



APPLICATION ACCEPTED: March 13, 2014
PLANNING COMMISSION: November 6, 2014
BOARD OF SUPERVISORS: November 18, 2014 @ 3:00 PM

County of Fairfax, Virginia

October 22, 2014

STAFF REPORT

RZ/FDP 2014-BR-007

BRADDOCK DISTRICT

APPLICANT:	NVR, Inc.
PRESENT ZONING:	R-1
REQUESTED ZONING:	PDH-3
PARCEL(S):	56-2 ((1)) 54, 55, 57, 58, 59 56-2 ((4)) 01
ACREAGE:	13.88 ac.
OPEN SPACE:	30.2%
PLAN RECOMMENDATION:	2 to 3 dwelling units per acre
PROPOSAL:	The applicant seeks to rezone 13.88 acres from R-1 to PDH-3 to permit the development of 40 single-family detached dwelling units at an overall density of 2.88 du/ac.

STAFF RECOMMENDATIONS:

- Staff recommends approval of RZ 2014-BR-007, subject to Option A, as depicted on Sheet 5 of the CDP/FDP and including a full public road connection, and the execution of proffers consistent with those contained in Appendix 1; and
- Staff recommends approval of FDP 2014-BR-007, subject to Option A, as depicted on Sheet 5 of the CDP/FDP and including a full public road connection, and subject to the development conditions contained in Appendix 2.

- Staff also recommends approval of the following waivers and/or modifications:
 - Waiver of the 600 feet maximum length requirement for a private street per Par. 2 of Sect. 11-302 of the Zoning Ordinance
 - Waiver of service drive requirement along Route 29.
 - Direct the Director of DPWES to: Approve deviation from the tree preservation target required per Sect. 12-0508 of the PFM, in accordance with deviation request letter.

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 applicant/owner 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 rezoning does not interfere with, abrogate or annul any easement, covenants, or other agreements between parties, as they may apply to the property subject to this application. 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.



Final Development Plan

FDP 2014-BR-007

Applicant: NVR, INC.
Accepted: 03/13/2014
Proposed: RESIDENTIAL
Area: 13.8825 AC OF LAND; DISTRICT - BRADDOCK

Zoning Dist Sect:
Located: SOUTH SIDE OF LEE HIGHWAY
APPROXIMATELY 400 FEET WEST OF ITS
INTERSECTION WITH SHIRLEY GATE ROAD

Zoning: PDH-3
Overlay Dist:
Map Ref Num: 056-2- /01/ /0054 /01/ /0055
/01/ /0057 /01/ /0058 /01/
/0059 /04/ /0001

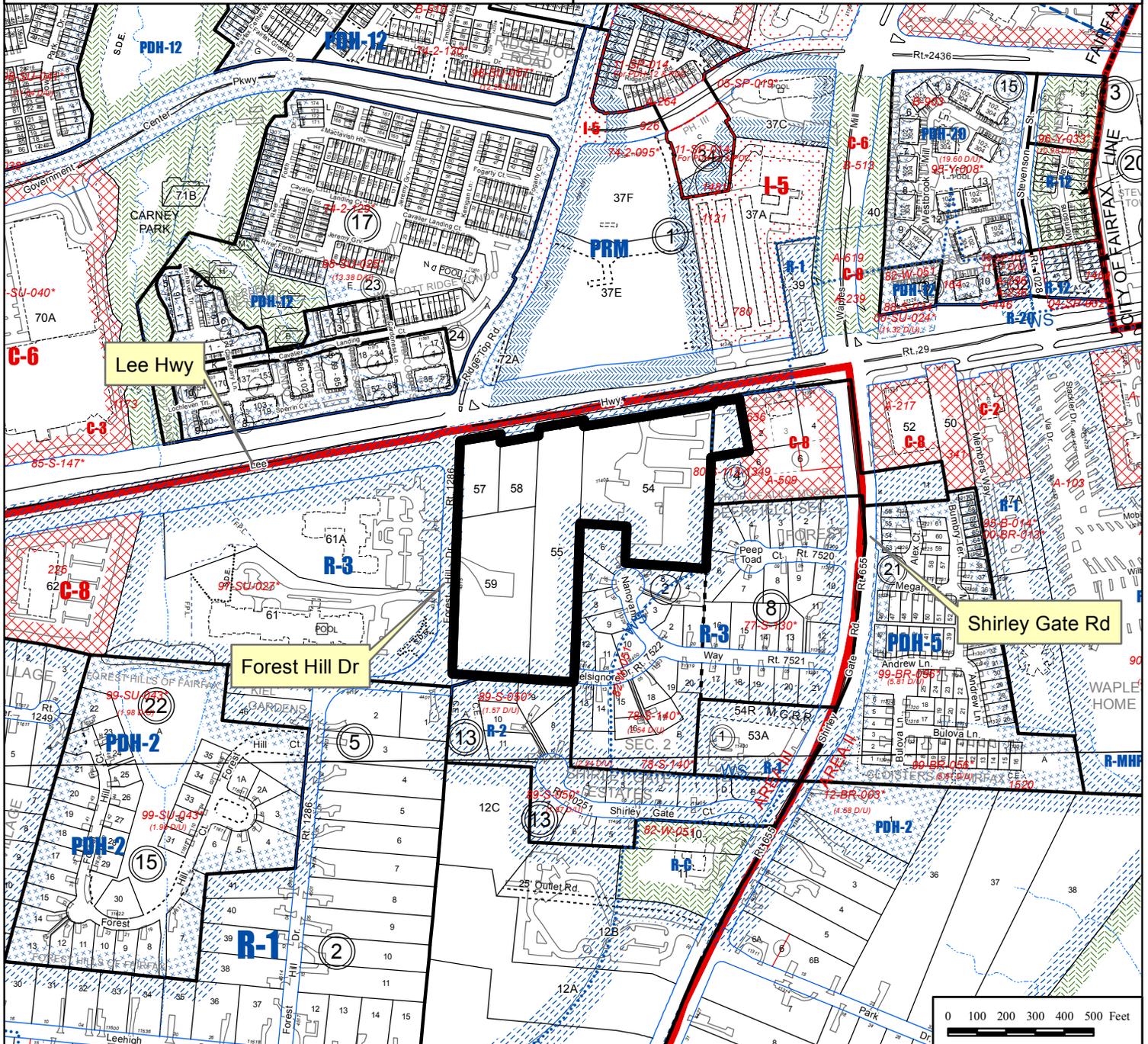
Rezoning Application

RZ 2014-BR-007

Applicant: NVR, INC.
Accepted: 03/13/2014
Proposed: RESIDENTIAL
Area: 13.8825 AC OF LAND; DISTRICT - BRADDOCK

Zoning Dist Sect:
Located: SOUTH SIDE OF LEE HIGHWAY
APPROXIMATELY 400 FEET WEST OF ITS
INTERSECTION WITH SHIRLEY GATE ROAD

Zoning: FROM R-1 TO PDH-3
Overlay Dist:
Map Ref Num: 056-2- /01/ /0054 /01/ /0055
/01/ /0057 /01/ /0058 /01/
/0059 /04/ /0001

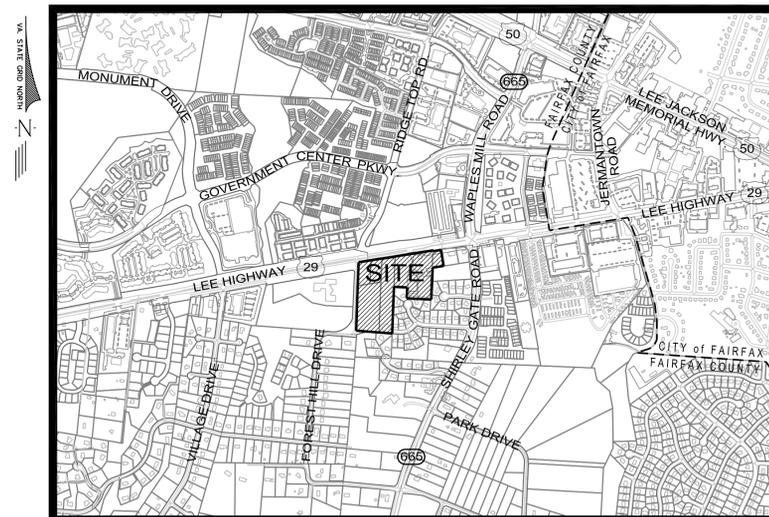


FOREST RIDGE

CONCEPTUAL DEVELOPMENT PLAN FINAL DEVELOPMENT PLAN (CDP/FDP)

Braddock District
Fairfax County, Virginia

OCTOBER 25, 2013
FEBRUARY 11, 2014
JULY 1, 2014
SEPTEMBER 12, 2014
OCTOBER 17, 2014



VICINITY MAP
SCALE 1"=1000'

SHEET INDEX

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| 5A | CDP/FDP LAYOUT OPTION B |
| 6 | LANDSCAPE PLAN |
| 7 | PRELIMINARY SWM/BMP |
| 8 | ADEQUATE OUTFALL ANALYSIS |
| 9 | ILLUSTRATIVE PLAN |
| 10,10A | AMENITIES PLAN |
| 11 | SITE FURNISHINGS |
| 12 | CONCEPTUAL ARCHITECTURALS |
| 13,14 | TREE PRESERVATION PLAN |
| 15 | NOISE CONTOUR |

APPLICANT:

NVR, INC
3926 PENDER DRIVE
SUITE 200
FAIRFAX, VIRGINIA 22030
(703) 259-6845 FAX: (703) 259-6823

DEVELOPMENT CONSULTANT:


CAPRETTI LAND, INC
20098 ASHBROOK PLACE
SUITE 185
ASHBURN, VIRGINIA 20147
(703) 858-4242

CIVIL ENGINEER:


Urban, Ltd.
7712 Little River Turnpike
Annandale, Virginia 22003
Tel. 703.642.8080
www.urban-ld.com

ATTORNEY:

McGUIREWOODS, LLP
1750 TYSONS BLVD.
SUITE 1800
McLEAN, VIRGINIA 22102-4215
(703) 712-5000



GENERAL NOTES

- ALL REFERENCES HEREIN TO ZONING ORDINANCE SHALL REFER TO THE FAIRFAX COUNTY ZONING ORDINANCE. ALL REFERENCES HEREIN TO PROPERTY, PARCEL OR SITE SHALL REFER TO THE SUBJECT PROPERTY.
- THE SUBJECT PROPERTY IS LOCATED IN THE BRADDOCK DISTRICT, ON FAIRFAX COUNTY TAX MAP 56-2, (11) 54, 55, 57, 58, & 59 AND (4) 1.
- THE PROPERTY IS CURRENTLY ZONED R-1 AND IS PROPOSED TO BE REZONED TO PDH-3.
- THE PROPERTY IS COMPRISED OF PARCELS OWNED BY LONARDELLI JOINT VENTURE, LLC; HONG SEUNG K. TR.; FOREST HILL JOINT VENTURE, LLC; AND GARDEN WORLD R. E. LLC.
- THE BOUNDARY INFORMATION SHOWN HEREON IS BASED ON A FIELD RUN BOUNDARY SURVEY OF THIS PROPERTY PERFORMED BY URBAN, LTD. IN JUNE, 2013.
- THE TOPOGRAPHY SHOWN HEREON IS AT TWO FOOT CONTOUR INTERVAL, BASED ON A FIELD SURVEY PERFORMED BY URBAN, LTD. IN AUGUST, 2013.
- BASED UPON COUNTY MAPPING THERE ARE NO FLOODPLAINS OR RESOURCE PROTECTION AREAS LOCATED ON THE PROPERTY.
- THERE ARE NO ENVIRONMENTAL QUALITY CORRIDORS LOCATED ON THE PROPERTY BASED UPON THE ADOPTED COMPREHENSIVE PLAN.
- THERE ARE NO KNOWN EASEMENTS 25 FEET OR MORE IN WIDTH ON THE PROPERTY.
- THERE ARE NO AREAS ON SITE THAT HAVE SCENIC ASSETS OR NATURAL FEATURES WORTH PROTECTING AND PRESERVING.
- THERE ARE NO KNOWN GRAVE OR BURIAL SITES ON THIS PROPERTY.
- THERE ARE NO KNOWN ENDANGERED OR THREATENED PLANT AND ANIMAL SPECIES IN THE PROJECT AREA.
- ACCORDING TO THE COUNTYWIDE TRAILS PLAN, THERE ARE NO TRAILS PROPOSED ON THE PROPERTY. AN 8 FOOT WIDE ASPHALT TRAIL EXISTS ALONG THE NORTH SIDE OF LEE HIGHWAY.
- THE USE AND DENSITY OF THE PROPOSED DEVELOPMENT CONFORMS TO THE RECOMMENDATIONS OF THE FAIRFAX COUNTY COMPREHENSIVE PLAN. THE PROPERTY IS LOCATED WITHIN THE BRADDOCK COMMUNITY PLANNING SECTOR AND THE FAIRFAX CENTER AREA. THE SITE IS PLANNED FOR RESIDENTIAL USE AT 3 DWELLING UNITS PER ACRE AT THE OVERLAY LEVEL.
- THE PROPOSED DEVELOPMENT WILL NOT POSE ANY ADVERSE EFFECT ON ADJACENT OR NEIGHBORING PROPERTIES.
- ALL STRUCTURES ON THE PROPERTY ARE TO BE REMOVED. THE EXISTING HOME ON PARCEL 54 WAS BUILT IN 1925 AND REMODELED IN 1960.
- SPECIAL AMENITIES WILL INCLUDE A POCKET PARK/ GREEN WITH BENCHES, LANDSCAPING AND A POSSIBLE TOT LOT/ ACTIVITY AREA. LANDSCAPING WILL SERVE TO DEFINE THE STREETScape, SOFTEN THE BUILT ENVIRONMENT AND BUFFER VIEWS TO ADJACENT PROPERTIES AND STREETS.
- THE PROJECT IS ANTICIPATED TO BE DEVELOPED IN A SINGLE PHASE.
- A PHASE I ENVIRONMENTAL SITE ASSESSMENT HAS BEEN COMPLETED BY ECC (ENVIRONMENTAL CONSULTANTS AND CONTRACTORS, INC.), DATED MAY 20, 2013.
- WETLANDS SHOWN HEREIN WERE DELINEATED BY WSSI, INC. (WETLAND STUDIES AND SOLUTIONS, INC.) AS SHOWN IN "WATERS OF THE U.S. (INCLUDING WETLANDS) DELINEATION AND RESOURCE PROTECTION AREA (RPA) EVALUATION, ROUTE 29 WIDENING PHASE III (4YP212)" REPORT DATED MAY 24, 2011 AS WELL AS "WATERS OF THE U.S. (INCLUDING WETLANDS) DELINEATION MAP, GARDEN WORLD ASSEMBLAGE" DATED JULY 27, 2012.
- THE PROPOSED DEVELOPMENT WILL CONFORM TO THE PROVISIONS OF ALL APPLICABLE ORDINANCES, REGULATIONS AND ADOPTED STANDARDS EXCEPT AS MAY BE SPECIFIED OTHERWISE.
- PUBLIC WATER AND SEWER SHALL BE PROVIDED BY EXTENSION OF EXISTING SERVICE ON THE PROPERTY. SOLID WASTE REMOVAL SHALL BE PROVIDED BY PRIVATE CONTRACTORS.
- ALL PROPOSED UTILITIES, INCLUDING ELECTRIC, SHALL BE PLACED UNDERGROUND.
- PARKING WILL BE PROVIDED IN ACCORDANCE WITH THE PROVISIONS OF ARTICLE 11 OF THE ZONING ORDINANCE.
- HOUSE FOOTPRINTS SHOWN ARE ILLUSTRATIVE AND APPROXIMATE. THE SIZE AND CONFIGURATION OF THESE FOOTPRINTS MAY BE REVISED PROVIDED THAT THE MINIMUM SETBACKS AND REQUIRED AMOUNT OF OPEN SPACE ARE NOT DIMINISHED.
- PURSUANT TO SECTION 16-403 OF THE ZONING ORDINANCE, MINOR MODIFICATIONS INCLUDING THE LIMITS OF CLEARING AND GRADING, LANDSCAPED OPEN SPACE AND LOCATIONS OF SIDEWALKS, UTILITIES, RECREATIONAL AMENITIES AND STORM WATER MANAGEMENT FACILITIES MAY OCCUR WITH FINAL SITE ENGINEERING WITHOUT REQUIRING AN AMENDMENT TO THIS CDP/FDP.
- LANDSCAPING CONSISTING OF A COMBINATION OF EVERGREEN AND DECIDUOUS TREES AND SHRUBS WILL BE PROVIDED IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF ARTICLE 13 AND THIS CDP/FDP.
- SUBJECT TO MARKET CONDITIONS, IT IS ANTICIPATED THAT CONSTRUCTION OF THE PROPOSED DEVELOPMENT WILL COMMENCE AS SOON AS ALL NECESSARY COUNTY APPROVALS AND PERMITS ARE OBTAINED.
- STORMWATER MANAGEMENT FACILITIES WILL CONFORM TO ALL DPWES AND PFM REQUIREMENTS.
- PRIVATE STREETS AND SURFACE PARKING AREAS NOT WITHIN PRIVATE DRIVEWAYS ARE TO BE LOCATED ON COMMON HOMEOWNERS ASSOCIATION (HOA) PROPERTY AND WILL BE OWNED AND MAINTAINED BY THE HOA.
- 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; ALL HAZARDOUS WASTE AS SET FORTH IN COMMONWEALTH OF VIRGINIA DEPARTMENT OF WASTE MANAGEMENT REGULATIONS VR 672-10-1-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.
- ALL PROPOSED SIGNS SHALL BE PROVIDED IN ACCORDANCE WITH THE PROVISIONS OF ARTICLE 12 OF THE ZONING ORDINANCE.
- FIRE LANE MARKINGS WILL BE INSTALLED PER CODE.

REQUESTED WAIVERS/MODIFICATIONS

- WAIVER OF THE 600 FEET MAXIMUM LENGTH REQUIREMENT FOR A PRIVATE STREET PER PAR. 2 OF SECT. 11-302 OF THE ZONING ORDINANCE.
- DEVIATION FROM THE TREE PRESERVATION TARGET REQUIRED PER SECT. 12-0508 OF THE PUBLIC FACILITIES MANUAL, IN ACCORDANCE WITH SECT. 12-0508.3 & 12.0508.4, SEE OFFICIAL REQUEST LETTER TO THE UFM DIRECTOR ON THIS SHEET.
- REQUEST FOR WAIVER FOR THE SERVICE DRIVE REQUIREMENTS ALONG ROUTE 29.

SOILS MAP

SCALE 1"=400'



SOILS RATINGS

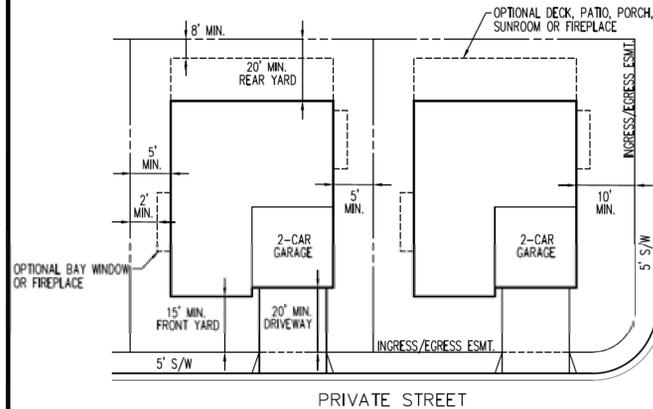
SOIL I.D. NUMBER	SERIES NAME	SUBSURFACE DRAINAGE	FOUNDATION SUPPORT	SLOPE STABILITY	ERODIBILITY	INFILTRATION SUITABILITY	GEOTECHNICAL REPORT REQD.
35A	ELBERT SILT LOAM	POOR-F,P,S,C,R	POOR-P,C,B	MODERATE	LOW	POOR-R,P,S,C,F	YES
50	HATTONTOWN SILT LOAM	FAIR-S	MARGINAL-C,B	MODERATE	MEDIUM	POOR-S	NO (GEOTECHNICAL INVEST. REQD.)
56B	HATTONTOWN-ORANGE COMPLEX	POOR-P,R,S,C	POOR-P,C,B	MODERATE	MEDIUM	POOR-P,C,R,S	YES
57C	HATTONTOWN-ORANGE COMPLEX (STONY)	POOR-P,R,S,C	POOR-P,C,B	MOD.-LOW	HIGH	POOR-P,C,R,S	YES
82B	ORANGE SILT LOAM	POOR-P,C,R,S	POOR-P,C,B	MODERATE	MEDIUM	POOR-P,C,R,S	YES
83C	ORANGE SILT LOAM (STONY)	POOR-P,C,R,S	POOR-P,C,B	MOD.-LOW	HIGH	POOR-P,C,R,S	YES
95	URBAN LAND	N/A	N/A	MODERATE	N/A	N/A	NO (GEOTECHNICAL INVEST. REQD.)
103A	WHEATON-CODORUS COMPLEX	POOR-F,W,S	POOR-F,W,B	MODERATE	LOW	POOR-W,F	YES

SOILS NOTES:

- SOILS INFORMATION AND MAPPING PROVIDED BY THE OFFICIAL 2011 FAIRFAX COUNTY SOIL MAPS.
- GEOTECHNICAL REPORT REQUIRED AT TIME OF SITE PLAN.

TYPICAL SFD LOT DETAIL

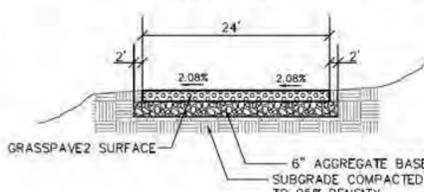
N.T.S.



TYPICAL LOT/UNIT NOTES:

- THE TYPICAL LOT DETAILS ARE INTENDED TO ESTABLISH MINIMUM YARD AREAS AND SETBACKS. THE FOOTPRINTS SHOWN ARE ILLUSTRATIVE AND MAY NOT REPRESENT THE ACTUAL FOOTPRINT. ALTERNATIVE FOOTPRINTS MAY BE USED.
- EXTENSIONS INTO MINIMUM REQUIRED YARDS NOT SPECIFIED BELOW SHALL BE GOVERNED BY ARTICLE 2-412 OF THE ZONING ORDINANCE.
- MINIMUM DRIVEWAY LENGTH IS 20 FEET, MEASURED FROM FACE OF GARAGE DOOR TO EDGE OF SIDEWALK.
- BAY WINDOWS AND FIREPLACES MAY EXTEND UP TO 3 FEET INTO ANY MINIMUM REQUIRED YARD BUT NOT CLOSER THAN 2 FEET TO ANY SIDE LOT LINE.
- DECK MODIFICATIONS MAY INCLUDE BUT ARE NOT LIMITED TO: LATTICE WORK, PERGOLAS, TRELLISES AND OVERHANGING PLANTER BOXES.
- ENCLOSED PORCHES/ SUNROOMS MAY EXTEND INTO REAR YARDS A MAXIMUM OF 12 FEET.

EMERGENCY ACCESS TYPICAL SECTION



TREE PRESERVATION TARGET DEVIATION REQUEST LETTER



September 12, 2014

Mr. Michael Knapp, Director
Urban Forestry Management Division
12055 Government Center Parkway
Fairfax, Virginia 22035

RE: Forest Ridge CDP/FDP

Dear Mr. Knapp,

Per Fairfax County P.F.M. 12-0508.4 we are writing to you in regards to the Tree Preservation Target for this site. The applicant's proposed plan is designed for 40 detached residential dwellings on individual lots as allowed by the PDH-3 zoning requirements, requested with this application. In addition to the lots, and in order to meet new Storm Water Management/Best Management Practices, multiple ponds and BMP bioretention facilities will be needed onsite. Also, in compliance with the County's Comprehensive Transportation Plan, approximately one (1) acre of potential tree preservation area will be reserved for the future road improvements to Lee Highway (Route 29). Due to these required reductions in the overall site area, the 40 dwellings are proposed within a reduced net site area, therefore restricting tree preservation potential. Finally, meetings with the Braddock District Supervisor and the adjacent homeowners led to requests for additional internal parking and additional buffer areas along the custom and southern boundaries, which in turn, led to the final design shown with this application as agreed upon with the Supervisor and homeowners.

According to the "Allowable Deviations to Tree Preservation Target", meeting the Tree Preservation Target would preclude the development of uses or densities otherwise allowed by the Zoning Ordinance (PFM 12-0508.3A(1)).

Through the use of narrower side yards, minimum driveway lengths, and an overall tight grid-like layout, we have minimized the construction footprint for this project, thus conserving as much of the remaining vegetation that meets the requirements of § 12-0400 *et seq.* With this redesign, 24% of the 10-year canopy requirement can be met as tree preservation. Therefore, we hereby formally request a Tree Preservation Target Deviation to the 24% minimum identified on this plan. The remaining 10-year canopy requirement will be met through means of on-site tree planting.

If any further information is needed that will assist you during the decision-making process, please do not hesitate to contact me. Thank you for your time and consideration in this matter.

Sincerely,
Urban, Ltd.
John Lightle
John Lightle, ISA Certified Arborist

Urban, Ltd. 7712 Little River Turnpike, Annandale, Virginia 22003 PH 703.642.8080 FX 703.642.8251 www.urban-ltd.com
Annandale, VA Chantilly, VA Winchester, VA Wilmington, NC

ZONING AND AREA TABULATIONS

TOTAL SITE AREA PRIOR TO COUNTY RT. 29 DEDICATION	604,572 S.F. OR 13.8791 AC.
RT. 29 R/W DEDICATION BY COUNTY	- ±22,120 S.F. OR ±0.5078 AC.
PROPOSED R/W DEDICATION	- ±54,250 S.F. OR ±1.2454 AC.
NET SITE AREA	±528,202 S.F. OR ±12.1259 AC.

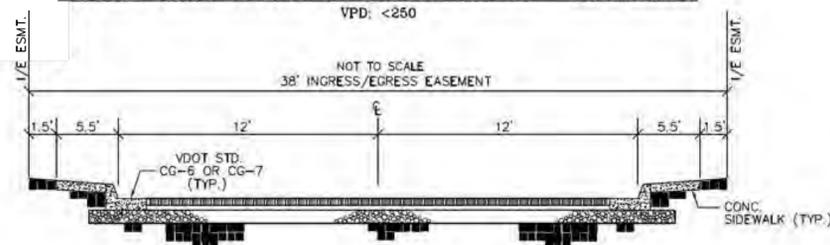
EXISTING ZONING	= R-1
PROPOSED ZONING	= PDH-3
PROPOSED DENSITY	= 40 UNITS/13.8791 AC = 2.88 DU/AC
MINIMUM LOT AREA	= NO REQUIREMENT
MINIMUM LOT WIDTH	= NO REQUIREMENT
PROPOSED UNIT HEIGHT	= 35 FEET MAXIMUM
OPEN SPACE REQUIRED	= 20.0% OR 2.45 AC.
OPEN SPACE PROVIDED	= ±30.2% OF NET SITE AREA OR ±3.66 AC.
ACTIVE REC. OPEN SPACE PROVIDED	= ±20,000 S.F. (TOT LOT AND COMMUNITY GREENS)

PARKING TABULATIONS

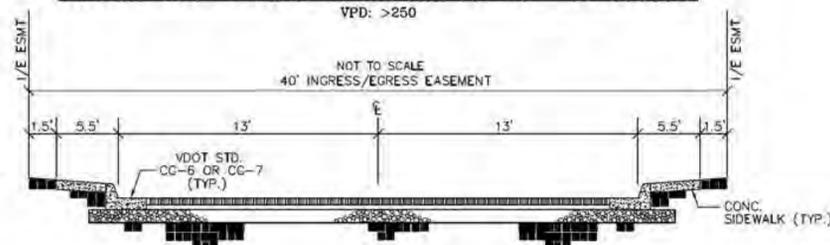
TOTAL NUMBER OF UNITS	= 40
PARKING SPACES REQUIRED	= 120 SPACES (40 UNITS x 3 SPACES PER UNIT ON PRIVATE STREET)
PARKING SPACES PROVIDED:	
GARAGE	= 80 SPACES
DRIVEWAY	= 80 SPACES
OFF-LOT (GUESTS)	= ±43 SPACES (OPTION A)*
	= ±50 SPACES (OPTION B)*
TOTAL	= ±203 SPACES (OPTION A)
	= ±210 SPACES (OPTION B)

* NOTE: THERE ARE AN ADDITIONAL ±6 EXISTING PARKING SPACES ALONG FOREST HILL DRIVE, AS SHOWN ON SHEET 4. ADDITIONALLY, ±10 SPACES ALONG PROPOSED STREET (OPTION A) WOULD BE AVAILABLE.

TYPICAL CROSS SECTION 24' PRIVATE STREET - NO PARKING



TYPICAL CROSS SECTION 26' PRIVATE STREET - NO PARKING



7712 Little River Turnpike
Annandale, Virginia 22003
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Seal: COMMONWEALTH OF VIRGINIA
DAVID T. McELHENNY
No. 022048
12/11/14
PROFESSIONAL ENGINEER

Client: _____

Revision / Issue		
No.	Description	Date
1.	DPZ Acceptance	10/25/13
2.	First Submission	02/11/14
3.	Second Submission	07/01/14
4.	Third Submission	09/12/14
5.	Fourth Submission	10/17/14

Issue: _____
Date: _____ Description: _____

Project Name: **FOREST RIDGE**

CDP/FDP

Braddock District
Fairfax County, Virginia

Drawn By: JL	Checked By: AHH / DTM
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Project No.: ZP-2137

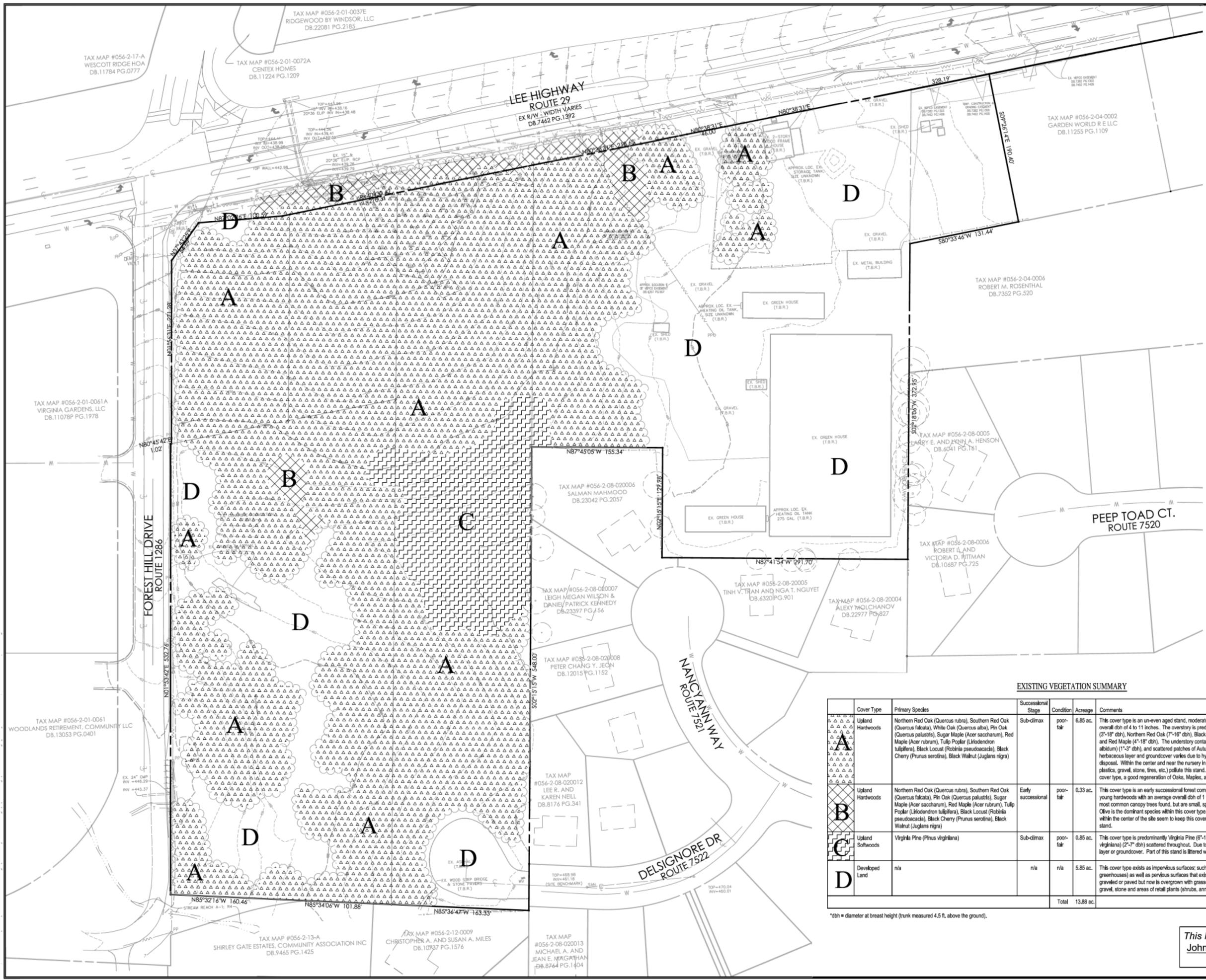
Date: SEPTEMBER 12, 2014

Drawing Title: **NOTES AND DETAILS**

Scale: AS SHOWN

Drawing Number: **2**

Sheet 2 of 15



7712 Little River Turnpike
Annandale, Virginia 22003
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www.urban-va.com



Client

Revision / Issue		
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5.	Fourth Submission	10/17/14

Issue	
Date	Description

Project Name
FOREST RIDGE

CDP/DFP

Braddock District
Fairfax County, Virginia

Drawn By JL	Checked By AHH / DTM
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Project No. ZP-2137

Date SEPTEMBER 12, 2014

Drawing Title
EXISTING VEGETATION MAP

Scale: 1"=50'

Drawing Number

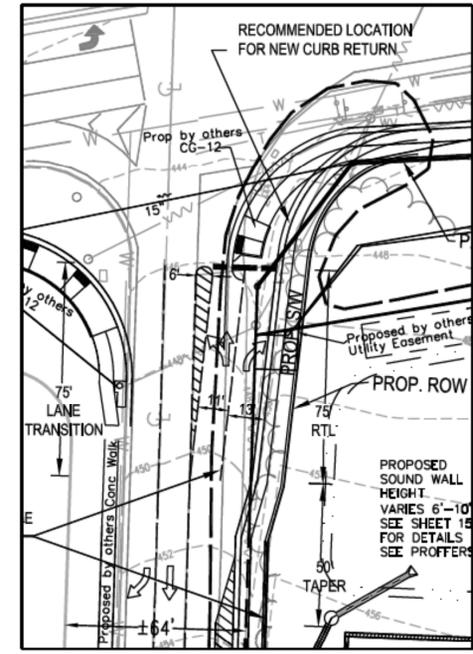
4
Sheet 4 of 15

EXISTING VEGETATION SUMMARY

	Cover Type	Primary Species	Successional Stage	Condition	Acreage	Comments
A	Upland Hardwoods	Northern Red Oak (<i>Quercus rubra</i>), Southern Red Oak (<i>Quercus falcata</i>), White Oak (<i>Quercus alba</i>), Pin Oak (<i>Quercus palustris</i>), Sugar Maple (<i>Acer saccharum</i>), Red Maple (<i>Acer rubrum</i>), Tulip Poplar (<i>Liriodendron tulipifera</i>), Black Locust (<i>Robinia pseudoacacia</i>), Black Cherry (<i>Prunus serotina</i>), Black Walnut (<i>Juglans nigra</i>)	Sub-climax	poor-fair	6.85 ac.	This cover type is an uneven aged stand, moderately stocked, consisting of hardwoods with an average overall dbh of 4 to 11 inches. The overstory is predominantly Sugar Maple (7"-24" dbh), Tulip Poplar (3"-18" dbh), Northern Red Oak (7"-16" dbh), Black Locust (3"-18" dbh), Southern Red Oak (7"-23" dbh), and Red Maple (4"-18" dbh). The understorey contains Black Cherry (2"-5" dbh), Sassafras (<i>Sassafras albidum</i>) (1"-3" dbh), and scattered patches of Autumn Olive (<i>Elaeagnus umbellata</i>) (3"-8" ht.). The herbaceous layer and groundcover varies due to hydric soils, sunlight access, and areas of trash disposal. Within the center and near the nursery in the eastern portion of this site, trash (unwanted plastics, gravel, stone, tires, etc.) pollute this stand. Throughout the remaining non-polluted areas of this cover type, a good regeneration of Oaks, Maples, and Tulip Poplar can be found.
B	Upland Hardwoods	Northern Red Oak (<i>Quercus rubra</i>), Southern Red Oak (<i>Quercus falcata</i>), Pin Oak (<i>Quercus palustris</i>), Sugar Maple (<i>Acer saccharum</i>), Red Maple (<i>Acer rubrum</i>), Tulip Poplar (<i>Liriodendron tulipifera</i>), Black Locust (<i>Robinia pseudoacacia</i>), Black Cherry (<i>Prunus serotina</i>), Black Walnut (<i>Juglans nigra</i>)	Early successional	poor-fair	0.33 ac.	This cover type is an early successional forest community, poorly stocked, consisting of saplings and young hardwoods with an average overall dbh of 1 to 4 inches. Maples, Oaks, and Tulip Poplar are the most common canopy trees found, but are small, sparse and overgrown with various grasses. Autumn Olive is the dominant species within this cover type. Periodic mowing and clearing along Lee Hwy, and within the center of the site seem to keep this cover type from progressing into a more developed forest stand.
C	Upland Softwoods	Virginia Pine (<i>Pinus virginiana</i>)	Sub-climax	poor-fair	0.85 ac.	This cover type is predominantly Virginia Pine (6"-15" dbh) with very few Eastern Red Cedar (<i>Juniperus virginiana</i>) (2"-7" dbh) scattered throughout. Due to the dense evergreen canopy, there is no herbaceous layer or groundcover. Part of this stand is littered with the trash described in Cover Type 'A'.
D	Developed Land	n/a	n/a	n/a	5.85 ac.	This cover type exists as impervious surfaces; such as walks, drives, and structures (including sheds and greenhouses) as well as pervious surfaces that exist as gravel parking areas and open field (previously gravelled or paved but now is overgrown with grasses). This also includes stockpiles of soil, mulch, gravel, stone and areas of retail plants (shrubs, annuals, perennials mostly in containers).
					Total	13.88 ac.

*dbh = diameter at breast height (trunk measured 4.5 ft. above the ground).

This Plan Prepared or Approved by:
John Lightie, ISA Certified Arborist
MA-5174A



INTERSECTION INSET
SCALE: 1" = 30'

LEGEND:

- APPROXIMATE STORM DRAIN LOCATION
- APPROXIMATE SANITARY SEWER LOCATION
- APPROXIMATE WATERMAIN LOCATION
- APPROXIMATE TREE SAVE AREA
- APPROXIMATE LIMITS OF CLEARING

NOTES:

1. PROPOSED UTILITY, LOT LINE, TRAILS LOCATIONS ARE CONCEPTUAL AND SUBJECT TO ADJUSTMENT WITH FINAL ENGINEERING, PROVIDED THEY ARE IN SUBSTANTIAL CONFORMANCE WITH THE CDP/FDP.
2. THE SIZE AND SHAPE OF HOUSE FOOTPRINTS ARE ILLUSTRATIVE AND SUBJECT TO ADJUSTMENT AT TIME OF FINAL ENGINEERING.
3. ALL EXISTING ONSITE BUILDINGS, STRUCTURES AND DRIVEWAY ENTRANCES TO BE REMOVED.
4. ANY ENTRY SIGNAGE WILL CONFORM TO ZONING ORDINANCE ARTICLE 12, SIGNS.
5. INTERPARCEL ACCESS TO BE PROVIDED BY OTHERS IF RESIDENTIAL IS DEVELOPED ON ADJACENT PARCEL.
6. FINAL LOCATION OF POND ACCESS ROADS TO BE DETERMINED AT FINAL SITE PLAN.

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Seal
COMMONWEALTH OF VIRGINIA
DAVID T. McLELLAN
No. 022048
10/11/14
PROFESSIONAL ENGINEER

Client

Revision / Issue

No.	Description	Date
1.	DPZ Acceptance	10/25/13
2.	Final Submission	02/11/14
3.	Second Submission	07/01/14
4.	Third Submission	09/12/14
5.	Fourth Submission	10/17/14

Issue

Date	Description

Project Name
FOREST RIDGE

CDP/FDP

Braddock District
Fairfax County, Virginia

Drawn By
JL

Checked By
AHH / DTM

Project No. ZP-2137

Date SEPTEMBER 12, 2014

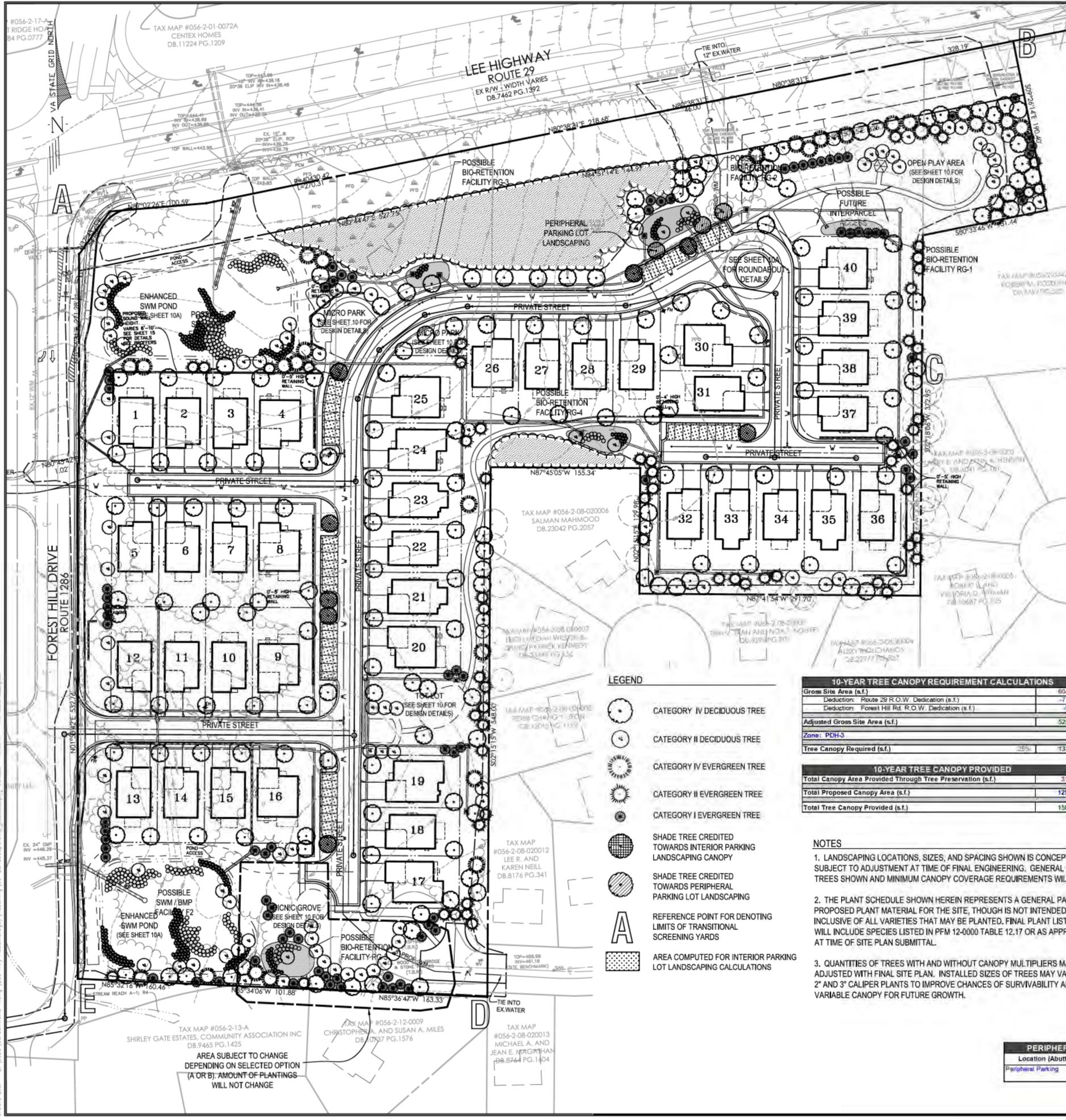
Drawing Title
CDP/FDP LAYOUT OPTION B

Scale: 1"=50'

Drawing Number

5A

Sheet 5A of 15



PLANT SCHEDULE						
Botanical Name	Common Name	Size	Type	Remarks	Multiplier	
Cat. IV Deciduous Trees						
Acer rubrum	Red Maple	3" Cal.	B & B	Uniform branching pattern	Wildlife Benefits: 1.50	
Liriodendron tulipifera	Tulip Poplar	3" Cal.	B & B	Uniform branching pattern	Wildlife Benefits: 1.50	
Platanus x acerifolia 'Bloodgood'	Bloodgood London Planetree	3" Cal.	B & B	Uniform branching pattern	Improved Cultivar: 1.25	
Quercus coccinea	Scarlet Oak	3" Cal.	B & B	Uniform branching pattern	Wildlife Benefits: 1.50	
Quercus phellos	Willow Oak	3" Cal.	B & B	Uniform branching pattern	Wildlife Benefits: 1.50	
Tilia americana	American Linden	3" Cal.	B & B	Uniform branching pattern	Wildlife Benefits: 1.50	
Ulmus americana 'Valley Forge'	Valley Forge American Elm	3" Cal.	B & B	Uniform branching pattern	Improved Cultivar: 1.25	
Zelkova serrata	Japanese Zelkova	3" Cal.	B & B	Uniform branching pattern		
Cat. II Deciduous Trees						
Amelanchier arborea	Downy Serviceberry	3" Cal.	B & B	Multi-stem, Min. 3 heavy stems	Wildlife Benefits: 1.50	
Cercis canadensis	Redbud	3" Cal.	B & B	Multi-stem, Min. 3 heavy stems		
Cornus florida 'Appalachian Spring'	Flowering Dogwood	3" Cal.	B & B	Multi-stem, Min. 3 heavy stems	Improved Cultivar: 1.25	
Cornus 'Stella'	Stellar Hybrid Dogwood	3" Cal.	B & B	Multi-stem, Min. 3 heavy stems	Improved Cultivar: 1.25	
Magnolia x soulangiana	Saucer Magnolia	3" Cal.	B & B	Multi-stem, Min. 3 heavy stems		
Magnolia virginiana	Sweetbay Magnolia	3" Cal.	B & B	Multi-stem, Min. 3 heavy stems		
Prunus x incam 'Okame'	Okame Cherry	3" Cal.	B & B	Multi-stem, Min. 3 heavy stems		
Cat. IV Evergreen Trees						
Pinus rigida	Fitch Pine	10' Ht.	B & B	Full to ground, Dense	Wildlife Benefits: 1.50	
Pinus taeda	Loblolly Pine	10' Ht.	B & B	Full to ground, Dense	Wildlife Benefits: 1.50	
Cat. II Evergreen Trees						
Cryptomeria japonica	Japanese Cryptomeria	10' Ht.	B & B	Full to ground, Dense		
Ilex opaca	American Holly	10' Ht.	B & B	Full to ground, Dense	Wildlife Benefits: 1.50	
Juniperus virginiana	Eastern Redcedar	10' Ht.	B & B	Full to ground, Dense		
Pseudotsuga menziesii	Douglas Fir	10' Ht.	B & B	Full to ground, Dense		
Cat. I Evergreen Trees						
Ilex x Nellie Stevens	Nellie Stevens Holly	8' Ht.	B & B	Full to ground, Dense		
Thuja orientalis	Columnar Oriental Arborvitae	8' Ht.	B & B	Full to ground, Dense		

TREE PLANTING CALCULATIONS	
Canopy to be Met Through Tree Planting (s.f.)	100,741
Air Quality Tree Planting (s.f.)	0
Energy Conservation Tree Planting (s.f.)	0
Water Quality Tree Planting (s.f.)	0
Wildlife Benefits Tree Planting (s.f.)	36,000
Native Tree Planting (s.f.)	0
Improved Cultivars & Varieties Tree Planting (s.f.)	30,000
Remaining Tree Planting Area (that does not qualify for higher multipliers) (s.f.)	35,000
Total Tree Planting Canopy Provided (s.f.)	125,000
Offsite Planting Relief Requested?	No
Tree Bank or Tree Fund?	No
Canopy Area Requested to be Provided Through Offsite Tree Banking or Tree Fund (s.f.)	0
Amount to be Deposited into the Tree Preservation and Planting Fund	\$0.00

TREE PRESERVATION TARGET CALCULATIONS	
Gross Site Area (s.f.)	604,572
Pre-Development Area of Existing Tree Canopy (s.f.)	349,800
Percentage of Gross Site Area Covered by Existing Tree Canopy	58%
Tree Preservation Target	25%
10-Year Tree Canopy Requirement Percentage	25%
10-Year Tree Canopy Required (s.f.) (See "10-Year Tree Canopy Calculations" Table)	152,151
Percentage of the 10-Year Tree Canopy Requirement that Should be Met Through Tree Preservation (This is the "Tree Preservation Target")	58%
Area of the 10-Year Tree Canopy Requirement that Should be Met Through Tree Preservation (s.f.)	76,590
Area of the 10-Year Tree Canopy Requirement that Will be Met Through Tree Preservation (s.f.) (See "Tree Preservation Calculations" Table)	31,310
Proposed Percentage of 10-Year Tree Canopy Requirement that Will be Met Through Tree Preservation	34%
Tree Preservation Target not met (%)	24% is less than...
Tree Preservation Target not met (s.f.)	31,310 is less than...

* A TREE PRESERVATION TARGET REDUCTION TO 24% IS HEREBY REQUESTED. REMAINING 10-YEAR TREE CANOPY REQUIREMENT WILL BE MET BY MEANS OF ONSITE PLANTING. PLEASE SEE FORMAL TREE PRESERVATION TARGET DEVIATION REQUEST LETTER DATED SEPT. 12, 2014 TO FAIRFAX COUNTY U.F.M.D.'S DIRECTOR ON SHEET 2.

TREE PRESERVATION CALCULATIONS				
Tree Preservation Target (%)	58%			
Tree Preservation Target (s.f.)	76,590			
Tree Preservation:				
Tree Preservation Areas	Cover Type	S.F.	Credit Factor	Total
Tree Save Area	Normal	23,000	1.25	28,750
Tree Save Area	Normal	2,500	1.00	2,500
Total Tree Preservation Provided (s.f.)				31,310

TRANSITIONAL SCREENING AND BARRIER CALCULATIONS	
Buffer:	Required Transitional Screening / Barrier
North: Buffer A-B Multi-Family (Group 3)	None Required
Northeast: Buffer B-C Plant Nursery (Group 5) & Vacant Land	None Required
East: Buffer C-D SFD (Group 1)	None Required
South: Buffer D-E SFD (Group 1)	None Required
West: Buffer A-E Assisted/Congregate Living (Group 6)	None Required

PERIPHERAL PARKING LOT LANDSCAPING CALCULATIONS			
Location (Abutting Use)	Length (l.f.)	Required Trees	Provided Trees
Peripheral Parking	102	3 Trees (140 l.f.)	3 Cat. IV Deciduous

INTERIOR PARKING LOT LANDSCAPING CALCULATIONS	
Area to be Counted (s.f.)	11,330
Interior Landscaping Required (5%) (s.f.)	567
Interior Landscaping Provided:	
3 Shade Trees at 250 s.f. each	750
Requirement is met...	750 s.f. is greater than...

- LEGEND**
- CATEGORY IV DECIDUOUS TREE
 - CATEGORY II DECIDUOUS TREE
 - CATEGORY IV EVERGREEN TREE
 - CATEGORY II EVERGREEN TREE
 - CATEGORY I EVERGREEN TREE
 - SHADE TREE CREDITED TOWARDS INTERIOR PARKING LANDSCAPING CANOPY
 - SHADE TREE CREDITED TOWARDS PERIPHERAL PARKING LOT LANDSCAPING
 - REFERENCE POINT FOR DENOTING LIMITS OF TRANSITIONAL SCREENING YARDS
 - AREA COMPUTED FOR INTERIOR PARKING LOT LANDSCAPING CALCULATIONS

- NOTES**
- LANDSCAPING LOCATIONS, SIZES, AND SPACING SHOWN IS CONCEPTUAL AND SUBJECT TO ADJUSTMENT AT TIME OF FINAL ENGINEERING. GENERAL DENSITY OF TREES SHOWN AND MINIMUM CANOPY COVERAGE REQUIREMENTS WILL BE PROVIDED.
 - THE PLANT SCHEDULE SHOWN HEREIN REPRESENTS A GENERAL PALETTE OF PROPOSED PLANT MATERIAL FOR THE SITE, THOUGH IS NOT INTENDED TO BE FULLY INCLUSIVE OF ALL VARIETIES THAT MAY BE PLANTED. FINAL PLANT LIST SELECTIONS WILL INCLUDE SPECIES LISTED IN PFM 12-0000 TABLE 12.17 OR AS APPROVED BY UFMID AT TIME OF SITE PLAN SUBMITTAL.
 - QUANTITIES OF TREES WITH AND WITHOUT CANOPY MULTIPLIERS MAY BE ADJUSTED WITH FINAL SITE PLAN. INSTALLED SIZES OF TREES MAY VARY TO INCLUDE 2" AND 3" CALIPER PLANTS TO IMPROVE CHANCES OF SURVIVABILITY AND PROVIDE A VARIABLE CANOPY FOR FUTURE GROWTH.

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Client

Revision / Issue

No.	Description	Date
1.	DP2 Acceptance	10/25/13
2.	First Submission	02/11/14
3.	Second Submission	07/01/14
4.	Third Submission	09/12/14
5.	Fourth Submission	10/17/14

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CDP/FDP

Braddock District
Fairfax County, Virginia

Drawn By: JL
Checked By: AHH / DTM

Project No.: ZP-2137

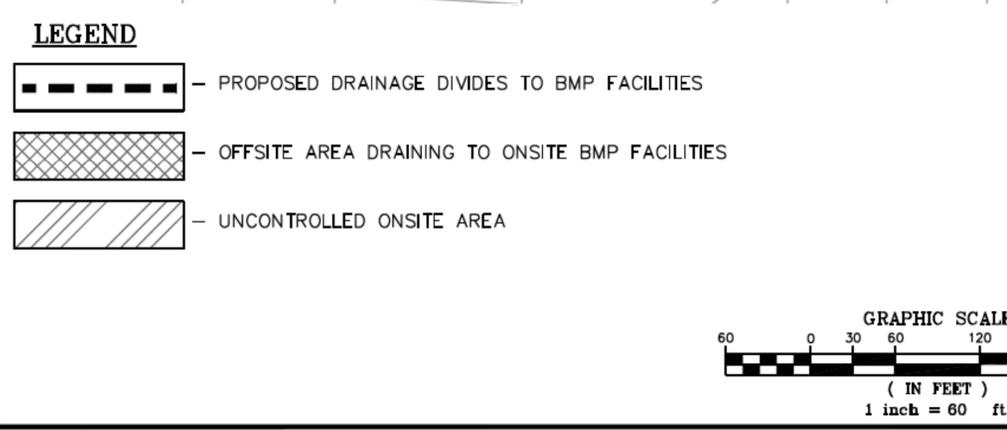
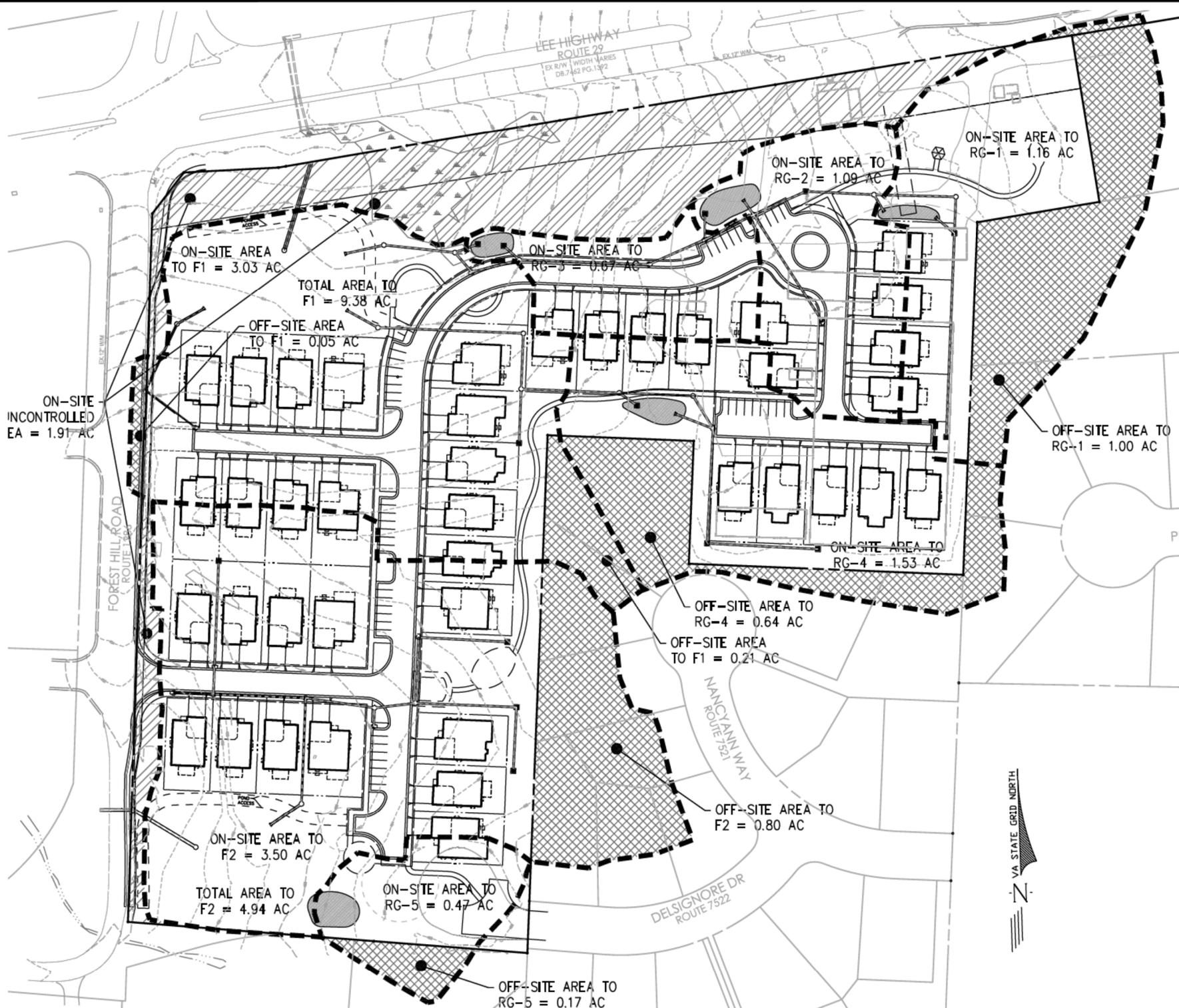
Date: SEPTEMBER 12, 2014

Drawing Title
LANDSCAPE PLAN

Scale: 1"=50'

Drawing Number
6

Sheet 6 of 15



PRELIMINARY BMP NARRATIVE:

BASED ON PRELIMINARY CALCULATIONS THERE ARE TWO DRY EXTENDED DETENTION PONDS AND FIVE BIO-RETENTION FACILITIES PROPOSED WITH THIS PROJECT TO MEET THE WATER QUALITY REQUIREMENTS FOR THE SITE.

THE PRELIMINARY BMP COMPUTATIONS ON THIS SHEET SHOW THAT THE PROPOSED DRY PONDS AND THE BIO-RETENTION FACILITY PROVIDES AT LEAST 40% PHOSPHORUS REMOVAL.

BASED ON THE ABOVE INFORMATION AND OUR PRELIMINARY ENGINEERING ANALYSIS, IT IS OUR OPINION THAT ADEQUATE BMPs ARE PROVIDED FOR THE SITE. BMP CALCULATIONS AND LOCATIONS ARE SUBJECT TO CHANGE WITH FINAL ENGINEERING.

PRELIMINARY SWM NARRATIVE:

BASED ON PRELIMINARY ANALYSIS THERE ARE TWO SWM FACILITIES PROPOSED.

POND 1 LOCATED NEAR THE NORTH WESTERN CORNER OF THE PROPERTY LINE PROVIDES SWM FOR APPROXIMATELY 9.4 ACRES. BASED ON THE PRELIMINARY ANALYSIS, THE APPROXIMATE FOOTPRINT OF THE PROPOSED FACILITY IS APPROXIMATELY 22,000 SF AND THE FACILITY HAS AN APPROXIMATE VOLUME OF 82,000 CF.

POND 2 LOCATED NEAR THE SOUTH WESTERN CORNER OF THE PROPERTY LINE PROVIDES SWM FOR APPROXIMATELY 5 ACRES. BASED ON THE PRELIMINARY ANALYSIS, THE APPROXIMATE FOOTPRINT OF THE PROPOSED FACILITY IS APPROXIMATELY 12,000 SF AND THE FACILITY HAS AN APPROXIMATE VOLUME OF 50,000 CF.

BMP PHOSPHOROUS REMOVAL COMPUTATIONS

Plan Name: Garden World Date: 06/12/14
 Plan Number: Engineer:

Watershed Data

Part 1 List All of the Subareas and "C" Factors Used in the BMP Computations.

Subarea Designation and Description (1)	"C" (2)	Acres (3)
1 Onsite SFA - RG1 Bioretention1	0.50	1.16
2 Offsite SFA - RG1 Bioretention1	0.45	1.00
3 Onsite SFA - F1 DryPond	0.80	3.03
4 Offsite SFA - F1 DryPond	0.40	0.26
5 Onsite SFA - RG2 Bioretention1	0.80	1.09
6 Onsite SFA - RG3 Bioretention1	0.60	0.67
7 Onsite SFA - RG4 Bioretention1	0.70	1.53
8 Offsite SFA - RG4 Bioretention1	0.40	0.64
9 Onsite SFA - F2 DryPond	0.50	3.50
10 Offsite SFA - F2 DryPond	0.45	0.80
11 Onsite SFA - RG5 Bioretention1	0.50	0.47
12 Offsite SFA - RG5 Bioretention1	0.40	0.17
13 Onsite SFA-Uncontrolled None	0.40	1.91

NOTE: "C" Factors developed using % Imperviousness for existing and proposed conditions. "C" Factors for future uses were developed using PFM Table 6.6.

Phosphorus Removal

Part 2 Compute the Weighted Average "C" Factor For the Site.

(A) Area of Site (a) 13.36 acres

(B) Subarea Designation and Description (1)

(1)	"C" (2)	x	Acres (3)	=	Product (4)
1 Onsite SFA - RG1 Bioretention1	0.50	x	1.16	=	0.58
2 Offsite SFA - RG1 Bioretention1	0.45	x	1.00	=	0.45
3 Onsite SFA - F1 DryPond	0.80	x	3.03	=	1.82
4 Offsite SFA - F1 DryPond	0.40	x	0.26	=	0.10
5 Onsite SFA - RG2 Bioretention1	0.80	x	1.09	=	0.65
6 Onsite SFA - RG3 Bioretention1	0.60	x	0.67	=	0.40
7 Onsite SFA - RG4 Bioretention1	0.70	x	1.53	=	1.07
8 Offsite SFA - RG4 Bioretention1	0.40	x	0.64	=	0.26
9 Onsite SFA - F2 DryPond	0.50	x	3.50	=	1.75
10 Offsite SFA - F2 DryPond	0.45	x	0.80	=	0.36
11 Onsite SFA - RG5 Bioretention1	0.50	x	0.47	=	0.24
12 Offsite SFA - RG5 Bioretention1	0.40	x	0.17	=	0.07
13 Onsite SFA-Uncontrolled None	0.40	x	1.91	=	0.76
Total				=	7.27

(C) Weighted average "C" factor (b) / (a) = (c) 0.54

Part 3 Compute the Total Phosphorus Removal for the Site.

Subarea Designation (1)	BMP Type (2)	Removal Eff. (%) (3)	Area Ratio (4)	"C" Factor Ratio (5)	Product (6)
1 Onsite Bioretention1		50.0	x 0.09	x 0.92	= 4.0
2 Offsite Bioretention1		50.0	x 0.01	x 0.83	= 0.6
3 Onsite DryPond		40.0	x 0.23	x 1.10	= 10.0
4 Offsite DryPond		40.0	x 0.00	x 0.73	= 0.1
5 Onsite Bioretention1		50.0	x 0.08	x 1.10	= 4.5
6 Onsite Bioretention1		50.0	x 0.05	x 1.10	= 2.8
7 Onsite Bioretention1		50.0	x 0.11	x 1.29	= 7.4
8 Offsite Bioretention1		50.0	x 0.01	x 0.73	= 0.4
9 Onsite DryPond		40.0	x 0.26	x 0.92	= 9.6
10 Offsite DryPond		40.0	x 0.01	x 0.83	= 0.4
11 Onsite Bioretention1		50.0	x 0.04	x 0.92	= 1.6
12 Offsite Bioretention1		50.0	x 0.00	x 0.73	= 0.1
13 Onsite None			x 0.14	x 0.73	=

(A) Total Phosphorus Removal (a) Total 41.4%

Part 4 Determine Compliance with Phosphorus Removal Requirement.

(A) Select Requirement (a) 40%

Water Supply Overlay District (Occoquan) 50 %
 Chesapeake Bay Resource Preservation Area (New Development) 40 %
 Chesapeake Bay Resource Preservation Area (Redevelopment) %
 [1-0.9 x (I^{pre} / I^{post})] x 100

"I^{pre}=0.65
 "I^{pos}=0.75

(B) If Line 3 (a) is greater than or equal to Line 4 (a), then the Phosphorus removal requirement is satisfied. Line 3 (a) 41.4% > Line 4 (a) 40%

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 10/11/14
 PROFESSIONAL ENGINEER

Client

Revision / Issue

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1.	DPZ Acceptance	10/25/13
2.	First Submission	02/11/14
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5.	Fourth Submission	10/16/14

Issue Data Description

Project Name
FOREST RIDGE

CDP/FDP

Braddock District
 Fairfax County, Virginia

Drawn By JL Checked By AHH / DTM

Project No. ZP-2137

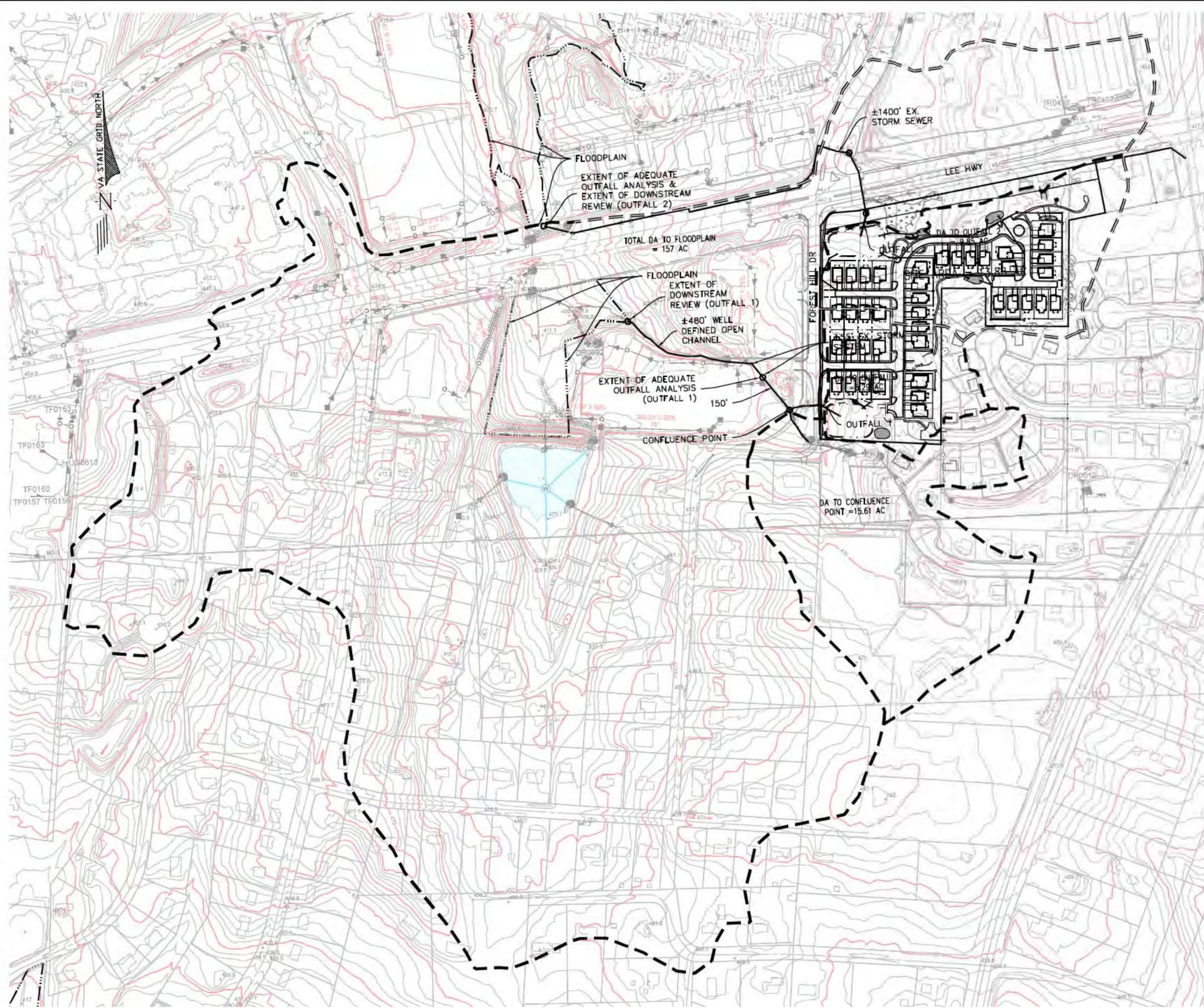
Date SEPTEMBER 12, 2014

Drawing Title
PRELIMINARY SWM/BMP

Scale: 1"=60'

Drawing Number
7

Sheet 7 of 15



PRELIMINARY ADEQUATE OUTFALL ANALYSIS

THERE ARE TWO SOURCES OF CONCENTRATED DISCHARGE FROM THE SITE.

OUTFALL 1

OUTFALL 1 IS LOCATED NEAR THE SOUTH WESTERN CORNER OF THE PROPERTY LINE. APPROXIMATELY 5 ACRES ARE DISCHARGED FROM THE SITE AT THIS POINT INTO AN EXISTING CULVERT LOCATED UNDER FOREST HILL DRIVE. ONCE THE FLOW EXITS THE EXISTING CULVERT, IT IS JOINED BY ANOTHER APPROXIMATE 15.8 ACRES DRAINAGE AREA. THIS AREA IS AT LEAST 80% OF THE FIRST 5 ACRES. THE FLOW COMBINES AT THIS POINT AND ENTERS AN EXISTING CLOSED CONDUIT SYSTEM. PER PFM 6-203.2A THE EXTENT OF THE ADEQUATE OUTFALL ANALYSIS IS 150' DOWNSTREAM OF THIS CONFLUENCE POINT. THE EXISTING STORM SEWER SYSTEM WAS ANALYZED USING THE 10-YEAR STORM AT THIS POINT WITHOUT ACCOUNTING FOR DETENTION PROVIDED BY THE ON-SITE POND AND WAS FOUND TO BE ADEQUATE.

IF THE FLOW CONTINUES APPROXIMATELY 55' IN THE EXISTING STORM SYSTEM, THE FLOW THEN CONTINUES APPROXIMATELY 480' IN AN EXISTING CHANNEL BEFORE REACHING THE STREAM CHANNEL OF THE FLOODPLAIN. THE EXTENT OF DOWNSTREAM REVIEW IS AT THIS POINT.

OUTFALL 2

OUTFALL 2 IS LOCATED NEAR THE NORTH WESTERN CORNER OF THE PROPERTY LINE. APPROXIMATELY 9.4 ACRES ARE DISCHARGED FROM THE SITE AT THIS POINT INTO AN EXISTING STORM SEWER SYSTEM VIA AN DUAL CULVERT LOCATED UNDER LEE HIGHWAY. THE FLOW CONTINUES IN THE EXISTING CLOSED CONDUIT SYSTEM FOR APPROXIMATELY 1400' BEFORE DISCHARGING INTO THE STREAM CHANNEL OF THE FLOODPLAIN. THE EXTENT OF DOWNSTREAM REVIEW AND ADEQUATE OUTFALL ANALYSIS IS AT THIS POINT.

THE EXISTING STORM SEWER SYSTEM WAS ANALYZED USING THE 10-YEAR STORM AT THIS POINT WITHOUT ACCOUNTING FOR DETENTION PROVIDED BY THE ON-SITE POND AND WAS FOUND TO BE ADEQUATE.

BASED ON THE ABOVE PRELIMINARY ANALYSIS, IT IS OUR OPINION THAT THE DOWNSTREAM SYSTEM IS ADEQUATE AND DEVELOPMENT FROM THE SITE WILL NOT ADVERSELY IMPACT DOWNSTREAM PROPERTIES. A MORE COMPREHENSIVE DRAINAGE ANALYSIS WILL BE PROVIDED WITH THE FINAL SITE PLAN.

MINIMUM STORMWATER INFORMATION FOR REZONING, SPECIAL EXCEPTION, SPECIAL PERMIT AND DEVELOPMENT PLAN APPLICATIONS

The following information is required to be shown or provided in all zoning applications, or a waiver request of the submission requirement with justification shall be attached. Note: Waivers will be acted upon separately. Failure to adequately address the required submission information may result in a delay in processing this application.

This information is required under the following Zoning Ordinance paragraphs:
 Special Permits (8-011 2J & 2L) Special Exceptions (9-011 2J & 2L)
 Cluster Subdivision (9-615 1G & 1N) Commercial Revitalization Districts (9-622 2A (12) & (14))
 Development Plans PRC District (16-302 3 & 4L) PRC Plan (16-303 1E & 1O)
 FDP P Districts (except PRC) (16-502 1F & 1O) Amendments (18-202 10F & 10I)

- 1. Plat is at a minimum scale of 1"=50' (unless it is depicted on one sheet with a minimum scale of 1"=100').
- 2. A graphic depicting the stormwater management facility(ies) and limits of clearing and grading accommodate the stormwater management facility(ies), storm drainage pipe systems and outlet protection, pond spillways, access roads, site outfalls, energy dissipation devices, and stream stabilization measures as shown on Sheet 5.

3. Provide:

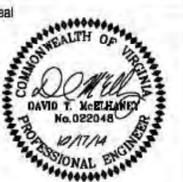
Facility Name/ Type & No.	On-site area served (acres)	Off-site area served (acres)	Drainage area (acres)	Footprint area (sf)	Storage Volume (cf)	If pond, dam height (ft)
POND F1	7.75	2.10	9.85	22,000	82,000	6
POND F2	4.10	1.19	5.29	12,000	50,000	8
Totals						

- 4. Onsite drainage channels, outfalls and pipe systems are shown on Sheet 5. Pond inlet and outlet pipe systems are shown on Sheet 5.
- 5. Maintenance access (road) to stormwater management facility(ies) are shown on Sheet 5. Type of maintenance access road surface noted on the plat is _____ (asphalt, geoblock, gravel, etc.).
- 6. Landscaping and tree preservation shown in and near the stormwater management facility is shown on Sheet 6.
- 7. A 'stormwater management narrative' which contains a description of how detention and best management practices requirements will be met is provided on Sheet 7.
- 8. A description of the existing conditions of each numbered site outfall extended downstream from the site to a point which is at least 100 times the site area or which has a drainage area of at least one square mile (640 acres) is provided on Sheet 8.
- 9. A description of how the outfall requirements, including contributing drainage areas of the Public Facilities Manual will be satisfied is provided on Sheet 8.
- 10. Existing topography with maximum contour intervals of two (2) feet and a note as to whether it is an air survey or field run is provided on Sheets 2 & 3.
- 11. A submission waiver is requested for _____.
- 12. Stormwater management is not required because _____.

LEGEND:
 - - - - DRAINAGE DIVIDE



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Client _____

Revision / Issue

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1.	DPZ Acceptance	10/29/13
2.	First Submission	02/11/14
3.	Second Submission	07/01/14
4.	Third Submission	09/12/14
5.	Fourth Submission	10/17/14

Issue Date _____ Description _____

Project Name
FOREST RIDGE

CDP/FDP

Braddock District
 Fairfax County, Virginia

Drawn By JL Checked By AHH / DTM

Project No. ZP-2137

Date SEPTEMBER 12, 2014

Drawing Title
ADEQUATE OUTFALL ANALYSIS

Scale: 1"=200'

Drawing Number

8
 Sheet 8 of 15

URBAN, LLC - 11000 WOODBRIDGE PARKWAY, SUITE 100, WOODBRIDGE, VIRGINIA 22191 TEL: 703.642.8200 FAX: 703.642.8251 WWW.URBAN-LLC.COM

ZP-2137

Revision / Issue

No.	Description	Date
1.	DPZ Acceptance	10/25/13
2.	First Submission	02/11/14
3.	Second Submission	07/01/14
4.	Third Submission	08/12/14
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Issue

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FOREST RIDGE

CDP/FDP

Braddock District
Fairfax County, Virginia

Drawn By: JL
Checked By: AHH / DTM

Project No. ZP-2137

Date: SEPTEMBER 12, 2014

Drawing Title
AMENITIES PLAN

Scale: 1"=50'

Drawing Number

10
Sheet 10 of 15

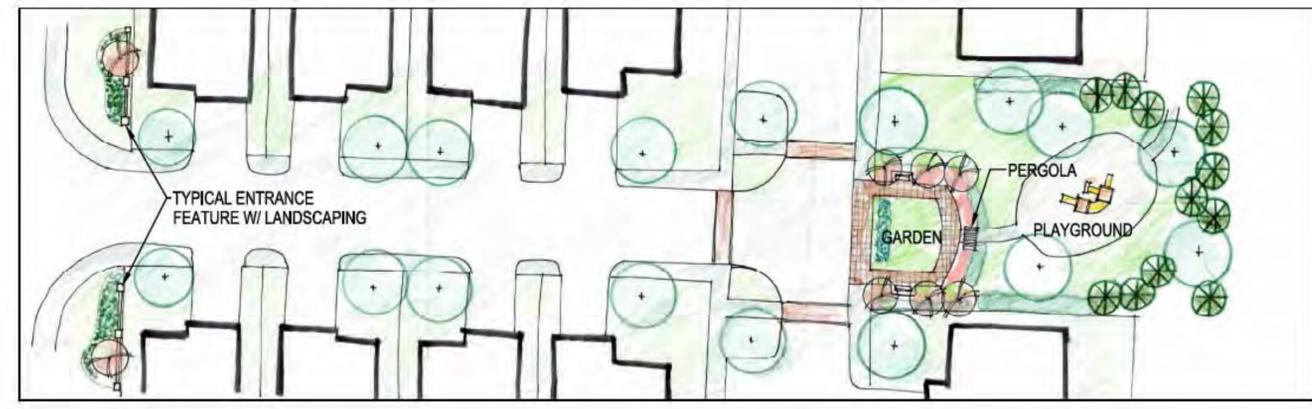


1 CONTEXT MAP
N.T.S.

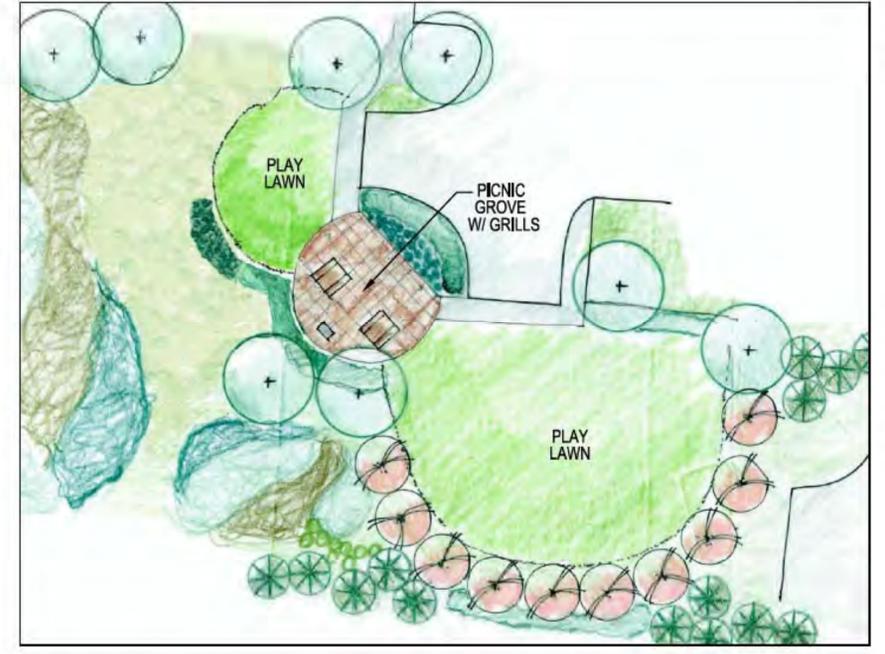


4 MICRO PARK
N.T.S.

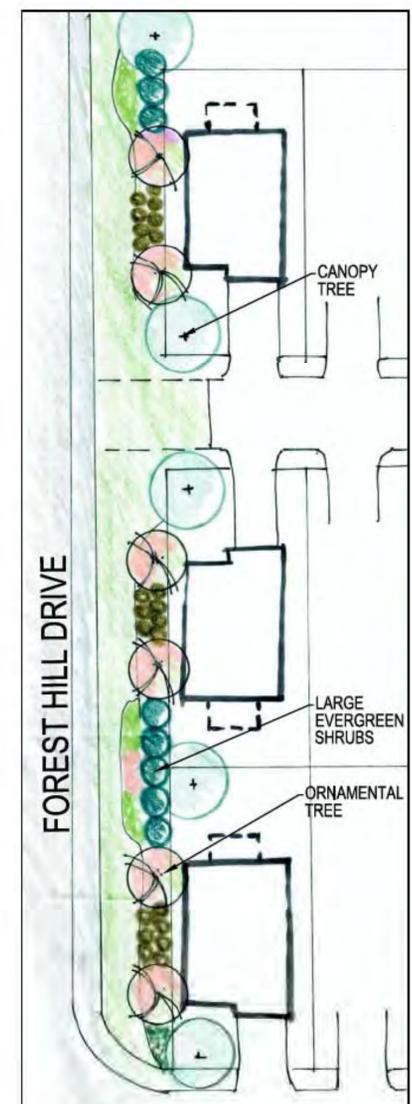
THESE RENDERINGS ARE CONCEPTUAL AND REPRESENT THE GENERAL APPEARANCE, QUALITY OF DESIGN AND MATERIALS PROPOSED. REFINEMENT AND REVISION MAY OCCUR WITH FINAL DESIGN DEVELOPMENT AND ENGINEERING. WALKWAY AND SIDEWALK MATERIAL MAY BE BRICK, CONCRETE, ASPHALT, OR STAMPED ASPHALT. FINAL LOCATION OF ELEMENTS INCLUDING PLANT MATERIAL, SITE FURNITURE AND PAVING MAY BE ADJUSTED SUBJECT TO TOPOGRAPHY, LOCATION OF UTILITIES AND OTHER ENGINEERING CONSTRAINTS.



2 ENTRANCE + TOT LOT
N.T.S.



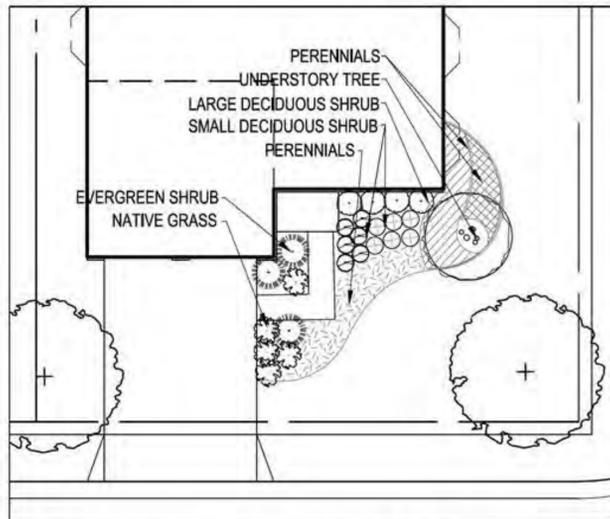
3 PICNIC GROVE
N.T.S.



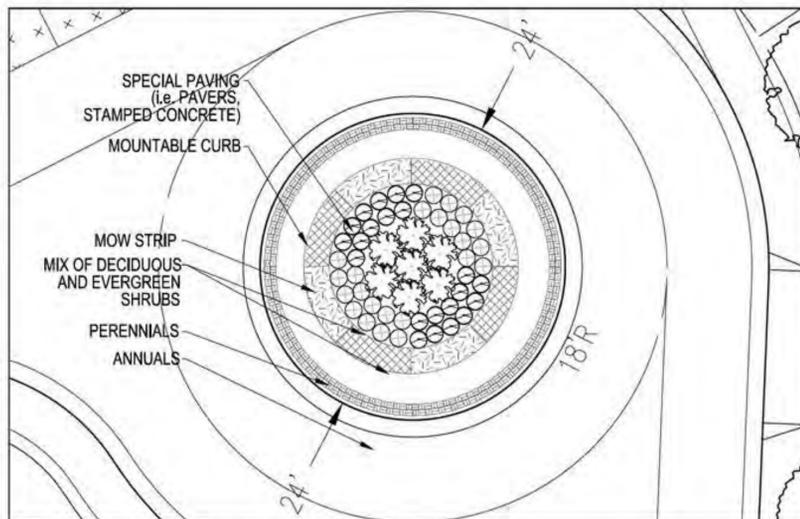
1 FOREST HILL DRIVE STREETSCAPE
N.T.S.



1 TYPICAL ENTRANCE FEATURE WITH LANDSCAPING
N.T.S.



2 TYPICAL FRONT YARD LANDSCAPING
1"=10'



3 ROUNDABOUT PLANTING
1"=10'



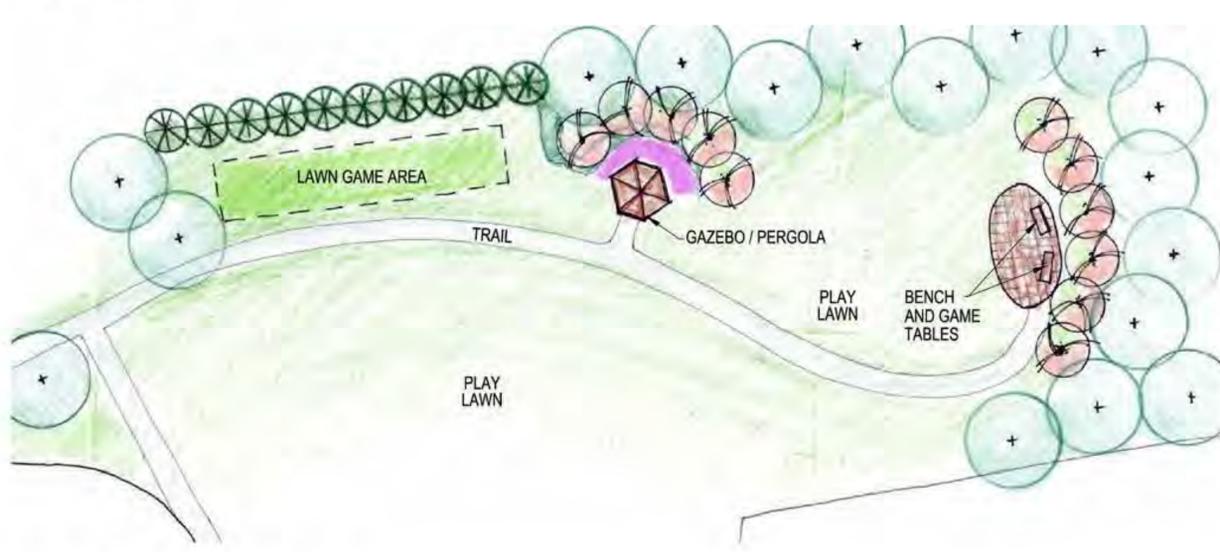
5 ENHANCED SWM POND
N.T.S.



6 ENHANCED SWM POND
N.T.S.



CONTEXT MAP
N.T.S.



4 OPEN PLAY AREA
N.T.S.

THESE RENDERINGS ARE CONCEPTUAL AND REPRESENT THE GENERAL APPEARANCE, QUALITY OF DESIGN AND MATERIALS PROPOSED. REFINEMENT AND REVISION MAY OCCUR WITH FINAL DESIGN DEVELOPMENT AND ENGINEERING. WALKWAY AND SIDEWALK MATERIAL MAY BE BRICK, CONCRETE, ASPHALT, OR STAMPED ASPHALT. FINAL LOCATION OF ELEMENTS INCLUDING PLANT MATERIAL, SITE FURNITURE AND PAVING MAY BE ADJUSTED SUBJECT TO TOPOGRAPHY, LOCATION OF UTILITIES AND OTHER ENGINEERING CONSTRAINTS.

THIS SHEET FOR ILLUSTRATIVE PURPOSES ONLY

Seal
COMMONWEALTH OF VIRGINIA
DAVID T. McELHANEY
No. 022048
10/11/14
PROFESSIONAL ENGINEER

Client

Revision / Issue		
No.	Description	Date
1.	DPZ Acceptance	10/25/13
2.	First Submission	02/11/14
3.	Second Submission	07/01/14
4.	Third Submission	09/12/14
5.	Fourth Submission	10/17/14

Issue	
Date	Description

Project Name
FOREST RIDGE

CDP/FDP

Braddock District
Fairfax County, Virginia

Drawn By: JL
Checked By: AHH / DTM

Project No.: ZP-2137

Date: SEPTEMBER 12, 2014

Drawing Title
AMENITIES PLAN

Scale: 1"=50'

Drawing Number

10A
Sheet 10A of 15

10/17/14 - L. Vukobratovic - Head Lead User Assistant/Designer/Planner/Architect (2) October 17, 2014 - 10:45am - August

ZP-2137



1 BENCH
N.T.S.



2 GAME TABLE
N.T.S.



3 PICNIC TABLE
N.T.S.



4 PICNIC AREA GRILL
N.T.S.



5 PERGOLA
N.T.S.



6 TOT LOT PLAYGROUND
N.T.S.



7 STREET LIGHT
N.T.S.



8 GAZEBO
N.T.S.

THESE IMAGES ARE CONCEPTUAL AND REPRESENT THE GENERAL APPEARANCE, QUALITY OF DESIGN AND MATERIALS PROPOSED. REFINEMENT AND REVISION MAY OCCUR WITH FINAL DESIGN DEVELOPMENT AND ENGINEERING. FINAL LOCATION OF ELEMENTS MAY BE ADJUSTED SUBJECT TO TOPOGRAPHY, LOCATION OF UTILITIES AND OTHER ENGINEERING CONSTRAINTS.



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CDP/FDP

Braddock District
Fairfax County, Virginia

Drawn By
JL

Checked By
AHH / DTM

Project No. ZP-2137

Date SEPTEMBER 12, 2014

Drawing Title
SITE FURNISHINGS

Scale: N/A

Drawing Number

11

Sheet 11 of 15



REAR ELEVATIONS

NOTE:
 THESE IMAGES ARE CONCEPTUAL AND REPRESENT THE GENERAL APPEARANCE, QUALITY OF DESIGN AND MATERIALS PROPOSED.
 REFINEMENT AND REVISION MAY OCCUR WITH FINAL DESIGN DEVELOPMENT AND ENGINEERING. FINAL LOCATION OF ELEMENTS
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Issue

Date	Description

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FOREST RIDGE

CDP/FDP
 Braddock District
 Fairfax County, Virginia

Drawn By: JL
 Checked By: AHH / DTM

Project No. ZP-2137

Date: SEPTEMBER 12, 2014

Drawing Title
CONCEPTUAL ARCHITECTURALS

Scale: N/A

Drawing Number

12
 Sheet 12 of 15

Urban, Ltd. - L:\Jobs\Garland\12-Conceptual_Architectural\12-Conceptual_Architectural.dwg [Autocad] October 15, 2014 - 5:16pm August

ZP-2137



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Date	Description

Project Name
FOREST RIDGE

CDP/FDP

Braddock District
Fairfax County, Virginia

Drawn By: JL
Checked By: AHH / DTM

Project No.: ZP-2137

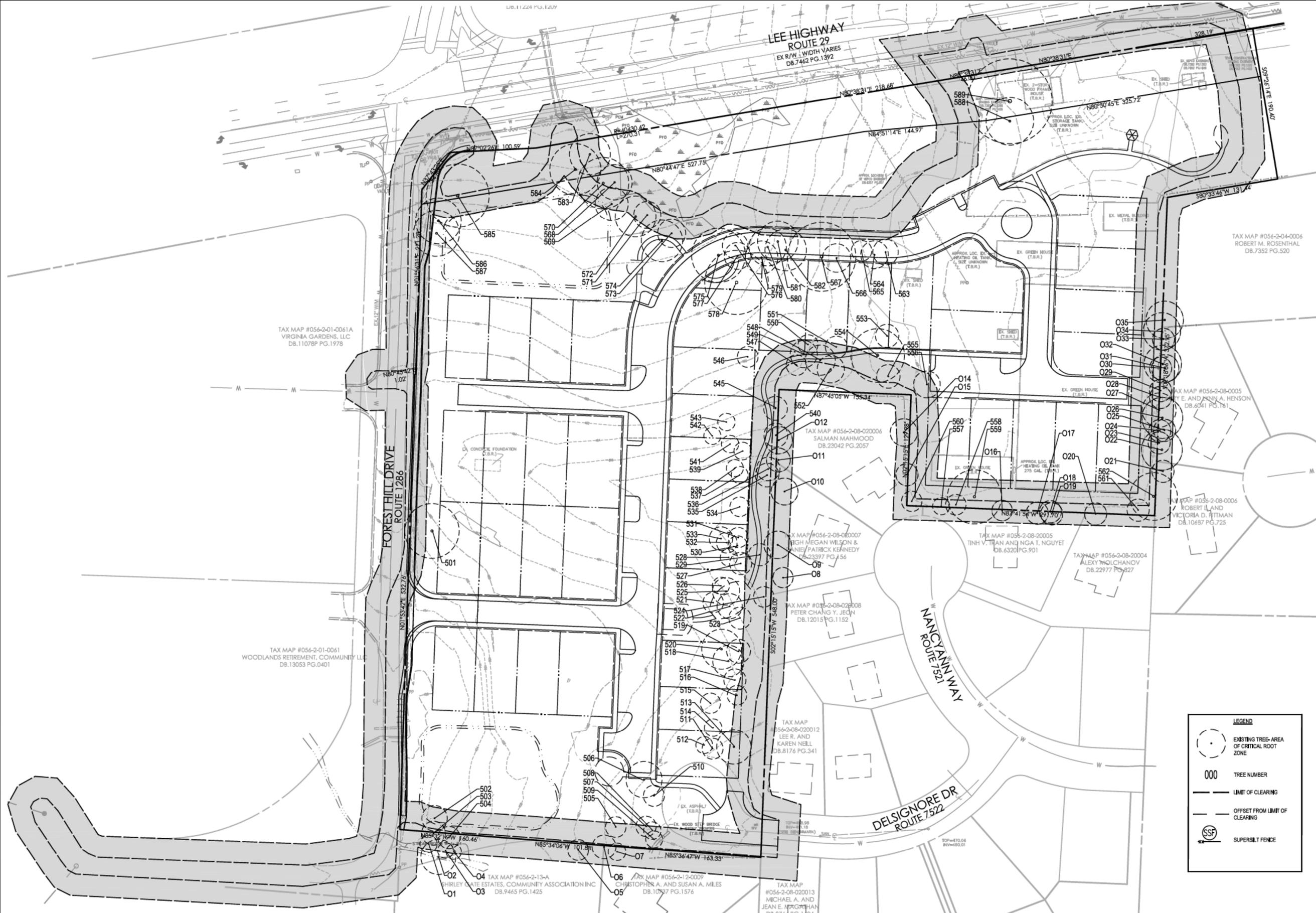
Date: SEPTEMBER 12, 2014

Drawing Title
TREE PRESERVATION PLAN

Scale: 1"=50'

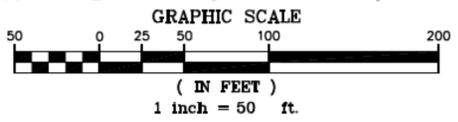
Drawing Number

13
Sheet 13 of 15



LEGEND

- EXISTING TREE-AREA OF CRITICAL ROOT ZONE
- TREE NUMBER
- LIMIT OF CLEARING
- OFFSET FROM LIMIT OF CLEARING
- SUPERSLIT FENCE



This Plan Prepared or Approved by:
John Lightle, ISA Certified Arborist
MA-5174A

PROJECT: LEE - L.L. WARD ARCHITECTURE/PLANNING, L.L.C. (DB. 11078P PG. 1978) - TREE PRESERVATION PLAN (TAX MAP #056-2-01-0061A) - VIRGINIA GARDENS, LLC (DB. 11078P PG. 1978)

Urban, Ltd. - L:\Jobs\Conservation\14-Tree Preservation\14-Tree Preservation\Plan.dwg [14 TREE CONSERVATION PLAN] October 16, 2014 - 5:15pm baasvial

TREE INVENTORY & CONDITION ANALYSIS							
TREE NUMBER	BOTANICAL NAME	COMMON NAME	TRUNK SIZE DBH (in)	CRZ R (ft.)	POOR CONDITION? Y/N	ISA CONDITION RATING %	COMMENTS
501	Quercus palustris	Pin Oak	32	32			
502	Platanus occidentalis	American Sycamore	15	15			
503	Pinus virginiana	Virginia Pine	14	14	Yes	0.00	Dead
504	Pinus virginiana	Virginia Pine	13	13			
505	Catalpa speciosa	Northern Catalpa	12	12	Yes	34.38	Reduced canopy, heavy ivy
506	Juglans nigra	Black Walnut	21	21			Co-dominant
507	Pinus virginiana	Virginia Pine	12	12			
508	Pinus virginiana	Virginia Pine	10	10	Yes	37.50	
509	Pinus virginiana	Virginia Pine	10	10			
510	Fraxinus sp.	Ash	12	12			Thin canopy, leaning
511	Quercus alba	White Oak	12	12	Yes	37.50	Leaning
512	Acer rubrum	Red Maple	10	10			
513	Quercus palustris	Pin Oak	20	20			
514	Pinus virginiana	Virginia Pine	10	10			Heavy vines
515	Acer rubrum	Red Maple	12	12			Heavy vines
516	Acer rubrum	Red Maple	12	12			Heavy vines
517	Acer rubrum	Red Maple	13	13	Yes	31.25	
518	Quercus rubra	Northern Red Oak	18	18			
519	Acer rubrum	Red Maple	14	14			
520	Acer rubrum	Red Maple	24	24			Co-dominant
521	Acer rubrum	Red Maple	12	12			
522	Pinus virginiana	Virginia Pine	15	15			Some insect damage
523	Pinus virginiana	Virginia Pine	13	13			
524	Pinus virginiana	Virginia Pine	13	13	Yes	18.75	Uprooted, leaning
525	Pinus virginiana	Virginia Pine	10	10			
526	Pinus virginiana	Virginia Pine	10	10			
527	Pinus virginiana	Virginia Pine	13	13			
528	Pinus virginiana	Virginia Pine	10	10			
529	Pinus virginiana	Virginia Pine	14	14			
530	Pinus virginiana	Virginia Pine	12	12			
531	Pinus virginiana	Virginia Pine	12	12			
532	Pinus virginiana	Virginia Pine	15	15			
533	Pinus virginiana	Virginia Pine	14	14			
534	Pinus virginiana	Virginia Pine	12	12	Yes	0.00	Dead, fallen
535	Pinus virginiana	Virginia Pine	14	14			heavy ivy
536	Pinus virginiana	Virginia Pine	13	13			
537	Pinus virginiana	Virginia Pine	10	10			
538	Pinus virginiana	Virginia Pine	10	10			
539	Pinus virginiana	Virginia Pine	10	10			
540	Liriodendron tulipifera	Tulip Poplar	15	15			
541	Pinus virginiana	Virginia Pine	10	10			heavy ivy
542	Pinus virginiana	Virginia Pine	10	10			
543	Pinus virginiana	Virginia Pine	12	12			
544	Acer rubrum	Red Maple	14	14			
545	Pinus virginiana	Virginia Pine	12	12			grinding root
546	Pinus virginiana	Virginia Pine	12	12			
547	Acer rubrum	Red Maple	18	18			Multi-stem
548	Acer rubrum	Red Maple	13	13			
549	Acer rubrum	Red Maple	16	16			
550	Pinus virginiana	Virginia Pine	15	15			
551	Pinus virginiana	Virginia Pine	13	13			
552	Pinus virginiana	Virginia Pine	15	15	Yes	0.00	Dead
553	Acer rubrum	Red Maple	14	14			
554	Acer rubrum	Red Maple	30	30			
555	Acer rubrum	Red Maple	16	16			
557	Acer rubrum	Red Maple	12	12			
558	Liriodendron tulipifera	Tulip Poplar	11	11			
559	Quercus sp.	Oak	30	30			multi-stem, included bark
560	x Cupressocyparis leylandii	Leyland Cypress	10	10			
561	Quercus alba	White Oak	12	12			multi-stem, included bark
562	Quercus alba	White Oak	28	28			grinding root
563	Robinia pseudoacacia	Black Locust	15	15			Leaning
564	Carya sp.	Hickory	16	16			
565	Ulmus rubra	Slippery Elm	12	12			

TREE INVENTORY & CONDITION ANALYSIS							
TREE NUMBER	BOTANICAL NAME	COMMON NAME	TRUNK SIZE DBH (in)	CRZ R (ft.)	POOR CONDITION? Y/N	ISA CONDITION RATING %	COMMENTS
566	Acer rubrum	Red Maple	16	16			
567	Fraxinus sp.	Ash	40	40	Yes	0.00	Dead
568	Acer rubrum	Red Maple	20	20			
569	Acer rubrum	Red Maple	30	30			
570	Acer rubrum	Red Maple	30	30			
571	Acer rubrum	Red Maple	15	15			
572	Acer rubrum	Red Maple	19	19			Co-dominant
573	Acer rubrum	Red Maple	19	19			
574	Acer rubrum	Red Maple	24	24			Multi-stem
575	Acer rubrum	Red Maple	31	31			
576	Acer rubrum	Red Maple	17	17			
577	Acer rubrum	Red Maple	15	15			
578	Acer rubrum	Red Maple	36	36			
579	Acer rubrum	Red Maple	20	20			
580	Acer rubrum	Red Maple	22	22			Multi-stem
581	Acer rubrum	Red Maple	22	22			Co-dominant
582	Acer rubrum	Red Maple	24	24			Multi-stem
583	Acer rubrum	Red Maple	24	24			Multi-stem
584	Acer rubrum	Red Maple	30	30			Multi-stem
585	Fraxinus sp.	Ash	37	37	Yes	18.75	Eroded roots, leaning, multi-stem
586	Quercus palustris	Pin Oak	27	27			Secondary branch decay
587	Liriodendron tulipifera	Tulip Poplar	28	28			
588	Acer rubrum	Red Maple	28	28			
589	Acer rubrum	Red Maple	50	50			
01	Quercus alba	White Oak	20	20			
02	Pinus virginiana	Virginia Pine	9	9			
03	Pinus virginiana	Virginia Pine	10	10			
04	Pinus virginiana	Virginia Pine	9	9	Yes	37.50	
05	Unknown	Unknown	12	12	Yes	0.00	Dead
06	Acer rubrum	Red Maple	14	14			
07	Quercus alba	White Oak	10	10			
08	Quercus rubra	Northern Red Oak	12	12			Dead
09	Liriodendron tulipifera	Tulip Poplar	16	16			
10	Quercus rubra	Northern Red Oak	16	16			Co-dominant
11	Pinus virginiana	Virginia Pine	12	12			grinding root
12	Liriodendron tulipifera	Tulip Poplar	16	16			
14	Quercus sp.	Oak	16	16			multi-stem, included bark
15	x Cupressocyparis leylandii	Leyland Cypress	13	13			
16	Pinus strobus	White Pine	13	13			
17	Quercus alba	White Oak	12	12	Yes	34.38	Thin canopy
18	Quercus rubra	Northern Red Oak	16	16			
19	Pinus virginiana	Virginia Pine	13	13			
20	Quercus rubra	Northern Red Oak	12	12	Yes	43.75	scaffold & secondary branch decay
21	Unknown	Unknown	12	12			
22	Quercus alba	White Oak	24	24			co-dominant
23	Quercus rubra	Northern Red Oak	16	16			
24	Quercus alba	White Oak	12	12			
25	Quercus alba	White Oak	13	13			co-dominant, included bark
26	Carya sp.	Hickory	26	26			co-dominant
27	Quercus alba	White Oak	20	20			co-dominant, included bark
28	Quercus alba	White Oak	13	13			included bark
29	Quercus alba	White Oak	12	12			
30	Carya sp.	Hickory	13	13			
31	Quercus alba	White Oak	16	16			co-dominant
32	Quercus alba	White Oak	22	22			co-dominant, included bark
33	Carya sp.	Hickory	13	13			
34	Quercus alba	White Oak	36	36			co-dominant, included bark
35	Quercus alba	White Oak	34	34			co-dominant, included bark

TREE PRESERVATION NARRATIVE

- Supersilt fence shall serve as tree protection fence as shown herein. Tree protection signage shall be attached directly to the supersilt fence at a maximum distance of 100 foot intervals.
- Limits of clearing shall be flagged and approved by the UFMD prior to any land disturbing activities. Following approval of limits of clearing, supersilt fence shall be installed and approved by UFMD. Upon approval of supersilt fencing, clearing activities may begin.
- Root pruning to be done using a trencher, vibratory plow or equivalent, to a depth of 18 inches, and under the supervision of a certified arborist.
- Site Monitoring- A certified arborist shall visit the site at the start of root pruning, during the installation of the tree protection fence, once weekly during phase I clearing and grading activities, and once monthly during phase II clearing and grading activities to ensure compliance with the Tree Conservation Plan. Each visit will be documented with a letter to the Urban Forest Management Division noting the project status and any observations, as appropriate.

TREE PROTECTION DURING CONSTRUCTION

A. Critical Root Zone
Tree preservation areas shall be identified on the site plan or construction plans and profiles. A "critical root zone" (CRZ) shall be delineated on the plans and clearly marked and protected in the field prior to any land disturbance. The CRZ shall be determined as follows: (Section 12-0506.2D)

- For individual trees, the CRZ shall be represented by a concentric circle centered on the tree trunk that represents the tree's drip-line.
- For forest grown trees, the CRZ shall be represented by a concentric circle centered on the tree trunk and measures 1 foot for each 1" of trunk diameter.

B. General Requirements

- Prior to any land disturbance tree protection fence shall be erected along the limits of clearing. Protective barriers shall remain so erected throughout all phases of construction. No grade changes or storage of equipment, materials, debris, or fill shall be allowed within the area protected by the fence. No construction traffic, parking of vehicles, or disposal of liquids is permitted within the CRZ.
- Tree roots which must be severed shall be cut by a trencher or similar equipment aligned radially to the tree. This method reduces the lateral movement of the roots during excavation, which if done by other methods could damage the intertwined roots of adjacent trees. This effort shall take place and be complete prior to any land disturbance activities.
- Within four hours of any severance of roots, all tree roots that have been exposed and/or damaged shall be trimmed cleanly and covered temporarily with moist peat moss, moist burlap, or other moist biodegradable material to keep them from drying out until permanent cover can be installed.
- Trees likely to die as a result of site disturbance activities within 35 feet of the tree protection fence, as identified in the tree preservation plan, shall be removed.
- Grade changes and excavations shall not encroach upon the tree CRZ, unless supported by plan prepared by a design professional in this field and approved by the County.
- No toxic materials, including petroleum products, should be stored within 100 feet of the CRZ.
- Sediment, retention, and detention basins shall not be located within the CRZ. The basins shall not discharge directly into the CRZ unless the discharge is transferred back to sheet flow prior to entering the CRZ or is discharged into an adequate natural channel.

GUIDELINES FOR TREE PRESERVATION AREAS (TPA'S)

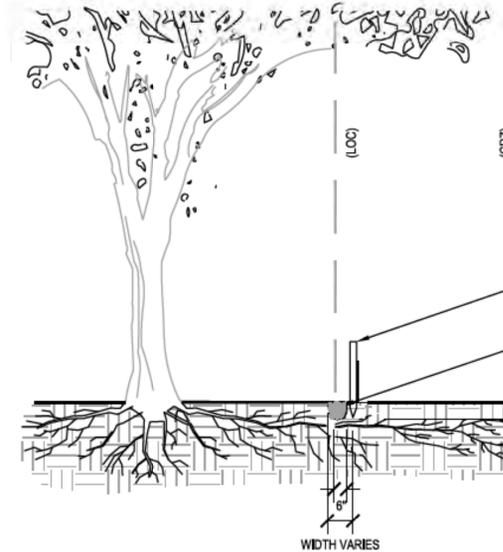
The following general guidelines should be implemented for all cover types throughout the development process and as part of the future maintenance of the TPA. These guidelines provide for the maintenance and overall health and sustainability of the TPA's.

- Onsite trees along the proposed limits of disturbance or in other areas of the TPA that pose potential hazard have been identified on the Tree Preservation Plan and shall be removed during the development process.
- Any hazardous trees will be identified for removal by the Project Arborist prior to site development.
- Root pruning shall be done with a trencher or a vibratory plow to a depth of 18 inches.
- Root pruning shall take place prior to any clearing and grading and/or demolition of structures.
- Root pruning shall not sever or significantly damage structural or compressions roots in a manner that may compromise the structural integrity of trees or the ability of the root system to provide anchorage for the above ground trees.
- Root pruning shall be conducted with the on-site supervision of a certified arborist.
- Supersilt fencing shall be installed immediately after root pruning, and shall be positioned directly in the root pruning trench and backfilled for stability, or just outside the trench within the disturbed area.
- UFMD shall be informed in writing when all root pruning and tree protection fence installation is complete.



NOTE: SIGNS SHALL BE PLACED AT A MINIMUM OF 50' O.C.

1 TREE PROTECTION SIGNAGE
Scale: NTS.



NOTES:
1. LOCATIONS OF TREE PROTECTION AREAS SHALL BE STAKED OR FLAGGED PRIOR TO TRENCHING.
2. COORDINATE ALL FENCING WITH ROOT PRUNING.
3. SMALLER ROOTS SHOULD BE SEVERED BY TRENCHER, VIBRATORY PLOW OR EQUIVALENT. ROOTS OVER 1.5" DIAMETER SHALL BE CUT CLEANLY.

2 ROOT PRUNING
Scale: NTS.

This Plan Prepared or Approved by:
John Lightle, ISA Certified Arborist
MA-5174A



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5.	Fourth Submission	10/17/14

Issue

Date	Description

Project Name

FOREST RIDGE

CDP/PDP

Braddock District
Fairfax County, Virginia

Drawn By	Checked By
JL	AHH / DTM
Project No.	ZP-2137
Date	SEPTEMBER 12, 2014

Drawing Title

TREE PRESERVATION DETAILS

Scale: As Shown

Drawing Number



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Project Name
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CDP/FDP

Braddock District
Fairfax County, Virginia

Drawn By: JL
Checked By: AHH / DTM

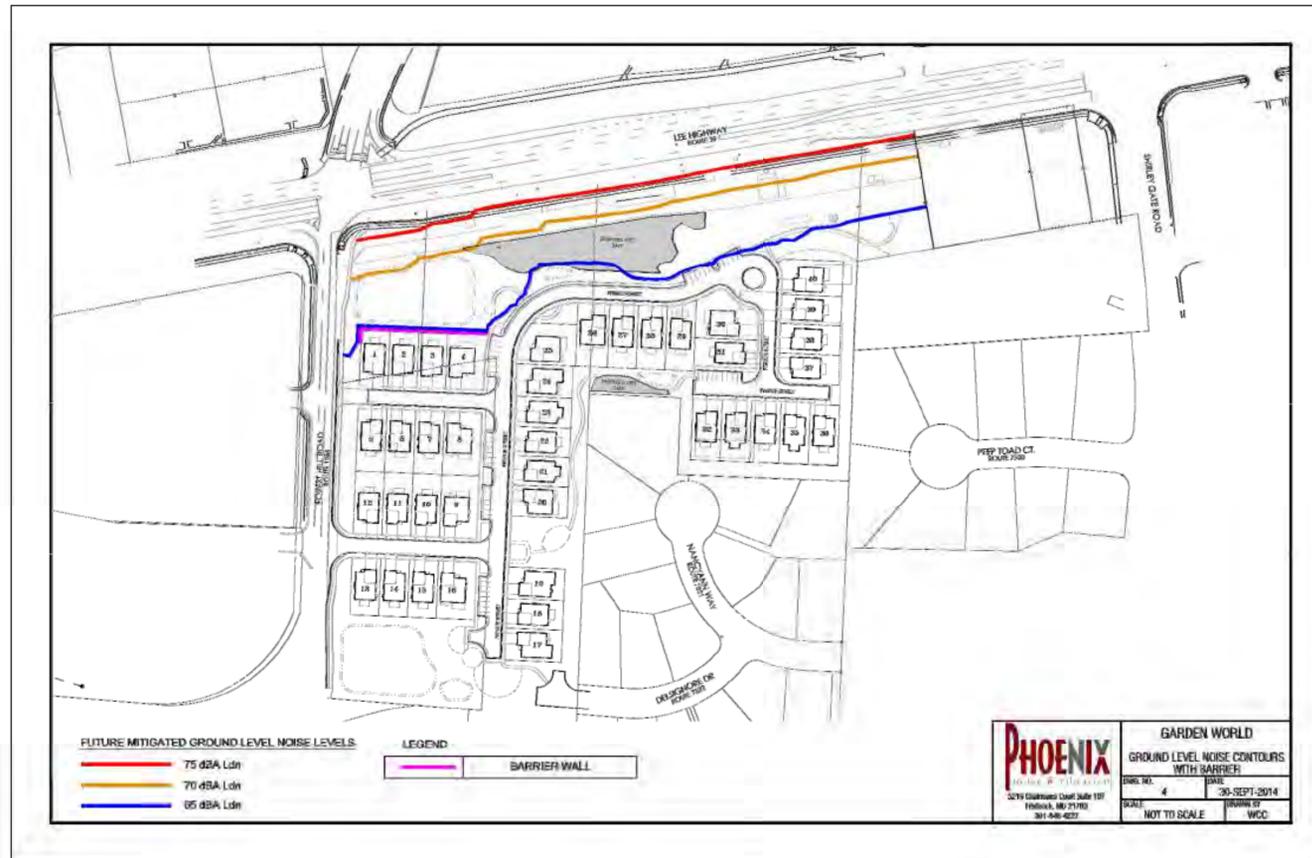
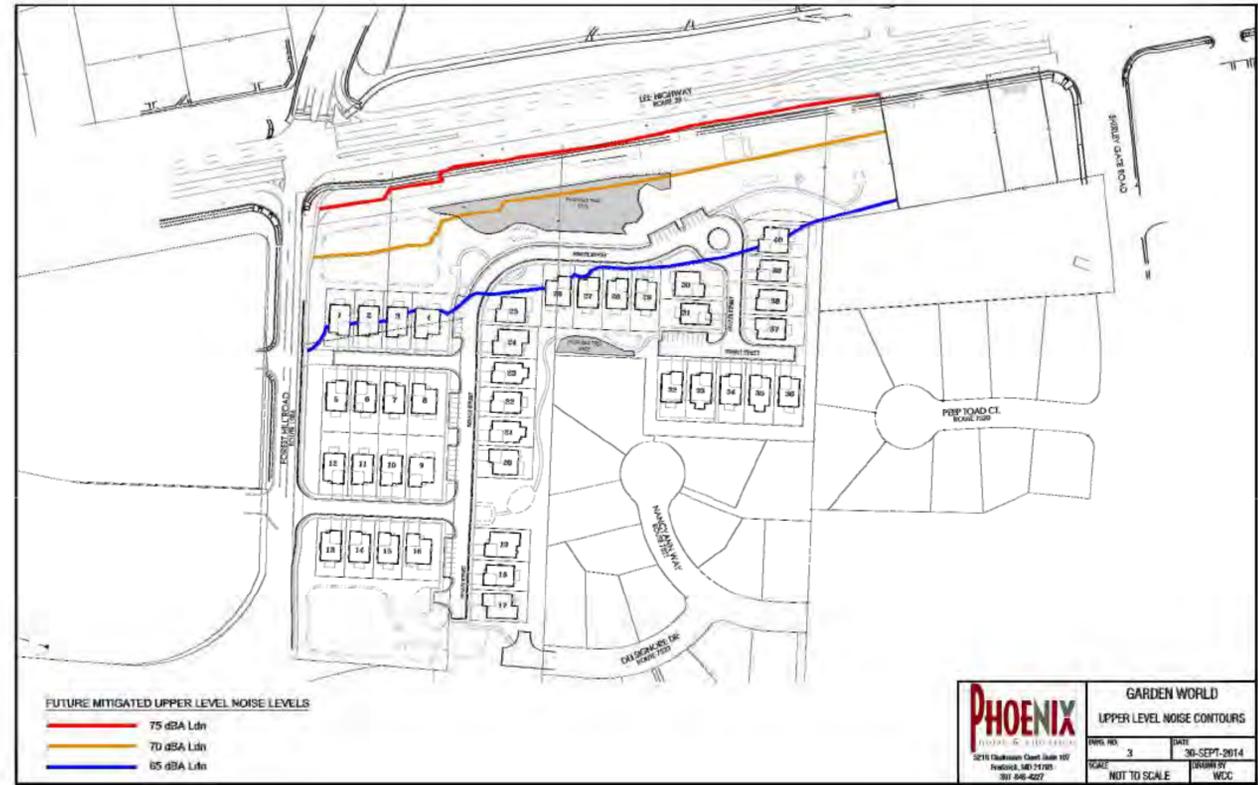
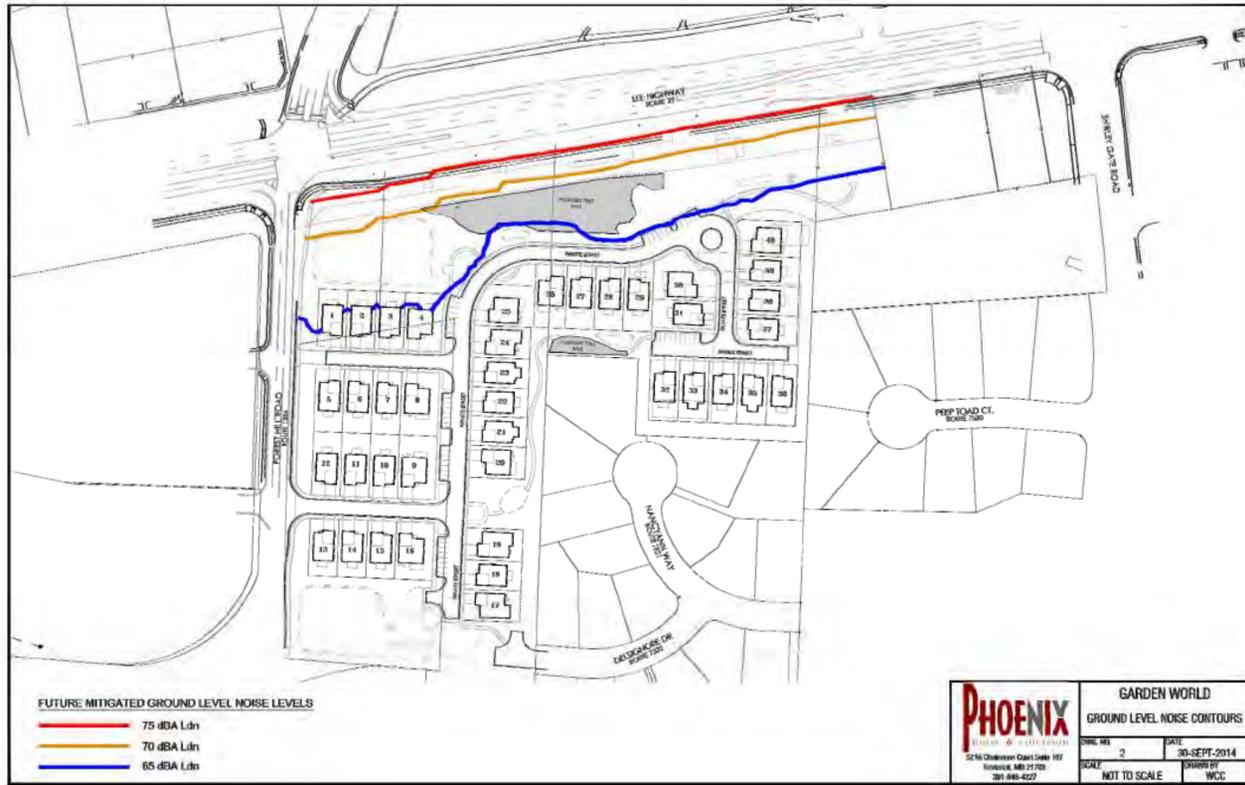
Project No. ZP-2137

Date: SEPTEMBER 12, 2014

Drawing Title
NOISE CONTOURS

Scale: As Shown

Drawing Number
15
Sheet 15 of 15



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**A GLOSSARY OF TERMS FREQUENTLY
USED IN STAFF REPORTS WILL BE
FOUND AT THE BACK OF THIS REPORT**

DESCRIPTION OF THE APPLICATION

The applicant, NVR, Inc., requests approval to rezone approximately 13.88 acres*, in the Braddock District, from the R-1 District to a PDH-3 District, to permit the development of 40 single-family detached dwellings at a density of 2.88 dwelling units per acre (du/ac).

A reduced copy of the Conceptual/Final Development Plan (CDP/FDP) is included at the front of this report. The applicant's draft proffers are included as Appendix 1. The applicant's statement of justification and affidavit are included in Appendices 3 and 4, respectively.

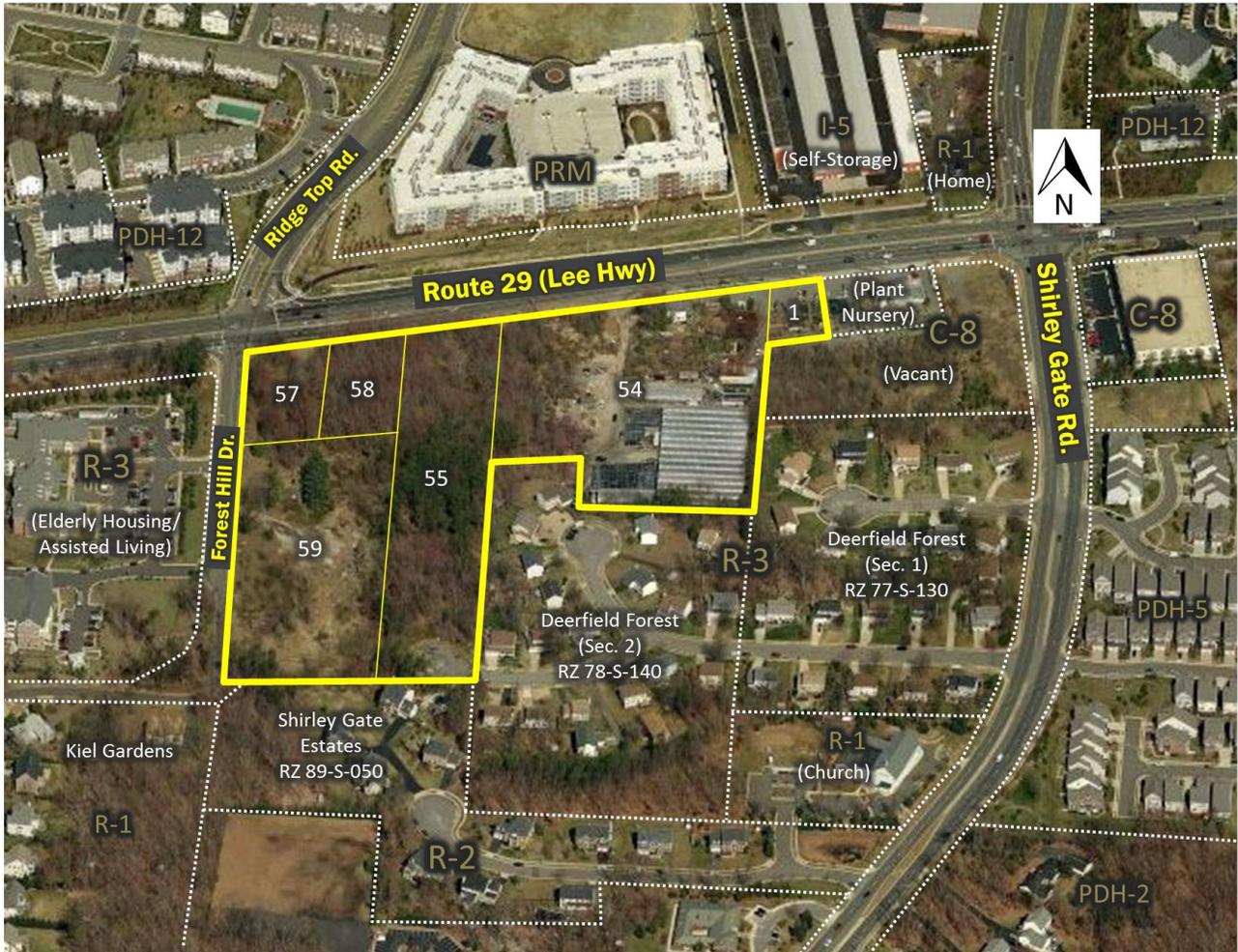


Figure 1: Project boundary and surrounding uses.

* includes ±0.5-acres of Route 29 right-of-way that has been dedicated to the County since the initial submission.

LOCATION AND CHARACTER

The property is located in the southeast quadrant of the intersection of Route 29 (Lee Highway) and Forest Hill Dr., approximately 400 feet west of Shirley Gate Rd. The site represents a consolidation of six parcels, the western portion of which is undeveloped. The northeast portion (Parcels 1 and 54) is being used as a wholesale nursery operation. Approximately 58 percent of the site is wooded, the majority of which is categorized as upland “sub-climax” hardwood cover, in only poor to fair condition.

SURROUNDING USES

The subject property adjoins single-family neighborhoods (zoned R2 and R3) to the south and southeast, a commercial plant nursery and vacant C-8-zoned parcels to the east, and elderly housing/medical care facilities to the west, across Forest Hill Drive.

ZONING BACKGROUND

The application parcels have existed for more than 50 years, and are subject to no prior zoning approvals, conditions or proffers. Parcel No. 54 originally extended farther to the south, until that portion of the parcel was rezoned from R-1 to R-3 (in 1979) and subdivided to create “Peep Toad Hollow, Section 2” (now Sec. 2 of Deerfield Forest), which included a future roadway connection (now Delsignore Dr.) to Parcel No. 55 of the current application property. At that time, the northern portion of Lot 54 was planned for more intensive townhome development at four to five du/ac.

CONCEPTUAL/FINAL DEVELOPMENT PLAN (CDP/FDP)

SHEET INDEX

1	COVER SHEET
2	NOTES & DETAILS
3	EXISTING CONDITIONS MAP
4	EXISTING VEGETATION MAP
5	CDP/FDP LAYOUT OPTION A
5A	CDP/FDP LAYOUT OPTION B
6	LANDSCAPE PLAN
7	PRELIMINARY SWM/BMP
8	ADEQUATE OUTFALL ANALYSIS
9	ILLUSTRATIVE PLAN
10,10A	AMENITIES PLAN
11	SITE FURNISHINGS
12	CONCEPTUAL ARCHITECTURALS
13,14	TREE PRESERVATION PLAN
15	NOISE CONTOUR

The CDP/FDP entitled "Forest Ridge", submitted by Urban, Ltd., consisting of 17 sheets dated October 25, 2013, as revised through October 17, 2014, is described below. (The CDP/FDP contains two layout options, which impact the on-site roads and future connectivity of the development. The two options are identified in the following description of the plan, and are analyzed by staff in later sections of this report.)

Site Layout

The CDP/FDP Layout (**Sheet 5**) depicts the proposed 40 single family detached dwellings arranged linearly along the proposed road network. A nearly 1000-foot long, dead-end private street traverses the property and provides access to two other short private road sections serving five to eight homes each. The square footage of individual lots is not specified, but is depicted on the CDP/FDP in the 5,000 square foot range. A typical lot detail on **Sheet 2** specifies minimum front building setbacks of 15 feet, rear setbacks of 20 feet, and side setbacks of 5 feet to neighboring property lines within the development.



Figure 2: Proposed development plan (Option A).

The specified 13.88-acre total site area includes an area of approximately 0.5 acre along Route 29 that has been dedicated to Fairfax County since the initial submission of this application, to facilitate a current Route 29 widening project (for which density credit was retained by the applicant), and a proposed 1.25 acres of additional dedication area, including approximately 45 to 55 feet of additional right-of-way along Route 29 (to accommodate anticipated long-range improvements), and right-of-way along Forest Hill Dr. to accommodate the proposed sidewalk and right turn lane.

The northern portion of the site, along the Route 29 right-of-way, would contain the majority of the tree preservation and open space for the site, serving as a visual and noise buffer from the roadway, and resulting in the proposed homes being set back 100 to 150 feet from the proposed right-of-way.

Vehicular and Pedestrian Access

The main entrance to the site would be located on Forest Hill Drive, accessing a 300-foot long street section that terminates in a T-intersection, connecting north to the private street that serves the majority of the site, and south according to one of two options. Option A (**Sheet 5**), would have both the entrance road and the street to the south be public streets, connecting through to existing Delsignore Drive (which currently terminates at the property line), while Option B (**Sheet 5A**) would have both the entrance street and the street to the south be private streets, which would provide no interim or long-term connection to Delsignore Drive and the south street, which would end in a “hammerhead” turnaround. The current temporary Delsignore Drive cul-de-sac (on the application property) would be replaced by an additional “hammerhead” turnaround, and be dedicated to VDOT as a permanent terminus for Delsignore Drive.

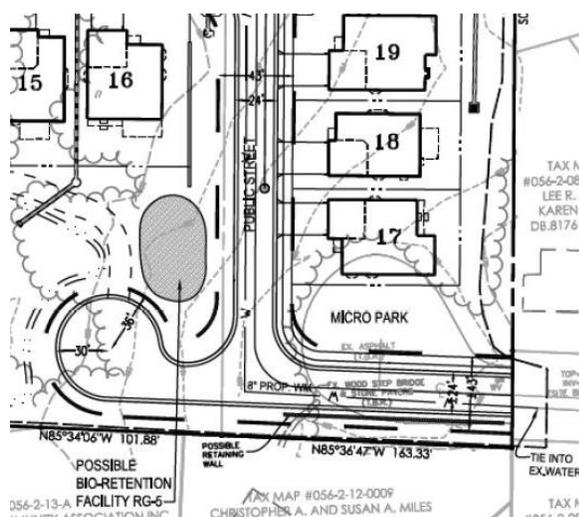


Figure 3: Proposed Option A.

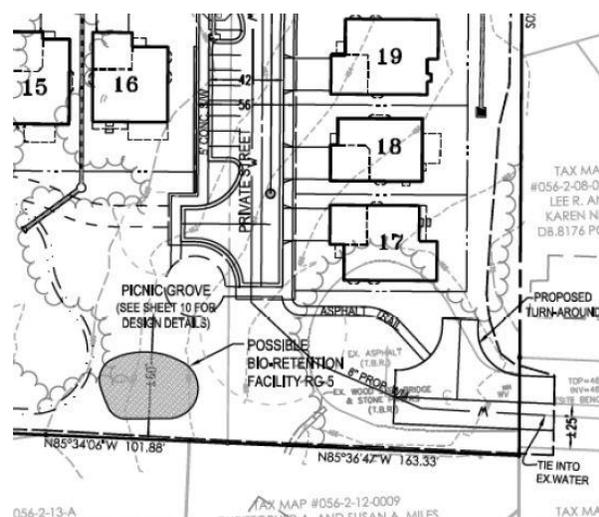


Figure 4: Proposed Option B.

An additional interparcel connection is accommodated in the northeast corner of the site, to provide a possible future residential connection to several neighboring parcels as an alternative (for residential development only) to accessing directly on adjacent arterial roads. An emergency vehicle-only access would also be provided along Forest Hill Drive, north of the main entrance to the development, at the terminus of a short, private dead-end road section.

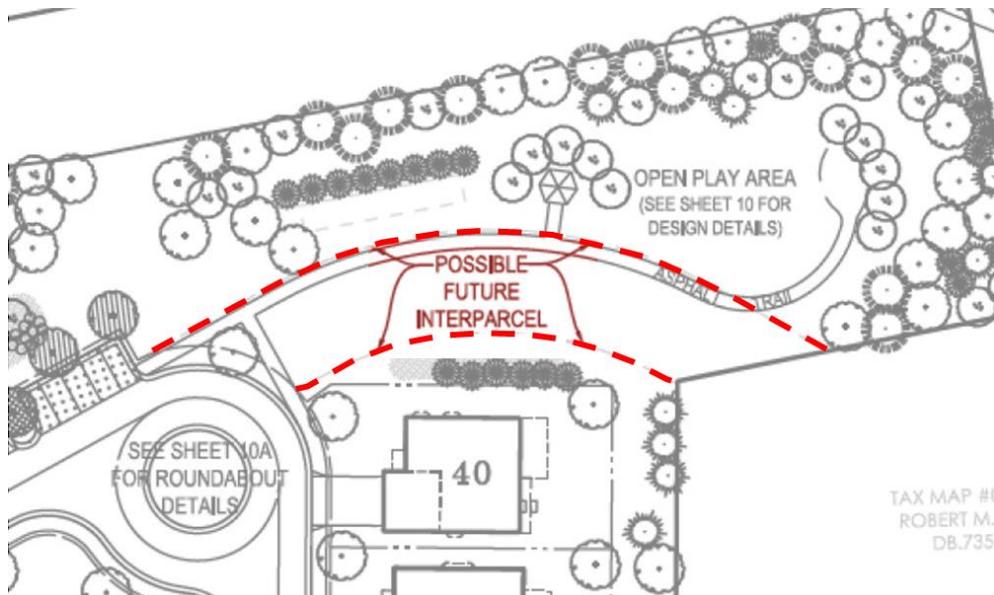


Figure 5: Proposed future interparcel connection.

In order to reduce vehicle queuing at the intersection of Forest Hill Drive and Route 29, the applicant proposes to construct a separate right-turn lane (detailed on **Sheet 5**) on Forest Hill Dr. at Route 29. The proposed right-turn lane would also reconfigure the through-lane to the north, minimizing an existing “jog” in the existing road crossing, and increasing the overall safety of the intersection.

Five-foot wide sidewalks are proposed throughout the development to provide pedestrian connectivity and connections to adjacent neighborhoods. Forest Hill Drive would be improved with curb and gutter and a 5-foot wide sidewalk along the full length of the application property. Additional asphalt trails are proposed within the development to connect park areas.

Parking

Each proposed home includes a minimum 20-foot by 18-foot driveway, which would accommodate two full driveway parking spaces, as well as two garage parking spaces, for a total of four parking spaces per residence. An additional ± 50 community parking spaces would be distributed throughout the site, for the benefit of visitors and guests.

Tree Preservation/Landscaping

Sheet 4 depicts the existing tree cover on the site, which is quantified on the landscape and tree preservation tables included on **Sheet 6**. A deviation from the required tree preservation target is requested, as is addressed by a deviation request letter included on **Sheet 2**. **Sheet 13** and **Sheet 14** offer a more detailed tree inventory along the proposed clearing limits of the project, identifying individual trees that may require preservation and/or protection, as well as written guidelines for tree preservation activities during construction.

The Landscape Plan (also on **Sheet 6**) illustrates the preliminary plan to re-vegetate the property, including the planting of trees to achieve over 100,000 square feet of 10-year tree cover, arranged to provide buffering to neighboring properties, shade for sidewalks and parking areas, and to serve as amenities in proposed park areas, among other objectives.

Stormwater Management

The application proposes to meet stormwater management (SWM) and best management practice (BMP) requirements through the use of several bioretention areas (or other LID practices) distributed throughout the site, to provide water quality control, and two large extended-detention ponds in the northwest and southwest portions of the site, to control peak runoff volumes associated with larger storm events. The stormwater facilities would be privately maintained by the future homeowners association (HOA), subject to a maintenance agreement with the County.



Figure 6: Proposed extended-detention stormwater facility.

Parks and Open Space

Approximately 30 percent of the site would consist of commonly-owned open space, including a large tree preservation area along Route 29, stormwater management areas, landscaped buffer strips along the periphery of the site, and five proposed pocket parks, connected by sidewalks and trails. **Sheets 10, 10a** and **11** contain illustrative details of the proposed parks, landscape areas, and proposed active and passive recreational amenity features, such as pergolas, a playground, gazebo, picnic areas, and seating opportunities, among other elements.

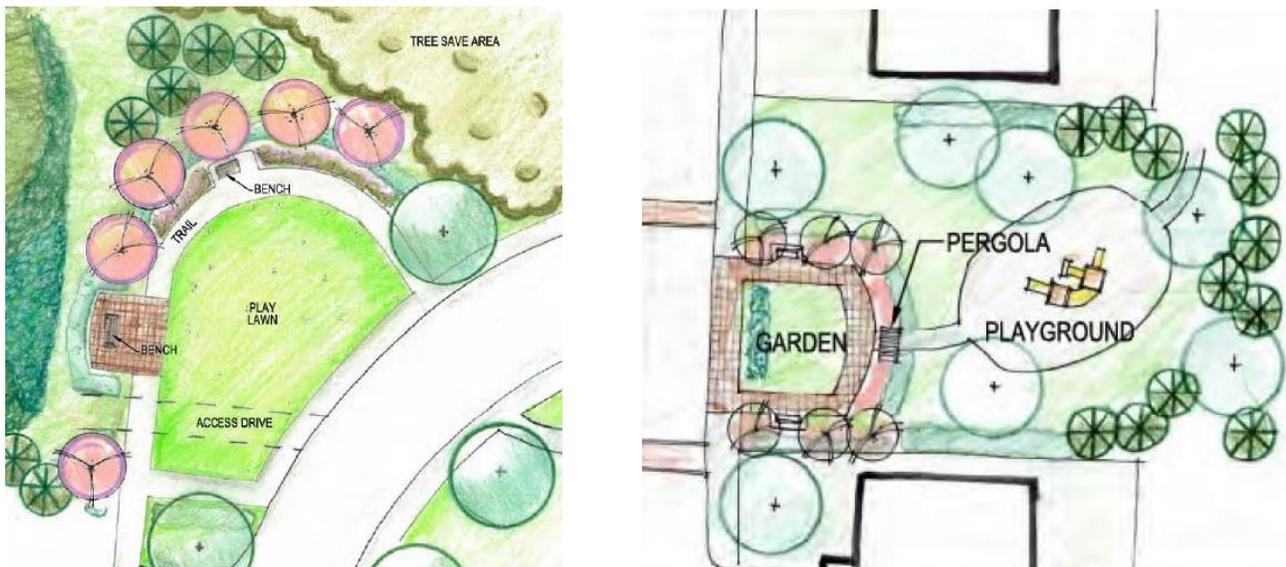


Figure 7: Two of the five proposed community park areas.

Architecture and Design

Conceptual architectural elevations are included on **Sheet 12**, depicting several possible home configurations differentiated by various architectural treatments and features. Rear elevations are included to illustrate the proposed variety in rear facades. Primary building materials, as specified in the proffers, would be limited to brick, stone, cementitious siding, shingles, or other masonry materials. Homes with side or rear facades facing a public street would feature additional architectural treatments on those facades, similar to that specified for the fronts of the homes. The proposed dwellings would be a maximum of 35 feet in height.



Figure 8: Example architectural elevations.

Noise Walls

The results of a preliminary acoustical analysis of the site are presented on **Sheet 15**, which illustrates the projected future location of several “critical” noise contours. To mitigate the anticipated impacts of transportation-related noise on several homes, noise-attenuating walls are proposed in the rear of units one through four.

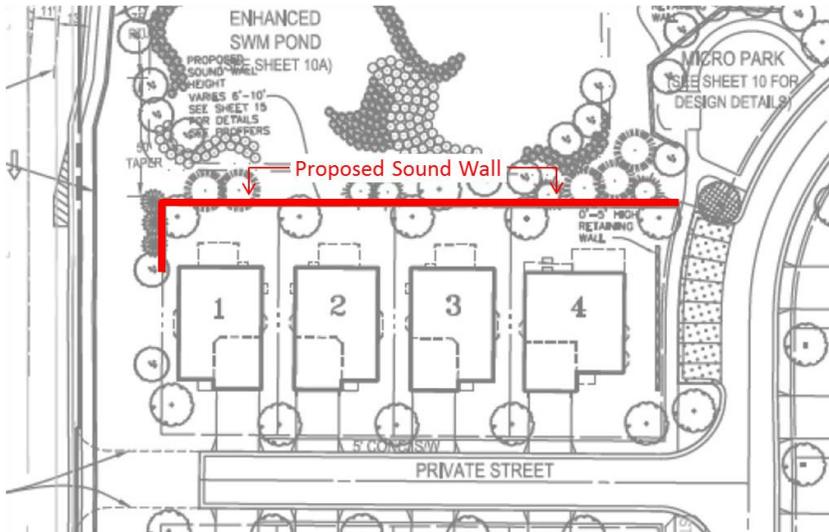


Figure 9: Proposed sound wall location.

Additional Proffer Commitments

In addition to the features and specifications shown on the CDP/FDP, the applicant’s written proffers further describe plan elements, and specify additional commitments to green building, environmental remediation, invasive-species management, public facility contributions, and other commitments.

COMPREHENSIVE PLAN ANALYSIS (Appendix 6)

Plan Area:	III
Planning District:	Fairfax Center Area
Planning Sector:	Land Unit V1
Plan Map:	Fairfax Center Area

Land Unit V1 Plan Text (see Appendix 6 for full Plan text):

Parcels north of the right-of-way for the Manassas Gap Railroad or north of the Kiel Gardens subdivision are planned for residential use at 3 dwelling units per acre at the overlay level to provide for infill development that is compatible with the Deerfield Forest subdivision. The only exceptions to this recommendation are the commercially-zoned properties in the southwestern quadrant of Shirley Gate Road and Lee Highway, which are planned for low intensity office use at a maximum FAR of .25. However, much of this commercially-zoned area may be used to accommodate the planned interchange at Shirley Gate Road and Lee Highway; development of this area should not preclude the construction of the interchange.

FAIRFAX CENTER AREA PLAN**Area-Wide Recommendations**

The Fairfax Center Area Plan recommends a range of development levels to guide development within the land units of the area. To obtain the more intense uses and greater densities, applicants must provide commensurate facilities and amenities. To develop the land to its fullest potential at the overlay level, parcel consolidation must be achieved, to provide for projects that function in a well-designed, efficient manner and provide for the development of unconsolidated parcels in conformance with the Fairfax Center Area Plan.

Overlay Requirements (Appendix 7)

Any proposed development within the Fairfax Center Area that is above the baseline level must result in a proportional development quality increase through the provision of essential infrastructure and desired amenities (referred to as development elements). A checklist used to assist in evaluating the application for conformance with the development elements is included as Appendix 7. The checklist includes transportation, environmental, site design, land use and public facilities elements.

The application requests a density of 2.88 dwelling units per acre (du/ac), which would be at the high range of the Comprehensive Plan recommendation for 1 to 3 du/ac, and would require the overlay level Plan recommendation to achieve. In order to justify development at the overlay level, the project should satisfy:

- a. all applicable basic elements; plus
- b. All transportation elements relating to highway improvements (rights-of-way dedication, highway construction, and off-site roadway contributions) and ridesharing programs; plus
- c. All essential elements; plus
- d. The element relating to low/moderate-income housing. If the Affordable Dwelling Unit ordinance (ADU) is applicable, then the applicant shall satisfy this element by complying with the ADU requirements as stated in the Zoning Ordinance (Article 2, Part 8). If the ADU ordinance is not applicable, then the applicant shall satisfy this element through a contribution to the Housing Trust Fund in the amount equivalent to one-half of the amount specified in the formula cited under the heading "Minor Development Elements, Low/moderate-income housing;" plus
- e. The inclusion of either of the following:
 - three-fourths of the applicable minor elements and one-half of the applicable major elements, or
 - the inclusion of all applicable minor elements and one-third of the major elements.

Based on staff's analysis as found in Appendix 7, this application satisfies 85% of the applicable basic elements and 88% of the essential elements, for which the proposal should satisfy 100% of each. Some basic elements in which the applicant fell short were: the "provision of grassy swales/filter strips", which would provide additional water quality benefits (as opposed to the traditional catch basins and underground piping shown on the CDP/FDP), and "preservation of significant historic resources", since a small portion of the historic Manassas Gap railroad (located on the property) has not been protected, consistent with other projects in the area. Whether or not the railroad remnant would be considered "significant" is debatable, since the applicant did commission an investigation of the resource which concluded that the railroad portion may not be significant. Also, better preserved portions of the railroad currently exist within the County and the portion of the feature located on this property is small and somewhat isolated from other preserved portions (see further discussion in the analysis of Residential Development Criteria No. 8).

The application satisfies 75% of the applicable minor elements and 27% of the applicable major elements, which falls short of the recommended three-fourths of applicable minor elements and one-half of applicable major elements. While applicable major elements might have been better addressed by demonstrating more "innovation" in site design, energy conservation, stormwater management, or environmental restoration, the checklist criteria were designed to provide a flexible guide for achieving high-quality design and it is the opinion of staff that the applicant

has adequately demonstrated a commitment to achieving this objective. Staff and the applicant are continuing to work together to further refine specific commitments.

Transportation elements relating to highway improvements were partially satisfied by the proposed dedication of right-of-way for future improvements, construction of intersection improvements, and road fund contribution, though the outstanding reimbursement to FCDOT of redesign costs associated with accommodation of the proposed turn lane has not been addressed. The low/moderate income housing element is satisfied by the proposed contribution to the affordable housing trust fund.

Use-Specific Performance Criteria

The Fairfax Center Area Plan also includes specific evaluation criteria, regarding site planning, architectural design and landscape architectural design, to be used as guidelines for residential single-family detached housing within the Plan area (see the full Fairfax Center Area Plan text, in the Plan Area III section of the Comprehensive Plan, for a complete list of Residential Performance Criteria).

Staff analyzed the proposed development for conformance with the applicable Use-Specific Performance Criteria, and feels that the proposal generally satisfies the intent of those recommendations. Many of those considerations overlap with the Residential Development Criteria of the Policy Plan, a more detailed analysis of which can be found in the following section of this report.

POLICY PLAN – LAND USE

Residential Development Criteria (Appendix 8)

Fairfax County expects all new residential development to enhance the community by fitting into the fabric of the neighborhood, respecting the environment, addressing transportation impacts, addressing impacts on public facilities, being responsive to the County's historic heritage, contributing to the provision of affordable housing, and being responsive to the unique site specific considerations of the property. To that end, the Comprehensive Plan requires that the following Residential Development Criteria be used to evaluate zoning requests for new residential development (see Appendix 8 for full Criteria text):

1. *Site Design* - All rezoning applications for residential development should be characterized by high quality site design. Rezoning proposals for residential development, regardless of the proposed density, will be evaluated based upon the following principles, although not all of the principles may be applicable for all developments.

- a. *Consolidation* - The current proposal represents a consolidation of six parcels (under multiple ownership) and encompasses a majority of the available undeveloped land in this area. The subject property adjoins existing stable residential neighborhoods, with the exception of the northeast corner of the property, which borders several commercially and split-zoned parcels (mostly undeveloped). As of the time of staff report publication, the Comprehensive Plan recommendation for the commercially-zoned parcels is for office use, which historically has presented an obstacle to incorporating those parcels into the current residential proposal. An update is currently proposed to the Fairfax Center Area Plan, however, that would include an alternate recommendation of residential use at 2 to 3 du/ac for those parcels, which would allow compatible residential development in the future, if the Plan amendment is approved. The applicant has included an interparcel connection to these parcels, should they redevelop as a residential use, which will further assist in achieving the overall objective of consolidation.
- b. *Layout* – The proposed lot configuration is logical, based on the constraints of the site, and results in homes with a traditional orientation to the street and modest, but usable yard areas, complemented by larger inter-connected community open spaces.
- c. *Open Space* – The proposal includes 30 percent of the site as commonly-owned open space, which exceeds the 20 percent requirement for a PDH-3 District. Approximately 20,000 square feet would consist of active recreational areas distributed throughout the site.



Figure 10: Proposed open space and active recreation areas (hatched).

- d. Landscaping – Proposed landscaping would result in canopy coverage of approximately 30 percent, which would exceed the 25 percent PFM requirement and would include additional ornamental and understory plantings to provide buffering to neighboring uses, and to amenitize proposed park and stormwater facilities.
- e. *Amenities* – Proposed park amenities, detailed on Sheets 10 to 11 of the CDP/FDP, include a playground, seating areas, gazebo, pergola, picnic area, and trails.

Staff supports the proposed property consolidation, and feels the design and layout includes adequate open space, landscaping and site amenities. Staff is continuing to work with the applicant to refine the specific design of these amenities, but believes this is criteria satisfied.

2. *Neighborhood Context* - *All rezoning applications for residential development, regardless of the proposed density, should be designed to fit into the community within which the development is to be located. Developments should fit into the fabric of their adjacent neighborhoods, as evidenced by an evaluation of:*

- *transitions to abutting and adjacent uses*
- *lot sizes, particularly along the periphery;*
- *bulk/mass of the proposed dwelling units;*
- *setbacks (front, side and rear);*
- *orientation of the proposed dwelling units to adjacent streets and homes;*
- *architectural elevations and materials;*
- *pedestrian, bicycle and vehicular connections to off-site trails, roadways, transit facilities and land uses;*
- *existing topography and vegetative cover and proposed changes to them as a result of clearing and grading.*

The proposal represents a similar overall density to surrounding neighborhoods, though due to the provision of common open-space (including tree preservation areas, stormwater management facilities, and park areas) individual lot dimensions would be smaller than surrounding developments, and the homes spaced closer together. Proposed parcel sizes are depicted in the 5,000 square foot range, while neighboring lots in the Deerfield Forest subdivision average in the 11,000 square foot range. The proposed single-family homes would be compatible in style with neighboring developments, and would be sufficiently set back from the property

boundaries to provide additional buffer areas along the periphery of the site. In addition, the applicant has proffered to require variation in rear facades to ensure that the proposed homes do not appear in monotonous rows; architectural materials would be of high quality (brick, stone, cementitious siding, shingles, or other masonry materials) to further mitigate any potential visual impacts on neighboring properties; and buffer areas are proposed to be landscaped in a manner which will maximize the quality of any visual impacts.

Staff feels the proposal would be compatible with neighboring development and this criterion would be met.

3. *Environment* (Appendices 9 and 14) - *All rezoning applications for residential development should respect the environment. Rezoning proposals for residential development, regardless of the proposed density, should be consistent with the policies and objectives of the environmental element of the Policy Plan, and will also be evaluated on the following principles, where applicable.*

- a. *Preservation* – The primary natural resource on the site is the tree cover (which is addressed in analysis of Criterion 4). A small wetland area also exists in the northwest portion of the site, which would be protected within a proposed tree preservation area. The natural drainage divides of the site would be retained, with proposed stormwater extended-detention facilities located in the natural low areas.
- b. *Slopes and Soils* – A preliminary geotechnical report was submitted by the applicant, reflecting areas of unsuitable soils that must be removed prior to construction; a predominance of hard soils and shallow rock in areas, which would make stormwater infiltration challenging. Naturally occurring asbestos soils are also known to exist in this general area, though none were identified in the geotechnical report. The applicant would be required to mitigate problem soils at the time of subdivision review.

A Phase I Environmental Site Assessment (ESA) was also performed on the site, to assess whether former nursery operations, or other prior uses of the site, may have impacted soil conditions on the property. The Phase I ESA found several areas of possible concern, including areas of fill material/debris of unknown origin, and abandoned fuel tanks that show signs of possible contamination. A Phase II ESA was recommended to further investigate areas of concern and determine what type of remediation might be required on the site. The applicant proffers to complete and submit a Phase II ESA concurrent with subdivision plan submission, and to take such corrective action to remediate any contamination that is found, and to perform ongoing monitoring of any problem areas, as might be necessary.

- c. *Water Quality* - The proposal includes multiple BMP facilities, located throughout the development, to treat stormwater runoff prior to release from the site. As previously mentioned, BMP infiltration may not be possible, so the proposed facilities are being represented as bioretention filters, including underdrains that lead to the detention facilities. The proposed extended-detention facilities include plantings and other features to achieve additional water quality benefits. Staff is continuing to work with the applicant to refine the design commitments associated with these features.
- d. *Drainage* – The site drains in two directions, with the majority of runoff flowing to the northwest, eventually entering a culvert beneath Route 29, and the remaining site area draining to the southwest, entering a culvert beneath Forest Hill Drive that leads to the property to the west.

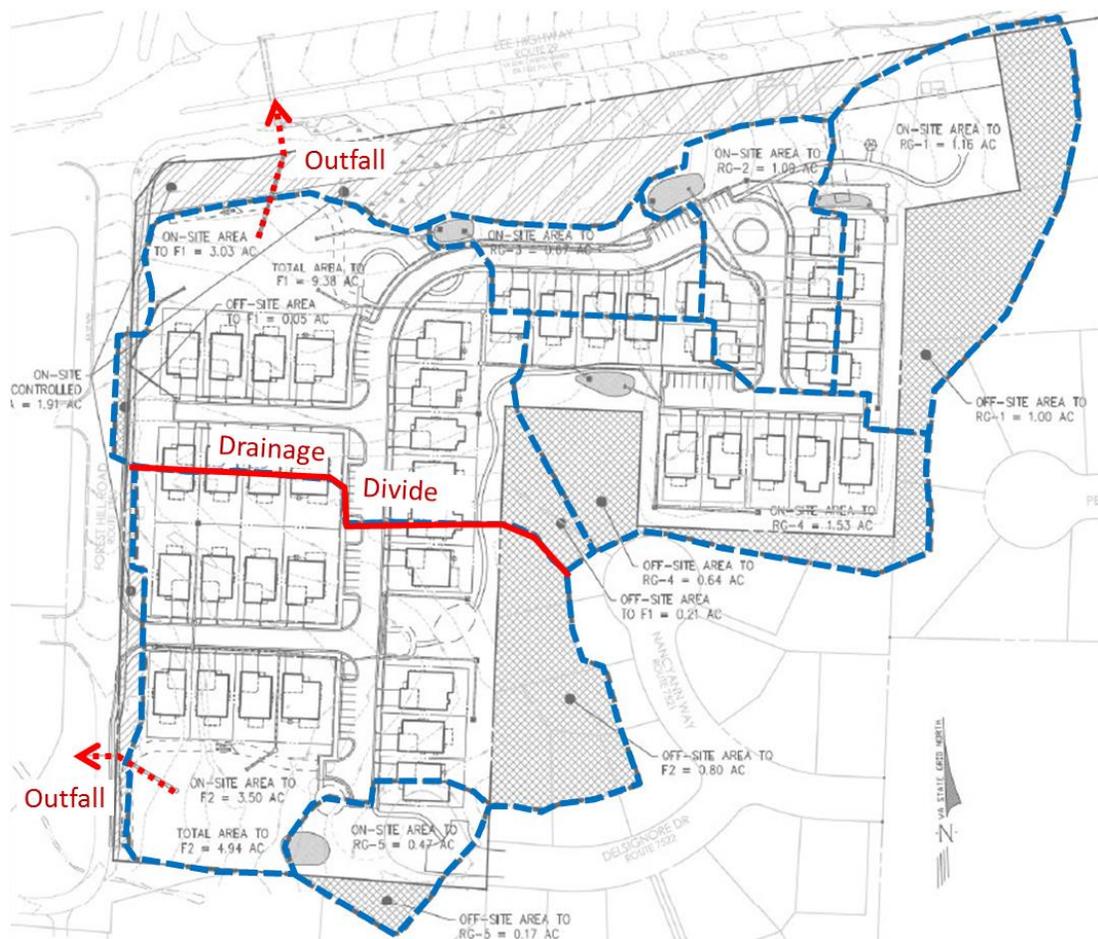


Figure 11: Proposed drainage areas.

According to the Preliminary Adequate Outfall Analysis on Sheet 8 of the CDP/FDP, both outfall conditions would be adequate to convey a post-development 10-year storm event without accounting for the proposed detention

facilities. The addition of the detention facilities would represent further improvements. At the time of site plan review, outfall conditions would be evaluated by DPWES and the proposed detention facilities required to be sized to ensure no additional peak runoff to either outfall, up to a 10-year storm event, and to mitigate any adverse effects of potential storm events beyond that amount.

- e. *Noise* – Route 29 is a major arterial roadway and is currently undergoing expansion adjacent to the site, so the effects of traffic noise are a significant concern. Policy Plan guidance recommends that new development not expose people to noise levels in excess of 45 dBA in their homes, or 65 dBA in outdoor recreation areas of homes. Noise mitigation should occur in areas with projected noise exposures between 65 and 75 dBA, and new residences should not be located in areas exposed to more than 75 dBA.

The applicant was required to submit a preliminary acoustical study to determine the noise levels on the site, both now and projected into the future. As depicted on Sheet 15 of the CDP/FDP, the projected future 65 dBA noise contour would affect several properties on the site, at a minimum requiring noise mitigation measures for the interior of the homes on Lots 1 to 4, 26 and 40, and mitigation for the rear yard areas on Lots 1 to 4. The applicant has proffered to utilize mitigation measures, including noise-attenuating building materials, and acoustical fencing for outdoor recreational areas within lots, to ensure noise levels within Plan guidance.

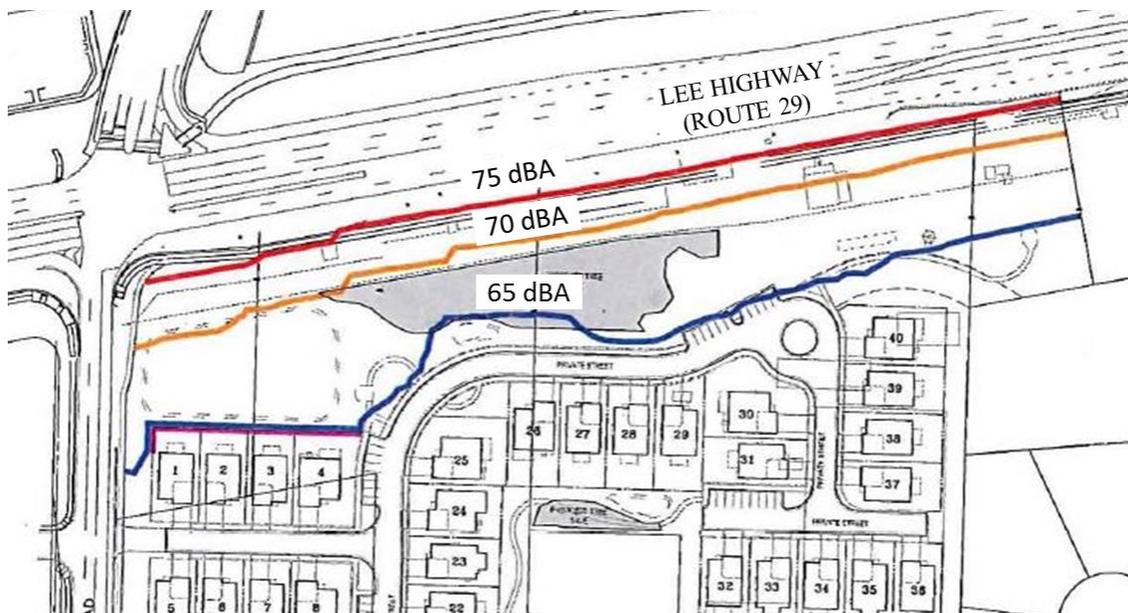


Figure 12: Projected future noise contours (based on one additional lane).

ISSUE – The provided acoustical study projected future noise levels based on one additional east bound lane on Route 29 that is nearing construction, but did not consider long-range improvement plans that include a grade-separated intersection at Shirley Gate Road, and additional one-way collector-distributor lanes on both sides of the roadway. Staff understands that the effect of such future improvements is difficult to predict, since the current long-range Route 29 plans remain conceptual and no detailed design information is available, but remains concerned that such improvements might result in an additional lane even closer to the property boundary, and might result in additional noise impacts that were not considered in the study.

While the applicant has designed the site in a manner which minimizes the number of units that would be exposed to noise impacts, staff believes that it would be optimal for the applicant to provide a more detailed commitment in support of Policy Plan guidance regarding noise mitigation for new residential use. The applicant is strongly encouraged to include the appropriate building materials specifications capable of mitigating noise to address 70 – 75 dBA for the identified units, based on the lack of information available regarding possible long-range road improvements. Finally, additional details should be included on the CDP/FDP, including section or elevation views of the proposed acoustical fencing (sound walls) that offer further specification and design features of proposed materials; landscape treatments; possible terracing and other design elements. Staff has proposed a development condition to address these concerns.

- f. *Lighting* – Proposed lighting is not specified on the CDP/FDP, but the applicant has committed that all exterior lighting will comply with Part 9 of Sect. 14, and will be consistent in design and character with the building architecture and other streetscape elements. Staff is continuing to work with the applicant to ensure that the intent of this criterion is achieved.
- g. *Energy* - Objective 13 Policy C of the Environment section of the Policy Plan states, “Ensure that zoning proposals for residential development 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.” Additional expectations are specified as the density of a proposal increases beyond the mid-point of the Plan range for the property. The applicant’s proposal seeks a density at the high end of the Comprehensive Plan’s recommended density range for this parcel (1 to 3 du/ac).

ISSUE - The applicant has provided a proffered commitment for the attainment of Energy Star Qualified Homes, Earthcraft House or 2012 National Green Building Standard (NGBS) using the Energy Star Qualified Homes for energy performance. However, the green building policy in the Comprehensive Plan recommends attainment of residential ratings systems incorporating multiple green building concepts such as Earthcraft and NGBS, with the Energy Star path for energy performance. As the Energy Star rating system focuses only on energy performance, it should not be included as a certification option. Staff recommends that the energy conservation commitment be revised to address this concern.

Summary: Significant environmental challenges exist on the subject property, including undesirable soils, contamination concerns, and highway-related noise. Staff remains concerned about the proposed noise mitigation and energy conservation commitments (as discussed above), and has included additional development conditions to further address these issues.

4. *Tree Preservation and Tree Cover Requirements (Appendix 12) - All rezoning applications for residential development, regardless of the proposed density, should be designed to take advantage of the existing quality tree cover. If quality tree cover exists on site as determined by the County, it is highly desirable that developments meet most or all of their tree cover requirement by preserving and, where feasible and appropriate, transplanting existing trees. Tree cover in excess of ordinance requirements is highly desirable. Proposed utilities, including stormwater management and outfall facilities and sanitary sewer lines, should be located to avoid conflicts with tree preservation and planting areas. Air quality-sensitive tree preservation and planting efforts (see Objective 1, Policy c in the Environment section of the Policy Plan) are also encouraged.*

The site is currently heavily wooded, though not all trees are in good condition and there are many invasive species present. Unfortunately, many of the best forested areas are located either along Route 29, within the area to be dedicated to the County for future road improvements, or in the natural low areas of the site, which are the only logical locations for stormwater detention facilities.

Accommodating the requested density (which is supported by the Fairfax Center Area Plan at the overlay level) on the site, presents a challenge to tree preservation efforts, given these constraints.

The right-of-way dedication area will remain forested in the short-term, but may be subject to clearing in the future, if long-range improvement plans for Route 29 are implemented. The applicant, however, proposes to preserve a large tree preservation area adjacent to the right-of-way, to ensure that a forested buffer is maintained in the future. An additional, smaller tree preservation area is proposed south of proposed Lots 26 to 29. Buffer areas along the periphery of the site, especially where the property adjoins existing home sites, would be outside of the proposed limits of clearing and grading and any on or off-site trees in those areas would be protected during construction.

The remainder of the site would be subject to clearing, and it is recognized that possible future environmental mitigation may impact trees within the construction area, though the Landscape Plan specifies the planting of new trees to achieve 10-year canopy coverage of approximately 30 percent, which exceeds the 25 percent minimum Ordinance requirement. The tree preservation “target” requirement of 58 percent of the required tree canopy coverage (based on the existing tree coverage of 58 percent of the site) would not be satisfied by the proposal, and the applicant has requested approval of a deviation from that target to allow the proposed tree preservation of 24 percent.



Figure 13: Proposed tree cover on the site.

ISSUE – The Urban Forest Management Division (UFMD) of DPWES has indicated in their analysis memo (Appendix 12) that they do not currently support approval of the deviation request, feeling that additional tree preservation opportunities may exist on the site. Individual concerns voiced in the memo regarded trail locations, the control of invasive species, and the provision of additional stormwater management information, which were since addressed in an additional revision to the submission, though the proposed tree preservation percentage remains the same.

The overall consensus of County staff is that the Applicant has made a good-faith effort to provide quality tree preservation, given the constraints of the site and the associated challenges of providing adequate stormwater management facilities and recreation areas, while still achieving the residential density recommended at the overlay level by the Fairfax Center Area Plan. Staff has encouraged the applicant to commit to work with UFMD during site plan review to coordinate stormwater management efforts with tree preservation concerns, to ensure the maximum preservation of quality vegetation, without having a negative impact on the function of stormwater management facilities, and has proposed a development condition to require such coordination at the time of subdivision review. Staff recognizes that the applicant has further addressed staff comments in recent revisions to the submission and, subject to the proposed development condition, generally supports the deviation request.

5. *Transportation* (Appendices 10 and 11) - *All rezoning applications for residential development should implement measures to address planned transportation improvements. Applicants should offset their impacts to the transportation network. Accepted techniques should be utilized for analysis of the development's impact on the network. Residential development considered under these criteria will range widely in density and, therefore, will result in differing impacts to the transportation network. Some criteria will have universal applicability while others will apply only under specific circumstances. Regardless of the proposed density, applications will be evaluated based upon the following principles, although not all of the principles may be applicable.*
 - a. *Transportation Improvements* – Since the initial submittal of the application, the applicant has dedicated to the County a ±0.5-acre portion of the Route 29 frontage to facilitate a Route 29 widening project that is anticipated to begin full construction in 2015 (utilities are currently being relocated). With the current application, the applicant would dedicate an additional ±1.25 acres (approximately 45 to 55 feet in width) along the Route 29 frontage, to permit the creation of a 121-foot wide south-half right-of-way (ROW) cross-section, to

accommodate long-range improvement plans which may include an eventual overpass at Shirley Gate Road and associated collector-distributor lanes.

Forest Hill Drive currently features a gravel shoulder and ditch section along the property frontage. The applicant has agreed to install curb-and-gutter and a 5-foot wide sidewalk along their entire frontage, to connect to proposed Route 29 improvements (which include full sidewalks along Route 29 at this location, and a pedestrian crosswalk across Route 29, on the west side of the intersection).

Though not warranted by the projected increase in traffic associated with this proposal, the Applicant has also agreed to construct a dedicated right-turn lane on Forest Hill Road to address concerns voiced from neighbors regarding difficulties exiting Forest Hill Road to Route 29. The additional turn lane would provide right-turning traffic a separate lane at the traffic signal, to travel east on Route 29, which should reduce the queue in the through and left-turn traffic lane.

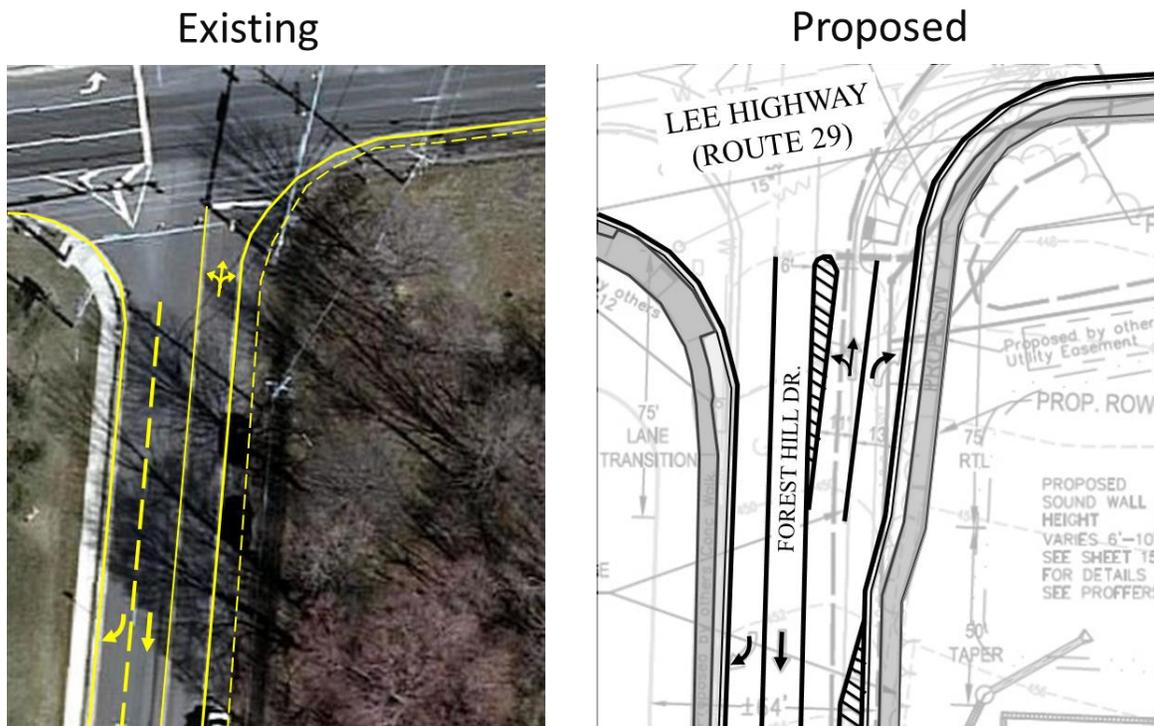


Figure 14: Existing/proposed lane configurations at Forest Hill Dr./Route 29.

ISSUE - The turn-lane improvement has been coordinated with the pending Route 29 widening project, to ensure that the proposed improvement would integrate with the upcoming Route 29 project. The proposed turn-lane did result in the need for a last-minute design change to the utility relocation portion of the Route 29 project, which was already nearing implementation, in order to relocate the signal mast pole at the intersection to accommodate the current proposal.

To facilitate the last-minute design change, FCDOT incurred expenses of \$13,875, for which they are now requesting reimbursement (see Appendix 10). The applicant has not addressed this request in the current proffers.

The applicant does proffer to contribute \$1,285 per dwelling unit (totaling \$51,400) to the Fairfax Center Area Road Fund, as recommended by the Area Plan to fund qualifying roadway improvements within the Fairfax Center Area.

- b. *Transit/Transportation Management* - There are no transit stops or infrastructure planned for this site, so this principle is not applicable.
- c. *Interconnection of Street Network* – The application site is directly accessible by vehicle from Forest Hill Drive and an existing dead-end street (Delsignore Drive) that terminates at a temporary cul-de-sac on the southeast portion of the application property. At the time the neighboring property was developed (in 1978, per RZ 78-S-140), that street connection was specifically included to provide connectivity to the west, to prevent a situation in which anticipated improvements to Shirley Gate Road (which was then a two-lane road, but was envisioned as a four-lane divided road) might limit access to the development in the future.



Figure 15: Proposed street network, with possible connections dashed.

An additional interparcel access reservation is proposed at the northeast portion of this project, to provide potential future access to the existing parcels in that location, which may also redevelop in the future. That interparcel access location would provide an alternative to access directly onto the main arterial roadways, Route 29 and Shirley Gate Road (for which there is a planned interchange at this location). This potential connection would be restricted to use by future residential development proposals only, and would not be available as a connection to any non-residential use on those parcels.

ISSUE – The issue of whether or not Delsignore Drive should be connected to the currently proposed road network has been a source of significant discussion throughout the review of this project. Zoning Ordinance, Public Facilities Manual and Comprehensive Plan guidance specifically recommend that such street connections be realized, and County staff has insisted that a public road connection from Forest Hill Drive to Delsignore Drive should be included in the proposal. Initial community feedback received by the applicant expressed that such a connection may not be desired by the local community, due to a concern that such a connection might invite “cut-through” traffic between Route 29 and Shirley Gate Road, through the Delsignore Drive and Nancyann Way neighborhoods, during peak traffic hours.

While staff understands this concern, staff questions whether such a connection would be a desirable “cut-through” route, given the existing difficulty of entering/exiting Nancyann Way at Shirley Gate Road (an unsignalized intersection), the design of the proposed street connection (featuring multiple turns, stop signs, and on-street parking), and the fact that the signal timing at Forest Hill Drive and Route 29 does not have the same signalization timing priority as the signals at the Shirley Gate Road/Route 29 intersection (meaning that a driver waits longer for the Forest Hill Drive traffic signal to cycle through than at the Shirley Gate Road intersection). It is also noted that the short-term improvement plans for Route 29 (scheduled to begin construction within a year) will add a third through lane and extend the existing right-turn lane on Route 29 from the Shirley Gate Road intersection to nearly Forest Hill Drive, which is expected to significantly improve the flow of traffic at the intersection and reduce congestion at peak times. The extended right-turn lane will also likely increase the frequency of traffic turning south onto Shirley Gate Rd., which might further exacerbate the existing difficulties entering/exiting from Nancyann Way and Peep Toad Court.

Other aspects relevant to this discussion include long-range improvement plans for Route 29 (which may include a grade-separated intersection at Shirley Gate Road), and a currently-funded feasibility study regarding a future extension of

Shirley Gate Road, south of Braddock Road, to connect to the Fairfax County Parkway (which is anticipated to increase traffic along the entirety of Shirley Gate Rd.). A major concern is that future improvements to Shirley Gate Road (which are not currently designed) may result in further restriction to entering/exiting Nancyann Way, as well as Peep Toad Court (such as the loss of a median break at these intersections). With such a scenario, a “back-door” street connection via Delsignore Dr., through the proposed subdivision to Forest Hill Dr., would provide a valuable alternate method of access for the residents of those existing neighborhoods.

The applicant has proposed two plan options to address the connection of Delsignore Drive to the subject property, in order to allow the public to comment on the alternatives and for the Board to determine the most acceptable solution. Option A, depicted on Sheet 5 of the CDP/FDP, includes a full public street connection from the Forest Hill Drive entrance, through to Delsignore Dr. Option B, depicted on Sheet 5A of the CDP/FDP, includes no vehicular connection to Delsignore Dr., and a street network that is entirely private. Option B would include the dedication of a VDOT-approved turn-around area on the application property, providing a VDOT-owned and maintained permanent terminus to Delsignore Drive, precluding any future connection through the proposed development.

Staff strongly supports the public street connection to Delsignore Drive (Option A), in conformance with County guidelines, and believes that such an option would provide an alternate, safer means of access for existing neighborhood residents, as well as an additional access for residents of the proposed development. With Option A, staff feels that the remainder of the proposal satisfies this Residential Development Criterion.

- d. *Streets* – The proposed streets would be privately-owned and maintained by the future Homeowner’s Association (HOA), with the exception of the public street connection mentioned above (Option A). The private streets would be constructed to public street material standards and specifications. The applicant has proffered to ensure a \$45,000 reserve balance in an HOA maintenance fund (at the time of bond release, or turnover of the community to the HOA), for future maintenance of the private streets, as well as stormwater management facilities, and other HOA maintenance responsibilities.

ISSUE - Staff prefers that all streets within the development be designed and dedicated as public streets, minimizing the financial burden placed on future homeowners, and providing public street connections to all possible interparcel access points. Finally, staff considers on-street parallel parking preferable to the

proposed 90-degree “head-in” parking spaces in a single-family detached neighborhood.

The full text of Residential Development Criteria 5(k) (Appendix 8) recommends that: *“Public streets are preferred. If private streets are proposed in single family detached developments, the applicant shall demonstrate the benefits for such streets. Applicants should make appropriate design and construction commitments for all private streets so as to minimize maintenance costs which may accrue to future property owners. Furthermore, convenience and safety issues such as parking on private streets should be considered during the review process.”*

The applicant continues to propose private streets, arguing that without on-street parking, the resulting travel width of the proposed private streets is actually greater than the travel width of a public street with on-street parking.

- e. *Non-motorized facilities* – Five-foot wide sidewalks are proposed along all roadways throughout the development (including Forest Hill Dr.), including connections to neighboring developments. Additional asphalt trails are proposed to connect park areas and provide recreational loop opportunities within the development.

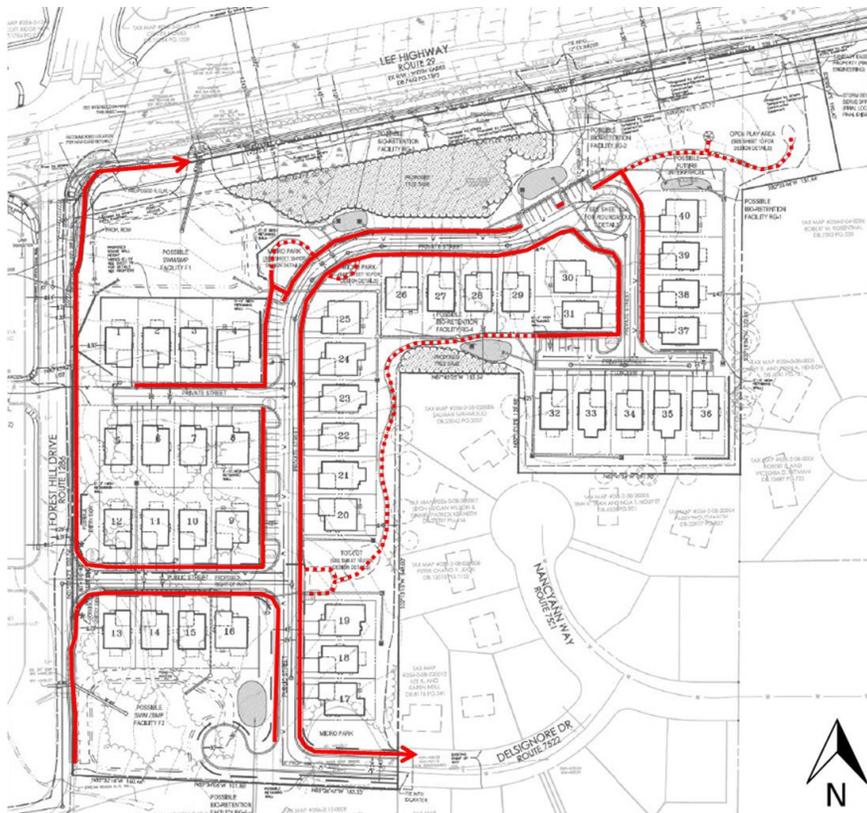


Figure 16: Proposed sidewalk and trail network.

- f. *Alternative street designs* – The proposed public street connection to Designore Drive (Option A) might require VDOT waivers and/or modifications to permit the configuration presented on the plan. Discussions between the applicant, FCDOT, and VDOT are ongoing, and further refinement of the public street option will likely occur prior to site plan submission, to ensure a public street connection that will be acceptable to all parties. A development condition has been proposed to provide flexibility to allow that continued refinement to occur.

Summary - Staff acknowledges the proposed right-of-way dedications, and the Applicant's commitment to construct intersection improvements at Forest Hill Dr. and Route 29, as well as the provision of ample sidewalks and trails throughout the site. Staff believes public streets should be provided, in accordance with County policies, but recognizes the Board's authority to approve private streets, if so desired. Staff also supports a full public street connection at Delsignore Drive, and recommends approval of proposed Option A only, as presented.

6. Public Facilities (Appendices 13 and 15) - *All rezoning applications for residential development are expected to offset their public facility impact and to first address public facility needs in the vicinity of the proposed development. Impact offset may be accomplished through the dedication of land suitable for the construction of an identified public facility need, the construction of public facilities, the contribution of specified in-kind goods, services or cash earmarked for those uses, and/or monetary contributions to be used toward funding capital improvement projects. Selection of the appropriate offset mechanism should maximize the public benefit of the contribution.*

The Fairfax County Public Schools (FCPS) Office of Facilities Planning Services determined that the existing by-right development potential of the property (zoned R-1) would yield an anticipated seven additional students in the local public schools. FCPS anticipates the proposed development to yield a net increase of approximately 22 new students if 41 dwellings are constructed* (Appendix 15). Based on the approved proffer formula guidelines and using 40 as the number of proposed dwellings (the current proposed number of units), staff determined that a contribution of \$151,550 is appropriate in order to address capital improvements for the receiving schools. Staff recommended that the contributions be directed to the Fairfax County Public Schools, to address impacts to the Fairfax Villa/Frost MS/Woodson HS pyramid. The applicant's proffers satisfy this request.

In addition to Zoning Ordinance requirements for on-site recreational facilities in P-Districts (see the Zoning Ordinance Analysis section of this report for more

* Based on an earlier submittal of the plan that included one additional dwelling.

details), the Fairfax County Park Authority (FCPA) requested that the applicant provide a fair share contribution of \$116,983 to the Park Authority (Appendix 13) to offset impacts to park and recreation service levels, based on a calculation of \$893 per new resident. This contribution would be used to establish and maintain parks and recreational facilities within the immediate service area. The applicant proposes a \$116,983 contribution to the Fairfax County Park Authority, which satisfies this request.

According to memos received from the Wastewater Planning Division of DPWES and Fairfax County Water Authority, there is adequate existing sewer and water service capacity to support the current proposal.

Given the items discussed above, staff concludes that the application meets Criterion 6.

7. *Affordable Housing - Ensuring an adequate supply of housing for low and moderate income families, those with special accessibility requirements, and those with other special needs is a goal of the County. Part 8 of Article 2 of the Zoning Ordinance requires the provision of Affordable Dwelling Units (ADUs) in certain circumstances. Criterion 7 applies to all rezoning applications and/or portions thereof that are not required to provide any Affordable Dwelling Units, regardless of the planned density range for the site.*

The Zoning Ordinance does not require the applicant to provide Affordable Dwelling Units (ADUs) because only forty dwellings are proposed. Section 2-802 of the Zoning Ordinance states that the requirements of the Affordable Dwelling Unit Program shall apply when the rezoning yields 50 or more dwelling units at an equivalent density greater than one unit per acre. However, the Comprehensive Plan recommends a contribution to the County's Housing Trust Fund in rezoning applications that propose new residential dwellings. The application satisfies this Comprehensive Plan guideline by proffering to contribute 0.5% of the projected sales price for all of the units approved on the property to the Fairfax County Housing Trust Fund.

8. *Heritage Resources - Heritage resources are those sites or structures, including their landscape settings, that exemplify the cultural, architectural, economic, social, political, or historic heritage of the County or its communities. Such sites or structures have been: 1) listed on, or determined eligible for listing on, the National Register of Historic Places or the Virginia Landmarks Register; 2) determined to be a contributing structure within a district so listed or eligible for listing; 3) located within and considered as a contributing structure within a Fairfax County Historic Overlay District; or 4) listed on, or having a reasonable potential as determined by the County, for meeting the criteria for listing on, the Fairfax County Inventories of*

Historic or Archaeological Sites.

A small portion of the historic Manassas Gap Railroad right-of-way was identified in the southwestern portion of the site. The area was evaluated by a certified archeologist, who located a small 2-foot high berm, about 120-feet in length, which was likely a remnant of the railroad berm. The archeologist determined that the feature had been severely disturbed over time, and was not historically significant or worthy of preservation; this area is also somewhat isolated from other preserved sections of the railroad, due to existing developments, which did not preserve this feature. Therefore, due to degraded conditions of the railroad, staff regards the preservation of this feature desirable, but does not consider it as essential on the Fairfax Center Area checklist (Appendix 8). A Phase I archaeological review was performed on the remainder of the site, which found only insignificant artifacts and remnants of prior structures dating to the early 20th century.

One two-story house, constructed circa 1915 and in disrepair, remains on the site and is proposed to be removed with this application. An architectural survey was performed for the structure in 2012 and is on file with the Virginia Department of Historic Resources (DHR ID: 029-5714), which documented the building and indicated that it was not deemed eligible for historic listing.

ZONING ORDINANCE ANALYSIS

Figure 17: Applicable PDH-3, Ordinance and PFM Regulations (Sect. 6-100, 11-103, 13-400)		
Standard	Required	Provided
Min. District Size	2 acres	13.88*
Max. Building Height	35 ft. (per R-3)	35 ft. maximum
Front Yards	20 ft. (per R-3 Cluster)	15 ft.
Rear Yards	25 ft. (per R-3 Cluster)	20 ft.
Side Yards	8 ft., total of 20 ft. (per R-3 Cluster)	5 ft.
Maximum Density	3 du/acre (41 units)	2.88 du/acre (40 units)
Open Space	20% of site	30% of site
Parking Spaces	3 per unit on private street (120 total)	5.07 per unit, Option A (203 total) 5.25 per unit, Option B (210 total)

*Includes ±0.5 ROW dedication area.

Figure 17: (continued)		
Standard	Required	Provided
Tree Preservation Target	58% of 10-year canopy requirement (76,590 sf)	24% of 10-year canopy requirement** (31,310 sf)
10-yr Tree Canopy	25% of site (132,051 sf)	30% of site (156,310 sf)
On-site Recreational Facilities	Minimum expenditure of \$1,700 per dwelling unit	Proffer commits to \$1,700 per dwelling unit expenditure

** *Deviation requested.*

OFF-STREET PARKING AND LOADING, PRIVATE STREETS (Article 11)

Parking requirements specify two off-street spaces for each single-family detached residence with frontage on a public street, and three off-street spaces for such residences located on a private street. The current proposal would exceed both standards by providing two garage and two driveway spaces for each residence, as well as approximately 50 additional off-street parking spaces.

Article 11, Part 3 also regulates private streets in single family P-District developments, subject to the approval of the Director of DPWES (the Director), and specifically limits the provision of private streets to those streets which are not required or designed to provide access to adjacent properties (as determined by the Director). The length and geometric design of private streets are also subject to the approval of the Director, who must specifically approve any proposed private road exceeding 600 feet in length.

ISSUES – The Applicant’s proposed public street connection from Forest Hill Dr. to Delsignore Drive would satisfy the above requirement to make such connecting streets public. The proposed interparcel connection to the northeast of the site, however, would result in an off-site connection from a private street, which would not conform to the above guidance. Staff prefers public streets be provided throughout the site, though recognizes that the Director of DPWES has the authority to waive or modify such a requirement at the time of site plan. Staff also recognizes that the through street to Delsignore Drive is the more critical off-site connection and would meet Ordinance recommendations.

The main proposed private road also exceeds the 600-foot maximum length threshold, and would require a DPWES waiver, as requested by the Applicant. Staff supports this waiver request, due to the lack of possible access points in that portion of the property.

SIGNS (Article 12)

The CDP/FDP includes two possible entry sign locations for the development, on either side of the entrance to the development from Forest Hill Dr. The Zoning Ordinance allows freestanding signs to identify the name of a single-family residential subdivision, not to exceed 30 square feet in area or eight feet in height, at each major entrance. Staff has no issue with proposed signs in either of those locations, but would prefer more specific details of such signs be included on the CDP/FDP; the proffers also state that signage may be incorporated into the proposed noise wall near the intersection of Forest Hill Drive and Rout 29. Staff is continuing to work with the applicant to include additional details of proposed signage and ,absent such details, has proposed a development condition to limit signage to one sign, to be located at any of the proposed locations.

LANDSCAPING AND SCREENING/TREE CONSERVATION (Article 13, PFM Sect. 12)

As discussed in the analysis of the Residential Development Criteria, the applicant has requested approval of a deviation to the required tree preservation target, which staff supports, as described in a letter included on Sheet 2 of the CDP/FDP.

There are no transitional screening requirements for single-family residential uses, though the applicant has provided 25 to 30-foot landscaped buffer areas along the periphery of the site, where adjacent to neighboring developments, in order to provide additional screening and buffering to those uses. Staff is continuing to work with the applicant to maximize the effectiveness of the proposed screening in those areas, while minimizing impacts on exiting vegetation. A development condition has been proposed to address these concerns.

The proposal includes off-street parking areas, but none of which exceed 20 spaces, which would require those parking areas to meet Interior and Peripheral Parking Lot Landscaping requirements of the Ordinance (Article 13-200 and 13-203). The applicant has, however, provided landscaping sufficient to meet such requirements (as shown on Sheet 6 of the CDP/FDP), which would soften the visual impact of those areas on proposed residences, and would be above-and-beyond Ordinance requirements.

REQUESTED WAIVERS AND MODIFICATIONS

- Waiver of the 600 feet maximum length requirement for a private street per Par. 2 of Sect. 11-302 of the Zoning Ordinance

As previously discussed, staff supports this waiver request due to the narrow width of the property and the lack of available off-site street connections.

- Waiver of service drive requirement along Route 29.

A service drive would not conform to the current short or long-range plans for Route 29 improvements, and staff supports this waiver request.

- Direct the Director of DPWES to: Approve deviation from the tree preservation target required per Sect. 12-0508 of the PFM, in accordance with deviation request letter.

As previously discussed, staff supports the current deviation request to the tree preservation target.

STANDARDS FOR ALL PLANNED DEVELOPMENTS (Sect. 16-100) (Appendix 5)

General Standards

A rezoning application or development plan amendment application may only be approved for a planned development under the provisions of Article 6 if the planned development satisfies the following general standards:

1. *The planned development shall substantially conform to the adopted comprehensive plan with respect to type, character, intensity of use and public facilities. Planned developments shall not exceed the density or intensity permitted by the adopted comprehensive plan, except as expressly permitted under the applicable density or intensity bonus provisions.*

The Comprehensive Plan for the subject parcels recommends a density of one to three dwelling units per acre, subject to additional Fairfax Center Area requirements for proposed densities at the upper end of that range. The proposed density of 2.88 du/ac falls within the recommended density range, and would be evaluated at the “overlay level” of the Fairfax Center Area Plan (Appendix 6). As discussed, staff considers this standard met.

2. *The planned development shall be of such design that it will result in a development achieving the stated purpose and intent of the planned development district more than would development under a conventional zoning district.*

The intent of the PDH-3 District is to encourage innovative and creative design, facilitate use of the most advantageous construction techniques, ensure ample provision and efficient use of open space; promote high standards in the layout, design and construction of residential development; promote balanced developments of mixed housing types; encourage the provision of dwellings within the means of families of low and moderate income; and otherwise to implement the stated purpose and intent of this Ordinance.

PDH-3 standards require the provision of open-space and recreational amenities throughout the site. The current proposal exceeds minimum open space

requirements and provides ample recreational opportunities and landscape buffers that might not be included in a conventional district plan. Though the provision of private streets in a single-family detached development is not preferable to staff, the utilization of private streets allows the applicant design flexibility that is not otherwise available in a conventional district. While a mix of housing types might also have resulted in a greater ability to meet tree preservation and other plan goals, the current proposal for single-family detached homes (featuring varied architectural designs) and the inclusion of additional landscape buffers would, in the opinion of staff, result in a development that blends well with the neighboring communities.

3. *The planned development shall efficiently utilize the available land, and shall protect and preserve to the extent possible all scenic assets and natural features such as trees, streams and topographic features.*

The unusual configuration of this infill site, and the lack of available off-site street connections, limits potential layout options. Staff feels that the proposal represents an acceptable preservation of natural features, given the constraints of the site, and considers this standard met.

4. *The planned development shall be designed to prevent substantial injury to the use and value of existing surrounding development, and shall not hinder, deter or impede development of surrounding undeveloped properties in accordance with the adopted comprehensive plan.*

Staff feels that the proposal is compatible with surrounding single-family residential developments, as well as the elderly housing communities across Forest Hill Dr., and the incorporation of a future interparcel connection to the properties northeast of the site might facilitate compatible development of those parcels in the future. Staff considers this standard met.

5. *The planned development shall be located in an area in which transportation, police and fire protection, other public facilities and public utilities, including sewerage, are or will be available and adequate for the uses proposed; provided, however, that the applicant may make provision for such facilities or utilities which are not presently available.*

According to memos received from Fairfax County Public Schools, Wastewater Planning Division of DPWES, and Fairfax County Water Authority, adequate public utilities and services are available to support the proposal as presented, which satisfies this standard.

6. *The planned development shall provide coordinated linkages among internal facilities and services as well as connections to major external facilities and services at a scale appropriate to the development.*

The proposed public street connection to Delsignore Drive would realize a connection that was planned when that neighborhood was originally rezoned in 1978, and the interparcel easement in the northeast portion of the site could facilitate compatible development of those neighboring parcels. Pedestrian connections are also proposed to the Deerfield Forest neighborhood, and along Forest Hill Drive to Route 29.

Design Standards

Whereas it is the intent to allow flexibility in the design of all planned developments, it is deemed necessary to establish design standards by which to review rezoning applications, development plans, conceptual development plans, final development plans, PRC plans, site plans and subdivision plats. Therefore, the following design standards shall apply:

- 1. In order to complement development on adjacent properties, at all peripheral boundaries of the PDH, PRM, PDC, PRC Districts the bulk regulations and landscaping and screening provisions shall generally conform to the provisions of that conventional zoning district which most closely characterizes the particular type of development under consideration.*

The PDH-3 District would most resemble an R-3 Cluster District, for which the bulk requirements can be seen in Figure 18, above. The periphery setbacks of the current proposal would exceed all R-3 Cluster requirements. Though there are no transitional screening requirements for single-family detached development, the current proposal includes 25 to 30-foot landscaped strips of open space along the periphery of the site, where the development adjoins existing neighborhoods. Staff considers this standard met.

- 2. Other than those regulations specifically set forth in Article 6 for a particular P-district, the open space, off-street parking, loading, sign and all other similar regulations set forth in this Ordinance shall have general application in all planned developments.*

Applicable Zoning Ordinance requirements are discussed in the appropriate Analyses sections of the report (above).

- 3. Streets and driveways shall be designed to generally conform to the provisions set forth in this Ordinance and all other County ordinances and regulations controlling same, and where applicable, street systems shall be designed to afford convenient access to mass transportation facilities. In addition, a network of trails and sidewalks shall be coordinated to provide access to recreational amenities, open space, public facilities, vehicular access routes, and mass transportation facilities.*

As previously discussed in analysis of the Residential Development Criteria, and in the analysis of Article 11 (Off-Street Parking and Loading, Private Streets), the applicant proposes private roads throughout the development, with the exception of a possible public road connection from Forest Hill Drive to Deslignore Drive (Option A). Several waivers and/or modifications may be required, depending on the final design of the road connection, and staff is working with the applicant to refine the design and determine which modifications and waivers would be needed to achieve the desired connection. Trails and sidewalks are proposed throughout the site, to connect to recreational amenities and surrounding neighborhoods. Only if Option A is selected, and subject to the required waivers and/or modifications, staff considers this standard met.

CONCLUSIONS AND RECOMMENDATIONS

Staff Conclusions

The applicant's request to rezone 13.88 acres from the R-1 District to a PDH-3 District to permit the construction of 40 single-family detached dwellings, would be within the density range recommended by the Comprehensive Plan, subject to additional Fairfax Center Area guidelines. Staff generally feels that the proposed development would be in character with the surrounding neighborhoods, and would be consistent with the intent of the Comprehensive Plan for the area.

Staff strongly feels that proposed Option A, including a full public street connection between Forest Hill Drive and Delsignore Drive, would provide a safe alternate access for residents of both the proposed development and existing neighboring subdivisions. Therefore, staff supports only Option A. Staff does not support alternate Option B, which would permanently preclude a through connection, and would consist entirely of private streets.

Remaining Issues:

Staff is continuing to work with the applicant to address several outstanding issues that staff feels should be addressed, including:

- **Noise Mitigation:** Due to uncertainties over future long-term road improvements along the Route 29 frontage, that may result in noise levels above what has been projected, staff has proposed a development condition to require the applicant to include building materials capable of mitigating noise levels to the 70 – 75 dBA level, in addition to the 65 – 70 dBA level proffered.
- **Energy Efficiency:** The applicant's energy conservation proffer commits to obtain a green building certification from a list of several possible choices. Since the Energy Star for Homes qualification only focuses on energy performance, and

does not include a level of other green building guidance equivalent to the other possible choices, staff would prefer that choice (Option C of proffer) be eliminated as an option.

- **Turn-Lane Expenses:** In order for design of the current Route 29 improvement project to be revised to accommodate the proposed turn-lane improvements, additional design work was required. This resulted in added expenses to FCDOT totaling \$13,875, for which they are requesting reimbursement from the applicant. The applicant has not addressed this request in the current proffers. Staff strongly encourages the applicant to consider the reimbursement request.
- **Private Streets:** Staff prefers that all streets within the development be designed and dedicated as public streets, in accordance with County policies, to minimize the financial burden placed on future homeowners, and to provide public street connections to all possible interparcel access points. Staff encourages the applicant to consider providing public streets throughout the development.
- **Landscape Buffers:** The applicant has proffered to include additional landscape material within the buffer areas included on the CDP/FDP, and staff has proposed development conditions to clarify the intent of the additional landscaping proposed.
- **Tree Preservation:** As mentioned previously in the report, a development condition is proposed to require the applicant to work with DPWES, at the time of subdivision plan review, to evaluate areas of potential additional tree save adjacent to proposed SWM/BMP areas, and adjust the design as necessary to maximize tree preservation, while not negatively impacting the performance of the proposed SWM/BMP facilities.
- **Site Amenities:** Staff feels that the illustrative amenity details included on the CDP/FDP do not adequately convey a cohesive design intent, and the park area details might benefit from additional proffer or condition flexibility. Development conditions are proposed to require commitments to include amenities per the intent of the CDP/FDP, but to also allow additional flexibility in the implementation of the plan.

Subject to approval of the proposed Development Conditions (Appendix 2), staff finds that the proposal satisfies the majority of the Residential Development Criteria and other Policy Plan guidance of the Comprehensive Plan, as well as the additional standards and guidelines of the Fairfax Center Area Plan, and would conform to applicable provisions of the Zoning Ordinance.

Recommendations

- Staff recommends approval of RZ 2014-BR-007, subject to the execution of proffers consistent with those contained in Appendix 1, and
- Staff recommends approval of FDP 2014-BR-007, subject to the development conditions contained in Appendix 2.
- Staff also recommends approval of the following waivers and/or modifications:
 - Waiver of the 600 feet maximum length requirement for a private street per Par. 2 of Sect. 11-302 of the Zoning Ordinance
 - Waiver of service drive requirement along Route 29.
 - Direct the Director of DPWES to: Approve deviation from the tree preservation target required per Sect. 12-0508 of the PFM, in accordance with deviation request letter.

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 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 further noted that the content of this report reflects the analysis and recommendations of staff; it does not reflect the position of the Board of Supervisors.

APPENDICES

1. Draft Proffers
2. Proposed Development Conditions
3. Statement of Justification
4. Affidavit
5. Zoning Ordinance Provisions
6. Fairfax Center Area Plan - Excerpts
7. Fairfax Center Area Plan – Checklist
8. Residential Development Criteria
9. DPZ – Environmental Comments
10. FCDOT – Transportation Comments
11. VDOT – Transportation Comments
12. UFMD – Forestry Comments
13. FCPA - Park Authority Comments
14. DPWES – Stormwater Comments
15. Fairfax County Public Schools – Comments
16. Glossary

Proffered Conditions**NVR, Inc.****RZ 2014-BR-007****July 3, 2014****September 12, 2014****October 15, 2014****October 20, 2014****October 24, 2014**

Pursuant to Section 15.2-2303(A), Code of Virginia, 1950 as amended, the undersigned Owners and Applicant, in this rezoning proffer that the development of the parcel under consideration and shown on the Fairfax County Tax Map as Tax Map Reference 56-2((1))54-59 and 56-2((4))1 (hereinafter referred to as the "Property") will be in accordance with the following conditions (the "Proffered Conditions"), if and only if, said rezoning request for the PDH-3 Zoning District is granted. In the event said rezoning request is denied, these Proffered Conditions shall be null and void. The Owners and the Applicant, for themselves, their successors and assigns hereby agree that these Proffered Conditions shall be binding on the future development of the Property unless modified, waived or rescinded in the future by the Board of Supervisors of Fairfax County, Virginia, in accordance with applicable County and State statutory procedures. The Proffered Conditions are:

I. GENERAL

1. Substantial Conformance. Subject to the provisions of Section 18-204 of the Fairfax County Zoning Ordinance (hereinafter referred to as the "Zoning Ordinance"), development of the Property shall be in substantial conformance with the Conceptual Development Plan/Final Development Plan (CDP/FDP), prepared by Urban, Ltd. consisting of 12 sheets, dated October 25, 2013, revised through October 17, 2014.
2. Maximum Lot Yield. The development shall consist of a maximum of 40 single family detached units.
3. Minor Modifications. Pursuant to Paragraph 5 of Section 18-204 of the Zoning Ordinance, minor modifications to the CDP/FDP, such as, but not limited to locations of utilities, minor adjustments of property lines and the general location of dwellings and driveways on the proposed lots may be permitted when it is determined by the Zoning Administrator that such modifications are in substantial conformance with the CDP/FDP and provided that the modifications do not increase the total number of dwelling units, decrease the amount of open space, tree save, or distances to peripheral lot lines, change the points of access, or alter the limits of clearing and grading as shown on the CDP/FDP.

4. Establishment of HOA. Prior to record plat approval, the Applicant shall provide the Department of Public Works and Environmental Services (DPWES) with documentation that the Applicant has established a Homeowners Association (HOA) in accordance with Sect. 2-700 of the Zoning Ordinance. The purpose of the HOA shall be, among other things, establishing the necessary residential covenants governing the use and operation of common open space and other facilities of the approved development and to provide a mechanism for ensuring the ability to complete the maintenance obligations and other provisions noted in these proffer conditions, including an estimated budget for such common maintenance items. At the time of bond release, or turnover of the community to the HOA, whichever first occurs, there shall be a reserve balance of \$45,000 in the HOA bank account for future maintenance obligations.
5. Annexation of Future Development. The HOA for the subject property shall be structured with the adjacent parcels, 56-2((4))1, 2, 4 and 6, identified as potential additional land that can be added to the HOA at a future date upon a mutual agreement.
6. Dedication to HOA. At the time of record plat recordation, the open space and common features/amenities not otherwise conveyed or dedicated to the County shall be dedicated to the HOA and maintained by the same.
7. Disclosure. Prior to entering into a contract of sale, prospective purchasers shall be notified in writing by the Applicant of the maintenance responsibility for the private roadways, walkways, stormwater management facilities, common area landscaping and any other open space amenities and shall be made aware of the potential for future interparcel access in the northern portion of the property and shall acknowledge receipt of this information in writing. The initial deeds of conveyance and HOA governing documents shall expressly contain these disclosures.
8. Signs. No temporary signs (including “popsicle” style paper or cardboard signs), which are prohibited by Article 12 of the Zoning Ordinance and Chapter 7 of Title 33.1, and Chapter 8 of Title 46.2 of the Code of Virginia, shall be placed on or offsite by the Applicant or at the Applicant’s direction. The Applicant shall direct its agents and employees involved with the Property to adhere to this proffer.
9. Architectural Design. The architectural design of the dwellings shall be in substantial conformance with the bulk, mass and type and quality of materials and elevations shown on the CDP/FDP. The primary building materials, exclusive of trim shall be limited to brick, stone, cementitious siding, shingles or other similar masonry materials. The dwelling units built on Lots 1, 5, 12, and 13 shall have, on the side facing Forest Hill Drive, enhanced architectural features such as ornamental trim and windows with shutters similar to that which is on the front of the respective dwelling unit. Similarly, the rear elevation of the dwelling units built on Lots 1-4 shall also include windows, shutters, and trim similar to that which is on front of the respective dwelling. Between Lots 17 and 23 and between Lots 32 and 36, no three adjacent homes will have the same rear elevation. Minor modifications may be made with the final architectural designs provided such modifications are in substantial conformance with the elevations.

10. Length of Driveways. The driveway on each residential lot shall have a minimum of 20 feet of pavement available for parking without infringing into the right-of-way or sidewalk area and shall be a minimum of 18 feet in width.
11. Playground. The Applicant shall construct a playground as shown on the CDP/FDP with at least three of the following elements: slides, swings, balance beams, spring animals and/or spring pads, play structures, spinarounds, horizontal bars, climbers.
12. Reciprocal Easements. At the time of subdivision plan approval, the Applicant shall create reciprocal easements along common residential property lines to provide future homeowners with reasonable rights of access to adjacent lots if needed to perform routine home maintenance functions.
13. Construction Parking. Construction workers shall either park on-site during the construction of the improvements on the Property or shall park in a remote location and be shuttled to the Property. Construction workers shall not be permitted to park on Forest Hill Drive or adjacent properties.
14. Setbacks. The minimum front, side and rear yards shall be consistent with that shown on the “typical SFD lot detail” depicted on the CDP/FDP. Decks, deck related “additions” such as pergolas, lattice, privacy screens, deck benches, and deck planters, bay windows, patios, chimneys, areaways, mechanical equipment and other similar appurtenances may encroach into the minimum rear yard as established on the “typical lot SFD detail” and in this proffer provided such appurtenances meet the regulations of Sect. 2-412 and Article 10 of the Zoning Ordinance and in no instance shall the be closer than 5 feet to any lot line. The minimum setbacks and the restrictions of this proffer shall be disclosed to all prospective homeowners in a disclosure memorandum prior to entering into a contract of sale and shall be included in the HOA documents.

II. TRANSPORTATION

15. Dedication of Land along Lee Highway, Rt. 29. At the time of record plat approval, the Applicant shall dedicate in fee simple to the Board of Supervisors right-of-way to 121 feet from the centerline of Route 29 as shown on the CDP/FDP, along the site’s frontage of Lee Highway, Rt. 29.
16. Forest Hill Drive. Subject to approval of VDOT, the Applicant shall construct improvements on Forest Hill Drive and along the Property’s Forest Hill Drive frontage to include sidewalk, curb and gutter, lane restriping on Forest Hill Drive, and a right turn lane as shown on the CDP/FDP.
17. Public Access Easement. At the time of record plat recordation, the Applicant shall cause to be recorded among the land records a public access easement running to the benefit of Fairfax County, in a form acceptable to the County Attorney, over the private road, and any sidewalks adjacent to the private roads as generally shown on the CDP/FDP.

18. Interparcel Access. An area reserved for interparcel access, to be constructed by others, shall be provided to Tax Map 56-2((4))6 as shown on the CDP provided that lot develops with residential uses. Any necessary grading and construction easements shall also be provided to facilitate the construction of the connection by others.
19. Private Streets. The on-site private streets shall be constructed of materials and depth of pavement consistent with the Public Facilities Manual (PFM) standards for public roads, subject to any design modifications as to pavement and easement width and use of curb, that are approved by the Director of DPWES.
20. Use of Garages, Driveways and Common Area Parking Space
 - A. Individual garages shall only be used for a purpose that will not interfere with the intended purpose of parking vehicles. A covenant setting forth this restriction shall be recorded among the land records of Fairfax County in a form approved by the County Attorney prior to the sale of any lots and shall run to the benefit of the Homeowners Association (HOA) and the Board of Supervisors. This restriction shall also be disclosed in the HOA documents. Prospective purchasers shall be advised of this use restriction, in writing, prior to entering into a contract of sale. There shall be 4 designated parking spaces per unit, two in the garage and two in the driveway.
 - B. No parking of recreational vehicles (RVs), boats or trailers shall be permitted on the private streets, common guest parking spaces, or shared driveways. This restriction shall be included in the homeowner's association documents prepared for the Application Property.
 - C. Owners shall be advised of the above use restrictions which shall be included in the initial lease/sales documents.
21. Signal Timing. Prior to subdivision plan approval, the Applicant shall request of VDOT a modification to the timing of the signal at Forest Hill Drive and Lee Highway to allow more green time for Forest Hill Drive. Evidence of this request shall be provided to DPWES.

III. ENVIRONMENTAL

22. Noise. In order to ensure an interior noise level of no greater than DNL 45 dBA, the Applicant shall employ the following acoustical treatment measures for lots within the highway noise impact zone of DNL 65-70 dBA:
 - Exterior walls shall have a laboratory sound transmission class (STC) rating of at least 39.

- Doors and glazing shall have a laboratory STC rating of at least 28 unless glazing constitutes more than 20 percent of any façade exposed to noise levels of DNL 65 dBA or above. If glazing constitutes more than 20 percent of an exposed façade, then the glazing shall have an STC rating of at least 39.
- All surfaces shall be sealed and caulked in accordance with methods approved by the American Society of Testing and Materials (ASTM) to minimize sound transmission.
- Exterior noise levels for outdoor recreational areas for the lots within DNL 65 dBA zone shall be reduced below DNL 65 dBA through the use of noise attenuation fencing as shown on the CDP/FDP. The acoustical fence/wall shall be six to ten feet in height with a top elevation of up to 465.0 to achieve noise reduction as recommended by the noise study. The acoustical fence/wall shall be architecturally solid from the ground up with no gaps or openings and shall be designed and constructed in a style complimentary to the dwellings with materials such as wood, brick, stone, cementitious siding, precast concrete, or other masonry material and may include steps, piers or other architectural design elements.

At the time of subdivision plan approval, the Applicant shall have the option to submit a revised noise study conducted by a qualified engineer, based on final grading and engineering plans which may alter the height or location of the attenuation fencing.

23. Lighting. If streetlights are installed on the property, such lighting shall conform to the requirements of Part 9 of Article 14 of the Zoning Ordinance and shall be subject to the approval of the Director, DPWES in accordance with the provisions of the Public Facilities Manual. Streetlights shall be consistent in design throughout the property and be of a design and character consistent with the architecture of the dwellings and the street furniture/amenity elements.
24. Unifying Elements. All street furniture, entry features and amenity elements such as benches, lighting, tables/picnic tables, and gazebos/ pergolas shall be residential in scale and shall be consistent with each other in terms of design and character with unifying elements such as color or material and complimentary in style to the dwelling architecture.
25. Entry Feature. The community entry feature and sign shall be designed and constructed in a style consistent with the building architecture and consistent with the materials and character of the acoustical fence/wall. The entry feature shall be constructed of brick, stone or other masonry materials with the sign portion constructed of precast concrete masonry or simulated materials such as high density sign foam or similar. The sign shall meet all requirements of Article 12 of the zoning ordinance. An entry feature/sign may be integrated/co-located with the sound wall located behind Lots 1 through 4.
26. Asbestos. If based on the soils analysis submitted as part of the subdivision plan approval process, DPWES determines that a potential health risk exists due to the

presence and associated disturbance of asbestos-containing rock on the Property, the Applicant shall:

- (A) Take appropriate measures as determined by the Fairfax County Health Department to alert all construction personnel as to the potential health risks; and
 - (B) Commit appropriate construction techniques as determined by DPWES in coordination with the Fairfax County Health Department to minimize this risk. Such techniques shall include, but not be limited to, dust suppression during any blasting or drilling activities and covered transportation of removed materials presenting this risk and appropriate disposal.
27. Geotechnical Study. Prior to subdivision plan approval and in accordance with the provisions of the Public Facilities Manual, the Applicant shall submit a geotechnical study of the Property to the Geotechnical Review Board (GRB) through DPWES for review and approval. If needed to alleviate potential structural, grading and construction problems on the Property or adjacent properties, the Applicant shall incorporate into the subdivision plan and/or building design, appropriate engineering practices as recommended by the GRB and to the satisfaction of DPWES.
28. Energy Conservation. In support of energy conservation and green building techniques; the Applicant, in consultation with the Environment and Development Review Branch (EDRB) of Department of Planning and Zoning (DPZ), shall seek certification for this development from one of the following programs that offers third party review of “green building” or energy efficient measures. The Applicant shall have sole discretion to choose the program that will be utilized.
- A. Certification in accordance with the Earth Craft House Program as demonstrated through documentation provided to DPWES and EDRB prior to the issuance of a RUP; or
 - B. Certification in accordance with the National Green Building Standard (NGBS) using the ENERGY STAR® Qualified Homes path for energy performance, as demonstrated through documentation submitted to DPWES and EDRB from a home energy rater certified through Home Innovation Research Labs that demonstrates that the dwelling unit has attained the certification prior to the issuance of the RUP for each dwelling; or
 - C. Qualification in accordance with ENERGY STAR® for Homes as determined by the submission of documentation to EDRB from a home energy rater certified through the Residential Energy Services Network (RESNET) program that demonstrates that the dwelling unit has attained the ENERGY STAR® for Homes qualification prior to the issuance of the RUP for each dwelling; or
 - D. Certification in accordance with the National Association of Home Builders (NAHB) National Green Building Program, Bronze level, as demonstrated

through submission of a copy of the “Green Certificate” issued by NAHB in accordance with its “Green Certificate Program” prior to the issuance of the RUP for each dwelling.

29. Electric Vehicle Charging. The installation of an electric vehicle charger shall be offered as an option for each dwelling at the time of sale.
30. Landscaping. Landscaping shall be generally consistent with the quality, quantity and the locations shown on the CDP/FDP and shall be non-invasive, predominantly native species. At the time of planting, the minimum caliper for deciduous trees shall be three (3) inches and the minimum height for evergreen trees shall be eight (8) or ten (10) feet, as depicted on the CDP/FDP. Actual types, locations and species of vegetation shall be determined pursuant to more detailed landscape plans submitted at the time of submission of the subdivision plans for review and approval by the Urban Forestry Management Division (UFMD), provided that, to the extent possible, all species are locally common native species. Such landscape plans shall provide tree coverage and species diversity consistent with the PFM criteria, as determined by the Urban Forester. The Applicant reserves the right to make minor modifications to such landscaping to reasonably accommodate utilities and other design considerations, as approved by UFMD, provided such relocated landscaping shall retain a generally equivalent number of plantings as shown on the approved CDP/FDP.
31. Peripheral Landscaping. The linear areas of common HOA land between the rear lot lines of the lots on the Property and the adjacent property lot lines shall be landscaped with a staggered mixture of deciduous and evergreen trees of various categories to create a year round vegetated area, in coordination with the tree conservation areas as generally shown on the CDP/FDP. Other vegetation, such as non-continuous shrub masses or informal hedge segments shall be used to define the edges of the common HOA land area and provide additional low level vegetation where needed.
32. Limits of Clearing and Grading. The Applicant shall conform to the limits of clearing and grading as shown on the CDP/FDP, subject to allowances for the installation of utilities and/or trails as determined necessary by the Director of DPWES, as described herein. If it is determined necessary to install utilities and/or trails in areas protected by the limits of clearing and grading as shown on the CDP/FDP, they shall be located in the least disruptive manner necessary as determined by the UFMD, DPWES. A replanting plan shall be developed and implemented, subject to approval by the UFMD, DPWES, for any areas protected by the limits of clearing and grading that must be disturbed for such utilities. Any trees impacted within the limits of clearing and grading as specified above shall be replaced on the site as determined by UFMD.
33. Tree Preservation. The applicant shall submit a Tree Preservation Plan and Narrative as part of the first and all subsequent site plan submissions. The preservation plan and narrative shall be prepared by a Certified Arborist, a Registered Consulting Arborist or a Professional Landscape Architect, and shall be subject to the review and approval of the UFMD. The tree preservation plan shall include a tree inventory that identifies the

location, species, critical root zone, size, crown spread and condition analysis percentage rating for individual trees, living or dead, with trunks 12 inches in diameter and greater (measured at 4 ½ -feet from the base of the trunk or as otherwise allowed in the latest edition of the Guide for Plant Appraisal published by the International Society of Arboriculture) and with 25 feet to both sides of the proposed limits of clearing and grading. The tree preservation plan shall provide for the preservation of those areas shown for tree preservation, those areas outside of the limits of disturbance shown on the CDP/FDP and those additional areas in which trees can be preserved as a result of final engineering. The tree preservation plan and narrative shall include all items specified in PFM 12-0507 and 12-0509. Specific tree preservation activities that will maximize the survivability of any tree identified to be preserved, such as: crown pruning, root pruning, mulching, fertilization, and others as necessary, determined by the certified arborist shall be included in the plan.

34. Tree Preservation Walk-Through. The Applicant shall retain the services of a certified arborist, a Registered Consulting Arborist or a Professional Landscape Architect, and shall have the limits of clearing and grading marked with a continuous line of flagging prior to the walk-through meeting. During the tree-preservation walk-through meeting, the Applicant's certified arborist or landscape architect or designated representative shall walk the limits of clearing and grading with an UFMD, DPWES, representative to determine where adjustments to the clearing limits can be made to increase the area of tree preservation, increasing the survivability of trees at the edge of the limits of clearing and grading, and such adjustment shall be implemented. Trees that are identified as dead or dying may be removed as part of the clearing operation. Any tree that is so designated shall be removed using a chain saw and such removal shall be accomplished in a manner that avoids damage to surrounding trees and associated understory vegetation. If a stump must be removed, this shall be done using a stump-grinding machine in a manner causing as little disturbance as possible to adjacent trees and associated understory vegetation and soil conditions.
35. Tree Preservation Fencing. All trees shown to be preserved on the tree preservation plan shall be protected by tree protection fence. Tree protection fencing in the form of four (4) foot high, fourteen (14) gauge welded wire attached to six (6) foot steel posts driven eighteen (18) inches into the ground and placed no further than ten (10) feet apart or, super silt fence to the extent that required trenching for super silt fence is done per the root pruning guidelines contained in these proffers. Fencing shall be erected at the limits of clearing and grading as shown on the demolition, and phase I & II erosion and sediment control sheets.

All tree protection fencing shall be installed after the tree preservation walk-through meeting but prior to any clearing and grading activities, including the demolition of any existing structures. The installation of all tree protection fencing shall be performed under the supervision of a certified arborist or professional landscape architect, and accomplished in a manner that does not harm existing vegetation that is to be preserved. Three (3) days prior to the commencement of any clearing, grading or demolition activities, but subsequent to the installation of the tree protection devices, the UFMD,

DPWES, shall be notified and given the opportunity to inspect the site to ensure that all tree protection devices have been correctly installed. If it is determined that the fencing has not been installed correctly, no grading or construction activities shall occur until the fencing is installed correctly, as determined by the UFMD, DPWES.

36. Root Pruning. The Applicant shall root prune, as needed to comply with the tree preservation requirements of these proffers. Root pruning shall be clearly identified, labeled, and detailed on the erosion and sediment control sheets of the site plan submission. Root pruning shall be accomplished in a manner that protects affected and adjacent vegetation to be preserved, and may include, but not be limited to the following:
- Root pruning shall be done with a trencher or vibratory plow to a minimum depth of 18 inches.
 - Root pruning shall take place prior to any clearing and grading, or demolition of structures and in conjunction with the installation of all super silt fence being used as tree protection fence.
 - Root pruning shall be conducted with the supervision of a certified arborist.
 - An UFMD, DPWES, representative shall be informed when all root pruning and tree protection fence installation is complete.
37. Tree Appraisal. The Applicant shall retain a certified arborist or professional landscape architect, to determine the replacement value of all trees 12 inches in diameter or greater located on the Application Property that are inventoried to be saved 25 feet to both sides of the proposed limits of clearing and grading, as shown on the Tree Preservation Plan. These trees and their value shall be identified on the Tree Preservation Plan at the time of the first submission of the respective site plan(s). The replacement value shall take into consideration the age, size and condition of these trees and shall be determined by the so-called "Trunk Formula Method" contained in the latest edition of the Guide for Plan Appraisal published by the International Society of Arboriculture, subject to review and approval by UFMD.

At the time of the respective site plan approvals, the Applicant shall post a cash bond or a letter of credit payable to the County of Fairfax to ensure preservation and/or replacement of the trees for which a tree value has been determined in accordance with the paragraph above (the "Bonded Trees") that die or are dying due to unauthorized construction activities. The letter of credit or cash deposit shall be equal to 50% of the replacement value of the Bonded Trees. At any time prior to final bond release for the improvements on the Application Property constructed adjacent to the respective tree save areas, should any Bonded Trees die, be removed, or are determined to be dying by the project arborist and/or UFMD due to unauthorized construction activities, the Applicant shall replace such trees at its expense. The replacement of the trees shall be determined by the Fairfax County Public Facilities Manual and by UFMD. Upon release of the bond for the improvements on the Application Property constructed adjacent to the respective tree save areas, any amount remaining in the tree bonds required by this proffer shall be returned/released to the Applicant.

38. Site Monitoring. During any clearing or tree/vegetation/structure removal on the Applicant Property, a representative of the Applicant shall be present to monitor the process and ensure that the activities are conducted as conditioned and as approved by the UFMD. The Applicant shall retain the services of a certified arborist, a Registered Consulting Arborist, or a Professional Landscape Architect to monitor all construction and demolition work and tree preservation efforts in order to ensure conformance with all tree preservation development conditions, and UFMD approvals. The monitoring schedule shall be described and detailed in the Landscaping and Tree Preservation Plan, and reviewed and approved by the UFMD, DPWES.
39. Demolition of Existing Structures. The demolition of all existing features and structures within areas protected by the limits of clearing and grading shown on the CDP/FDP shall be done by hand without heavy equipment and conducted in a manner that does not impact individual trees and/or groups of trees that are to be preserved as reviewed and approved by the UFMD.
40. Stormwater Management Facilities and Best Management Practices It is the Applicant's intent to submit the Subdivision Plan using the technical criteria as defined in Article 5 of Chapter 124 of the Code of the County of Fairfax and in accordance with Article 6 of the PFM in effect on June 30, 2014 for stormwater management and Best Management Practices while reserving the right to comply with the current technical criteria adopted July 1, 2014. Thus, unless waived or modified, stormwater management shall be provided as generally depicted on the CDP/FDP and as approved by DPWES. SWM/BMP measures may include enhanced extended detention pond(s), bio-retention areas, grassed swales, vegetated swales and porous pavers. Enhanced extended detention ponds shall be planted with the maximum quantity of plants permitted under the applicable regulations. Water quality improvements shall be designed to achieve a minimum of 41% phosphorus removal efficiency. The requirements for maintaining non-County maintained SWM improvements shall be in a standard maintenance agreement between the County and the Applicant who is the land owner, its successor and assigns. This agreement shall be recorded in the County land records and run with the land. Should any deficiencies in the existing SWM or BMP facilities/improvements be identified by the Stormwater Management Maintenance Division during regular inspections, or when investigating a drainage complaint, then maintenance shall be performed in reasonable fashion and time in accordance with the recorded maintenance agreement. Should future County policy permit all or part of the SWM facilities on the Property to be eligible for County Maintenance, then the Applicant or the successor homeowner's association may request County maintenance for eligible facilities.
41. Phase II Environmental Site Assessment. The Applicant shall complete a Phase II environmental investigation. The Applicant shall provide copies of the Phase II environmental site assessment to DPWES concurrent with subdivision plan submission. If contamination is found in ground water, surface water or soil on the Property, the Applicant shall take such corrective actions to remediate such contamination as required by and in accordance with all applicable Federal, State and County requirements and on-going mediation and monitoring shall be provided to ensure eradication of all

contamination if such is required by the applicable Federal, State and County requirements.

42. Invasive Species Management. As part of the first and all subsequent subdivision plan submissions, an invasive and undesirable vegetation management plan shall be developed that provides for the management and treatment of invasive and undesirable plants, growing in all areas shown to be preserved, that are likely to endanger the long-term ecological functionality, health, and regenerative capacity of the early successional forest communities, for review and approval by the Urban Forest Management Division. The management plan shall incorporate the following elements and shall be implemented as noted:

- Identify targeted invasive plant species to be suppressed and managed.
- Identify targeted area of invasive plant management plan, which shall be clearly identified on the landscape or tree preservation plan.
- Recommended government and industry method(s) of management, i.e. hand removal, mechanical equipment, chemical control, other. Identify potential impacts of recommended method(s) on surrounding trees and vegetation not targeted for suppression/management and identify how these trees and vegetation will be protected. For example, if mechanical equipment is proposed in save area, identify impacts on trees identified for preservation and indicate how these impacts be reduced.
- Identify how targeted species will be disposed.
- If chemical control is recommended, treatments shall be performed by or under direct supervision of a Virginia Certified Pesticide Applicator or Registered Technician and under the general supervision of Project Arborist.
- Provide information regarding timing of treatments, (hand removal, mechanical equipment or chemical treatments) such as when will treatments begin and end during a season and proposed frequency of treatments per season.
- Identify potential areas of reforestation and provide recommendation.
- Monthly monitoring reports provided to UFMD and SDID staff.
- Duration of Invasive program; until Bond release or release of Conservation Deposit or prior to release if targeted plant(s) appear to be eliminated based on documentation provided by Project Arborist and an inspection by UFMD staff.

IV. CONTRIBUTIONS

43. Housing Trust Fund. At the time of the first building permit issuance, the Applicant shall contribute a sum equal to one-half of one percent (0.5%) of the projected sales price for each dwelling unit on the Property to the Fairfax County Housing Trust Fund, as determined by the Department of Housing and Community Development in consultation with the Applicant to assist the County in its goal to provide affordable dwellings. The projected sales price shall be based upon the aggregate sales price of all of the units, as if those units were sold at the time of the issuance of the first building permit and is estimated through comparable sales of similar type units.

44. Recreation Contribution. At the time of subdivision approval, the Applicant shall contribute the sum of \$116,983 to the Fairfax County Park Authority for use at off-site recreational facilities intended to serve the future residents of the Braddock District, as determined by the Fairfax County Park Authority in consultation with the Braddock District Supervisor.
45. Recreation Facilities. Pursuant to Section 6-409 of the Zoning Ordinance, the Applicant shall provide recreational facilities to serve the Property as shown on the CDP/FDP. At the time of subdivision review, the Applicant shall demonstrate that the value of all proposed recreational amenities are equivalent to a minimum of \$1,700 per unit. In the event it is demonstrated that the proposed facilities do not have sufficient value, the Applicant shall contribute funds in the amount needed to achieve the overall proffered amount of \$1,700 per unit to the FCPA for off-site recreational facilities intended to serve the future residents within Braddock District.
46. Public Schools. A contribution of \$10,825 per projected student for the total number of units constructed, based on methodology for calculating the number of students outlined by the Office of Facilities Planning Services, Fairfax County Public Schools, shall be made to the Board of Supervisors for transfer to Fairfax County Public Schools (FCPS) and designated for capital improvements at the public schools serving the development. The contribution shall be made at the time of, or prior to, subdivision plan approval. Following approval of this Application and prior to the Applicant's payment of the amount set forth in this Proffer, if Fairfax County should increase the ratio of students per unit or the amount of the contribution per student, the Applicant shall increase the amount of the contribution for that phase of development to reflect the then-current contribution. In addition, notification shall be given to FCPS when construction is anticipated to commence to assist FCPS by allowing for the timely projection of future students as a part of the Capital Improvement Program.
47. Fairfax Center Area ("FCA") Road Fund. At the time of final subdivision plan approval, the Applicant shall contribute \$1,285.00 per dwelling unit to the FCA Road Fund in accordance with the Procedural Guidelines adopted by the Board of Supervisors on November 22, 1982, as amended, subject to credit for all creditable expenses as determined by Fairfax County Department of Transportation and/or DPWES.
48. Escalation. All monetary contributions required by these proffers, with the exception of the proffer relating to the Housing Trust Fund and the proffer relating to the public school contribution, shall escalate on a yearly basis from the base year of 2014, and change effective each January 1 thereafter, based on the Consumer Price Index as published by the Bureau of Labor Statistics, the U.S. Department of Labor for the Washington-Baltimore, MD-VA-DC-WV Consolidated Metropolitan Statistical Area (the "CPI"), as permitted by Virginia State Code Section 15.2-2303.3.

Successors and Assigns

These proffers shall bind and inure to the benefit of the Applicant and his/her successors and assigns.

Counterparts

These proffers may be executed in one or more counterparts, each of which when so executed and delivered shall be deemed an original document and all of which taken together shall constitute but one and the same instrument.

TITLE OWNERS AND APPLICANTS SIGNATURES TO FOLLOW ON THE NEXT PAGE:

Lonardelli Joint Venture, LLC

By: _____

Printed Name: Peter Lonardelli, by Wanda L. McCoy, as attorney-in-fact for Peter Lonardelli

Title: Managing Member
Owner of 56-2((1))54

Seung K. Hong,
Trustee, pursuant to Section 55-17.1 of the Code of Virginia

Name _____
Owner of 56-2((1))55

Forest Hill Joint Venture LLC

By: _____

Printed Name: Peter Lonardelli, by Wanda L. McCoy, as attorney-in-fact for Peter Lonardelli

Title: Managing Member
Owner of 56-2((1))57, 58 and 59

Garden World RE, LLC

By: _____

Printed Name: Peter Lonardelli, by Wanda L. McCoy, as attorney-in-fact for Peter Lonardelli

Title: Managing Member
Owner of 56-2((4))1

NVR, Inc.

By: _____

Printed Name _____

Title _____
Contract Purchaser of 56-2((4))1; 56-2((1))54, 55,
57, 58, 59,

PROPOSED DEVELOPMENT CONDITIONS
FDP 2014-BR-007
October 22, 2014

If it is the intent of the Planning Commission to approve FDP 2014-BR-007, located on the south side of Lee Highway, approximately 400 feet west of its intersection with Shirley Gate Road, in conjunction with the rezoning of Tax Parcels 56-2((1))-54,55,57, 58, 59 and 56-2((4))-1, from R-1 to the PDH-3 District, pursuant to Sect. 16-402 of the Fairfax County Zoning Ordinance, staff recommends that the Commission condition the approval by requiring conformance with the following development conditions:

1. Any building permit submitted pursuant to this Final Development Plan (FDP) shall be in substantial conformance with the approved CDP\FDP Plan entitled "Forest Ridge", consisting of seventeen sheets and prepared by Urban, Ltd., which is dated October 25, 2013, as revised through October 17, 2014, and these conditions. Minor modifications to the approved FDP may be permitted pursuant to Par. 4 of Sect. 9-004 of the Zoning Ordinance.
2. The landscaped HOA open space located along the periphery boundaries of the site that adjoin the Deerfield Forest Subdivision, shall be designed in a manner which maximizes the preservation of existing vegetation, both on and off-site. At the time of subdivision plan review, supplemental vegetation shall be field-located and mutually agreed upon by the project Landscape Architect and UFMD. Sizes and amounts of proposed planting materials shall be varied to promote the incorporation of existing vegetation to achieve a naturalized landscape appearance designed to soften, but not fully screen, the boundary of the proposed development from existing residential properties. If it is determined to be desirable to locate additional plantings on neighboring properties to better achieve this effect (subject to receiving the necessary written permission of the impacted property owners), any off-site plantings may be considered as part of the satisfaction of this condition.
3. The proposed active and passive recreational amenity areas identified on the CDP/FDP shall be landscaped in substantial conformance with the refined amenity plan details attached as Exhibits 10 and 10a to these conditions. These areas shall contain a mixture of landscape materials, both vegetative and hardscape, to achieve the function of the details depicted in the Exhibits. Specific amenity features (such as benches, picnic tables, grills, play equipment, game tables, and similar features) may vary for each particular area, as long as the intended character of the area is achieved (i.e. an active playground may not be substituted for a passive picnic area), in order to maintain the overall quality and range of recreational opportunities provided by the development.

On-site trails shall be located generally as depicted on the CDP/FDP, but the final location shall be field-located, as agreed upon by the project Landscape Architect and UFMD, as part of the landscaped open space design discussed in Development Condition 2. These conditions shall not be interpreted to limit the

number of amenity features. Additional amenity features may be added by either the initial developer and/or subsequent HOA, provided they remain consistent with the character of the amenity area and do not encroach upon limits of clearing or landscaped areas.

4. The enhanced stormwater management ponds depicted on the CDP/FDP shall be designed to maximize aesthetic appeal, and shall incorporate, where feasible, features such as peripheral landscaping, trails and/or seating areas, to enhance the role of these ponds in the overall open space program of the community. The pond located at the intersection of Route 29 and Forest Hill Drive shall incorporate such additional landscape materials, as determined necessary by UFMD, to effectively buffer the visual impact of the proposed noise wall from the intersection.

At the time of subdivision plan review, the project Landscape Architect and UFMD shall evaluate the final SWM/BMP designs to determine if there are additional opportunities for preservation of quality trees in the vicinity of these facilities. All reasonable methods to preserve such trees shall be employed. If it is determined that any of the proposed BMP locations, as depicted on the CDP/FDP, are not required to be utilized to achieve necessary BMP credits, then those areas shall also be included as tree preservation and/or landscape areas, as approved by UFMD.

5. Cross-section(s) and design details of the proposed noise wall (to be located to the rear of units 1-4), shall be submitted to the Planning Commission for review and approval prior to final subdivision approval, to ensure that the design of the noise wall is integrated into the design of the development as a feature which complements the residential design, as proffered.
6. Entry signage shall be limited to a maximum of one sign, at any one of the three sites indicated on the CDP/FDP or proffers.
7. In order to reduce interior noise to a level of no more than 45 dBA Ldn for Residential Units that are projected to be impacted by noise greater than 70 dBA Ldn (but not more than 75 dBA Ldn) the Applicant shall employ the following acoustical treatment measures for lots within the highway noise impact zone of 70-75 dBA Ldn:
 - A. Exterior walls shall have a laboratory sound transmission class ("STC") rating of at least 45;
 - B. Doors and glazing shall have a laboratory STC rating of at least 37 unless glazing constitutes more than 20% of any facade exposed to noise levels of Ldn 70 dBA or above;
 - C. If glazing constitutes more than 20% of an exposed facade, then the glazing shall have a laboratory STC rating of at least 45; and
 - D. All surfaces shall be sealed and caulked in accordance with methods approved by the American Society for Testing and Materials ("ASTM") to minimize sound transmission

The above proposed conditions are staff recommendations and do not reflect the position of the Planning Commission unless and until adopted by that Commission.

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 himself responsible for obtaining the required Building Permits through established procedures.



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Client

Revision / Issue No.	Description	Date
1.	DPZ Acceptance	10/25/13
2.	First Submission	02/11/14
3.	Second Submission	07/01/14
4.	Third Submission	09/12/14
5.	Fourth Submission	10/17/14

Issue Date Description

Project Name

FOREST RIDGE

CDP/FDP

Braddock District
Fairfax County, Virginia

Drawn By JL Checked By AHH / DTM

Project No. ZP-2137

Date SEPTEMBER 12, 2014

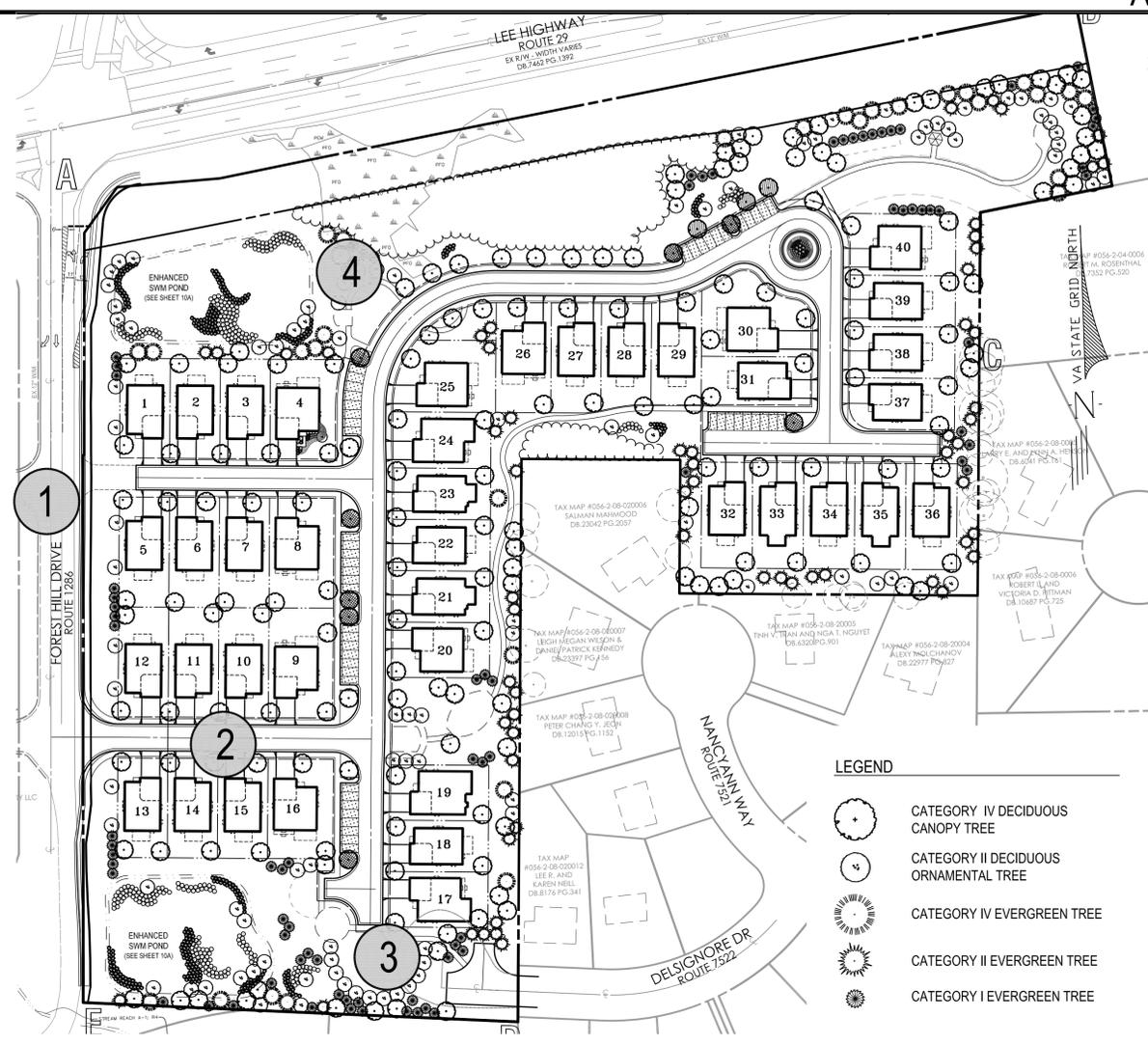
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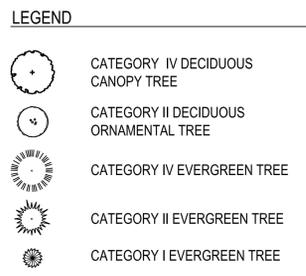
Drawing Number

10

Sheet 10 of 15

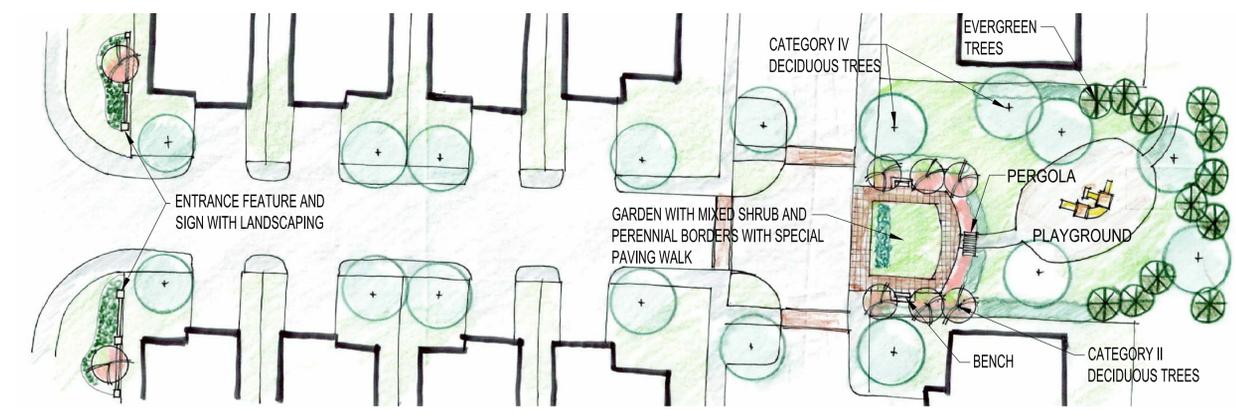


CONTEXT MAP
N.T.S.

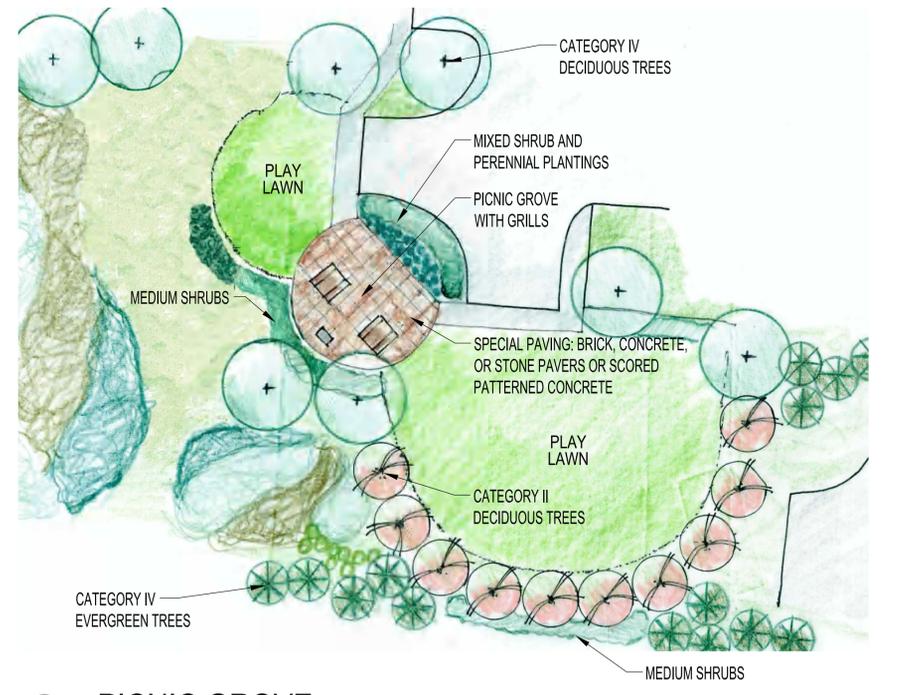


4 MICRO PARK
N.T.S.

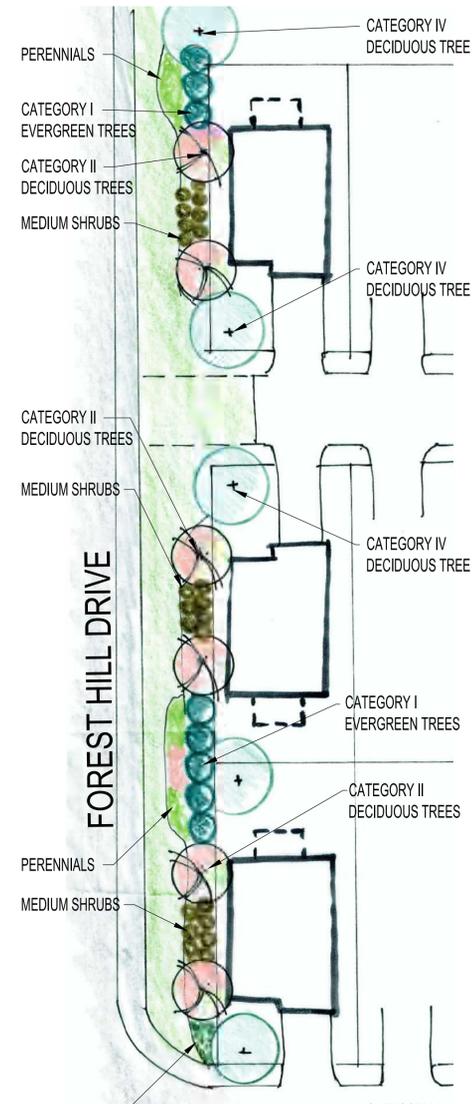
THESE RENDERINGS ARE CONCEPTUAL AND REPRESENT THE GENERAL APPEARANCE, QUALITY OF DESIGN AND MATERIALS PROPOSED. REFINEMENT AND REVISION MAY OCCUR WITH FINAL DESIGN DEVELOPMENT AND ENGINEERING. WALKWAY AND SIDEWALK MATERIAL MAY BE BRICK, CONCRETE, ASPHALT, OR STAMPED ASPHALT. FINAL LOCATION OF ELEMENTS INCLUDING PLANT MATERIAL, SITE FURNITURE AND PAVING MAY BE ADJUSTED SUBJECT TO TOPOGRAPHY, LOCATION OF UTILITIES AND OTHER ENGINEERING CONSTRAINTS.



2 ENTRANCE + TOT LOT
N.T.S.



3 PICNIC GROVE
N.T.S.



1 FOREST HILL DRIVE STREETSCAPE
N.T.S.

THIS SHEET FOR ILLUSTRATIVE PURPOSES ONLY

Urban, Ltd. - L:\Jobs\GardenWorld-Hong (Lee Hwy Assemblage)\Vegetation\Exhibits\10-Amenities.dwg [Illustrative] October 23, 2014 - 10:18am lburdien

PROFFER EXHIBIT - 10/23/2014



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Client

Revision / Issue		
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Project No. ZP-2137

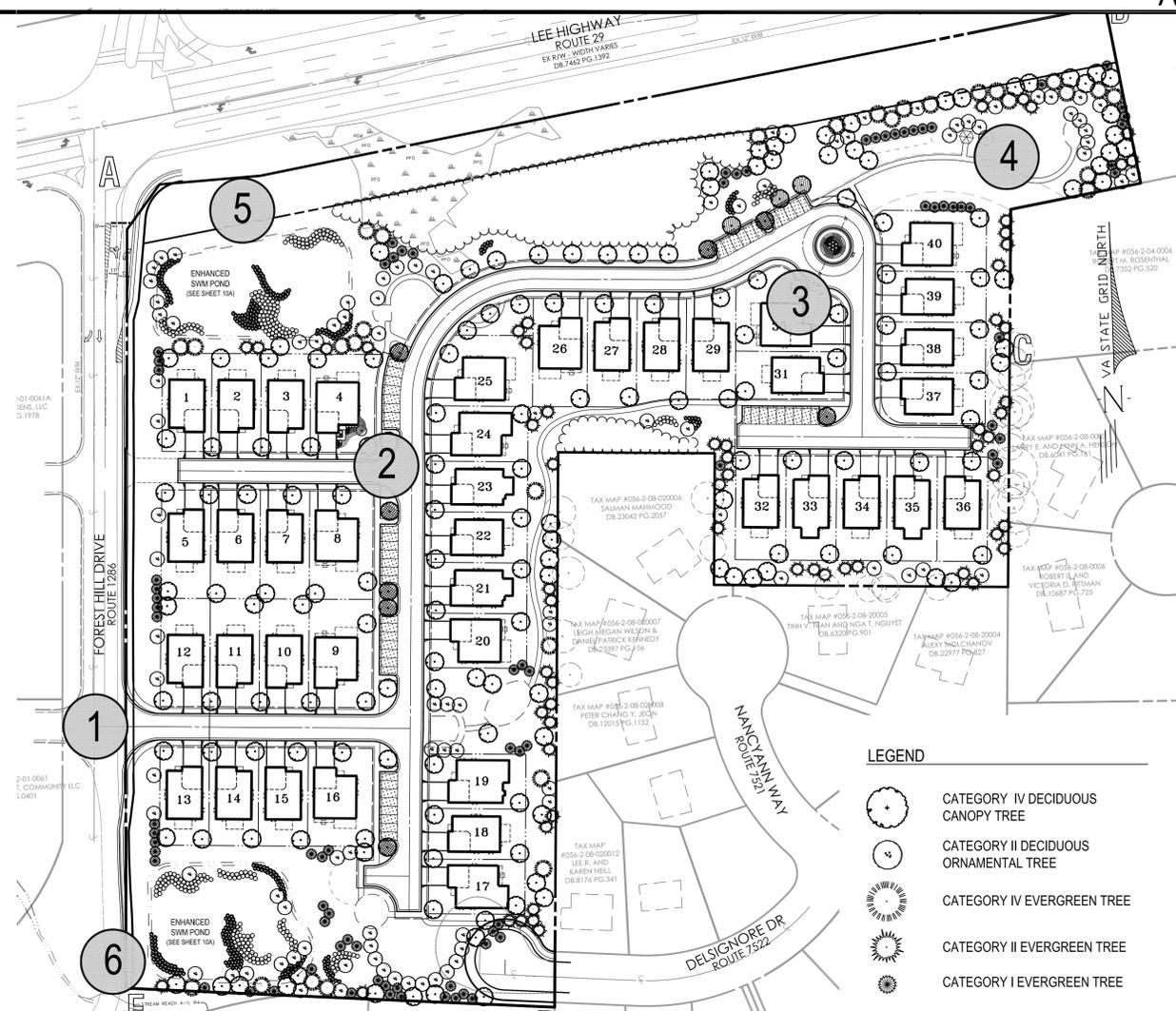
Date: SEPTEMBER 12, 2014

Drawing Title
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Scale: 1"=50'

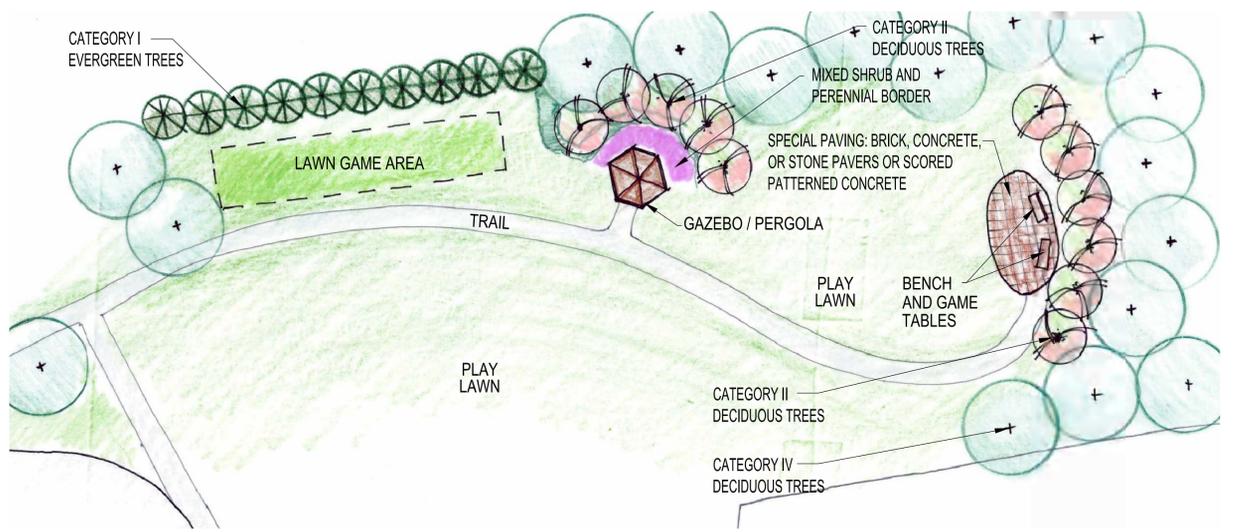
Drawing Number

10A
Sheet 10A of 15



- LEGEND**
- CATEGORY IV DECIDUOUS CANOPY TREE
 - CATEGORY II DECIDUOUS ORNAMENTAL TREE
 - CATEGORY IV EVERGREEN TREE
 - CATEGORY II EVERGREEN TREE
 - CATEGORY I EVERGREEN TREE

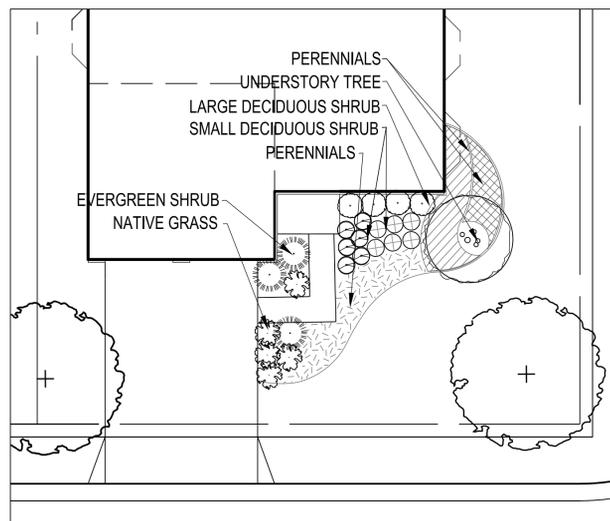
CONTEXT MAP
N.T.S.



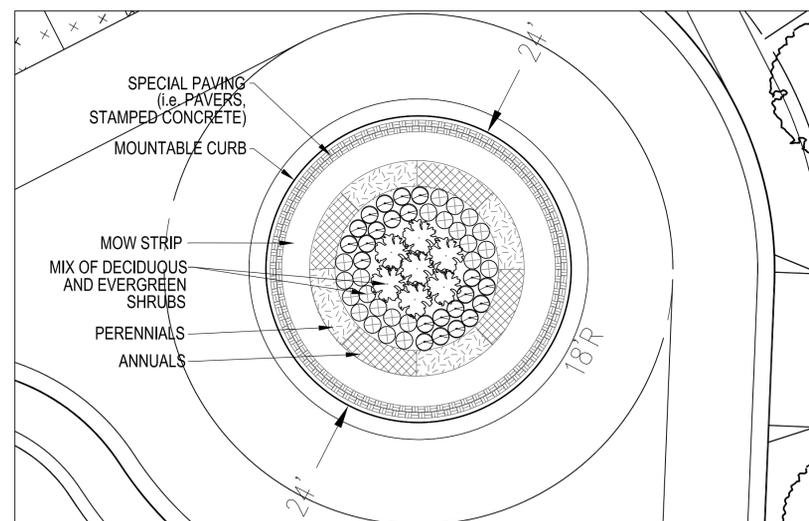
4 OPEN PLAY AREA
N.T.S.

THESE RENDERINGS ARE CONCEPTUAL AND REPRESENT THE GENERAL APPEARANCE, QUALITY OF DESIGN AND MATERIALS PROPOSED. REFINEMENT AND REVISION MAY OCCUR WITH FINAL DESIGN DEVELOPMENT AND ENGINEERING. WALKWAY AND SIDEWALK MATERIAL MAY BE BRICK, CONCRETE, ASPHALT, OR STAMPED ASPHALT. FINAL LOCATION OF ELEMENTS INCLUDING PLANT MATERIAL, SITE FURNITURE AND PAVING MAY BE ADJUSTED SUBJECT TO TOPOGRAPHY, LOCATION OF UTILITIES AND OTHER ENGINEERING CONSTRAINTS.

THIS SHEET FOR ILLUSTRATIVE PURPOSES ONLY



2 TYPICAL FRONT YARD LANDSCAPING
1"=10'



3 ROUNDABOUT PLANTING
1"=10'



5 ENHANCED SWM POND
N.T.S.



6 ENHANCED SWM POND
N.T.S.

Urban, Ltd. - L:\Jobs\CardenWorld-Hong (Lee Hwy Assemblage)\Zoning\Exhibits\10-Amenities.dwg Illustrative (2) October 23, 2014 - 11:19am Iburden

PROFFER EXHIBIT - 10/23/2014 ZP-2137

NARRATIVE STATEMENT OF JUSTIFICATION

For the
Garden World/Hong Properties
Rezoning Application
Tax Map 56-2 ((1)) 54, 55, 57, 58, and 59 and
Tax Map 56-2 ((4)) 1

February 11, 2014
Revised September 12, 2014

INTRODUCTION AND OVERVIEW

The subject application is filed on behalf of NVR, Inc. (the “Applicant”). The application request is to rezone 13.8791 acres of property (the “Property”) from the R-1 Zoning District to the PDH-3 Zoning District. The proposal is to develop the Property with 40 single-family detached dwellings at a density of 2.88 dwelling units per acre (du/ac). The Property consists of six different parcels identified as Tax Maps 56-2 ((1)) 54, 55, 57, 58, and 59 and 56-2 ((4))-1. The Property is located on the south side of Route 29/Lee Highway approximately 400 feet west of the intersection of Lee Highway and Shirley Gate Road.

BACKGROUND

This Property is currently zoned in the R-1 district and is presently being used as a wholesale and retail nursery operation and a vacant lot. The application was originally filed in February of 2014 and this revised statement will describe the significant changes that have been made to the application during the zoning review process.

COMPLIANCE WITH COMPREHENSIVE PLAN

The Property is in the Braddock Planning District, V1- Fairfax Center Area Planning Sector. The relevant Plan language recommends residential development at a density of 3 dwelling units per acre at the overlay level. The Applicant decreased the proposed density from the original 2.95 du/ac to 2.88 du/ac in order to provide additional open space, additional guest parking and a better layout. The proposed density is below the maximum allowed in the adopted Comprehensive Plan.

Fairfax Center Development Elements

Pursuant to the Plan language adopted for the Fairfax Center area, this proposal satisfies the relevant elements for development at the overlay level and meets the performance criteria for residential/single family detached housing. A detailed table describing the application’s conformance with the Fairfax Center Development Elements follows.

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<i>Element</i>	<i>Comment</i>	<i>Applicability</i>
BASIC DEVELOPMENT ELEMENTS		
<u>Transportation</u>		
Roadways	Dedication for Rt. 29 widening project as well as land for the planned interchange is provided	
Transit		N/A
Non-motorized Transportation	Sidewalks are provided within the development as well as trails through the open space; pedestrian connection provided to Delsignore Drive to allow residents to the east to access Forest Hill Drive to Rt. 29	
<u>Environmental Systems</u>		
EQC		N/A
SWM	Extended enhanced stormwater management ponds (2) are provided. Additional bio-retention facilities are also provided within the development.	
Preservation of Natural Features as supplement to EQCs: quality vegetation, natural landforms, minimum disturbance		N/A
Mitigation of highway noise	Commitment to exterior and interior noise mitigation through proffers as determined necessary by noise study; Dwellings setback from Lee Highway to minimize noise impacts with road between dwelling and highway.	
Siting roads/buildings for increased energy conservation	At least 62% of the homes are oriented in a north/south direction, maximizing the extent of glass oriented to the sun. Commitments to energy efficient measures through a third party certification program are included in the proffers.	
Landscaping	Exceptional attention has been paid to buffering adjacent uses - Buffer strips between 20 and 30 feet are provided around site; open space areas will be well landscaped and are strategically placed to create pleasant viewsheds; landscaping is planned within the detention ponds to create attractive community areas. The minimum tree cover requirement is exceeded.	
<u>Public Facilities</u>		
Stream Valley Park Dedication		N/A

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Element	Comment	Applicability
Public Facility Site dedication – schools, fire, police		N/A
<u>Land Use/Site Planning</u>		
Coordinated Ped and vehicle circulation	Sidewalks are provided throughout the development along the roadways and a sidewalk will be provided along Forest Hill Drive; trails are provided within the open space areas	
Infrastructure phased to development	Appropriate transportation improvements and utilities will be provided commensurate with the level of development	
Appropriate transitional land uses		N/A
Preservation of historic resources		N/A
<u>Detailed Design</u>		
Site entry zone	Entry features – signage, lighting and landscaping will be provided; typicals are shown on the plan	
Street Furnishings	Benches, trash receptacles and other open space elements will be coordinated throughout the development	
MINOR DEVELOPMENT ELEMENTS		
<u>Transportation</u>		
Roadways	Dedication for Rt. 29 widening project and reservation of land for the planned interchange is provided. Interparcel access to the property to the east is shown provided that parcel develops with residential uses.	
Transit		N/A
Nonmotorized Transportation	Sidewalks are provided within the development; pedestrian connection provided to Delsignore Drive to allow residents to the east to access Forest Hill Drive to Rt. 29.	
Transportation Strategies		N/A
<u>Environmental Systems</u>		
Increased Open Space	Almost double the amount of required open space is provided in the development (36%)	
Protection of Ground Water Resources		N/A
SWM	It is anticipated that the proposed BMP system will provide a phosphorus rate in excess of the minimum requirements.	

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Element	Comment	Applicability
Public Facilities		
Park Dedication		N/A
Public Facility Site Dedication		N/A
Land Use/Site Planning		
Parcel Consolidation	This application accomplishes significant consolidation of 6 parcels and eliminates existing access points on Rt. 29.	
Low/Mod Income	A commitment to the Housing Trust Fund is included in the proffers.	
Mixed use Plan		N/A
Detailed Design		
Building Entry Zone	Entry features – signage, lighting and landscaping will be provided to create an appropriate entrance to the community. Individual homes will be landscaped to create a curb appeal appropriate to the high quality of the homes	
Structures	Commitments to high quality and varied architectural materials as well as the concept of varied rear elevations is included in the proffers. Commitments to energy efficient measures through a third party certification program are included in the proffers.	
Parking	Parking well in excess of the Ordinance requirements is provided.	
Other	Three separate major open space areas/community gathering areas, as well as extensive landscaping within the stormwater ponds and other areas on site are provided.	
MAJOR DEVELOPMENT ELEMENTS		
Transportation		
Roadways	In addition to the dedication provided and although not required to mitigate traffic impact, the applicant is committing to construct a right turn lane on Forest Hill and provide frontage improvements along Forest Hill as well as contribute to the Fairfax Center Road fund.	
Transit		N/A
Transportation Strategies		N/A

Element	Comment	Applicability
Nonmotorized Circulation of high volume roadways such as a grade separated interchange	Sidewalks are provided within the development; pedestrian connection provided to Delsignore Drive to allow residents to the east to access Forest Hill Drive to Rt. 29. A grade separated interchange is not planned at Forest Hill Drive and Rt. 29.	
<u>Environmental Systems</u>		
Innovative Techniques	The applicant proposes to include electric charging stations in strategic locations in the parking space areas for electric cars. While there are no significant environmental site features on the property such as EQC, the plan does propose almost double the amount of required open space and the open space provided is either in tree save areas or proposed to be heavily landscaped. Electric vehicle charging station(s) will also be provided.	
<u>Provision of Public Facilities</u>		
Park Dedication	A per dwelling contribution as well as a usage contribution is provided to the Park Authority.	
Public Indoor or Outdoor Spaces	Several separate open space areas with passive/active uses are provided in the development. Most of the open space areas are connected with trails. Open space of 30% far exceeds the Ordinance minimum.	
<u>Site Planning and Design</u>		
Extraordinary Innovation	The revised plan increases the buffer area around the site from 20 feet to 30+ feet in some areas. Those areas will be extensively landscaped with native species in consultation with the arborist. Street design incorporates pocket landscaped areas and the main open space areas have been purposely located to provide a positive visual experience when traveling the internal roadways. The minimum tree cover requirement is also exceeded.	
Detailed Site Design	See above for site design details.	

Use-Specific Performance Criteria

The Fairfax Center area language also provides use-specific guidance for residential development in terms of site planning, architectural design and landscape architectural design.

- **Site Planning.** In terms of the criteria listed for site planning, the property is as integrated with the existing and future land uses as possible given that it represents a significant consolidation of almost of the possible developable lots in the area. Interparcel access is provided for the one lot to the east which is not included in the project. The revised plan shows significantly more pedestrian linkages within the development. Potential highway noise is considered with the setbacks of the homes and the proffer related to noise attenuation. Energy conservation is also included in the proffers. Sensitivity has been shown in the road layout/design by creating viewsheds of open space along the streets and avoiding any long straight streets. Open space amenities are fully integrated into the design and substantial buffers are provided to adjacent homes. The stormwater detention areas have been revised to become open space amenity areas with landscaping.
- **Architectural Design.** Attention has been given to both front and rear elevations to provide variety and this concept has been included as a proffer. High quality building materials will be utilized.
- **Landscape Architectural Design.** The revised plan provides significantly more landscaping in the increased community open spaces, fringe areas of tree save, the buffer areas, the smaller pocket park areas, around the entrance to the community, on the individual lots and along the streetscape of the internal roadways. All landscaping will be of a native species. The entry feature/sign will be well designed (typical shown on the CDP/FDP) and it will be well landscaped. Site furnishings such as benches and trash receptacles will be coordinated in design.

Compliance with Residential Development Criteria

For the reasons stated below, the subject rezoning complies with the applicable Residential Development Criteria contained in Appendix 9 of the Land Use Element of the Policy Plan. Specific compliance with the Criteria is as follows:

Site Design

Consolidation. The application presents a significant consolidation of land within this important corridor in Fairfax County.

Layout. The proposed layout has been revised significantly to address issues related to tree preservation, buffering, viewsheds from outside and from within the development and interparcel access. This results in a logical, cohesive, and functional development which embodies the elements of a planned community as discussed with the Planned District standards below. The revised layout also provides appropriate relationships with the adjoining existing residential

development through the use of buffers, which have been increased in width and extensively landscaped during the review process, and the use of varied rear architectural treatments.

Open Space. All of the units will be designed to have usable private rear yards. In addition, the revised plan significantly increases the amount of community open space from 20% to 36%, well above the minimum required.

Landscaping. The revised plan focuses extensively on landscaping of the community open spaces, fringe areas of tree save, buffer areas, smaller pocket park areas, around the entrance to the community, and on the individual lots. All landscaping will be of a native species.

Amenities. The revised plan shows appreciably more amenity areas for the residents in three separate areas of the community. These areas are connected by trails within the areas and the sidewalks along the private road.

Neighborhood Context

The property is bounded to the north by Route 29, to the west by Forest Hill Drive and the Woodlands Independent and Assisted Living facilities, to the south by the Deerfield Forest and Shirley Gate Estates communities and to the west by C-6 property. The Deerfield Forest and Shirley Gate Estates communities are existing neighborhoods with single family detached housing. The revised plan increases the buffer area around the periphery of the site from 20 feet to between 20 and 30 feet. This provides a similar (and greater in most areas) building setback than would be realized in a conventional R-3 subdivision which obviously, also, would not have any open space buffer.

Environment.

Preservation: There are no scenic assets or natural features deserving of preservation on the property.

Slopes and Soils: The slopes and soils on the property are well suited for the proposed use.

Water Quality and Drainage: Stormwater management/Best Management Practices is being handled via extended enhanced dry ponds and bioretention facilities. The facilities have been reviewed by the County for compliance with applicable regulations.

Noise, Lighting: Since the property is being developed at the Comprehensive Plan density with the type of use envisioned in the Plan and due to the layout and buffering provided, the addition of these 40 homes should not create a noise or lighting issue for the existing residences in the area.

Energy: Through proffers, the Applicant will commit to comply with the energy efficiency guidelines of the International Building Code for energy efficient homes. Additionally, the Applicant is willing to commit to electric car charging station(s) within the guest parking area(s).

Tree Preservation and Tree Cover Requirements.

The revised plan shows an increased setback from the proposed Rt. 29 dedication line which is the area of the site where the significant tree save is desirable. While a deviation to the tree preservation target percentage is still necessary, the revised plan significantly increases the ability to save existing trees and reduces the amount of deviation requested. The minimum tree cover requirement is exceeded with the level of plantings proposed.

Transportation.

The proposed density is within the range recommended by the Comprehensive Plan. As a result, the transportation impacts will not exceed that anticipated in connection with the adoption of the Comprehensive Plan.

Given concerns raised by the neighbors regarding operation of the intersection of Rt. 29 and Forest Hill Drive, the Applicant has agreed to install a right turn lane from Forest Hill Drive onto Rt. 29 even though these improvements are not required to mitigate the level of traffic anticipated from the proposed development. Additionally, significant dedication for the ultimate configuration of Rt. 29 (separated grade interchange at Rt. 29 and Shirley Gate Road) has been provided. Interparcel access has been provided to the east near Rt. 29 provided the property to the east develops with residential uses.

Public Facilities.

Through proffers, the Applicant will commit to addressing impacts on public schools in accordance with the criteria and methodology adopted by the Board of Supervisors.

Affordable Housing.

At 40 single family dwelling units, the project is exempt from the Affordable Housing requirements. A commitment to provide a per unit contribution to the Affordable Housing Trust Fund is provided in the proffers.

Heritage Resources

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A Phase 1 archaeology report was completed which concluded that there are no significant historic resources on the property.

The proposed development conforms to the adopted Comprehensive Plan with respect to type, character and density of use.

COMPLIANCE WITH ZONING ORDINANCE STANDARDS

Section 16-101 General Standards

General Standard 1 states that the planned development shall substantially conform to the adopted comprehensive plan with respect to type, character, intensity of use and public facilities. Planned developments shall not exceed the density or intensity permitted by the adopted comprehensive plan, except as expressly permitted under the applicable density or intensity bonus provisions.

The Comprehensive Plan recommends residential use at 3 dwelling units per acre for the property at the overlay level and further recommends that infill development be compatible with the Deerfield Forest subdivision. For context, Deerfield Forest was rezoned to the R-3 District and developed in two sections in the late 70's. The two sections have densities of 2.54 and 2.63 with the latter developed under alternative density with several pipestem lots and open space located on the southern border adjacent to the Shirley Gates Estates subdivision.

Given that the pattern of development has changed since the 1970's, compatibility between older R-3 cluster subdivisions and current PDH developments often relies heavily on layout and buffering. The revised plan provides a layout and buffering that succeeds in creating a compatible environment in the following ways:

- The revised plan has eliminated the long rows of proposed houses bordering on the adjacent lots by shifting one of the amenity areas mid-block between Lots 19 and 20.
- The revised plan significantly increases the peripheral buffer areas. The rear buffer behind Lots 17 through 23 has increased from 20 feet in width to a minimum of 30 feet in width. The buffer behind Lots 32 through 36 has increased from 20 feet to 25 feet. The overall open space has increased to 36% when the requirement is only 20%.
- These buffer areas are now heavily planted with large and medium evergreen trees and large and small deciduous trees.
- Lots 32 through 40 have been broken up by rearranging the lots and eliminating the long street that previously served these lots. This also eliminates any potential headlight impact on the adjacent properties.

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- The pipestem drive originally shown serving Lot 17-19 was eliminated and converted to a street with a turn-around at the end which also provides more convenient access to a larger amenity area.
- The rear elevations of the houses along the periphery have also been refined to add projections – either one or two story depending on the option chosen. The Applicant is willing to commit to a “look alike” proffer to avoid a run of the same rear elevation within a given row of homes.

General Standard 2 states that the planned development shall be of such design that it will result in a development achieving the stated purpose and intent of the planned development district more than would development under a conventional zoning district.

Detached residential units at 2.88 dwelling units per acre could be achieved with R-3 conventional zoning, but a conventional R-3 district would not provide the flexibility needed to incorporate the open space, stormwater management, guest parking, and tree preservation shown on the CDP/FDP. Hence, the quality of the development would decline, as well as the level of compatibility with the adjacent subdivisions, as any buffering, as well as additional parking, an important element to the neighboring communities, would be eliminated. A conventional zoning district would provide no incentive and, in fact, has no requirement, to provide usable communal open space which is an important element for the surrounding communities also. This application proposes a high quality residential environment, well-designed communal spaces, efficient buffering, excess parking and high quality architecture design and materials which are typically offered in a P District in exchange for the flexibility in the bulk regulations. The revised plan utilizes the flexibility provided for by a P District further in that the open space amenity areas have been reworked as more of a visual amenity. The tot lot area and park between Lots 19 and 20 provides a positive viewshed for people entering the community off of Forest Hill Drive. Additionally, turning either right or left on that N/S street provides a view of two other open space/amenity areas. Further, rounding the curve near Rt. 29 provides a view of the fourth amenity area in the northeast corner of the property. The SWM/BMP ponds will be enhanced with vegetation so that they also become more of a visual amenity for the subdivision and the neighbors. The Applicant is also willing to proffer to electric charging stations in the various parking areas which would not be possible in a conventional subdivision with public streets.

General Standard 3 states that the planned development shall efficiently utilize the available land, and shall protect and preserve to the extent possible all scenic assets and natural features such as trees, streams and topographic features.

The applicant proposes to retain approximately 36 percent of the property as open space. Unfortunately, a large majority of the quality trees on the property are located within an area needed by VDOT for the ultimate Rt. 29 road section. This would be the case with a P District or a conventional development. The plan has been revised, however, to shift the limits of clearing and grading even farther away from this dedication line in order to

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preserve as many trees as possible. Parking has been reworked in this area so that additional plantings can be provided. Detailed proffers intended to protect and preserve any trees in the buffer areas and those on adjacent properties have also been included. Fringe plantings are shown along the tree save areas. The minimum tree cover requirement has been exceeded.

General Standard 4 states that the planned development shall be designed to prevent substantial injury to the use and value of existing surrounding development, and shall not hinder, deter or impede development of surrounding undeveloped properties in accordance with the adopted Comprehensive Plan.

The surrounding properties are developed according to the recommendations of the Comprehensive Plan. The applicant is proposing to further implement those recommendations by developing the property with single-family detached dwellings at the density of 2.88 du/ac, within the recommended density range. The application represents a substantial consolidation of properties in the area. The plan also includes an interparcel connection to the northeast, near Rt. 29, provided that property develops with residential uses. Substantial improvements to Forest Hill Drive and the intersection of Forest Hill Drive and Rt. 29, to include a right turn lane and the shifting of the intersection to better align with Ridge Top Road, (neither of which are necessary to mitigate traffic impact from the proposed development) are provided which will improve the traffic situation in the area for the neighboring subdivisions.

General Standard 5 states that the planned development shall be located in an area in which transportation, police and fire protection, other public facilities and public utilities, including sewerage, are or will be available and adequate for the uses proposed; provided, however, that the applicant may make provision for such facilities or utilities which are not presently developed.

Adequate public facilities are available and the applicant has proffered funds to offset potential impacts to area schools and parks.

General Standard 6 states that the planned development shall provide coordinated linkages among internal facilities and services as well as connections to major external facilities and services at a scale appropriate to the development.

The CDP/FDP shows a trail system, internal to the development, linking the various open space areas. Additionally, the applicant is proposing to provide a sidewalk along the site's frontage on Forest Hill Drive, connecting the area to Rt. 29. An interparcel connection to the northeast is also shown, as previously discussed.

Section 16-102 Design Standards

Design Standard 1 states that in order to complement development on adjacent properties, at all peripheral boundaries of the planned development district, the bulk

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regulations and landscaping and screening provisions shall generally conform to the provisions of that conventional zoning district which most closely characterizes the particular type of development under consideration.

The most similar conventional zoning district to the applicant's proposal is the R-3 District, which requires minimum yards of 30 feet (front), 12 feet (side) and 25 feet (rear). For the most part, the rear yards of the proposed homes face the periphery of the development. The applicant's PDH-3 development proposes between 8 and 20 feet for a rear yard, depending on the inclusion of a sunroom or deck. Additionally, a buffer yard of between 20 and 30 feet is proposed around the periphery. Thus, setbacks are, even at a minimum, more than the 25 foot rear setback of the R-3 District.

Design Standard 2 states that other than those regulations specifically set forth in Article 6 for a particular P district, the open space, off-street parking, loading, sign and all other similar regulations set forth in this Ordinance shall have general application in all planned developments.

This application meets or exceeds all of the stated regulations.

Design Standard 3 states that streets and driveways shall be designed to generally conform to the provisions set forth in this Ordinance and all other County ordinances and regulations controlling same, and where applicable, street systems shall be designed to afford convenient access to mass transportation facilities. In addition, a network of trails and sidewalks shall be coordinated to provide access to recreational amenities, open space, public facilities, vehicular access routes, and mass transportation facilities.

An internal trail and sidewalk system links all of the various open space areas on the property. The internal trail system also connects to the proposed sidewalk along the site's frontage on Forest Hill Drive. The internal street system conforms to the provisions set forth in the Ordinance.

A private road system is proposed in order to optimize the amount of off-lot parking that would be available to guests and residents for this development. The private streets range in width from 24 to 26 feet and will be designed in accordance with DPWES and Fire Marshal requirements. This includes a regulation that does not permit parallel parking on either side of the roadways to ensure there will be adequate width for emergency vehicles. With private roads, we are able to provide perpendicular pull-off spaces to efficiently park vehicles. These parking areas have been strategically distributed throughout the development to adequately serve the proposed homes and far exceed the County's minimum parking space requirements. The use of a private road system with perpendicular parking spaces also efficiently facilitates the ability to provide electric charging stations.

It is noted that if the development were provided with 24 foot wide public roads (maintained by VDOT), perpendicular pull-off parking would not be permitted, only

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Statement of Justification
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parallel spaces on one side. This results in substantially less additional parking spaces. Additionally, parallel parking on one side of a public road would provide an effective travelway width of 16' which would be very problematic for emergency vehicles.

CONCLUSION

The revisions made to the conceptual development plan during the review process have resulted in a substantially improved community layout which provides usable and attractive open space areas for its residents and also includes expanded and enhanced buffer open space areas to the surrounding communities. The planned development substantially conforms to the adopted Comprehensive Plan specific language for the property and for the Fairfax Center area and is under the maximum planned density of 3 dwelling units per acre. It will also meet or exceed the stated purpose and intent of the planned development district as discussed within this statement.

For these reasons, we respectfully respect that staff and the Planning Commission recommend approval and that the Board of Supervisors approve this rezoning request.

REZONING AFFIDAVIT

DATE: SEP 30 2014
 (enter date affidavit is notarized)

I, Lori R. Greenlief, 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

124829

in Application No.(s): RZ/FDP 2014-BR-007
 (enter County-assigned application number(s), e.g. RZ 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 must 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.)

NAME (enter first name, middle initial, and last name)	ADDRESS (enter number, street, city, state, and zip code)	RELATIONSHIP(S) (enter applicable relationships listed in BOLD above)
NVR, Inc. Agent: Joseph T. Jenkins Eric M. Dickman	3946 Pender Drive, Suite 200 Fairfax, VA 22030	Applicant/Contract Purchaser of Tax Map 56-2 ((4)) 1, 56-2 ((1)) 54, 55, 57, 58 & 59
Garden World R.E., LLC Agent: Wanda L. McCoy	11343 Lee Highway Fairfax, VA 22030	Title Owner of 56-2 ((4)) 1
Lonardelli Joint Venture, LLC Agent: Wanda L. McCoy	11343 Lee Highway Fairfax, VA 22030	Title Owner of 56-2 ((1)) 54
Forest Hill Joint Venture, LLC Agent: Wanda L. McCoy	11343 Lee Highway Fairfax, VA 22030	Title Owner of 56-2 ((1)) 57, 58 & 59
Seung K. Hong, trustee, pursuant to Section 55-17.1 of the Code of Virginia	1622 Irvin Street Vienna, VA 22182	Title Owner of 56-2 ((1)) 55

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

Rezoning Attachment to Par. 1(a)

DATE: SEP 30 2014
 (enter date affidavit is notarized)

for Application No. (s): RZ/FDP 2014-BR-007
 (enter County-assigned application number (s))

124829

(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.

NAME (enter first name, middle initial, and last name)	ADDRESS (enter number, street, city, state, and zip code)	RELATIONSHIP(S) (enter applicable relationships listed in BOLD above)
Capretti Land, Inc. Agent: Michael G. Capretti	20098 Ashbrook Place, Suite 185 Ashburn, VA 20147	Development Consultant/Agent for Applicant
Urban Engineering & Associates, Inc. t/a Urban, Ltd. Agent: David T. McElhaney	7712 Little River Turnpike Annadale, VA 22003	Engineer/Agent for Applicant
McGuireWoods LLP Agents: Scott E. Adams Lianne E. Childress David R. Gill Jonathan P. Rak Gregory A. Riegle Kenneth W. Wire Sheri L. Akin Lori R. Greenlief	1750 Tysons Boulevard, Suite 1800 Tysons Corner, VA 22102	Attorney/Agent for Applicant Attorney/Agent Attorney/Agent Attorney/Agent Attorney/Agent Planner/Agent Planner/Agent

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

REZONING AFFIDAVIT

DATE: SEP 30 2014
(enter date affidavit is notarized)

124829

for Application No. (s): RZ/FDP 2014-BR-007
(enter County-assigned application number(s))

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, **and if the corporation is an owner of the subject land, all of the OFFICERS and DIRECTORS of such corporation:**

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

CORPORATION INFORMATION

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

NVR, Inc.
3946 Pender Drive, Suite 200
Fairfax, VA 22030

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

NAMES OF OFFICERS & DIRECTORS: (enter first name, middle initial, last name & title, e.g. **President, Vice President, Secretary, Treasurer, etc.**)

Paul C. Saville, CEO/President; Robert W. Henley, President-Financial Services; Daniel D. Malzahn CFO/VP- Finance/Treasurer; Keith Anderson, EVP of Production; James T. Repole, SVP of Human Resources; James M. Sack, VP/General Counsel/Secty.; Eugene J. Bredow, VP/Controller/Asst. Secty.; Joseph T. Jenkins, Regional VP of Land

(check if applicable) There is more corporation information and Par. 1(b) is continued on a "Rezoning 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.

Rezoning Attachment to Par. 1(b)DATE: SEP 30 2014
(enter date affidavit is notarized)for Application No. (s): RZ/FDP 2014-BR-007
(enter County-assigned application number (s))

124829

NAME & ADDRESS OF CORPORATION: (enter complete name, number, street, city, state, and zip code)Garden World R.E., LLC
11343 Lee Highway
Fairfax, VA 22030**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 SHAREHOLDER: (enter first name, middle initial, and last name)Peter M. Lonardelli Angie Kirchner
Evonne E. Lonardelli
Wanda L. McCoy
Terry L. Barnes**NAMES OF OFFICERS & DIRECTORS:** (enter first name, middle initial, last name, and title, e.g. President, Vice-President, Secretary, Treasurer, etc.)

Peter M. Lonardelli, Managing Member

NAME & ADDRESS OF CORPORATION: (enter complete name, number, street, city, state, and zip code)Lonardelli Joint Venture, LLC
11343 Lee Highway
Fairfax, VA 22030**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)Peter M. Lonardelli Angie Kirchner
Evonne E. Lonardelli
Wanda L. McCoy
Terry L. Barnes**NAMES OF OFFICERS & DIRECTORS:** (enter first name, middle initial, last name, and title, e.g. President, Vice-President, Secretary, Treasurer, etc.)

Peter M. Lonardelli, Managing Member

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

Rezoning Attachment to Par. 1(b)DATE: SEP 30 2014
(enter date affidavit is notarized)for Application No. (s): RZ/FDP 2014-BR-007
(enter County-assigned application number (s))

124829

NAME & ADDRESS OF CORPORATION: (enter complete name, number, street, city, state, and zip code)Forest Hill Joint Venture, LLC
11343 Lee Highway
Fairfax, VA 22030**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 SHAREHOLDER: (enter first name, middle initial, and last name)Peter M. Lonardelli Angie Kirchner
Evonne E. Lonardelli
Wanda L. McCoy
Terry L. Barnes**NAMES OF OFFICERS & DIRECTORS:** (enter first name, middle initial, last name, and title, e.g. President, Vice-President, Secretary, Treasurer, etc.)

Peter M. Lonardelli, Managing Member

NAME & ADDRESS OF CORPORATION: (enter complete name, number, street, city, state, and zip code)Capretti Land, Inc.
20098 Ashbrook Place, Suite 185
Ashburn, VA 20147**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)Michael G. Capretti
Debra L. Capretti**NAMES OF OFFICERS & DIRECTORS:** (enter first name, middle initial, last name, and title, e.g. President, Vice-President, Secretary, Treasurer, etc.)(check if applicable) There is more corporation information and Par. 1(b) is continued further on a "Rezoning Attachment to Par. 1(b)" form.

Rezoning Attachment to Par. 1(b)DATE: SEP 30 2014
(enter date affidavit is notarized)

124829

for Application No. (s): RZ/FDP 2014-BR-007
(enter County-assigned application number (s))**NAME & ADDRESS OF CORPORATION:** (enter complete name, number, street, city, state, and zip code)Urban Engineering & Associates, Inc.
t/a Urban, Ltd.
7712 Little River Turnpike
Annandale, VA 22003**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 SHAREHOLDER: (enter first name, middle initial, and last name)J. Edgar Sears, Jr.
Brian A. Sears**NAMES OF OFFICERS & DIRECTORS:** (enter first name, middle initial, last name, and title, e.g. President, Vice-President, Secretary, Treasurer, etc.)**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)**NAMES OF OFFICERS & DIRECTORS:** (enter first name, middle initial, last name, and title, e.g. President, Vice-President, Secretary, Treasurer, etc.)(check if applicable) There is more corporation information and Par. 1(b) is continued further on a "Rezoning Attachment to Par. 1(b)" form.

REZONING AFFIDAVIT

DATE: SEP 30 2014
(enter date affidavit is notarized)

124829

for Application No. (s): RZ/FDP 2014-BR-007
(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, number, street, city, state and zip code)

McGuireWoods LLP
1750 Tysons Boulevard, Suite 1800
Tysons Corner, VA 22102

(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)

Equity Partners of McGuireWoods LLP

- | | | |
|-------------------------|-----------------------|-----------------------|
| Adams, John D. | Blank, Jonathan T. | Cason, Alan C. |
| Alphonso, Gordon R. | Boardman, J. K. | Chaffin, Rebecca S. |
| Anderson, Arthur E., II | Boland, J. W. | Chapman, Jeffrey J. |
| Anderson, Mark E. | Brenner, Irving M. | Cockrell, Geoffrey C. |
| Andre-Dumont, Hubert | Brooks, Edwin E. | Collins, Darren W. |
| Bagley, Terrence M. | Brose, R. C. | Covington, Peter J. |
| Barger, Brian D. | Burk, Eric L. | Cramer, Robert W. |
| Becker, Scott L. | Busch, Stephen D. | Cromwell, Richard J. |
| Becket, Thomas L. | Cabaniss, Thomas E. | Culbertson, Craig R. |
| Belcher, Dennis I. | Cacheris, Kimberly Q. | Cullen, Richard (nmi) |
| Bell, Craig D. | Cairns, Scott S. | Daglio, Michael R. |
| Bilik, R. E. | Capwell, Jeffrey R. | De Ridder, Patrick A. |

(check if applicable) There is more partnership information and Par. 1(c) is continued on a "Rezoning 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.

Rezoning Attachment to Par. 1(c)DATE: SEP 30 2014
(enter date affidavit is notarized)for Application No. (s): RZ/FDP 2014-BR-007
(enter County-assigned application number (s))

124829

PARTNERSHIP NAME & ADDRESS: (enter complete name & number, street, city, state & zip code)McGuireWoods LLP
1750 Tysons Boulevard, Suite 1800
Tysons Corner, VA 22102(check if applicable) The above-listed partnership has no limited partners.**NAMES AND TITLES OF THE PARTNERS:** (enter first name, middle initial, last name, and title, e.g.,
General Partner, Limited Partner, or General and Limited Partner)

Dickerman, Dorothea W.	Harmon, Jonathan P.	Konia, Charles A.
DiMattia, Michael J.	Harmon, T. C.	Kratz, Timothy H.
Dooley, Kathleen H.	Hartsell, David L.	Kromkowski, Mark A.
Downing, Scott P.	Hatcher, J. K.	Krueger, Kurt J.
Edwards, Elizabeth F.	Hayden, Patrick L.	Kutrow, Bradley R.
Ensing, Donald A.	Hayes, Dion W.	La Fratta, Mark J.
Ey, Douglas W., Jr.	Heberton, George H.	Lamb, Douglas E.
Farrell, Thomas M.	Hedrick, James T., Jr.	Lias-Booker, Ava E.
Feller, Howard (nmi)	Hilton, Robert C.	Little, Nancy R.
Finger, Jon W.	Horne, Patrick T.	Long, William M.
Finkelson, David E.	Hornyak, David J.	Manning, Amy B.
Foley, Douglas M.	Hosmer, Patricia F.	Marianes, William B.
Fox, Charles D., IV	Hutson, Benne C.	Marshall, Gary S.
Franklin, Ronald G.	Isaf, Fred T.	Marshall, Harrison L., Jr.
Fratkin, Bryan A.	Jackson, J. B.	Marsico, Leonard J.
Freedlander, Mark E.	Jewett, Bryce D., III	Martin, Cecil E., III
Freeman, Jeremy D.	Jordan, Hilary P.	Martin, George K.
Fuhr, Joy C.	Justus, J. B.	Martinez, Peter W.
Gambill, Michael A.	Kahn, Brian A.	Mason, Richard J.
Glassman, Margaret M.	Kanazawa, Sidney K.	Mathews, Eugene E., III
Glickson, Scott L.	Kane, Matthew C.	Mayberry, William C.
Gold, Stephen (nmi)	Kang, Franklin D.	McDonald, John G.
Goldstein, Philip (nmi)	Kannensohn, Kimberly J.	McFarland, Robert W.
Grant, Richard S.	Katsantonis, Joanne (nmi)	McGinnis, Kevin A.
Greenberg, Richard T.	Keeler, Steven J.	McIntyre, Charles W.
Greene, Christopher K.	Kilpatrick, Gregory R.	McKinnon, Michele A.
Greenspan, David L.	King, Donald E.	McLean, David P.
Gresham, A. B.	Kittrell, Steven D.	McLean, J. D.
Grieb, John T.	Kobayashi, Naho (nmi)	McRill, Emery B.

(check if applicable) There is more partnership information and Par. 1(c) is continued further on a "Rezoning Attachment to Par. 1(c)" form.

Rezoning Attachment to Par. 1(c)DATE: SEP 30 2014
(enter date affidavit is notarized)

124829

for Application No. (s): RZ/FDP 2014-BR-007
(enter County-assigned application number (s))**PARTNERSHIP NAME & ADDRESS:** (enter complete name & number, street, city, state & zip code)McGuireWoods LLP
1750 Tysons Boulevard, Suite 1800
Tysons Corner, VA 22102(check if applicable) The above-listed partnership has no limited partners.**NAMES AND TITLES OF THE PARTNERS:** (enter first name, middle initial, last name, and title, e.g.,
General Partner, Limited Partner, or General and Limited Partner)

Michalik, Christopher M.	Riley, James B., Jr.	Stein, Marta A.
Milanti, Peter A.	Riopelle, Brian C.	Stone, Jacquelyn E.
Miller, Amy E.	Roberts, Manley W.	Swan, David I.
Moldovan, Victor L.	Robinson, Stephen W.	Symons, Noel H.
Muckenfuss, Robert A.	Roeschenthaler, Michael J.	Tackley, Michael O.
Mullins, P. T.	Rogers, Marvin L.	Tarry, Samuel L., Jr.
Murphy, Sean F.	Rohman, Thomas P.	Thanner, Christopher J.
Nahal, Hardeep S.	Ronn, David L.	Thornhill, James A.
Natarajan, Rajsekhar (nmi)	Rosen, Gregg M.	Van Horn, James E.
Neale, James F.	Rust, Dana L.	Vaughn, Scott P.
Nesbit, Christopher S.	Satterwhite, Rodney A.	Vick, Howard C., Jr.
Newhouse, Philip J.	Scheurer, P. C.	Viola, Richard W.
O'Grady, John B.	Schewel, Michael J.	Wade, H. L., Jr.
Oakey, David N.	Schmidt, Gordon W.	Walker, John T., IV
Older, Stephen E.	Sellers, Jane W.	Walker, Thomas R.
Oostdyk, Scott C.	Sethi, Akash D.	Walker, W. K., Jr.
Padgett, John D.	Shelley, Patrick M.	Westwood, Scott E.
Parker, Brian K.	Simmons, L. D., II	Whelpley, David B., Jr.
Perzek, Philip J.	Simmons, Robert W.	White, H. R., III
Phillips, Michael R.	Slaughter, D. F.	White, Walter H., Jr.
Pryor, Robert H.	Slone, Daniel K.	Wilburn, John D.
Pusateri, David P.	Spahn, Thomas E.	Williams, Steven R.
Rak, Jonathan P.	Spitz, Joel H.	Woodward, Michael B.
Reid, Joseph K., III	Spivey, Angela M.	Wren, Elizabeth G.
Richardson, David L.	Stallings, Thomas J.	
Riegle, Gregory A.	Steen, Bruce M.	

(check if applicable) There is more partnership information and Par. 1(c) is continued further on a
"Rezoning Attachment to Par. 1(c)" form.

REZONING AFFIDAVIT

SEP 30 2014

DATE: _____
(enter date affidavit is notarized)

124829

for Application No. (s): RZ/FDP 2014-BR-007
(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 "Rezoning Attachment to Par. 2" form.

REZONING AFFIDAVIT

DATE: SEP 30 2014
(enter date affidavit is notarized)

124829

for Application No. (s): RZ/FDP 2014-BR-007
(enter County-assigned application number(s))

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.)

Donald E. King of McGuireWoods LLP donated in excess of \$100 to John Foust.

(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 "Rezoning Attachment to Par. 3" form.

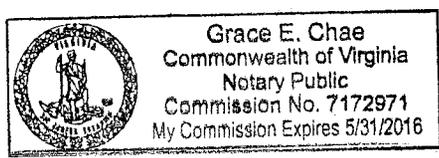
4. That the information contained in this affidavit is complete, that all partnerships, corporations, and trusts owning 10% or more of the APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE* of the land have been listed and broken down, and that prior to each and every public hearing on this matter, 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 Applicant's Authorized Agent
Lori R. Greenlief
Lori R. Greenlief, Land Use Planner
(type or print first name, middle initial, last name, and title of signee)

Subscribed and sworn to before me this 30th day of September 20 14, in the State/Comm. of Virginia, County/City of Fairfax.

Grace E. Chae
Notary Public

My commission expires: 5/31/2016



Selected applicable Zoning Ordinance Provisions from the Fairfax County Zoning Ordinance, dated February 11, 2014. For the full, unabridged, ordinances please visit the website of the Fairfax County Planning and Zoning Department or view a copy in person at the Fairfax County Planning and Zoning office.

ARTICLE 16 - DEVELOPMENT PLANS

PART 1 16-100 STANDARDS FOR ALL PLANNED DEVELOPMENTS

16-101 General Standards

A rezoning application or development plan amendment application may only be approved for a planned development under the provisions of Article 6 if the planned development satisfies the following general standards:

1. The planned development shall substantially conform to the adopted comprehensive plan with respect to type, character, intensity of use and public facilities. Planned developments shall not exceed the density or intensity permitted by the adopted comprehensive plan, except as expressly permitted under the applicable density or intensity bonus provisions.
2. The planned development shall be of such design that it will result in a development achieving the stated purpose and intent of the planned development district more than would development under a conventional zoning district.
3. The planned development shall efficiently utilize the available land, and shall protect and preserve to the extent possible all scenic assets and natural features such as trees, streams and topographic features.
4. The planned development shall be designed to prevent substantial injury to the use and value of existing surrounding development, and shall not hinder, deter or impede development of surrounding undeveloped properties in accordance with the adopted comprehensive plan.
5. The planned development shall be located in an area in which transportation, police and fire protection, other public facilities and public utilities, including sewerage, are or will be available and adequate for the uses proposed; provided, however, that the applicant may make provision for such facilities or utilities which are not presently available.
6. The planned development shall provide coordinated linkages among internal facilities and services as well as connections to major external facilities and services at a scale appropriate to the development.

16-102 Design Standards

Whereas it is the intent to allow flexibility in the design of all planned developments, it is deemed necessary to establish design standards by which to review rezoning applications, development plans, conceptual development plans, final development plans, PRC plans, site plans and subdivision plats. Therefore, the following design standards shall apply:

1. In order to complement development on adjacent properties, at all peripheral boundaries of the PDH, PRM, PDC, PRC Districts the bulk regulations and landscaping and screening provisions shall generally conform to the provisions of that conventional zoning district which most closely characterizes the particular type of development under consideration. In the PTC District, such provisions shall only have general applicability and only at the periphery of the Tysons Corner Urban Center, as designated in the adopted comprehensive plan.
2. Other than those regulations specifically set forth in Article 6 for a particular P district, the open space, off-street parking, loading, sign and all other similar regulations set forth in this Ordinance shall have general application in all planned developments.
3. Streets and driveways shall be designed to generally conform to the provisions set forth in this Ordinance and all other County ordinances and regulations controlling same, and where applicable, street systems shall be designed to afford convenient access to mass transportation facilities. In addition, a network of trails and sidewalks shall be coordinated to provide access to recreational amenities, open space, public facilities, vehicular access routes, and mass transportation facilities.

Selected applicable excerpts from the Fairfax County Comprehensive Plan, 2013 Edition. For the full, unabridged, plan please visit the website of the Fairfax County Planning and Zoning Department or view a copy in person at the Fairfax County Planning and Zoning office.

AREA III - FAIRFAX CENTER AREA PLAN

(Amended through 4-29-2014)

AREA-WIDE RECOMMENDATIONS *(selected excerpts)*

LAND USE

The Fairfax Center Area Plan recommends a range of development levels to guide development within the land units of the area. To obtain the more intense uses and greater densities, applicants must provide commensurate facilities and amenities. To develop the land to its fullest potential at the overlay level, parcel consolidation must be achieved. It is intended that such parcel consolidations will provide for projects that function in a well-designed, efficient manner and provide for the development of unconsolidated parcels in conformance with the Fairfax Center Area Plan.

Existing stable neighborhoods should be preserved, enhanced, and reinforced. Infill development in these neighborhoods should be of a compatible use, type, and intensity in accordance with the guidance provided by the Policy Plan under Land Use Objectives 8 and 14.

TRANSPORTATION

Roadway Improvements

Interchange locations have been identified in the countywide Plan process and are shown on the Transportation figures for Fairfax Center. The provision of an interchange has both land use and transportation planning implications. In terms of land use, caution must be exercised in reviewing development proposals in the immediate interchange area due to right-of-way implications. In terms of transportation planning, care must be taken to accommodate revised access patterns in the immediate area, since the interchange ramps cause grade changes and weaving/merging traffic conflicts. Because of these interchange features, access to properties in close proximity to the intersection is often affected by interchange construction.

The amount of land needed for interchanges, and the extent to which access must be re-oriented, varies with the actual design of the interchange. Most planned interchanges have not yet been designed. In these instances, every effort should be made to accommodate the potential access modifications associated with a future design. Towards this end, typical dimensions of potential loop ramps and acceleration/deceleration lanes have been established based on current interchange designs. The interchanges shown on the accompanying maps identify the roadway segments of the intersecting streets where access must be restricted to accommodate these

potential designs based on the typical dimensions. In those instances where interchange designs have been approved or are in active stages of development, the maps contained in this section do not show these restricted access segments. Where an interchange project is in an active design stage, or where such designs have been approved, access in the intersection area should be planned to be consistent with such designs.

Implementation Aspects

The implementation of these roadway improvements is critical to the satisfactory and timely accommodation of vehicular traffic in the area. A key factor in the implementation process is the ability to acquire or generate funding for these improvements. While application for development within the Fairfax Center Area does not assure approval if the application does not promote the health, safety, and welfare and comply with the applicable development elements, development intensities above the baseline are feasible only if the private sector contributes a proportional share of transportation improvements and/or funding to meet the transportation needs of the area. The proportional share of the transportation improvements provided by the private sector will be established by the Board of Supervisors and reviewed periodically through an established public process such as the Annual Plan Review. This concept was developed and recommended by the Transportation Subcommittee of the Route 50/66 Task Force in a report entitled Financing Transportation Improvements in the Fairfax Center Area.

Access Management

The following paragraphs provide guidance towards an access management plan for the Fairfax Center Area. The objectives of the access management plan are to:

- minimize service drives;
- minimize median breaks (or cross-overs);
- minimize the need for traffic signals;
- minimize the need for heavy left-turn movements (encourage clockwise traffic circulation patterns);
- preserve right-of-way for planned roadway improvements; and
- provide public street access for every parcel or contiguous parcels of the same ownership.

These objectives should be balanced so that the encouragement of one does not impede the fulfillment of another.

Pedestrian and Bicycle Systems

Coordinated walkway networks are fundamental as well as essential and should be required of all development in the Fairfax Center Area. Comprehensive, coordinated walkway networks shall be required for each site to provide full intra and inter parcel pedestrian circulation to and from all buildings, parking, recreational facilities, and to or through open space areas. High volume and high speed roadway intersection control and design should accommodate pedestrians

through the use of pedestrian crossings, walkway incorporation into roadway grade separations, pedestrian activated signals, crosswalks and pedestrian refuge medians as applicable. These elements are particularly necessary given the number of high volume traffic arteries in the area which are difficult to cross. Local roadway networks that are designed to discourage automotive through travel should allow nonmotorized through travel via cul-de-sac connections.

HERITAGE RESOURCES

The right-of-way for the pre-Civil War Manassas Gap Railroad transverses portions of the O, P, U, and V Land Units. Where possible, visible manifestations of the railroad bed should be preserved or incorporated into development plans as scenic or historic amenities.

PARKS AND RECREATION

Neighborhood Parks

On-site Neighborhood Park facilities should be provided as part of all planned residential development.

LAND USE RECOMMENDATIONS - BY LAND UNIT

Land Unit V

This land unit is located south of Lee Highway on either side of Shirley Gate Road. The planned intensities are greatest to the north and then taper down to the south where the area is planned for low density residential use in conformance with the findings of the Occoquan Basin Study. There are a variety of land uses in this land unit including retail, warehousing, housing, a mobile home park, and a Fairfax County Boys' Probation Home.

Sub-unit V1

Parcels north of the right-of-way for the Manassas Gap Railroad or north of the Kiel Gardens subdivision are planned for residential use at 3 dwelling units per acre at the overlay level to provide for infill development that is compatible with the Deerfield Forest subdivision. The only exceptions to this recommendation are the commercially-zoned properties at the southwestern quadrant of Shirley Gate Road and Lee Highway, which are planned for low intensity office use at a maximum FAR of .25. However, much of this commercially-zoned area may be used to accommodate the planned interchange at Shirley Gate Road and Lee Highway. Any development of this area should not preclude the construction of the interchange.

IMPLEMENTATION OF THE FAIRFAX CENTER PLAN

The key implementation component for the Fairfax Center Area Plan is based on a system of development intensity levels related to the provision of development elements. There are three levels of development intensity within the Fairfax Center Area.

The overlay level is the highest level of development intensity. This option offers maximum guidance for performance in terms of controls/incentives, and thereby offers the highest intensity with commensurate quality. The overlay level is the preferred land use recommendation for parcels within the Fairfax Center Area.

DEVELOPMENT ELEMENTS *(see full Area Plan text for further detail)*

Any development allowed above the baseline level must result in a proportional development quality increase through the provision of essential infrastructure and desired amenities. These two quality measures are referred to as development elements. Development elements are defined as those factors which serve to:

- Ensure that the anticipated impacts of proposed development will be accommodated in a satisfactory manner; and
- Provide desirable amenities that will contribute significantly to the quality of the development and surrounding area in a manner that achieves the objectives envisioned for the Fairfax Center Area.

Three categories of development elements have been identified:

- Basic development elements represent a minimum standard that the developer is expected to satisfy before proceeding to develop.
- Minor development elements represent the provision of additional infrastructure and desired amenities above the basic elements to ensure a proportional increase in the quality of development that corresponds to the increased intensity of the proposed development.
- Major development elements represent the provision of additional infrastructure and desired amenities above the basic and minor development elements to ensure a proportional increase in the quality of development that corresponds to the increased intensity of the proposed development.

The development elements are related, respectively, to the transportation, environment and public facilities systems that serve to reinforce and define the area.

Overlay Level Requirements. The applicant has the option to apply for the overlay level as specified in the land unit summary charts. To qualify for the overlay level, the applicant shall submit to the county a proposal for development fulfilling at least:

- a. All applicable basic elements; plus

- b. All transportation elements relating to highway improvements (rights-of-way dedication, highway construction, and off-site roadway contributions) and ridesharing programs; plus
- c. All essential elements; plus
- d. The element relating to low/moderate-income housing. If the Affordable Dwelling Unit ordinance (ADU) is applicable, then the applicant shall satisfy this element by complying with the ADU requirements as stated in the Zoning Ordinance (Article 2, Part 8). If the ADU ordinance is not applicable, then the applicant shall satisfy this element through a contribution to the Housing Trust Fund in the amount equivalent to one-half of the amount specified in the formula cited below under the heading "Minor Development Elements, Low/moderate-income housing;" plus
- e. The inclusion of either of the following:
- three-fourths of the applicable minor elements and one-half of the applicable major elements, or
 - the inclusion of all applicable minor elements and one-third of the major elements.

USE-SPECIFIC PERFORMANCE CRITERIA (*see full Area Plan text for further detail*)

Additional performance criteria for specific uses are used to evaluate development plans for the Fairfax Center Area.

FAIRFAX CENTER CHECKLIST

Case Number: NVR, Inc. - RZ 2014-BR-007
 Plan Date: 10/17/2014

	Not Applicable	Applicable	Essential	Satisfied	Comments
I. AREA WIDE BASIC DEVELOPMENT ELEMENTS					
A. Roadways					
1. Minor street dedication and construction		X	X	X	Constructing on-site roads and public road connection. Staff would prefer all public roads, but meets minimum reqmts.
2. Major street R.O.W. dedication		X	X	X	Substantial dedication along Route 29.
B. Transit					
1. Bus loading zones with necessary signs and pavement; Bus pull-off lanes	X				
2. Non-motorized access to bus or rail transit stations	X				
3. Land dedication for transit and commuter parking lots	X				
C. Non-motorized Transportation					
1. Walkways for pedestrians		X	X	X	Sidewalks throughout site.
2. Bikeways for cyclists	X				
3. Secure bicycle parking facilities	X				
II. AREA WIDE MINOR DEVELOPMENT ELEMENTS					
A. Roadways					
1. Major roadway construction of immediately needed portions		X		X	Constructing turn-lane on Forest Hill, though not required.
2. Signs	X				
B. Transit					
1. Bus shelters	X				
2. Commuter parking	X				
C. Non-motorized transportation					
1. Pedestrian activated signals	X				
2. Bicycle support facilities (showers, lockers)	X				
D. Transportation Strategies					
1. Ridesharing programs	X				
2. Subsidized transit passes for employees	X				
III. AREA WIDE MAJOR DEVELOPMENT ELEMENTS					
A. Roadways					
1. Contribution towards major (future) roadway improvements		X	X	X	Road-fund contribution.
2. Construct and/or contribute to major roadway improvements		X	X		Reimbursement for signal-arm relocation work.
3. Traffic signals as required by VDOT	X				
B. Transit					
1. Bus or rail transit station parking lots	X				
C. Transportation Strategies					
1. Local shuttle service	X				
2. Parking fees	X				
D. Non-motorized Circulation					
1. Grade separated road crossings	X				

FAIRFAX CENTER CHECKLIST

Case Number: NVR, Inc. - RZ 2014-BR-007
 Plan Date: 10/17/2014

Not Applicable Applicable Essential Satisfied Comments

I. AREA-WIDE BASIC DEVELOPMENT ELEMENTS					
A. Environmental Quality Corridors (EQC)					
1. Preservation of EQCs as public or private open space	X				
B. Stormwater Management (BMP)					
1. Stormwater detention/retention		X	X	X	Providing detention/BMP per Ordinance.
2. Grassy swales/vegetative filter areas		X			These BMPs are not included, though bioretention is proposed.
C. Preservation of Natural Features					
1. Preservation of quality vegetation		X	X	X	Tree preservation areas included, though deviation of target requested. Proffer commits to seek additional tree preservation at site plan, if possible.
2. Preservation of natural landforms		X	X	X	Maintaining general topography and drainage patterns of site.
3. Minimize site disturbance as a result of clearing or grading limits		X	X	X	Preserving areas of existing trees and existing wetland, and committing to reduce SWM footprints, if possible, at site plan (development condition)
D. Other Environmental Quality Improvements					
1. Mitigation of highway-related noise impacts		X	X	X	Noise study and mitigation proffer and development condition included.
2. Siting roads and buildings for increased energy conservation (Including solar access)		X		X	62% of bldgs. Oriented N-S.

II. AREA-WIDE MINOR DEVELOPMENT ELEMENTS					
A. Increased Open Space					
1. Non-stream valley habitat EQCs	X				
2. Increased on-site open space		X		X	
B. Protection of Ground Water Resources					
1. Protection of aquifer recharge areas	X				
C. Stormwater Management (BMP)					
1. Control of off-site flows		X	X	X	Limited off-site flows accommodated.
2. Storage capacity in excess of design storm requirements		X			(not clear from information provided)
D. Energy Conservation					
1. Provision of energy conscious site plan		X			Energy conservation proffer included; needs refining.

III. AREA-WIDE MAJOR DEVELOPMENT ELEMENTS					
A. Innovative Techniques					
1. Innovative techniques in stormwater management		X			
2. Innovative techniques in air or noise pollution control and reduction		X			
3. Innovative techniques for the restoration of degraded environments		X	X		Need Phase II ESA and remediation plan.

FAIRFAX CENTER CHECKLIST

Case Number:

NVR, Inc. - RZ 2014-BR-007

Plan Date:

10/17/2014

Not Applicable Applicable Essential Satisfied

Comments

I. AREA-WIDE BASIC DEVELOPMENT ELEMENTS					
A. Park Dedications					
1. Dedication of stream valley parks in accordance with Fairfax County Park Authority policy	X				
B. Public Facility Site Dedications					
1. Schools	X				
2. Police/fire facilities	X				

II. AREA-WIDE MINOR DEVELOPMENT ELEMENTS					
A. Park Dedications					
1. Dedication of parkland suitable for a neighborhood park	X				
B. Public Facility Site Dedication					
1. Libraries	X				
2. Community Centers	X				
3. Government offices/facilities	X				

III. AREA-WIDE MAJOR DEVELOPMENT ELEMENTS					
A. Park Dedications					
1. Community Parks	X				
2. County Parks	X				
3. Historic and archeological parks		X			Manassas Gap Railroad remnant on site.
B. Public Indoor or Outdoor Activity Spaces					
1. Health clubs	X				
2. Auditoriums/theaters	X				
3. Athletic fields/major active recreation facilities		X	X	X	Contribution to off-site parks.

FAIRFAX CENTER CHECKLIST

Case Number: NVR, Inc. - RZ 2014-BR-007
 Plan Date: 10/17/2014

Not
 Applicable Applicable Essential Satisfied Comments

I. AREA-WIDE BASIC DEVELOPMENT ELEMENTS					
A. Site Considerations					
1. Coordinated pedestrian and vehicular circulation systems		X	X	X	Connection to Delsignore Dr. and possible future interparcel to NE, as well as sidewalk connections, coordinate with surrounding development.
2. Transportation and sewer infrastructure construction phased to development construction		X		X	
3. Appropriate transitional land uses to minimize the potential impact on adjacent sites	X				
4. Preservation of significant historic resources		X			(Manassas Gap Railroad remnant not preserved.
B. Landscaping					
1. Landscaping within street rights-of-way		X	X	X	Street trees included.
2. Additional landscaping of the development site where appropriate		X	X	X	Adequate tree cover, SWM plantings, and buffer areas proposed and conditioned.
3. Provision of additional screening and buffering		X	X	X	Landscaped buffer areas proposed along periphery of site and conditioned.

II. AREA-WIDE MINOR DEVELOPMENT ELEMENTS					
A. Land Use/Site Planning					
1. Parcel consolidation		X	X	X	Consolidation of 6 parcels and interparcel connection to NE.
2. Low/Mod income housing		X	X	X	Trust-fund contribution included.
B. Mixed Use Plan					
1. Commitment to construction of all phases in mixed-use plans	X				
2. 24-hour use activity cycle encouraged through proper land use mix	X				
3. Provision of developed recreation area or facilities		X	X	X	Recreation areas and amenities proposed for residents and conditioned.

III. AREA-WIDE MAJOR DEVELOPMENT ELEMENTS					
A. Extraordinary Innovation					
1. Site design		X			
2. Energy conservation		X			

FAIRFAX CENTER CHECKLIST

Detailed Design

Case Number: NVR, Inc. - RZ 2014-BR-007
 Plan Date: 10/17/2014

	Not Applicable	Applicable	Essential	Satisfied	Comments
I. AREA-WIDE BASIC DEVELOPMENT ELEMENTS					
A. Site Entry Zone					
1. Signs		X		X	Entry signs proposed and conditioned.
2. Planting		X		X	Planting along Forest Hill and at entrance proposed.
3. Lighting		X			No details provided.
4. Screened surface parking	X				
B. Street Furnishings					
1. Properly designed elements such as lighting, signs, trash receptacles, etc.		X		X	Need additional details (development condition)
II. AREA WIDE MINOR DEVELOPMENT ELEMENTS					
A. Building Entry Zone					
1. Signs	X				
2. Special planting		X		X	Detail provided.
3. Lighting		X			
B. Structures					
1. Architectural design that complements the site and adjacent developments		X	X	X	Single-family detached homes blend with neighboring development.
2. Use of energy conservation techniques		X	X	X	Energy-conservation proffer included.
C. Parking					
1. Planting - above ordinance requirements		X		X	Interior/Peripheral landscaping.
2. Lighting		X			Street lights? No details provided.
D. Other Considerations					
1. Street furnishing such as seating, drinking fountains		X		X	Park and open space amenities proposed (development condition)
2. Provision of minor plazas		X		X	Micro-parks proposed, including prominent one near entrance (development condition)
III. AREA WIDE MAJOR DEVELOPMENT ELEMENTS					
A. Detailed Site Design					
1. Structured parking with appropriate landscaping	X				
2. Major plazas	X				
3. Street furnishings to include structures (special planters, trellises, kiosks, covered pedestrian areas (arcades, shelters, etc.), Water features/pools, ornamental fountains, and special surface treatment		X	X		Amenities include gazebo, pergola, tot-lot, etc. (Need additional details)
4. Landscaping of major public spaces		X	X	X	Landscaping of open-space areas included (development condition)

FAIRFAX CENTER CHECKLIST

Summary

Case Number:

NVR, Inc. - RZ 2014-BR-007

Plan Date:

10/17/2014

I. BASIC DEVELOPMENT ELEMENTS

1. Applicable Elements	20
2. Elements Satisfied	17
3. Ratio	0.85

II. MINOR DEVELOPMENT ELEMENTS

1. Applicable Elements	16
2. Elements Satisfied	12
3. Ratio	0.75

III. MAJOR DEVELOPMENT ELEMENTS

1. Applicable Elements	11
2. Elements Satisfied	3
3. Ratio	0.27

IV. ESSENTIAL DEVELOPMENT ELEMENTS

1. Applicable Elements	24
2. Elements Satisfied	21
3. Ratio	0.88

V. MAJOR TRANSPORTATION DEVELOPMENT ELEMENTS

1. Applicable Elements	2
2. Elements Satisfied	1
3. Ratio	0.50

VI. LOW/MODERATE INCOME HOUSING ELEMENT Y

Selected applicable excerpts from the Fairfax County Comprehensive Plan, 2013 Edition. For the full, unabridged, plan please visit the website of the Fairfax County Planning and Zoning Department or view a copy in person at the Fairfax County Planning and Zoning office.

POLICY PLAN – LAND USE

(Amended through 4-29-2014)

APPENDIX 9 - RESIDENTIAL DEVELOPMENT CRITERIA

Fairfax County expects new residential development to enhance the community by: fitting into the fabric of the neighborhood, respecting the environment, addressing transportation impacts, addressing impacts on other public facilities, being responsive to our historic heritage, contributing to the provision of affordable housing and, being responsive to the unique site specific considerations of the property. To that end, the following criteria are to be used in evaluating zoning requests for new residential development. The resolution of issues identified during the evaluation of a specific development proposal is critical if the proposal is to receive favorable consideration.

Where the Plan recommends a possible increase in density above the existing zoning of the property, achievement of the requested density will be based, in substantial part, on whether development related issues are satisfactorily addressed as determined by application of these development criteria. Most, if not all, of the criteria will be applicable in every application; however, due to the differing nature of specific development proposals and their impacts, the development criteria need not be equally weighted. If there are extraordinary circumstances, a single criterion or several criteria may be overriding in evaluating the merits of a particular proposal. Use of these criteria as an evaluation tool is not intended to be limiting in regard to review of the application with respect to other guidance found in the Plan or other aspects that the applicant incorporates into the development proposal. Applicants are encouraged to submit the best possible development proposals. In applying the Residential Development Criteria to specific projects and in determining whether a criterion has been satisfied, factors such as the following may be considered:

- the size of the project
- site specific issues that affect the applicant's ability to address in a meaningful way relevant development issues
- whether the proposal is advancing the guidance found in the area plans or other planning and policy goals (e.g. revitalization).

When there has been an identified need or problem, credit toward satisfying the criteria will be awarded based upon whether proposed commitments by the applicant will significantly advance

problem resolution. In all cases, the responsibility for demonstrating satisfaction of the criteria rests with the applicant.

1. Site Design:

All rezoning applications for residential development should be characterized by high quality site design. Rezoning proposals for residential development, regardless of the proposed density, will be evaluated based upon the following principles, although not all of the principles may be applicable for all developments.

- a) *Consolidation:* Developments should provide parcel consolidation in conformance with any site specific text and applicable policy recommendations of the Comprehensive Plan. Should the Plan text not specifically address consolidation, the nature and extent of any proposed parcel consolidation should further the integration of the development with adjacent parcels. In any event, the proposed consolidation should not preclude nearby properties from developing as recommended by the Plan.
- b) *Layout:* The layout should:
 - provide logical, functional and appropriate relationships among the various parts (e. g. dwelling units, yards, streets, open space, stormwater management facilities, existing vegetation, noise mitigation measures, sidewalks and fences);
 - provide dwelling units that are oriented appropriately to adjacent streets and homes;
 - include usable yard areas within the individual lots that accommodate the future construction of decks, sunrooms, porches, and/or accessory structures in the layout of the lots, and that provide space for landscaping to thrive and for maintenance activities;
 - provide logical and appropriate relationships among the proposed lots including the relationships of yards, the orientation of the dwelling units, and the use of pipestem lots;
 - provide convenient access to transit facilities;
 - Identify all existing utilities and make every effort to identify all proposed utilities and stormwater management outfall areas; encourage utility collocation where feasible.
- c) *Open Space:* Developments should provide usable, accessible, and well-integrated open space. This principle is applicable to all projects where open space is required by the Zoning Ordinance and should be considered, where appropriate, in other circumstances.
- d) *Landscaping:* Developments should provide appropriate landscaping: for example, in parking lots, in open space areas, along streets, in and around stormwater management facilities, and on individual lots.
- e) *Amenities:* Developments should provide amenities such as benches, gazebos, recreational amenities, play areas for children, walls and fences, special paving treatments, street furniture, and lighting.

2. Neighborhood Context:

All rezoning applications for residential development, regardless of the proposed density, should be designed to fit into the community within which the development is to be located.

Developments should fit into the fabric of their adjacent neighborhoods, as evidenced by an evaluation of:

- transitions to abutting and adjacent uses;
- lot sizes, particularly along the periphery;
- bulk/mass of the proposed dwelling units;
- setbacks (front, side and rear);
- orientation of the proposed dwelling units to adjacent streets and homes;
- architectural elevations and materials;
- pedestrian, bicycle and vehicular connections to off-site trails, roadways, transit facilities and land uses;
- existing topography and vegetative cover and proposed changes to them as a result of clearing and grading.

It is not expected that developments will be identical to their neighbors, but that the development fit into the fabric of the community. In evaluating this criterion, the individual circumstances of the property will be considered: such as, the nature of existing and planned development surrounding and/or adjacent to the property; whether the property provides a transition between different uses or densities; whether access to an infill development is through an existing neighborhood; or, whether the property is within an area that is planned for redevelopment.

3. Environment:

All rezoning applications for residential development should respect the environment. Rezoning proposals for residential development, regardless of the proposed density, should be consistent with the policies and objectives of the environmental element of the Policy Plan, and will also be evaluated on the following principles, where applicable.

- a) *Preservation*: Developments should conserve natural environmental resources by protecting, enhancing, and/or restoring the habitat value and pollution reduction potential of floodplains, stream valleys, EQCs, RPAs, woodlands, wetlands and other environmentally sensitive areas.
- b) *Slopes and Soils*: The design of developments should take existing topographic conditions and soil characteristics into consideration.
- c) *Water Quality*: Developments should minimize off-site impacts on water quality by commitments to state of the art best management practices for stormwater management and better site design and low impact development (LID) techniques.

- d) *Drainage*: The volume and velocity of stormwater runoff from new development should be managed in order to avoid impacts on downstream properties. Where drainage is a particular concern, the applicant should demonstrate that off-site drainage impacts will be mitigated and that stormwater management facilities are designed and sized appropriately. Adequate drainage outfall should be verified, and the location of drainage outfall (onsite or offsite) should be shown on development plans.
- e) *Noise*: Developments should protect future and current residents and others from the adverse impacts of transportation generated noise.
- f) *Lighting*: Developments should commit to exterior lighting fixtures that minimize neighborhood glare and impacts to the night sky.
- g) *Energy*: Developments should use site design techniques such as solar orientation and landscaping to achieve energy savings, and should be designed to encourage and facilitate walking and bicycling. Energy efficiency measures should be incorporated into building design and construction.

4. Tree Preservation and Tree Cover Requirements:

All rezoning applications for residential development, regardless of the proposed density, should be designed to take advantage of the existing quality tree cover. If quality tree cover exists on site as determined by the County, it is highly desirable that developments meet most or all of their tree cover requirement by preserving and, where feasible and appropriate, transplanting existing trees. Tree cover in excess of ordinance requirements is highly desirable. Proposed utilities, including stormwater management and outfall facilities and sanitary sewer lines, should be located to avoid conflicts with tree preservation and planting areas. Air quality-sensitive tree preservation and planting efforts (see Objective 1, Policy c in the Environment section of this document) are also encouraged.

5. Transportation:

All rezoning applications for residential development should implement measures to address planned transportation improvements. Applicants should offset their impacts to the transportation network. Accepted techniques should be utilized for analysis of the development's impact on the network. Residential development considered under these criteria will range widely in density and, therefore, will result in differing impacts to the transportation network. Some criteria will have universal applicability while others will apply only under specific circumstances. Regardless of the proposed density, applications will be evaluated based upon the following principles, although not all of the principles may be applicable.

- a) *Transportation Improvements*: Residential development should provide safe and adequate access to the road network, maintain the ability of local streets to safely accommodate traffic, and offset the impact of additional traffic through commitments to the following:
- Capacity enhancements to nearby arterial and collector streets;

- Street design features that improve safety and mobility for non-motorized forms of transportation;
 - Signals and other traffic control measures;
 - Development phasing to coincide with identified transportation improvements;
 - Right-of-way dedication;
 - Construction of other improvements beyond ordinance requirements;
 - Monetary contributions for improvements in the vicinity of the development.
- b) *Transit/Transportation Management*: Mass transit usage and other transportation measures to reduce vehicular trips should be encouraged by:
- Provision of bus shelters;
 - Implementation and/or participation in a shuttle bus service;
 - Participation in programs designed to reduce vehicular trips;
 - Incorporation of transit facilities within the development and integration of transit with adjacent areas;
 - Provision of trails and facilities that increase safety and mobility for non-motorized travel.
- c) *Interconnection of the Street Network*: Vehicular connections between neighborhoods should be provided, as follows:
- Local streets within the development should be connected with adjacent local streets to improve neighborhood circulation;
 - When appropriate, existing stub streets should be connected to adjoining parcels. If street connections are dedicated but not constructed with development, they should be identified with signage that indicates the street is to be extended;
 - Streets should be designed and constructed to accommodate safe and convenient usage by buses and non-motorized forms of transportation;
 - Traffic calming measures should be implemented where needed to discourage cut-through traffic, increase safety and reduce vehicular speed;
 - The number and length of long, single-ended roadways should be minimized;
 - Sufficient access for public safety vehicles should be ensured.
- d) *Streets*: Public streets are preferred. If private streets are proposed in single family detached developments, the applicant shall demonstrate the benefits for such streets. Applicants should make appropriate design and construction commitments for all private streets so as to

minimize maintenance costs which may accrue to future property owners. Furthermore, convenience and safety issues such as parking on private streets should be considered during the review process.

e) *Non-motorized Facilities:* Non-motorized facilities, such as those listed below, should be provided:

- Connections to transit facilities;
- Connections between adjoining neighborhoods;
- Connections to existing non-motorized facilities;
- Connections to off-site retail/commercial uses, public/community facilities, and natural and recreational areas;
- An internal non-motorized facility network with pedestrian and natural amenities, particularly those included in the Comprehensive Plan;
- Offsite non-motorized facilities, particularly those included in the Comprehensive Plan;
- Driveways to residences should be of adequate length to accommodate passenger vehicles without blocking walkways;
- Construction of non-motorized facilities on both sides of the street is preferred. If construction on a single side of the street is proposed, the applicant shall demonstrate the public benefit of a limited facility.

f) *Alternative Street Designs:* Under specific design conditions for individual sites or where existing features such as trees, topography, etc. are important elements, modifications to the public street standards may be considered.

6. Public Facilities:

Residential development impacts public facility systems (i.e., schools, parks, libraries, police, fire and rescue, stormwater management and other publicly owned community facilities). These impacts will be identified and evaluated during the development review process. For schools, a methodology approved by the Board of Supervisors, after input and recommendation by the School Board, will be used as a guideline for determining the impact of additional students generated by the new development.

Given the variety of public facility needs throughout the County, on a case-by-case basis, public facility needs will be evaluated so that local concerns may be addressed.

All rezoning applications for residential development are expected to offset their public facility impact and to first address public facility needs in the vicinity of the proposed development. Impact offset may be accomplished through the dedication of land suitable for the construction of an identified public facility need, the construction of public facilities, the contribution of specified in-kind goods, services or cash earmarked for those uses, and/or monetary

contributions to be used toward funding capital improvement projects. Selection of the appropriate offset mechanism should maximize the public benefit of the contribution.

Furthermore, phasing of development may be required to ensure mitigation of impacts.

7. Affordable Housing:

Ensuring an adequate supply of housing for low and moderate income families, those with special accessibility requirements, and those with other special needs is a goal of the County. Part 8 of Article 2 of the Zoning Ordinance requires the provision of Affordable Dwelling Units (ADUs) in certain circumstances. Criterion #7 is applicable to all rezoning applications and/or portions thereof that are not required to provide any Affordable Dwelling Units, regardless of the planned density range for the site.

- a) *Dedication of Units or Land:* If the applicant elects to fulfill this criterion by providing affordable units that are not otherwise required by the ADU Ordinance: a maximum density of 20% above the upper limit of the Plan range could be achieved if 12.5% of the total number of single family detached and attached units are provided pursuant to the Affordable Dwelling Unit Program; and, a maximum density of 10% or 20% above the upper limit of the Plan range could be achieved if 6.25% or 12.5%, respectively of the total number of multifamily units are provided to the Affordable Dwelling Unit Program. As an alternative, land, adequate and ready to be developed for an equal number of units may be provided to the Fairfax County Redevelopment and Housing Authority or to such other entity as may be approved by the Board.
- b) *Housing Trust Fund Contributions:* Satisfaction of this criterion may also be achieved by a contribution to the Housing Trust Fund or, as may be approved by the Board, a monetary and/or in-kind contribution to another entity whose mission is to provide affordable housing in Fairfax County, equal to 0.5% of the value of all of the units approved on the property except those that result in the provision of ADUs. This contribution shall be payable prior to the issuance of the first building permit. For for-sale projects, the percentage set forth above is based upon the aggregate sales price of all of the units subject to the contribution, as if all of those units were sold at the time of the issuance of the first building permit, and is estimated through comparable sales of similar type units. For rental projects, the amount of the contribution is based upon the total development cost of the portion of the project subject to the contribution for all elements necessary to bring the project to market, including land, financing, soft costs and construction. The sales price or development cost will be determined by the Department of Housing and Community Development, in consultation with the Applicant and the Department of Public Works and Environmental Services. If this criterion is fulfilled by a contribution as set forth in this paragraph, the density bonus permitted in a) above does not apply.

8. Heritage Resources:

Heritage resources are those sites or structures, including their landscape settings, that exemplify the cultural, architectural, economic, social, political, or historic heritage of the County or its communities. Such sites or structures have been 1) listed on, or determined eligible for listing on, the National Register of Historic Places or the Virginia Landmarks Register; 2) determined to be a contributing structure within a district so listed or eligible for listing; 3) located within and considered as a contributing structure within a Fairfax County Historic Overlay District; or 4) listed on, or having a reasonable potential as determined by the County, for meeting the criteria for listing on, the Fairfax County Inventories of Historic or Archaeological Sites.

In reviewing rezoning applications for properties on which known or potential heritage resources are located, some or all of the following shall apply:

- a) Protect heritage resources from deterioration or destruction until they can be documented, evaluated, and/or preserved;
- b) Conduct archaeological, architectural, and/or historical research to determine the presence, extent, and significance of heritage resources;
- c) Submit proposals for archaeological work to the County for review and approval and, unless otherwise agreed, conduct such work in accordance with state standards;
- d) Preserve and rehabilitate heritage resources for continued or adaptive use where feasible;
- e) Submit proposals to change the exterior appearance of, relocate, or demolish historic structures to the Fairfax County Architectural Review Board for review and approval;
- f) Document heritage resources to be demolished or relocated;
- g) Design new structures and site improvements, including clearing and grading, to enhance rather than harm heritage resources;
- h) Establish easements that will assure continued preservation of heritage resources with an appropriate entity such as the County's Open Space and Historic Preservation Easement Program; and
- i) Provide a Fairfax County Historical Marker or Virginia Historical Highway Marker on or near the site of a heritage resource, if recommended and approved by the Fairfax County History Commission.



County of Fairfax, Virginia

MEMORANDUM

DATE: October 20, 2014

TO: Barbara Berlin, Director
Zoning Evaluation Division, DPZ

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

SUBJECT: **Environmental Assessment: RZ/FDP 2014-BR-007**
Forest Ridge

This memorandum, prepared by Mary Ann Welton, includes citations from the Comprehensive Plan that provide guidance for the evaluation of the subject Rezoning application (RZ), Conceptual Development Plan (CDP) application, and the Final Development Plan (FDP) and proffers which have been revised through September 12, 2014. The extent to which the application conforms to the applicable guidance contained in the Comprehensive Plan is noted. Possible solutions to remedy identified issues are suggested. Other solutions may be acceptable, provided that they achieve the desired degree of mitigation and are in harmony 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:

The Fairfax County Comprehensive Plan, Policy Plan, 2013 Edition, Environment section as amended through July 1, 2014, page 7-8 states:

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

Policy a. Maintain a best management practices (BMP) program for Fairfax County and ensure that new development and redevelopment

complies with the County's best management practice (BMP) requirements. . . .

Policy k. For new development and redevelopment, apply better site design and low impact development (LID) 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.
- Site buildings to minimize impervious cover associated with driveways and parking areas and to encourage tree preservation. . . .
- Encourage cluster development when designed to maximize protection of ecologically valuable land. . . .
- Encourage fulfillment of tree cover requirements through tree preservation instead of replanting where existing tree cover permits. Commit to tree preservation thresholds that exceed the minimum Zoning Ordinance requirements.
- Where appropriate, use protective easements in areas outside of private residential lots as a mechanism to protect wooded areas and steep slopes. . . .
- 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."

The Fairfax County Comprehensive Plan, Policy Plan, 2013 Edition, Environment section as amended through July 1, 2014, page 10 states:

“Objective 3: Protect the Potomac Estuary and the Chesapeake Bay from the avoidable impacts of land use activities in Fairfax County.

- Policy a. Ensure that new development and redevelopment complies with the County's Chesapeake Bay Preservation Ordinance. . . .”

The Fairfax County Comprehensive Plan Policy Plan, 2013 Edition, Environment section as amended through July 1, 2014, page 11-12 states:

“Objective 4: Minimize human exposure to unhealthful levels of transportation generated noise.

- Policy a: Regulate new development to ensure that people are protected from unhealthful levels of transportation noise....

New development should not expose people in their homes, or other noise sensitive environments, to noise in excess of DNL 45 dBA, or to noise in excess of DNL 65 dBA in the outdoor recreation areas of homes. To achieve these standards new residential development in areas impacted by highway noise between DNL 65 and 75 dBA will require mitigation. New residential development should not occur in areas with projected highway noise exposures exceeding DNL 75 dBA.”

The Fairfax County Comprehensive Plan Policy Plan, 2013 Edition, Environment section as amended through July 1, 2014, page 12 states:

“Objective 6: Ensure that new development either avoids problem soil areas, or implements appropriate engineering measures to protect existing and new structures from unstable soils.

- Policy a: Limit densities on slippage soils, and cluster development away from slopes and potential problem areas...

- Policy b: Require new development on problem soils to provide appropriate engineering measures to ensure against geotechnical hazards.”

The Fairfax County Comprehensive Plan Policy Plan, 2013 Edition, Environment section as amended through July 1, 2014, page 12 states:

“Objective 10: Conserve and restore tree cover on developed and developing sites. Provide tree cover on sites where it is absent prior to development.

- Policy a: Protect or restore the maximum amount of tree cover on developed and developing sites consistent with planned land use and good silvicultural practices. . . .”

The Fairfax County Comprehensive Plan, 2013 Edition, Policy Plan, Environment, as amended through July 1, 2014, page 19-21 states:

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[®]] or the U.S. Green Building Council's Leadership in Energy and Environmental Design for Core and Shell [LEED-CS[®]] 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[®] 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.”

ENVIRONMENTAL ANALYSIS

This section characterizes the environmental concerns raised by an evaluation of this site and the proposed development. Solutions are suggested to remedy the concerns that have been identified by staff. There may be other acceptable solutions. Particular emphasis is given to opportunities provided by this application to conserve the county's remaining natural amenities. This application seeks approval for 40 single-family attached homes on 13.88 acres of land at a density of 2.88 dwelling units per acre of land which is proposed to be rezoned from R-1 to the PDH-3 Zoning District.

Stormwater Quality Best Management Practices: The 13.88 acre subject property is located on the southwest corner of the intersection of Lee Highway and Shirley Gate Road within the Difficult Run watershed. Approximately one acre of the subject property is currently devoted to greenhouses and other garden structures. A significant portion of the property is densely vegetated with upland forest species which include varied types of oak, sugar maple, tulip poplar, black locust, black cherry and Virginia Pine. The stormwater narrative indicates that water quality and water control quantity requirements for this residential development will be met by the installation of two large stormwater detention facilities located on the northwestern and the southwestern corners of the subject property, as well as 5 bioretention facilities dispersed throughout the site. Soil types which provide poor infiltration characterize much of this site. The applicant is encouraged to conduct the appropriate infiltration testing to ensure that the facilities proposed will function.

The outfall narrative indicates that two outfalls will serve the proposed development – one which is located on the southwest corner of the property and piped under Forest Hill Drive into an adjacent floodplain. A second outfall is located on the northern boundary of the development and flows through a culvert under the roadway and will ultimately outfall on the north side Lee Highway on the opposite side of the road. The adequacy of stormwater management/best management practice (SWM/BMP) facilities and outfall will be subject to review and approval by the Department of Public Works and Environmental Services (DPWES).

On May 24, 2011, the Virginia Soil and Water Conservation Board adopted Final Stormwater Regulations, which became effective September 13, 2011. The regulations require all local governments in Virginia to adopt and enforce new stormwater management requirements; these new requirements must be effective on July 1, 2014. In support of this legislation, the Fairfax County Board of Supervisors adopted the Stormwater Management Ordinance as an amendment to the Code of Fairfax County on January 28, 2014.

http://www.fairfaxcounty.gov/dpwes/stormwaterordinance/chapter_124.pdf

Staff from the DPWES administers the stormwater management ordinance, which became effective July 1, 2014.

Transportation Generated Noise: The subject property will be affected by transportation generated noise from adjacent Lee Highway. The applicant has provided a preliminary noise study #140962, performed by Phoenix Noise and Vibration, dated October 2, 2014. The acoustical analysis indicates that the rear yards of proposed lots 1– 4, as well as the upper stories

Barbara Berlin
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of lots 1–4, 26, 27 and 40 will be affected by future unmitigated transportation generated noise which exceeds 65 dBA Ldn. Twenty-four hour noise measurements was performed on site September 3– 4, 2014.

A future projected traffic count was derived by adding a 2 percent increase in traffic per year up to 2034. Regarding future roadway improvements, the analysis accommodated for one additional east bound lane on Lee Highway closest to the subject property, but the analysis did not accommodate for the future interchange improvement for the Lee Highway and Shirley Gate Road intersection because information about this improvement was unavailable when this analysis was performed.

The acoustical analysis offered the following conclusions:

- The subject property will be affected by transportation generated noise levels up to 67 dBA Ldn;
- Conformance with the Policy Plan can likely be achieved through site modifications and building materials, but no conclusive recommendations can be suggested at this time because of the lack of information regarding the home models and designs;
- Noise levels up to 67dBA will impact the rear and side yards of Lots 1– 4, but such noise levels could be mitigated with a noise barrier up to 12 feet in height along these lots;
- Out of the 40 proposed homes, 7 specific homes on lots 1–4, 26, 27 and 40 will be affected by transportation generated noise.

The applicant is providing a proffer (#19) regarding traffic noise mitigation. Staff recommends that the applicant provide a more detailed proffer commitment in support of Policy Plan guidance regarding noise mitigation for new residential use. The applicant is strongly encouraged to include the appropriate building materials specifications capable of mitigating noise to address 70 – 75 dBA Ldn in the event that this level is reached if interchange information is added. In addition, the applicant is strongly encouraged to provide a commitment to perform a refined acoustical analysis at site plan submission to ensure that final grading, model design and roadway improvements have been accommodated to ensure that noise in interior areas of new residential development will not exceed 45 decibels and that noise in the recreations areas of the new homes does not exceed 65 dBA. Finally, the acoustical analysis suggests that a noise barrier measuring up to 12' in height could provide noise mitigation in the rear and side yards of lots 1– 4, but this feature is not shown on the September 12, 2014 development plan nor is it mentioned in the noise proffer.

This issue remains unresolved.

Soil Constraints: Sheet 2 of the development plan depicts an insert which describes the soil types which characterize the subject property based on the official 2011 Fairfax County Soils Map. The soils types which pose the greatest constraints to development and which generally typify the subject property include Elbert Silt Loam (35A); Hattontown Orange Complex (56B); Hattontown Orange Complex (Stony) (57C); Orange Silt Loam (82B); Orange Silt Loam (Stony) (83C) and the Wheaton Codorous Complex (103A). Some of these soil types are characterized by naturally occurring asbestos, a high shrink swell potential, poor foundation support and poor infiltration. The soil type insert on the development plan notes that all the soils which have been

Barbara Berlin
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identified above are subject to a geotechnical analysis at the time of site plan. Staff encourages the applicant to provide a proffer commitment to address this issue.

Dumping of Debris: Because the land use which precedes this proposal has been an active nursery operation with significant material storage, the applicant has provided a Phase I Environmental Site Assessment (ESA). The Phase I ESA #13-11187 performed by ECC, dated May 20, 2013 raises a number of concerns:

- A pond existed on the property, but it was filled between 1998 and 2002. Analysis of a soil boring log from a test pit indicates that the pond was filled with an organic fill material of unknown origin, and that this fill extended 7.5 feet below grade;
- Debris and soil stockpiles of unknown origin and composition have been dumped on the site, particularly on lot 59;
- A 500 gallon underground gasoline storage tank is registered to 4315 Forest Hill Drive, but the quality of the soil and the groundwater have in the vicinity of this tank are not known;
- An unregistered 12,000 gallon underground heating oil tank was previously located in the central area of the subject property and the soil and groundwater quality in the vicinity of this tank are not known.

This study concludes that a Phase II ESA be performed to determine both soil and groundwater quality. In addition, among other recommendations, the study suggests that all contaminated soils be removed and that the origin of the contamination be determined. The ESA provides detailed recommendations regarding excavation of the naturally occurring asbestos soils and rock onsite and the study recommends that an asbestos handling professional be onsite to monitor and assess the potential for asbestos fibers being released into the air during construction.

Staff recommends that the applicant commission a Phase II ESA as soon as possible so that the extent of the contamination can be determined and addressed prior to construction of this future residential community.

Proffer #33 commits to complete a Phase I ESA and the proffer should also commit to completing a Phase II ESA. In addition, this proffer states the study will be submitted to Department of Public Works and Environmental Services; however, Fairfax County Fire and Rescue is the appropriate entity that provides evaluation of ESA's. The applicant is encouraged to provide a more detailed commitment to address site contamination and clean-up of the subject property at the rezoning phase of review, so that problems may be addressed earlier.

Green Building Practices: The applicant has provided a proffered commitment (#21) for the attainment of Energy Star Qualified Homes, Earthcraft House or 2012 National Green Building Standard (NGBS) using the Energy Star Qualified Homes for energy performance. However, the green building policy in the Comprehensive Plan recommends attainment of residential ratings systems incorporating multiple green building concepts such as Earthcraft and NGBS with the Energy Star path for energy performance. As the Energy Star rating system focuses only on energy performance, it should not be included as a certification option. If certain revisions and modifications are made to the green building proffer, then this issue will be resolved.

Barbara Berlin
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Tree Preservation/Restoration: The subject property is currently densely vegetated, but very little existing vegetation is proposed for preservation. The proposed stormwater ponds will result in significant tree removal and the soils onsite provide poor infiltration. The applicant is encouraged to evaluate and balance the proposed stormwater measures against the asset of maintaining more of the existing tree canopy onsite. The applicant is encouraged to work with the Urban Forestry Management Division (UFMD) of DPWES to identify additional areas of the site for preservation, as well as to demonstrate ways to best protect the existing canopy and root systems on the site.

PGN/MAW



County of Fairfax, Virginia

MEMORANDUM

DATE: October 21, 2014

TO: Barbara Berlin, Director
Zoning Evaluation Division, Department of Planning & Zoning

FROM: Michael A. Davis, Acting Chief 
Site Analysis Section, Department of Transportation

FILE: RZ/FDP 2014-BR-007 NVR, Inc.

SUBJECT: RZ/FDP 2014-BR-007 NVR, Inc. (Forest Ridge)
11343, 11401, 11421, 11425, 11429 Lee Highway and 4135 Forest Hill Drive
Fairfax, VA 22030
Tax Map: 56-2 ((1)) 54, 55, 57, 58, 59 and 56-2 ((4)) 1

This Department has reviewed the rezoning application and Conceptual/Final Development Plan (CDP/FDP) dated October 25, 2013 and revised through October 17, 2014, and offers the following comments:

- The applicant should provide a public street connection between the terminus of Delsignore Drive and Forest Hill Road. The street should be constructed to VDOT standards, with a minimum 26-foot wide pavement section from face-of-curb to face-of-curb. The street referenced in the CDP/FDP as "Option A," is an acceptable alignment for this street.
- If a public street connection is not provided, the applicant will need to terminate Delsignore Drive with a turnaround acceptable to VDOT, including right-of-way dedication for the turnaround area. Applicant should also provide a pedestrian connection to the existing sidewalks on Delsignore Drive.
- It is recommended that the applicant reimburse FCDOT \$13,875, for the design/coordination fees of relocating the traffic signal mast arm pole at the Route 29/Forest Hill Road intersection in its ultimate location, to accommodate the Forest Hill Drive right-turn lane proposed by the applicant. The applicant should proffer that the funds be committed to the Lee Highway (Route 29) Widening Phase III 5G25-052-000 4YP212 Fund 304, upon request by the County, or upon site plan submittal, whichever occurs first.
- The applicant should dedicate an additional 4 feet of ROW along the Route 29 frontage to create a 125-foot wide half-section for the future ultimate improvement of this roadway, as measured from the Route 29 centerline. The applicant is only proposing to dedicate ROW to create a 121-foot half section.
- The applicant should redesign the lot layout and driveways to incorporate staggered driveways which may reduce vehicle backing conflicts from the opposing driveway.
- The internal trail should connect to the walkways along Route 29 and Forest Hill Drive.

MAD/RP

Fairfax County Department of Transportation
4050 Legato Road, Suite 400
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COMMONWEALTH of VIRGINIA

DEPARTMENT OF TRANSPORTATION

4975 Alliance Drive
Fairfax, VA 22030

October 23, 2014

CHARLES A. KILPATRICK, P.E.
COMMISSIONER

To: Ms. Barbara Berlin
Director, Zoning Evaluation Division

From: Kevin Nelson
Virginia Department of Transportation – Land Development Section

Subject: RZ/FDP 2014-BR-007 NVR, Inc.
Tax Map # 56-2((01))0054-59 & ((04))0001

All submittals subsequent to the first submittal shall provide a response letter to the previous VDOT comments. Submittals without comment response letters are considered incomplete and will be returned without review.

I have reviewed the above plan submitted on September 15, 2014, and received on September 18, 2014, including supplemental information sent last week. The following comments are offered:

1. VDOT supports the option shown on Sheet 5 labeled as Option A, signed and dated by the engineer on October 17, 2014.
2. One side of any streets not at least 29' wide will need to be signed as No Parking.
3. VDOT will only maintain those portions of the roadway network meeting our design standards and within public rights of way.

If you have any questions, please call me.

cc: Ms. Angela Rodeheaver

fairfaxrezoning2014-BR-007rz2NVRInc10-23-14BB



County of Fairfax, Virginia

MEMORANDUM

DATE: September 29, 2014

TO: Michael Lynskey, Staff Coordinator
Department of Planning and Zoning

FROM: Samantha Wangsgard, Urban Forester II
Forest Conservation Branch, DPWES 

SUBJECT: Garden World (NVR, Inc)/Forest Ridge; RZ/FDP 2014-BR-007

This review is based on the resubmission of RZ/FDP 2014-BR-007 stamped "Received, Department of Planning and Zoning, September 12, 2014" and received by the Urban Forest Management Division on September 16, 2014.

- 1. Comment:** It appears that a request to deviate from the tree preservation target has been submitted on sheet 2. At this time a deviation is not supported by the Urban Forest Management Division as an alternative design may provide additional tree preservation opportunities.

Recommendation: The site design should be revised based on the comments provided as part of this memo.

- 2. Comment:** The tree save area to the south is not eligible for use in meeting the tree preservation requirements as an asphalt trail is proposed to bisect it.

Recommendation: The asphalt trail should be removed from the tree preservation area or the area attributed to this tree preservation area should be removed from the 10-year Tree Canopy and Tree Preservation Calculations.

- 3. Comment:** The proposed asphalt trail is proposed outside the limits of clearing and grading.

Recommendation: The asphalt trail should be relocated to be within the limits of clearing and grading or the limits of clearing and grading should be adjusted to include the trail.

- 4. Comment:** It appears there are more stormwater BMPs than are necessary to meet the minimum stormwater requirements. Several of these BMPs are located in areas where additional tree preservation is possible.

Recommendation: The plan should be revised to identify only those bioretention and SWP facilities that are necessary to meet the minimum stormwater requirements and those that are not should be removed and additional tree preservation areas should be provided in their place.

Department of Public Works and Environmental Services
Urban Forest Management Division
12055 Government Center Parkway, Suite 518
Fairfax, Virginia 22035-5503
Phone 703-324-1770, TTY: 711, Fax: 703-653-9550
www.fairfaxcounty.gov/dpwes



- 5. Comment:** Across the site, including in portions of the proposed tree preservation areas, there are moderate to high levels of invasive species including multi-floral rose, and Japanese honeysuckle, autumn olive that are considered undesirable. This vegetation could endanger the long-term ecological functionality, health, and regenerative capacity of the forest community.

Recommendation: An invasive and undesirable vegetation management plan should be provided detailing how the invasive and/or undesirable plant species will be removed and managed from these areas, without damaging trees proposed for preservation, to promote the long-term ecological functionality, health, and regenerative capacity of the forest community. Proffer language related to invasive and undesirable vegetation management should be obtained similar to the following:

“An invasive and undesirable vegetation management plan shall be developed that provides for the management and treatment of invasive and undesirable plants, growing in all areas shown to be preserved, that are likely to endanger the long-term ecological functionality, health, and regenerative capacity of the early successional forest communities, for review and approval by the Urban Forest Management Division. The management plan shall incorporate the following information:

- Identify targeted invasive plant species to be suppressed and managed.
- Identify targeted area of invasive plant management plan, which shall be clearly identified on the landscape or tree preservation plan.
- Recommended government and industry method(s) of management, i.e. hand removal, mechanical equipment, chemical control, other. Identify potential impacts of recommended method(s) on surrounding trees and vegetation not targeted for suppression/management and identify how these trees and vegetation will be protected (for example, if mechanical equipment is proposed in save area, what will be the impacts to trees identified for preservation and how will these impacts be reduced).
- Identify how targeted species will be disposed.
- If chemical control is recommended, treatments shall be performed by or under direct supervision of a Virginia Certified Pesticide Applicator or Registered Technician and under the general supervision of Project Arborist).
- Provide information regarding timing of treatments, (hand removal, mechanical equipment or chemical treatments) when will treatments begin and end during a season and proposed frequency of treatments per season.
- Identify potential areas of reforestation and provide recommendation
- Monthly monitoring reports provided to UFMD and SDID staff.
- Duration of Invasive program; until Bond release or release of Conservation Deposit or prior to release if targeted plant(s) appear to be eliminated based on documentation provided by Project Arborist and an inspection by UFMD staff.

- 6. Comment:** Given the nature of tree cover located on and off-site, and depending on the



ultimate development configuration provided, several proffers will be instrumental in assuring adequate tree preservation throughout the development process.

Recommendation: Recommend the following proffer language to ensure effective tree preservation:

Tree Preservation: “The applicant shall submit a Tree Preservation Plan and Narrative as part of the first and all subsequent site plan submissions. The preservation plan and narrative shall be prepared by a Certified Arborist or a Registered Consulting Arborist, and shall be subject to the review and approval of the Urban Forest Management Division, DPWES.

The tree preservation plan shall include a tree inventory that identifies the location, species, critical root zone, size, crown spread and condition analysis percentage rating for all individual trees to be preserved, as well as all on and off-site trees, living or dead with trunks 12 inches in diameter and greater (measured at 4 ½ -feet from the base of the trunk or as otherwise allowed in the latest edition of the Guide for Plant Appraisal published by the International Society of Arboriculture) located within 25 feet to either side of the limits of clearing and grading. The tree preservation plan shall provide for the preservation of those areas shown for tree preservation, those areas outside of the limits of clearing and grading shown on the CDP/FDP and those additional areas in which trees can be preserved as a result of final engineering. The tree preservation plan and narrative shall include all items specified in PFM 12-0507 and 12-0509. Specific tree preservation activities that will maximize the survivability of any tree identified to be preserved, such as: crown pruning, root pruning, mulching, fertilization, and others as necessary, shall be included in the plan.”

Tree Appraisal. “The Applicant shall retain a professional arborist with experience in plant appraisal, to determine the replacement value of all trees 12 inches in diameter or greater located on the Application Property that are shown to be saved on the Tree Preservation Plan. These trees and their value shall be identified on the Tree Preservation Plan at the time of the first submission of the respective site plan(s). The replacement value shall take into consideration the age, size and condition of these trees and shall be determined by the so-called “Trunk Formula Method” contained in the latest edition of the Guide for Plant Appraisal published by the International Society of Arboriculture, subject to review and approval by UFMD.

At the time of the respective site plan approvals, the Applicant shall post a cash bond or a letter of credit payable to the County of Fairfax to ensure preservation and/or replacement of the trees for which a tree value has been determined in accordance with the paragraph above (the “Bonded Trees”) that die or are dying due to unauthorized construction activities. The letter of credit or cash deposit shall be equal to 50% of the replacement value of the Bonded Trees. At any time prior to final bond release for the improvements on the Application Property constructed adjacent to the respective tree save areas, should any Bonded Trees die, be removed, or are determined to be dying by UFMD due to unauthorized construction



activities, the Applicant shall replace such trees at its expense. The replacement trees shall be of equivalent size, species and/or canopy cover as approved by UFMD. In addition to this replacement obligation, the Applicant shall also make a payment equal to the value of any Bonded Tree that is dead or dying or improperly removed due to unauthorized construction activity. This payment shall be determined based on the Trunk Formula Method and paid to a fund established by the County for furtherance of tree preservation objectives. Upon release of the bond for the improvements on the Application Property constructed adjacent to the respective tree save areas, any amount remaining in the tree bonds required by this proffer shall be returned/released to the Applicant.”

Tree Preservation Walk-Through. “The Applicant shall retain the services of a certified arborist or Registered Consulting Arborist, and shall have the limits of clearing and grading marked with a continuous line of flagging prior to the walk-through meeting. During the tree-preservation walk-through meeting, the Applicant’s certified arborist or landscape architect shall walk the limits of clearing and grading with an UFMD, DPWES, representative to determine where adjustments to the clearing limits can be made to increase the area of tree preservation and/or to increase the survivability of trees at the edge of the limits of clearing and grading, and such adjustment shall be implemented. Trees that are identified as dead or dying may be removed as part of the clearing operation. Any tree that is so designated shall be removed using a chain saw and such removal shall be accomplished in a manner that avoids damage to surrounding trees and associated understory vegetation. If a stump must be removed, this shall be done using a stump-grinding machine in a manner causing as little disturbance as possible to adjacent trees and associated understory vegetation and soil conditions.”

Limits of Clearing and Grading. “The Applicant shall conform strictly to the limits of clearing and grading as shown on the CDP/FDP, subject to allowances specified in these proffered conditions and for the installation of utilities and/or trails as determined necessary by the Director of DPWES, as described herein. If it is determined necessary to install utilities and/or trails in areas protected by the limits of clearing and grading as shown on the CDP/FDP, they shall be located in the least disruptive manner necessary as determined by the UFMD, DPWES. A replanting plan shall be developed and implemented, subject to approval by the UFMD, DPWES, for any areas protected by the limits of clearing and grading that must be disturbed for such trails or utilities.”

Tree Preservation Fencing: “All trees shown to be preserved on the tree preservation plan shall be protected by tree protection fence. Tree protection fencing in the form of four (4) foot high, fourteen (14) gauge welded wire attached to six (6) foot steel posts driven eighteen (18) inches into the ground and placed no further than ten (10) feet apart or, super silt fence to the extent that required trenching for super silt fence does not sever or wound compression roots which can lead to structural failure and/or uprooting of trees shall be erected at the limits of clearing and grading as shown on the demolition, and phase I & II erosion and sediment control sheets, as may be modified by the “Root Pruning” proffer below. All tree protection fencing shall be installed after the tree preservation walk-through meeting but prior to any clearing and grading activities, including the demolition of any existing

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Land Development Services, Environmental and Site Review Division
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 Fairfax, Virginia 22035-5503
 Phone 703-324-1720, TTY: 703-324-1877, Fax: 703-324-8359
www.fairfaxcounty.gov/dpwes



Garden World (NVR, Inc)/Forest Ridge

RZ/FDP 2014-BR-007

Page 5 of 5

structures. The installation of all tree protection fencing shall be performed under the supervision of a certified arborist, and accomplished in a manner that does not harm existing vegetation that is to be preserved. Three (3) days prior to the commencement of any clearing, grading or demolition activities, but subsequent to the installation of the tree protection devices, the UFMD, DPWES, shall be notified and given the opportunity to inspect the site to ensure that all tree protection devices have been correctly installed. If it is determined that the fencing has not been installed correctly, no grading or construction activities shall occur until the fencing is installed correctly, as determined by the UFMD, DPWES.”

Root Pruning. “The Applicant shall root prune, as needed to comply with the tree preservation requirements of these proffers. All treatments shall be clearly identified, labeled, and detailed on the erosion and sediment control sheets of the subdivision plan submission. The details for these treatments shall be reviewed and approved by the UFMD, DPWES, accomplished in a manner that protects affected and adjacent vegetation to be preserved, and may include, but not be limited to the following:

- Root pruning shall be done with a trencher or vibratory plow to a depth of 18 inches.
- Root pruning shall take place prior to any clearing and grading, or demolition of structures.
- Root pruning shall be conducted with the supervision of a certified arborist.
- An UFMD, DPWES, representative shall be informed when all root pruning and tree protection fence installation is complete.”

Site Monitoring. “During any clearing or tree/vegetation/structure removal on the Applicant Property, a representative of the Applicant shall be present to monitor the process and ensure that the activities are conducted as proffered and as approved by the UFMD. The Applicant shall retain the services of a certified arborist or Registered Consulting Arborist to monitor all construction and demolition work and tree preservation efforts in order to ensure conformance with all tree preservation development conditions, and UFMD approvals. The monitoring schedule shall be described and detailed in the Landscaping and Tree Preservation Plan, and reviewed and approved by the UFMD, DPWES.”

Demolition of Existing Structures. “The demolition of all existing features and structures within areas protected by the limits of clearing and grading areas shown on the CDP/FDP shall be done by hand without heavy equipment and conducted in a manner that does not impact individual trees and/or groups of trees that are to be preserved as reviewed and approved by the UFMD, DPWES.”

SW/

UFMDID #: 189481

cc: DPZ File

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FAIRFAX COUNTY PARK AUTHORITY



M E M O R A N D U M

TO: Barbara Berlin, AICP, Director
Zoning Evaluation Division
Department of Planning and Zoning

FROM: Sandy Stallman, AICP, Manager
Park Planning Branch, PDD

DATE: October 21, 2014

SUBJECT: RZ/FDP 2014-BR-007, Garden World / Forest Ridge – Revised 2014-10-20
Tax Map Number: 56-2((1)) 54-59; 56-2((4)) 1

BACKGROUND

The Park Authority has reviewed the revised Development Plan dated October 17, 2014 which is an update to the previously reviewed version dated July 1, 2014, for the above referenced application. The Development Plan shows 40 new single-family detached dwelling units on a 13.9-acre parcel to be rezoned from R-1 to the PDH-3 District with proffers. Based on an average single-family detached household size of 3.28 in the Bull Run Planning District, the development could add 131 new residents (40 new SFD x 3.28 = 131) to the Braddock Supervisory District.

COMPREHENSIVE PLAN GUIDANCE

The County Comprehensive Plan includes both general and specific guidance regarding parks and resources. The Policy Plan describes the need to mitigate adverse impacts to park and recreation facilities caused by growth and development; it also offers a variety of ways to offset those impacts, including contributions, land dedication, development of facilities, and others (Parks and Recreation, Objective 6, p.8). Resource protection is addressed in multiple objectives, focusing on protection, preservation, and sustainability of resources (Parks and Recreation Objectives 2 and 5, p.5-7).

The Fairfax Center Area recommendations in the Area III Plan describe the importance of neighborhood parks and trails. In addition, recommendations for the sub-unit containing this application site specifically cite, by reference to the F7-George Mason Community Planning Sector in the Fairfax Planning District of Area II, the importance of pedestrian links to achieving the Plan's objectives (Area III, Fairfax Center Area, Area-Wide Recommendations, Parks and Recreation, pp. 40-42, 112).

Finally, text from the Bull Run chapter of the Great Parks, Great Communities Park Comprehensive Plan echoes recommendations in the Countywide Comprehensive Plan. Specific

District chapter recommendations include: encourage the incorporation of local serving facilities, such as courts and playgrounds, within private homeowner-associations to offset recreational facility deficiencies in the area, and to seek proffered land dedications in conjunction with new residential development.

ANALYSIS AND RECOMMENDATIONS

Park Needs:

Using adopted service level standards, staff has identified that the subject property is well-served with existing nearby parks, including Fairfax Villa Park, Carney Park, Random Hills Park, and Westmore Park. However, the area is deficient in numerous recreational facilities which will only be exacerbated by the proposed residential development. Moreover, the recreational facilities in greatest need in this area include two rectangle fields, seven diamond fields, 51 multi-use courts, 29 playgrounds, a neighborhood skate park, and trails.

Based on adopted suburban service level standards of 5 acres per 1,000 residents, the proposed development generates a need for about 0.66 acres of onsite local-serving parkland and associated recreational facilities, such as multi-use courts and playgrounds.

Onsite Facilities

The proposed Development Plan shows four onsite park spaces dispersed across the site.

Park Space #1, labeled as Open Play Area, is shown in the northeastern portion of the site with a play lawn, gazebo, lawn game area, bench, game table, and a serpentine trail. A possible right-of-way is also shown nearby to afford vehicular access to the adjacent parcel in the future; however, this feature does not seem to adversely impact the proposed park space.

Park Space #2, labeled as Micro Park, is shown in a north central area of the site with a trail, benches, play lawn, nearby a proposed save tree area.

Park Space #3, labeled as Tot Lot, is shown in a central area of the site with a tot lot, pergola, and garden.

Park Space #4, labeled as Picnic Grove, is shown in the southwestern portion of the site with two open lawn spaces, trail, picnic grove with tables, and grills.

- While the dimensions of each proposed park space is not indicated on the plan, the dispersed locations and variety of shown amenities creates a suitable park system for the future 40 single-family detached homes that will augment the public park system offerings in this area.

Recreational Impact of Residential Development:

The Fairfax County Zoning Ordinance requires provision of open space and recreational features within Planned Development Districts (see Zoning Ordinance Sections 6-110 and 16-404). The minimum expenditure for park and recreational facilities within these districts is set at \$1,700 per non-ADU residential unit for recreational facilities to serve the development population.

Whenever possible, the facilities should be located within the residential development site. With

40 non-ADUs proposed, the Ordinance-required amount to be spent onsite is \$68,000. Any portion of this amount not spent onsite should be conveyed to the Park Authority for recreational facility construction at one or more park sites in the service area of the development.

The \$1,700 per unit funds required by Ordinance offset only a portion of the impact to provide recreational facilities for the new residents generated by this development. Typically, a large portion if not all of the Ordinance-required funds are used for recreational amenities onsite. As a result, the Park Authority is not compensated for the increased demands caused by residential development for other recreational facilities that the Park Authority must provide.

With the Countywide Comprehensive Policy Plan as a guide (Appendix 9, #6 of the Land Use section, as well as Objective 6, Policy a, b and c of the Parks and Recreation section), the Park Authority requests a fair share contribution of \$893 per new resident with any residential rezoning application to offset impacts to park and recreation service levels. This allows the Park Authority to build additional facilities needed as the population increases. To offset the additional impact caused by the proposed development, the applicant should contribute \$116,983 to the Park Authority for recreational facility development at one or more park sites located within the service area of the subject property.

- The Park Authority appreciates the Applicant's willingness to provide this contribution request in draft proffers dated 7-3-2014. However, these funds should be directed to the Park Authority rather than the Board of Supervisors as currently proffered to avoid the need for a funding transfer. Further, with the removal of one single-family detached dwelling reflected in the revised Plan, the requested amount has decreased from the first submission to \$116,983.

Natural Resources Impact:

Due to the proximity of Carney and Fairfax Villa Parks, all installed landscaping should be of non-invasive species to protect the environmental health of nearby parkland. In addition, species should also ideally be native to this region of Virginia to provide the greatest habitat benefit for wildlife. For a list of alternative native plant species, see the section on the DNH website titled Native Plants for Conservation, Restoration, and Landscaping at:

http://www.dcr.virginia.gov/natural_heritage/nativeplants.shtml. If there is a question as to whether a native species occurs in Fairfax County, the applicant should check the Digital Atlas of Virginia Flora at <http://vaplantatlas.org/> for clarification. A list of invasive plant species for the state of Virginia can be found at the Virginia Department of Conservation & Recreation Division of Natural Heritage (DNH) website at http://www.dcr.virginia.gov/natural_heritage/documents/invlist.pdf.

Cultural Resources Impact:

The subject property was subjected to cultural resources review. The undisturbed western portions of the subject property have moderate to high potential to contain significant historical or Native American Sites. Therefore, the Park Authority recommends the applicant conduct a Phase I archaeological survey. If significant sites are found, Phase II archaeological testing is recommended in order to determine if sites are eligible for inclusion on the National Register of

Historic Places. If sites are found eligible, avoidance or Phase III archaeological data recovery is recommended.

At the completion of any cultural resource studies, The Park Authority requests that the applicant provide one copy of the archaeology report as well as field notes, photographs, and artifacts to the Park Authority’s Resource Management Division (Attention: Liz Crowell) within 30 days of completion of the study.

SUMMARY OF RECOMMENDATIONS

This section summarizes the recommendations included in the preceding analysis section. Following is a table summarizing recreation contribution amounts consistent with the Zoning Ordinance and Comprehensive Plan guidance:

Proposed Uses	P-District Onsite Expenditure	Requested Park Proffer Amount	Total
Single-family detached units	\$68,000	\$116,983	\$184,983
Total	\$68,000	\$116,983	\$184,983

In addition, the Park Authority recommends the following:

- While the dimensions of each proposed park space is not indicated on the plan, the dispersed locations and variety of offered amenities creates a suitable park system for the future 40 single-family detached homes that will augment the public park system offerings in this area.
- Applicant should install landscaping that consists of non-invasive species and native to this region of Virginia in order to protect the environmental health of nearby parkland and to provide the greatest habitat benefit for wildlife.
- Applicant should conduct a Phase I archaeological survey and subsequent Phase II archaeological testing and Phase III archaeological data recovery as warranted.

Please note the Park Authority would like to review and comment on proffers and/or development conditions related to park and recreation issues. We request that draft and final proffers and/or development conditions be submitted to the assigned reviewer noted below for review and comment prior to completion of the staff report and prior to final Board of Supervisors approval.

FCPA Reviewer: Andy Galusha
DPZ Coordinator: Michael Lynskey

Copy: Cindy Walsh, Director, Resource Management Division
Liz Crowell, Manager, Cultural Resource Management & Protection Section
Michael Lynskey, DPZ Coordinator

Chron File
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County of Fairfax, Virginia

MEMORANDUM

DATE: June 6, 2014

TO: Michael Lynskey, Staff Coordinator
Zoning Evaluation Division
Department of Planning and Zoning

FROM: William J. Veon, Jr., Senior Engineer III (Stormwater)
Central Branch, Site Development and Inspections Division
Department of Public Works and Environmental Services

SUBJECT: Zoning Application No.: RZ/FDP 2014-BR-007
NVR, Inc. (aka, Garden World)
Conceptual/Final Development Plan (dated February 11, 2014)
LDS Project No.: 009619-ZONA-001-1
Tax Map No.: 056-2-01-0054, 0055, 0057, 0058 & 0059; 056-2-04-0001
Braddock District

The subject application has been reviewed and the following stormwater management comments are offered at this time:

Please Note: The following comments are based on the 2011 version of the Fairfax County Public Facilities Manual (PFM). However, a new stormwater ordinance and updates to the PFM's stormwater requirements were adopted by the County's Board of Supervisors on January 28, 2014. The effective date of implementation of these new regulations is scheduled for July 1, 2014. The site plan for this application may be required to conform to the updated PFM and the new ordinance.

The Stormwater Information Sheet provided on Sheet 8 will need to be updated to include the proposed bioretention facility and any other additional or alternate SWM/BMP facility needed to address these comments.

Chesapeake Bay Preservation Ordinance (CBPO)

There is no Resource Protection Area (RPA) on this site.

Water quality controls are required for this proposed project (PFM 6-0401). Proposed SWM/BMP facilities include an enhanced bioretention facility (w/ 1" runoff design) and two (2) dry ponds (w/ extended detention). Preliminary BMP calculations indicate more than the required 40% of the site's annual phosphorus load should be removed with the successful installation, operation and maintenance of the proposed facilities.

However, bioretention facilities have design limitations for both total and impervious drainage area (PFM 6-1307.2G). The site soils do not appear to be conducive to significant infiltration, so

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Michael Lynskey, Staff Coordinator
Zoning Application No.: RZ/FDP 2014-BR-007
June 6, 2014
Page 2 of 3

bioretention filters are assumed rather than bioretention basins. Then, there is a 2-ac. total area limit, as well as a 1-ac. impervious area limit, per filter; and the inflow to a filter must be pretreated surface flow (PFM 6-1307.4). The proposed bioretention facility will reportedly have a drainage area of 7.02 ac. (although a drainage area of about 8 ac. appears to be more accurate), and most of the inflow to the facility will be delivered via underground storm drains with no apparent pretreatment. Therefore, on the basis of the provided information, it does not appear that the proposed bioretention facility will comply with the requirements of the PFM, and multiple bioretention or other additional SWM/BMP facilities will likely be needed. So, an initial assessment of the potential for the proposed SWM/BMP facilities to comply with the project's phosphorus removal requirements cannot be made at this time.

It should be noted that a small portion of the site, Parcel 056-2-04-0001, is technically located within the Occoquan Water Supply Protection Overlay District (WSPOD) boundary. However, the parcel physically drains away from the Occoquan drainage area. Therefore the additional phosphorus removal requirement for a WSPOD (50% total reduction) should not apply to this parcel.

In addition, with respect to final engineering and subdivision plan development, the C-values used in the BMP calculations for all land cover types (except pavement) appear to be high in comparison to typical values contained in Table 6.5 of the PFM. It will also be necessary to verify that BMP facilities have been formally provided for the developments containing the offsite drainage areas in order to claim 100% credit for these areas in the site's final BMP calculations. Finally, care must be taken to ensure the 48-hour extended detention requirement for the BMP treatment volume contributed by the area directly draining to only Pond 2 is not adversely impacted by outflows from any other upstream SWM/BMP facility (such as the proposed bioretention facility). This treatment volume will likely need to be isolated from the other inflows into the pond.

Floodplains

There are no regulated floodplains on the property/site.

Downstream Drainage Complaints

There are no significant, contemporary downstream drainage complaints on file.

Stormwater Detention

Stormwater detention is required for this proposed project (PFM 6-0301.3). The proposed SWM/BMP facilities intended to provide the project's detention requirements include two (2) dry ponds. Pond 1 (located near the southwest corner of the property) reportedly drains about 5.1 ac. of onsite and offsite property, and has been preliminarily sized to detain a stormwater volume of 50,000 cu.ft. Pond 2 (located near the northwest corner of the property) reportedly drains about 9.4 ac. of onsite and offsite property, and has been preliminarily sized to detain a stormwater volume of 82,000 cu. ft. Although preliminary calculations have not been provided to support whether the proposed pond storage volumes will comply with the project's detention requirements, it appears adjustments can be made to these volumes at final design if needed. So, it follows that the proposed dry ponds appear to be a potentially viable means for providing the required stormwater detention for the project.

Michael Lynskey, Staff Coordinator
Zoning Application No.: RZ/FDP 2014-BR-007
June 6, 2014
Page 3 of 3

Additionally, it appears each of the dry ponds will be impounded by a small earthen dam, with a dam height of 8' for Pond 1 and a dam height of 6' for Pond 2. The appropriate requirements of PFM 6-1600 shall apply to each facility, including dam breach analyses.

Site Outfall

A preliminary Outfall Analysis Narrative has been provided; however, the description of the adequacy and stability of the project outfalls is not a part of the statement. It is stated, though, that a more comprehensive drainage analysis will be provided with the final site plan. With no other details available, and no statement/opinion from the engineer indicating that the outfalls are adequate, an initial assessment of the potential for the proposed project to comply with the Adequate Outfall criteria cannot be made at this time.

Stormwater Planning Comments

This site is located in the Difficult Run Watershed and the Upper Difficult Run Watershed Management Area. There is a future County pond retrofit project (DF9172) proposed for the Difficult Run tributary channel that ultimately receives the stormwater from the subject site. This project is located at about 2000' – 3000' downstream from the site. However, the proposed project should have little to no impact on this future County project.

Dam Breach

The property is not located within a dam breach inundation zone.

Miscellaneous

There appear to be a number of existing Drainage and Landscaping Easements located along the northern property lines, per the County's GIS. All such easements should be shown on the Existing Conditions Map (Sheet 3), regardless of size.

Please contact me at 703-324-1648 or William.Veon@fairfaxcounty.gov, if you have any questions or require additional information.

WJV/

cc: Don Demetrius, Chief, Watershed Projects Evaluation Branch, SPD, DPWES
Fred Rose, Chief, Watershed Planning & Assessment Branch, SPD, DPWES
Durga Kharel, Chief, Central Branch, SDID, DPWES
Hani Fawaz, Senior Engineer III, Central Branch, SDID, DPWES
Zoning Application File



**FAIRFAX COUNTY
PUBLIC SCHOOLS**

Department of Facilities and Transportation Services

Office of Facilities Planning Services
8115 Gatehouse Road, Suite 3200
Falls Church, Virginia 22042

April 1, 2014

TO: Barbara Berlin, Director
Zoning Evaluation Division
Fairfax County Department of Planning & Zoning

FROM: Ajay Rawat, Coordinator 
Office of Facilities Planning Services

SUBJECT: RZ/FDP 2014-BR-007, NVR, Inc.

ACREAGE: 13.88 acres

TAX MAP: 56-2 ((1)) 54-59; ((4)) 1

PROPOSAL:

The application requests to rezone the site from R-1 to PDH-3 district. The proposal would permit a maximum of 41 single family detached homes. The site is currently comprised of a retail/wholesale landscaping business (Garden World) and a vacant lot. Under the current zoning, the site could be developed with up to 13 single family detached houses.

ANALYSIS:

School Capacities

The schools serving this area are Fairfax Villa Elementary, Frost Middle and Woodson High schools. The Fairfax Villa attendance area was part of the Fairfax/Lanier Boundary Study. As a result of the study this attendance area is changing from Lanier MS/Fairfax HS pyramid to the Frost MS/Woodson HS pyramid beginning in the 2014-15 school year. The chart below shows the existing school capacity, enrollment, and projected enrollment.

School	Capacity 2013 / 2018	Enrollment (9/30/13)	Projected Enrollment 2014-15	Capacity Balance 2014-15	Projected Enrollment 2018-19	Capacity Balance 2018-19
Fairfax Villa ES	667 / 667	596	628	39	637	30
Frost MS	1,146 / 1,146	1,105	1,103	43	1,242	-96
Woodson HS	2,325 / 2,325	2,223	2,391	-66	2,430	-105

Capacities based on 2015-2019 Capital Improvement Program (December 2013)
Project Enrollments based on 2013-14 to 2018-19 6-Year Projections (April 2013)

The school capacity chart above shows a snapshot in time for student enrollments and school capacity balances. Student enrollment projections are done on a six year timeframe, currently through school year 2018-19 and are updated annually. At this time, if development occurs within the next five years, Fairfax Villa is projected to have surplus capacity; Frost and Woodson are projected to have capacity deficits. Beyond the six year projection horizon, enrollment projections are not available. It should be noted that the projections above do not take into account the attendance area changes as a result of the Fairfax/Lanier Boundary Study.

Capital Improvement Program Projects

The 2015-19 Capital Improvement Program (CIP) includes an unfunded project for Frost Middle School for capacity enhancement with a future renovation to be completed in 10-year CIP cycle; a 10-room modular addition was recently added.

Development Impact

Based on the number of residential units proposed, the chart below shows the number of anticipated students by school level based on the current countywide student yield ratio.

Existing (Potential By-right)

School level	Single Family Detached ratio	Potential # of units	Estimated Student yield
Elementary	.273	13	4
Middle	.086	13	1
High	.177	13	2

7 total

2012 Countywide student yield ratios (September 2013)

Proposed

School level	Single Family Detached ratio	Proposed # of units	Estimated Student yield
Elementary	.273	41	11
Middle	.086	41	4
High	.177	41	7

22 total

2012 Countywide student yield ratios (September 2013)

RECOMMENDATIONS:

Proffer Contribution

A net of 15 new students is anticipated (7 Elementary, 3 Middle, 5 High). Based on the approved Residential Development Criteria, a proffer contribution of \$162,375 (15 x \$10,825) is recommended to offset the impact that new student growth will have on surrounding schools. It is recommended that the proffer contribution funds be directed as follows:

...to be utilized for capital improvements to Fairfax County public schools to address impacts on the school division resulting from [the applicant's development].

It is also recommended proffer payment occur at the time of site plan or first building permit approval. A proffer contribution at the time of occupancy is not recommended since this does not allow the school system adequate time to use the proffer contribution to offset the impact of new students.

In addition, an "escalation" proffer is recommended. The suggested per student proffer contribution is updated on an annual basis to reflect current market conditions. The amount has decreased over the last several years because of the down turn in the economy and lower construction costs for FCPS. As a result, an escalation proffer would allow for payment of the school proffer based on either the current suggested per student proffer contribution at the time of zoning approval or the per student proffer contribution in effect at the time of development, whichever is greater. This would better offset the impact that new student yields will have on surrounding schools at the time of development. For your reference, below is an example of an escalation proffer that was included as part of an approved proffer contribution to FCPS.

Adjustment to Contribution Amounts. Following approval of this Application and prior to the Applicant's payment of the amount(s) set forth in this Proffer, if Fairfax County should increase the ratio of students per unit or the amount of contribution per student, the Applicant shall increase the amount of the contribution for that phase of development to reflect the then-current ratio and/or contribution. If the County should decrease the ratio or contribution amount, the Applicant shall provide the greater of the two amounts.

Barbara Berlin
April 1, 2014
Page 3
RZ/FDP 2014-BR-007, NVR, Inc.

Proffer Notification

It is also recommended that the developer proffer notification be provided to FCPS when development is likely to occur or when a site plan has been filed with the County. This will allow the school system adequate time to plan for anticipated student growth to ensure classroom availability.

AR/gjb

Attachment: Locator Map

cc: Megan McLaughlin, School Board Member, Braddock District
Sandy Evans, School Board Member, Mason District
Patty Reed, School Board Member, Providence District
Elizabeth Schultz, School Board Member, Springfield District
Ilryong Moon, Chairman, School Board Member, At-Large
Ryan McElveen, School Board Member, At-Large
Ted Velkoff, School Board Member, At-Large
Jeffrey Platenberg, Assistant Superintendent, Facilities and Transportation Services
Douglas Tyson, Cluster III, Assistant Superintendent
Linda Burke, Cluster VII, Assistant Superintendent
Kevin Sneed, Director, Design and Construction Services
Jeff Yost, Principal, Woodson High School
Marti Jackson, Principal, Frost Middle School
Gail Kinsey, Principal, Fairfax Villa Elementary School

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		