for the purposes, structures, or uses indicated on the plat approved with this application, as qualified by these exception conditions.
3. Any plan submitted pursuant to this RPA Exception shall be in substantial conformance with the Water Quality Impact Assessment and RPA Exception plat by RC Fields and Associates, Inc dated July 9, 2014, and these conditions.
4. In order that the land disturbed within the RPA can be considered to be the minimum necessary to afford relief for the proposed construction, indigenous vegetation shall be preserved to the maximum extent possible, the limits of clearing and grading must be clearly shown on any development plan, and adequate access and areas for stockpiles must be included. Any development plan will be subject to approval by the Department of Public Works and Environmental Services (DPWES). The limits of clearing and grading must be strictly observed and enforced. Any encroachment into, and/or disturbance of, the RPA not shown on the approved plan will be considered a violation of the CBPO and is subject to the penalties of CBPO Article 9.
5. An erosion and sediment control plan that includes, but not limited to, super-silt fence along and within the RPA, to remain in place, and be properly maintained, for the duration of the land disturbing activity within the RPA until such time that the disturbed areas are revegetated, in accordance with CBPO 118-3-3(f).
6. A contiguous vegetative buffer of a minimum 1, 292 square feet, with a minimum 3 overstory trees, 6 understory trees and 33 shrubs shall be established as shown on sheet 1 of the proposed grading plan. The vegetation shall be randomly placed to achieve a relatively even spacing throughout the buffer. Notwithstanding any statements on the Plat or the Water Quality Impact Assessment, the size, species, density, and locations of trees, shrubs, and ground cover shall be subject to approval of the Director of the Department of Public Works and Environmental Services.

This approval, contingent on the above noted conditions, does not relieve the applicant from compliance with the provisions of any applicable Federal, State, or County ordinances, regulations, or adopted standards. The applicant shall be responsible for obtaining the approval of any required plans and permits through established procedures, and this RPA Exception shall not be valid until this has been accomplished.

9 July 2014

Mr. Jack Weyant  
Office of Site Development Services, DPW&ES  
12055 Government Center Parkway  
Fairfax, VA. 22033-5503

RE: Section 118-6-7: **Waiver for Loss of Buildable Area in a RPA and**  
Section 118-4-4: **Water Quality Impact Assessment**  
Related submissions: **SE 2014-MV-019**

6430 Wood Haven Road  
Alexandria, VA 22307  
Lots 28 & 29, Block 37  
TM# 093-2-08-37-0028A

Dear Mr. Weyant,

On behalf of our client, Qin H. Zheng, we are requesting consideration of a Waiver for Loss of Buildable Area in a RPA [Section 118-6-7] and Water Quality Impact Assessment (WQIA) (Section 118-4-4) on the above referenced property as required under of the Fairfax County Chesapeake Bay Preservation Ordinance.

**Project Description:**

This 7,000 square foot site, located in the R-3 zone, lies entirely within the 100-Year Floodplain associated with the Potomac River and is therefore within a Resource Protection Area (RPA). The site is currently vacant. A new dwelling, driveway and deck are proposed on the site.

A special exception is currently under review by the Board of Supervisors (SE 2014-MV-019) for the construction of a dwelling, driveway, deck and proposed fill within the 100-Year Floodplain.

An increase of 2,499 square feet of impervious area within the RPA is proposed with this project. Disturbance within the RPA is to be 7,281 square feet in accordance with section 118-6-7. The minimum amount of disturbance is being provided in order to construct the proposed improvements.

A vegetated planting area totaling 1,292 square feet is proposed to offset the encroachment into the RPA. These plantings will help filter runoff and enhance water quality before leaving the site. The number of plantings will comply with the density requirements of the Chesapeake Bay Preservation Ordinance.

**Statement of Justification:**

The following is the Statement of Justification which addresses how the development complies with the factors set forth in Sections 118-6-6 (a) through (f):

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

The proposed disturbance within the RPA associated with this plan is for the construction of a single family home and is the minimum necessary to afford relief. Construction of the single family home will include a driveway and a deck. Some grading will be necessary for this project and shall be the minimum necessary to provide an adequate finish floor elevation (13.67 ft.) and garage floor elevation (13.00 ft.). These elevation will allow for the base of the aforementioned floors to be 18" above the 100-year floodplain elevation (11.0 ft.). Total disturbance within the RPA will be 7,281 square feet and the proposed increase in impervious area shall be 2,499 square feet which is less than what is allowed under section 118-6-7(a) and (b).

A 1,292 Square foot buffer are for encroachment into the RPA is proposed with this plan. These planting will consist of overstory trees, understory trees, shrubs and groundcover and are to be installed upon the lower portion of the lot, where possible, to help filter any stormwater runoff generated from the subject property. The addition of these planting will promote infiltration and increase the water quality of runoff leaving the site.

Due to the above mentioned factors, we are of the opinion that this request is the minimum necessary to afford relief.

***(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.***

Existing dwellings are located within the RPA along Wood Haven Road; therefore, no special privileges are being granted to the applicant.

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

The subject development is in harmony with the purpose and intent of this chapter because it meets all the requirements of section 118-6-7(a) through (f). To address water quality the proposed development includes the installation a buffer area consisting of 3 overstory trees, 6 understory trees and 33 shrubs. The buffer planting areas will be located in the lower portions of the lot to filter the runoff generate on the subject parcel for increased water quality. It is our opinion that the proposed development is in harmony with the purpose and intent of this chapter and is not of substantial detriment to water quality.

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

The subject parcel was created prior to the creation of the RPA in 1993. The creation of the RPA buffer area in 1993 created a substantial loss of buildable area on the subject parcel. Due to this fact, we are of the opinion that this exception request is not based upon conditions or circumstance that are self-created or self-imposed.

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

The establishment of 1,292 square feet of buffer restoration within the RPA is to be planted to mitigate the disturbance and imperviousness proposed on site. This dense buffer will provide filtering of on-site stormwater prior to leaving the site. We are of the opinion that these are reasonable and appropriate imposed conditions for the preservation of water quality.

- (f) *Other findings, as appropriate and required herein, are met. (32-03-118.)***

In our opinion, no such other findings are required.

The following is the Statement of Justification which addresses how the development complies with the factors set forth in Sections 118-6-7 (a) through (f):

- (a) *The proposed development does not exceed 10,000 square feet of land disturbance, exclusive of land disturbance necessary for the installation of a soil absorption field associated with an individual sewage disposal facility and land disturbance necessary to provide access to the lot or parcel and principal structure pursuant to section 118-2-1(d).***

The proposed disturbed area is 7,281 square feet. This is under the 10,000 square feet allowable.

- (b) *The proposed development does not create more than 5,000 square feet of impervious surface within an RPA, exclusive of impervious surface necessary to provide access to the lot or parcel and principal structure pursuant to section 118-2-1(d).***

The total amount of impervious surface, including the driveway is 2,499 square feet. This is under the 5,000 square feet allowable.

- (c) *The lot or parcel must meet the minimum lot size specified for the zoning district in which located or meet the requirements of section 2-405 of Chapter 112, the Zoning Ordinance, and any other applicable ordinances and laws.***

The subject parcel totals 7,000 square feet in size which is less than the 10,500 square foot minimum lot size required by the R-3 zone. However, the subject parcel is considered to be a

legal lot due to its creation being prior to March 1, 1941 pursuant Fairfax County Code section 112-2-405. The lots making up the subject parcel were created on October 21, 1892 by the "New Alexandria" subdivision which can be found at Deed Book: N-5 Page: 254.

- (d) *Where practicable, a vegetated area that will maximize water quality protection, mitigate the effects of the buffer encroachment, and is equal to the area of encroachment into the buffer area shall be established elsewhere on the lot or parcel.***

Since the entire site is located within the RPA, establishing a vegetated area equal to the area of encroachment is not practicable. However, this plan proposes 1,292 square feet of vegetated planting area per the density requirements of chapter 118 upon the outside edges of the site (see attached plat). This vegetated area will promote infiltration and transpiration, thereby increasing water quality before leaving the site.

- (e) *The requirements of section 118-3-2 shall be satisfied or an exception granted pursuant to section 118-3-2(i).***

The plan satisfies all the requirements set within section 118-3-2 of Fairfax County Code. No exception pursuant to section 118-3-2(i) will be requested in conjunction with this project.

- (f) *The requirements of section 118-3-3 shall be satisfied except as specifically provided for in this section to permit an encroachment into the RPA buffer area.***

The requirements of Section 118-3-3 shall be satisfied as detailed under the Water Quality Impact Assessment section of this combined document (see below).

### **Water Quality Impact Assessment (WQIA):**

The subject property is located on the east side of Wood Haven Road in the Mount Vernon District of Fairfax County, Virginia. The site is entirely located in an RPA and 100 year floodplain. This lot is currently vacant. It is the intent of the owner to construct a dwelling, driveway and deck on the property. Due to the fact that the proposed improvements shown on the attached plat are within the seaward 50 feet of an RPA Core Component, the Board of Supervisors will review this WQIA and RPA exception (RPAE) along with a Special Exception for fill within the 100-year floodplain.

Pursuant to Section 118-4-3(a-g), the following Water Quality Impact Assessment Components, which demonstrate the proposed project's overall compliance with the Ordinance, are discussed below:

- (a) *Display the boundaries of RPA.***

The entire site lies within the 100-Year Floodplain and is therefore entirely within the RPA. This is so noted and displayed on the attached plat.

- (b) *Display and describe the location and nature of the proposed encroachment into and/or impacts to the RPA, including any clearing, grading, impervious surfaces, structures, utilities, and sewage disposal systems.***

The owner wishes to construct a new dwelling and driveway on the site. The entire site is to be disturbed due to this development. Disturbance is to be the minimum necessary for construction of the dwelling and installation of utilities. The attached plat shows the proposed improvements and encroachments into the RPA.

- (c) *Provide justification for the proposed encroachment into and/or impacts to the RPA.***

See Statement of Justification provided earlier in this combined RPAE/WQIA

- (d) *Describe the extent and nature of any proposed disturbance or disruption of wetlands;***

No disturbance or disruption of any wetlands are anticipated as part of this project. Any wetlands permit required will be obtained as necessary.

- (e) *Display and discuss the type and location of proposed best management practices to mitigate the proposed RPA encroachment and/or adverse impacts;***

The proposed encroachment into the RPA will be mitigated by buffer area enhancement plantings. A total of 1,292 square feet of plantings is proposed with this project. The buffer plantings are proposed around the edge of the property to filter runoff before leaving the site (see attached plat). There are no BMP (Best Management Practice) facilities proposed with this plan due to the fact that the total proposed impervious area of this project will be less than 2,500 square feet pursuant Fairfax County Code section 1241-7(3)(ii)(a).

- (f) *Demonstrate the extent to which the proposed activity will comply with all applicable performance criteria of the Chapter;***

- *Analysis relative to Section 118-3-2 of the Ordinance shows that the plan is compliant to the following:*

- a. No more land shall be disturbed than is necessary to provide for the development.**

No more land will be disturbed than what will be necessary for the development of the subject site.

- b. Indigenous vegetation shall be preserved to the maximum extent practicable consistent with the development.**

Indigenous vegetation will be preserved to the maximum extent practicable during the development of the subject property.

- c. **Impervious cover shall be minimized consistent with the use, development, or redevelopment proposed.**

Impervious area shall be minimized consistent with the proposed development.

- d. **Any land disturbing activity that exceeds an area of 2,500 square feet shall comply with the requirements of chapter 104 of the County Code. The construction of single family dwellings, septic tanks and drainfields shall not be exempt from this requirement. Enforcement for noncompliance with the erosion and sediment control requirements referenced in this criteria shall be conducted under the provisions of Chapter 104 of the County Code.**

The proposed land disturbing activities will meet the requirements of chapter 104 of the Fairfax County Code.

- e. **For any development or redevelopment, stormwater runoff shall be controlled by the use of best management practices (BMPs) in accordance with the requirements of Chapter 124 of the County Code.**

Due to the total proposed impervious area of the lot being 2,499 Square feet this project will not be held to the requirements of chapter 124 of Fairfax County Code Pursuant section 124-1-7(3)(b)(i).

- f. **The director shall require certification on all plans of development that all wetlands permits required by law will be obtained prior to commencement of land-disturbing activities in any area subject to the plan of development review. No land-disturbing activity on the land subject to the plan of development shall commence until all such permits have been obtained by the applicant and evidence of such permits has been provided to the Director.**

No disturbance or disruption of any wetlands are anticipated as part of this RPA exception.

- g. **All on-site sewage disposal systems requiring a Virginia Pollutant Discharge Elimination System (VPDES) permit shall be subject to the restrictions imposed by the State Water Control Board or the Virginia Department of Health. All on-site sewage disposal systems not requiring a VPDES permit shall be administered by the Director of the Department of Health and shall comply with the following provisions:**

Not applicable: there are no on-site sewage disposal systems existing or proposed on-site.

- h. Land upon which agricultural activities are being conducted, including but not limited to crop production, pasture, and dairy and feedlot operations, or lands otherwise defined as agricultural land by the local government, shall have a soil and water quality conservation assessment conducted that evaluates the effectiveness of existing practices pertaining to soil erosion and sediment control, nutrient management, and management of pesticides, and where necessary, results in a plan that outlines additional practices needed to ensure that water quality protection is being accomplished consistent with the Chesapeake Bay Preservation Act and this chapter.**

Not applicable: the proposed project is not associated with agricultural activities.

- i. Unless required by other provisions of the County Code, the Director may grant exceptions to the requirements of this Section subject to the following criteria:**

No exception will be requested for the proposed development. The total proposed impervious are associated with this project is 2,499 square feet and thus exempts the project from the requirement of Fairfax County code chapter 124 pursuant section 124-1-7(3)(b)(i).

- *Analysis relative to the criteria in Section 118-3-3 of the Ordinance, Additional Performance Criteria for Resource Protection Areas, shows that the plan is compliant to the following:*

- a. A Water Quality Impact Assessment shall be required for any proposed land disturbance, development, or redevelopment within an RPA that is not exempt pursuant to Article 5 of this Chapter or for which an exception waiving this criteria is not approved pursuant to Article 5 of this Chapter.**

This water quality impact assessment (WQIA) is submitted for the proposed development within an RPA that is not exempt pursuant to article 6 of this chapter.

- b. Allowable Development: Development is allowed within RPAs if it is water-dependent. New or expanded water-dependent activities shall comply with the following:**

The proposed development is not a water dependent facility. Thus, this encroachment is requesting a Waiver for Loss of Buildable Area in a Resource Protection Area under chapter 118-6-7(a).

- c. **Redevelopment, outside of IDAs, is allowed within RPAs only if there is no increase in the amount of impervious area within the RPA and no further encroachment within the RPA and shall conform to all applicable erosion and sediment control and stormwater management criteria in Chapters 104 and 124 of the County Code as well as all applicable stormwater management requirements of Commonwealth of Virginia and federal agencies.**

Not applicable. The proposed RPA encroachment is not considered as redevelopment.

- d. **Buffer area requirements: To minimize the adverse effects of human activities on the other components of the RPA, state waters, and aquatic life, a buffer area that is effective in retarding runoff, preventing erosion, and filtering nonpoint source pollution from runoff shall be retained, if present, and established where it does not exist. Notwithstanding permitted uses, encroachments, and vegetation clearing, authorized by this Chapter, the buffer area is not reduced in width. Where land uses such as agriculture or silviculture within the area of the buffer cease and the lands are proposed to be converted to other uses, the full buffer shall be reestablished in accordance with Section 118-3-3(f).**

As previously detailed, the proposed RPA restoration plantings are to minimize any adverse effects of the proposed construction activity.

- e. **On agricultural lands, the buffer area shall be managed to prevent concentrated flows of surface water from breaching the buffer area and appropriate measures, as recommended by the Northern Virginia Soil and Water Conservation District, may be taken to prevent noxious weeds from invading the buffer area. Agricultural activities may encroach into the buffer area as follows:**

Not applicable. The subject site is not on agricultural lands.

- f. **Buffer area establishment: Where buffer areas are to be established, they shall consist of a mixture of overstory trees, understory trees, shrubs and groundcovers. The density of overstory trees shall be a minimum of 100 trees per acre. The density of understory trees shall be a minimum of 200 trees per acre. The density of shrubs shall be a minimum of 1089 plants per acre. If**

**seedlings are used instead of container plants, the density of trees shall be doubled. Large caliper trees shall not be planted on slopes steeper than 2:1. Plant materials shall be randomly placed to achieve a relatively even spacing throughout the buffer. The Director may approve the use of a seed mixture as a supplement to or in lieu of individual plants for shrubs and groundcovers. Plants shall be native to the degree practical and adaptable to site conditions. Wetland plantings (including herbaceous plantings) and/or wetland seed mix shall be used where site conditions warrant. Plant materials and planting techniques shall be as specified in the Public Facilities Manual.**

The proposed RPA buffer area shall consist of a mixture of overstory and understory trees, shrubs and groundcovers. The density of overstory trees shall be a minimum of 100 trees per acre: specifically, 3 overstory trees for this site. The density of understory trees shall be minimum of 200 trees per acre: specifically, 6 understory trees for this site. The density of shrubs shall be a minimum of 1089 plant per acre: specifically 33 shrubs for this site. The location of proposed RPA buffer restoration and vegetation schedule of planting is on the plat attached to this document.

***(g) Provide any other information deemed by the Director to be necessary to evaluate potential water quality impacts of the proposed activity.***

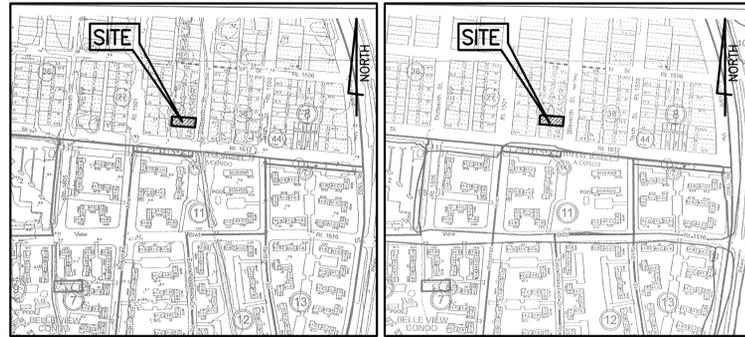
No other information has been requested to date.

If you have any questions or require any additional information, please do not hesitate to contact our office. We appreciate your consideration of this request.

Respectfully,  
**R.C. FIELDS & ASSOCIATES, INC.**



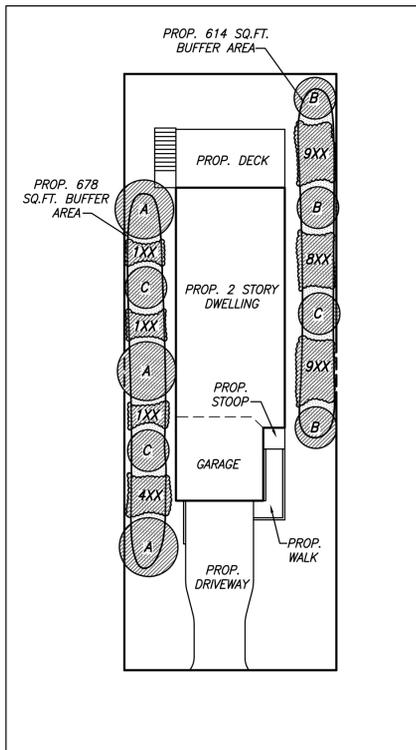
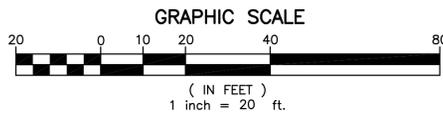
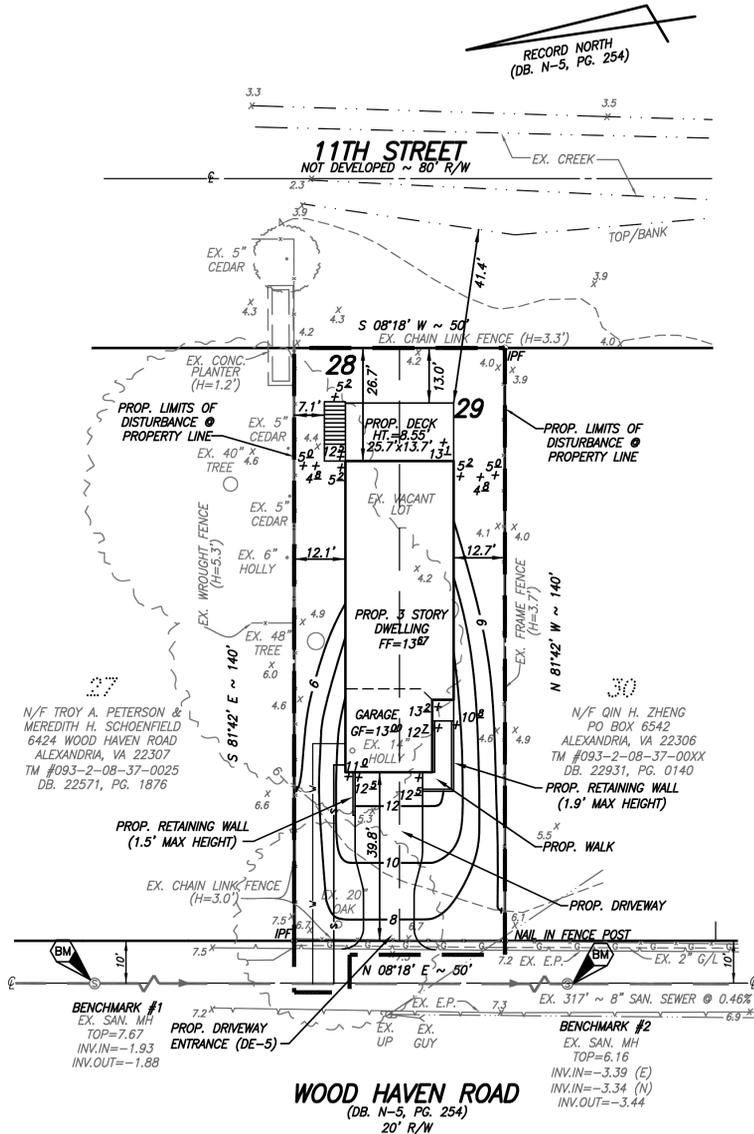
Alex Boulden, E.I.T.  
Project Engineer



VICINITY & TOPO MAP  
(SCALE 1" = 500')

SOILS MAP  
(SCALE 1" = 500')

SOILS TABLE			
LOT NO.	SOILS NO.	SOILS NAME	PROBLEM CLASS
28-29	47B	GRIST MILL - WOODSTOWN COMPLEX	IVA



**BUFFER PLANTING DETAIL**  
SCALE: 1" = 20'

**BUFFER AREA PLANTINGS:**

- A. TOTAL BUFFER AREA REQUIRED . . . . . 1,520 SQ.FT. OR 0.0347 AC.  
PROPOSED BUFFER AREA . . . . . 1,522 SQ.FT. OR 0.0349 AC.
- B. BUFFER PLANTINGS PROVIDED:
  - TOTAL OVERSTORY TREES . . . . . 3
  - EXISTING . . . . . 0
  - PROPOSED . . . . . 3
  - TOTAL UNDERSTORY TREES . . . . . 6
  - EXISTING . . . . . 0
  - PROPOSED . . . . . 6
  - SHRUB PLANTINGS . . . . . 33
  - PROPOSED . . . . . 33

**SHRUB NOTE:**

ALL SHRUBS WILL BE CONTAINER PLANTS AND PLANTINGS WILL BE COORDINATED WITH URBAN FORESTRY.

**GROUND COVER NOTE:**

GROUND COVER TO BE ALLEGHENY SPURGE (PACHYSANDRA PROCUMBENS) OR EQUIVALENT. PLANTINGS ARE TO BE ROOTED CUTTINGS PLANTED 12" ON-CENTER WITH TRIANGULAR SPACING.

**CROWN COVER CALCULATIONS**

TOTAL SITE AREA	7,000 SQ. FT.
REQUIRED CROWN COVER (2%)	1,750 SQ. FT.
EXISTING CROWN COVER	3,277 SQ. FT.
REMOVED CROWN COVER	3,277 SQ. FT.
CROWN COVER TO BE PLANTED	2,026 SQ. FT.
CROWN COVER PROVIDED	2,026 SQ. FT. OR 28.9%

**PLANTING SCHEDULE**

ITEM	NO.	BOTANICAL NAME	COMMON NAME	SIZE	COMMENTS	COVER (EACH)	COVER (SUM)	CREDIT/MULT.	COVER (TOTAL)
A	3	ACER RUBRUM	RED MAPLE	2" CAL.	B & B	200 SQ.FT	600 SQ.FT.	WILDLIFE/x1.5	900 SQ.FT.
B	3	AMELANCHIER ARBOREA	DOWNY SERVICEBERRY	3" CAL.	B & B	125 SQ.FT	375 SQ.FT.	WILDLIFE/x1.5	563 SQ.FT.
C	3	AMELANCHIER LAEVIS	ALLEGHENY SERVICEBERRY	3" CAL.	B & B	125 SQ.FT	375 SQ.FT.	WILDLIFE/x1.5	563 SQ.FT.
XX	33	ROSA 'ROSERAE'	RUGOSA ROSE	2 GALLON	SHRUB	-	-	-	-

NOTE: TREE SPECIES SUBSTITUTIONS MAY OCCUR IN COORDINATION WITH URBAN FORESTRY. FINAL SPECIES DETERMINATIONS AND COVERAGE REQUIRED TO BE ESTABLISHED WITH GRADING PLAN. TOTAL TREE COVER PLANTED: 2,026 SQ.FT.

**PROJECT NARRATIVE:**

THIS RPA EXCEPTION & WATER QUALITY IMPACT ASSESSMENT IS FOR ENCROACHMENT INTO THE SEAWARD 50 FEET OF A RESOURCE PROTECTION AREA (RPA) DUE TO THE PRESENCE OF THE CHANNEL WITHIN 11TH STREET. ALSO, THE APPLICATION OF THE RPA BUFFER CREATES AN EFFECTIVE LOSS OF A REASONABLE BUILDING AREA. THIS RPA EXCEPTION & WATER QUALITY IMPACT ASSESSMENT FALL UNDER SECTION 118-6-7 OF FAIRFAX COUNTY CODE.

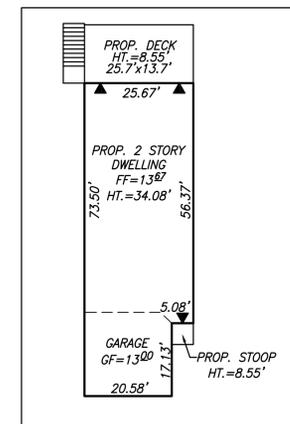
THE OWNER WISHES TO CONSTRUCT A NEW SINGLE-FAMILY DWELLING ON THE SUBJECT PARCEL WHICH IS LOCATED ENTIRELY WITHIN THE 100-YEAR FLOODPLAIN ASSOCIATED WITH THE POTOMAC RIVER. A SMALL INCREASE IN IMPERVIOUS AREA WITHIN THE RPA IS PROPOSED WITH THIS PLAN (2,499 SQUARE FEET). TOTAL IMPERVIOUS AREA IS TO REMAIN UNDER 5,000 SQUARE FEET AND DISTURBANCE WITHIN THE RPA IS TO BE KEPT UNDER 10,000 SQUARE FEET PER SECTION 118-6-7(A) & (B), RESPECTIVELY. DISTURBANCE SHALL BE THE MINIMUM NECESSARY FOR THE CONSTRUCTION OF IMPROVEMENTS.

A BUFFER AREA (1,292 SQUARE FEET) IS PROPOSED WITH THIS PLAN TO OFFSET ENCROACHMENT INTO THE RPA. OVERSTORY TREES, UNDERSTORY TREES AND SHRUB PLANTINGS ARE TO BE ESTABLISHED IN THIS BUFFER AREA PER THE DENSITY REQUIREMENTS OF CHAPTER 118 AND ARE TO BE PLANTED BY HAND TO REDUCE THE AMOUNT OF DISTURBED AREA WITHIN THE RPA. THESE PLANTINGS, WITH A MULCH LAYER, SHALL ENHANCE WATER QUALITY BY FILTERING RUNOFF, PROMOTING INFILTRATION AND TRANSPIRATION BEFORE LEAVING THE SITE.

A SPECIAL EXCEPTION FOR CONSTRUCTION OF A DWELLING AND FILL WITHIN A FLOODPLAIN IS CURRENTLY UNDER REVIEW BY THE BOARD OF SUPERVISORS (SE 2014-MV-019).

**GENERAL NOTES:**

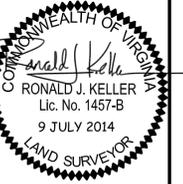
1. TAX MAP: #093-2-08-37-0028A
2. ZONE: R-3
3. REQUIRED MINIMUM YARDS:
  - FRONT: 30'
  - SIDE: 12'
  - REAR: 25'
4. OWNER: QIN H. ZHENG  
PO BOX 6542  
ALEXANDRIA, VA 22306  
DB. 21396, PG. 606
5. TOPOGRAPHIC SURVEY FIELD RUN BY THIS FIRM. VERTICAL DATUM = NGVD '29. BASED ON FAIRFAX COUNTY MONUMENT STATION BM-9, EL.=9.477  
FEMA BASE FLOOD ELEVATION = 11.0'
6. TITLE REPORT FURNISHED BY HBS TITLE ENTERPRISES, INC., FILE #H-09-17498, DATED 12TH SEPTEMBER, 2009 AND IS RELIED UPON AS ACCURATE BY THE SURVEYOR.
7. PLAT SUBJECT TO RESTRICTIONS OF RECORD.
8. TOTAL SITE AREA = 7,000 SQ. FT. OR 0.1607 AC.  
(ENTIRE SITE IS WITHIN THE 100-YEAR FLOODPLAIN AND RPA)  
TOTAL DISTURBED AREA IN RPA = 7,281 SF
- EXISTING IMPERVIOUS AREA = 0.000 SQ.FT.  
PROPOSED IMPERVIOUS AREA = 2,499 SQ.FT  
APPROXIMATE AMOUNT OF FILL = 570 CY
9. SOIL TYPE: SEE MAP AND TABLE ON THIS PAGE
10. INDIGENOUS VEGETATION SHALL BE PRESERVED TO THE MAXIMUM EXTENT POSSIBLE
11. LIMITS OF 100 YEAR FLOODPLAIN ASSOCIATED WITH THE POTOMAC RIVER SHOWN PER FEMA PANEL 51059C0320E, EFFECTIVE DATE: 17 SEPTEMBER 2010, ELEVATION: 11.0'
12. ENTIRE SITE IS WITHIN THE 100-YEAR FLOODPLAIN AND RPA
13. SPECIAL EXCEPTION SE 2014-MV-019 IS CURRENT UNDER REVIEW FOR THE CONSTRUCTION OF THE SHOWN PROPOSED DWELLING AND FOR FILL IN THE 100-YEAR FLOODPLAIN
14. THIS LOT IS NOT IN A BONDED SUBDIVISION



**DWELLING DETAIL**  
NOTE: HEIGHTS SHOWN ARE FROM AVERAGE PRE-DEVELOPMENT GRADE  
SCALE: 1" = 20'

THIS DRAWING IS A SERVICE DOCUMENT OF R.C. FIELDS & ASSOCIATES, INC. AND MAY NOT BE USED OR REPRODUCED WITHOUT THE WRITTEN PERMISSION OF THE ENGINEER AND /OR LAND SURVEYOR.  
EXISTING UTILITIES SHOWN ON THIS PLAN TAKEN FROM AVAILABLE RECORDS AND/OR FROM FIELD OBSERVATIONS. FOR EXACT LOCATIONS OF EXISTING UNDERGROUND UTILITIES, NOTIFY "MISS UTILITY" AT 1-800-552-7001, 72 HOURS BEFORE THE START OF ANY EXCAVATION OR CONSTRUCTION.  
LOCATION AND DEPTH OF ALL EXISTING UNDERGROUND UTILITIES TO BE VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION. INTERFERENCE OR DISRUPTION OF SAME WILL NOT BE THE RESPONSIBILITY OF THIS OFFICE.  
ALL CONSTRUCTION SHALL CONFORM TO THE CURRENT STANDARDS AND SPECIFICATIONS OF FAIRFAX COUNTY, VIRGINIA.  
©2013 R.C. FIELDS & ASSOCIATES, INC.

**R.C. FIELDS & ASSOCIATES, INC.**  
LAND SURVEYING • ENGINEERING • PLANNING  
www.rcfields.com  
730 S. Washington Street  
Alexandria, Virginia 22314  
(703) 549-6422



WATER QUALITY IMPACT ASSESSMENT & RPA EXCEPTION  
LOTS 28 & 29, BLOCK 37  
**NEW ALEXANDRIA**  
(6430 WOOD HAVEN ROAD)  
MT. VERNON DISTRICT  
FAIRFAX COUNTY, VIRGINIA

DATE	REVISION
7/9/14	REVISION TO LAYOUT

DESIGN: AWB  
DRAWN: TG  
SCALE: 1" = 20'  
DATE: 9 JUNE 2014  
SHEET 1 OF 1  
FILE: 12-101



# County of Fairfax, Virginia

## MEMORANDUM

**DATE:** August 12, 2014

**TO:** Barbara Berlin, Director  
Zoning Evaluation Division, DPZ

**FROM:** Pamela G. Nee, Chief *PKN*  
Environment and Development Review Branch, DPZ

**SUBJECT:** ENVIRONMENTAL ASSESSMENT for: SE 2014-MV-019  
Zheng

This memorandum, prepared by John R. Bell, includes citations from the Comprehensive Plan that provide guidance for the evaluation of the above referenced special exception plat as revised through July 2, 2014. Possible solutions to remedy identified environmental impacts are suggested. Other solutions may be acceptable, provided that they achieve the desired degree of mitigation and are also compatible with Plan policies.

### COMPREHENSIVE PLAN CITATIONS:

The Comprehensive Plan is the basis for the evaluation of this application. The assessment of the proposal for conformity with the environmental recommendations of the Comprehensive Plan is guided by the following citations from the Plan:

In the Fairfax County Comprehensive Plan, Policy Plan, 2013 Edition, Environment section as amended through July 1, 2014, on page 7 through 9, the Plan states:

**“Objective 2: Prevent and reduce pollution of surface and groundwater resources. Protect and restore the ecological integrity of streams in Fairfax County. . . .**

Policy k. For new development and redevelopment, apply better site design and low impact development techniques such as those described below, and pursue commitments to reduce stormwater runoff volumes and peak flows, to increase groundwater recharge, and to increase preservation of undisturbed areas. In order to minimize the impacts that new development and redevelopment projects may have on the County’s streams, some or all of the following practices should be considered where not in conflict with land use compatibility objectives:

Department of Planning and Zoning  
Planning Division  
12055 Government Center Parkway, Suite 730  
Fairfax, Virginia 22035-5509  
Phone 703-324-1380  
Fax 703-324-3056  
[www.fairfaxcounty.gov/dpz/](http://www.fairfaxcounty.gov/dpz/)



- Minimize the amount of impervious surface created. . . .
- Maximize the use of infiltration landscaping within streetscapes consistent with County and State requirements. . . .

Development proposals should implement best management practices to reduce runoff pollution and other impacts. Preferred practices include: those which recharge groundwater when such recharge will not degrade groundwater quality; those which preserve as much undisturbed open space as possible; and, those which contribute to ecological diversity by the creation of wetlands or other habitat enhancing BMPs, consistent with State guidelines and regulations. . . .”

Fairfax County Comprehensive Plan, 2013 Edition, Policy Plan, Environment, as amended through July 1, 2014, pages 19, 20 and 21:

**“Objective 13: Design and construct buildings and associated landscapes to use energy and water resources efficiently and to minimize short- and long-term negative impacts on the environment and building occupants.**

Policy a. In consideration of other Policy Plan objectives, encourage the application of energy conservation, water conservation and other green building practices in the design and construction of new development and redevelopment projects. These practices may include, but are not limited to:

- Environmentally-sensitive siting and construction of development;
- Application of low impact development practices, including minimization of impervious cover (See Policy k under Objective 2 of this section of the *Policy Plan*);
- Optimization of energy performance of structures/energy-efficient design;
- Use of renewable energy resources;
- Use of energy efficient appliances, heating/cooling systems, lighting and/or other products;
- Application of best practices for water conservation, such as water efficient landscaping and innovative wastewater technologies, that can serve to reduce the use of potable water and/or reduce stormwater runoff volumes;
- Reuse of existing building materials for redevelopment projects;
- Recycling/salvage of non-hazardous construction, demolition, and land clearing debris;
- Use of recycled and rapidly renewable building materials;

- Use of building materials and products that originate from nearby sources;
- Reduction of potential indoor air quality problems through measures such as increased ventilation, indoor air testing and use of low-emitting adhesives, sealants, paints/coatings, carpeting and other building materials;
- Reuse, preservation and conservation of existing buildings, including historic structures;
- Retrofitting of other green building practices within existing structures to be preserved, conserved and reused;
- Energy and water usage data collection and performance monitoring;
- Solid waste and recycling management practices; and
- Natural lighting for occupants.

Encourage commitments to implementation of green building practices through certification under established green building rating systems for individual buildings (e.g., the U.S. Green Building Council's Leadership in Energy and Environmental Design for New Construction [LEED-NC<sup>®</sup>] or the U.S. Green Building Council's Leadership in Energy and Environmental Design for Core and Shell [LEED-CS<sup>®</sup>] program or other equivalent programs with third party certification). An equivalent program is one that is independent, third-party verified, and has regional or national recognition or one that otherwise includes multiple green building concepts and overall levels of green building performance that are at least similar in scope to the applicable LEED rating system. Encourage commitments to the attainment of the ENERGY STAR<sup>®</sup> rating where available. Encourage certification of new homes through an established residential green building rating system that incorporates multiple green building concepts and has a level of energy performance that is comparable to or exceeds ENERGY STAR qualification for homes. Encourage the inclusion of professionals with green building accreditation on development teams. Encourage commitments to the provision of information to owners of buildings with green building/energy efficiency measures that identifies both the benefits of these measures and their associated maintenance needs.

- Policy c. Ensure that zoning proposals for residential development that are not otherwise addressed in Policy b above will incorporate green building practices sufficient to attain certification under an established residential green building rating system that incorporates multiple green building concepts and

that includes an ENERGY STAR Qualified Homes designation or a comparable level of energy performance. Where such zoning proposals seek development at or above the mid-point of the Plan density range, ensure that county expectations regarding the incorporation of green building practices are exceeded in two or more of the following measurable categories: energy efficiency; water conservation; reusable and recycled building materials; pedestrian orientation and alternative transportation strategies; healthier indoor air quality; open space and habitat conservation and restoration; and greenhouse gas emission reduction. As intensity or density increases, the expectations for achievement in the area of green building practices would commensurately increase.”

In the Fairfax County Comprehensive Plan, Policy Plan, 2013 Edition, Environment section as amended through July 1, 2014, on page 7 through 9, the Plan states:

**“Objective 2: Prevent and reduce pollution of surface and groundwater resources. Protect and restore the ecological integrity of streams in Fairfax County. . . .**

Policy k. For new development and redevelopment, apply better site design and low impact development techniques such as those described below, and pursue commitments to reduce stormwater runoff volumes and peak flows, to increase groundwater recharge, and to increase preservation of undisturbed areas. In order to minimize the impacts that new development and redevelopment projects may have on the County’s streams, some or all of the following practices should be considered where not in conflict with land use compatibility objectives:

- Minimize the amount of impervious surface created. . . .
- Encourage the use of innovative BMPs and infiltration techniques of stormwater management where site conditions are appropriate, if consistent with County requirements.
- Apply nonstructural best management practices and bioengineering practices where site conditions are appropriate, if consistent with County requirements. . . .
- Maximize the use of infiltration landscaping within streetscapes consistent with County and State requirements. . . .

Development proposals should implement best management practices to reduce runoff pollution and other impacts. Preferred practices include: those which recharge groundwater when such recharge will not degrade groundwater quality; those which preserve as much

undisturbed open space as possible; and, those which contribute to ecological diversity by the creation of wetlands or other habitat enhancing BMPs, consistent with State guidelines and regulations. . . .

## **ENVIRONMENTAL ANALYSIS:**

This section characterizes the environmental concerns raised by an evaluation of this site and the proposed land use. Solutions are suggested to remedy the concerns that have been identified by staff. There may be other acceptable solutions.

### **Green Building**

The Comprehensive Plan provides guidance for the application of green building measures for new development. Until recently, that guidance recommended green building certification for new residential development at the upper end of the recommended Plan density range. This guidance was amended on July 1, 2014 to recommend that green building certification be provided for all new residential development regardless of Plan density.

The proposed one single-family dwelling would be located on a very small lot in an area planned for residential use at 2-3 dwelling units per acre (du/ac) and zoned R-3. The density of this single dwelling on this small lot would be approximately 6 du/ac. Under the former and recently amended green building guidance of the Comprehensive Plan, this new development should be designed and built to achieve green building certification.

The applicant has been advised that staff is recommending a commitment to LEED-Homes, EarthCraft or National Green Building Standard (NGBS) with the Energy Star path. Based on the most recent discussions with the applicant, it is staff's understanding that they are exploring which option would best suit their proposed construction. This issue is not fully resolved at this time.

### **Runoff**

The subject property is located within a Resource Protection Area (RPA). The proposed structure is depicted as elevated on a substantial amount of fill dirt in order to elevate the livable areas above the 100-year floodplain elevation by no less than eighteen inches as required by Zoning Ordinance standards. The area of the subject property is very flat and adding fill and impervious surface areas to such an area raises concerns that rainfall which would normally be absorbed on the subject property will now runoff to adjoining properties. The applicant has been advised to provide measures, such as grading to ensure drainage to nearby channels, as a means to ensure that runoff from the subject property does not result in adverse impacts to adjoining properties. The applicant has agreed to clearly depict these measures on the special exception plat. Any final determination regarding standards for runoff

Barbara Berlin  
RZ 2014-MV-019, Zheng  
Page 6

and onsite grading will be made by the Department of Public Works and Environmental Services (DPWES).

PGN:JRB



# County of Fairfax, Virginia

## MEMORANDUM

**DATE:** May 21, 2014

**TO:** Megan Brady Duca, Staff Coordinator  
Zoning Evaluation Division  
Department of Planning and Zoning

**FROM:** Mohan Bastakoti, P.E., Senior Engineer III   
South Branch  
Site Development and Inspections Division  
Department of Public Works and Environmental Services

**SUBJECT:** SE 2014-MV-019: 1391-ZONA-001-1; Mount Vernon District

We have reviewed the subject application and offer the following stormwater management comments.

### Chesapeake Bay Preservation Ordinance (CBPO)

There are Resource Protection Areas on the site; RPA delineation and loss of buildable area in RPA should be submitted.

### Floodplain

There are regulated floodplains on the site. The delineation of the floodplain and the source of floodplain information are required per ZO 2-902. Acknowledgment, signed by the applicant, that the applicant is aware that flood insurance may be required by the applicant's lending institution and that the flood insurance rates may increase because of increases in risks to life and property is required. SE uses shall be approved per ZO 2-904.

### Downstream Drainage Complaints

There are no current downstream drainage complaints on file.

### Stormwater Detention

The applicant shall provide detention to demonstrate that post development peak runoff is no greater than pre-development peak runoff for 2-yr and 10- yr storm event unless waived by the Director. PFM 6-0301.3.

### Water Quality Control

A phosphorous removal computation showing at least 40 % phosphorus removal from the site shall be provided with infill lot grading plan if not waived. PFM 6-0401.2A

Downstream Drainage System

The applicant shall provide Adequate Outfall Analysis for all the proposed outfalls showing the location and size of the proposed drainage structures and demonstrate that all the proposed Outfalls meet PFM requirements. PFM 6-0203.2B.

These comments are based on the 2011 version of the Public Facilities Manual (PFM). A new stormwater ordinance and updates to the PFM's stormwater requirements are being developed as a result of changes to state code (see 4VAC50-60 adopted May 24, 2011). The site plan for this application may be required to conform to the updated PFM and the new ordinance. Please contact Mohan Bastakoti at 703-324-1739 if you require additional information.

cc: Shahab Baig, Chief, North Branch, SDID, DPWES  
Greg McLaughlin, Senior Engineer III, North Branch, SDID, DPWES  
Zoning Application File





# County of Fairfax, Virginia

## MEMORANDUM

**DATE:** August 13, 2014

**TO:** Megan Duca, Staff Coordinator  
Zoning Evaluation Division, DPZ

**FROM:** Jay Banks, Urban Forester II   
Forest Conservation Branch, DPWES

**SUBJECT:** New Alexandria, Lots 28 and 29, SE 2014-MV-019

I have reviewed the above referenced Special Exception plan set, sealed on August 8, 2014. It appears that all tree conservation and landscaping concerns have been addressed.

At this time Forest Conservation Branch staff has no further comments regarding this application.

If there are any questions or further assistance is desired, please contact me at (703) 324-1770.

JSB/

UFMDID #: 192160

cc: DPZ File



## GLOSSARY

This Glossary is provided to assist the public in understanding the staff evaluation and analysis of development proposals. It should not be construed as representing legal definitions. Refer to the Fairfax County Zoning Ordinance, Comprehensive Plan or Public Facilities Manual for additional information.

**ABANDONMENT:** Refers to road or street abandonment, an action taken by the Board of Supervisors, usually through the public hearing process, to abolish the public's right-of-passage over a road or road right-of way. Upon abandonment, the right-of-way automatically reverts to the underlying fee owners. If the fee to the owner is unknown, Virginia law presumes that fee to the roadbed rests with the adjacent property owners if there is no evidence to the contrary.

**ACCESSORY DWELLING UNIT (OR APARTMENT):** A secondary dwelling unit established in conjunction with and clearly subordinate to a single family detached dwelling unit. An accessory dwelling unit may be allowed if a special permit is granted by the Board of Zoning Appeals (BZA). Refer to Sect. 8-918 of the Zoning Ordinance.

**AFFORDABLE DWELLING UNIT (ADU) DEVELOPMENT:** Residential development to assist in the provision of affordable housing for persons of low and moderate income in accordance with the affordable dwelling unit program and in accordance with Zoning Ordinance regulations. Residential development which provides affordable dwelling units may result in a density bonus (see below) permitting the construction of additional housing units. See Part 8 of Article 2 of the Zoning Ordinance.

**AGRICULTURAL AND FORESTAL DISTRICTS:** A land use classification created under Chapter 114 or 115 of the Fairfax County Code for the purpose of qualifying landowners who wish to retain their property for agricultural or forestal use for use/value taxation pursuant to Chapter 58 of the Fairfax County Code.

**BARRIER:** A wall, fence, earthen berm, or plant materials which may be used to provide a physical separation between land uses. Refer to Article 13 of the Zoning Ordinance for specific barrier requirements.

**BEST MANAGEMENT PRACTICES (BMPs):** Stormwater management techniques or land use practices that are determined to be the most effective, practicable means of preventing and/or reducing the amount of pollution generated by nonpoint sources in order to improve water quality.

**BUFFER:** Graduated mix of land uses, building heights or intensities designed to mitigate potential conflicts between different types or intensities of land uses; may also provide for a transition between uses. A landscaped buffer may be an area of open, undeveloped land and may include a combination of fences, walls, berms, open space and/or landscape plantings. A buffer is not necessarily coincident with transitional screening.

**CHESAPEAKE BAY PRESERVATION ORDINANCE:** Regulations which the State has mandated must be adopted to protect the Chesapeake Bay and its tributaries. These regulations must be incorporated into the comprehensive plans, zoning ordinances and subdivision ordinances of the affected localities. Refer to Chesapeake Bay Preservation Act, Va. Code Section 10.1-2100 et seq and VR 173-02-01, Chesapeake Bay Preservation Area Designation and Management Regulations.

**CLUSTER DEVELOPMENT:** Residential development in which the lots are clustered on a portion of a site so that significant environmental/historical/cultural resources may be preserved or recreational amenities provided. While smaller lot sizes are permitted in a cluster subdivision to preserve open space, the overall density cannot exceed that permitted by the applicable zoning district. See Sect. 2-421 and Sect. 9-615 of the Zoning Ordinance.

**COUNTY 2232 REVIEW PROCESS:** A public hearing process pursuant to Sect. 15.2-2232 (Formerly Sect. 15.1-456) of the Virginia Code which is used to determine if a proposed public facility not shown on the adopted Comprehensive Plan is in substantial accord with the plan. Specifically, this process is used to determine if the general or approximate location, character and extent of a proposed facility is in substantial accord with the Plan.

**dBA:** The momentary magnitude of sound weighted to approximate the sensitivity of the human ear to certain frequencies; the dBA value describes a sound at a given instant, a maximum sound level or a steady state value. See also Ldn.

**DENSITY:** Number of dwelling units (du) divided by the gross acreage (ac) of a site being developed in residential use; or, the number of dwelling units per acre (du/ac) except in the PRC District when density refers to the number of persons per acre.

**DENSITY BONUS:** An increase in the density otherwise allowed in a given zoning district which may be granted under specific provisions of the Zoning Ordinance when a developer provides excess open space, recreation facilities, or affordable dwelling units (ADUs), etc.

**DEVELOPMENT CONDITIONS:** Terms or conditions imposed on a development by the Board of Supervisors (BOS) or the Board of Zoning Appeals (BZA) in connection with approval of a special exception, special permit or variance application or rezoning application in a "P" district. Conditions may be imposed to mitigate adverse impacts associated with a development as well as secure compliance with the Zoning Ordinance and/or conformance with the Comprehensive Plan. For example, development conditions may regulate hours of operation, number of employees, height of buildings, and intensity of development.

**DEVELOPMENT PLAN:** A graphic representation which depicts the nature and character of the development proposed for a specific land area: information such as topography, location and size of proposed structures, location of streets trails, utilities, and storm drainage are generally included on a development plan. A development plan is a submission requirement for rezoning to the PRC District. A **GENERALIZED DEVELOPMENT PLAN (GDP)** is a submission requirement for a rezoning application for all conventional zoning districts other than a P District. A development plan submitted in connection with a special exception (SE) or special permit (SP) is generally referred to as an SE or SP plat. A **CONCEPTUAL DEVELOPMENT PLAN (CDP)** is a submission requirement when filing a rezoning application for a P District other than the PRC District; a CDP characterizes in a general way the planned development of the site. A **FINAL DEVELOPMENT PLAN (FDP)** is a submission requirement following the approval of a conceptual development plan and rezoning application for a P District other than the PRC District; an FDP further details the planned development of the site. See Article 16 of the Zoning Ordinance.

**EASEMENT:** A right to or interest in property owned by another for a specific and limited purpose. Examples: access easement, utility easement, construction easement, etc. Easements may be for public or private purposes.

**ENVIRONMENTAL QUALITY CORRIDORS (EQCs):** An open space system designed to link and preserve natural resource areas, provide passive recreation and protect wildlife habitat. The system includes stream valleys, steep slopes and wetlands. For a complete definition of EQCs, refer to the Environmental section of the Policy Plan for Fairfax County contained in Vol. 1 of the Comprehensive Plan.

**ERODIBLE SOILS:** Soils that wash away easily, especially under conditions where stormwater runoff is inadequately controlled. Silt and sediment are washed into nearby streams, thereby degrading water quality.

**FLOODPLAIN:** Those land areas in and adjacent to streams and watercourses subject to periodic flooding; usually associated with environmental quality corridors. The 100 year floodplain drains 70 acres or more of land and has a one percent chance of flood occurrence in any given year.

**FLOOR AREA RATIO (FAR):** An expression of the amount of development intensity (typically, non-residential uses) on a specific parcel of land. FAR is determined by dividing the total square footage of gross floor area of buildings on a site by the total square footage of the site itself.

**FUNCTIONAL CLASSIFICATION:** A system for classifying roads in terms of the character of service that individual facilities are providing or are intended to provide, ranging from travel mobility to land access. Roadway system functional classification elements include Freeways or Expressways which are limited access highways, Other Principal (or Major) Arterials, Minor Arterials, Collector Streets, and Local Streets. Principal arterials are designed to accommodate travel; access to adjacent properties is discouraged. Minor arterials are designed to serve both through traffic and local trips. Collector roads and streets link local streets and properties with the arterial network. Local streets provide access to adjacent properties.

**GEOTECHNICAL REVIEW:** An engineering study of the geology and soils of a site which is submitted to determine the suitability of a site for development and recommends construction techniques designed to overcome development on problem soils, e.g., marine clay soils.

**HYDROCARBON RUNOFF:** Petroleum products, such as motor oil, gasoline or transmission fluid deposited by motor vehicles which are carried into the local storm sewer system with the stormwater runoff, and ultimately, into receiving streams; a major source of non-point source pollution. An oil-grit separator is a common hydrocarbon runoff reduction method.

**IMPERVIOUS SURFACE:** Any land area covered by buildings or paved with a hard surface such that water cannot seep through the surface into the ground.

**INFILL:** Development on vacant or underutilized sites within an area which is already mostly developed in an established development pattern or neighborhood.

**INTENSITY:** The magnitude of development usually measured in such terms as density, floor area ratio, building height, percentage of impervious surface, traffic generation, etc. Intensity is also based on a comparison of the development proposal against environmental constraints or other conditions which determine the carrying capacity of a specific land area to accommodate development without adverse impacts.

**Ldn:** Day night average sound level. It is the twenty-four hour average sound level expressed in A-weighted decibels; the measurement assigns a "penalty" to night time noise to account for night time sensitivity. Ldn represents the total noise environment which varies over time and correlates with the effects of noise on the public health, safety and welfare.

**LEVEL OF SERVICE (LOS):** An estimate of the effectiveness of a roadway to carry traffic, usually under anticipated peak traffic conditions. Level of Service efficiency is generally characterized by the letters A through F, with LOS-A describing free flow traffic conditions and LOS-F describing jammed or grid-lock conditions.

**MARINE CLAY SOILS:** Soils that occur in widespread areas of the County generally east of Interstate 95. Because of the abundance of shrink-swell clays in these soils, they tend to be highly unstable. Many areas of slope failure are evident on natural slopes. Construction on these soils may initiate or accelerate slope movement or slope failure. The shrink-swell soils can cause movement in structures, even in areas of flat topography, from dry to wet seasons resulting in cracked foundations, etc. Also known as slippage soils.

**OPEN SPACE:** That portion of a site which generally is not covered by buildings, streets, or parking areas. Open space is intended to provide light and air; open space may function as a buffer between land uses or for scenic, environmental, or recreational purposes.

**OPEN SPACE EASEMENT:** An easement usually granted to the Board of Supervisors which preserves a tract of land in open space for some public benefit in perpetuity or for a specified period of time. Open space easements may be accepted by the Board of Supervisors, upon request of the land owner, after evaluation under criteria established by the Board. See Open Space Land Act, Code of Virginia, Sections 10.1-1700, et seq.

**P DISTRICT:** A "P" district refers to land that is planned and/or developed as a Planned Development Housing (PDH) District, a Planned Development Commercial (PDC) District or a Planned Residential Community (PRC) District. The PDH, PDC and PRC Zoning Districts are established to encourage innovative and creative design for land development; to provide ample and efficient use of open space; to promote a balance in the mix of land uses, housing types, and intensity of development; and to allow maximum flexibility in order to achieve excellence in physical, social and economic planning and development of a site. Refer to Articles 6 and 16 of the Zoning Ordinance.

**PROFFER:** A written condition, which, when offered voluntarily by a property owner and accepted by the Board of Supervisors in a rezoning action, becomes a legally binding condition which is in addition to the zoning district regulations applicable to a specific property. Proffers are submitted and signed by an owner prior to the Board of Supervisors public hearing on a rezoning application and run with the land. Once accepted by the Board, proffers may be modified only by a proffered condition amendment (PCA) application or other zoning action of the Board and the hearing process required for a rezoning application applies. See Sect. 15.2-2303 (formerly 15.1-491) of the Code of Virginia.

**PUBLIC FACILITIES MANUAL (PFM):** A technical text approved by the Board of Supervisors containing guidelines and standards which govern the design and construction of site improvements incorporating applicable Federal, State and County Codes, specific standards of the Virginia Department of Transportation and the County's Department of Public Works and Environmental Services.

**RESOURCE MANAGEMENT AREA (RMA):** That component of the Chesapeake Bay Preservation Area comprised of lands that, if improperly used or developed, have a potential for causing significant water quality degradation or for diminishing the functional value of the Resource Protection Area. See Fairfax County Code, Ch. 118, Chesapeake Bay Preservation Ordinance.

**RESOURCE PROTECTION AREA (RPA):** That component of the Chesapeake Bay Preservation Area comprised of lands at or near the shoreline or water's edge that have an intrinsic water quality value due to the ecological and biological processes they perform or are sensitive to impacts which may result in significant degradation of the quality of state waters. In their natural condition, these lands provide for the removal, reduction or assimilation of sediments from runoff entering the Bay and its tributaries, and minimize the adverse effects of human activities on state waters and aquatic resources. New development is generally discouraged in an RPA. See Fairfax County Code, Ch. 118, Chesapeake Bay Preservation Ordinance.

**SITE PLAN:** A detailed engineering plan, to scale, depicting the development of a parcel of land and containing all information required by Article 17 of the Zoning Ordinance. Generally, submission of a site plan to DPWES for review and approval is required for all residential, commercial and industrial development except for development of single family detached dwellings. The site plan is required to assure that development complies with the Zoning Ordinance.

**SPECIAL EXCEPTION (SE) / SPECIAL PERMIT (SP):** Uses, which by their nature, can have an undue impact upon or can be incompatible with other land uses and therefore need a site specific review. After review, such uses may be allowed to locate within given designated zoning districts if appropriate and only under special controls, limitations, and regulations. A special exception is subject to public hearings by the Planning Commission and Board of Supervisors with approval by the Board of Supervisors; a special permit requires a public hearing and approval by the Board of Zoning Appeals. Unlike proffers which are voluntary, the Board of Supervisors or BZA may impose reasonable conditions to assure, for example, compatibility and safety. See Article 8, Special Permits and Article 9, Special Exceptions, of the Zoning Ordinance.

**STORMWATER MANAGEMENT:** Engineering practices that are incorporated into the design of a development in order to mitigate or abate adverse water quantity and water quality impacts resulting from development. Stormwater management systems are designed to slow down or retain runoff to re-create, as nearly as possible, the pre-development flow conditions.

**SUBDIVISION PLAT:** The engineering plan for a subdivision of land submitted to DPWES for review and approved pursuant to Chapter 101 of the County Code.

**TRANSPORTATION DEMAND MANAGEMENT (TDM):** Actions taken to reduce single occupant vehicle automobile trips or actions taken to manage or reduce overall transportation demand in a particular area.

**TRANSPORTATION SYSTEM MANAGEMENT (TSM) PROGRAMS:** This term is used to describe a full spectrum of actions that may be applied to improve the overall efficiency of the transportation network. TSM programs usually consist of low-cost alternatives to major capital expenditures, and may include parking management measures, ridesharing programs, flexible or staggered work hours, transit promotion or operational improvements to the existing roadway system. TSM includes Transportation Demand Management (TDM) measures as well as H.O.V. use and other strategies associated with the operation of the street and transit systems.

**URBAN DESIGN:** An aspect of urban or suburban planning that focuses on creating a desirable environment in which to live, work and play. A well-designed urban or suburban environment demonstrates the four generally accepted principles of design: clearly identifiable function for the area; easily understood order; distinctive identity; and visual appeal.

**VACATION:** Refers to vacation of street or road as an action taken by the Board of Supervisors in order to abolish the public's right-of-passage over a road or road right-of-way dedicated by a plat of subdivision. Upon vacation, title to the road right-of-way transfers by operation of law to the owner(s) of the adjacent properties within the subdivision from whence the road/road right-of-way originated.

**VARIANCE:** An application to the Board of Zoning Appeals which seeks relief from a specific zoning regulation such as lot width, building height, or minimum yard requirements, among others. A variance may only be granted by the Board of Zoning Appeals through the public hearing process and upon a finding by the BZA that the variance application meets the required Standards for a Variance set forth in Sect. 18-404 of the Zoning Ordinance.

**WETLANDS:** Land characterized by wetness for a portion of the growing season. Wetlands are generally delineated on the basis of physical characteristics such as soil properties indicative of wetness, the presence of vegetation with an affinity for water, and the presence or evidence of surface wetness or soil saturation. Wetland environments provide water quality improvement benefits and are ecologically valuable. Development activity in wetlands is subject to permitting processes administered by the U.S. Army Corps of Engineers

**TIDAL WETLANDS:** Vegetated and nonvegetated wetlands as defined in Chapter 116 Wetlands Ordinance of the Fairfax County Code: includes tidal shores and tidally influenced embayments, creeks, and tributaries to the Occoquan and Potomac Rivers. Development activity in tidal wetlands may require approval from the Fairfax County Wetlands Board.

#### Abbreviations Commonly Used in Staff Reports

A&F	Agricultural & Forestal District	PDH	Planned Development Housing
ADU	Affordable Dwelling Unit	PFM	Public Facilities Manual
ARB	Architectural Review Board	PRC	Planned Residential Community
BMP	Best Management Practices	RC	Residential-Conservation
BOS	Board of Supervisors	RE	Residential Estate
BZA	Board of Zoning Appeals	RMA	Resource Management Area
COG	Council of Governments	RPA	Resource Protection Area
CBC	Community Business Center	RUP	Residential Use Permit
CDP	Conceptual Development Plan	RZ	Rezoning
CRD	Commercial Revitalization District	SE	Special Exception
DOT	Department of Transportation	SEA	Special Exception Amendment
DP	Development Plan	SP	Special Permit
DPWES	Department of Public Works and Environmental Services	TDM	Transportation Demand Management
DPZ	Department of Planning and Zoning	TMA	Transportation Management Association
DU/AC	Dwelling Units Per Acre	TSA	Transit Station Area
EQC	Environmental Quality Corridor	TSM	Transportation System Management
FAR	Floor Area Ratio	UP & DD	Utilities Planning and Design Division, DPWES
FDP	Final Development Plan	VC	Variance
GDP	Generalized Development Plan	VDOT	Virginia Dept. of Transportation
GFA	Gross Floor Area	VPD	Vehicles Per Day
HC	Highway Corridor Overlay District	VPH	Vehicles per Hour
HCD	Housing and Community Development	WMATA	Washington Metropolitan Area Transit Authority
LOS	Level of Service	WS	Water Supply Protection Overlay District
Non-RUP	Non-Residential Use Permit	ZAD	Zoning Administration Division, DPZ
OSDS	Office of Site Development Services, DPWES	ZED	Zoning Evaluation Division, DPZ
PCA	Proffered Condition Amendment	ZPRB	Zoning Permit Review Branch
PD	Planning Division		
PDC	Planned Development Commercial		